

# **CRESTONE PEAK RESOURCES**

**WELD COUNTY**

**SEC 25-T4N-R65W**

**SHELTON 25W-25-05**

**OWB**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

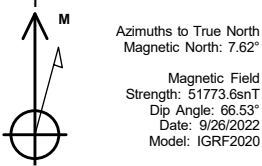
**28 September, 2022**

PROJECT DETAILS: WELD COUNTY

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Northern Zone

System Datum: Mean Sea Level

Project: WELD COUNTY  
Site: SEC 25-T4N-R65W  
Well: SHELTON 25W-25-05  
Wellbore: OWB  
Design: PROPOSAL 1



WELL DETAILS: SHELTON 25W-25-05

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
4836.00						
0.00	0.00	1346973.68	3250144.75	40.282371°N	104.603388°W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	
3	1688.39	23.77	305.39	1654.60	140.72	-198.08	2.00	305.39	210.99	
4	6947.49	23.77	305.39	6467.65	1368.25	-1926.02	0.00	0.00	2051.57	
5	7655.05	90.00	270.25	6840.00	1464.99	-2466.54	10.00	-37.56	2599.00	LP-SHELTON 25W-05
6	20539.70	90.00	270.25	6840.00	1521.36	-15351.06	0.00	0.00	15426.26	PBHL-SHELTON 25W-05

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	Start Build 2.00
1688.39	23.77	305.39	1654.60	140.72	-198.08	210.99	242.97	Start 5259.10 hold at 1688.39 MD
6947.49	23.77	305.39	6467.65	1368.25	-1926.02	2051.57	2362.55	Start DLS 10.00 TFO -37.56
7655.05	90.00	270.25	6840.00	1464.99	-2466.54	2599.00	2917.31	Start 12884.64 hold at 7655.05 MD
20539.70	90.00	270.25	6840.00	1521.36	-15351.06	15426.26	15801.95	TD at 20539.70

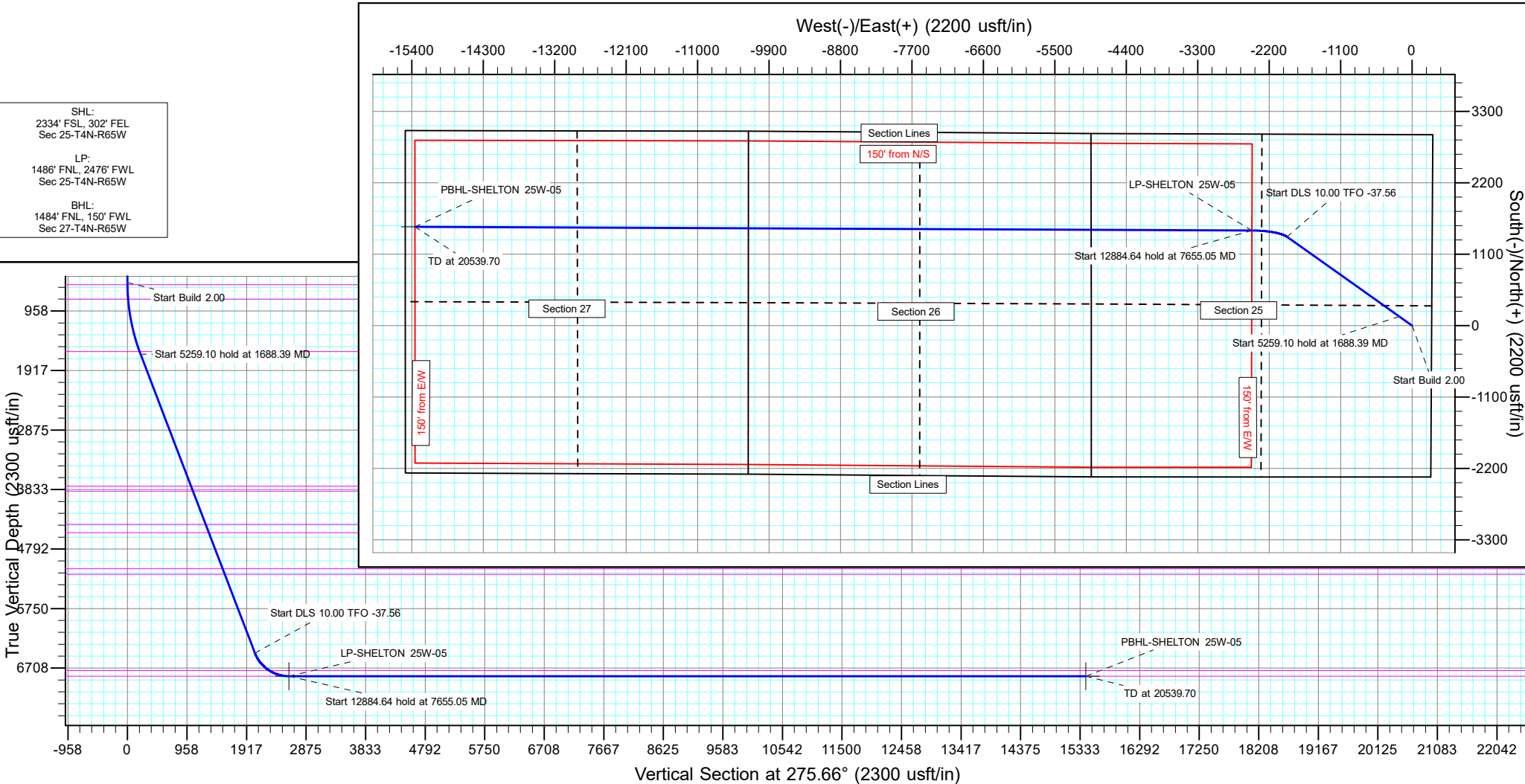
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
LP-SHELTON 25W-05	6840.00	1464.99	-2466.54	1348413.59	3247663.62	40.286392°N	104.612229°W	Point
PBHL-SHELTON 25W-05	6840.00	1521.36	-15351.06	1348339.69	3234779.75	40.286534°N	104.658412°W	Point

SHL:  
2334' FSL, 302' FEL  
Sec 25-T4N-R65W

LP:  
1486' FNL, 2476' FWL  
Sec 25-T4N-R65W

BHL:  
1484' FNL, 150' FWL  
Sec 27-T4N-R65W



## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well SHELTON 25W-25-05
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KB 25' @ 4861.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4861.00usft
<b>Site:</b>	SEC 25-T4N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	SHELTON 25W-25-05	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

<b>Project</b>	WELD COUNTY		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		Using geodetic scale factor

Site		SEC 25-T4N-R65W			
Site Position:		Northing:	1,344,643.82 usft	Latitude:	40.275967°N
From:	Lat/Long	Easting:	3,250,457.11 usft	Longitude:	104.602353°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.58 °

Well	SHELTON 25W-25-05					
Well Position	+N/-S	2,333.00 usft	Northing:	1,346,973.68 usft	Latitude:	40.282371°N
	+E/-W	-288.77 usft	Easting:	3,250,144.75 usft	Longitude:	104.603388°W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	4,836.00 usft

<b>Wellbore</b>	OWB				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	9/26/2022	7.62	66.53	51,773.58112250

<b>Design</b>	PROPOSAL 1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	275.66

<b>Plan Survey Tool Program</b>	<b>Date</b>	9/28/2022		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	20,539.70	PROPOSAL 1 (OWB)	MWD OWSG
				OWSG MWD - Standard

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,688.39	23.77	305.39	1,654.60	140.72	-198.08	2.00	2.00	0.00	305.39	
6,947.49	23.77	305.39	6,467.65	1,368.25	-1,926.02	0.00	0.00	0.00	0.00	
7,655.05	90.00	270.25	6,840.00	1,464.99	-2,466.54	10.00	9.36	-4.97	-37.56	LP-SHELTON 25W-05
20,539.70	90.00	270.25	6,840.00	1,521.36	-15,351.06	0.00	0.00	0.00	0.00	PBHL-SHELTON 25W-05

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well SHELTON 25W-25-05
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KB 25' @ 4861.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4861.00usft
<b>Site:</b>	SEC 25-T4N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	SHELTON 25W-25-05	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.00	0.00	0.00	24.00	0.00	0.00	0.00	0.00	0.00	0.00
Laramie-Fox Hills Formation									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
535.00	0.70	305.39	535.00	0.12	-0.17	0.19	2.00	2.00	0.00
Pierre Formation									
600.00	2.00	305.39	599.98	1.01	-1.42	1.52	2.00	2.00	0.00
700.00	4.00	305.39	699.84	4.04	-5.69	6.06	2.00	2.00	0.00
770.40	5.41	305.39	770.00	7.39	-10.40	11.07	2.00	2.00	0.00
Upper Pierre aquifer									
800.00	6.00	305.39	799.45	9.09	-12.79	13.63	2.00	2.00	0.00
900.00	8.00	305.39	898.70	16.15	-22.73	24.21	2.00	2.00	0.00
1,000.00	10.00	305.39	997.47	25.21	-35.48	37.79	2.00	2.00	0.00
1,100.00	12.00	305.39	1,095.62	36.26	-51.04	54.36	2.00	2.00	0.00
1,200.00	14.00	305.39	1,193.06	49.28	-69.37	73.90	2.00	2.00	0.00
1,300.00	16.00	305.39	1,289.64	64.27	-90.47	96.37	2.00	2.00	0.00
1,400.00	18.00	305.39	1,385.27	81.20	-114.31	121.76	2.00	2.00	0.00
1,500.00	20.00	305.39	1,479.82	100.06	-140.85	150.03	2.00	2.00	0.00
1,600.00	22.00	305.39	1,573.17	120.81	-170.06	181.14	2.00	2.00	0.00
1,639.84	22.80	305.39	1,610.00	129.60	-182.43	194.33	2.00	2.00	0.00
Base of Upper Pierre aquifer									
1,688.39	23.77	305.39	1,654.60	140.72	-198.08	210.99	2.00	2.00	0.00
Start 5259.10 hold at 1688.39 MD									
1,700.00	23.77	305.39	1,665.22	143.43	-201.89	215.05	0.00	0.00	0.00
1,800.00	23.77	305.39	1,756.74	166.77	-234.75	250.05	0.00	0.00	0.00
1,900.00	23.77	305.39	1,848.26	190.11	-267.61	285.05	0.00	0.00	0.00
2,000.00	23.77	305.39	1,939.78	213.45	-300.46	320.05	0.00	0.00	0.00
2,100.00	23.77	305.39	2,031.30	236.79	-333.32	355.05	0.00	0.00	0.00
2,200.00	23.77	305.39	2,122.82	260.13	-366.17	390.04	0.00	0.00	0.00
2,300.00	23.77	305.39	2,214.34	283.47	-399.03	425.04	0.00	0.00	0.00
2,400.00	23.77	305.39	2,305.85	306.81	-431.89	460.04	0.00	0.00	0.00
2,500.00	23.77	305.39	2,397.37	330.16	-464.74	495.04	0.00	0.00	0.00
2,600.00	23.77	305.39	2,488.89	353.50	-497.60	530.04	0.00	0.00	0.00
2,700.00	23.77	305.39	2,580.41	376.84	-530.46	565.03	0.00	0.00	0.00
2,800.00	23.77	305.39	2,671.93	400.18	-563.31	600.03	0.00	0.00	0.00
2,900.00	23.77	305.39	2,763.45	423.52	-596.17	635.03	0.00	0.00	0.00
3,000.00	23.77	305.39	2,854.97	446.86	-629.02	670.03	0.00	0.00	0.00
3,100.00	23.77	305.39	2,946.49	470.20	-661.88	705.03	0.00	0.00	0.00
3,200.00	23.77	305.39	3,038.00	493.54	-694.74	740.02	0.00	0.00	0.00
3,300.00	23.77	305.39	3,129.52	516.88	-727.59	775.02	0.00	0.00	0.00
3,400.00	23.77	305.39	3,221.04	540.23	-760.45	810.02	0.00	0.00	0.00
3,500.00	23.77	305.39	3,312.56	563.57	-793.30	845.02	0.00	0.00	0.00
3,600.00	23.77	305.39	3,404.08	586.91	-826.16	880.01	0.00	0.00	0.00
3,700.00	23.77	305.39	3,495.60	610.25	-859.02	915.01	0.00	0.00	0.00
3,800.00	23.77	305.39	3,587.12	633.59	-891.87	950.01	0.00	0.00	0.00
3,900.00	23.77	305.39	3,678.63	656.93	-924.73	985.01	0.00	0.00	0.00
4,000.00	23.77	305.39	3,770.15	680.27	-957.59	1,020.01	0.00	0.00	0.00
4,010.76	23.77	305.39	3,780.00	682.78	-961.12	1,023.77	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well SHELTON 25W-25-05
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KB 25' @ 4861.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4861.00usft
<b>Site:</b>	SEC 25-T4N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	SHELTON 25W-25-05	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
<b>Larimer ("Parkman") sandstone</b>										
4,098.17	23.77	305.39	3,860.00	703.19	-989.84	1,054.37	0.00	0.00	0.00	
<b>Pierre Formation</b>										
4,100.00	23.77	305.39	3,861.67	703.61	-990.44	1,055.00	0.00	0.00	0.00	
4,200.00	23.77	305.39	3,953.19	726.95	-1,023.30	1,090.00	0.00	0.00	0.00	
4,300.00	23.77	305.39	4,044.71	750.30	-1,056.15	1,125.00	0.00	0.00	0.00	
4,400.00	23.77	305.39	4,136.23	773.64	-1,089.01	1,160.00	0.00	0.00	0.00	
4,500.00	23.77	305.39	4,227.75	796.98	-1,121.87	1,195.00	0.00	0.00	0.00	
4,600.00	23.77	305.39	4,319.27	820.32	-1,154.72	1,229.99	0.00	0.00	0.00	
4,682.75	23.77	305.39	4,395.00	839.63	-1,181.91	1,258.96	0.00	0.00	0.00	
<b>Terry ("Sussex") sandstone</b>										
4,700.00	23.77	305.39	4,410.78	843.66	-1,187.58	1,264.99	0.00	0.00	0.00	
4,800.00	23.77	305.39	4,502.30	867.00	-1,220.43	1,299.99	0.00	0.00	0.00	
4,830.26	23.77	305.39	4,530.00	874.07	-1,230.38	1,310.58	0.00	0.00	0.00	
<b>Pierre Formation</b>										
4,900.00	23.77	305.39	4,593.82	890.34	-1,253.29	1,334.99	0.00	0.00	0.00	
5,000.00	23.77	305.39	4,685.34	913.68	-1,286.15	1,369.99	0.00	0.00	0.00	
5,100.00	23.77	305.39	4,776.86	937.02	-1,319.00	1,404.98	0.00	0.00	0.00	
5,200.00	23.77	305.39	4,868.38	960.37	-1,351.86	1,439.98	0.00	0.00	0.00	
5,300.00	23.77	305.39	4,959.90	983.71	-1,384.72	1,474.98	0.00	0.00	0.00	
5,400.00	23.77	305.39	5,051.41	1,007.05	-1,417.57	1,509.98	0.00	0.00	0.00	
5,464.02	23.77	305.39	5,110.00	1,021.99	-1,438.60	1,532.38	0.00	0.00	0.00	
<b>Hygiene ("Shannon") sandstone</b>										
5,500.00	23.77	305.39	5,142.93	1,030.39	-1,450.43	1,544.98	0.00	0.00	0.00	
5,562.36	23.77	305.39	5,200.00	1,044.94	-1,470.92	1,566.80	0.00	0.00	0.00	
<b>Pierre Formation</b>										
5,600.00	23.77	305.39	5,234.45	1,053.73	-1,483.28	1,579.97	0.00	0.00	0.00	
5,700.00	23.77	305.39	5,325.97	1,077.07	-1,516.14	1,614.97	0.00	0.00	0.00	
5,800.00	23.77	305.39	5,417.49	1,100.41	-1,549.00	1,649.97	0.00	0.00	0.00	
5,900.00	23.77	305.39	5,509.01	1,123.75	-1,581.85	1,684.97	0.00	0.00	0.00	
6,000.00	23.77	305.39	5,600.53	1,147.10	-1,614.71	1,719.97	0.00	0.00	0.00	
6,100.00	23.77	305.39	5,692.04	1,170.44	-1,647.56	1,754.96	0.00	0.00	0.00	
6,200.00	23.77	305.39	5,783.56	1,193.78	-1,680.42	1,789.96	0.00	0.00	0.00	
6,300.00	23.77	305.39	5,875.08	1,217.12	-1,713.28	1,824.96	0.00	0.00	0.00	
6,400.00	23.77	305.39	5,966.60	1,240.46	-1,746.13	1,859.96	0.00	0.00	0.00	
6,500.00	23.77	305.39	6,058.12	1,263.80	-1,778.99	1,894.95	0.00	0.00	0.00	
6,600.00	23.77	305.39	6,149.64	1,287.14	-1,811.85	1,929.95	0.00	0.00	0.00	
6,700.00	23.77	305.39	6,241.16	1,310.48	-1,844.70	1,964.95	0.00	0.00	0.00	
6,800.00	23.77	305.39	6,332.68	1,333.82	-1,877.56	1,999.95	0.00	0.00	0.00	
6,900.00	23.77	305.39	6,424.19	1,357.17	-1,910.41	2,034.95	0.00	0.00	0.00	
6,947.49	23.77	305.39	6,467.65	1,368.25	-1,926.02	2,051.57	0.00	0.00	0.00	
<b>Start DLS 10.00 TFO -37.56</b>										
6,950.00	23.97	305.01	6,469.95	1,368.84	-1,926.85	2,052.45	10.00	7.95	-15.01	
7,000.00	28.10	298.59	6,514.88	1,380.30	-1,945.52	2,072.16	10.00	8.27	-12.85	
7,050.00	32.46	293.73	6,558.05	1,391.35	-1,968.16	2,095.78	10.00	8.72	-9.72	
7,100.00	36.97	289.93	6,599.14	1,401.88	-1,994.60	2,123.13	10.00	9.02	-7.61	
7,150.00	41.58	286.85	6,637.84	1,411.82	-2,024.63	2,154.00	10.00	9.21	-6.15	
7,200.00	46.26	284.29	6,673.85	1,421.09	-2,058.03	2,188.15	10.00	9.35	-5.12	
7,250.00	50.98	282.10	6,706.90	1,429.63	-2,094.55	2,225.33	10.00	9.45	-4.37	
7,300.00	55.74	280.19	6,736.73	1,437.36	-2,133.90	2,265.25	10.00	9.52	-3.82	
7,324.30	58.06	279.34	6,750.00	1,440.81	-2,153.96	2,285.55	10.00	9.56	-3.50	
<b>Sharon Springs Member</b>										
7,350.00	60.52	278.49	6,763.12	1,444.24	-2,175.79	2,307.61	10.00	9.58	-3.32	

# Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well SHELTON 25W-25-05
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KB 25' @ 4861.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4861.00usft
<b>Site:</b>	SEC 25-T4N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	SHELTON 25W-25-05	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
7,400.00	65.33	276.94	6,785.87	1,450.20	-2,219.89	2,352.09	10.00	9.61	-3.10	
7,450.00	70.15	275.50	6,804.81	1,455.20	-2,265.88	2,398.35	10.00	9.64	-2.87	
7,500.00	74.98	274.15	6,819.79	1,459.20	-2,313.40	2,446.03	10.00	9.66	-2.70	
7,550.00	79.82	272.86	6,830.69	1,462.18	-2,362.09	2,494.78	10.00	9.68	-2.58	
7,600.00	84.66	271.61	6,837.44	1,464.10	-2,411.58	2,544.21	10.00	9.69	-2.50	
7,650.00	89.51	270.37	6,839.98	1,464.97	-2,461.49	2,593.97	10.00	9.69	-2.46	
7,655.05	90.00	270.25	6,840.00	1,464.99	-2,466.54	2,599.00	10.00	9.69	-2.46	
Start 12884.64 hold at 7655.05 MD - Niobrara Formation										
7,700.00	90.00	270.25	6,840.00	1,465.19	-2,511.49	2,643.75	0.00	0.00	0.00	
7,800.00	90.00	270.25	6,840.00	1,465.63	-2,611.49	2,743.30	0.00	0.00	0.00	
7,900.00	90.00	270.25	6,840.00	1,466.07	-2,711.49	2,842.85	0.00	0.00	0.00	
8,000.00	90.00	270.25	6,840.00	1,466.50	-2,811.49	2,942.41	0.00	0.00	0.00	
8,100.00	90.00	270.25	6,840.00	1,466.94	-2,911.49	3,041.96	0.00	0.00	0.00	
8,200.00	90.00	270.25	6,840.00	1,467.38	-3,011.48	3,141.52	0.00	0.00	0.00	
8,300.00	90.00	270.25	6,840.00	1,467.82	-3,111.48	3,241.07	0.00	0.00	0.00	
8,400.00	90.00	270.25	6,840.00	1,468.25	-3,211.48	3,340.63	0.00	0.00	0.00	
8,500.00	90.00	270.25	6,840.00	1,468.69	-3,311.48	3,440.18	0.00	0.00	0.00	
8,600.00	90.00	270.25	6,840.00	1,469.13	-3,411.48	3,539.74	0.00	0.00	0.00	
8,700.00	90.00	270.25	6,840.00	1,469.57	-3,511.48	3,639.29	0.00	0.00	0.00	
8,800.00	90.00	270.25	6,840.00	1,470.00	-3,611.48	3,738.85	0.00	0.00	0.00	
8,900.00	90.00	270.25	6,840.00	1,470.44	-3,711.48	3,838.40	0.00	0.00	0.00	
9,000.00	90.00	270.25	6,840.00	1,470.88	-3,811.48	3,937.96	0.00	0.00	0.00	
9,100.00	90.00	270.25	6,840.00	1,471.32	-3,911.48	4,037.51	0.00	0.00	0.00	
9,200.00	90.00	270.25	6,840.00	1,471.75	-4,011.48	4,137.07	0.00	0.00	0.00	
9,300.00	90.00	270.25	6,840.00	1,472.19	-4,111.47	4,236.62	0.00	0.00	0.00	
9,400.00	90.00	270.25	6,840.00	1,472.63	-4,211.47	4,336.18	0.00	0.00	0.00	
9,500.00	90.00	270.25	6,840.00	1,473.07	-4,311.47	4,435.73	0.00	0.00	0.00	
9,600.00	90.00	270.25	6,840.00	1,473.50	-4,411.47	4,535.28	0.00	0.00	0.00	
9,700.00	90.00	270.25	6,840.00	1,473.94	-4,511.47	4,634.84	0.00	0.00	0.00	
9,800.00	90.00	270.25	6,840.00	1,474.38	-4,611.47	4,734.39	0.00	0.00	0.00	
9,900.00	90.00	270.25	6,840.00	1,474.82	-4,711.47	4,833.95	0.00	0.00	0.00	
10,000.00	90.00	270.25	6,840.00	1,475.25	-4,811.47	4,933.50	0.00	0.00	0.00	
10,100.00	90.00	270.25	6,840.00	1,475.69	-4,911.47	5,033.06	0.00	0.00	0.00	
10,200.00	90.00	270.25	6,840.00	1,476.13	-5,011.47	5,132.61	0.00	0.00	0.00	
10,300.00	90.00	270.25	6,840.00	1,476.57	-5,111.46	5,232.17	0.00	0.00	0.00	
10,400.00	90.00	270.25	6,840.00	1,477.00	-5,211.46	5,331.72	0.00	0.00	0.00	
10,500.00	90.00	270.25	6,840.00	1,477.44	-5,311.46	5,431.28	0.00	0.00	0.00	
10,600.00	90.00	270.25	6,840.00	1,477.88	-5,411.46	5,530.83	0.00	0.00	0.00	
10,700.00	90.00	270.25	6,840.00	1,478.32	-5,511.46	5,630.39	0.00	0.00	0.00	
10,800.00	90.00	270.25	6,840.00	1,478.75	-5,611.46	5,729.94	0.00	0.00	0.00	
10,900.00	90.00	270.25	6,840.00	1,479.19	-5,711.46	5,829.50	0.00	0.00	0.00	
11,000.00	90.00	270.25	6,840.00	1,479.63	-5,811.46	5,929.05	0.00	0.00	0.00	
11,100.00	90.00	270.25	6,840.00	1,480.07	-5,911.46	6,028.61	0.00	0.00	0.00	
11,200.00	90.00	270.25	6,840.00	1,480.50	-6,011.46	6,128.16	0.00	0.00	0.00	
11,300.00	90.00	270.25	6,840.00	1,480.94	-6,111.46	6,227.71	0.00	0.00	0.00	
11,400.00	90.00	270.25	6,840.00	1,481.38	-6,211.45	6,327.27	0.00	0.00	0.00	
11,500.00	90.00	270.25	6,840.00	1,481.82	-6,311.45	6,426.82	0.00	0.00	0.00	
11,600.00	90.00	270.25	6,840.00	1,482.25	-6,411.45	6,526.38	0.00	0.00	0.00	
11,700.00	90.00	270.25	6,840.00	1,482.69	-6,511.45	6,625.93	0.00	0.00	0.00	
11,800.00	90.00	270.25	6,840.00	1,483.13	-6,611.45	6,725.49	0.00	0.00	0.00	
11,900.00	90.00	270.25	6,840.00	1,483.57	-6,711.45	6,825.04	0.00	0.00	0.00	
12,000.00	90.00	270.25	6,840.00	1,484.00	-6,811.45	6,924.60	0.00	0.00	0.00	
12,100.00	90.00	270.25	6,840.00	1,484.44	-6,911.45	7,024.15	0.00	0.00	0.00	
12,200.00	90.00	270.25	6,840.00	1,484.88	-7,011.45	7,123.71	0.00	0.00	0.00	

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well SHELTON 25W-25-05
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KB 25' @ 4861.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4861.00usft
<b>Site:</b>	SEC 25-T4N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	SHELTON 25W-25-05	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
12,300.00	90.00	270.25	6,840.00	1,485.32	-7,111.45	7,223.26	0.00	0.00	0.00
12,400.00	90.00	270.25	6,840.00	1,485.75	-7,211.44	7,322.82	0.00	0.00	0.00
12,500.00	90.00	270.25	6,840.00	1,486.19	-7,311.44	7,422.37	0.00	0.00	0.00
12,600.00	90.00	270.25	6,840.00	1,486.63	-7,411.44	7,521.93	0.00	0.00	0.00
12,700.00	90.00	270.25	6,840.00	1,487.07	-7,511.44	7,621.48	0.00	0.00	0.00
12,800.00	90.00	270.25	6,840.00	1,487.50	-7,611.44	7,721.04	0.00	0.00	0.00
12,900.00	90.00	270.25	6,840.00	1,487.94	-7,711.44	7,820.59	0.00	0.00	0.00
13,000.00	90.00	270.25	6,840.00	1,488.38	-7,811.44	7,920.14	0.00	0.00	0.00
13,100.00	90.00	270.25	6,840.00	1,488.82	-7,911.44	8,019.70	0.00	0.00	0.00
13,200.00	90.00	270.25	6,840.00	1,489.25	-8,011.44	8,119.25	0.00	0.00	0.00
13,300.00	90.00	270.25	6,840.00	1,489.69	-8,111.44	8,218.81	0.00	0.00	0.00
13,400.00	90.00	270.25	6,840.00	1,490.13	-8,211.44	8,318.36	0.00	0.00	0.00
13,500.00	90.00	270.25	6,840.00	1,490.57	-8,311.43	8,417.92	0.00	0.00	0.00
13,600.00	90.00	270.25	6,840.00	1,491.00	-8,411.43	8,517.47	0.00	0.00	0.00
13,700.00	90.00	270.25	6,840.00	1,491.44	-8,511.43	8,617.03	0.00	0.00	0.00
13,800.00	90.00	270.25	6,840.00	1,491.88	-8,611.43	8,716.58	0.00	0.00	0.00
13,900.00	90.00	270.25	6,840.00	1,492.32	-8,711.43	8,816.14	0.00	0.00	0.00
14,000.00	90.00	270.25	6,840.00	1,492.75	-8,811.43	8,915.69	0.00	0.00	0.00
14,100.00	90.00	270.25	6,840.00	1,493.19	-8,911.43	9,015.25	0.00	0.00	0.00
14,200.00	90.00	270.25	6,840.00	1,493.63	-9,011.43	9,114.80	0.00	0.00	0.00
14,300.00	90.00	270.25	6,840.00	1,494.07	-9,111.43	9,214.36	0.00	0.00	0.00
14,400.00	90.00	270.25	6,840.00	1,494.50	-9,211.43	9,313.91	0.00	0.00	0.00
14,500.00	90.00	270.25	6,840.00	1,494.94	-9,311.42	9,413.46	0.00	0.00	0.00
14,600.00	90.00	270.25	6,840.00	1,495.38	-9,411.42	9,513.02	0.00	0.00	0.00
14,700.00	90.00	270.25	6,840.00	1,495.82	-9,511.42	9,612.57	0.00	0.00	0.00
14,800.00	90.00	270.25	6,840.00	1,496.25	-9,611.42	9,712.13	0.00	0.00	0.00
14,900.00	90.00	270.25	6,840.00	1,496.69	-9,711.42	9,811.68	0.00	0.00	0.00
15,000.00	90.00	270.25	6,840.00	1,497.13	-9,811.42	9,911.24	0.00	0.00	0.00
15,100.00	90.00	270.25	6,840.00	1,497.57	-9,911.42	10,010.79	0.00	0.00	0.00
15,200.00	90.00	270.25	6,840.00	1,498.00	-10,011.42	10,110.35	0.00	0.00	0.00
15,300.00	90.00	270.25	6,840.00	1,498.44	-10,111.42	10,209.90	0.00	0.00	0.00
15,400.00	90.00	270.25	6,840.00	1,498.88	-10,211.42	10,309.46	0.00	0.00	0.00
15,500.00	90.00	270.25	6,840.00	1,499.32	-10,311.41	10,409.01	0.00	0.00	0.00
15,600.00	90.00	270.25	6,840.00	1,499.75	-10,411.41	10,508.57	0.00	0.00	0.00
15,700.00	90.00	270.25	6,840.00	1,500.19	-10,511.41	10,608.12	0.00	0.00	0.00
15,800.00	90.00	270.25	6,840.00	1,500.63	-10,611.41	10,707.68	0.00	0.00	0.00
15,900.00	90.00	270.25	6,840.00	1,501.07	-10,711.41	10,807.23	0.00	0.00	0.00
16,000.00	90.00	270.25	6,840.00	1,501.50	-10,811.41	10,906.79	0.00	0.00	0.00
16,100.00	90.00	270.25	6,840.00	1,501.94	-10,911.41	11,006.34	0.00	0.00	0.00
16,200.00	90.00	270.25	6,840.00	1,502.38	-11,011.41	11,105.89	0.00	0.00	0.00
16,300.00	90.00	270.25	6,840.00	1,502.82	-11,111.41	11,205.45	0.00	0.00	0.00
16,400.00	90.00	270.25	6,840.00	1,503.25	-11,211.41	11,305.00	0.00	0.00	0.00
16,500.00	90.00	270.25	6,840.00	1,503.69	-11,311.41	11,404.56	0.00	0.00	0.00
16,600.00	90.00	270.25	6,840.00	1,504.13	-11,411.40	11,504.11	0.00	0.00	0.00
16,700.00	90.00	270.25	6,840.00	1,504.57	-11,511.40	11,603.67	0.00	0.00	0.00
16,800.00	90.00	270.25	6,840.00	1,505.00	-11,611.40	11,703.22	0.00	0.00	0.00
16,900.00	90.00	270.25	6,840.00	1,505.44	-11,711.40	11,802.78	0.00	0.00	0.00
17,000.00	90.00	270.25	6,840.00	1,505.88	-11,811.40	11,902.33	0.00	0.00	0.00
17,100.00	90.00	270.25	6,840.00	1,506.32	-11,911.40	12,001.89	0.00	0.00	0.00
17,200.00	90.00	270.25	6,840.00	1,506.75	-12,011.40	12,101.44	0.00	0.00	0.00
17,300.00	90.00	270.25	6,840.00	1,507.19	-12,111.40	12,201.00	0.00	0.00	0.00
17,400.00	90.00	270.25	6,840.00	1,507.63	-12,211.40	12,300.55	0.00	0.00	0.00
17,500.00	90.00	270.25	6,840.00	1,508.07	-12,311.40	12,400.11	0.00	0.00	0.00
17,600.00	90.00	270.25	6,840.00	1,508.50	-12,411.39	12,499.66	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well SHELTON 25W-25-05
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KB 25' @ 4861.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4861.00usft
<b>Site:</b>	SEC 25-T4N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	SHELTON 25W-25-05	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
17,700.00	90.00	270.25	6,840.00	1,508.94	-12,511.39	12,599.22	0.00	0.00	0.00	
17,800.00	90.00	270.25	6,840.00	1,509.38	-12,611.39	12,698.77	0.00	0.00	0.00	
17,900.00	90.00	270.25	6,840.00	1,509.82	-12,711.39	12,798.32	0.00	0.00	0.00	
18,000.00	90.00	270.25	6,840.00	1,510.25	-12,811.39	12,897.88	0.00	0.00	0.00	
18,100.00	90.00	270.25	6,840.00	1,510.69	-12,911.39	12,997.43	0.00	0.00	0.00	
18,200.00	90.00	270.25	6,840.00	1,511.13	-13,011.39	13,096.99	0.00	0.00	0.00	
18,300.00	90.00	270.25	6,840.00	1,511.57	-13,111.39	13,196.54	0.00	0.00	0.00	
18,400.00	90.00	270.25	6,840.00	1,512.00	-13,211.39	13,296.10	0.00	0.00	0.00	
18,500.00	90.00	270.25	6,840.00	1,512.44	-13,311.39	13,395.65	0.00	0.00	0.00	
18,600.00	90.00	270.25	6,840.00	1,512.88	-13,411.39	13,495.21	0.00	0.00	0.00	
18,700.00	90.00	270.25	6,840.00	1,513.32	-13,511.38	13,594.76	0.00	0.00	0.00	
18,800.00	90.00	270.25	6,840.00	1,513.75	-13,611.38	13,694.32	0.00	0.00	0.00	
18,900.00	90.00	270.25	6,840.00	1,514.19	-13,711.38	13,793.87	0.00	0.00	0.00	
19,000.00	90.00	270.25	6,840.00	1,514.63	-13,811.38	13,893.43	0.00	0.00	0.00	
19,100.00	90.00	270.25	6,840.00	1,515.07	-13,911.38	13,992.98	0.00	0.00	0.00	
19,200.00	90.00	270.25	6,840.00	1,515.50	-14,011.38	14,092.54	0.00	0.00	0.00	
19,300.00	90.00	270.25	6,840.00	1,515.94	-14,111.38	14,192.09	0.00	0.00	0.00	
19,400.00	90.00	270.25	6,840.00	1,516.38	-14,211.38	14,291.65	0.00	0.00	0.00	
19,500.00	90.00	270.25	6,840.00	1,516.82	-14,311.38	14,391.20	0.00	0.00	0.00	
19,600.00	90.00	270.25	6,840.00	1,517.25	-14,411.38	14,490.75	0.00	0.00	0.00	
19,700.00	90.00	270.25	6,840.00	1,517.69	-14,511.37	14,590.31	0.00	0.00	0.00	
19,800.00	90.00	270.25	6,840.00	1,518.13	-14,611.37	14,689.86	0.00	0.00	0.00	
19,900.00	90.00	270.25	6,840.00	1,518.57	-14,711.37	14,789.42	0.00	0.00	0.00	
20,000.00	90.00	270.25	6,840.00	1,519.00	-14,811.37	14,888.97	0.00	0.00	0.00	
20,100.00	90.00	270.25	6,840.00	1,519.44	-14,911.37	14,988.53	0.00	0.00	0.00	
20,200.00	90.00	270.25	6,840.00	1,519.88	-15,011.37	15,088.08	0.00	0.00	0.00	
20,300.00	90.00	270.25	6,840.00	1,520.32	-15,111.37	15,187.64	0.00	0.00	0.00	
20,400.00	90.00	270.25	6,840.00	1,520.75	-15,211.37	15,287.19	0.00	0.00	0.00	
20,500.00	90.00	270.25	6,840.00	1,521.19	-15,311.37	15,386.75	0.00	0.00	0.00	
20,539.70	90.00	270.25	6,840.00	1,521.36	-15,351.06	15,426.27	0.00	0.00	0.00	
TD at 20539.70										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
PBHL-SHELTON 25W-0	0.00	0.00	6,840.00	1,521.36	-15,351.06	1,348,339.69	3,234,779.75	40.286534°N	104.658412°W	
- plan hits target center										
- Point										
LP-SHELTON 25W-05	0.00	0.00	6,840.00	1,464.99	-2,466.54	1,348,413.59	3,247,663.63	40.286392°N	104.612229°W	
- plan hits target center										
- Point										



## Planning Report

<b>Database:</b>	EDT_32Bit_ODBC	<b>Local Co-ordinate Reference:</b>	Well SHELTON 25W-25-05
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KB 25' @ 4861.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4861.00usft
<b>Site:</b>	SEC 25-T4N-R65W	<b>North Reference:</b>	True
<b>Well:</b>	SHELTON 25W-25-05	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
24.00	24.00	Laramie-Fox Hills Formation			
535.00	535.00	Pierre Formation			
770.40	770.00	Upper Pierre aquifer			
1,639.84	1,610.00	Base of Upper Pierre aquifer			
4,010.76	3,780.00	Larimer ("Parkman") sandstone			
4,098.17	3,860.00	Pierre Formation			
4,682.75	4,395.00	Terry ("Sussex") sandstone			
4,830.26	4,530.00	Pierre Formation			
5,464.02	5,110.00	Hygiene ("Shannon") sandstone			
5,562.36	5,200.00	Pierre Formation			
7,324.30	6,750.00	Sharon Springs Member			
7,655.05	6,840.00	Niobrara Formation			

### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
500.00	500.00	0.00	0.00	Start Build 2.00
1,688.39	1,654.60	140.72	-198.08	Start 5259.10 hold at 1688.39 MD
6,947.49	6,467.65	1,368.25	-1,926.02	Start DLS 10.00 TFO -37.56
7,655.05	6,840.00	1,464.99	-2,466.54	Start 12884.64 hold at 7655.05 MD
20,539.70	6,840.00	1,521.36	-15,351.06	TD at 20539.70