

# **US ROCKIES WATTENBERG PLANNING**

**WELD-NAD83-UTMFT13N**

**3N-65W-21 MOSER FED 3-21HZ PAD**

**MOSER 21-10HZ**

**Plan A**

**Plan: Permit Rev-1**

## **Standard Planning Report**

**11 May, 2022**

Project: WELD-NAD83-UTMFT13N  
Site: 3N-65W-21 MOSER FED 3-21HZ PAD  
Well: MOSER 21-10HZ  
Wellbore: Plan A  
Design: Permit Rev-1

# US ROCKIES WATTENBERG PLANNING

## CASING DETAILS

TVD	MD	Name	Size
1500.00	1512.04	9 5/8"	9-5/8
7018.60	22924.98	5.5" CSG	5-1/2

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	435.00	0.00	0.00	435.00	0.00	0.00	0.00	0.00	0.00	
3	1245.00	12.15	96.30	1238.94	-9.39	85.05	1.50	96.30	-9.37	
4	4045.00	12.15	96.30	3976.22	-74.06	670.81	0.00	0.00	-73.94	
5	4652.50	0.00	0.00	4579.18	-81.10	734.59	2.00	180.00	-80.97	
6	6349.12	0.00	0.00	6275.80	-81.10	734.59	0.00	0.00	-80.97	
7	7472.87	89.90	0.01	6992.00	633.85	734.72	8.00	0.01	633.98	
8	8725.00	89.90	0.01	6994.18	1885.98	734.93	0.00	0.00	1886.10	
9	8864.33	89.90	2.10	6994.42	2025.28	737.50	1.50	90.00	2025.41	
10	9938.67	89.90	2.10	6996.30	3098.89	776.87	0.00	0.00	3099.03	
11	10078.67	89.90	0.00	6996.54	3238.86	779.43	1.50	-90.00	3239.00	
12	11378.67	89.90	0.00	6998.81	4538.85	779.43	0.00	0.00	4538.99	
13	11685.33	89.90	4.60	6999.35	4845.19	791.74	1.50	90.00	4845.33	
14	13735.33	89.90	4.60	7002.93	6888.58	956.14	0.00	0.00	6888.75	
15	14115.33	89.90	357.00	7003.59	7268.26	961.45	2.00	-90.01	7268.43	
16	17615.33	89.90	357.00	7009.70	10763.46	778.27	0.00	0.00	10763.60	
17	17788.00	89.90	359.59	7009.99	10936.04	773.13	1.50	89.91	10936.18	
18	22924.98	89.90	359.59	7018.60	16072.89	736.38	0.00	0.00	16073.01	MOSER 21-10HZ_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
MOSER 21-10HZ_SHL	0.00	14605906.50	1732079.10	40.216955	-104.671653
MOSER 21-10HZ_LP	6992.00	14606543.06	1732811.47	40.218695	-104.669021
MOSER 21-10HZ_BHL	7018.60	14621982.00	1732756.00	40.261092	-104.669013

## WELL DETAILS: MOSER 21-10HZ

GL = 4844'

RKB = 17' @ 4861.00usft (RIG)

Plan: Permit Rev-1 (MOSER 21-10HZ/Plan A)

Date: 5/12/2022

## FORMATION TOP DETAILS

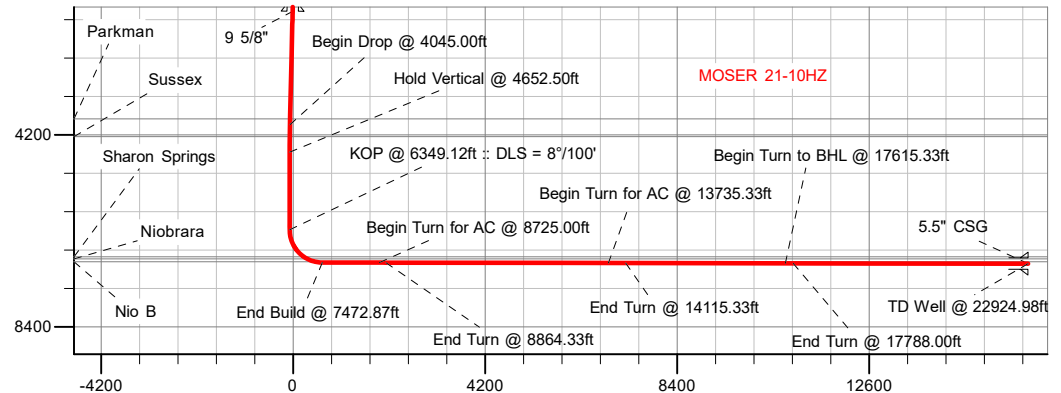
TVDPath	MDPath	Formation
1058.00	1060.80	Fox Hills
3851.00	3916.91	Parkman
4239.00	4311.52	Sussex
6866.00	7042.81	Sharon Springs
6913.00	7134.56	Niobrara
6977.00	7327.30	Nio B

SHL  
443' FNL  
1710' FWL

LP  
191' FSL  
2439' FWL

BHL  
190' FNL  
2428' FWL

True Vertical Depth (4200 usft/in)



Vertical Section at 0.01° (4200 usft/in)

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MOSER 21-10HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Site:</b>	3N-65W-21 MOSER FED 3-21HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	MOSER 21-10HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

<b>Project</b>	WELD-NAD83-UTMFT13N		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Zone 13N (108 W to 102 W)		

Site		3N-65W-21 MOSER FED 3-21HZ PAD			
Site Position:		Northing:	14,605,907.26 usft	Latitude:	40.216958
From:	Map	Easting:	1,731,944.15 usft	Longitude:	-104.672136
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	

Well		MOSER 21-10HZ				
Well Position	+N/-S	0.00 usft	Northing:	14,605,906.50 usft	Latitude:	40.216955
	+E/-W	0.00 usft	Easting:	1,732,079.10 usft	Longitude:	-104.671653
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	4,844.00 usft
Grid Convergence:		0.21 °				

<b>Wellbore</b>	Plan A				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF202013	3/22/2022	7.70	66.49	51,786.67900990

<b>Design</b>	Permit Rev-1				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PLAN	<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	0.01	

<b>Plan Survey Tool Program</b>		<b>Date</b>	5/10/2022		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	1,500.00	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I Fixed:v2:crustal field declinatio	
2	1,500.00	22,924.98	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I Fixed:v2:Rockies, crustal dec +	

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MOSER 21-10HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Site:</b>	3N-65W-21 MOSER FED 3-21HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	MOSER 21-10HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
435.00	0.00	0.00	435.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,245.00	12.15	96.30	1,238.94	-9.39	85.05	1.50	1.50	0.00	96.30	
4,045.00	12.15	96.30	3,976.22	-74.06	670.81	0.00	0.00	0.00	0.00	
4,652.50	0.00	0.00	4,579.18	-81.10	734.59	2.00	-2.00	0.00	180.00	
6,349.12	0.00	0.00	6,275.80	-81.10	734.59	0.00	0.00	0.00	0.00	
7,472.87	89.90	0.01	6,992.00	633.85	734.72	8.00	8.00	0.00	0.01	
8,725.00	89.90	0.01	6,994.18	1,885.98	734.93	0.00	0.00	0.00	0.00	
8,864.33	89.90	2.10	6,994.42	2,025.28	737.50	1.50	0.00	1.50	90.00	
9,938.67	89.90	2.10	6,996.30	3,098.89	776.87	0.00	0.00	0.00	0.00	
10,078.67	89.90	0.00	6,996.54	3,238.86	779.43	1.50	0.00	-1.50	-90.00	
11,378.67	89.90	0.00	6,998.81	4,538.85	779.43	0.00	0.00	0.00	0.00	
11,685.33	89.90	4.60	6,999.35	4,845.19	791.74	1.50	0.00	1.50	90.00	
13,735.33	89.90	4.60	7,002.93	6,888.58	956.14	0.00	0.00	0.00	0.00	
14,115.33	89.90	357.00	7,003.59	7,268.26	961.45	2.00	0.00	-2.00	-90.01	
17,615.33	89.90	357.00	7,009.70	10,763.46	778.27	0.00	0.00	0.00	0.00	
17,788.00	89.90	359.59	7,009.99	10,936.05	773.13	1.50	0.00	1.50	89.91	
22,924.98	89.90	359.59	7,018.60	16,072.89	736.38	0.00	0.00	0.00	0.00	MOSER 21-10HZ_BH

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MOSER 21-10HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Site:</b>	3N-65W-21 MOSER FED 3-21HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	MOSER 21-10HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
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
435.00	0.00	0.00	435.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 435.00ft									
500.00	0.98	96.30	500.00	-0.06	0.55	-0.06	1.50	1.50	0.00
600.00	2.48	96.30	599.95	-0.39	3.54	-0.39	1.50	1.50	0.00
700.00	3.98	96.30	699.79	-1.01	9.13	-1.01	1.50	1.50	0.00
800.00	5.48	96.30	799.44	-1.91	17.32	-1.91	1.50	1.50	0.00
900.00	6.98	96.30	898.85	-3.10	28.10	-3.10	1.50	1.50	0.00
1,000.00	8.48	96.30	997.94	-4.58	41.46	-4.57	1.50	1.50	0.00
1,060.80	9.39	96.30	1,058.00	-5.61	50.84	-5.60	1.50	1.50	0.00
Fox Hills									
1,100.00	9.98	96.30	1,096.65	-6.34	57.39	-6.33	1.50	1.50	0.00
1,200.00	11.48	96.30	1,194.90	-8.38	75.89	-8.36	1.50	1.50	0.00
1,245.00	12.15	96.30	1,238.94	-9.39	85.05	-9.37	1.50	1.50	0.00
Hold Tangent @ 1245.00ft									
1,300.00	12.15	96.30	1,292.71	-10.66	96.55	-10.64	0.00	0.00	0.00
1,400.00	12.15	96.30	1,390.47	-12.97	117.47	-12.95	0.00	0.00	0.00
1,500.00	12.15	96.30	1,488.23	-15.28	138.39	-15.25	0.00	0.00	0.00
1,512.04	12.15	96.30	1,500.00	-15.56	140.91	-15.53	0.00	0.00	0.00
9 5/8"									
1,600.00	12.15	96.30	1,585.99	-17.59	159.31	-17.56	0.00	0.00	0.00
1,700.00	12.15	96.30	1,683.75	-19.90	180.23	-19.87	0.00	0.00	0.00
1,800.00	12.15	96.30	1,781.51	-22.21	201.15	-22.17	0.00	0.00	0.00
1,900.00	12.15	96.30	1,879.27	-24.52	222.07	-24.48	0.00	0.00	0.00
2,000.00	12.15	96.30	1,977.03	-26.83	242.99	-26.78	0.00	0.00	0.00
2,100.00	12.15	96.30	2,074.79	-29.14	263.91	-29.09	0.00	0.00	0.00
2,200.00	12.15	96.30	2,172.55	-31.45	284.83	-31.40	0.00	0.00	0.00
2,300.00	12.15	96.30	2,270.31	-33.76	305.75	-33.70	0.00	0.00	0.00
2,400.00	12.15	96.30	2,368.07	-36.06	326.67	-36.01	0.00	0.00	0.00
2,500.00	12.15	96.30	2,465.83	-38.37	347.59	-38.31	0.00	0.00	0.00
2,600.00	12.15	96.30	2,563.59	-40.68	368.51	-40.62	0.00	0.00	0.00
2,700.00	12.15	96.30	2,661.35	-42.99	389.43	-42.93	0.00	0.00	0.00
2,800.00	12.15	96.30	2,759.11	-45.30	410.35	-45.23	0.00	0.00	0.00
2,900.00	12.15	96.30	2,856.87	-47.61	431.27	-47.54	0.00	0.00	0.00
3,000.00	12.15	96.30	2,954.63	-49.92	452.19	-49.84	0.00	0.00	0.00
3,100.00	12.15	96.30	3,052.39	-52.23	473.11	-52.15	0.00	0.00	0.00
3,200.00	12.15	96.30	3,150.15	-54.54	494.03	-54.46	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MOSER 21-10HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Site:</b>	3N-65W-21 MOSER FED 3-21HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	MOSER 21-10HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,100.00	11.05	96.30	4,030.10	-75.27	681.80	-75.15	2.00	-2.00	0.00
4,200.00	9.05	96.30	4,128.56	-77.19	699.14	-77.06	2.00	-2.00	0.00
4,300.00	7.05	96.30	4,227.57	-78.72	713.06	-78.60	2.00	-2.00	0.00
4,311.52	6.82	96.30	4,239.00	-78.88	714.44	-78.75	2.00	-2.00	0.00
<b>Sussex</b>									
4,400.00	5.05	96.30	4,327.01	-79.88	723.54	-79.75	2.00	-2.00	0.00
4,500.00	3.05	96.30	4,426.75	-80.65	730.56	-80.53	2.00	-2.00	0.00
4,600.00	1.05	96.30	4,526.68	-81.05	734.11	-80.92	2.00	-2.00	0.00
4,652.50	0.00	0.00	4,579.18	-81.10	734.59	-80.97	2.00	-2.00	0.00
<b>Hold Vertical @ 4652.50ft</b>									
4,700.00	0.00	0.00	4,626.68	-81.10	734.59	-80.97	0.00	0.00	0.00
4,800.00	0.00	0.00	4,726.68	-81.10	734.59	-80.97	0.00	0.00	0.00
4,900.00	0.00	0.00	4,826.68	-81.10	734.59	-80.97	0.00	0.00	0.00
5,000.00	0.00	0.00	4,926.68	-81.10	734.59	-80.97	0.00	0.00	0.00
5,100.00	0.00	0.00	5,026.68	-81.10	734.59	-80.97	0.00	0.00	0.00
5,200.00	0.00	0.00	5,126.68	-81.10	734.59	-80.97	0.00	0.00	0.00
5,300.00	0.00	0.00	5,226.68	-81.10	734.59	-80.97	0.00	0.00	0.00
5,400.00	0.00	0.00	5,326.68	-81.10	734.59	-80.97	0.00	0.00	0.00
5,500.00	0.00	0.00	5,426.68	-81.10	734.59	-80.97	0.00	0.00	0.00
5,600.00	0.00	0.00	5,526.68	-81.10	734.59	-80.97	0.00	0.00	0.00
5,700.00	0.00	0.00	5,626.68	-81.10	734.59	-80.97	0.00	0.00	0.00
5,800.00	0.00	0.00	5,726.68	-81.10	734.59	-80.97	0.00	0.00	0.00
5,900.00	0.00	0.00	5,826.68	-81.10	734.59	-80.97	0.00	0.00	0.00
6,000.00	0.00	0.00	5,926.68	-81.10	734.59	-80.97	0.00	0.00	0.00
6,100.00	0.00	0.00	6,026.68	-81.10	734.59	-80.97	0.00	0.00	0.00
6,200.00	0.00	0.00	6,126.68	-81.10	734.59	-80.97	0.00	0.00	0.00
6,300.00	0.00	0.00	6,226.68	-81.10	734.59	-80.97	0.00	0.00	0.00
6,349.12	0.00	0.00	6,275.80	-81.10	734.59	-80.97	0.00	0.00	0.00
<b>KOP @ 6349.12ft :: DLS = 8°/100'</b>									
6,400.00	4.07	0.01	6,326.64	-79.29	734.59	-79.16	8.00	8.00	0.00
6,450.00	8.07	0.01	6,376.35	-74.01	734.59	-73.88	8.00	8.00	0.00
6,500.00	12.07	0.01	6,425.57	-65.27	734.59	-65.14	8.00	8.00	0.00
6,550.00	16.07	0.01	6,474.06	-53.11	734.60	-52.98	8.00	8.00	0.00
6,600.00	20.07	0.01	6,521.58	-37.61	734.60	-37.48	8.00	8.00	0.00
6,650.00	24.07	0.01	6,567.91	-18.82	734.60	-18.69	8.00	8.00	0.00
6,700.00	28.07	0.01	6,612.81	3.15	734.61	3.27	8.00	8.00	0.00
6,750.00	32.07	0.01	6,656.07	28.19	734.61	28.32	8.00	8.00	0.00
6,800.00	36.07	0.01	6,697.48	56.20	734.62	56.33	8.00	8.00	0.00
6,850.00	40.07	0.01	6,736.84	87.02	734.62	87.15	8.00	8.00	0.00
6,900.00	44.07	0.01	6,773.95	120.52	734.63	120.65	8.00	8.00	0.00
6,950.00	48.07	0.01	6,808.63	156.52	734.63	156.65	8.00	8.00	0.00
7,000.00	52.07	0.01	6,840.71	194.86	734.64	194.98	8.00	8.00	0.00
7,042.81	55.49	0.01	6,866.00	229.39	734.65	229.51	8.00	8.00	0.00
<b>Sharon Springs</b>									
7,050.00	56.07	0.01	6,870.05	235.34	734.65	235.46	8.00	8.00	0.00
7,100.00	60.07	0.01	6,896.48	277.76	734.65	277.89	8.00	8.00	0.00
7,134.56	62.84	0.01	6,913.00	308.12	734.66	308.25	8.00	8.00	0.00
<b>Niobrara</b>									
7,150.00	64.07	0.01	6,919.90	321.93	734.66	322.06	8.00	8.00	0.00
7,200.00	68.07	0.01	6,940.18	367.62	734.67	367.75	8.00	8.00	0.00
7,250.00	72.07	0.01	6,957.22	414.62	734.68	414.75	8.00	8.00	0.00
7,300.00	76.07	0.01	6,970.94	462.69	734.69	462.82	8.00	8.00	0.00
7,327.30	78.25	0.01	6,977.00	489.30	734.69	489.43	8.00	8.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MOSER 21-10HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Site:</b>	3N-65W-21 MOSER FED 3-21HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	MOSER 21-10HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>Nio B</b>									
7,350.00	80.07	0.01	6,981.27	511.60	734.69	511.73	8.00	8.00	0.00
7,400.00	84.07	0.01	6,988.17	561.11	734.70	561.24	8.00	8.00	0.00
7,450.00	88.07	0.01	6,991.59	610.98	734.71	611.11	8.00	8.00	0.00
7,472.87	89.90	0.01	6,992.00	633.85	734.72	633.98	8.00	8.00	0.00
<b>End Build @ 7472.87ft</b>									
7,500.00	89.90	0.01	6,992.04	660.98	734.72	661.11	0.00	0.00	0.00
7,600.00	89.90	0.01	6,992.22	760.98	734.74	761.11	0.00	0.00	0.00
7,700.00	89.90	0.01	6,992.39	860.98	734.76	861.11	0.00	0.00	0.00
7,800.00	89.90	0.01	6,992.57	960.98	734.77	961.11	0.00	0.00	0.00
7,900.00	89.90	0.01	6,992.74	1,060.98	734.79	1,061.11	0.00	0.00	0.00
8,000.00	89.90	0.01	6,992.92	1,160.98	734.81	1,161.11	0.00	0.00	0.00
8,100.00	89.90	0.01	6,993.09	1,260.98	734.83	1,261.10	0.00	0.00	0.00
8,200.00	89.90	0.01	6,993.27	1,360.98	734.84	1,361.10	0.00	0.00	0.00
8,300.00	89.90	0.01	6,993.44	1,460.98	734.86	1,461.10	0.00	0.00	0.00
8,400.00	89.90	0.01	6,993.61	1,560.98	734.88	1,561.10	0.00	0.00	0.00
8,500.00	89.90	0.01	6,993.79	1,660.98	734.90	1,661.10	0.00	0.00	0.00
8,600.00	89.90	0.01	6,993.96	1,760.98	734.91	1,761.10	0.00	0.00	0.00
8,700.00	89.90	0.01	6,994.14	1,860.98	734.93	1,861.10	0.00	0.00	0.00
8,725.00	89.90	0.01	6,994.18	1,885.98	734.93	1,886.10	0.00	0.00	0.00
<b>Begin Turn for AC @ 8725.00ft</b>									
8,800.00	89.90	1.14	6,994.31	1,960.97	735.68	1,961.10	1.50	0.00	1.50
8,864.33	89.90	2.10	6,994.42	2,025.28	737.50	2,025.41	1.50	0.00	1.50
<b>End Turn @ 8864.33ft</b>									
8,900.00	89.90	2.10	6,994.49	2,060.92	738.81	2,061.05	0.00	0.00	0.00
9,000.00	89.90	2.10	6,994.66	2,160.85	742.47	2,160.98	0.00	0.00	0.00
9,100.00	89.90	2.10	6,994.84	2,260.79	746.14	2,260.92	0.00	0.00	0.00
9,200.00	89.90	2.10	6,995.01	2,360.72	749.80	2,360.85	0.00	0.00	0.00
9,300.00	89.90	2.10	6,995.19	2,460.65	753.46	2,460.78	0.00	0.00	0.00
9,400.00	89.90	2.10	6,995.36	2,560.58	757.13	2,560.72	0.00	0.00	0.00
9,500.00	89.90	2.10	6,995.53	2,660.52	760.79	2,660.65	0.00	0.00	0.00
9,600.00	89.90	2.10	6,995.71	2,760.45	764.46	2,760.58	0.00	0.00	0.00
9,700.00	89.90	2.10	6,995.88	2,860.38	768.12	2,860.52	0.00	0.00	0.00
9,800.00	89.90	2.10	6,996.06	2,960.31	771.79	2,960.45	0.00	0.00	0.00
9,900.00	89.90	2.10	6,996.23	3,060.25	775.45	3,060.38	0.00	0.00	0.00
9,938.67	89.90	2.10	6,996.30	3,098.89	776.87	3,099.03	0.00	0.00	0.00
<b>Begin Turn for AC @ 9938.67ft</b>									
10,000.00	89.90	1.18	6,996.41	3,160.20	778.62	3,160.33	1.50	0.00	-1.50
10,078.67	89.90	0.00	6,996.54	3,238.86	779.43	3,239.00	1.50	0.00	-1.50
<b>End Turn @ 10078.67ft</b>									
10,100.00	89.90	0.00	6,996.58	3,260.19	779.43	3,260.33	0.00	0.00	0.00
10,200.00	89.90	0.00	6,996.76	3,360.19	779.43	3,360.33	0.00	0.00	0.00
10,300.00	89.90	0.00	6,996.93	3,460.19	779.43	3,460.33	0.00	0.00	0.00
10,400.00	89.90	0.00	6,997.11	3,560.19	779.43	3,560.32	0.00	0.00	0.00
10,500.00	89.90	0.00	6,997.28	3,660.19	779.43	3,660.32	0.00	0.00	0.00
10,600.00	89.90	0.00	6,997.45	3,760.19	779.43	3,760.32	0.00	0.00	0.00
10,700.00	89.90	0.00	6,997.63	3,860.19	779.43	3,860.32	0.00	0.00	0.00
10,800.00	89.90	0.00	6,997.80	3,960.19	779.43	3,960.32	0.00	0.00	0.00
10,900.00	89.90	0.00	6,997.98	4,060.19	779.43	4,060.32	0.00	0.00	0.00
11,000.00	89.90	0.00	6,998.15	4,160.19	779.43	4,160.32	0.00	0.00	0.00
11,100.00	89.90	0.00	6,998.33	4,260.19	779.43	4,260.32	0.00	0.00	0.00
11,200.00	89.90	0.00	6,998.50	4,360.19	779.43	4,360.32	0.00	0.00	0.00
11,300.00	89.90	0.00	6,998.68	4,460.19	779.43	4,460.32	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MOSER 21-10HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Site:</b>	3N-65W-21 MOSER FED 3-21HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	MOSER 21-10HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,378.67	89.90	0.00	6,998.81	4,538.85	779.43	4,538.99	0.00	0.00	0.00
<b>Begin Turn for AC @ 11378.67ft</b>									
11,400.00	89.90	0.32	6,998.85	4,560.19	779.49	4,560.32	1.50	0.00	1.50
11,500.00	89.90	1.82	6,999.03	4,660.17	781.36	4,660.30	1.50	0.00	1.50
11,600.00	89.90	3.32	6,999.20	4,760.06	785.84	4,760.20	1.50	0.00	1.50
11,685.33	89.90	4.60	6,999.35	4,845.19	791.74	4,845.33	1.50	0.00	1.50
<b>End Turn @ 11685.33ft</b>									
11,700.00	89.90	4.60	6,999.37	4,859.81	792.91	4,859.95	0.00	0.00	0.00
11,800.00	89.90	4.60	6,999.55	4,959.49	800.93	4,959.63	0.00	0.00	0.00
11,900.00	89.90	4.60	6,999.72	5,059.17	808.95	5,059.31	0.00	0.00	0.00
12,000.00	89.90	4.60	6,999.90	5,158.84	816.97	5,158.99	0.00	0.00	0.00
12,100.00	89.90	4.60	7,000.07	5,258.52	824.99	5,258.67	0.00	0.00	0.00
12,200.00	89.90	4.60	7,000.25	5,358.20	833.01	5,358.34	0.00	0.00	0.00
12,300.00	89.90	4.60	7,000.42	5,457.88	841.03	5,458.02	0.00	0.00	0.00
12,400.00	89.90	4.60	7,000.60	5,557.55	849.05	5,557.70	0.00	0.00	0.00
12,500.00	89.90	4.60	7,000.77	5,657.23	857.07	5,657.38	0.00	0.00	0.00
12,600.00	89.90	4.60	7,000.95	5,756.91	865.09	5,757.06	0.00	0.00	0.00
12,700.00	89.90	4.60	7,001.12	5,856.59	873.11	5,856.74	0.00	0.00	0.00
12,800.00	89.90	4.60	7,001.29	5,956.27	881.13	5,956.42	0.00	0.00	0.00
12,900.00	89.90	4.60	7,001.47	6,055.94	889.15	6,056.10	0.00	0.00	0.00
13,000.00	89.90	4.60	7,001.64	6,155.62	897.17	6,155.78	0.00	0.00	0.00
13,100.00	89.90	4.60	7,001.82	6,255.30	905.19	6,255.46	0.00	0.00	0.00
13,200.00	89.90	4.60	7,001.99	6,354.98	913.21	6,355.14	0.00	0.00	0.00
13,300.00	89.90	4.60	7,002.17	6,454.65	921.23	6,454.81	0.00	0.00	0.00
13,400.00	89.90	4.60	7,002.34	6,554.33	929.25	6,554.49	0.00	0.00	0.00
13,500.00	89.90	4.60	7,002.52	6,654.01	937.27	6,654.17	0.00	0.00	0.00
13,600.00	89.90	4.60	7,002.69	6,753.69	945.29	6,753.85	0.00	0.00	0.00
13,700.00	89.90	4.60	7,002.86	6,853.37	953.31	6,853.53	0.00	0.00	0.00
13,735.33	89.90	4.60	7,002.93	6,888.58	956.14	6,888.75	0.00	0.00	0.00
<b>Begin Turn for AC @ 13735.33ft</b>									
13,800.00	89.90	3.31	7,003.04	6,953.10	960.60	6,953.26	2.00	0.00	-2.00
13,900.00	89.90	1.31	7,003.21	7,053.01	964.63	7,053.18	2.00	0.00	-2.00
14,000.00	89.90	359.31	7,003.39	7,153.00	965.16	7,153.17	2.00	0.00	-2.00
14,100.00	89.90	357.31	7,003.56	7,252.95	962.21	7,253.12	2.00	0.00	-2.00
14,115.33	89.90	357.00	7,003.59	7,268.26	961.45	7,268.43	2.00	0.00	-2.00
<b>End Turn @ 14115.33ft</b>									
14,200.00	89.90	357.00	7,003.74	7,352.82	957.01	7,352.99	0.00	0.00	0.00
14,300.00	89.90	357.00	7,003.91	7,452.68	951.78	7,452.85	0.00	0.00	0.00
14,400.00	89.90	357.00	7,004.09	7,552.54	946.55	7,552.71	0.00	0.00	0.00
14,500.00	89.90	357.00	7,004.26	7,652.41	941.31	7,652.57	0.00	0.00	0.00
14,600.00	89.90	357.00	7,004.44	7,752.27	936.08	7,752.43	0.00	0.00	0.00
14,700.00	89.90	357.00	7,004.61	7,852.13	930.85	7,852.30	0.00	0.00	0.00
14,800.00	89.90	357.00	7,004.79	7,952.00	925.61	7,952.16	0.00	0.00	0.00
14,900.00	89.90	357.00	7,004.96	8,051.86	920.38	8,052.02	0.00	0.00	0.00
15,000.00	89.90	357.00	7,005.13	8,151.72	915.15	8,151.88	0.00	0.00	0.00
15,100.00	89.90	357.00	7,005.31	8,251.58	909.91	8,251.74	0.00	0.00	0.00
15,200.00	89.90	357.00	7,005.48	8,351.45	904.68	8,351.60	0.00	0.00	0.00
15,300.00	89.90	357.00	7,005.66	8,451.31	899.44	8,451.47	0.00	0.00	0.00
15,400.00	89.90	357.00	7,005.83	8,551.17	894.21	8,551.33	0.00	0.00	0.00
15,500.00	89.90	357.00	7,006.01	8,651.04	888.98	8,651.19	0.00	0.00	0.00
15,600.00	89.90	357.00	7,006.18	8,750.90	883.74	8,751.05	0.00	0.00	0.00
15,700.00	89.90	357.00	7,006.36	8,850.76	878.51	8,850.91	0.00	0.00	0.00
15,800.00	89.90	357.00	7,006.53	8,950.62	873.28	8,950.78	0.00	0.00	0.00



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MOSER 21-10HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Site:</b>	3N-65W-21 MOSER FED 3-21HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	MOSER 21-10HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,900.00	89.90	357.00	7,006.71	9,050.49	868.04	9,050.64	0.00	0.00	0.00
16,000.00	89.90	357.00	7,006.88	9,150.35	862.81	9,150.50	0.00	0.00	0.00
16,100.00	89.90	357.00	7,007.05	9,250.21	857.58	9,250.36	0.00	0.00	0.00
16,200.00	89.90	357.00	7,007.23	9,350.08	852.34	9,350.22	0.00	0.00	0.00
16,300.00	89.90	357.00	7,007.40	9,449.94	847.11	9,450.09	0.00	0.00	0.00
16,400.00	89.90	357.00	7,007.58	9,549.80	841.88	9,549.95	0.00	0.00	0.00
16,500.00	89.90	357.00	7,007.75	9,649.66	836.64	9,649.81	0.00	0.00	0.00
16,600.00	89.90	357.00	7,007.93	9,749.53	831.41	9,749.67	0.00	0.00	0.00
16,700.00	89.90	357.00	7,008.10	9,849.39	826.17	9,849.53	0.00	0.00	0.00
16,800.00	89.90	357.00	7,008.28	9,949.25	820.94	9,949.40	0.00	0.00	0.00
16,900.00	89.90	357.00	7,008.45	10,049.11	815.71	10,049.26	0.00	0.00	0.00
17,000.00	89.90	357.00	7,008.63	10,148.98	810.47	10,149.12	0.00	0.00	0.00
17,100.00	89.90	357.00	7,008.80	10,248.84	805.24	10,248.98	0.00	0.00	0.00
17,200.00	89.90	357.00	7,008.97	10,348.70	800.01	10,348.84	0.00	0.00	0.00
17,300.00	89.90	357.00	7,009.15	10,448.57	794.77	10,448.70	0.00	0.00	0.00
17,400.00	89.90	357.00	7,009.32	10,548.43	789.54	10,548.57	0.00	0.00	0.00
17,500.00	89.90	357.00	7,009.50	10,648.29	784.31	10,648.43	0.00	0.00	0.00
17,600.00	89.90	357.00	7,009.67	10,748.15	779.07	10,748.29	0.00	0.00	0.00
17,615.33	89.90	357.00	7,009.70	10,763.46	778.27	10,763.60	0.00	0.00	0.00
Begin Turn to BHL @ 17615.33ft									
17,700.00	89.90	358.27	7,009.85	10,848.06	774.78	10,848.19	1.50	0.00	1.50
17,788.00	89.90	359.59	7,009.99	10,936.05	773.13	10,936.18	1.50	0.00	1.50
End Turn @ 17788.00ft									
17,800.00	89.90	359.59	7,010.01	10,948.04	773.05	10,948.18	0.00	0.00	0.00
17,900.00	89.90	359.59	7,010.18	11,048.04	772.33	11,048.17	0.00	0.00	0.00
18,000.00	89.90	359.59	7,010.35	11,148.04	771.62	11,148.17	0.00	0.00	0.00
18,100.00	89.90	359.59	7,010.52	11,248.03	770.90	11,248.17	0.00	0.00	0.00
18,200.00	89.90	359.59	7,010.69	11,348.03	770.19	11,348.17	0.00	0.00	0.00
18,300.00	89.90	359.59	7,010.85	11,448.03	769.47	11,448.16	0.00	0.00	0.00
18,400.00	89.90	359.59	7,011.02	11,548.03	768.75	11,548.16	0.00	0.00	0.00
18,500.00	89.90	359.59	7,011.19	11,648.02	768.04	11,648.16	0.00	0.00	0.00
18,600.00	89.90	359.59	7,011.36	11,748.02	767.32	11,748.15	0.00	0.00	0.00
18,700.00	89.90	359.59	7,011.52	11,848.02	766.61	11,848.15	0.00	0.00	0.00
18,800.00	89.90	359.59	7,011.69	11,948.01	765.89	11,948.15	0.00	0.00	0.00
18,900.00	89.90	359.59	7,011.86	12,048.01	765.18	12,048.15	0.00	0.00	0.00
19,000.00	89.90	359.59	7,012.03	12,148.01	764.46	12,148.14	0.00	0.00	0.00
19,100.00	89.90	359.59	7,012.19	12,248.01	763.75	12,248.14	0.00	0.00	0.00
19,200.00	89.90	359.59	7,012.36	12,348.00	763.03	12,348.14	0.00	0.00	0.00
19,300.00	89.90	359.59	7,012.53	12,448.00	762.32	12,448.13	0.00	0.00	0.00
19,400.00	89.90	359.59	7,012.70	12,548.00	761.60	12,548.13	0.00	0.00	0.00
19,500.00	89.90	359.59	7,012.86	12,648.00	760.89	12,648.13	0.00	0.00	0.00
19,600.00	89.90	359.59	7,013.03	12,747.99	760.17	12,748.13	0.00	0.00	0.00
19,700.00	89.90	359.59	7,013.20	12,847.99	759.45	12,848.12	0.00	0.00	0.00
19,800.00	89.90	359.59	7,013.37	12,947.99	758.74	12,948.12	0.00	0.00	0.00
19,900.00	89.90	359.59	7,013.53	13,047.99	758.02	13,048.12	0.00	0.00	0.00
20,000.00	89.90	359.59	7,013.70	13,147.98	757.31	13,148.11	0.00	0.00	0.00
20,100.00	89.90	359.59	7,013.87	13,247.98	756.59	13,248.11	0.00	0.00	0.00
20,200.00	89.90	359.59	7,014.04	13,347.98	755.88	13,348.11	0.00	0.00	0.00
20,300.00	89.90	359.59	7,014.20	13,447.97	755.16	13,448.11	0.00	0.00	0.00
20,400.00	89.90	359.59	7,014.37	13,547.97	754.45	13,548.10	0.00	0.00	0.00
20,500.00	89.90	359.59	7,014.54	13,647.97	753.73	13,648.10	0.00	0.00	0.00
20,600.00	89.90	359.59	7,014.71	13,747.97	753.02	13,748.10	0.00	0.00	0.00
20,700.00	89.90	359.59	7,014.87	13,847.96	752.30	13,848.09	0.00	0.00	0.00
20,800.00	89.90	359.59	7,015.04	13,947.96	751.58	13,948.09	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MOSER 21-10HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Site:</b>	3N-65W-21 MOSER FED 3-21HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	MOSER 21-10HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
20,900.00	89.90	359.59	7,015.21	14,047.96	750.87	14,048.09	0.00	0.00	0.00	
21,000.00	89.90	359.59	7,015.38	14,147.96	750.15	14,148.09	0.00	0.00	0.00	
21,100.00	89.90	359.59	7,015.54	14,247.95	749.44	14,248.08	0.00	0.00	0.00	
21,200.00	89.90	359.59	7,015.71	14,347.95	748.72	14,348.08	0.00	0.00	0.00	
21,300.00	89.90	359.59	7,015.88	14,447.95	748.01	14,448.08	0.00	0.00	0.00	
21,400.00	89.90	359.59	7,016.05	14,547.94	747.29	14,548.07	0.00	0.00	0.00	
21,500.00	89.90	359.59	7,016.21	14,647.94	746.58	14,648.07	0.00	0.00	0.00	
21,600.00	89.90	359.59	7,016.38	14,747.94	745.86	14,748.07	0.00	0.00	0.00	
21,700.00	89.90	359.59	7,016.55	14,847.94	745.15	14,848.07	0.00	0.00	0.00	
21,800.00	89.90	359.59	7,016.72	14,947.93	744.43	14,948.06	0.00	0.00	0.00	
21,900.00	89.90	359.59	7,016.88	15,047.93	743.72	15,048.06	0.00	0.00	0.00	
22,000.00	89.90	359.59	7,017.05	15,147.93	743.00	15,148.06	0.00	0.00	0.00	
22,100.00	89.90	359.59	7,017.22	15,247.93	742.28	15,248.06	0.00	0.00	0.00	
22,200.00	89.90	359.59	7,017.39	15,347.92	741.57	15,348.05	0.00	0.00	0.00	
22,300.00	89.90	359.59	7,017.55	15,447.92	740.85	15,448.05	0.00	0.00	0.00	
22,400.00	89.90	359.59	7,017.72	15,547.92	740.14	15,548.05	0.00	0.00	0.00	
22,500.00	89.90	359.59	7,017.89	15,647.91	739.42	15,648.04	0.00	0.00	0.00	
22,600.00	89.90	359.59	7,018.06	15,747.91	738.71	15,748.04	0.00	0.00	0.00	
22,700.00	89.90	359.59	7,018.22	15,847.91	737.99	15,848.04	0.00	0.00	0.00	
22,800.00	89.90	359.59	7,018.39	15,947.91	737.28	15,948.04	0.00	0.00	0.00	
22,900.00	89.90	359.59	7,018.56	16,047.90	736.56	16,048.03	0.00	0.00	0.00	
22,924.98	89.90	359.59	7,018.60	16,072.88	736.38	16,073.01	0.00	0.00	0.00	
TD Well @ 22924.98ft - 5.5" CSG										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,512.04	1,500.00	9 5/8"	9-5/8	13-1/2	
22,924.98	7,018.60	5.5" CSG	5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,060.80	1,058.00	Fox Hills				
3,916.91	3,851.00	Parkman				
4,311.52	4,239.00	Sussex				
7,042.81	6,866.00	Sharon Springs				
7,134.56	6,913.00	Niobrara				
7,327.30	6,977.00	Nio B				

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well MOSER 21-10HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4861.00usft (RIG)
<b>Site:</b>	3N-65W-21 MOSER FED 3-21HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	MOSER 21-10HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
435.00	435.00	0.00	0.00	Begin Nudge @ 435.00ft
1,245.00	1,238.94	-9.39	85.05	Hold Tangent @ 1245.00ft
4,045.00	3,976.22	-74.06	670.81	Begin Drop @ 4045.00ft
4,652.50	4,579.18	-81.10	734.59	Hold Vertical @ 4652.50ft
6,349.12	6,275.80	-81.10	734.59	KOP @ 6349.12ft :: DLS = 8"/100'
7,472.87	6,992.00	633.85	734.72	End Build @ 7472.87ft
8,725.00	6,994.18	1,885.98	734.93	Begin Turn for AC @ 8725.00ft
8,864.33	6,994.42	2,025.28	737.50	End Turn @ 8864.33ft
9,938.67	6,996.30	3,098.89	776.87	Begin Turn for AC @ 9938.67ft
10,078.67	6,996.54	3,238.86	779.43	End Turn @ 10078.67ft
11,378.67	6,998.81	4,538.85	779.43	Begin Turn for AC @ 11378.67ft
11,685.33	6,999.35	4,845.19	791.74	End Turn @ 11685.33ft
13,735.33	7,002.93	6,888.58	956.14	Begin Turn for AC @ 13735.33ft
14,115.33	7,003.59	7,268.26	961.45	End Turn @ 14115.33ft
17,615.33	7,009.70	10,763.46	778.27	Begin Turn to BHL @ 17615.33ft
17,788.00	7,009.99	10,936.05	773.13	End Turn @ 17788.00ft
22,924.98	7,018.60	16,072.89	736.38	TD Well @ 22924.98ft