

US ROCKIES WATTENBERG PLANNING

**WELD-NAD83-UTMFT13N
5N-67W-22 BLUE CHIP 6-22HZ PAD
BLUE CHIP 22-9HZ**

Plan A

Plan: Permit Rev-1

Standard Planning Report

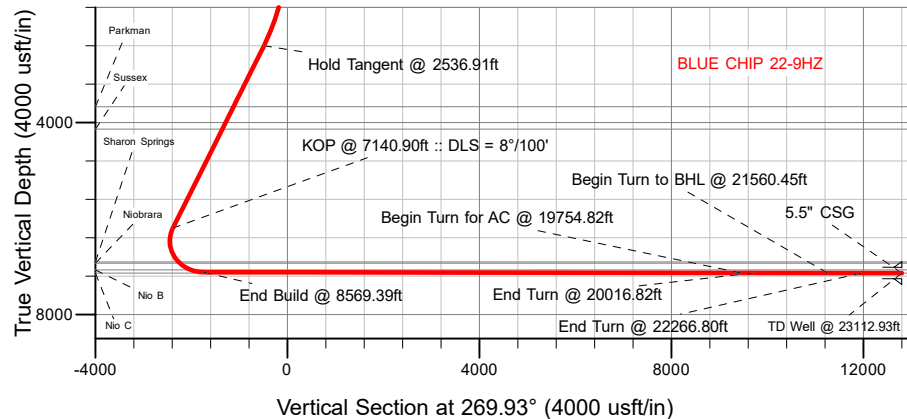
08 September, 2022

Project: WELD-NAD83-UTMFT13N
Site: 5N-67W-22 BLUE CHIP 6-22HZ PAD
Well: BLUE CHIP 22-9HZ
Wellbore: Plan A
Design: Permit Rev-1

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

TVD	MD	Name	Size
1500.00	1523.64	9 5/8"	9-5/8
7138.00	23112.93	5.5" CSG	5-1/2



SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
246.91	0.00	0.00	246.91	0.00	0.00	0.00	0.00	0.00	
2536.91	34.35	133.00	2402.17	-454.30	487.18	1.50	133.00	-486.63	
7140.90	34.35	133.00	6203.26	-2225.99	2387.08	0.00	0.00	-2384.36	
8569.39	89.93	269.93	7120.00	-2654.01	1735.87	8.00	131.48	-1732.63	
19754.82	89.93	269.93	7133.67	-2667.67	-9449.54	0.00	0.00	9452.79	
20016.82	89.93	266.00	7133.99	-2676.98	-9711.32	1.50	-90.00	9714.59	
21560.45	89.93	266.00	7135.88	-2784.65	-11251.19	0.00	0.00	11254.59	
22266.80	89.92	276.60	7136.81	-2768.68	-11956.35	1.50	90.06	11959.73	
23112.93	89.92	276.60	7138.00	-2671.50	-12796.89	0.00	0.00	12800.14	BLUE CHIP 22-9HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
BLUE CHIP 22-9HZ_SHL	0.00	14668059.82	1673746.26	40.388034	-104.880307
BLUE CHIP 22-9HZ_LP	7114.00	14665408.16	1675485.72	40.380746	-104.874074
BLUE CHIP 22-9HZ_BHL	7138.00	14665371.00	1660953.00	40.380689	-104.926258

WELL DETAILS: BLUE CHIP 22-9HZ

GL = 5036'

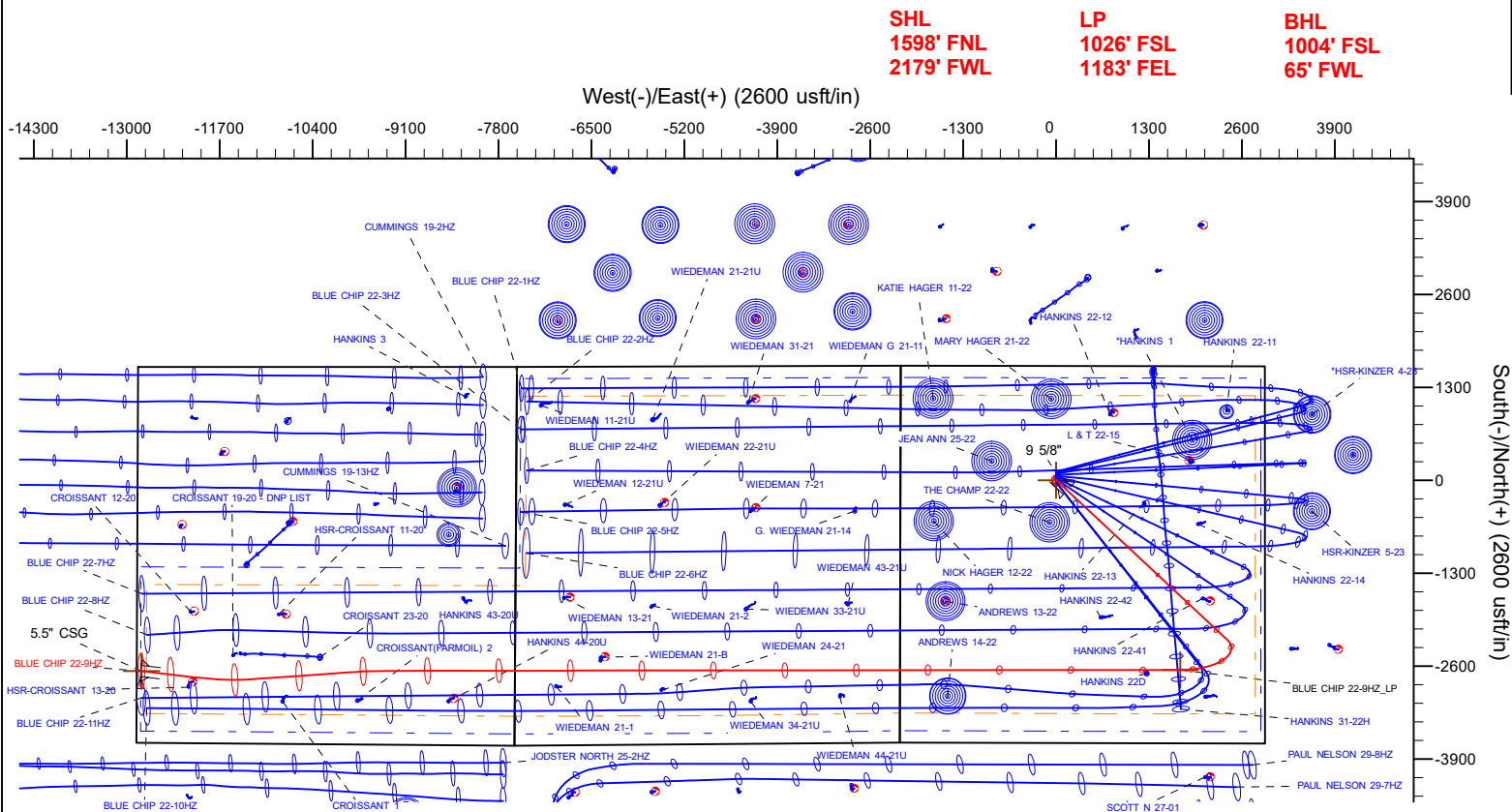
RKB = 17' @ 5053.00usft (RIG)

Plan: Permit Rev-1 (BLUE CHIP 22-9HZ/Plan A)

Date: 9/8/2022

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
919.00	922.52	Fox Hills
3670.00	4072.54	Parkman
4137.00	4638.19	Sussex
6907.00	7972.96	Sharon Springs
6930.00	8008.01	Niobrara
7071.00	8290.27	Nio B
7138.00	23112.93	Nio C



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well BLUE CHIP 22-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

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

Site		5N-67W-22 BLUE CHIP 6-22HZ PAD			
Site Position:		Northing:	14,668,179.77 usft	Latitude:	40.388364
From:	Map	Easting:	1,673,746.93 usft	Longitude:	-104.880304
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	

Well		BLUE CHIP 22-9HZ				
Well Position	+N/-S	0.00 usft	Northing:	14,668,059.82 usft	Latitude:	40.388035
	+E/-W	0.00 usft	Easting:	1,673,746.26 usft	Longitude:	-104.880307
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	5,036.00 usft
Grid Convergence:		0.08 °				

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	9/3/2022	7.78	66.58	51,805.32000241

Design	Permit Rev-1				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	269.93	

Plan Survey Tool Program	Date	9/5/2022			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
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	23,112.93	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I Fixed:v2:Rockies, crustal dec +	

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Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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	
246.91	0.00	0.00	246.91	0.00	0.00	0.00	0.00	0.00	0.00	
2,536.91	34.35	133.00	2,402.17	-454.30	487.18	1.50	1.50	0.00	133.00	
7,140.90	34.35	133.00	6,203.26	-2,225.99	2,387.08	0.00	0.00	0.00	0.00	
8,569.39	89.93	269.93	7,120.00	-2,654.01	1,735.87	8.00	3.89	9.59	131.48	
19,754.82	89.93	269.93	7,133.67	-2,667.67	-9,449.54	0.00	0.00	0.00	0.00	
20,016.82	89.93	266.00	7,133.99	-2,676.98	-9,711.32	1.50	0.00	-1.50	-90.00	
21,560.45	89.93	266.00	7,135.88	-2,784.65	-11,251.19	0.00	0.00	0.00	0.00	
22,266.80	89.92	276.60	7,136.81	-2,768.68	-11,956.35	1.50	0.00	1.50	90.06	
23,112.93	89.92	276.60	7,138.00	-2,671.50	-12,796.89	0.00	0.00	0.00	0.00	BLUE CHIP 22-9HZ_I

Planning Report

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Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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
246.91	0.00	0.00	246.91	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 246.91ft									
300.00	0.80	133.00	300.00	-0.25	0.27	-0.27	1.50	1.50	0.00
400.00	2.30	133.00	399.96	-2.09	2.24	-2.24	1.50	1.50	0.00
500.00	3.80	133.00	499.81	-5.72	6.13	-6.12	1.50	1.50	0.00
600.00	5.30	133.00	599.50	-11.12	11.93	-11.91	1.50	1.50	0.00
700.00	6.80	133.00	698.94	-18.31	19.63	-19.61	1.50	1.50	0.00
800.00	8.30	133.00	798.07	-27.26	29.23	-29.20	1.50	1.50	0.00
900.00	9.80	133.00	896.82	-37.98	40.73	-40.69	1.50	1.50	0.00
922.52	10.13	133.00	919.00	-40.64	43.58	-43.53	1.50	1.50	0.00
Fox Hills									
1,000.00	11.30	133.00	995.13	-50.47	54.12	-54.06	1.50	1.50	0.00
1,100.00	12.80	133.00	1,092.93	-64.70	69.38	-69.30	1.50	1.50	0.00
1,200.00	14.30	133.00	1,190.14	-80.67	86.51	-86.41	1.50	1.50	0.00
1,300.00	15.80	133.00	1,286.71	-98.38	105.50	-105.38	1.50	1.50	0.00
1,400.00	17.30	133.00	1,382.57	-117.80	126.33	-126.18	1.50	1.50	0.00
1,500.00	18.80	133.00	1,477.64	-138.93	148.98	-148.81	1.50	1.50	0.00
1,523.64	19.15	133.00	1,500.00	-144.17	154.60	-154.43	1.50	1.50	0.00
9 5/8"									
1,600.00	20.30	133.00	1,571.88	-161.74	173.45	-173.25	1.50	1.50	0.00
1,700.00	21.80	133.00	1,665.20	-186.24	199.71	-199.49	1.50	1.50	0.00
1,800.00	23.30	133.00	1,757.56	-212.38	227.75	-227.50	1.50	1.50	0.00
1,900.00	24.80	133.00	1,848.88	-240.17	257.56	-257.26	1.50	1.50	0.00
2,000.00	26.30	133.00	1,939.10	-269.58	289.09	-288.76	1.50	1.50	0.00
2,100.00	27.80	133.00	2,028.16	-300.59	322.35	-321.98	1.50	1.50	0.00
2,200.00	29.30	133.00	2,116.00	-333.18	357.30	-356.89	1.50	1.50	0.00
2,300.00	30.80	133.00	2,202.56	-367.33	393.91	-393.46	1.50	1.50	0.00
2,400.00	32.30	133.00	2,287.78	-403.01	432.18	-431.68	1.50	1.50	0.00
2,500.00	33.80	133.00	2,371.60	-440.20	472.06	-471.52	1.50	1.50	0.00
2,536.91	34.35	133.00	2,402.17	-454.30	487.18	-486.63	1.50	1.50	0.00
Hold Tangent @ 2536.91ft									
2,600.00	34.35	133.00	2,454.26	-478.58	513.22	-512.63	0.00	0.00	0.00
2,700.00	34.35	133.00	2,536.82	-517.06	554.48	-553.85	0.00	0.00	0.00
2,800.00	34.35	133.00	2,619.38	-555.54	595.75	-595.07	0.00	0.00	0.00
2,900.00	34.35	133.00	2,701.94	-594.03	637.01	-636.29	0.00	0.00	0.00
3,000.00	34.35	133.00	2,784.50	-632.51	678.28	-677.51	0.00	0.00	0.00
3,100.00	34.35	133.00	2,867.06	-670.99	719.55	-718.73	0.00	0.00	0.00
3,200.00	34.35	133.00	2,949.63	-709.47	760.81	-759.95	0.00	0.00	0.00
3,300.00	34.35	133.00	3,032.19	-747.95	802.08	-801.17	0.00	0.00	0.00
3,400.00	34.35	133.00	3,114.75	-786.43	843.35	-842.39	0.00	0.00	0.00
3,500.00	34.35	133.00	3,197.31	-824.91	884.61	-883.60	0.00	0.00	0.00
3,600.00	34.35	133.00	3,279.87	-863.40	925.88	-924.82	0.00	0.00	0.00
3,700.00	34.35	133.00	3,362.43	-901.88	967.15	-966.04	0.00	0.00	0.00
3,800.00	34.35	133.00	3,444.99	-940.36	1,008.41	-1,007.26	0.00	0.00	0.00
3,900.00	34.35	133.00	3,527.55	-978.84	1,049.68	-1,048.48	0.00	0.00	0.00
4,000.00	34.35	133.00	3,610.11	-1,017.32	1,090.94	-1,089.70	0.00	0.00	0.00
4,072.54	34.35	133.00	3,670.00	-1,045.24	1,120.88	-1,119.60	0.00	0.00	0.00
Parkman									
4,100.00	34.35	133.00	3,692.67	-1,055.80	1,132.21	-1,130.92	0.00	0.00	0.00
4,200.00	34.35	133.00	3,775.23	-1,094.29	1,173.48	-1,172.14	0.00	0.00	0.00
4,300.00	34.35	133.00	3,857.79	-1,132.77	1,214.74	-1,213.36	0.00	0.00	0.00

Planning Report

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Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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)
4,400.00	34.35	133.00	3,940.35	-1,171.25	1,256.01	-1,254.58	0.00	0.00	0.00
4,500.00	34.35	133.00	4,022.91	-1,209.73	1,297.28	-1,295.80	0.00	0.00	0.00
4,600.00	34.35	133.00	4,105.47	-1,248.21	1,338.54	-1,337.02	0.00	0.00	0.00
4,638.19	34.35	133.00	4,137.00	-1,262.91	1,354.30	-1,352.76	0.00	0.00	0.00
Sussex									
4,700.00	34.35	133.00	4,188.03	-1,286.69	1,379.81	-1,378.24	0.00	0.00	0.00
4,800.00	34.35	133.00	4,270.60	-1,325.17	1,421.08	-1,419.46	0.00	0.00	0.00
4,900.00	34.35	133.00	4,353.16	-1,363.66	1,462.34	-1,460.68	0.00	0.00	0.00
5,000.00	34.35	133.00	4,435.72	-1,402.14	1,503.61	-1,501.89	0.00	0.00	0.00
5,100.00	34.35	133.00	4,518.28	-1,440.62	1,544.88	-1,543.11	0.00	0.00	0.00
5,200.00	34.35	133.00	4,600.84	-1,479.10	1,586.14	-1,584.33	0.00	0.00	0.00
5,300.00	34.35	133.00	4,683.40	-1,517.58	1,627.41	-1,625.55	0.00	0.00	0.00
5,400.00	34.35	133.00	4,765.96	-1,556.06	1,668.67	-1,666.77	0.00	0.00	0.00
5,500.00	34.35	133.00	4,848.52	-1,594.55	1,709.94	-1,707.99	0.00	0.00	0.00
5,600.00	34.35	133.00	4,931.08	-1,633.03	1,751.21	-1,749.21	0.00	0.00	0.00
5,700.00	34.35	133.00	5,013.64	-1,671.51	1,792.47	-1,790.43	0.00	0.00	0.00
5,800.00	34.35	133.00	5,096.20	-1,709.99	1,833.74	-1,831.65	0.00	0.00	0.00
5,900.00	34.35	133.00	5,178.76	-1,748.47	1,875.01	-1,872.87	0.00	0.00	0.00
6,000.00	34.35	133.00	5,261.32	-1,786.95	1,916.27	-1,914.09	0.00	0.00	0.00
6,100.00	34.35	133.00	5,343.88	-1,825.43	1,957.54	-1,955.31	0.00	0.00	0.00
6,200.00	34.35	133.00	5,426.44	-1,863.92	1,998.81	-1,996.53	0.00	0.00	0.00
6,300.00	34.35	133.00	5,509.00	-1,902.40	2,040.07	-2,037.75	0.00	0.00	0.00
6,400.00	34.35	133.00	5,591.57	-1,940.88	2,081.34	-2,078.97	0.00	0.00	0.00
6,500.00	34.35	133.00	5,674.13	-1,979.36	2,122.60	-2,120.19	0.00	0.00	0.00
6,600.00	34.35	133.00	5,756.69	-2,017.84	2,163.87	-2,161.40	0.00	0.00	0.00
6,700.00	34.35	133.00	5,839.25	-2,056.32	2,205.14	-2,202.62	0.00	0.00	0.00
6,800.00	34.35	133.00	5,921.81	-2,094.81	2,246.40	-2,243.84	0.00	0.00	0.00
6,900.00	34.35	133.00	6,004.37	-2,133.29	2,287.67	-2,285.06	0.00	0.00	0.00
7,000.00	34.35	133.00	6,086.93	-2,171.77	2,328.94	-2,326.28	0.00	0.00	0.00
7,100.00	34.35	133.00	6,169.49	-2,210.25	2,370.20	-2,367.50	0.00	0.00	0.00
7,140.90	34.35	133.00	6,203.26	-2,225.99	2,387.08	-2,384.36	0.00	0.00	0.00
KOP @ 7140.90ft :: DLS = 8°/100'									
7,150.00	33.87	133.98	6,210.79	-2,229.50	2,390.78	-2,388.06	8.00	-5.26	10.75
7,200.00	31.39	139.81	6,252.91	-2,249.13	2,409.22	-2,406.47	8.00	-4.95	11.66
7,250.00	29.22	146.47	6,296.08	-2,269.26	2,424.37	-2,421.60	8.00	-4.35	13.32
7,300.00	27.42	154.00	6,340.11	-2,289.79	2,436.17	-2,433.37	8.00	-3.60	15.08
7,350.00	26.07	162.38	6,384.78	-2,310.62	2,444.54	-2,441.72	8.00	-2.69	16.76
7,400.00	25.25	171.43	6,429.86	-2,331.64	2,449.46	-2,446.61	8.00	-1.64	18.10
7,450.00	25.01	180.84	6,475.15	-2,352.76	2,450.89	-2,448.02	8.00	-0.49	18.82
7,500.00	25.36	190.21	6,520.41	-2,373.88	2,448.84	-2,445.94	8.00	0.70	18.74
7,550.00	26.28	199.16	6,565.44	-2,394.88	2,443.30	-2,440.38	8.00	1.85	17.89
7,600.00	27.72	207.39	6,610.00	-2,415.67	2,434.32	-2,431.36	8.00	2.87	16.46
7,650.00	29.60	214.76	6,653.89	-2,436.15	2,421.92	-2,418.95	8.00	3.75	14.75
7,700.00	31.83	221.26	6,696.88	-2,456.22	2,406.18	-2,403.18	8.00	4.47	13.00
7,750.00	34.36	226.95	6,738.78	-2,475.77	2,387.17	-2,384.14	8.00	5.05	11.37
7,800.00	37.12	231.91	6,779.37	-2,494.72	2,364.97	-2,361.92	8.00	5.51	9.93
7,850.00	40.05	236.27	6,818.45	-2,512.96	2,339.71	-2,336.64	8.00	5.88	8.71
7,900.00	43.14	240.11	6,855.85	-2,530.42	2,311.50	-2,308.41	8.00	6.16	7.68
7,950.00	46.33	243.53	6,891.37	-2,547.01	2,280.48	-2,277.37	8.00	6.39	6.84
7,972.96	47.83	244.98	6,907.00	-2,554.31	2,265.33	-2,262.21	8.00	6.53	6.31
Sharon Springs									
8,000.00	49.62	246.59	6,924.84	-2,562.64	2,246.80	-2,243.67	8.00	6.61	5.99
8,008.02	50.16	247.06	6,930.00	-2,565.06	2,241.16	-2,238.03	8.00	6.67	5.78

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well BLUE CHIP 22-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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)
Niobrara									
8,050.00	52.98	249.37	6,956.10	-2,577.25	2,210.63	-2,207.47	8.00	6.73	5.51
8,100.00	56.41	251.91	6,984.99	-2,590.75	2,172.13	-2,168.97	8.00	6.84	5.08
8,150.00	59.87	254.26	7,011.38	-2,603.09	2,131.51	-2,128.33	8.00	6.94	4.69
8,200.00	63.38	256.44	7,035.14	-2,614.20	2,088.95	-2,085.75	8.00	7.02	4.37
8,250.00	66.92	258.50	7,056.15	-2,624.02	2,044.67	-2,041.46	8.00	7.08	4.11
8,290.27	69.79	260.08	7,071.00	-2,630.97	2,007.90	-2,004.68	8.00	7.12	3.92
Nio B									
8,300.00	70.49	260.45	7,074.31	-2,632.52	1,998.87	-1,995.66	8.00	7.15	3.82
8,350.00	74.07	262.31	7,089.53	-2,639.65	1,951.79	-1,948.57	8.00	7.17	3.73
8,400.00	77.67	264.11	7,101.73	-2,645.38	1,903.66	-1,900.42	8.00	7.20	3.60
8,450.00	81.28	265.86	7,110.86	-2,649.67	1,854.69	-1,851.46	8.00	7.22	3.50
8,500.00	84.90	267.58	7,116.88	-2,652.50	1,805.15	-1,801.91	8.00	7.24	3.43
8,550.00	88.52	269.27	7,119.74	-2,653.87	1,755.26	-1,752.02	8.00	7.25	3.39
8,569.39	89.93	269.93	7,120.00	-2,654.01	1,735.87	-1,732.63	8.00	7.25	3.38
End Build @ 8569.39ft									
8,600.00	89.93	269.93	7,120.04	-2,654.05	1,705.26	-1,702.02	0.00	0.00	0.00
8,700.00	89.93	269.93	7,120.16	-2,654.17	1,605.26	-1,602.02	0.00	0.00	0.00
8,800.00	89.93	269.93	7,120.29	-2,654.29	1,505.26	-1,502.02	0.00	0.00	0.00
8,900.00	89.93	269.93	7,120.41	-2,654.41	1,405.26	-1,402.02	0.00	0.00	0.00
9,000.00	89.93	269.93	7,120.53	-2,654.54	1,305.26	-1,302.02	0.00	0.00	0.00
9,100.00	89.93	269.93	7,120.65	-2,654.66	1,205.26	-1,202.02	0.00	0.00	0.00
9,200.00	89.93	269.93	7,120.78	-2,654.78	1,105.26	-1,102.02	0.00	0.00	0.00
9,300.00	89.93	269.93	7,120.90	-2,654.90	1,005.26	-1,002.02	0.00	0.00	0.00
9,400.00	89.93	269.93	7,121.02	-2,655.02	905.26	-902.02	0.00	0.00	0.00
9,500.00	89.93	269.93	7,121.14	-2,655.15	805.26	-802.02	0.00	0.00	0.00
9,600.00	89.93	269.93	7,121.26	-2,655.27	705.26	-702.02	0.00	0.00	0.00
9,700.00	89.93	269.93	7,121.39	-2,655.39	605.26	-602.02	0.00	0.00	0.00
9,800.00	89.93	269.93	7,121.51	-2,655.51	505.26	-502.02	0.00	0.00	0.00
9,900.00	89.93	269.93	7,121.63	-2,655.63	405.26	-402.02	0.00	0.00	0.00
10,000.00	89.93	269.93	7,121.75	-2,655.76	305.26	-302.02	0.00	0.00	0.00
10,100.00	89.93	269.93	7,121.87	-2,655.88	205.27	-202.02	0.00	0.00	0.00
10,200.00	89.93	269.93	7,122.00	-2,656.00	105.27	-102.02	0.00	0.00	0.00
10,300.00	89.93	269.93	7,122.12	-2,656.12	5.27	-2.02	0.00	0.00	0.00
10,400.00	89.93	269.93	7,122.24	-2,656.25	-94.73	97.98	0.00	0.00	0.00
10,500.00	89.93	269.93	7,122.36	-2,656.37	-194.73	197.98	0.00	0.00	0.00
10,600.00	89.93	269.93	7,122.49	-2,656.49	-294.73	297.98	0.00	0.00	0.00
10,700.00	89.93	269.93	7,122.61	-2,656.61	-394.73	397.98	0.00	0.00	0.00
10,800.00	89.93	269.93	7,122.73	-2,656.73	-494.73	497.98	0.00	0.00	0.00
10,900.00	89.93	269.93	7,122.85	-2,656.86	-594.73	597.98	0.00	0.00	0.00
11,000.00	89.93	269.93	7,122.97	-2,656.98	-694.73	697.98	0.00	0.00	0.00
11,100.00	89.93	269.93	7,123.10	-2,657.10	-794.73	797.98	0.00	0.00	0.00
11,200.00	89.93	269.93	7,123.22	-2,657.22	-894.73	897.98	0.00	0.00	0.00
11,300.00	89.93	269.93	7,123.34	-2,657.35	-994.73	997.98	0.00	0.00	0.00
11,400.00	89.93	269.93	7,123.46	-2,657.47	-1,094.73	1,097.98	0.00	0.00	0.00
11,500.00	89.93	269.93	7,123.59	-2,657.59	-1,194.73	1,197.98	0.00	0.00	0.00
11,600.00	89.93	269.93	7,123.71	-2,657.71	-1,294.73	1,297.98	0.00	0.00	0.00
11,700.00	89.93	269.93	7,123.83	-2,657.83	-1,394.73	1,397.98	0.00	0.00	0.00
11,800.00	89.93	269.93	7,123.95	-2,657.96	-1,494.73	1,497.98	0.00	0.00	0.00
11,900.00	89.93	269.93	7,124.07	-2,658.08	-1,594.73	1,597.98	0.00	0.00	0.00
12,000.00	89.93	269.93	7,124.20	-2,658.20	-1,694.73	1,697.98	0.00	0.00	0.00
12,100.00	89.93	269.93	7,124.32	-2,658.32	-1,794.73	1,797.98	0.00	0.00	0.00
12,200.00	89.93	269.93	7,124.44	-2,658.44	-1,894.73	1,897.98	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well BLUE CHIP 22-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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)
12,300.00	89.93	269.93	7,124.56	-2,658.57	-1,994.73	1,997.98	0.00	0.00	0.00
12,400.00	89.93	269.93	7,124.68	-2,658.69	-2,094.73	2,097.98	0.00	0.00	0.00
12,500.00	89.93	269.93	7,124.81	-2,658.81	-2,194.73	2,197.98	0.00	0.00	0.00
12,600.00	89.93	269.93	7,124.93	-2,658.93	-2,294.73	2,297.98	0.00	0.00	0.00
12,700.00	89.93	269.93	7,125.05	-2,659.06	-2,394.73	2,397.98	0.00	0.00	0.00
12,800.00	89.93	269.93	7,125.17	-2,659.18	-2,494.73	2,497.98	0.00	0.00	0.00
12,900.00	89.93	269.93	7,125.30	-2,659.30	-2,594.73	2,597.98	0.00	0.00	0.00
13,000.00	89.93	269.93	7,125.42	-2,659.42	-2,694.73	2,697.98	0.00	0.00	0.00
13,100.00	89.93	269.93	7,125.54	-2,659.54	-2,794.73	2,797.98	0.00	0.00	0.00
13,200.00	89.93	269.93	7,125.66	-2,659.67	-2,894.73	2,897.98	0.00	0.00	0.00
13,300.00	89.93	269.93	7,125.78	-2,659.79	-2,994.73	2,997.98	0.00	0.00	0.00
13,400.00	89.93	269.93	7,125.91	-2,659.91	-3,094.73	3,097.98	0.00	0.00	0.00
13,500.00	89.93	269.93	7,126.03	-2,660.03	-3,194.73	3,197.98	0.00	0.00	0.00
13,600.00	89.93	269.93	7,126.15	-2,660.16	-3,294.73	3,297.98	0.00	0.00	0.00
13,700.00	89.93	269.93	7,126.27	-2,660.28	-3,394.73	3,397.98	0.00	0.00	0.00
13,800.00	89.93	269.93	7,126.40	-2,660.40	-3,494.73	3,497.98	0.00	0.00	0.00
13,900.00	89.93	269.93	7,126.52	-2,660.52	-3,594.73	3,597.98	0.00	0.00	0.00
14,000.00	89.93	269.93	7,126.64	-2,660.64	-3,694.73	3,697.98	0.00	0.00	0.00
14,100.00	89.93	269.93	7,126.76	-2,660.77	-3,794.73	3,797.98	0.00	0.00	0.00
14,200.00	89.93	269.93	7,126.88	-2,660.89	-3,894.73	3,897.98	0.00	0.00	0.00
14,300.00	89.93	269.93	7,127.01	-2,661.01	-3,994.73	3,997.98	0.00	0.00	0.00
14,400.00	89.93	269.93	7,127.13	-2,661.13	-4,094.73	4,097.98	0.00	0.00	0.00
14,500.00	89.93	269.93	7,127.25	-2,661.25	-4,194.73	4,197.98	0.00	0.00	0.00
14,600.00	89.93	269.93	7,127.37	-2,661.38	-4,294.73	4,297.98	0.00	0.00	0.00
14,700.00	89.93	269.93	7,127.49	-2,661.50	-4,394.73	4,397.98	0.00	0.00	0.00
14,800.00	89.93	269.93	7,127.62	-2,661.62	-4,494.73	4,497.98	0.00	0.00	0.00
14,900.00	89.93	269.93	7,127.74	-2,661.74	-4,594.73	4,597.98	0.00	0.00	0.00
15,000.00	89.93	269.93	7,127.86	-2,661.87	-4,694.73	4,697.98	0.00	0.00	0.00
15,100.00	89.93	269.93	7,127.98	-2,661.99	-4,794.73	4,797.98	0.00	0.00	0.00
15,200.00	89.93	269.93	7,128.11	-2,662.11	-4,894.73	4,897.98	0.00	0.00	0.00
15,300.00	89.93	269.93	7,128.23	-2,662.23	-4,994.73	4,997.98	0.00	0.00	0.00
15,400.00	89.93	269.93	7,128.35	-2,662.35	-5,094.73	5,097.98	0.00	0.00	0.00
15,500.00	89.93	269.93	7,128.47	-2,662.48	-5,194.73	5,197.98	0.00	0.00	0.00
15,600.00	89.93	269.93	7,128.59	-2,662.60	-5,294.73	5,297.98	0.00	0.00	0.00
15,700.00	89.93	269.93	7,128.72	-2,662.72	-5,394.73	5,397.98	0.00	0.00	0.00
15,800.00	89.93	269.93	7,128.84	-2,662.84	-5,494.73	5,497.98	0.00	0.00	0.00
15,900.00	89.93	269.93	7,128.96	-2,662.97	-5,594.73	5,597.98	0.00	0.00	0.00
16,000.00	89.93	269.93	7,129.08	-2,663.09	-5,694.73	5,697.98	0.00	0.00	0.00
16,100.00	89.93	269.93	7,129.21	-2,663.21	-5,794.73	5,797.98	0.00	0.00	0.00
16,200.00	89.93	269.93	7,129.33	-2,663.33	-5,894.73	5,897.98	0.00	0.00	0.00
16,300.00	89.93	269.93	7,129.45	-2,663.45	-5,994.73	5,997.98	0.00	0.00	0.00
16,400.00	89.93	269.93	7,129.57	-2,663.58	-6,094.73	6,097.98	0.00	0.00	0.00
16,500.00	89.93	269.93	7,129.69	-2,663.70	-6,194.73	6,197.98	0.00	0.00	0.00
16,600.00	89.93	269.93	7,129.82	-2,663.82	-6,294.73	6,297.98	0.00	0.00	0.00
16,700.00	89.93	269.93	7,129.94	-2,663.94	-6,394.73	6,397.98	0.00	0.00	0.00
16,800.00	89.93	269.93	7,130.06	-2,664.06	-6,494.73	6,497.97	0.00	0.00	0.00
16,900.00	89.93	269.93	7,130.18	-2,664.19	-6,594.72	6,597.97	0.00	0.00	0.00
17,000.00	89.93	269.93	7,130.30	-2,664.31	-6,694.72	6,697.97	0.00	0.00	0.00
17,100.00	89.93	269.93	7,130.43	-2,664.43	-6,794.72	6,797.97	0.00	0.00	0.00
17,200.00	89.93	269.93	7,130.55	-2,664.55	-6,894.72	6,897.97	0.00	0.00	0.00
17,300.00	89.93	269.93	7,130.67	-2,664.68	-6,994.72	6,997.97	0.00	0.00	0.00
17,400.00	89.93	269.93	7,130.79	-2,664.80	-7,094.72	7,097.97	0.00	0.00	0.00
17,500.00	89.93	269.93	7,130.92	-2,664.92	-7,194.72	7,197.97	0.00	0.00	0.00
17,600.00	89.93	269.93	7,131.04	-2,665.04	-7,294.72	7,297.97	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well BLUE CHIP 22-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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)
17,700.00	89.93	269.93	7,131.16	-2,665.16	-7,394.72	7,397.97	0.00	0.00	0.00
17,800.00	89.93	269.93	7,131.28	-2,665.29	-7,494.72	7,497.97	0.00	0.00	0.00
17,900.00	89.93	269.93	7,131.40	-2,665.41	-7,594.72	7,597.97	0.00	0.00	0.00
18,000.00	89.93	269.93	7,131.53	-2,665.53	-7,694.72	7,697.97	0.00	0.00	0.00
18,100.00	89.93	269.93	7,131.65	-2,665.65	-7,794.72	7,797.97	0.00	0.00	0.00
18,200.00	89.93	269.93	7,131.77	-2,665.78	-7,894.72	7,897.97	0.00	0.00	0.00
18,300.00	89.93	269.93	7,131.89	-2,665.90	-7,994.72	7,997.97	0.00	0.00	0.00
18,400.00	89.93	269.93	7,132.02	-2,666.02	-8,094.72	8,097.97	0.00	0.00	0.00
18,500.00	89.93	269.93	7,132.14	-2,666.14	-8,194.72	8,197.97	0.00	0.00	0.00
18,600.00	89.93	269.93	7,132.26	-2,666.26	-8,294.72	8,297.97	0.00	0.00	0.00
18,700.00	89.93	269.93	7,132.38	-2,666.39	-8,394.72	8,397.97	0.00	0.00	0.00
18,800.00	89.93	269.93	7,132.50	-2,666.51	-8,494.72	8,497.97	0.00	0.00	0.00
18,900.00	89.93	269.93	7,132.63	-2,666.63	-8,594.72	8,597.97	0.00	0.00	0.00
19,000.00	89.93	269.93	7,132.75	-2,666.75	-8,694.72	8,697.97	0.00	0.00	0.00
19,100.00	89.93	269.93	7,132.87	-2,666.87	-8,794.72	8,797.97	0.00	0.00	0.00
19,200.00	89.93	269.93	7,132.99	-2,667.00	-8,894.72	8,897.97	0.00	0.00	0.00
19,300.00	89.93	269.93	7,133.11	-2,667.12	-8,994.72	8,997.97	0.00	0.00	0.00
19,400.00	89.93	269.93	7,133.24	-2,667.24	-9,094.72	9,097.97	0.00	0.00	0.00
19,500.00	89.93	269.93	7,133.36	-2,667.36	-9,194.72	9,197.97	0.00	0.00	0.00
19,600.00	89.93	269.93	7,133.48	-2,667.49	-9,294.72	9,297.97	0.00	0.00	0.00
19,700.00	89.93	269.93	7,133.60	-2,667.61	-9,394.72	9,397.97	0.00	0.00	0.00
19,754.82	89.93	269.93	7,133.67	-2,667.67	-9,449.54	9,452.79	0.00	0.00	0.00
Begin Turn for AC @ 19754.82ft									
19,800.00	89.93	269.25	7,133.73	-2,668.00	-9,494.72	9,497.97	1.50	0.00	-1.50
19,900.00	89.93	267.75	7,133.85	-2,670.61	-9,594.68	9,597.94	1.50	0.00	-1.50
20,000.00	89.93	266.25	7,133.97	-2,675.84	-9,694.54	9,697.80	1.50	0.00	-1.50
20,016.82	89.93	266.00	7,133.99	-2,676.98	-9,711.32	9,714.59	1.50	0.00	-1.50
End Turn @ 20016.82ft									
20,100.00	89.93	266.00	7,134.09	-2,682.78	-9,794.30	9,797.57	0.00	0.00	0.00
20,200.00	89.93	266.00	7,134.21	-2,689.75	-9,894.06	9,897.34	0.00	0.00	0.00
20,300.00	89.93	266.00	7,134.34	-2,696.73	-9,993.81	9,997.10	0.00	0.00	0.00
20,400.00	89.93	266.00	7,134.46	-2,703.71	-10,093.57	10,096.87	0.00	0.00	0.00
20,500.00	89.93	266.00	7,134.58	-2,710.68	-10,193.33	10,196.63	0.00	0.00	0.00
20,600.00	89.93	266.00	7,134.70	-2,717.66	-10,293.08	10,296.40	0.00	0.00	0.00
20,700.00	89.93	266.00	7,134.83	-2,724.63	-10,392.84	10,396.16	0.00	0.00	0.00
20,800.00	89.93	266.00	7,134.95	-2,731.61	-10,492.60	10,495.93	0.00	0.00	0.00
20,900.00	89.93	266.00	7,135.07	-2,738.58	-10,592.35	10,595.69	0.00	0.00	0.00
21,000.00	89.93	266.00	7,135.19	-2,745.56	-10,692.11	10,695.45	0.00	0.00	0.00
21,100.00	89.93	266.00	7,135.31	-2,752.54	-10,791.86	10,795.22	0.00	0.00	0.00
21,200.00	89.93	266.00	7,135.44	-2,759.51	-10,891.62	10,894.98	0.00	0.00	0.00
21,300.00	89.93	266.00	7,135.56	-2,766.49	-10,991.38	10,994.75	0.00	0.00	0.00
21,400.00	89.93	266.00	7,135.68	-2,773.46	-11,091.13	11,094.51	0.00	0.00	0.00
21,500.00	89.93	266.00	7,135.80	-2,780.44	-11,190.89	11,194.28	0.00	0.00	0.00
21,560.45	89.93	266.00	7,135.88	-2,784.65	-11,251.19	11,254.59	0.00	0.00	0.00
Begin Turn to BHL @ 21560.45ft									
21,600.00	89.93	266.59	7,135.93	-2,787.21	-11,290.66	11,294.06	1.50	0.00	1.50
21,700.00	89.93	268.09	7,136.05	-2,791.84	-11,390.55	11,393.95	1.50	0.00	1.50
21,800.00	89.93	269.59	7,136.18	-2,793.86	-11,490.53	11,493.93	1.50	0.00	1.50
21,900.00	89.92	271.09	7,136.31	-2,793.26	-11,590.52	11,593.93	1.50	0.00	1.50
22,000.00	89.92	272.59	7,136.44	-2,790.05	-11,690.47	11,693.87	1.50	0.00	1.50
22,100.00	89.92	274.09	7,136.58	-2,784.22	-11,790.29	11,793.69	1.50	0.00	1.50
22,200.00	89.92	275.59	7,136.71	-2,775.77	-11,889.93	11,893.32	1.50	0.00	1.50
22,266.80	89.92	276.60	7,136.81	-2,768.68	-11,956.35	11,959.73	1.50	0.00	1.50

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well BLUE CHIP 22-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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)
End Turn @ 22266.80ft									
22,300.00	89.92	276.60	7,136.86	-2,764.87	-11,989.34	11,992.70	0.00	0.00	0.00
22,400.00	89.92	276.60	7,137.00	-2,753.38	-12,088.67	12,092.03	0.00	0.00	0.00
22,500.00	89.92	276.60	7,137.14	-2,741.90	-12,188.01	12,191.35	0.00	0.00	0.00
22,600.00	89.92	276.60	7,137.28	-2,730.41	-12,287.35	12,290.68	0.00	0.00	0.00
22,700.00	89.92	276.60	7,137.42	-2,718.93	-12,386.69	12,390.00	0.00	0.00	0.00
22,800.00	89.92	276.60	7,137.56	-2,707.44	-12,486.03	12,489.32	0.00	0.00	0.00
22,900.00	89.92	276.60	7,137.70	-2,695.96	-12,585.36	12,588.65	0.00	0.00	0.00
23,000.00	89.92	276.60	7,137.84	-2,684.47	-12,684.70	12,687.97	0.00	0.00	0.00
23,100.00	89.92	276.60	7,137.98	-2,672.98	-12,784.04	12,787.30	0.00	0.00	0.00
23,112.93	89.92	276.60	7,138.00	-2,671.50	-12,796.88	12,800.14	0.00	0.00	0.00
TD Well @ 23112.93ft - Nio C - 5.5" CSG									

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,523.64	1,500.00	9 5/8"	9-5/8	13-1/2
23,112.93	7,138.00	5.5" CSG	5-1/2	7-7/8

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
922.52	919.00	Fox Hills			
4,072.54	3,670.00	Parkman			
4,638.19	4,137.00	Sussex			
7,972.96	6,907.00	Sharon Springs			
8,008.02	6,930.00	Niobrara			
8,290.27	7,071.00	Nio B			
23,112.93	7,138.00	Nio C			

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
246.91	246.91	0.00	0.00	Begin Nudge @ 246.91ft
2,536.91	2,402.17	-454.30	487.18	Hold Tangent @ 2536.91ft
7,140.90	6,203.26	-2,225.99	2,387.08	KOP @ 7140.90ft :: DLS = 8°/100'
8,569.39	7,120.00	-2,654.01	1,735.87	End Build @ 8569.39ft
19,754.82	7,133.67	-2,667.67	-9,449.54	Begin Turn for AC @ 19754.82ft
20,016.82	7,133.99	-2,676.98	-9,711.32	End Turn @ 20016.82ft
21,560.45	7,135.88	-2,784.65	-11,251.19	Begin Turn to BHL @ 21560.45ft
22,266.80	7,136.81	-2,768.68	-11,956.35	End Turn @ 22266.80ft
23,112.93	7,138.00	-2,671.50	-12,796.89	TD Well @ 23112.93ft