

US ROCKIES WATTENBERG PLANNING

**WELD-NAD83-UTMFT13N
3N-63W-22 EAST STREET 14-22HZ PAD
EAST STREET 22-10HZ**

Plan A

Plan: Permit Rev-1

Standard Planning Report

15 March, 2023

Project: WELD-NAD83-UTMFT13N

Site: 3N-63W-22 EAST STREET 14-22HZ PAD

Well: EAST STREET 22-10HZ

Wellbore: Plan A

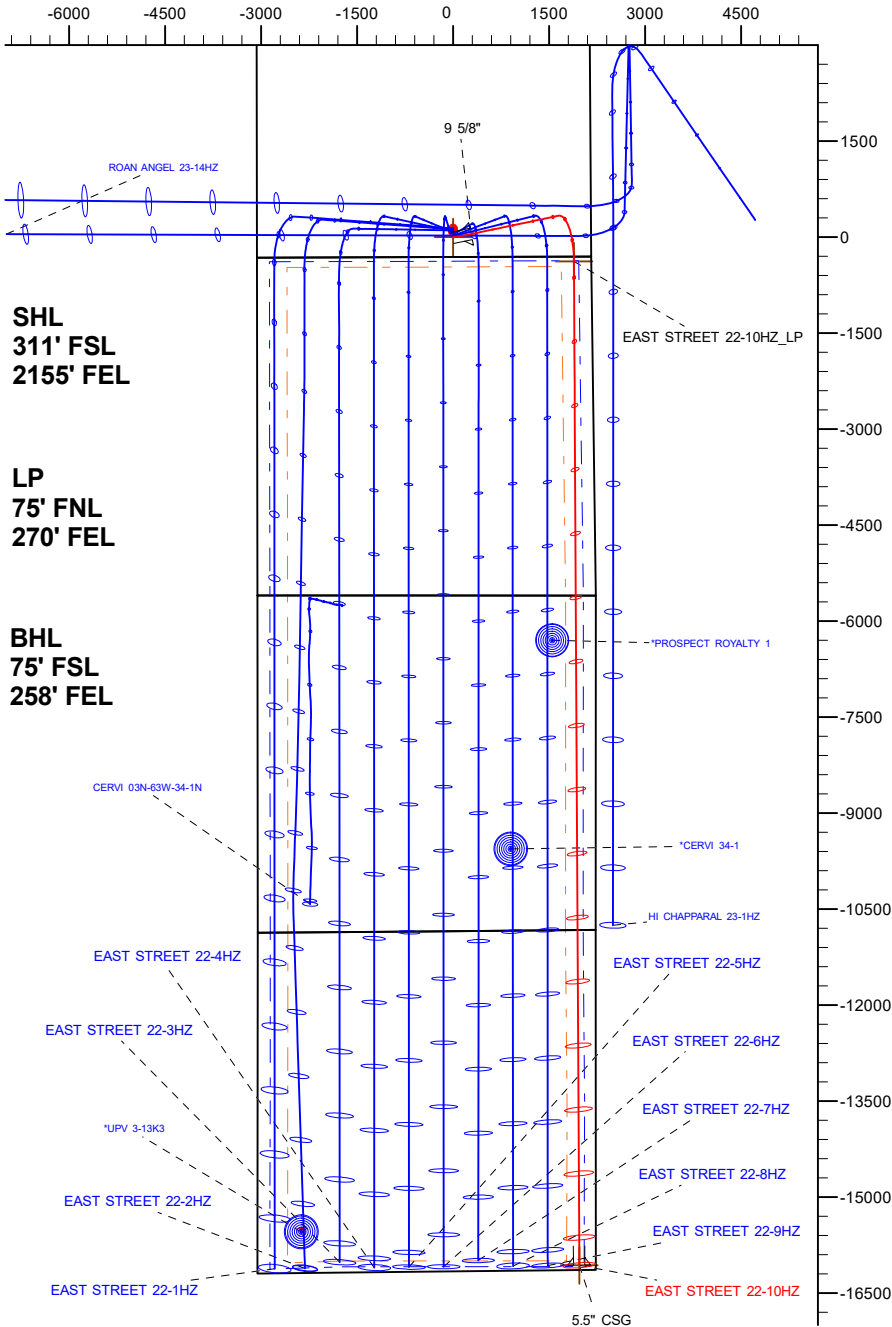
Design: Permit Rev-1

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

TVD	MD	Name	Size
1680.00	1715.66	9 5/8"	9-5/8
6541.00	22932.48	5.5" CSG	5-1/2

West(-)/East(+) (3000 usft/in)



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	201.80	0.00	0.00	201.80	0.00	0.00	0.00	0.00	0.00	
3	535.13	5.00	90.00	534.71	0.00	14.54	1.50	90.00	0.08	
4	1454.02	18.64	78.16	1432.08	30.28	199.19	1.50	-15.98	-29.20	
5	6076.93	18.64	78.16	5812.50	333.45	1645.34	0.00	0.00	-324.54	
6	7247.52	89.98	179.69	6536.00	-379.78	1888.19	8.00	100.95	389.99	
7	22932.48	89.98	179.69	6541.00	-16064.52	1972.08	0.00	0.00	16074.95	EAST STREET 22-10HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
EAST STREET 22-10HZ_SHL	0.00	14601722.34	1801755.37	40.204488	-104.422169
EAST STREET 22-10HZ_LP	6536.00	14601354.86	1803645.99	40.203445	-104.415407
EAST STREET 22-10HZ_BHL	6541.00	14585671.00	1803832.00	40.160374	-104.415111

WELL DETAILS: EAST STREET 22-10HZ

GL = 4748'

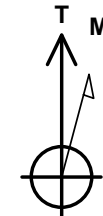
RKB = 17' @ 4765.00usft (RIG)

Plan: Permit Rev-1 (EAST STREET 22-10HZ/Plan A)

Date: 3/16/2023

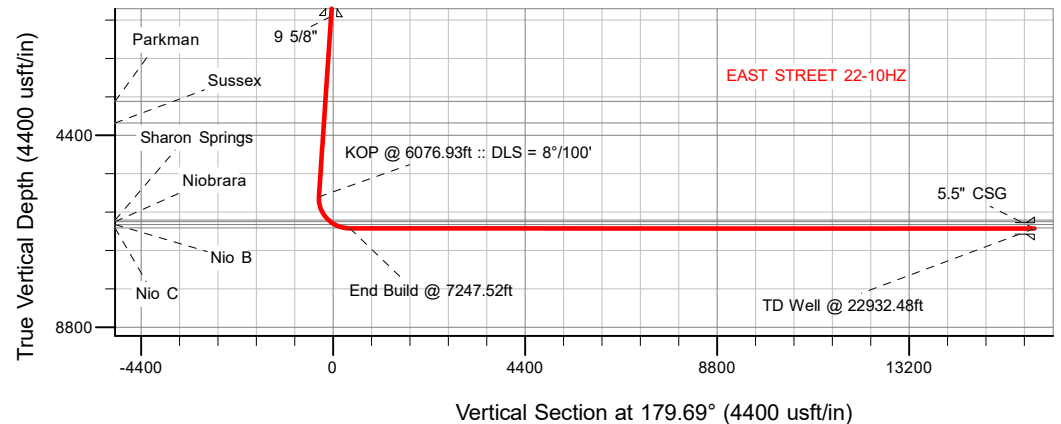
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1073.00	1080.60	Fox Hills
3627.00	3770.45	Parkman
4121.00	4291.79	Sussex
6345.00	6697.53	Sharon Springs
6380.00	6752.85	Niobrara
6446.00	6875.09	Nio B
6525.00	7118.75	Nio C



Azimuths to True North
Magnetic North: 7.47°

Magnetic Field
Strength: 51702.9nT
Dip Angle: 66.47°
Date: 3/15/2023
Model: IGRF2020



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well EAST STREET 22-10HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4765.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4765.00usft (RIG)
Site:	3N-63W-22 EAST STREET 14-22HZ PAD	North Reference:	True
Well:	EAST STREET 22-10HZ	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 3N-63W-22 EAST STREET 14-22HZ PAD			
Site Position:		Northing:	14,601,857.42 usft
From:	Lat/Long	Easting:	1,801,756.02 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	40.204859
		Longitude:	-104.422164

Well EAST STREET 22-10HZ			
Well Position	+N/-S	0.00 usft	Northing: 14,601,722.34 usft
	+E/-W	0.00 usft	Easting: 1,801,755.37 usft
Position Uncertainty		3.28 usft	Wellhead Elevation: usft
Grid Convergence:		0.37 °	Ground Level: 4,748.00 usft

Wellbore Plan A					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	3/15/2023	7.47	66.47	51,702.85996314

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	179.69

Plan Survey Tool Program		Date	3/15/2023		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	1,680.00 Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I	Fixed:v2:crustal field declinatio	
2	1,680.00	22,932.48 Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I	Fixed:v2:crustal field declinatio	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well EAST STREET 22-10HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4765.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4765.00usft (RIG)
Site:	3N-63W-22 EAST STREET 14-22HZ PAD	North Reference:	True
Well:	EAST STREET 22-10HZ	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	
201.80	0.00	0.00	201.80	0.00	0.00	0.00	0.00	0.00	0.00	
535.13	5.00	90.00	534.71	0.00	14.54	1.50	1.50	0.00	90.00	
1,454.02	18.64	78.16	1,432.08	30.28	199.19	1.50	1.48	-1.29	-15.98	
6,076.93	18.64	78.16	5,812.50	333.45	1,645.34	0.00	0.00	0.00	0.00	
7,247.52	89.98	179.69	6,536.00	-379.78	1,888.19	8.00	6.09	8.67	100.95	
22,932.48	89.98	179.69	6,541.00	-16,064.52	1,972.08	0.00	0.00	0.00	0.00	EAST STREET 22-10

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well EAST STREET 22-10HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4765.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4765.00usft (RIG)
Site:	3N-63W-22 EAST STREET 14-22HZ PAD	North Reference:	True
Well:	EAST STREET 22-10HZ	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	
201.80	0.00	0.00	201.80	0.00	0.00	0.00	0.00	0.00	0.00	
Begin Nudge @ 201.80ft										
300.00	1.47	90.00	299.99	0.00	1.26	0.01	1.50	1.50	0.00	
400.00	2.97	90.00	399.91	0.00	5.14	0.03	1.50	1.50	0.00	
500.00	4.47	90.00	499.70	0.00	11.63	0.06	1.50	1.50	0.00	
535.13	5.00	90.00	534.71	0.00	14.54	0.08	1.50	1.50	0.00	
Change Tangent Direction @ 535.13ft										
600.00	5.94	87.41	599.28	0.15	20.72	-0.04	1.50	1.45	-3.99	
700.00	7.41	84.72	698.60	0.98	32.31	-0.80	1.50	1.47	-2.70	
800.00	8.89	82.91	797.59	2.53	46.39	-2.28	1.50	1.48	-1.81	
900.00	10.37	81.61	896.18	4.79	62.96	-4.45	1.50	1.48	-1.29	
1,000.00	11.86	80.64	994.30	7.78	82.01	-7.33	1.50	1.49	-0.97	
1,080.60	13.06	80.02	1,073.00	10.70	99.15	-10.17	1.50	1.49	-0.77	
Fox Hills										
1,100.00	13.35	79.88	1,091.89	11.48	103.52	-10.92	1.50	1.49	-0.69	
1,200.00	14.84	79.28	1,188.87	15.89	127.47	-15.20	1.50	1.49	-0.61	
1,300.00	16.34	78.78	1,285.19	21.01	153.85	-20.18	1.50	1.49	-0.50	
1,400.00	17.83	78.36	1,380.77	26.84	182.64	-25.85	1.50	1.49	-0.42	
1,454.02	18.64	78.16	1,432.08	30.28	199.19	-29.20	1.50	1.50	-0.37	
Hold Tangent @ 1454.02ft										
1,500.00	18.64	78.16	1,475.65	33.29	213.58	-32.14	0.00	0.00	0.00	
1,600.00	18.64	78.16	1,570.40	39.85	244.86	-38.52	0.00	0.00	0.00	
1,700.00	18.64	78.16	1,665.16	46.41	276.14	-44.91	0.00	0.00	0.00	
1,715.66	18.64	78.16	1,680.00	47.43	281.04	-45.91	0.00	0.00	0.00	
9 5/8"										
1,800.00	18.64	78.16	1,759.91	52.97	307.42	-51.30	0.00	0.00	0.00	
1,900.00	18.64	78.16	1,854.67	59.52	338.71	-57.69	0.00	0.00	0.00	
2,000.00	18.64	78.16	1,949.42	66.08	369.99	-64.08	0.00	0.00	0.00	
2,100.00	18.64	78.16	2,044.18	72.64	401.27	-70.47	0.00	0.00	0.00	
2,200.00	18.64	78.16	2,138.93	79.20	432.55	-76.86	0.00	0.00	0.00	
2,300.00	18.64	78.16	2,233.69	85.76	463.83	-83.24	0.00	0.00	0.00	
2,400.00	18.64	78.16	2,328.44	92.31	495.12	-89.63	0.00	0.00	0.00	
2,500.00	18.64	78.16	2,423.19	98.87	526.40	-96.02	0.00	0.00	0.00	
2,600.00	18.64	78.16	2,517.95	105.43	557.68	-102.41	0.00	0.00	0.00	
2,700.00	18.64	78.16	2,612.70	111.99	588.96	-108.80	0.00	0.00	0.00	
2,800.00	18.64	78.16	2,707.46	118.55	620.24	-115.19	0.00	0.00	0.00	
2,900.00	18.64	78.16	2,802.21	125.10	651.53	-121.58	0.00	0.00	0.00	
3,000.00	18.64	78.16	2,896.97	131.66	682.81	-127.96	0.00	0.00	0.00	
3,100.00	18.64	78.16	2,991.72	138.22	714.09	-134.35	0.00	0.00	0.00	
3,200.00	18.64	78.16	3,086.48	144.78	745.37	-140.74	0.00	0.00	0.00	
3,300.00	18.64	78.16	3,181.23	151.34	776.65	-147.13	0.00	0.00	0.00	
3,400.00	18.64	78.16	3,275.99	157.89	807.94	-153.52	0.00	0.00	0.00	
3,500.00	18.64	78.16	3,370.74	164.45	839.22	-159.91	0.00	0.00	0.00	
3,600.00	18.64	78.16	3,465.49	171.01	870.50	-166.30	0.00	0.00	0.00	
3,700.00	18.64	78.16	3,560.25	177.57	901.78	-172.69	0.00	0.00	0.00	
3,770.45	18.64	78.16	3,627.00	182.19	923.82	-177.19	0.00	0.00	0.00	
Parkman										
3,800.00	18.64	78.16	3,655.00	184.12	933.06	-179.07	0.00	0.00	0.00	
3,900.00	18.64	78.16	3,749.76	190.68	964.35	-185.46	0.00	0.00	0.00	
4,000.00	18.64	78.16	3,844.51	197.24	995.63	-191.85	0.00	0.00	0.00	
4,100.00	18.64	78.16	3,939.27	203.80	1,026.91	-198.24	0.00	0.00	0.00	

Planning Report

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Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4765.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4765.00usft (RIG)
Site:	3N-63W-22 EAST STREET 14-22HZ PAD	North Reference:	True
Well:	EAST STREET 22-10HZ	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)	
4,200.00	18.64	78.16	4,034.02	210.36	1,058.19	-204.63	0.00	0.00	0.00	
4,291.79	18.64	78.16	4,121.00	216.38	1,086.91	-210.49	0.00	0.00	0.00	
Sussex										
4,300.00	18.64	78.16	4,128.78	216.91	1,089.48	-211.02	0.00	0.00	0.00	
4,400.00	18.64	78.16	4,223.53	223.47	1,120.76	-217.41	0.00	0.00	0.00	
4,500.00	18.64	78.16	4,318.29	230.03	1,152.04	-223.79	0.00	0.00	0.00	
4,600.00	18.64	78.16	4,413.04	236.59	1,183.32	-230.18	0.00	0.00	0.00	
4,700.00	18.64	78.16	4,507.79	243.15	1,214.60	-236.57	0.00	0.00	0.00	
4,800.00	18.64	78.16	4,602.55	249.70	1,245.89	-242.96	0.00	0.00	0.00	
4,900.00	18.64	78.16	4,697.30	256.26	1,277.17	-249.35	0.00	0.00	0.00	
5,000.00	18.64	78.16	4,792.06	262.82	1,308.45	-255.74	0.00	0.00	0.00	
5,100.00	18.64	78.16	4,886.81	269.38	1,339.73	-262.13	0.00	0.00	0.00	
5,200.00	18.64	78.16	4,981.57	275.94	1,371.01	-268.51	0.00	0.00	0.00	
5,300.00	18.64	78.16	5,076.32	282.49	1,402.30	-274.90	0.00	0.00	0.00	
5,400.00	18.64	78.16	5,171.08	289.05	1,433.58	-281.29	0.00	0.00	0.00	
5,500.00	18.64	78.16	5,265.83	295.61	1,464.86	-287.68	0.00	0.00	0.00	
5,600.00	18.64	78.16	5,360.59	302.17	1,496.14	-294.07	0.00	0.00	0.00	
5,700.00	18.64	78.16	5,455.34	308.73	1,527.42	-300.46	0.00	0.00	0.00	
5,800.00	18.64	78.16	5,550.09	315.28	1,558.71	-306.85	0.00	0.00	0.00	
5,900.00	18.64	78.16	5,644.85	321.84	1,589.99	-313.23	0.00	0.00	0.00	
6,000.00	18.64	78.16	5,739.60	328.40	1,621.27	-319.62	0.00	0.00	0.00	
6,076.93	18.64	78.16	5,812.50	333.45	1,645.34	-324.54	0.00	0.00	0.00	
KOP @ 6076.93ft :: DLS = 8°/100'										
6,100.00	18.38	83.92	5,834.38	334.59	1,652.56	-325.64	8.00	-1.15	24.95	
6,150.00	18.41	96.61	5,881.84	334.51	1,668.25	-325.48	8.00	0.08	25.40	
6,200.00	19.27	108.74	5,929.18	330.95	1,683.91	-321.84	8.00	1.71	24.24	
6,250.00	20.85	119.48	5,976.16	323.92	1,699.48	-314.72	8.00	3.15	21.48	
6,300.00	22.99	128.54	6,022.56	313.46	1,714.87	-304.17	8.00	4.29	18.12	
6,350.00	25.57	136.00	6,068.14	299.60	1,730.00	-290.24	8.00	5.15	14.92	
6,400.00	28.45	142.11	6,112.69	282.44	1,744.82	-272.99	8.00	5.77	12.22	
6,450.00	31.56	147.15	6,156.00	262.04	1,759.24	-252.52	8.00	6.22	10.07	
6,500.00	34.84	151.35	6,197.83	238.50	1,773.19	-228.91	8.00	6.55	8.40	
6,550.00	38.23	154.90	6,238.01	211.95	1,786.60	-202.28	8.00	6.80	7.10	
6,600.00	41.72	157.94	6,276.32	182.51	1,799.42	-172.77	8.00	6.98	6.09	
6,650.00	45.28	160.60	6,312.58	150.32	1,811.57	-140.51	8.00	7.12	5.31	
6,697.53	48.72	162.83	6,345.00	117.31	1,822.46	-107.45	8.00	7.23	4.70	
Sharon Springs										
6,700.00	48.90	162.94	6,346.62	115.54	1,823.01	-105.67	8.00	7.27	4.43	
6,750.00	52.55	165.04	6,378.27	78.34	1,833.66	-68.42	8.00	7.31	4.19	
6,752.85	52.76	165.15	6,380.00	76.15	1,834.24	-66.23	8.00	7.35	3.97	
Niobrara										
6,800.00	56.24	166.94	6,407.38	38.90	1,843.49	-28.93	8.00	7.38	3.79	
6,850.00	59.96	168.68	6,433.80	-2.58	1,852.44	12.60	8.00	7.43	3.49	
6,875.09	61.83	169.51	6,446.00	-24.10	1,856.58	34.15	8.00	7.47	3.29	
Nio B										
6,900.00	63.70	170.30	6,457.40	-45.91	1,860.47	55.98	8.00	7.49	3.18	
6,950.00	67.45	171.81	6,478.07	-90.87	1,867.53	100.98	8.00	7.51	3.03	
7,000.00	71.22	173.25	6,495.72	-137.25	1,873.61	147.39	8.00	7.54	2.87	
7,050.00	75.00	174.62	6,510.24	-184.82	1,878.66	194.98	8.00	7.56	2.74	
7,100.00	78.78	175.94	6,521.58	-233.34	1,882.66	243.52	8.00	7.57	2.65	
7,118.75	80.21	176.43	6,525.00	-251.73	1,883.89	261.92	8.00	7.58	2.60	
Nio C										
7,150.00	82.58	177.23	6,529.68	-282.58	1,885.59	292.78	8.00	7.59	2.57	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well EAST STREET 22-10HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4765.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4765.00usft (RIG)
Site:	3N-63W-22 EAST STREET 14-22HZ PAD	North Reference:	True
Well:	EAST STREET 22-10HZ	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)
7,200.00	86.37	178.50	6,534.49	-332.30	1,887.45	342.51	8.00	7.59	2.53
7,247.52	89.98	179.69	6,536.00	-379.78	1,888.19	389.99	8.00	7.60	2.51
End Build @ 7247.52ft									
7,300.00	89.98	179.69	6,536.02	-432.26	1,888.47	442.48	0.00	0.00	0.00
7,400.00	89.98	179.69	6,536.05	-532.26	1,889.01	542.48	0.00	0.00	0.00
7,500.00	89.98	179.69	6,536.08	-632.26	1,889.54	642.48	0.00	0.00	0.00
7,600.00	89.98	179.69	6,536.11	-732.26	1,890.08	742.48	0.00	0.00	0.00
7,700.00	89.98	179.69	6,536.15	-832.26	1,890.61	842.48	0.00	0.00	0.00
7,800.00	89.98	179.69	6,536.18	-932.26	1,891.15	942.48	0.00	0.00	0.00
7,900.00	89.98	179.69	6,536.21	-1,032.26	1,891.68	1,042.48	0.00	0.00	0.00
8,000.00	89.98	179.69	6,536.24	-1,132.25	1,892.22	1,142.48	0.00	0.00	0.00
8,100.00	89.98	179.69	6,536.27	-1,232.25	1,892.75	1,242.48	0.00	0.00	0.00
8,200.00	89.98	179.69	6,536.31	-1,332.25	1,893.29	1,342.48	0.00	0.00	0.00
8,300.00	89.98	179.69	6,536.34	-1,432.25	1,893.82	1,442.48	0.00	0.00	0.00
8,400.00	89.98	179.69	6,536.37	-1,532.25	1,894.36	1,542.48	0.00	0.00	0.00
8,500.00	89.98	179.69	6,536.40	-1,632.25	1,894.89	1,642.48	0.00	0.00	0.00
8,600.00	89.98	179.69	6,536.43	-1,732.25	1,895.43	1,742.48	0.00	0.00	0.00
8,700.00	89.98	179.69	6,536.47	-1,832.24	1,895.96	1,842.48	0.00	0.00	0.00
8,800.00	89.98	179.69	6,536.50	-1,932.24	1,896.50	1,942.48	0.00	0.00	0.00
8,900.00	89.98	179.69	6,536.53	-2,032.24	1,897.03	2,042.48	0.00	0.00	0.00
9,000.00	89.98	179.69	6,536.56	-2,132.24	1,897.57	2,142.48	0.00	0.00	0.00
9,100.00	89.98	179.69	6,536.59	-2,232.24	1,898.10	2,242.48	0.00	0.00	0.00
9,200.00	89.98	179.69	6,536.62	-2,332.24	1,898.64	2,342.48	0.00	0.00	0.00
9,300.00	89.98	179.69	6,536.66	-2,432.24	1,899.17	2,442.48	0.00	0.00	0.00
9,400.00	89.98	179.69	6,536.69	-2,532.23	1,899.71	2,542.48	0.00	0.00	0.00
9,500.00	89.98	179.69	6,536.72	-2,632.23	1,900.24	2,642.48	0.00	0.00	0.00
9,600.00	89.98	179.69	6,536.75	-2,732.23	1,900.78	2,742.48	0.00	0.00	0.00
9,700.00	89.98	179.69	6,536.78	-2,832.23	1,901.31	2,842.48	0.00	0.00	0.00
9,800.00	89.98	179.69	6,536.82	-2,932.23	1,901.85	2,942.48	0.00	0.00	0.00
9,900.00	89.98	179.69	6,536.85	-3,032.23	1,902.38	3,042.48	0.00	0.00	0.00
10,000.00	89.98	179.69	6,536.88	-3,132.23	1,902.92	3,142.48	0.00	0.00	0.00
10,100.00	89.98	179.69	6,536.91	-3,232.22	1,903.45	3,242.48	0.00	0.00	0.00
10,200.00	89.98	179.69	6,536.94	-3,332.22	1,903.99	3,342.48	0.00	0.00	0.00
10,300.00	89.98	179.69	6,536.98	-3,432.22	1,904.52	3,442.48	0.00	0.00	0.00
10,400.00	89.98	179.69	6,537.01	-3,532.22	1,905.05	3,542.48	0.00	0.00	0.00
10,500.00	89.98	179.69	6,537.04	-3,632.22	1,905.59	3,642.48	0.00	0.00	0.00
10,600.00	89.98	179.69	6,537.07	-3,732.22	1,906.12	3,742.48	0.00	0.00	0.00
10,700.00	89.98	179.69	6,537.10	-3,832.22	1,906.66	3,842.48	0.00	0.00	0.00
10,800.00	89.98	179.69	6,537.13	-3,932.21	1,907.19	3,942.48	0.00	0.00	0.00
10,900.00	89.98	179.69	6,537.17	-4,032.21	1,907.73	4,042.48	0.00	0.00	0.00
11,000.00	89.98	179.69	6,537.20	-4,132.21	1,908.26	4,142.48	0.00	0.00	0.00
11,100.00	89.98	179.69	6,537.23	-4,232.21	1,908.80	4,242.48	0.00	0.00	0.00
11,200.00	89.98	179.69	6,537.26	-4,332.21	1,909.33	4,342.48	0.00	0.00	0.00
11,300.00	89.98	179.69	6,537.29	-4,432.21	1,909.87	4,442.48	0.00	0.00	0.00
11,400.00	89.98	179.69	6,537.33	-4,532.21	1,910.40	4,542.48	0.00	0.00	0.00
11,500.00	89.98	179.69	6,537.36	-4,632.20	1,910.94	4,642.48	0.00	0.00	0.00
11,600.00	89.98	179.69	6,537.39	-4,732.20	1,911.47	4,742.48	0.00	0.00	0.00
11,700.00	89.98	179.69	6,537.42	-4,832.20	1,912.01	4,842.48	0.00	0.00	0.00
11,800.00	89.98	179.69	6,537.45	-4,932.20	1,912.54	4,942.48	0.00	0.00	0.00
11,900.00	89.98	179.69	6,537.48	-5,032.20	1,913.08	5,042.48	0.00	0.00	0.00
12,000.00	89.98	179.69	6,537.52	-5,132.20	1,913.61	5,142.48	0.00	0.00	0.00
12,100.00	89.98	179.69	6,537.55	-5,232.20	1,914.15	5,242.48	0.00	0.00	0.00
12,200.00	89.98	179.69	6,537.58	-5,332.19	1,914.68	5,342.48	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well EAST STREET 22-10HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4765.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4765.00usft (RIG)
Site:	3N-63W-22 EAST STREET 14-22HZ PAD	North Reference:	True
Well:	EAST STREET 22-10HZ	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	89.98	179.69	6,537.61	-5,432.19	1,915.22	5,442.48	0.00	0.00	0.00	
12,400.00	89.98	179.69	6,537.64	-5,532.19	1,915.75	5,542.48	0.00	0.00	0.00	
12,500.00	89.98	179.69	6,537.68	-5,632.19	1,916.29	5,642.48	0.00	0.00	0.00	
12,600.00	89.98	179.69	6,537.71	-5,732.19	1,916.82	5,742.48	0.00	0.00	0.00	
12,700.00	89.98	179.69	6,537.74	-5,832.19	1,917.36	5,842.48	0.00	0.00	0.00	
12,800.00	89.98	179.69	6,537.77	-5,932.19	1,917.89	5,942.48	0.00	0.00	0.00	
12,900.00	89.98	179.69	6,537.80	-6,032.18	1,918.43	6,042.48	0.00	0.00	0.00	
13,000.00	89.98	179.69	6,537.84	-6,132.18	1,918.96	6,142.48	0.00	0.00	0.00	
13,100.00	89.98	179.69	6,537.87	-6,232.18	1,919.50	6,242.48	0.00	0.00	0.00	
13,200.00	89.98	179.69	6,537.90	-6,332.18	1,920.03	6,342.48	0.00	0.00	0.00	
13,300.00	89.98	179.69	6,537.93	-6,432.18	1,920.56	6,442.48	0.00	0.00	0.00	
13,400.00	89.98	179.69	6,537.96	-6,532.18	1,921.10	6,542.48	0.00	0.00	0.00	
13,500.00	89.98	179.69	6,537.99	-6,632.18	1,921.63	6,642.48	0.00	0.00	0.00	
13,600.00	89.98	179.69	6,538.03	-6,732.17	1,922.17	6,742.48	0.00	0.00	0.00	
13,700.00	89.98	179.69	6,538.06	-6,832.17	1,922.70	6,842.48	0.00	0.00	0.00	
13,800.00	89.98	179.69	6,538.09	-6,932.17	1,923.24	6,942.48	0.00	0.00	0.00	
13,900.00	89.98	179.69	6,538.12	-7,032.17	1,923.77	7,042.48	0.00	0.00	0.00	
14,000.00	89.98	179.69	6,538.15	-7,132.17	1,924.31	7,142.48	0.00	0.00	0.00	
14,100.00	89.98	179.69	6,538.19	-7,232.17	1,924.84	7,242.48	0.00	0.00	0.00	
14,200.00	89.98	179.69	6,538.22	-7,332.17	1,925.38	7,342.48	0.00	0.00	0.00	
14,300.00	89.98	179.69	6,538.25	-7,432.16	1,925.91	7,442.48	0.00	0.00	0.00	
14,400.00	89.98	179.69	6,538.28	-7,532.16	1,926.45	7,542.48	0.00	0.00	0.00	
14,500.00	89.98	179.69	6,538.31	-7,632.16	1,926.98	7,642.48	0.00	0.00	0.00	
14,600.00	89.98	179.69	6,538.35	-7,732.16	1,927.52	7,742.48	0.00	0.00	0.00	
14,700.00	89.98	179.69	6,538.38	-7,832.16	1,928.05	7,842.48	0.00	0.00	0.00	
14,800.00	89.98	179.69	6,538.41	-7,932.16	1,928.59	7,942.48	0.00	0.00	0.00	
14,900.00	89.98	179.69	6,538.44	-8,032.16	1,929.12	8,042.48	0.00	0.00	0.00	
15,000.00	89.98	179.69	6,538.47	-8,132.15	1,929.66	8,142.48	0.00	0.00	0.00	
15,100.00	89.98	179.69	6,538.50	-8,232.15	1,930.19	8,242.48	0.00	0.00	0.00	
15,200.00	89.98	179.69	6,538.54	-8,332.15	1,930.73	8,342.48	0.00	0.00	0.00	
15,300.00	89.98	179.69	6,538.57	-8,432.15	1,931.26	8,442.48	0.00	0.00	0.00	
15,400.00	89.98	179.69	6,538.60	-8,532.15	1,931.80	8,542.48	0.00	0.00	0.00	
15,500.00	89.98	179.69	6,538.63	-8,632.15	1,932.33	8,642.48	0.00	0.00	0.00	
15,600.00	89.98	179.69	6,538.66	-8,732.15	1,932.87	8,742.48	0.00	0.00	0.00	
15,700.00	89.98	179.69	6,538.70	-8,832.14	1,933.40	8,842.48	0.00	0.00	0.00	
15,800.00	89.98	179.69	6,538.73	-8,932.14	1,933.94	8,942.48	0.00	0.00	0.00	
15,900.00	89.98	179.69	6,538.76	-9,032.14	1,934.47	9,042.48	0.00	0.00	0.00	
16,000.00	89.98	179.69	6,538.79	-9,132.14	1,935.01	9,142.48	0.00	0.00	0.00	
16,100.00	89.98	179.69	6,538.82	-9,232.14	1,935.54	9,242.48	0.00	0.00	0.00	
16,200.00	89.98	179.69	6,538.86	-9,332.14	1,936.08	9,342.48	0.00	0.00	0.00	
16,300.00	89.98	179.69	6,538.89	-9,432.14	1,936.61	9,442.48	0.00	0.00	0.00	
16,400.00	89.98	179.69	6,538.92	-9,532.13	1,937.14	9,542.48	0.00	0.00	0.00	
16,500.00	89.98	179.69	6,538.95	-9,632.13	1,937.68	9,642.48	0.00	0.00	0.00	
16,600.00	89.98	179.69	6,538.98	-9,732.13	1,938.21	9,742.48	0.00	0.00	0.00	
16,700.00	89.98	179.69	6,539.01	-9,832.13	1,938.75	9,842.48	0.00	0.00	0.00	
16,800.00	89.98	179.69	6,539.05	-9,932.13	1,939.28	9,942.48	0.00	0.00	0.00	
16,900.00	89.98	179.69	6,539.08	-10,032.13	1,939.82	10,042.48	0.00	0.00	0.00	
17,000.00	89.98	179.69	6,539.11	-10,132.13	1,940.35	10,142.48	0.00	0.00	0.00	
17,100.00	89.98	179.69	6,539.14	-10,232.12	1,940.89	10,242.48	0.00	0.00	0.00	
17,200.00	89.98	179.69	6,539.17	-10,332.12	1,941.42	10,342.48	0.00	0.00	0.00	
17,300.00	89.98	179.69	6,539.21	-10,432.12	1,941.96	10,442.48	0.00	0.00	0.00	
17,400.00	89.98	179.69	6,539.24	-10,532.12	1,942.49	10,542.48	0.00	0.00	0.00	
17,500.00	89.98	179.69	6,539.27	-10,632.12	1,943.03	10,642.48	0.00	0.00	0.00	
17,600.00	89.98	179.69	6,539.30	-10,732.12	1,943.56	10,742.48	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well EAST STREET 22-10HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4765.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4765.00usft (RIG)
Site:	3N-63W-22 EAST STREET 14-22HZ PAD	North Reference:	True
Well:	EAST STREET 22-10HZ	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	89.98	179.69	6,539.33	-10,832.12	1,944.10	10,842.48	0.00	0.00	0.00	
17,800.00	89.98	179.69	6,539.36	-10,932.11	1,944.63	10,942.48	0.00	0.00	0.00	
17,900.00	89.98	179.69	6,539.40	-11,032.11	1,945.17	11,042.48	0.00	0.00	0.00	
18,000.00	89.98	179.69	6,539.43	-11,132.11	1,945.70	11,142.48	0.00	0.00	0.00	
18,100.00	89.98	179.69	6,539.46	-11,232.11	1,946.24	11,242.48	0.00	0.00	0.00	
18,200.00	89.98	179.69	6,539.49	-11,332.11	1,946.77	11,342.48	0.00	0.00	0.00	
18,300.00	89.98	179.69	6,539.52	-11,432.11	1,947.31	11,442.48	0.00	0.00	0.00	
18,400.00	89.98	179.69	6,539.56	-11,532.11	1,947.84	11,542.48	0.00	0.00	0.00	
18,500.00	89.98	179.69	6,539.59	-11,632.10	1,948.38	11,642.48	0.00	0.00	0.00	
18,600.00	89.98	179.69	6,539.62	-11,732.10	1,948.91	11,742.48	0.00	0.00	0.00	
18,700.00	89.98	179.69	6,539.65	-11,832.10	1,949.45	11,842.48	0.00	0.00	0.00	
18,800.00	89.98	179.69	6,539.68	-11,932.10	1,949.98	11,942.48	0.00	0.00	0.00	
18,900.00	89.98	179.69	6,539.72	-12,032.10	1,950.52	12,042.48	0.00	0.00	0.00	
19,000.00	89.98	179.69	6,539.75	-12,132.10	1,951.05	12,142.48	0.00	0.00	0.00	
19,100.00	89.98	179.69	6,539.78	-12,232.10	1,951.59	12,242.48	0.00	0.00	0.00	
19,200.00	89.98	179.69	6,539.81	-12,332.09	1,952.12	12,342.48	0.00	0.00	0.00	
19,300.00	89.98	179.69	6,539.84	-12,432.09	1,952.66	12,442.48	0.00	0.00	0.00	
19,400.00	89.98	179.69	6,539.87	-12,532.09	1,953.19	12,542.48	0.00	0.00	0.00	
19,500.00	89.98	179.69	6,539.91	-12,632.09	1,953.72	12,642.48	0.00	0.00	0.00	
19,600.00	89.98	179.69	6,539.94	-12,732.09	1,954.26	12,742.48	0.00	0.00	0.00	
19,700.00	89.98	179.69	6,539.97	-12,832.09	1,954.79	12,842.48	0.00	0.00	0.00	
19,800.00	89.98	179.69	6,540.00	-12,932.09	1,955.33	12,942.48	0.00	0.00	0.00	
19,900.00	89.98	179.69	6,540.03	-13,032.08	1,955.86	13,042.48	0.00	0.00	0.00	
20,000.00	89.98	179.69	6,540.07	-13,132.08	1,956.40	13,142.48	0.00	0.00	0.00	
20,100.00	89.98	179.69	6,540.10	-13,232.08	1,956.93	13,242.48	0.00	0.00	0.00	
20,200.00	89.98	179.69	6,540.13	-13,332.08	1,957.47	13,342.48	0.00	0.00	0.00	
20,300.00	89.98	179.69	6,540.16	-13,432.08	1,958.00	13,442.48	0.00	0.00	0.00	
20,400.00	89.98	179.69	6,540.19	-13,532.08	1,958.54	13,542.48	0.00	0.00	0.00	
20,500.00	89.98	179.69	6,540.23	-13,632.08	1,959.07	13,642.48	0.00	0.00	0.00	
20,600.00	89.98	179.69	6,540.26	-13,732.07	1,959.61	13,742.48	0.00	0.00	0.00	
20,700.00	89.98	179.69	6,540.29	-13,832.07	1,960.14	13,842.48	0.00	0.00	0.00	
20,800.00	89.98	179.69	6,540.32	-13,932.07	1,960.68	13,942.48	0.00	0.00	0.00	
20,900.00	89.98	179.69	6,540.35	-14,032.07	1,961.21	14,042.48	0.00	0.00	0.00	
21,000.00	89.98	179.69	6,540.38	-14,132.07	1,961.75	14,142.48	0.00	0.00	0.00	
21,100.00	89.98	179.69	6,540.42	-14,232.07	1,962.28	14,242.48	0.00	0.00	0.00	
21,200.00	89.98	179.69	6,540.45	-14,332.07	1,962.82	14,342.48	0.00	0.00	0.00	
21,300.00	89.98	179.69	6,540.48	-14,432.06	1,963.35	14,442.48	0.00	0.00	0.00	
21,400.00	89.98	179.69	6,540.51	-14,532.06	1,963.89	14,542.48	0.00	0.00	0.00	
21,500.00	89.98	179.69	6,540.54	-14,632.06	1,964.42	14,642.48	0.00	0.00	0.00	
21,600.00	89.98	179.69	6,540.58	-14,732.06	1,964.96	14,742.48	0.00	0.00	0.00	
21,700.00	89.98	179.69	6,540.61	-14,832.06	1,965.49	14,842.48	0.00	0.00	0.00	
21,800.00	89.98	179.69	6,540.64	-14,932.06	1,966.03	14,942.48	0.00	0.00	0.00	
21,900.00	89.98	179.69	6,540.67	-15,032.06	1,966.56	15,042.48	0.00	0.00	0.00	
22,000.00	89.98	179.69	6,540.70	-15,132.05	1,967.10	15,142.48	0.00	0.00	0.00	
22,100.00	89.98	179.69	6,540.73	-15,232.05	1,967.63	15,242.48	0.00	0.00	0.00	
22,200.00	89.98	179.69	6,540.77	-15,332.05	1,968.17	15,342.48	0.00	0.00	0.00	
22,300.00	89.98	179.69	6,540.80	-15,432.05	1,968.70	15,442.48	0.00	0.00	0.00	
22,400.00	89.98	179.69	6,540.83	-15,532.05	1,969.24	15,542.48	0.00	0.00	0.00	
22,500.00	89.98	179.69	6,540.86	-15,632.05	1,969.77	15,642.48	0.00	0.00	0.00	
22,600.00	89.98	179.69	6,540.89	-15,732.05	1,970.30	15,742.48	0.00	0.00	0.00	
22,700.00	89.98	179.69	6,540.93	-15,832.04	1,970.84	15,842.48	0.00	0.00	0.00	
22,800.00	89.98	179.69	6,540.96	-15,932.04	1,971.37	15,942.48	0.00	0.00	0.00	
22,900.00	89.98	179.69	6,540.99	-16,032.04	1,971.91	16,042.48	0.00	0.00	0.00	
22,932.48	89.98	179.69	6,541.00	-16,064.52	1,972.08	16,074.95	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well EAST STREET 22-10HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4765.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4765.00usft (RIG)
Site:	3N-63W-22 EAST STREET 14-22HZ PAD	North Reference:	True
Well:	EAST STREET 22-10HZ	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)
TD Well @ 22932.48ft									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,715.66	1,680.00	9 5/8"	9-5/8	13-1/2	
22,932.48	6,541.00	5.5" CSG	5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,080.60	1,073.00	Fox Hills				
3,770.45	3,627.00	Parkman				
4,291.79	4,121.00	Sussex				
6,697.53	6,345.00	Sharon Springs				
6,752.85	6,380.00	Niobrara				
6,875.09	6,446.00	Nio B				
7,118.75	6,525.00	Nio C				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
201.80	201.80	0.00	0.00	Begin Nudge @ 201.80ft	
535.13	534.71	0.00	14.54	Change Tangent Direction @ 535.13ft	
1,454.02	1,432.08	30.28	199.19	Hold Tangent @ 1454.02ft	
6,076.93	5,812.50	333.45	1,645.34	KOP @ 6076.93ft :: DLS = 8°/100'	
7,247.52	6,536.00	-379.78	1,888.19	End Build @ 7247.52ft	
22,932.48	6,541.00	-16,064.52	1,972.08	TD Well @ 22932.48ft	