

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

2N-65W-35 LABRISA 11-35HZ PAD

LABRISA 35-10HZ

Plan A

Plan: Permit Rev-1

Standard Planning Report

07 September, 2023

Project: WELD-NAD83-UTMFT13N
Site: 2N-65W-35 LABRISA 11-35HZ PAD
Well: LABRISA 35-10HZ
Wellbore: Plan A
Design: Permit Rev-1

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

TVD	MD	Name	Size
2017.00	2093.42	9 5/8"	9-5/8
7046.00	18463.53	5.5" CSG	5-1/2



Azimuths to True North
Magnetic North: 7.63°

Magnetic Field
Strength: 51680.7nT
Dip Angle: 66.38°
Date: 8/18/2022
Model: IGRF2020

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	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	2040.00	27.60	105.20	1969.66	-113.97	419.46	1.50	105.20	113.97	
4	7087.94	27.60	105.20	6443.16	-727.15	2676.34	0.00	0.00	727.15	
5	8153.00	89.90	185.00	7028.00	-1463.28	2913.40	8.00	80.99	1463.28	
6	8453.00	89.90	185.00	7028.52	-1762.14	2887.26	0.00	0.00	1762.14	
7	8802.19	89.90	179.76	7029.13	-2110.90	2872.75	1.50	-90.00	2110.90	
8	18463.53	89.90	179.76	7046.00	-11772.14	2912.87	0.00	0.00	11772.14	LABRISA 35-10HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
LABRISA 35-10HZ_SHL	0.00	14560192.02	1743068.59	40.091301	-104.632964
LABRISA 35-10HZ_LP	7028.00	14558740.77	1745988.00	40.087283	-104.622548
LABRISA 35-10HZ_BHL	7046.00	14548432.00	1746030.00	40.058973	-104.622554

WELL DETAILS: LABRISA 35-10HZ

GL = 4969'

RKB = 17' @ 4986.00usft (RIG)

FORMATION TOP DETAILS

Plan: Permit Rev-1 (LABRISA 35-10HZ/Plan A)

Date: 9/7/2023

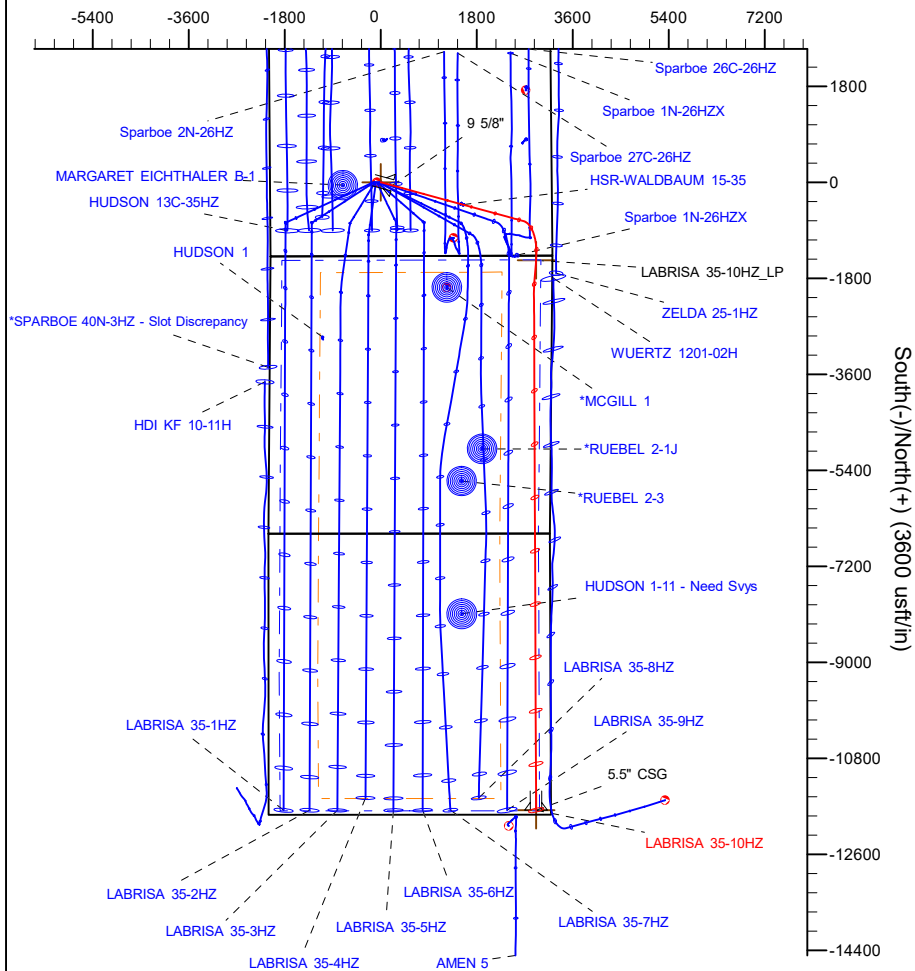
TVDPATH	MDPATH	Formation
1479.00	1504.19	Fox Hills
4094.00	4437.12	Parkman
4444.00	4832.07	Sussex
6887.00	7668.55	Sharon Springs
6912.00	7715.28	Niobrara
7021.00	8048.13	Nio B

SHL
1386' FSL
2079' FWL

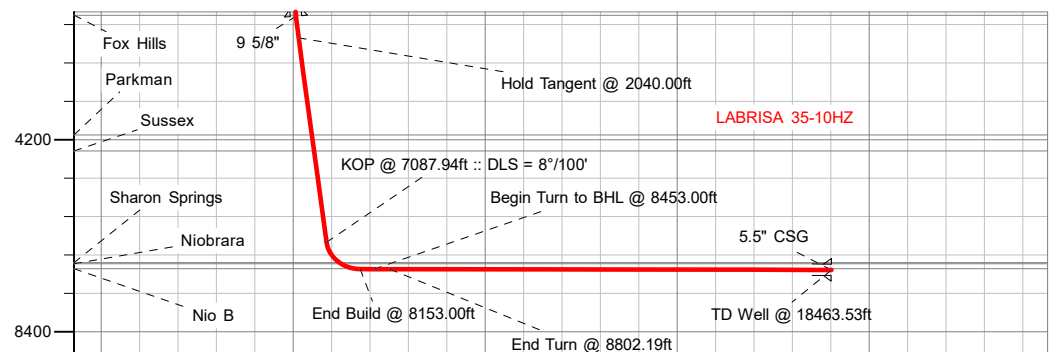
LP
86' FNL
303' FEL

BHL
85' FSL
280' FEL

West(-)/East(+) (3600 usft/in)



True Vertical Depth (4200 usft/in)



Vertical Section at 180.00° (4200 usft/in)

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well LABRISA 35-10HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4986.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4986.00usft (RIG)
Site:	2N-65W-35 LABRISA 11-35HZ PAD	North Reference:	True
Well:	LABRISA 35-10HZ	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		2N-65W-35 LABRISA 11-35HZ PAD				
Site Position:		Northing:	14,560,192.78	usft	Latitude:	40.091305
From:	Map	Easting:	1,742,933.63	usft	Longitude:	-104.633447
Position Uncertainty:		0.00	usft	Slot Radius:	13-3/16	"

Well		LABRISA 35-10HZ				
Well Position	+N/-S	0.00 usft	Northing:	14,560,192.02 usft	Latitude:	40.091302
	+E/-W	0.00 usft	Easting:	1,743,068.59 usft	Longitude:	-104.632964
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	4,969.00 usft
Grid Convergence:		0.24 °				

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	9/7/2023	7.52	66.33	51,569.34249370

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	180.00	

Plan Survey Tool Program	Date	9/7/2023			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	2,017.00	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I	
				Fixed:v2:crustal field declinatio	
2	2,017.00	18,463.53	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I	
				Fixed:v2:Rockies, crustal dec +	

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Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4986.00usft (RIG)
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Well:	LABRISA 35-10HZ	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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,040.00	27.60	105.20	1,969.66	-113.97	419.46	1.50	1.50	0.00	105.20	
7,087.94	27.60	105.20	6,443.16	-727.15	2,676.34	0.00	0.00	0.00	0.00	
8,153.00	89.90	185.00	7,028.00	-1,463.28	2,913.40	8.00	5.85	7.49	80.99	
8,453.00	89.90	185.00	7,028.52	-1,762.14	2,887.26	0.00	0.00	0.00	0.00	
8,802.20	89.90	179.76	7,029.13	-2,110.90	2,872.75	1.50	0.00	-1.50	-90.00	
18,463.53	89.90	179.76	7,046.00	-11,772.14	2,912.87	0.00	0.00	0.00	0.00	LABRISA 35-10HZ_B

Planning Report

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Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4986.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4986.00usft (RIG)
Site:	2N-65W-35 LABRISA 11-35HZ PAD	North Reference:	True
Well:	LABRISA 35-10HZ	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
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 200.00ft									
300.00	1.50	105.20	299.99	-0.34	1.26	0.34	1.50	1.50	0.00
400.00	3.00	105.20	399.91	-1.37	5.05	1.37	1.50	1.50	0.00
500.00	4.50	105.20	499.69	-3.09	11.36	3.09	1.50	1.50	0.00
600.00	6.00	105.20	599.27	-5.49	20.19	5.49	1.50	1.50	0.00
700.00	7.50	105.20	698.57	-8.57	31.54	8.57	1.50	1.50	0.00
800.00	9.00	105.20	797.54	-12.33	45.38	12.33	1.50	1.50	0.00
900.00	10.50	105.20	896.09	-16.77	61.72	16.77	1.50	1.50	0.00
1,000.00	12.00	105.20	994.16	-21.88	80.55	21.88	1.50	1.50	0.00
1,100.00	13.50	105.20	1,091.70	-27.67	101.85	27.67	1.50	1.50	0.00
1,200.00	15.00	105.20	1,188.62	-34.12	125.60	34.12	1.50	1.50	0.00
1,300.00	16.50	105.20	1,284.86	-41.24	151.79	41.24	1.50	1.50	0.00
1,400.00	18.00	105.20	1,380.36	-49.02	180.41	49.02	1.50	1.50	0.00
1,500.00	19.50	105.20	1,475.05	-57.44	211.43	57.44	1.50	1.50	0.00
1,504.19	19.56	105.20	1,479.00	-57.81	212.78	57.81	1.50	1.50	0.00
Fox Hills									
1,600.00	21.00	105.20	1,568.86	-66.52	244.83	66.52	1.50	1.50	0.00
1,700.00	22.50	105.20	1,661.74	-76.23	280.59	76.23	1.50	1.50	0.00
1,800.00	24.00	105.20	1,753.62	-86.58	318.68	86.58	1.50	1.50	0.00
1,900.00	25.50	105.20	1,844.43	-97.56	359.08	97.56	1.50	1.50	0.00
2,000.00	27.00	105.20	1,934.12	-109.16	401.76	109.16	1.50	1.50	0.00
2,040.00	27.60	105.20	1,969.66	-113.97	419.46	113.97	1.50	1.50	0.00
Hold Tangent @ 2040.00ft									
2,093.42	27.60	105.20	2,017.00	-120.45	443.35	120.45	0.00	0.00	0.00
9 5/8"									
2,100.00	27.60	105.20	2,022.83	-121.25	446.29	121.25	0.00	0.00	0.00
2,200.00	27.60	105.20	2,111.45	-133.40	491.00	133.40	0.00	0.00	0.00
2,300.00	27.60	105.20	2,200.07	-145.55	535.71	145.55	0.00	0.00	0.00
2,400.00	27.60	105.20	2,288.69	-157.70	580.42	157.70	0.00	0.00	0.00
2,500.00	27.60	105.20	2,377.31	-169.84	625.12	169.84	0.00	0.00	0.00
2,600.00	27.60	105.20	2,465.93	-181.99	669.83	181.99	0.00	0.00	0.00
2,700.00	27.60	105.20	2,554.55	-194.14	714.54	194.14	0.00	0.00	0.00
2,800.00	27.60	105.20	2,643.18	-206.28	759.25	206.28	0.00	0.00	0.00
2,900.00	27.60	105.20	2,731.80	-218.43	803.96	218.43	0.00	0.00	0.00
3,000.00	27.60	105.20	2,820.42	-230.58	848.67	230.58	0.00	0.00	0.00
3,100.00	27.60	105.20	2,909.04	-242.73	893.38	242.73	0.00	0.00	0.00
3,200.00	27.60	105.20	2,997.66	-254.87	938.09	254.87	0.00	0.00	0.00
3,300.00	27.60	105.20	3,086.28	-267.02	982.80	267.02	0.00	0.00	0.00
3,400.00	27.60	105.20	3,174.90	-279.17	1,027.50	279.17	0.00	0.00	0.00
3,500.00	27.60	105.20	3,263.52	-291.31	1,072.21	291.31	0.00	0.00	0.00
3,600.00	27.60	105.20	3,352.14	-303.46	1,116.92	303.46	0.00	0.00	0.00
3,700.00	27.60	105.20	3,440.76	-315.61	1,161.63	315.61	0.00	0.00	0.00
3,800.00	27.60	105.20	3,529.38	-327.76	1,206.34	327.76	0.00	0.00	0.00
3,900.00	27.60	105.20	3,618.00	-339.90	1,251.05	339.90	0.00	0.00	0.00
4,000.00	27.60	105.20	3,706.62	-352.05	1,295.76	352.05	0.00	0.00	0.00
4,100.00	27.60	105.20	3,795.24	-364.20	1,340.47	364.20	0.00	0.00	0.00
4,200.00	27.60	105.20	3,883.86	-376.34	1,385.17	376.34	0.00	0.00	0.00
4,300.00	27.60	105.20	3,972.48	-388.49	1,429.88	388.49	0.00	0.00	0.00
4,400.00	27.60	105.20	4,061.10	-400.64	1,474.59	400.64	0.00	0.00	0.00
4,437.12	27.60	105.20	4,094.00	-405.15	1,491.19	405.15	0.00	0.00	0.00
Parkman									

Planning Report

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Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4986.00usft (RIG)
Site:	2N-65W-35 LABRISA 11-35HZ PAD	North Reference:	True
Well:	LABRISA 35-10HZ	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)
4,500.00	27.60	105.20	4,149.72	-412.79	1,519.30	412.79	0.00	0.00	0.00
4,600.00	27.60	105.20	4,238.34	-424.93	1,564.01	424.93	0.00	0.00	0.00
4,700.00	27.60	105.20	4,326.96	-437.08	1,608.72	437.08	0.00	0.00	0.00
4,800.00	27.60	105.20	4,415.58	-449.23	1,653.43	449.23	0.00	0.00	0.00
4,832.07	27.60	105.20	4,444.00	-453.12	1,667.76	453.12	0.00	0.00	0.00
Sussex									
4,900.00	27.60	105.20	4,504.20	-461.37	1,698.14	461.37	0.00	0.00	0.00
5,000.00	27.60	105.20	4,592.82	-473.52	1,742.85	473.52	0.00	0.00	0.00
5,100.00	27.60	105.20	4,681.44	-485.67	1,787.55	485.67	0.00	0.00	0.00
5,200.00	27.60	105.20	4,770.06	-497.81	1,832.26	497.81	0.00	0.00	0.00
5,300.00	27.60	105.20	4,858.68	-509.96	1,876.97	509.96	0.00	0.00	0.00
5,400.00	27.60	105.20	4,947.30	-522.11	1,921.68	522.11	0.00	0.00	0.00
5,500.00	27.60	105.20	5,035.92	-534.26	1,966.39	534.26	0.00	0.00	0.00
5,600.00	27.60	105.20	5,124.55	-546.40	2,011.10	546.40	0.00	0.00	0.00
5,700.00	27.60	105.20	5,213.17	-558.55	2,055.81	558.55	0.00	0.00	0.00
5,800.00	27.60	105.20	5,301.79	-570.70	2,100.52	570.70	0.00	0.00	0.00
5,900.00	27.60	105.20	5,390.41	-582.84	2,145.22	582.84	0.00	0.00	0.00
6,000.00	27.60	105.20	5,479.03	-594.99	2,189.93	594.99	0.00	0.00	0.00
6,100.00	27.60	105.20	5,567.65	-607.14	2,234.64	607.14	0.00	0.00	0.00
6,200.00	27.60	105.20	5,656.27	-619.29	2,279.35	619.29	0.00	0.00	0.00
6,300.00	27.60	105.20	5,744.89	-631.43	2,324.06	631.43	0.00	0.00	0.00
6,400.00	27.60	105.20	5,833.51	-643.58	2,368.77	643.58	0.00	0.00	0.00
6,500.00	27.60	105.20	5,922.13	-655.73	2,413.48	655.73	0.00	0.00	0.00
6,600.00	27.60	105.20	6,010.75	-667.87	2,458.19	667.87	0.00	0.00	0.00
6,700.00	27.60	105.20	6,099.37	-680.02	2,502.90	680.02	0.00	0.00	0.00
6,800.00	27.60	105.20	6,187.99	-692.17	2,547.60	692.17	0.00	0.00	0.00
6,900.00	27.60	105.20	6,276.61	-704.32	2,592.31	704.32	0.00	0.00	0.00
7,000.00	27.60	105.20	6,365.23	-716.46	2,637.02	716.46	0.00	0.00	0.00
7,087.94	27.60	105.20	6,443.16	-727.15	2,676.34	727.15	0.00	0.00	0.00
KOP @ 7087.94ft :: DLS = 8°/100'									
7,100.00	27.77	107.25	6,453.84	-728.71	2,681.72	728.71	8.00	1.38	16.96
7,150.00	28.77	115.43	6,497.90	-737.33	2,703.71	737.33	8.00	2.00	16.37
7,200.00	30.22	123.00	6,541.43	-749.36	2,725.14	749.36	8.00	2.92	15.14
7,250.00	32.08	129.86	6,584.23	-764.73	2,745.90	764.73	8.00	3.71	13.71
7,300.00	34.26	135.99	6,626.10	-783.37	2,765.87	783.37	8.00	4.37	12.26
7,350.00	36.72	141.43	6,666.81	-805.19	2,784.98	805.19	8.00	4.91	10.88
7,400.00	39.40	146.25	6,706.19	-830.08	2,803.12	830.08	8.00	5.35	9.65
7,450.00	42.25	150.54	6,744.03	-857.92	2,820.21	857.92	8.00	5.71	8.58
7,500.00	45.25	154.38	6,780.15	-888.58	2,836.16	888.58	8.00	5.99	7.67
7,550.00	48.36	157.82	6,814.37	-921.90	2,850.90	921.90	8.00	6.23	6.90
7,600.00	51.57	160.95	6,846.54	-957.73	2,864.35	957.73	8.00	6.41	6.25
7,650.00	54.85	163.81	6,876.48	-995.88	2,876.44	995.88	8.00	6.56	5.71
7,668.55	56.08	164.81	6,887.00	-1,010.60	2,880.58	1,010.60	8.00	6.65	5.39
Sharon Springs									
7,700.00	58.19	166.44	6,904.06	-1,036.18	2,887.13	1,036.18	8.00	6.71	5.19
7,715.28	59.23	167.21	6,912.00	-1,048.90	2,890.11	1,048.90	8.00	6.76	5.01
Niobrara									
7,750.00	61.59	168.89	6,929.15	-1,078.43	2,896.35	1,078.43	8.00	6.80	4.84
7,800.00	65.02	171.18	6,951.61	-1,122.42	2,904.07	1,122.42	8.00	6.87	4.59
7,850.00	68.49	173.35	6,971.34	-1,167.93	2,910.24	1,167.93	8.00	6.94	4.34
7,900.00	71.99	175.42	6,988.24	-1,214.75	2,914.83	1,214.75	8.00	6.99	4.13
7,950.00	75.50	177.40	7,002.24	-1,262.65	2,917.83	1,262.65	8.00	7.03	3.97
8,000.00	79.03	179.33	7,013.26	-1,311.39	2,919.21	1,311.39	8.00	7.06	3.85

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well LABRISA 35-10HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4986.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4986.00usft (RIG)
Site:	2N-65W-35 LABRISA 11-35HZ PAD	North Reference:	True
Well:	LABRISA 35-10HZ	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)
8,048.13	82.45	181.14	7,021.00	-1,358.88	2,919.02	1,358.88	8.00	7.09	3.76
Nio B									
8,050.00	82.58	181.21	7,021.24	-1,360.74	2,918.98	1,360.74	8.00	7.10	3.72
8,100.00	86.13	183.06	7,026.16	-1,410.45	2,917.13	1,410.45	8.00	7.10	3.70
8,153.00	89.90	185.00	7,028.00	-1,463.28	2,913.40	1,463.28	8.00	7.11	3.67
End Build @ 8153.00ft									
8,200.00	89.90	185.00	7,028.08	-1,510.10	2,909.31	1,510.10	0.00	0.00	0.00
8,300.00	89.90	185.00	7,028.25	-1,609.72	2,900.59	1,609.72	0.00	0.00	0.00
8,400.00	89.90	185.00	7,028.43	-1,709.34	2,891.88	1,709.34	0.00	0.00	0.00
8,453.00	89.90	185.00	7,028.52	-1,762.14	2,887.26	1,762.14	0.00	0.00	0.00
Begin Turn to BHL @ 8453.00ft									
8,500.00	89.90	184.30	7,028.60	-1,808.98	2,883.45	1,808.98	1.50	0.00	-1.50
8,600.00	89.90	182.80	7,028.78	-1,908.78	2,877.27	1,908.78	1.50	0.00	-1.50
8,700.00	89.90	181.30	7,028.95	-2,008.72	2,873.70	2,008.72	1.50	0.00	-1.50
8,802.20	89.90	179.76	7,029.13	-2,110.90	2,872.75	2,110.90	1.50	0.00	-1.50
End Turn @ 8802.19ft									
8,900.00	89.90	179.76	7,029.30	-2,208.71	2,873.16	2,208.71	0.00	0.00	0.00
9,000.00	89.90	179.76	7,029.48	-2,308.71	2,873.58	2,308.71	0.00	0.00	0.00
9,100.00	89.90	179.76	7,029.65	-2,408.71	2,873.99	2,408.71	0.00	0.00	0.00
9,200.00	89.90	179.76	7,029.83	-2,508.71	2,874.41	2,508.71	0.00	0.00	0.00
9,300.00	89.90	179.76	7,030.00	-2,608.70	2,874.82	2,608.70	0.00	0.00	0.00
9,400.00	89.90	179.76	7,030.18	-2,708.70	2,875.24	2,708.70	0.00	0.00	0.00
9,500.00	89.90	179.76	7,030.35	-2,808.70	2,875.65	2,808.70	0.00	0.00	0.00
9,600.00	89.90	179.76	7,030.52	-2,908.70	2,876.07	2,908.70	0.00	0.00	0.00
9,700.00	89.90	179.76	7,030.70	-3,008.70	2,876.48	3,008.70	0.00	0.00	0.00
9,800.00	89.90	179.76	7,030.87	-3,108.70	2,876.90	3,108.70	0.00	0.00	0.00
9,900.00	89.90	179.76	7,031.05	-3,208.70	2,877.31	3,208.70	0.00	0.00	0.00
10,000.00	89.90	179.76	7,031.22	-3,308.70	2,877.73	3,308.70	0.00	0.00	0.00
10,100.00	89.90	179.76	7,031.40	-3,408.70	2,878.14	3,408.70	0.00	0.00	0.00
10,200.00	89.90	179.76	7,031.57	-3,508.70	2,878.56	3,508.70	0.00	0.00	0.00
10,300.00	89.90	179.76	7,031.75	-3,608.69	2,878.97	3,608.69	0.00	0.00	0.00
10,400.00	89.90	179.76	7,031.92	-3,708.69	2,879.39	3,708.69	0.00	0.00	0.00
10,500.00	89.90	179.76	7,032.10	-3,808.69	2,879.80	3,808.69	0.00	0.00	0.00
10,600.00	89.90	179.76	7,032.27	-3,908.69	2,880.22	3,908.69	0.00	0.00	0.00
10,700.00	89.90	179.76	7,032.45	-4,008.69	2,880.63	4,008.69	0.00	0.00	0.00
10,800.00	89.90	179.76	7,032.62	-4,108.69	2,881.05	4,108.69	0.00	0.00	0.00
10,900.00	89.90	179.76	7,032.79	-4,208.69	2,881.46	4,208.69	0.00	0.00	0.00
11,000.00	89.90	179.76	7,032.97	-4,308.69	2,881.88	4,308.69	0.00	0.00	0.00
11,100.00	89.90	179.76	7,033.14	-4,408.69	2,882.29	4,408.69	0.00	0.00	0.00
11,200.00	89.90	179.76	7,033.32	-4,508.69	2,882.71	4,508.69	0.00	0.00	0.00
11,300.00	89.90	179.76	7,033.49	-4,608.68	2,883.12	4,608.68	0.00	0.00	0.00
11,400.00	89.90	179.76	7,033.67	-4,708.68	2,883.54	4,708.68	0.00	0.00	0.00
11,500.00	89.90	179.76	7,033.84	-4,808.68	2,883.96	4,808.68	0.00	0.00	0.00
11,600.00	89.90	179.76	7,034.02	-4,908.68	2,884.37	4,908.68	0.00	0.00	0.00
11,700.00	89.90	179.76	7,034.19	-5,008.68	2,884.79	5,008.68	0.00	0.00	0.00
11,800.00	89.90	179.76	7,034.37	-5,108.68	2,885.20	5,108.68	0.00	0.00	0.00
11,900.00	89.90	179.76	7,034.54	-5,208.68	2,885.62	5,208.68	0.00	0.00	0.00
12,000.00	89.90	179.76	7,034.72	-5,308.68	2,886.03	5,308.68	0.00	0.00	0.00
12,100.00	89.90	179.76	7,034.89	-5,408.68	2,886.45	5,408.68	0.00	0.00	0.00
12,200.00	89.90	179.76	7,035.06	-5,508.68	2,886.86	5,508.68	0.00	0.00	0.00
12,300.00	89.90	179.76	7,035.24	-5,608.67	2,887.28	5,608.67	0.00	0.00	0.00
12,400.00	89.90	179.76	7,035.41	-5,708.67	2,887.69	5,708.67	0.00	0.00	0.00
12,500.00	89.90	179.76	7,035.59	-5,808.67	2,888.11	5,808.67	0.00	0.00	0.00

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Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4986.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4986.00usft (RIG)
Site:	2N-65W-35 LABRISA 11-35HZ PAD	North Reference:	True
Well:	LABRISA 35-10HZ	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)
12,600.00	89.90	179.76	7,035.76	-5,908.67	2,888.52	5,908.67	0.00	0.00	0.00
12,700.00	89.90	179.76	7,035.94	-6,008.67	2,888.94	6,008.67	0.00	0.00	0.00
12,800.00	89.90	179.76	7,036.11	-6,108.67	2,889.35	6,108.67	0.00	0.00	0.00
12,900.00	89.90	179.76	7,036.29	-6,208.67	2,889.77	6,208.67	0.00	0.00	0.00
13,000.00	89.90	179.76	7,036.46	-6,308.67	2,890.18	6,308.67	0.00	0.00	0.00
13,100.00	89.90	179.76	7,036.64	-6,408.67	2,890.60	6,408.67	0.00	0.00	0.00
13,200.00	89.90	179.76	7,036.81	-6,508.67	2,891.01	6,508.67	0.00	0.00	0.00
13,300.00	89.90	179.76	7,036.98	-6,608.66	2,891.43	6,608.66	0.00	0.00	0.00
13,400.00	89.90	179.76	7,037.16	-6,708.66	2,891.84	6,708.66	0.00	0.00	0.00
13,500.00	89.90	179.76	7,037.33	-6,808.66	2,892.26	6,808.66	0.00	0.00	0.00
13,600.00	89.90	179.76	7,037.51	-6,908.66	2,892.67	6,908.66	0.00	0.00	0.00
13,700.00	89.90	179.76	7,037.68	-7,008.66	2,893.09	7,008.66	0.00	0.00	0.00
13,800.00	89.90	179.76	7,037.86	-7,108.66	2,893.50	7,108.66	0.00	0.00	0.00
13,900.00	89.90	179.76	7,038.03	-7,208.66	2,893.92	7,208.66	0.00	0.00	0.00
14,000.00	89.90	179.76	7,038.21	-7,308.66	2,894.33	7,308.66	0.00	0.00	0.00
14,100.00	89.90	179.76	7,038.38	-7,408.66	2,894.75	7,408.66	0.00	0.00	0.00
14,200.00	89.90	179.76	7,038.56	-7,508.66	2,895.16	7,508.66	0.00	0.00	0.00
14,300.00	89.90	179.76	7,038.73	-7,608.65	2,895.58	7,608.65	0.00	0.00	0.00
14,400.00	89.90	179.76	7,038.91	-7,708.65	2,896.00	7,708.65	0.00	0.00	0.00
14,500.00	89.90	179.76	7,039.08	-7,808.65	2,896.41	7,808.65	0.00	0.00	0.00
14,600.00	89.90	179.76	7,039.25	-7,908.65	2,896.83	7,908.65	0.00	0.00	0.00
14,700.00	89.90	179.76	7,039.43	-8,008.65	2,897.24	8,008.65	0.00	0.00	0.00
14,800.00	89.90	179.76	7,039.60	-8,108.65	2,897.66	8,108.65	0.00	0.00	0.00
14,900.00	89.90	179.76	7,039.78	-8,208.65	2,898.07	8,208.65	0.00	0.00	0.00
15,000.00	89.90	179.76	7,039.95	-8,308.65	2,898.49	8,308.65	0.00	0.00	0.00
15,100.00	89.90	179.76	7,040.13	-8,408.65	2,898.90	8,408.65	0.00	0.00	0.00
15,200.00	89.90	179.76	7,040.30	-8,508.65	2,899.32	8,508.65	0.00	0.00	0.00
15,300.00	89.90	179.76	7,040.48	-8,608.64	2,899.73	8,608.64	0.00	0.00	0.00
15,400.00	89.90	179.76	7,040.65	-8,708.64	2,900.15	8,708.64	0.00	0.00	0.00
15,500.00	89.90	179.76	7,040.83	-8,808.64	2,900.56	8,808.64	0.00	0.00	0.00
15,600.00	89.90	179.76	7,041.00	-8,908.64	2,900.98	8,908.64	0.00	0.00	0.00
15,700.00	89.90	179.76	7,041.18	-9,008.64	2,901.39	9,008.64	0.00	0.00	0.00
15,800.00	89.90	179.76	7,041.35	-9,108.64	2,901.81	9,108.64	0.00	0.00	0.00
15,900.00	89.90	179.76	7,041.52	-9,208.64	2,902.22	9,208.64	0.00	0.00	0.00
16,000.00	89.90	179.76	7,041.70	-9,308.64	2,902.64	9,308.64	0.00	0.00	0.00
16,100.00	89.90	179.76	7,041.87	-9,408.64	2,903.05	9,408.64	0.00	0.00	0.00
16,200.00	89.90	179.76	7,042.05	-9,508.64	2,903.47	9,508.64	0.00	0.00	0.00
16,300.00	89.90	179.76	7,042.22	-9,608.63	2,903.88	9,608.63	0.00	0.00	0.00
16,400.00	89.90	179.76	7,042.40	-9,708.63	2,904.30	9,708.63	0.00	0.00	0.00
16,500.00	89.90	179.76	7,042.57	-9,808.63	2,904.71	9,808.63	0.00	0.00	0.00
16,600.00	89.90	179.76	7,042.75	-9,908.63	2,905.13	9,908.63	0.00	0.00	0.00
16,700.00	89.90	179.76	7,042.92	-10,008.63	2,905.54	10,008.63	0.00	0.00	0.00
16,800.00	89.90	179.76	7,043.10	-10,108.63	2,905.96	10,108.63	0.00	0.00	0.00
16,900.00	89.90	179.76	7,043.27	-10,208.63	2,906.37	10,208.63	0.00	0.00	0.00
17,000.00	89.90	179.76	7,043.44	-10,308.63	2,906.79	10,308.63	0.00	0.00	0.00
17,100.00	89.90	179.76	7,043.62	-10,408.63	2,907.20	10,408.63	0.00	0.00	0.00
17,200.00	89.90	179.76	7,043.79	-10,508.62	2,907.62	10,508.62	0.00	0.00	0.00
17,300.00	89.90	179.76	7,043.97	-10,608.62	2,908.04	10,608.62	0.00	0.00	0.00
17,400.00	89.90	179.76	7,044.14	-10,708.62	2,908.45	10,708.62	0.00	0.00	0.00
17,500.00	89.90	179.76	7,044.32	-10,808.62	2,908.87	10,808.62	0.00	0.00	0.00
17,600.00	89.90	179.76	7,044.49	-10,908.62	2,909.28	10,908.62	0.00	0.00	0.00
17,700.00	89.90	179.76	7,044.67	-11,008.62	2,909.70	11,008.62	0.00	0.00	0.00
17,800.00	89.90	179.76	7,044.84	-11,108.62	2,910.11	11,108.62	0.00	0.00	0.00
17,900.00	89.90	179.76	7,045.02	-11,208.62	2,910.53	11,208.62	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well LABRISA 35-10HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4986.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4986.00usft (RIG)
Site:	2N-65W-35 LABRISA 11-35HZ PAD	North Reference:	True
Well:	LABRISA 35-10HZ	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)	
18,000.00	89.90	179.76	7,045.19	-11,308.62	2,910.94	11,308.62	0.00	0.00	0.00	
18,100.00	89.90	179.76	7,045.37	-11,408.62	2,911.36	11,408.62	0.00	0.00	0.00	
18,200.00	89.90	179.76	7,045.54	-11,508.61	2,911.77	11,508.61	0.00	0.00	0.00	
18,300.00	89.90	179.76	7,045.71	-11,608.61	2,912.19	11,608.61	0.00	0.00	0.00	
18,400.00	89.90	179.76	7,045.89	-11,708.61	2,912.60	11,708.61	0.00	0.00	0.00	
18,463.53	89.90	179.76	7,046.00	-11,772.14	2,912.87	11,772.14	0.00	0.00	0.00	
TD Well @ 18463.53ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")
2,093.42	2,017.00	9 5/8"		9-5/8	13-1/2
18,463.53	7,046.00	5.5" CSG		5-1/2	7-7/8

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,504.19	1,479.00	Fox Hills			
4,437.12	4,094.00	Parkman			
4,832.07	4,444.00	Sussex			
7,668.55	6,887.00	Sharon Springs			
7,715.28	6,912.00	Niobrara			
8,048.13	7,021.00	Nio B			

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
200.00	200.00	0.00	0.00	Begin Nudge @ 200.00ft	
2,040.00	1,969.66	-113.97	419.46	Hold Tangent @ 2040.00ft	
7,087.94	6,443.16	-727.15	2,676.34	KOP @ 7087.94ft :: DLS = 8°/100'	
8,153.00	7,028.00	-1,463.28	2,913.40	End Build @ 8153.00ft	
8,453.00	7,028.52	-1,762.14	2,887.26	Begin Turn to BHL @ 8453.00ft	
8,802.20	7,029.13	-2,110.90	2,872.75	End Turn @ 8802.19ft	
18,463.53	7,046.00	-11,772.14	2,912.87	TD Well @ 18463.53ft	