

US ROCKIES REGION

COLORADO - WELD

T04N-R68W-S33 LAVENDER

LAVENDER 33-12HZ

0512353253

33-12HZ ST01

Plan: Plan #1

Standard Planning Report

05 April, 2026

Planning Report

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well LAVENDER 33-12HZ
Company:	US ROCKIES REGION	TVD Reference:	RKB @ 5102.00ft (PLAN KB)
Project:	COLORADO - WELD	MD Reference:	RKB @ 5102.00ft (PLAN KB)
Site:	T04N-R68W-S33 LAVENDER	North Reference:	True
Well:	LAVENDER 33-12HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	33-12HZ ST01		
Design:	Plan #1		

Project	COLORADO - WELD, WELD COUNTY, CO		
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)		Using geodetic scale factor

Site	T04N-R68W-S33 LAVENDER				
Site Position:		Northing:	14,622,986.00 usft	Latitude:	40.264322
From:	Lat/Long	Easting:	1,640,124.86 usft	Longitude:	-105.001046
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.00 °

Well	LAVENDER 33-12HZ					
Well Position	+N/-S	4,271.46 ft	Northing:	14,627,255.75 usft	Latitude:	40.276047
	+E/-W	-267.87 ft	Easting:	1,639,857.15 usft	Longitude:	-105.002006
Position Uncertainty		3.28 ft	Wellhead Elevation:		Ground Level:	5,076.00 ft

Wellbore	33-12HZ ST01				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	User Defined	02/26/26	7.59	66.29	51,307.90000000

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	15,715.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	89.17

Plan Survey Tool Program	Date	04/05/26		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1 15,715.00	17,797.13	Plan #1 (33-12HZ ST01)	SQC_C705Mb_MWD+IFR1+S	MWD+IFR1+Sag+FDIR

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
15,715.00	90.34	86.85	7,163.82	220.59	9,401.35	0.00	0.00	0.00	0.00	0.00
16,039.49	87.00	96.00	7,171.37	212.54	9,725.27	3.00	-1.03	2.82	110.14	
16,314.49	87.00	96.00	7,185.76	183.83	9,998.38	0.00	0.00	0.00	0.00	
16,464.50	90.00	96.00	7,189.68	168.16	10,147.49	2.00	2.00	0.00	0.00	
16,806.00	90.00	89.17	7,189.68	152.77	10,488.45	2.00	0.00	-2.00	-90.00	
17,119.86	90.00	89.17	7,189.68	157.31	10,802.28	0.00	0.00	0.00	0.00	
17,472.19	90.00	82.12	7,189.69	184.04	11,153.37	2.00	0.00	-2.00	-90.01	
17,797.35	90.00	82.12	7,189.69	228.60	11,475.46	0.00	0.00	0.00	0.00	

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Project:	COLORADO - WELD	MD Reference:	RKB @ 5102.00ft (PLAN KB)
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Well:	LAVENDER 33-12HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	33-12HZ ST01		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	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
178.00	0.17	310.00	178.00	0.17	-0.20	-0.20	0.10	0.10	0.00
268.00	0.14	35.29	268.00	0.35	-0.24	-0.24	0.23	-0.03	94.77
353.00	0.51	258.51	353.00	0.35	-0.55	-0.55	0.73	0.44	-160.92
446.00	0.62	252.34	445.99	0.12	-1.44	-1.43	0.14	0.12	-6.63
535.00	0.71	102.52	534.99	-0.15	-1.36	-1.36	1.44	0.10	-168.34
624.00	0.83	110.19	623.98	-0.49	-0.21	-0.22	0.18	0.13	8.62
713.00	0.75	100.14	712.98	-0.81	0.96	0.95	0.18	-0.09	-11.29
803.00	0.58	61.14	802.97	-0.70	1.94	1.93	0.52	-0.19	-43.33
892.00	0.49	50.38	891.97	-0.24	2.63	2.63	0.15	-0.10	-12.09
982.00	0.39	357.12	981.96	0.31	2.91	2.92	0.45	-0.11	-59.18
1,071.00	1.04	301.45	1,070.96	1.04	2.21	2.22	0.99	0.73	-62.55
1,161.00	0.71	283.72	1,160.95	1.60	0.97	0.99	0.47	-0.37	-19.70
1,251.00	0.72	230.95	1,250.94	1.37	-0.01	0.01	0.71	0.01	-58.63
1,340.00	0.68	229.92	1,339.93	0.68	-0.85	-0.84	0.05	-0.04	-1.16
1,385.00	0.58	231.82	1,384.93	0.37	-1.23	-1.23	0.23	-0.22	4.22
1,490.00	0.97	283.74	1,489.92	0.25	-2.51	-2.51	0.73	0.37	49.45
1,585.00	1.62	89.74	1,584.91	0.45	-1.95	-1.95	2.71	0.68	174.74
1,680.00	3.30	103.77	1,679.82	-0.20	2.05	2.04	1.87	1.77	14.77
1,775.00	4.26	71.76	1,774.62	0.26	8.05	8.06	2.40	1.01	-33.69
1,870.00	5.76	75.72	1,869.26	2.54	16.03	16.06	1.62	1.58	4.17
1,965.00	6.61	76.10	1,963.71	5.03	25.95	26.02	0.90	0.89	0.40
2,060.00	7.39	91.54	2,058.01	6.18	37.37	37.45	2.14	0.82	16.25
2,155.00	5.83	88.26	2,152.37	6.16	48.30	48.38	1.69	-1.64	-3.45
2,250.00	7.43	96.56	2,246.73	5.60	59.23	59.30	1.96	1.68	8.74
2,346.00	7.94	93.70	2,341.87	4.47	72.01	72.07	0.66	0.53	-2.98
2,441.00	7.14	92.30	2,436.05	3.81	84.46	84.50	0.86	-0.84	-1.47
2,536.00	7.93	87.30	2,530.23	3.88	96.90	96.95	1.08	0.83	-5.26
2,631.00	6.86	86.37	2,624.44	4.55	109.11	109.16	1.13	-1.13	-0.98
2,726.00	8.61	70.59	2,718.58	7.27	121.48	121.57	2.88	1.84	-16.61
2,821.00	7.20	69.12	2,812.68	11.75	133.75	133.91	1.50	-1.48	-1.55
2,916.00	8.03	91.15	2,906.86	13.74	145.95	146.13	3.17	0.87	23.19
3,029.00	6.09	89.91	3,019.00	13.59	159.84	160.02	1.72	-1.72	-1.10
3,124.00	8.22	77.65	3,113.26	15.05	171.51	171.71	2.75	2.24	-12.91
3,219.00	9.21	84.46	3,207.16	17.24	185.71	185.95	1.50	1.04	7.17
3,314.00	7.38	81.61	3,301.16	18.87	199.32	199.57	1.97	-1.93	-3.00
3,409.00	8.77	88.74	3,395.22	19.91	212.60	212.86	1.80	1.46	7.51
3,505.00	7.17	88.65	3,490.29	20.22	225.90	226.17	1.67	-1.67	-0.09
3,600.00	8.88	89.10	3,584.36	20.47	239.16	239.43	1.80	1.80	0.47
3,695.00	7.27	91.98	3,678.41	20.38	252.50	252.77	1.75	-1.69	3.03
3,790.00	8.64	85.11	3,772.50	20.78	265.62	265.89	1.75	1.44	-7.23
3,885.00	7.78	84.20	3,866.52	22.04	279.13	279.42	0.92	-0.91	-0.96
3,980.00	6.21	84.50	3,960.81	23.18	290.64	290.95	1.65	-1.65	0.32
4,075.00	7.17	88.16	4,055.17	23.86	301.68	301.99	1.11	1.01	3.85
4,170.00	7.89	86.51	4,149.35	24.45	314.11	314.44	0.79	0.76	-1.74
4,265.00	8.65	85.64	4,243.36	25.39	327.75	328.08	0.81	0.80	-0.92
4,360.00	9.31	84.64	4,337.19	26.65	342.52	342.87	0.71	0.69	-1.05
4,455.00	7.48	84.51	4,431.17	27.96	356.33	356.70	1.93	-1.93	-0.14
4,550.00	7.79	82.66	4,525.33	29.37	368.87	369.26	0.42	0.33	-1.95
4,645.00	8.48	90.91	4,619.38	30.09	382.26	382.65	1.43	0.73	8.68
4,740.00	6.79	87.43	4,713.53	30.23	394.87	395.27	1.84	-1.78	-3.66
4,836.00	8.10	82.71	4,808.72	31.34	407.25	407.66	1.50	1.36	-4.92
4,931.00	9.48	82.76	4,902.60	33.17	421.65	422.09	1.45	1.45	0.05
5,026.00	9.21	83.55	4,996.34	35.01	436.97	437.43	0.31	-0.28	0.83

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Wellbore:	33-12HZ ST01		
Design:	Plan #1		

Planned Survey									
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5,121.00	8.11	80.77	5,090.26	36.94	451.14	451.62	1.24	-1.16	-2.93
5,216.00	7.96	88.55	5,184.33	38.19	464.33	464.83	1.15	-0.16	8.19
5,311.00	6.90	86.07	5,278.53	38.74	476.60	477.11	1.17	-1.12	-2.61
5,406.00	7.88	83.94	5,372.74	39.82	488.77	489.29	1.07	1.03	-2.24
5,501.00	6.96	79.69	5,466.94	41.54	500.91	501.45	1.13	-0.97	-4.47
5,596.00	7.61	81.67	5,561.18	43.48	512.79	513.37	0.73	0.68	2.08
5,691.00	7.13	79.67	5,655.39	45.45	524.82	525.42	0.57	-0.51	-2.11
5,787.00	7.93	85.13	5,750.56	47.08	537.28	537.90	1.12	0.83	5.69
5,882.00	8.48	89.63	5,844.59	47.68	550.81	551.44	0.89	0.58	4.74
5,977.00	7.01	78.13	5,938.73	48.92	563.49	564.14	2.24	-1.55	-12.11
6,072.00	7.99	76.91	6,032.91	51.61	575.59	576.28	1.05	1.03	-1.28
6,167.00	7.59	88.68	6,127.04	53.25	588.30	589.01	1.73	-0.42	12.39
6,262.00	7.40	83.56	6,221.23	54.08	600.65	601.37	0.73	-0.20	-5.39
6,357.00	7.44	84.03	6,315.44	55.40	612.85	613.58	0.08	0.04	0.49
6,452.00	7.04	91.14	6,409.68	55.93	624.78	625.53	1.03	-0.42	7.48
6,547.00	7.26	95.72	6,503.94	55.21	636.58	637.31	0.64	0.23	4.82
6,642.00	10.16	89.93	6,597.84	54.63	650.93	651.66	3.19	3.05	-6.09
6,737.00	16.85	90.27	6,690.16	54.57	673.11	673.83	7.04	7.04	0.36
6,832.00	23.96	91.93	6,779.14	53.85	706.20	706.90	7.51	7.48	1.75
6,927.00	29.76	87.46	6,863.87	54.25	749.07	749.78	6.46	6.11	-4.71
7,022.00	38.02	87.58	6,942.66	56.53	801.95	802.68	8.70	8.69	0.13
7,117.00	51.09	88.22	7,010.21	58.93	868.41	869.17	13.77	13.76	0.67
7,212.00	60.23	88.24	7,063.74	61.35	946.73	947.52	9.62	9.62	0.02
7,308.00	64.80	89.42	7,108.03	63.07	1,031.85	1,032.66	4.88	4.76	1.23
7,403.00	62.51	89.12	7,150.19	64.15	1,116.97	1,117.79	2.43	-2.41	-0.32
7,498.00	68.25	89.34	7,189.75	65.31	1,203.29	1,204.11	6.05	6.04	0.23
7,593.00	79.84	90.20	7,215.82	65.65	1,294.48	1,295.29	12.23	12.20	0.91
7,688.00	89.49	90.68	7,224.64	64.92	1,388.95	1,389.75	10.17	10.16	0.51
7,783.00	86.24	92.70	7,228.18	62.13	1,483.83	1,484.57	4.03	-3.42	2.13
7,878.00	83.86	90.94	7,236.38	59.12	1,578.41	1,579.10	3.11	-2.51	-1.85
7,973.00	83.04	90.13	7,247.22	58.24	1,672.79	1,673.46	1.21	-0.86	-0.85
8,069.00	90.89	90.00	7,252.29	58.13	1,768.58	1,769.23	8.18	8.18	-0.14
8,164.00	91.49	89.85	7,250.32	58.25	1,863.56	1,864.20	0.65	0.63	-0.16
8,259.00	87.88	87.74	7,250.84	60.25	1,958.51	1,959.18	4.40	-3.80	-2.22
8,354.00	85.35	88.06	7,256.45	63.73	2,053.28	2,053.98	2.68	-2.66	0.34
8,449.00	86.22	87.18	7,263.44	67.66	2,147.93	2,148.69	1.30	0.92	-0.93
8,544.00	90.63	87.55	7,266.05	72.02	2,242.78	2,243.58	4.66	4.64	0.39
8,639.00	91.08	86.66	7,264.63	76.82	2,337.64	2,338.51	1.05	0.47	-0.94
8,734.00	92.02	87.91	7,262.06	81.32	2,432.50	2,433.42	1.65	0.99	1.32
8,830.00	95.25	89.17	7,255.97	83.76	2,528.26	2,529.21	3.61	3.36	1.31
8,925.00	96.56	89.49	7,246.20	84.87	2,622.75	2,623.70	1.42	1.38	0.34
9,020.00	96.94	88.54	7,235.03	86.49	2,717.07	2,718.04	1.07	0.40	-1.00
9,115.00	96.88	89.85	7,223.60	87.81	2,811.37	2,812.35	1.37	-0.06	1.38
9,210.00	96.09	89.19	7,212.87	88.61	2,905.76	2,906.74	1.08	-0.83	-0.69
9,305.00	94.50	86.52	7,204.11	92.15	3,000.28	3,001.30	3.26	-1.67	-2.81
9,400.00	93.93	85.15	7,197.12	99.03	3,094.77	3,095.87	1.56	-0.60	-1.44
9,495.00	91.13	87.10	7,192.93	105.44	3,189.44	3,190.63	3.59	-2.95	2.05
9,590.00	91.06	87.04	7,191.11	110.30	3,284.30	3,285.55	0.10	-0.07	-0.06
9,685.00	93.97	88.31	7,186.95	114.15	3,379.12	3,380.42	3.34	3.06	1.34
9,780.00	94.33	88.67	7,180.07	116.64	3,473.84	3,475.16	0.54	0.38	0.38
9,875.00	94.73	89.13	7,172.57	118.46	3,568.52	3,569.86	0.64	0.42	0.48
9,970.00	95.99	89.51	7,163.69	119.58	3,663.10	3,664.45	1.38	1.33	0.40
10,065.00	94.04	91.69	7,155.39	118.59	3,757.72	3,759.04	3.07	-2.05	2.29

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Well:	LAVENDER 33-12HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	33-12HZ ST01		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,160.00	92.36	91.05	7,150.08	116.32	3,852.54	3,853.82	1.89	-1.77	-0.67
10,255.00	93.32	90.58	7,145.38	114.97	3,947.41	3,948.66	1.12	1.01	-0.49
10,350.00	90.88	90.46	7,141.90	114.11	4,042.34	4,043.57	2.57	-2.57	-0.13
10,445.00	86.90	90.16	7,143.74	113.60	4,137.30	4,138.51	4.20	-4.19	-0.32
10,540.00	84.87	89.09	7,150.55	114.22	4,232.04	4,233.26	2.41	-2.14	-1.13
10,635.00	87.78	87.75	7,156.64	116.83	4,326.80	4,328.04	3.37	3.06	-1.41
10,730.00	87.85	90.76	7,160.27	118.07	4,421.71	4,422.96	3.17	0.07	3.17
10,825.00	88.34	91.03	7,163.42	116.58	4,516.65	4,517.86	0.59	0.52	0.28
10,920.00	90.80	91.87	7,164.14	114.18	4,611.61	4,612.78	2.74	2.59	0.88
11,015.00	89.98	90.56	7,163.49	112.17	4,706.58	4,707.71	1.63	-0.86	-1.38
11,110.00	92.14	90.67	7,161.73	111.15	4,801.55	4,802.66	2.28	2.27	0.12
11,205.00	92.52	90.33	7,157.87	110.32	4,896.47	4,897.56	0.54	0.40	-0.36
11,300.00	93.42	89.83	7,152.95	110.19	4,991.34	4,992.41	1.08	0.95	-0.53
11,395.00	93.16	89.09	7,147.50	111.08	5,086.18	5,087.26	0.82	-0.27	-0.78
11,490.00	89.75	86.73	7,145.08	114.54	5,181.07	5,182.18	4.36	-3.59	-2.48
11,585.00	90.18	87.28	7,145.14	119.51	5,275.94	5,277.11	0.73	0.45	0.58
11,680.00	89.91	91.00	7,145.07	120.93	5,370.91	5,372.10	3.93	-0.28	3.92
11,775.00	89.76	91.58	7,145.34	118.79	5,465.88	5,467.03	0.63	-0.16	0.61
11,870.00	89.80	91.91	7,145.71	115.90	5,560.84	5,561.93	0.35	0.04	0.35
11,966.00	89.55	89.93	7,146.25	114.36	5,656.82	5,657.88	2.08	-0.26	-2.06
12,061.00	88.85	89.81	7,147.58	114.58	5,751.81	5,752.87	0.75	-0.74	-0.13
12,156.00	90.55	90.62	7,148.07	114.22	5,846.80	5,847.84	1.98	1.79	0.85
12,251.00	89.47	86.86	7,148.06	116.31	5,941.76	5,942.82	4.12	-1.14	-3.96
12,346.00	89.23	87.10	7,149.14	121.31	6,036.62	6,037.75	0.36	-0.25	0.25
12,441.00	89.70	88.49	7,150.02	124.97	6,131.55	6,132.71	1.54	0.49	1.46
12,536.00	89.33	88.67	7,150.83	127.32	6,226.51	6,227.70	0.43	-0.39	0.19
12,631.00	89.58	89.89	7,151.73	128.52	6,321.50	6,322.70	1.31	0.26	1.28
12,726.00	89.34	87.86	7,152.63	130.38	6,416.47	6,417.69	2.15	-0.25	-2.14
12,821.00	89.69	89.07	7,153.43	132.92	6,511.43	6,512.68	1.33	0.37	1.27
12,917.00	90.01	92.27	7,153.68	131.80	6,607.41	6,608.63	3.35	0.33	3.33
13,012.00	88.90	91.41	7,154.58	128.75	6,702.36	6,703.52	1.48	-1.17	-0.91
13,107.00	90.97	88.92	7,154.69	128.48	6,797.34	6,798.49	3.41	2.18	-2.62
13,202.00	92.61	88.15	7,151.73	130.91	6,892.26	6,893.44	1.91	1.73	-0.81
13,297.00	89.13	87.51	7,150.28	134.50	6,987.17	6,988.38	3.72	-3.66	-0.67
13,392.00	89.53	86.51	7,151.39	139.46	7,082.03	7,083.31	1.13	0.42	-1.05
13,487.00	87.57	88.36	7,153.80	143.71	7,176.90	7,178.23	2.84	-2.06	1.95
13,583.00	86.35	87.93	7,158.89	146.81	7,272.71	7,274.07	1.35	-1.27	-0.45
13,678.00	87.08	88.65	7,164.33	149.64	7,367.51	7,368.91	1.08	0.77	0.76
13,773.00	89.30	89.14	7,167.33	151.47	7,462.44	7,463.85	2.39	2.34	0.52
13,868.00	90.83	89.68	7,167.23	152.45	7,557.43	7,558.85	1.71	1.61	0.57
13,963.00	90.98	90.08	7,165.72	152.65	7,652.42	7,653.83	0.45	0.16	0.42
14,058.00	90.15	86.03	7,164.79	155.87	7,747.34	7,748.78	4.35	-0.87	-4.26
14,153.00	89.88	82.29	7,164.76	165.54	7,841.83	7,843.40	3.95	-0.28	-3.94
14,248.00	89.77	82.26	7,165.05	178.31	7,935.97	7,937.72	0.12	-0.12	-0.03
14,343.00	91.64	84.04	7,163.88	189.64	8,030.27	8,032.18	2.72	1.97	1.87
14,438.00	93.20	89.15	7,159.87	195.27	8,124.99	8,126.96	5.62	1.64	5.38
14,534.00	91.83	87.40	7,155.66	198.16	8,220.84	8,222.85	2.31	-1.43	-1.82
14,629.00	89.82	89.78	7,154.29	200.50	8,315.79	8,317.83	3.28	-2.12	2.51
14,724.00	89.12	89.31	7,155.17	201.25	8,410.79	8,412.82	0.89	-0.74	-0.49
14,819.00	89.75	89.61	7,156.10	202.15	8,505.78	8,507.81	0.73	0.66	0.32
14,914.00	90.09	90.25	7,156.24	202.26	8,600.78	8,602.80	0.76	0.36	0.67
15,009.00	89.30	89.13	7,156.74	202.78	8,695.77	8,697.80	1.44	-0.83	-1.18
15,104.00	90.19	89.62	7,157.17	203.81	8,790.76	8,792.79	1.07	0.94	0.52

Planning Report

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well LAVENDER 33-12HZ
Company:	US ROCKIES REGION	TVD Reference:	RKB @ 5102.00ft (PLAN KB)
Project:	COLORADO - WELD	MD Reference:	RKB @ 5102.00ft (PLAN KB)
Site:	T04N-R68W-S33 LAVENDER	North Reference:	True
Well:	LAVENDER 33-12HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	33-12HZ ST01		
Design:	Plan #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
15,199.00	89.94	89.12	7,157.06	204.86	8,885.76	8,887.79	0.59	-0.26	-0.53	
15,294.00	88.28	89.25	7,158.53	206.21	8,980.73	8,982.78	1.75	-1.75	0.14	
15,389.00	88.48	88.99	7,161.22	207.67	9,075.68	9,077.74	0.35	0.21	-0.27	
15,484.00	89.70	88.69	7,162.73	209.59	9,170.65	9,172.72	1.32	1.28	-0.32	
15,580.00	89.74	87.89	7,163.20	212.46	9,266.60	9,268.71	0.83	0.04	-0.83	
15,675.00	89.55	85.51	7,163.79	217.92	9,361.44	9,363.61	2.51	-0.20	-2.51	
15,715.00	90.34	86.85	7,163.82	220.59	9,401.35	9,403.56	3.90	1.98	3.36	
TIE IN Start DLS 3.00 TFO 110.14										
15,800.00	89.46	89.25	7,163.97	223.48	9,486.29	9,488.53	3.00	-1.03	2.82	
15,900.00	88.43	92.06	7,165.80	222.34	9,586.26	9,588.47	3.00	-1.03	2.82	
16,000.00	87.40	94.88	7,169.44	216.28	9,686.00	9,688.11	3.00	-1.03	2.82	
16,039.49	87.00	96.00	7,171.37	212.54	9,725.27	9,727.32	3.00	-1.02	2.82	
Start 275.00 hold at 16039.49 MD										
16,100.00	87.00	96.00	7,174.53	206.22	9,785.36	9,787.32	0.00	0.00	0.00	
16,200.00	87.00	96.00	7,179.77	195.78	9,884.67	9,886.47	0.00	0.00	0.00	
16,300.00	87.00	96.00	7,185.00	185.35	9,983.99	9,985.63	0.00	0.00	0.00	
16,314.49	87.00	96.00	7,185.76	183.83	9,998.38	10,000.00	0.00	0.00	0.00	
Start DLS 2.00 TFO 0.00										
16,400.00	88.71	96.00	7,188.96	174.90	10,083.36	10,084.83	2.00	2.00	0.00	
16,464.50	90.00	96.00	7,189.68	168.16	10,147.49	10,148.87	2.00	2.00	0.00	
Start DLS 2.00 TFO -90.00										
16,500.00	90.00	95.29	7,189.68	164.67	10,182.83	10,184.14	2.00	0.00	-2.00	
16,600.00	90.00	93.29	7,189.68	157.19	10,282.54	10,283.74	2.00	0.00	-2.00	
16,700.00	90.00	91.29	7,189.68	153.19	10,382.46	10,383.59	2.00	0.00	-2.00	
16,806.00	90.00	89.17	7,189.68	152.77	10,488.45	10,489.56	2.00	0.00	-2.00	
Start 313.87 hold at 16806.00 MD										
16,900.00	90.00	89.17	7,189.68	154.13	10,582.44	10,583.56	0.00	0.00	0.00	
17,000.00	90.00	89.17	7,189.68	155.58	10,682.43	10,683.56	0.00	0.00	0.00	
17,100.00	90.00	89.17	7,189.68	157.03	10,782.42	10,783.56	0.00	0.00	0.00	
17,119.86	90.00	89.17	7,189.68	157.31	10,802.28	10,803.42	0.00	0.00	0.00	
Start DLS 2.00 TFO -90.01										
17,200.00	90.00	87.57	7,189.68	159.60	10,882.38	10,883.55	2.00	0.00	-2.00	
17,300.00	90.00	85.57	7,189.68	165.58	10,982.20	10,983.44	2.00	0.00	-2.00	
17,400.00	90.00	83.57	7,189.69	175.05	11,081.74	11,083.12	2.00	0.00	-2.00	
17,472.19	90.00	82.12	7,189.69	184.04	11,153.37	11,154.86	2.00	0.00	-2.00	
Start 325.16 hold at 17472.19 MD										
17,500.00	90.00	82.12	7,189.69	187.85	11,180.92	11,182.47	0.00	0.00	0.00	
17,600.00	90.00	82.12	7,189.69	201.56	11,279.97	11,281.71	0.00	0.00	0.00	
17,700.00	90.00	82.12	7,189.69	215.26	11,379.03	11,380.95	0.00	0.00	0.00	
17,797.35	90.00	82.12	7,189.69	228.60	11,475.46	11,477.57	0.00	0.00	0.00	
PBHL TD at 17797.35										

Planning Report

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well LAVENDER 33-12HZ
Company:	US ROCKIES REGION	TVD Reference:	RKB @ 5102.00ft (PLAN KB)
Project:	COLORADO - WELD	MD Reference:	RKB @ 5102.00ft (PLAN KB)
Site:	T04N-R68W-S33 LAVENDER	North Reference:	True
Well:	LAVENDER 33-12HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	33-12HZ ST01		
Design:	Plan #1		

Design Targets										
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
LVDR 33-12HZ_SHL 34f - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	14,627,255.75	1,639,857.15	40.276047	-105.002006	
LVDR 33-12HZ_3900VS - plan misses target center by 6.87ft at 10205.85ft MD (7148.01 TVD, 115.58 N, 3898.34 E) - Point	0.00	0.00	7,154.30	118.32	3,898.69	14,627,373.93	1,643,754.28	40.276371	-104.988034	
LVDR 33-12HZ_BPZ 26f - plan misses target center by 2.34ft at 17776.61ft MD (7189.69 TVD, 225.76 N, 11454.92 E) - Point	0.00	0.00	7,189.69	228.08	11,454.60	14,627,483.48	1,651,307.15	40.276666	-104.960955	
LVDR 33-12HZ_PBHL 2 - plan misses target center by 0.31ft at 17797.35ft MD (7189.69 TVD, 228.60 N, 11475.46 E) - Point	0.00	0.00	7,190.00	228.60	11,475.46	14,627,484.00	1,651,328.00	40.276667	-104.960880	
LVDR 33-12HZ_HEEL 2 - plan misses target center by 16.90ft at 7629.08ft MD (7221.04 TVD, 65.47 N, 1330.17 E) - Point	0.00	0.00	7,227.70	81.00	1,329.68	14,627,336.69	1,641,186.30	40.276269	-104.997241	
LVDR 33-12HZ_2200VS - plan misses target center by 24.82ft at 8501.35ft MD (7265.78 TVD, 70.14 N, 2200.17 E) - Point	0.00	0.00	7,273.70	93.63	2,198.87	14,627,349.29	1,642,055.14	40.276304	-104.994126	

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
17,797.35	7,189.69	5 1/2"	5.500	6.000	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,697.61	3,681.00	PKMN		0.00	
4,698.14	4,672.00	SNNN		0.00	
5,218.70	5,187.00	SSSX		0.00	
7,228.84	7,072.00	SSPG		0.00	
7,331.17	7,118.00	MBRR		0.00	
7,515.71	7,196.00	NIOB		0.00	
7,775.39	7,227.70	LANDING		0.00	

Planning Report

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well LAVENDER 33-12HZ
Company:	US ROCKIES REGION	TVD Reference:	RKB @ 5102.00ft (PLAN KB)
Project:	COLORADO - WELD	MD Reference:	RKB @ 5102.00ft (PLAN KB)
Site:	T04N-R68W-S33 LAVENDER	North Reference:	True
Well:	LAVENDER 33-12HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	33-12HZ ST01		
Design:	Plan #1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
15,715.00	7,163.82	220.59	9,401.35	TIE IN Start DLS 3.00 TFO 110.14
16,039.49	7,171.37	212.54	9,725.27	Start 275.00 hold at 16039.49 MD
16,314.49	7,185.76	183.83	9,998.38	Start DLS 2.00 TFO 0.00
16,464.50	7,189.68	168.16	10,147.49	Start DLS 2.00 TFO -90.00
16,806.00	7,189.68	152.77	10,488.45	Start 313.87 hold at 16806.00 MD
17,119.86	7,189.68	157.31	10,802.28	Start DLS 2.00 TFO -90.01
17,472.19	7,189.69	184.04	11,153.37	Start 325.16 hold at 17472.19 MD
17,797.35	7,189.69	228.60	11,475.46	PBHL TD at 17797.35