



Well: Middlepark 18-05-4L
Site: Section 18-T04N-R62W
Project: Weld County, Colorado
Wellbore: Original Hole
Design: plan2

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	KOP Begin 1°/100' build
3	2349.26	6.99	208.03	2348.39	-18.77	-9.99	2.00	-18.44	Begin 6.99° tangent
4	5869.81	6.99	208.03	5842.82	-396.71	-211.16	0.00	-389.77	Begin 10°/100' build
5	6831.23	90.00	359.63	6476.00	172.71	-251.69	10.00	180.65	LP Begin 90° lateral
6	16483.37	90.00	359.63	6476.00	9824.65	-313.44	0.00	9829.65	PBHL/TD 16483.37 MD/6476.00 TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Middlepark 18-05-4L BHL 470 FNL 1338 FWL p2	6476.00	9824.65	-313.44	14648611.20	1815438.15	40.33298525	-104.37197787
Middlepark 18-05-4L LP 470 FSL 1338 FWL p2	6476.00	172.71	-251.69	14638959.96	1815568.46	40.30648161	-104.37175601



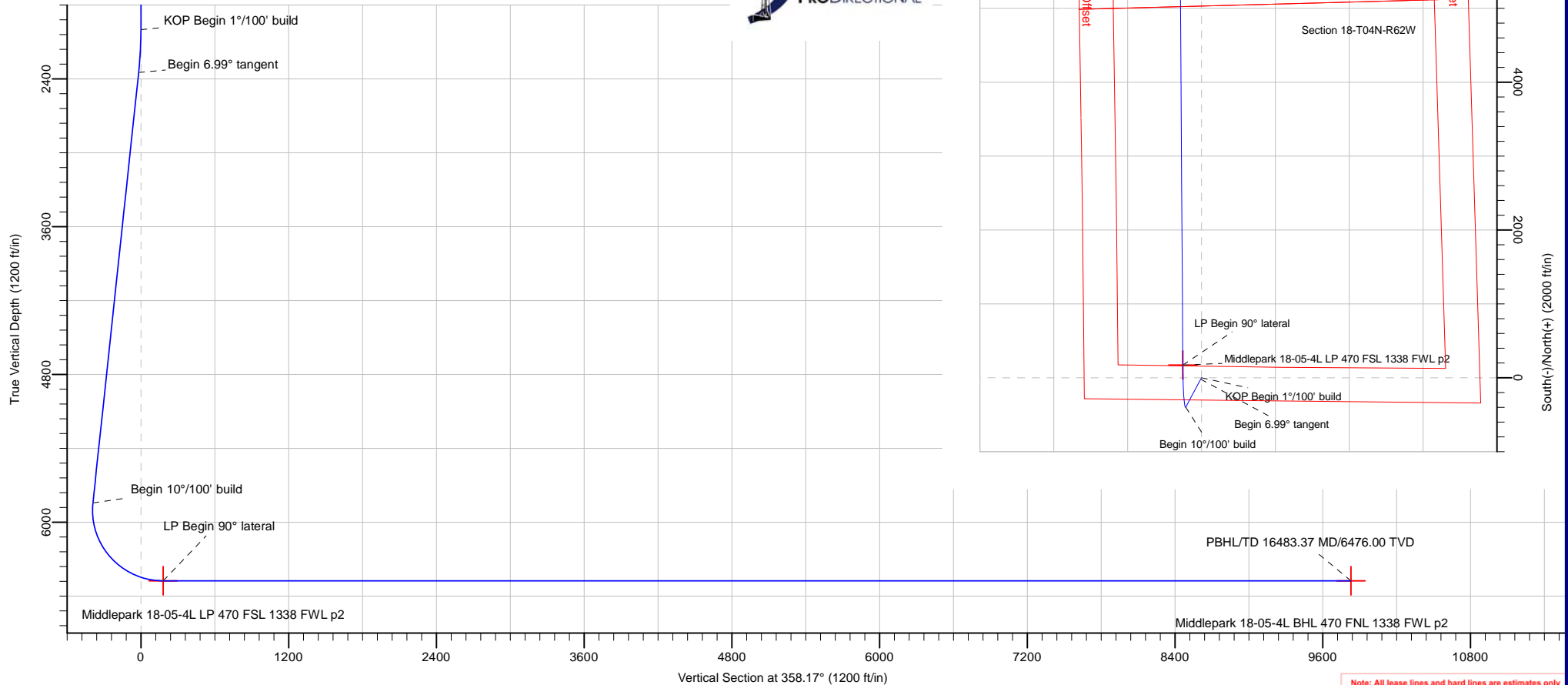
Azimuths to True North
Magnetic North: 8.18°

Magnetic Field
Strength: 52247.3snT
Dip Angle: 66.90°
Date: 4/22/2018
Model: HDGM

Middlepark 18-05-4L
Surf loc: 301 FSL 1588 FWL Section 18-T04N-R62W

NAD83 Colorado - HARN
Universal Transverse Mercator (US Survey Feet)
Zone 13N (108 W to 102 W)
RKB=4558+24 @ 4582.00ft

Northing	Easting	Latitude	Longitude
14638789.04	1815821.37	40.30600735	-104.37085327



Note: All lease lines and hard lines are estimates only and are subject to customers approval.

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-05-4L
Company:	Confluence Resources	TVD Reference:	RKB=4558+24 @ 4582.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4558+24 @ 4582.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-05-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Project	Weld County, Colorado		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD83 Colorado - HARN		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	Section 18-T04N-R62W			
Site Position:		Northing:	14,641,153.41 usft	Latitude: 40.31252000
From:	Lat/Long	Easting:	1,814,773.97 usft	Longitude: -104.37455000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.40 °

Well	Middlepark 18-05-4L, Surf loc: 301 FSL 1588 FWL Section 18-T04N-R62W			
Well Position	+N/-S	-2,371.71 ft	Northing:	14,638,789.04 usft
	+E/-W	1,030.67 ft	Easting:	1,815,821.37 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Ground Level: 4,558.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/22/2018	8.18	66.90	52,247.30000000

Design	plan2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	358.17

Plan Survey Tool Program	Date	4/26/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,483.37	plan2 (Original Hole)	

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,349.26	6.99	208.03	2,348.39	-18.77	-9.99	2.00	2.00	0.00	208.03	
5,869.81	6.99	208.03	5,842.82	-396.71	-211.16	0.00	0.00	0.00	0.00	
6,831.23	90.00	359.63	6,476.00	172.71	-251.69	10.00	8.63	15.77	151.43	Middlepark 18-05-4L I
16,483.37	90.00	359.63	6,476.00	9,824.65	-313.44	0.00	0.00	0.00	0.00	Middlepark 18-05-4L I

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-05-4L
Company:	Confluence Resources	TVD Reference:	RKB=4558+24 @ 4582.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4558+24 @ 4582.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-05-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 1°/100' build									
2,100.00	2.00	208.03	2,099.98	-1.54	-0.82	-1.51	2.00	2.00	0.00
2,200.00	4.00	208.03	2,199.84	-6.16	-3.28	-6.05	2.00	2.00	0.00
2,300.00	6.00	208.03	2,299.45	-13.85	-7.37	-13.61	2.00	2.00	0.00
2,349.26	6.99	208.03	2,348.40	-18.77	-9.99	-18.44	2.00	2.00	0.00
Begin 6.99° tangent									
2,400.00	6.99	208.03	2,398.76	-24.22	-12.89	-23.79	0.00	0.00	0.00
2,500.00	6.99	208.03	2,498.02	-34.95	-18.60	-34.34	0.00	0.00	0.00
2,600.00	6.99	208.03	2,597.27	-45.69	-24.32	-44.89	0.00	0.00	0.00
2,700.00	6.99	208.03	2,696.53	-56.42	-30.03	-55.44	0.00	0.00	0.00
2,800.00	6.99	208.03	2,795.79	-67.16	-35.75	-65.98	0.00	0.00	0.00
2,900.00	6.99	208.03	2,895.05	-77.89	-41.46	-76.53	0.00	0.00	0.00
3,000.00	6.99	208.03	2,994.31	-88.63	-47.17	-87.08	0.00	0.00	0.00
3,100.00	6.99	208.03	3,093.56	-99.36	-52.89	-97.63	0.00	0.00	0.00
3,200.00	6.99	208.03	3,192.82	-110.10	-58.60	-108.17	0.00	0.00	0.00
3,300.00	6.99	208.03	3,292.08	-120.83	-64.32	-118.72	0.00	0.00	0.00
3,400.00	6.99	208.03	3,391.34	-131.57	-70.03	-129.27	0.00	0.00	0.00
3,500.00	6.99	208.03	3,490.59	-142.30	-75.75	-139.82	0.00	0.00	0.00
3,600.00	6.99	208.03	3,589.85	-153.04	-81.46	-150.36	0.00	0.00	0.00
3,700.00	6.99	208.03	3,689.11	-163.78	-87.17	-160.91	0.00	0.00	0.00
3,800.00	6.99	208.03	3,788.37	-174.51	-92.89	-171.46	0.00	0.00	0.00
3,900.00	6.99	208.03	3,887.63	-185.25	-98.60	-182.01	0.00	0.00	0.00
4,000.00	6.99	208.03	3,986.88	-195.98	-104.32	-192.55	0.00	0.00	0.00
4,100.00	6.99	208.03	4,086.14	-206.72	-110.03	-203.10	0.00	0.00	0.00
4,200.00	6.99	208.03	4,185.40	-217.45	-115.74	-213.65	0.00	0.00	0.00
4,300.00	6.99	208.03	4,284.66	-228.19	-121.46	-224.20	0.00	0.00	0.00
4,400.00	6.99	208.03	4,383.91	-238.92	-127.17	-234.74	0.00	0.00	0.00
4,500.00	6.99	208.03	4,483.17	-249.66	-132.89	-245.29	0.00	0.00	0.00
4,600.00	6.99	208.03	4,582.43	-260.39	-138.60	-255.84	0.00	0.00	0.00
4,700.00	6.99	208.03	4,681.69	-271.13	-144.31	-266.39	0.00	0.00	0.00
4,800.00	6.99	208.03	4,780.95	-281.86	-150.03	-276.94	0.00	0.00	0.00
4,900.00	6.99	208.03	4,880.20	-292.60	-155.74	-287.48	0.00	0.00	0.00

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Project:	Weld County, Colorado	MD Reference:	RKB=4558+24 @ 4582.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-05-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,000.00	6.99	208.03	4,979.46	-303.33	-161.46	-298.03	0.00	0.00	0.00
5,100.00	6.99	208.03	5,078.72	-314.07	-167.17	-308.58	0.00	0.00	0.00
5,200.00	6.99	208.03	5,177.98	-324.80	-172.88	-319.13	0.00	0.00	0.00
5,300.00	6.99	208.03	5,277.23	-335.54	-178.60	-329.67	0.00	0.00	0.00
5,400.00	6.99	208.03	5,376.49	-346.27	-184.31	-340.22	0.00	0.00	0.00
5,500.00	6.99	208.03	5,475.75	-357.01	-190.03	-350.77	0.00	0.00	0.00
5,600.00	6.99	208.03	5,575.01	-367.74	-195.74	-361.32	0.00	0.00	0.00
5,700.00	6.99	208.03	5,674.27	-378.48	-201.45	-371.86	0.00	0.00	0.00
5,800.00	6.99	208.03	5,773.52	-389.21	-207.17	-382.41	0.00	0.00	0.00
5,869.81	6.99	208.03	5,842.81	-396.71	-211.16	-389.77	0.00	0.00	0.00
Begin 10°/100' build									
5,900.00	4.57	226.46	5,872.85	-399.16	-212.89	-392.17	10.00	-8.01	61.07
6,000.00	7.64	333.89	5,972.50	-395.92	-218.72	-388.75	10.00	3.07	107.43
6,100.00	17.19	348.78	6,070.07	-375.41	-224.53	-368.05	10.00	9.55	14.89
6,200.00	27.07	353.09	6,162.60	-338.23	-230.16	-330.71	10.00	9.87	4.31
6,300.00	37.01	355.20	6,247.26	-285.52	-235.43	-277.86	10.00	9.94	2.11
6,400.00	46.97	356.52	6,321.50	-218.88	-240.18	-211.11	10.00	9.96	1.32
6,500.00	56.94	357.46	6,383.05	-140.33	-244.27	-132.47	10.00	9.97	0.94
6,600.00	66.92	358.21	6,430.05	-52.27	-247.57	-44.35	10.00	9.98	0.75
6,700.00	76.90	358.86	6,461.06	42.64	-249.99	50.59	10.00	9.98	0.65
6,800.00	86.88	359.45	6,475.15	141.50	-251.44	149.45	10.00	9.98	0.60
6,831.23	90.00	359.63	6,476.00	172.71	-251.69	180.65	10.00	9.98	0.58
LP Begin 90° lateral									
6,900.00	90.00	359.63	6,476.00	241.48	-252.13	249.40	0.00	0.00	0.00
7,000.00	90.00	359.63	6,476.00	341.48	-252.77	349.37	0.00	0.00	0.00
7,100.00	90.00	359.63	6,476.00	441.48	-253.41	449.33	0.00	0.00	0.00
7,200.00	90.00	359.63	6,476.00	541.48	-254.05	549.30	0.00	0.00	0.00
7,300.00	90.00	359.63	6,476.00	641.47	-254.69	649.27	0.00	0.00	0.00
7,400.00	90.00	359.63	6,476.00	741.47	-255.33	749.24	0.00	0.00	0.00
7,500.00	90.00	359.63	6,476.00	841.47	-255.97	849.20	0.00	0.00	0.00
7,600.00	90.00	359.63	6,476.00	941.47	-256.61	949.17	0.00	0.00	0.00
7,700.00	90.00	359.63	6,476.00	1,041.47	-257.25	1,049.14	0.00	0.00	0.00
7,800.00	90.00	359.63	6,476.00	1,141.46	-257.89	1,149.11	0.00	0.00	0.00
7,900.00	90.00	359.63	6,476.00	1,241.46	-258.53	1,249.07	0.00	0.00	0.00
8,000.00	90.00	359.63	6,476.00	1,341.46	-259.17	1,349.04	0.00	0.00	0.00
8,100.00	90.00	359.63	6,476.00	1,441.46	-259.81	1,449.01	0.00	0.00	0.00
8,200.00	90.00	359.63	6,476.00	1,541.46	-260.45	1,548.98	0.00	0.00	0.00
8,300.00	90.00	359.63	6,476.00	1,641.45	-261.09	1,648.94	0.00	0.00	0.00
8,400.00	90.00	359.63	6,476.00	1,741.45	-261.73	1,748.91	0.00	0.00	0.00
8,500.00	90.00	359.63	6,476.00	1,841.45	-262.37	1,848.88	0.00	0.00	0.00
8,600.00	90.00	359.63	6,476.00	1,941.45	-263.01	1,948.85	0.00	0.00	0.00
8,700.00	90.00	359.63	6,476.00	2,041.45	-263.65	2,048.81	0.00	0.00	0.00
8,800.00	90.00	359.63	6,476.00	2,141.44	-264.28	2,148.78	0.00	0.00	0.00
8,900.00	90.00	359.63	6,476.00	2,241.44	-264.92	2,248.75	0.00	0.00	0.00
9,000.00	90.00	359.63	6,476.00	2,341.44	-265.56	2,348.72	0.00	0.00	0.00
9,100.00	90.00	359.63	6,476.00	2,441.44	-266.20	2,448.68	0.00	0.00	0.00
9,200.00	90.00	359.63	6,476.00	2,541.44	-266.84	2,548.65	0.00	0.00	0.00
9,300.00	90.00	359.63	6,476.00	2,641.43	-267.48	2,648.62	0.00	0.00	0.00
9,400.00	90.00	359.63	6,476.00	2,741.43	-268.12	2,748.59	0.00	0.00	0.00
9,500.00	90.00	359.63	6,476.00	2,841.43	-268.76	2,848.55	0.00	0.00	0.00
9,600.00	90.00	359.63	6,476.00	2,941.43	-269.40	2,948.52	0.00	0.00	0.00
9,700.00	90.00	359.63	6,476.00	3,041.43	-270.04	3,048.49	0.00	0.00	0.00
9,800.00	90.00	359.63	6,476.00	3,141.42	-270.68	3,148.46	0.00	0.00	0.00
9,900.00	90.00	359.63	6,476.00	3,241.42	-271.32	3,248.42	0.00	0.00	0.00

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Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-05-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,000.00	90.00	359.63	6,476.00	3,341.42	-271.96	3,348.39	0.00	0.00	0.00
10,100.00	90.00	359.63	6,476.00	3,441.42	-272.60	3,448.36	0.00	0.00	0.00
10,200.00	90.00	359.63	6,476.00	3,541.42	-273.24	3,548.33	0.00	0.00	0.00
10,300.00	90.00	359.63	6,476.00	3,641.41	-273.88	3,648.29	0.00	0.00	0.00
10,400.00	90.00	359.63	6,476.00	3,741.41	-274.52	3,748.26	0.00	0.00	0.00
10,500.00	90.00	359.63	6,476.00	3,841.41	-275.16	3,848.23	0.00	0.00	0.00
10,600.00	90.00	359.63	6,476.00	3,941.41	-275.80	3,948.20	0.00	0.00	0.00
10,700.00	90.00	359.63	6,476.00	4,041.40	-276.44	4,048.16	0.00	0.00	0.00
10,800.00	90.00	359.63	6,476.00	4,141.40	-277.08	4,148.13	0.00	0.00	0.00
10,900.00	90.00	359.63	6,476.00	4,241.40	-277.72	4,248.10	0.00	0.00	0.00
11,000.00	90.00	359.63	6,476.00	4,341.40	-278.36	4,348.07	0.00	0.00	0.00
11,100.00	90.00	359.63	6,476.00	4,441.40	-279.00	4,448.03	0.00	0.00	0.00
11,200.00	90.00	359.63	6,476.00	4,541.39	-279.64	4,548.00	0.00	0.00	0.00
11,300.00	90.00	359.63	6,476.00	4,641.39	-280.28	4,647.97	0.00	0.00	0.00
11,400.00	90.00	359.63	6,476.00	4,741.39	-280.92	4,747.94	0.00	0.00	0.00
11,500.00	90.00	359.63	6,476.00	4,841.39	-281.56	4,847.90	0.00	0.00	0.00
11,600.00	90.00	359.63	6,476.00	4,941.39	-282.20	4,947.87	0.00	0.00	0.00
11,700.00	90.00	359.63	6,476.00	5,041.38	-282.84	5,047.84	0.00	0.00	0.00
11,800.00	90.00	359.63	6,476.00	5,141.38	-283.48	5,147.81	0.00	0.00	0.00
11,900.00	90.00	359.63	6,476.00	5,241.38	-284.12	5,247.77	0.00	0.00	0.00
12,000.00	90.00	359.63	6,476.00	5,341.38	-284.76	5,347.74	0.00	0.00	0.00
12,100.00	90.00	359.63	6,476.00	5,441.38	-285.40	5,447.71	0.00	0.00	0.00
12,200.00	90.00	359.63	6,476.00	5,541.37	-286.04	5,547.68	0.00	0.00	0.00
12,300.00	90.00	359.63	6,476.00	5,641.37	-286.68	5,647.64	0.00	0.00	0.00
12,400.00	90.00	359.63	6,476.00	5,741.37	-287.32	5,747.61	0.00	0.00	0.00
12,500.00	90.00	359.63	6,476.00	5,841.37	-287.96	5,847.58	0.00	0.00	0.00
12,600.00	90.00	359.63	6,476.00	5,941.37	-288.59	5,947.55	0.00	0.00	0.00
12,700.00	90.00	359.63	6,476.00	6,041.36	-289.23	6,047.51	0.00	0.00	0.00
12,800.00	90.00	359.63	6,476.00	6,141.36	-289.87	6,147.48	0.00	0.00	0.00
12,900.00	90.00	359.63	6,476.00	6,241.36	-290.51	6,247.45	0.00	0.00	0.00
13,000.00	90.00	359.63	6,476.00	6,341.36	-291.15	6,347.42	0.00	0.00	0.00
13,100.00	90.00	359.63	6,476.00	6,441.36	-291.79	6,447.38	0.00	0.00	0.00
13,200.00	90.00	359.63	6,476.00	6,541.35	-292.43	6,547.35	0.00	0.00	0.00
13,300.00	90.00	359.63	6,476.00	6,641.35	-293.07	6,647.32	0.00	0.00	0.00
13,400.00	90.00	359.63	6,476.00	6,741.35	-293.71	6,747.29	0.00	0.00	0.00
13,500.00	90.00	359.63	6,476.00	6,841.35	-294.35	6,847.25	0.00	0.00	0.00
13,600.00	90.00	359.63	6,476.00	6,941.35	-294.99	6,947.22	0.00	0.00	0.00
13,700.00	90.00	359.63	6,476.00	7,041.34	-295.63	7,047.19	0.00	0.00	0.00
13,800.00	90.00	359.63	6,476.00	7,141.34	-296.27	7,147.16	0.00	0.00	0.00
13,900.00	90.00	359.63	6,476.00	7,241.34	-296.91	7,247.12	0.00	0.00	0.00
14,000.00	90.00	359.63	6,476.00	7,341.34	-297.55	7,347.09	0.00	0.00	0.00
14,100.00	90.00	359.63	6,476.00	7,441.34	-298.19	7,447.06	0.00	0.00	0.00
14,200.00	90.00	359.63	6,476.00	7,541.33	-298.83	7,547.03	0.00	0.00	0.00
14,300.00	90.00	359.63	6,476.00	7,641.33	-299.47	7,646.99	0.00	0.00	0.00
14,400.00	90.00	359.63	6,476.00	7,741.33	-300.11	7,746.96	0.00	0.00	0.00
14,500.00	90.00	359.63	6,476.00	7,841.33	-300.75	7,846.93	0.00	0.00	0.00
14,600.00	90.00	359.63	6,476.00	7,941.33	-301.39	7,946.90	0.00	0.00	0.00
14,700.00	90.00	359.63	6,476.00	8,041.32	-302.03	8,046.86	0.00	0.00	0.00
14,800.00	90.00	359.63	6,476.00	8,141.32	-302.67	8,146.83	0.00	0.00	0.00
14,900.00	90.00	359.63	6,476.00	8,241.32	-303.31	8,246.80	0.00	0.00	0.00
15,000.00	90.00	359.63	6,476.00	8,341.32	-303.95	8,346.77	0.00	0.00	0.00
15,100.00	90.00	359.63	6,476.00	8,441.31	-304.59	8,446.73	0.00	0.00	0.00
15,200.00	90.00	359.63	6,476.00	8,541.31	-305.23	8,546.70	0.00	0.00	0.00
15,300.00	90.00	359.63	6,476.00	8,641.31	-305.87	8,646.67	0.00	0.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-05-4L
Company:	Confluence Resources	TVD Reference:	RKB=4558+24 @ 4582.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4558+24 @ 4582.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-05-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,400.00	90.00	359.63	6,476.00	8,741.31	-306.51	8,746.64	0.00	0.00	0.00
15,500.00	90.00	359.63	6,476.00	8,841.31	-307.15	8,846.60	0.00	0.00	0.00
15,600.00	90.00	359.63	6,476.00	8,941.30	-307.79	8,946.57	0.00	0.00	0.00
15,700.00	90.00	359.63	6,476.00	9,041.30	-308.43	9,046.54	0.00	0.00	0.00
15,800.00	90.00	359.63	6,476.00	9,141.30	-309.07	9,146.51	0.00	0.00	0.00
15,900.00	90.00	359.63	6,476.00	9,241.30	-309.71	9,246.47	0.00	0.00	0.00
16,000.00	90.00	359.63	6,476.00	9,341.30	-310.35	9,346.44	0.00	0.00	0.00
16,100.00	90.00	359.63	6,476.00	9,441.29	-310.99	9,446.41	0.00	0.00	0.00
16,200.00	90.00	359.63	6,476.00	9,541.29	-311.63	9,546.38	0.00	0.00	0.00
16,300.00	90.00	359.63	6,476.00	9,641.29	-312.27	9,646.34	0.00	0.00	0.00
16,400.00	90.00	359.63	6,476.00	9,741.29	-312.90	9,746.31	0.00	0.00	0.00
16,483.37	90.00	359.63	6,476.00	9,824.65	-313.44	9,829.65	0.00	0.00	0.00
PBHL/TD 16483.37 MD/6476.00 TVD									

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
Middlepark 18-05-4L BH - plan hits target center - Point	0.00	0.00	6,476.00	9,824.65	-313.44	14,648,611.20	1,815,438.15	40.33298525	-104.37197788
Middlepark 18-05-4L LP - plan hits target center - Point	0.00	0.00	6,476.00	172.71	-251.69	14,638,959.96	1,815,568.46	40.30648161	-104.37175602

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,000.00	2,000.00	0.00	0.00	KOP Begin 1°/100' build
2,349.26	2,348.40	-18.77	-9.99	Begin 6.99° tangent
5,869.81	5,842.81	-396.71	-211.16	Begin 10°/100' build
6,831.23	6,476.00	172.71	-251.69	LP Begin 90° lateral
16,483.37	6,476.00	9,824.65	-313.44	PBHL/TD 16483.37 MD/6476.00 TVD

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-05-4L
Company:	Confluence Resources	TVD Reference:	RKB=4558+24 @ 4582.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4558+24 @ 4582.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-05-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Project	Weld County, Colorado		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	NAD83 Colorado - HARN		
Map Zone:	Zone 13N (108 W to 102 W)		

Site		Section 18-T04N-R62W			
Site Position:		Northing:	14,641,153.41 usft	Latitude:	40.31252000
From:	Lat/Long	Easting:	1,814,773.97 usft	Longitude:	-104.37455000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.40

Well	Middlepark 18-05-4L, Surf loc: 301 FSL 1588 FWL Section 18-T04N-R62W					
Well Position	+N/-S	0.00 ft	Northing:	14,638,789.04 usft	Latitude:	40.30600736
	+E/-W	0.00 ft	Easting:	1,815,821.37 usft	Longitude:	-104.37085327
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,558.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	4/22/2018	8.18	66.90	52,247.30000000

Design	plan2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	358.17

Plan Survey Tool Program	Date	4/26/2018		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,483.37 plan2 (Original Hole)		

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,349.26	6.99	208.03	2,348.39	-18.77	-9.99	2.00	2.00	0.00	208.03	
5,869.81	6.99	208.03	5,842.82	-396.71	-211.16	0.00	0.00	0.00	0.00	
6,831.23	90.00	359.63	6,476.00	172.71	-251.69	10.00	8.63	15.77	151.43	Middlepark 18-05-4L I
16,483.37	90.00	359.63	6,476.00	9,824.65	-313.44	0.00	0.00	0.00	0.00	Middlepark 18-05-4L I

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-05-4L
Company:	Confluence Resources	TVD Reference:	RKB=4558+24 @ 4582.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4558+24 @ 4582.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-05-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
100.00	0.00	0.00	100.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
200.00	0.00	0.00	200.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
300.00	0.00	0.00	300.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
400.00	0.00	0.00	400.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
500.00	0.00	0.00	500.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
600.00	0.00	0.00	600.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
700.00	0.00	0.00	700.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
800.00	0.00	0.00	800.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
900.00	0.00	0.00	900.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,638,789.04	1,815,821.37	40.30600736	-104.37085327
KOP Begin 1°/100' build									
2,100.00	2.00	208.03	2,099.98	-1.54	-0.82	14,638,787.49	1,815,820.56	40.30600313	-104.37085621
2,200.00	4.00	208.03	2,199.84	-6.16	-3.28	14,638,782.85	1,815,818.14	40.30599044	-104.37086503
2,300.00	6.00	208.03	2,299.45	-13.85	-7.37	14,638,775.13	1,815,814.10	40.30596932	-104.37087972
2,349.26	6.99	208.03	2,348.40	-18.77	-9.99	14,638,770.20	1,815,811.51	40.30595582	-104.37088911
Begin 6.99° tangent									
2,400.00	6.99	208.03	2,398.76	-24.22	-12.89	14,638,764.73	1,815,808.65	40.30594086	-104.37089950
2,500.00	6.99	208.03	2,498.02	-34.95	-18.60	14,638,753.95	1,815,803.02	40.30591138	-104.37092000
2,600.00	6.99	208.03	2,597.27	-45.69	-24.32	14,638,743.18	1,815,797.38	40.30588190	-104.37094049
2,700.00	6.99	208.03	2,696.53	-56.42	-30.03	14,638,732.40	1,815,791.74	40.30585242	-104.37096099
2,800.00	6.99	208.03	2,795.79	-67.16	-35.75	14,638,721.63	1,815,786.10	40.30582295	-104.37098148
2,900.00	6.99	208.03	2,895.05	-77.89	-41.46	14,638,710.85	1,815,780.46	40.30579347	-104.37100198
3,000.00	6.99	208.03	2,994.31	-88.63	-47.17	14,638,700.08	1,815,774.83	40.30576399	-104.37102247
3,100.00	6.99	208.03	3,093.56	-99.36	-52.89	14,638,689.30	1,815,769.19	40.30573451	-104.37104297
3,200.00	6.99	208.03	3,192.82	-110.10	-58.60	14,638,678.52	1,815,763.55	40.30570503	-104.37106346
3,300.00	6.99	208.03	3,292.08	-120.83	-64.32	14,638,667.75	1,815,757.91	40.30567555	-104.37108396
3,400.00	6.99	208.03	3,391.34	-131.57	-70.03	14,638,656.97	1,815,752.28	40.30564608	-104.37110445
3,500.00	6.99	208.03	3,490.59	-142.30	-75.75	14,638,646.20	1,815,746.64	40.30561660	-104.37112494
3,600.00	6.99	208.03	3,589.85	-153.04	-81.46	14,638,635.42	1,815,741.00	40.30558712	-104.37114544
3,700.00	6.99	208.03	3,689.11	-163.78	-87.17	14,638,624.65	1,815,735.36	40.30555764	-104.37116593
3,800.00	6.99	208.03	3,788.37	-174.51	-92.89	14,638,613.87	1,815,729.73	40.30552816	-104.37118643
3,900.00	6.99	208.03	3,887.63	-185.25	-98.60	14,638,603.10	1,815,724.09	40.30549868	-104.37120692
4,000.00	6.99	208.03	3,986.88	-195.98	-104.32	14,638,592.32	1,815,718.45	40.30546921	-104.37122742
4,100.00	6.99	208.03	4,086.14	-206.72	-110.03	14,638,581.55	1,815,712.81	40.30543973	-104.37124791
4,200.00	6.99	208.03	4,185.40	-217.45	-115.74	14,638,570.77	1,815,707.17	40.30541025	-104.37126841
4,300.00	6.99	208.03	4,284.66	-228.19	-121.46	14,638,559.99	1,815,701.54	40.30538077	-104.37128890
4,400.00	6.99	208.03	4,383.91	-238.92	-127.17	14,638,549.22	1,815,695.90	40.30535129	-104.37130939
4,500.00	6.99	208.03	4,483.17	-249.66	-132.89	14,638,538.44	1,815,690.26	40.30532181	-104.37132989
4,600.00	6.99	208.03	4,582.43	-260.39	-138.60	14,638,527.67	1,815,684.62	40.30529233	-104.37135038
4,700.00	6.99	208.03	4,681.69	-271.13	-144.31	14,638,516.89	1,815,678.99	40.30526286	-104.37137088
4,800.00	6.99	208.03	4,780.95	-281.86	-150.03	14,638,506.12	1,815,673.35	40.30523338	-104.37139137
4,900.00	6.99	208.03	4,880.20	-292.60	-155.74	14,638,495.34	1,815,667.71	40.30520390	-104.37141187
5,000.00	6.99	208.03	4,979.46	-303.33	-161.46	14,638,484.57	1,815,662.07	40.30517442	-104.37143236

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-05-4L
Company:	Confluence Resources	TVD Reference:	RKB=4558+24 @ 4582.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4558+24 @ 4582.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-05-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,100.00	6.99	208.03	5,078.72	-314.07	-167.17	14,638,473.79	1,815,656.44	40.30514494	-104.37145285
5,200.00	6.99	208.03	5,177.98	-324.80	-172.88	14,638,463.01	1,815,650.80	40.30511546	-104.37147335
5,300.00	6.99	208.03	5,277.23	-335.54	-178.60	14,638,452.24	1,815,645.16	40.30508599	-104.37149384
5,400.00	6.99	208.03	5,376.49	-346.27	-184.31	14,638,441.46	1,815,639.52	40.30505651	-104.37151434
5,500.00	6.99	208.03	5,475.75	-357.01	-190.03	14,638,430.69	1,815,633.89	40.30502703	-104.37153483
5,600.00	6.99	208.03	5,575.01	-367.74	-195.74	14,638,419.91	1,815,628.25	40.30499755	-104.37155532
5,700.00	6.99	208.03	5,674.27	-378.48	-201.45	14,638,409.14	1,815,622.61	40.30496807	-104.37157582
5,800.00	6.99	208.03	5,773.52	-389.21	-207.17	14,638,398.36	1,815,616.97	40.30493859	-104.37159631
5,869.81	6.99	208.03	5,842.81	-396.71	-211.16	14,638,390.84	1,815,613.04	40.30491801	-104.37161062
Begin 10°/100' build									
5,900.00	4.57	226.46	5,872.85	-399.16	-212.89	14,638,388.38	1,815,611.32	40.30491129	-104.37161684
6,000.00	7.64	333.89	5,972.50	-395.92	-218.72	14,638,391.57	1,815,605.47	40.30492017	-104.37163774
6,100.00	17.19	348.78	6,070.07	-375.41	-224.53	14,638,412.05	1,815,599.51	40.30497651	-104.37165860
6,200.00	27.07	353.09	6,162.60	-338.23	-230.16	14,638,449.19	1,815,593.62	40.30507861	-104.37167878
6,300.00	37.01	355.20	6,247.26	-285.52	-235.43	14,638,501.86	1,815,587.97	40.30522334	-104.37169769
6,400.00	46.97	356.52	6,321.50	-218.88	-240.18	14,638,568.46	1,815,582.75	40.30540633	-104.37171473
6,500.00	56.94	357.46	6,383.05	-140.33	-244.27	14,638,646.97	1,815,578.10	40.30562201	-104.37172940
6,600.00	66.92	358.21	6,430.05	-52.27	-247.57	14,638,735.01	1,815,574.18	40.30586383	-104.37174124
6,700.00	76.90	358.86	6,461.06	42.64	-249.99	14,638,829.90	1,815,571.09	40.30612443	-104.37174991
6,800.00	86.88	359.45	6,475.15	141.50	-251.44	14,638,928.75	1,815,568.93	40.30639591	-104.37175512
6,831.23	90.00	359.63	6,476.00	172.71	-251.69	14,638,959.96	1,815,568.46	40.30648162	-104.37175602
LP Begin 90° lateral									
6,900.00	90.00	359.63	6,476.00	241.48	-252.13	14,639,028.72	1,815,567.53	40.30667045	-104.37175760
7,000.00	90.00	359.63	6,476.00	341.48	-252.77	14,639,128.71	1,815,566.18	40.30694504	-104.37175990
7,100.00	90.00	359.63	6,476.00	441.48	-253.41	14,639,228.70	1,815,564.83	40.30721963	-104.37176219
7,200.00	90.00	359.63	6,476.00	541.48	-254.05	14,639,328.69	1,815,563.48	40.30749422	-104.37176449
7,300.00	90.00	359.63	6,476.00	641.47	-254.69	14,639,428.68	1,815,562.13	40.30776881	-104.37176679
7,400.00	90.00	359.63	6,476.00	741.47	-255.33	14,639,528.68	1,815,560.78	40.30804340	-104.37176909
7,500.00	90.00	359.63	6,476.00	841.47	-255.97	14,639,628.67	1,815,559.43	40.30831799	-104.37177139
7,600.00	90.00	359.63	6,476.00	941.47	-256.61	14,639,728.66	1,815,558.08	40.30859257	-104.37177369
7,700.00	90.00	359.63	6,476.00	1,041.47	-257.25	14,639,828.65	1,815,556.73	40.30886716	-104.37177598
7,800.00	90.00	359.63	6,476.00	1,141.46	-257.89	14,639,928.64	1,815,555.38	40.30914175	-104.37177828
7,900.00	90.00	359.63	6,476.00	1,241.46	-258.53	14,640,028.63	1,815,554.03	40.30941634	-104.37178058
8,000.00	90.00	359.63	6,476.00	1,341.46	-259.17	14,640,128.62	1,815,552.68	40.30969093	-104.37178288
8,100.00	90.00	359.63	6,476.00	1,441.46	-259.81	14,640,228.61	1,815,551.33	40.30996552	-104.37178518
8,200.00	90.00	359.63	6,476.00	1,541.46	-260.45	14,640,328.60	1,815,549.98	40.31024011	-104.37178748
8,300.00	90.00	359.63	6,476.00	1,641.45	-261.09	14,640,428.59	1,815,548.63	40.31051470	-104.37178977
8,400.00	90.00	359.63	6,476.00	1,741.45	-261.73	14,640,528.58	1,815,547.28	40.31078929	-104.37179207
8,500.00	90.00	359.63	6,476.00	1,841.45	-262.37	14,640,628.57	1,815,545.93	40.31106387	-104.37179437
8,600.00	90.00	359.63	6,476.00	1,941.45	-263.01	14,640,728.56	1,815,544.58	40.31133846	-104.37179667
8,700.00	90.00	359.63	6,476.00	2,041.45	-263.65	14,640,828.55	1,815,543.23	40.31161305	-104.37179897
8,800.00	90.00	359.63	6,476.00	2,141.44	-264.28	14,640,928.55	1,815,541.88	40.31188764	-104.37180127
8,900.00	90.00	359.63	6,476.00	2,241.44	-264.92	14,641,028.54	1,815,540.53	40.31216223	-104.37180356
9,000.00	90.00	359.63	6,476.00	2,341.44	-265.56	14,641,128.53	1,815,539.18	40.31243682	-104.37180586
9,100.00	90.00	359.63	6,476.00	2,441.44	-266.20	14,641,228.52	1,815,537.83	40.31271141	-104.37180816
9,200.00	90.00	359.63	6,476.00	2,541.44	-266.84	14,641,328.51	1,815,536.48	40.31298598	-104.37181046
9,300.00	90.00	359.63	6,476.00	2,641.43	-267.48	14,641,428.50	1,815,535.13	40.31326057	-104.37181276
9,400.00	90.00	359.63	6,476.00	2,741.43	-268.12	14,641,528.49	1,815,533.78	40.31353516	-104.37181506
9,500.00	90.00	359.63	6,476.00	2,841.43	-268.76	14,641,628.48	1,815,532.43	40.31380975	-104.37181736
9,600.00	90.00	359.63	6,476.00	2,941.43	-269.40	14,641,728.47	1,815,531.08	40.31408434	-104.37181965
9,700.00	90.00	359.63	6,476.00	3,041.43	-270.04	14,641,828.46	1,815,529.73	40.31435893	-104.37182195
9,800.00	90.00	359.63	6,476.00	3,141.42	-270.68	14,641,928.45	1,815,528.38	40.31463352	-104.37182425
9,900.00	90.00	359.63	6,476.00	3,241.42	-271.32	14,642,028.44	1,815,527.03	40.31490810	-104.37182655
10,000.00	90.00	359.63	6,476.00	3,341.42	-271.96	14,642,128.43	1,815,525.68	40.31518269	-104.37182885

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-05-4L
Company:	Confluence Resources	TVD Reference:	RKB=4558+24 @ 4582.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4558+24 @ 4582.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-05-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,100.00	90.00	359.63	6,476.00	3,441.42	-272.60	14,642,228.42	1,815,524.33	40.31545728	-104.37183115
10,200.00	90.00	359.63	6,476.00	3,541.42	-273.24	14,642,328.41	1,815,522.98	40.31573187	-104.37183344
10,300.00	90.00	359.63	6,476.00	3,641.41	-273.88	14,642,428.41	1,815,521.63	40.31600646	-104.37183574
10,400.00	90.00	359.63	6,476.00	3,741.41	-274.52	14,642,528.40	1,815,520.28	40.31628105	-104.37183804
10,500.00	90.00	359.63	6,476.00	3,841.41	-275.16	14,642,628.39	1,815,518.93	40.31655564	-104.37184034
10,600.00	90.00	359.63	6,476.00	3,941.41	-275.80	14,642,728.38	1,815,517.58	40.31683022	-104.37184264
10,700.00	90.00	359.63	6,476.00	4,041.40	-276.44	14,642,828.37	1,815,516.23	40.31710481	-104.37184494
10,800.00	90.00	359.63	6,476.00	4,141.40	-277.08	14,642,928.36	1,815,514.88	40.31737940	-104.37184724
10,900.00	90.00	359.63	6,476.00	4,241.40	-277.72	14,643,028.35	1,815,513.53	40.31765399	-104.37184953
11,000.00	90.00	359.63	6,476.00	4,341.40	-278.36	14,643,128.34	1,815,512.18	40.31792858	-104.37185183
11,100.00	90.00	359.63	6,476.00	4,441.40	-279.00	14,643,228.33	1,815,510.83	40.31820317	-104.37185413
11,200.00	90.00	359.63	6,476.00	4,541.39	-279.64	14,643,328.32	1,815,509.48	40.31847775	-104.37185643
11,300.00	90.00	359.63	6,476.00	4,641.39	-280.28	14,643,428.31	1,815,508.13	40.31875234	-104.37185873
11,400.00	90.00	359.63	6,476.00	4,741.39	-280.92	14,643,528.30	1,815,506.78	40.31902693	-104.37186103
11,500.00	90.00	359.63	6,476.00	4,841.39	-281.56	14,643,628.29	1,815,505.43	40.31930152	-104.37186333
11,600.00	90.00	359.63	6,476.00	4,941.39	-282.20	14,643,728.28	1,815,504.08	40.31957611	-104.37186562
11,700.00	90.00	359.63	6,476.00	5,041.38	-282.84	14,643,828.28	1,815,502.73	40.31985070	-104.37186792
11,800.00	90.00	359.63	6,476.00	5,141.38	-283.48	14,643,928.27	1,815,501.38	40.32012528	-104.37187022
11,900.00	90.00	359.63	6,476.00	5,241.38	-284.12	14,644,028.26	1,815,500.03	40.32039987	-104.37187252
12,000.00	90.00	359.63	6,476.00	5,341.38	-284.76	14,644,128.25	1,815,498.68	40.32067446	-104.37187482
12,100.00	90.00	359.63	6,476.00	5,441.38	-285.40	14,644,228.24	1,815,497.33	40.32094905	-104.37187712
12,200.00	90.00	359.63	6,476.00	5,541.37	-286.04	14,644,328.23	1,815,495.98	40.32122364	-104.37187942
12,300.00	90.00	359.63	6,476.00	5,641.37	-286.68	14,644,428.22	1,815,494.63	40.32149823	-104.37188171
12,400.00	90.00	359.63	6,476.00	5,741.37	-287.32	14,644,528.21	1,815,493.28	40.32177281	-104.37188401
12,500.00	90.00	359.63	6,476.00	5,841.37	-287.96	14,644,628.20	1,815,491.93	40.32204740	-104.37188631
12,600.00	90.00	359.63	6,476.00	5,941.37	-288.59	14,644,728.19	1,815,490.58	40.32232199	-104.37188861
12,700.00	90.00	359.63	6,476.00	6,041.36	-289.23	14,644,828.18	1,815,489.23	40.32259658	-104.37189091
12,800.00	90.00	359.63	6,476.00	6,141.36	-289.87	14,644,928.17	1,815,487.88	40.32287117	-104.37189321
12,900.00	90.00	359.63	6,476.00	6,241.36	-290.51	14,645,028.16	1,815,486.53	40.32314576	-104.37189551
13,000.00	90.00	359.63	6,476.00	6,341.36	-291.15	14,645,128.15	1,815,485.18	40.32342034	-104.37189780
13,100.00	90.00	359.63	6,476.00	6,441.36	-291.79	14,645,228.14	1,815,483.83	40.32369493	-104.37190010
13,200.00	90.00	359.63	6,476.00	6,541.35	-292.43	14,645,328.14	1,815,482.48	40.32396952	-104.37190240
13,300.00	90.00	359.63	6,476.00	6,641.35	-293.07	14,645,428.13	1,815,481.13	40.32424411	-104.37190470
13,400.00	90.00	359.63	6,476.00	6,741.35	-293.71	14,645,528.12	1,815,479.78	40.32451870	-104.37190700
13,500.00	90.00	359.63	6,476.00	6,841.35	-294.35	14,645,628.11	1,815,478.43	40.32479328	-104.37190930
13,600.00	90.00	359.63	6,476.00	6,941.35	-294.99	14,645,728.10	1,815,477.08	40.32506787	-104.37191160
13,700.00	90.00	359.63	6,476.00	7,041.34	-295.63	14,645,828.09	1,815,475.73	40.32534246	-104.37191389
13,800.00	90.00	359.63	6,476.00	7,141.34	-296.27	14,645,928.08	1,815,474.38	40.32561705	-104.37191619
13,900.00	90.00	359.63	6,476.00	7,241.34	-296.91	14,646,028.07	1,815,473.03	40.32589164	-104.37191849
14,000.00	90.00	359.63	6,476.00	7,341.34	-297.55	14,646,128.06	1,815,471.68	40.32616622	-104.37192079
14,100.00	90.00	359.63	6,476.00	7,441.34	-298.19	14,646,228.05	1,815,470.33	40.32644081	-104.37192309
14,200.00	90.00	359.63	6,476.00	7,541.33	-298.83	14,646,328.04	1,815,468.98	40.32671540	-104.37192539
14,300.00	90.00	359.63	6,476.00	7,641.33	-299.47	14,646,428.03	1,815,467.63	40.32698999	-104.37192769
14,400.00	90.00	359.63	6,476.00	7,741.33	-300.11	14,646,528.02	1,815,466.28	40.32726458	-104.37192999
14,500.00	90.00	359.63	6,476.00	7,841.33	-300.75	14,646,628.01	1,815,464.93	40.32753916	-104.37193228
14,600.00	90.00	359.63	6,476.00	7,941.33	-301.39	14,646,728.01	1,815,463.58	40.32781375	-104.37193458
14,700.00	90.00	359.63	6,476.00	8,041.32	-302.03	14,646,828.00	1,815,462.23	40.32808834	-104.37193688
14,800.00	90.00	359.63	6,476.00	8,141.32	-302.67	14,646,927.99	1,815,460.88	40.32836293	-104.37193918
14,900.00	90.00	359.63	6,476.00	8,241.32	-303.31	14,647,027.98	1,815,459.53	40.32863752	-104.37194148
15,000.00	90.00	359.63	6,476.00	8,341.32	-303.95	14,647,127.97	1,815,458.18	40.32891210	-104.37194378
15,100.00	90.00	359.63	6,476.00	8,441.31	-304.59	14,647,227.96	1,815,456.83	40.32918669	-104.37194608
15,200.00	90.00	359.63	6,476.00	8,541.31	-305.23	14,647,327.95	1,815,455.48	40.32946128	-104.37194837
15,300.00	90.00	359.63	6,476.00	8,641.31	-305.87	14,647,427.94	1,815,454.13	40.32973587	-104.37195067
15,400.00	90.00	359.63	6,476.00	8,741.31	-306.51	14,647,527.93	1,815,452.78	40.33001046	-104.37195297
15,500.00	90.00	359.63	6,476.00	8,841.31	-307.15	14,647,627.92	1,815,451.43	40.33028504	-104.37195527

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Middlepark 18-05-4L
Company:	Confluence Resources	TVD Reference:	RKB=4558+24 @ 4582.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=4558+24 @ 4582.00ft
Site:	Section 18-T04N-R62W	North Reference:	True
Well:	Middlepark 18-05-4L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan2		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,600.00	90.00	359.63	6,476.00	8,941.30	-307.79	14,647,727.91	1,815,450.08	40.33055963	-104.37195757
15,700.00	90.00	359.63	6,476.00	9,041.30	-308.43	14,647,827.90	1,815,448.73	40.33083422	-104.37195987
15,800.00	90.00	359.63	6,476.00	9,141.30	-309.07	14,647,927.89	1,815,447.38	40.33110881	-104.37196217
15,900.00	90.00	359.63	6,476.00	9,241.30	-309.71	14,648,027.88	1,815,446.03	40.33138339	-104.37196447
16,000.00	90.00	359.63	6,476.00	9,341.30	-310.35	14,648,127.87	1,815,444.68	40.33165798	-104.37196676
16,100.00	90.00	359.63	6,476.00	9,441.29	-310.99	14,648,227.87	1,815,443.33	40.33193257	-104.37196906
16,200.00	90.00	359.63	6,476.00	9,541.29	-311.63	14,648,327.86	1,815,441.98	40.33220716	-104.37197136
16,300.00	90.00	359.63	6,476.00	9,641.29	-312.27	14,648,427.85	1,815,440.63	40.33248175	-104.37197366
16,400.00	90.00	359.63	6,476.00	9,741.29	-312.90	14,648,527.84	1,815,439.28	40.33275633	-104.37197596
16,483.37	90.00	359.63	6,476.00	9,824.65	-313.44	14,648,611.20	1,815,438.15	40.33298525	-104.37197788
PBHL/TD 16483.37 MD/6476.00 TVD									

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
Middlepark 18-05-4L BH - plan hits target center - Point	0.00	0.00	6,476.00	9,824.65	-313.44	14,648,611.20	1,815,438.15	40.33298525	-104.37197788
Middlepark 18-05-4L LP - plan hits target center - Point	0.00	0.00	6,476.00	172.71	-251.69	14,638,959.96	1,815,568.46	40.30648161	-104.37175602

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
2,000.00	2,000.00	0.00	0.00	KOP Begin 1°/100' build	
2,349.26	2,348.40	-18.77	-9.99	Begin 6.99° tangent	
5,869.81	5,842.81	-396.71	-211.16	Begin 10°/100' build	
6,831.23	6,476.00	172.71	-251.69	LP Begin 90° lateral	
16,483.37	6,476.00	9,824.65	-313.44	PBHL/TD 16483.37 MD/6476.00 TVD	