



Weld County, Colorado Section 33-T01N-R65W Buford 33-06-2L plan1

Azimuth Corrections:

To convert a Magnetic Direction to a True Direction, Add 8.28° East

Buford 33-06-2L			
Surf Loc: 985 FSL 450 FWL Sect 33-T01N-R65W			
NAD83 Colorado - HARN			
Universal Transverse Mercator (US Survey Feet)			
Zone 13N (108 W to 102 W)			
RKB=5081+21 @ 5102.00ft			
Northing	Easting	Latitude	Longitude
14528076.67	1730921.45	40.00323806	-104.67681247

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	5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	KOP Begin 10°/100' build
3	5523.94	52.39	123.92	5453.91	-124.63	185.32	10.00	-79.56	Begin 52.39° tangent
4	7567.59	52.39	123.92	6700.99	-1028.14	1528.80	0.00	-656.36	Begin 10°/100' build/turn
5	8729.51	89.85	359.92	7265.00	-514.68	2132.63	10.00	-19.80	LP Begin 89.85° lateral section
6	18389.53	89.85	359.92	7290.00	9145.30	2119.90	0.00	9387.79	PBHL/TD 18389.53 MD/7290.00 TVD

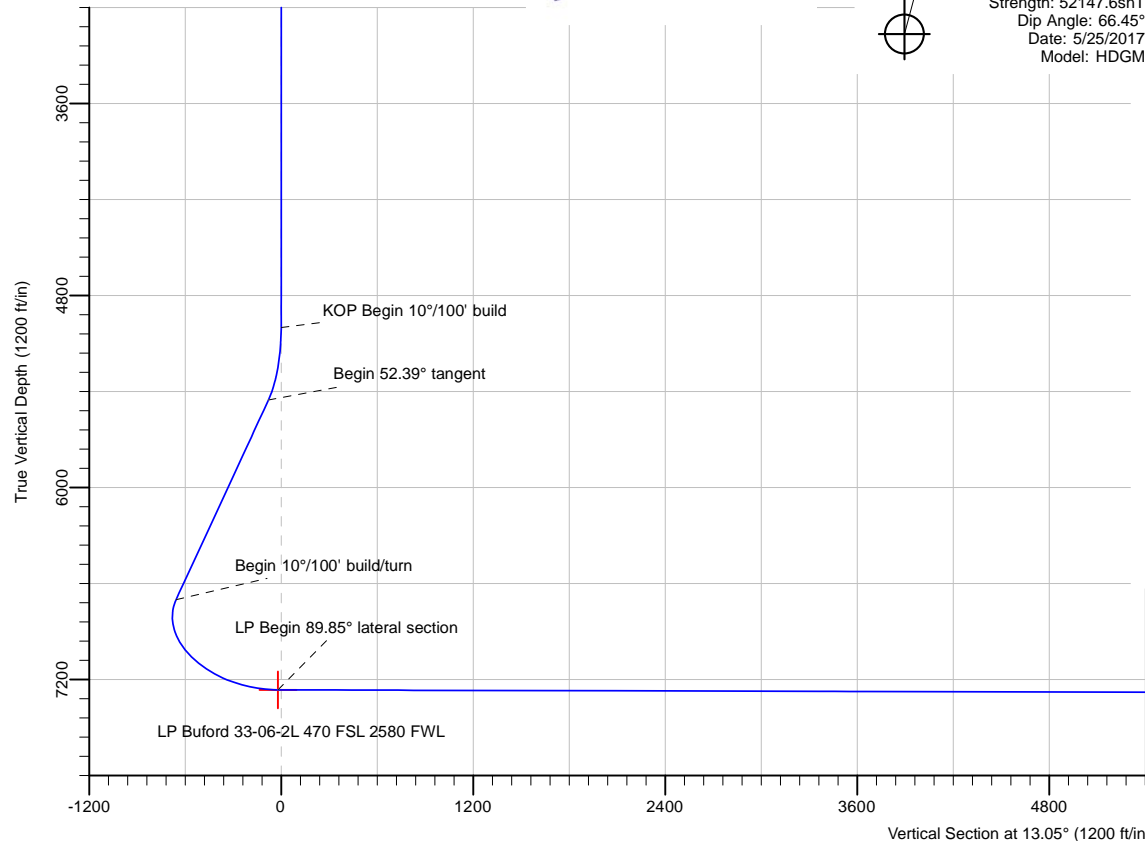
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	North	Easting	Latitude	Longitude
LP Buford 33-06-2L 470 FSL 2580 FWL	7265.00	-514.68	2132.63	14527569.73	1733055.93	40.00182442	-104.66919720
BHL Buford 33-06-2L 470 FNL 2580 FWL	7290.00	9145.30	2119.90	14537229.58	1733008.17	40.02835221	-104.66923970

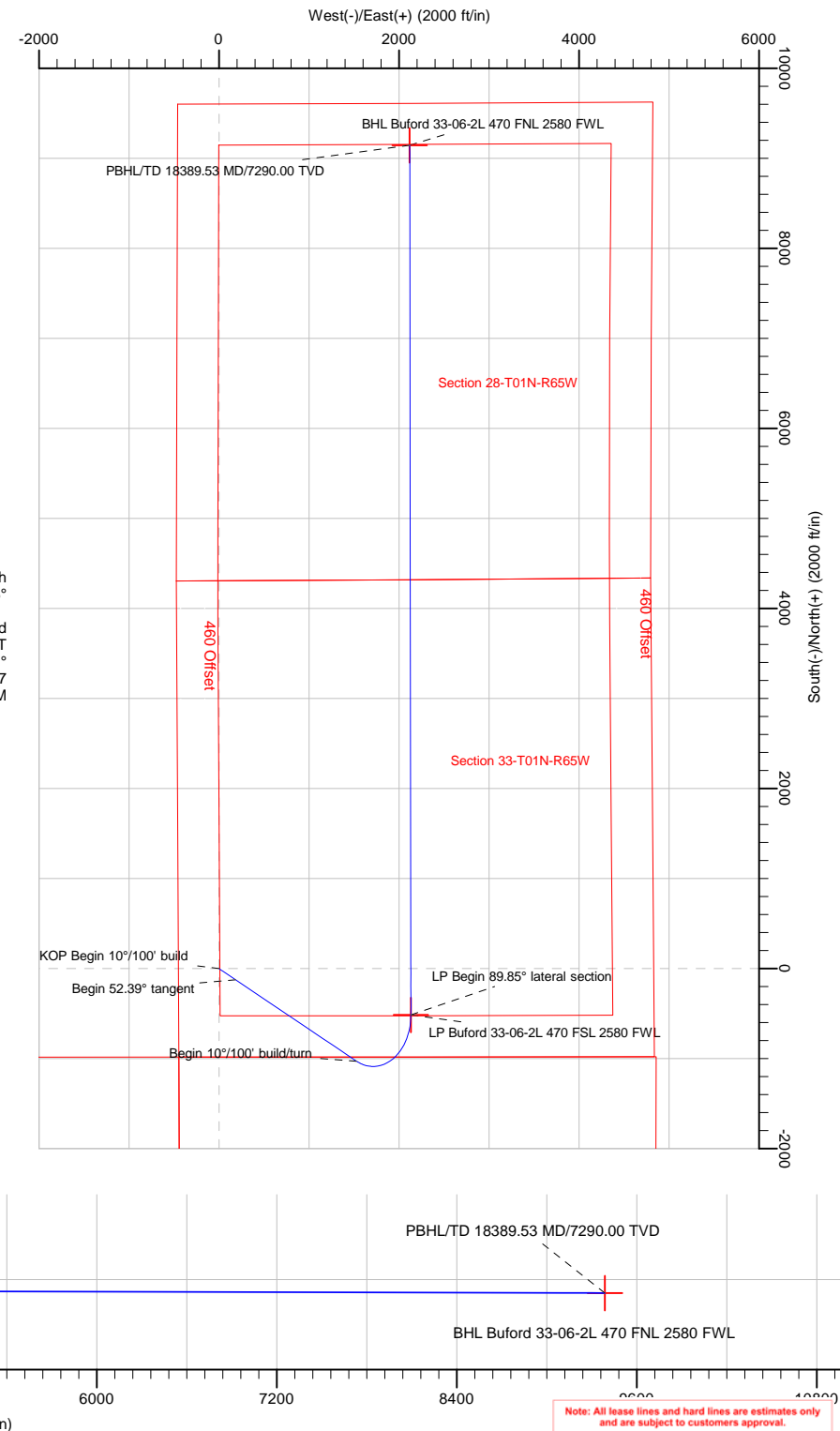


Azimuths to True North
Magnetic North: 8.28°

Magnetic Field
Strength: 52147.6snT
Dip Angle: 66.45°
Date: 5/25/2017
Model: HDGM



Date: 23:25, May 25 2017



Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-06-2L
Company:	Confluence Resources	TVD Reference:	RKB=5081+21 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+21 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-06-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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 33-T01N-R65W			
Site Position:		Northing:	14,527,751.12 usft	Latitude:	40.00234552
From:	Map	Easting:	1,730,774.27 usft	Longitude:	-104.67734224
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.21 °

Well	Buford 33-06-2L, Surf Loc: 985 FSL 450 FWL Sect 33-T01N-R65W					
Well Position	+N/-S	325.02 ft	Northing:	14,528,076.67 usft	Latitude:	40.00323806
	+E/-W	148.36 ft	Easting:	1,730,921.45 usft	Longitude:	-104.67681246
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,081.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/25/2017	8.28	66.45	52,147.60000000

Design	plan1			
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	13.05

Plan Survey Tool Program	Date	5/25/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,389.53	plan1 (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	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,523.94	52.39	123.92	5,453.91	-124.63	185.32	10.00	10.00	0.00	123.92	
7,567.59	52.39	123.92	6,700.99	-1,028.14	1,528.80	0.00	0.00	0.00	0.00	
8,729.52	89.85	359.92	7,265.00	-514.68	2,132.63	10.00	3.22	-10.67	-112.49	LP Buford 33-06-2L 4'
18,389.53	89.85	359.92	7,290.00	9,145.30	2,119.90	0.00	0.00	0.00	0.00	BHL Buford 33-06-2L

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-06-2L
Company:	Confluence Resources	TVD Reference:	RKB=5081+21 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+21 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-06-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Begin 10°/100' build									
5,100.00	10.00	123.92	5,099.49	-4.86	7.22	-3.10	10.00	10.00	0.00
5,200.00	20.00	123.92	5,195.96	-19.28	28.67	-12.31	10.00	10.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-06-2L
Company:	Confluence Resources	TVD Reference:	RKB=5081+21 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+21 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-06-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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)
5,300.00	30.00	123.92	5,286.48	-42.84	63.70	-27.35	10.00	10.00	0.00
5,400.00	40.00	123.92	5,368.29	-74.81	111.23	-47.76	10.00	10.00	0.00
5,500.00	50.00	123.92	5,438.91	-114.22	169.83	-72.91	10.00	10.00	0.00
5,523.94	52.39	123.92	5,453.91	-124.63	185.32	-79.56	10.00	10.00	0.00
Begin 52.39° tangent									
5,600.00	52.39	123.92	5,500.33	-158.25	235.32	-101.03	0.00	0.00	0.00
5,700.00	52.39	123.92	5,561.35	-202.46	301.06	-129.25	0.00	0.00	0.00
5,800.00	52.39	123.92	5,622.37	-246.67	366.79	-157.48	0.00	0.00	0.00
5,900.00	52.39	123.92	5,683.39	-290.89	432.53	-185.70	0.00	0.00	0.00
6,000.00	52.39	123.92	5,744.41	-335.10	498.27	-213.92	0.00	0.00	0.00
6,100.00	52.39	123.92	5,805.44	-379.31	564.01	-242.15	0.00	0.00	0.00
6,200.00	52.39	123.92	5,866.46	-423.52	629.75	-270.37	0.00	0.00	0.00
6,300.00	52.39	123.92	5,927.48	-467.73	695.49	-298.59	0.00	0.00	0.00
6,400.00	52.39	123.92	5,988.50	-511.94	761.23	-326.82	0.00	0.00	0.00
6,500.00	52.39	123.92	6,049.53	-556.15	826.97	-355.04	0.00	0.00	0.00
6,600.00	52.39	123.92	6,110.55	-600.36	892.71	-383.27	0.00	0.00	0.00
6,700.00	52.39	123.92	6,171.57	-644.57	958.45	-411.49	0.00	0.00	0.00
6,800.00	52.39	123.92	6,232.59	-688.78	1,024.19	-439.71	0.00	0.00	0.00
6,900.00	52.39	123.92	6,293.61	-732.99	1,089.93	-467.94	0.00	0.00	0.00
7,000.00	52.39	123.92	6,354.64	-777.20	1,155.67	-496.16	0.00	0.00	0.00
7,100.00	52.39	123.92	6,415.66	-821.42	1,221.41	-524.39	0.00	0.00	0.00
7,200.00	52.39	123.92	6,476.68	-865.63	1,287.15	-552.61	0.00	0.00	0.00
7,300.00	52.39	123.92	6,537.70	-909.84	1,352.89	-580.83	0.00	0.00	0.00
7,400.00	52.39	123.92	6,598.73	-954.05	1,418.63	-609.06	0.00	0.00	0.00
7,500.00	52.39	123.92	6,659.75	-998.26	1,484.37	-637.28	0.00	0.00	0.00
7,567.59	52.39	123.92	6,700.99	-1,028.14	1,528.80	-656.36	0.00	0.00	0.00
Begin 10°/100' build/turn									
7,600.00	51.22	120.08	6,721.04	-1,041.64	1,550.39	-664.63	10.00	-3.63	-11.86
7,700.00	48.44	107.49	6,785.69	-1,072.50	1,619.98	-678.98	10.00	-2.78	-12.59
7,800.00	47.13	94.09	6,853.05	-1,086.39	1,692.40	-676.16	10.00	-1.31	-13.40
7,900.00	47.43	80.47	6,921.06	-1,082.90	1,765.45	-656.27	10.00	0.30	-13.62
8,000.00	49.30	67.31	6,987.66	-1,062.13	1,836.92	-619.89	10.00	1.87	-13.16
8,100.00	52.56	55.12	7,050.83	-1,024.71	1,904.63	-568.15	10.00	3.26	-12.19
8,200.00	56.95	44.11	7,108.64	-971.79	1,966.52	-502.62	10.00	4.40	-11.01
8,300.00	62.22	34.24	7,159.34	-904.95	2,020.72	-425.27	10.00	5.26	-9.87
8,400.00	68.11	25.33	7,201.40	-826.25	2,065.58	-338.47	10.00	5.90	-8.91
8,500.00	74.45	17.16	7,233.52	-738.07	2,099.73	-244.85	10.00	6.34	-8.17
8,600.00	81.07	9.48	7,254.74	-643.08	2,122.13	-147.26	10.00	6.62	-7.67
8,700.00	87.84	2.09	7,264.41	-544.18	2,132.11	-48.66	10.00	6.77	-7.40
8,729.52	89.85	359.92	7,265.00	-514.68	2,132.63	-19.80	10.00	6.81	-7.32
LP Begin 89.85° lateral section									
8,800.00	89.85	359.92	7,265.18	-444.19	2,132.54	48.84	0.00	0.00	0.00
8,900.00	89.85	359.92	7,265.44	-344.19	2,132.41	146.23	0.00	0.00	0.00
9,000.00	89.85	359.92	7,265.70	-244.19	2,132.28	243.61	0.00	0.00	0.00
9,100.00	89.85	359.92	7,265.96	-144.19	2,132.14	341.00	0.00	0.00	0.00
9,200.00	89.85	359.92	7,266.22	-44.19	2,132.01	438.39	0.00	0.00	0.00
9,300.00	89.85	359.92	7,266.48	55.80	2,131.88	535.77	0.00	0.00	0.00
9,400.00	89.85	359.92	7,266.74	155.80	2,131.75	633.16	0.00	0.00	0.00
9,500.00	89.85	359.92	7,266.99	255.80	2,131.62	730.55	0.00	0.00	0.00
9,600.00	89.85	359.92	7,267.25	355.80	2,131.48	827.93	0.00	0.00	0.00
9,700.00	89.85	359.92	7,267.51	455.80	2,131.35	925.32	0.00	0.00	0.00
9,800.00	89.85	359.92	7,267.77	555.80	2,131.22	1,022.71	0.00	0.00	0.00
9,900.00	89.85	359.92	7,268.03	655.80	2,131.09	1,120.09	0.00	0.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-06-2L
Company:	Confluence Resources	TVD Reference:	RKB=5081+21 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+21 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-06-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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	89.85	359.92	7,268.29	755.80	2,130.96	1,217.48	0.00	0.00	0.00
10,100.00	89.85	359.92	7,268.55	855.80	2,130.83	1,314.87	0.00	0.00	0.00
10,200.00	89.85	359.92	7,268.81	955.80	2,130.69	1,412.26	0.00	0.00	0.00
10,300.00	89.85	359.92	7,269.06	1,055.80	2,130.56	1,509.64	0.00	0.00	0.00
10,400.00	89.85	359.92	7,269.32	1,155.80	2,130.43	1,607.03	0.00	0.00	0.00
10,500.00	89.85	359.92	7,269.58	1,255.80	2,130.30	1,704.42	0.00	0.00	0.00
10,600.00	89.85	359.92	7,269.84	1,355.80	2,130.17	1,801.80	0.00	0.00	0.00
10,700.00	89.85	359.92	7,270.10	1,455.80	2,130.04	1,899.19	0.00	0.00	0.00
10,800.00	89.85	359.92	7,270.36	1,555.80	2,129.90	1,996.58	0.00	0.00	0.00
10,900.00	89.85	359.92	7,270.62	1,655.80	2,129.77	2,093.96	0.00	0.00	0.00
11,000.00	89.85	359.92	7,270.88	1,755.80	2,129.64	2,191.35	0.00	0.00	0.00
11,100.00	89.85	359.92	7,271.13	1,855.80	2,129.51	2,288.74	0.00	0.00	0.00
11,200.00	89.85	359.92	7,271.39	1,955.80	2,129.38	2,386.12	0.00	0.00	0.00
11,300.00	89.85	359.92	7,271.65	2,055.80	2,129.24	2,483.51	0.00	0.00	0.00
11,400.00	89.85	359.92	7,271.91	2,155.80	2,129.11	2,580.90	0.00	0.00	0.00
11,500.00	89.85	359.92	7,272.17	2,255.80	2,128.98	2,678.28	0.00	0.00	0.00
11,600.00	89.85	359.92	7,272.43	2,355.80	2,128.85	2,775.67	0.00	0.00	0.00
11,700.00	89.85	359.92	7,272.69	2,455.79	2,128.72	2,873.06	0.00	0.00	0.00
11,800.00	89.85	359.92	7,272.95	2,555.79	2,128.59	2,970.45	0.00	0.00	0.00
11,900.00	89.85	359.92	7,273.21	2,655.79	2,128.45	3,067.83	0.00	0.00	0.00
12,000.00	89.85	359.92	7,273.46	2,755.79	2,128.32	3,165.22	0.00	0.00	0.00
12,100.00	89.85	359.92	7,273.72	2,855.79	2,128.19	3,262.61	0.00	0.00	0.00
12,200.00	89.85	359.92	7,273.98	2,955.79	2,128.06	3,359.99	0.00	0.00	0.00
12,300.00	89.85	359.92	7,274.24	3,055.79	2,127.93	3,457.38	0.00	0.00	0.00
12,400.00	89.85	359.92	7,274.50	3,155.79	2,127.79	3,554.77	0.00	0.00	0.00
12,500.00	89.85	359.92	7,274.76	3,255.79	2,127.66	3,652.15	0.00	0.00	0.00
12,600.00	89.85	359.92	7,275.02	3,355.79	2,127.53	3,749.54	0.00	0.00	0.00
12,700.00	89.85	359.92	7,275.28	3,455.79	2,127.40	3,846.93	0.00	0.00	0.00
12,800.00	89.85	359.92	7,275.53	3,555.79	2,127.27	3,944.31	0.00	0.00	0.00
12,900.00	89.85	359.92	7,275.79	3,655.79	2,127.14	4,041.70	0.00	0.00	0.00
13,000.00	89.85	359.92	7,276.05	3,755.79	2,127.00	4,139.09	0.00	0.00	0.00
13,100.00	89.85	359.92	7,276.31	3,855.79	2,126.87	4,236.47	0.00	0.00	0.00
13,200.00	89.85	359.92	7,276.57	3,955.79	2,126.74	4,333.86	0.00	0.00	0.00
13,300.00	89.85	359.92	7,276.83	4,055.79	2,126.61	4,431.25	0.00	0.00	0.00
13,400.00	89.85	359.92	7,277.09	4,155.79	2,126.48	4,528.63	0.00	0.00	0.00
13,500.00	89.85	359.92	7,277.35	4,255.79	2,126.35	4,626.02	0.00	0.00	0.00
13,600.00	89.85	359.92	7,277.60	4,355.79	2,126.21	4,723.41	0.00	0.00	0.00
13,700.00	89.85	359.92	7,277.86	4,455.79	2,126.08	4,820.80	0.00	0.00	0.00
13,800.00	89.85	359.92	7,278.12	4,555.79	2,125.95	4,918.18	0.00	0.00	0.00
13,900.00	89.85	359.92	7,278.38	4,655.79	2,125.82	5,015.57	0.00	0.00	0.00
14,000.00	89.85	359.92	7,278.64	4,755.79	2,125.69	5,112.96	0.00	0.00	0.00
14,100.00	89.85	359.92	7,278.90	4,855.78	2,125.55	5,210.34	0.00	0.00	0.00
14,200.00	89.85	359.92	7,279.16	4,955.78	2,125.42	5,307.73	0.00	0.00	0.00
14,300.00	89.85	359.92	7,279.42	5,055.78	2,125.29	5,405.12	0.00	0.00	0.00
14,400.00	89.85	359.92	7,279.68	5,155.78	2,125.16	5,502.50	0.00	0.00	0.00
14,500.00	89.85	359.92	7,279.93	5,255.78	2,125.03	5,599.89	0.00	0.00	0.00
14,600.00	89.85	359.92	7,280.19	5,355.78	2,124.90	5,697.28	0.00	0.00	0.00
14,700.00	89.85	359.92	7,280.45	5,455.78	2,124.76	5,794.66	0.00	0.00	0.00
14,800.00	89.85	359.92	7,280.71	5,555.78	2,124.63	5,892.05	0.00	0.00	0.00
14,900.00	89.85	359.92	7,280.97	5,655.78	2,124.50	5,989.44	0.00	0.00	0.00
15,000.00	89.85	359.92	7,281.23	5,755.78	2,124.37	6,086.82	0.00	0.00	0.00
15,100.00	89.85	359.92	7,281.49	5,855.78	2,124.24	6,184.21	0.00	0.00	0.00
15,200.00	89.85	359.92	7,281.75	5,955.78	2,124.10	6,281.60	0.00	0.00	0.00
15,300.00	89.85	359.92	7,282.00	6,055.78	2,123.97	6,378.99	0.00	0.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-06-2L
Company:	Confluence Resources	TVD Reference:	RKB=5081+21 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+21 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-06-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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	89.85	359.92	7,282.26	6,155.78	2,123.84	6,476.37	0.00	0.00	0.00	
15,500.00	89.85	359.92	7,282.52	6,255.78	2,123.71	6,573.76	0.00	0.00	0.00	
15,600.00	89.85	359.92	7,282.78	6,355.78	2,123.58	6,671.15	0.00	0.00	0.00	
15,700.00	89.85	359.92	7,283.04	6,455.78	2,123.45	6,768.53	0.00	0.00	0.00	
15,800.00	89.85	359.92	7,283.30	6,555.78	2,123.31	6,865.92	0.00	0.00	0.00	
15,900.00	89.85	359.92	7,283.56	6,655.78	2,123.18	6,963.31	0.00	0.00	0.00	
16,000.00	89.85	359.92	7,283.82	6,755.78	2,123.05	7,060.69	0.00	0.00	0.00	
16,100.00	89.85	359.92	7,284.07	6,855.78	2,122.92	7,158.08	0.00	0.00	0.00	
16,200.00	89.85	359.92	7,284.33	6,955.78	2,122.79	7,255.47	0.00	0.00	0.00	
16,300.00	89.85	359.92	7,284.59	7,055.78	2,122.65	7,352.85	0.00	0.00	0.00	
16,400.00	89.85	359.92	7,284.85	7,155.78	2,122.52	7,450.24	0.00	0.00	0.00	
16,500.00	89.85	359.92	7,285.11	7,255.77	2,122.39	7,547.63	0.00	0.00	0.00	
16,600.00	89.85	359.92	7,285.37	7,355.77	2,122.26	7,645.01	0.00	0.00	0.00	
16,700.00	89.85	359.92	7,285.63	7,455.77	2,122.13	7,742.40	0.00	0.00	0.00	
16,800.00	89.85	359.92	7,285.89	7,555.77	2,122.00	7,839.79	0.00	0.00	0.00	
16,900.00	89.85	359.92	7,286.15	7,655.77	2,121.86	7,937.17	0.00	0.00	0.00	
17,000.00	89.85	359.92	7,286.40	7,755.77	2,121.73	8,034.56	0.00	0.00	0.00	
17,100.00	89.85	359.92	7,286.66	7,855.77	2,121.60	8,131.95	0.00	0.00	0.00	
17,200.00	89.85	359.92	7,286.92	7,955.77	2,121.47	8,229.34	0.00	0.00	0.00	
17,300.00	89.85	359.92	7,287.18	8,055.77	2,121.34	8,326.72	0.00	0.00	0.00	
17,400.00	89.85	359.92	7,287.44	8,155.77	2,121.21	8,424.11	0.00	0.00	0.00	
17,500.00	89.85	359.92	7,287.70	8,255.77	2,121.07	8,521.50	0.00	0.00	0.00	
17,600.00	89.85	359.92	7,287.96	8,355.77	2,120.94	8,618.88	0.00	0.00	0.00	
17,700.00	89.85	359.92	7,288.22	8,455.77	2,120.81	8,716.27	0.00	0.00	0.00	
17,800.00	89.85	359.92	7,288.47	8,555.77	2,120.68	8,813.66	0.00	0.00	0.00	
17,900.00	89.85	359.92	7,288.73	8,655.77	2,120.55	8,911.04	0.00	0.00	0.00	
18,000.00	89.85	359.92	7,288.99	8,755.77	2,120.41	9,008.43	0.00	0.00	0.00	
18,100.00	89.85	359.92	7,289.25	8,855.77	2,120.28	9,105.82	0.00	0.00	0.00	
18,200.00	89.85	359.92	7,289.51	8,955.77	2,120.15	9,203.20	0.00	0.00	0.00	
18,300.00	89.85	359.92	7,289.77	9,055.77	2,120.02	9,300.59	0.00	0.00	0.00	
18,389.53	89.85	359.92	7,290.00	9,145.30	2,119.90	9,387.79	0.00	0.00	0.00	
PBHL/TD 18389.53 MD/7290.00 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
LP Buford 33-06-2L 470 - plan hits target center - Point	0.00	0.00	7,265.00	-514.68	2,132.63	14,527,569.73	1,733,055.93	40.00182443		-104.66919719
BHL Buford 33-06-2L 47 - plan hits target center - Point	0.00	0.00	7,290.00	9,145.30	2,119.90	14,537,229.58	1,733,008.17	40.02835222		-104.66923970

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-06-2L
Company:	Confluence Resources	TVD Reference:	RKB=5081+21 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+21 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-06-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
5,000.00	5,000.00	0.00	0.00	KOP Begin 10°/100' build	
5,523.94	5,453.91	-124.63	185.32	Begin 52.39° tangent	
7,567.59	6,700.99	-1,028.14	1,528.80	Begin 10°/100' build/turn	
8,729.52	7,265.00	-514.68	2,132.63	LP Begin 89.85° lateral section	
18,389.53	7,290.00	9,145.30	2,119.90	PBHL/TD 18389.53 MD/7290.00 TVD	

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-06-2L
Company:	Confluence Resources	TVD Reference:	RKB=5081+21 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+21 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-06-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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 33-T01N-R65W			
Site Position:		Northing:	14,527,751.12 usft	Latitude:	40.00234552
From:	Map	Easting:	1,730,774.27 usft	Longitude:	-104.67734224
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.21 °

Well	Buford 33-06-2L, Surf Loc: 985 FSL 450 FWL Sect 33-T01N-R65W					
Well Position	+N/-S	0.00 ft	Northing:	14,528,076.67 usft	Latitude:	40.00323806
	+E/-W	0.00 ft	Easting:	1,730,921.45 usft	Longitude:	-104.67681246
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,081.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/25/2017	8.28	66.45	52,147.60000000

Design	plan1			
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	13.05

Plan Survey Tool Program	Date	5/25/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,389.53 plan1 (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	
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,523.94	52.39	123.92	5,453.91	-124.63	185.32	10.00	10.00	0.00	123.92	
7,567.59	52.39	123.92	6,700.99	-1,028.14	1,528.80	0.00	0.00	0.00	0.00	
8,729.52	89.85	359.92	7,265.00	-514.68	2,132.63	10.00	3.22	-10.67	-112.49	LP Buford 33-06-2L 4'
18,389.53	89.85	359.92	7,290.00	9,145.30	2,119.90	0.00	0.00	0.00	0.00	BHL Buford 33-06-2L

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-06-2L
Company:	Confluence Resources	TVD Reference:	RKB=5081+21 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+21 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-06-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
100.00	0.00	0.00	100.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
200.00	0.00	0.00	200.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
300.00	0.00	0.00	300.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
400.00	0.00	0.00	400.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
500.00	0.00	0.00	500.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
600.00	0.00	0.00	600.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
700.00	0.00	0.00	700.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
800.00	0.00	0.00	800.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
900.00	0.00	0.00	900.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
2,100.00	0.00	0.00	2,100.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
2,200.00	0.00	0.00	2,200.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
2,300.00	0.00	0.00	2,300.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
2,400.00	0.00	0.00	2,400.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
2,500.00	0.00	0.00	2,500.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
2,600.00	0.00	0.00	2,600.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
2,700.00	0.00	0.00	2,700.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
2,800.00	0.00	0.00	2,800.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
2,900.00	0.00	0.00	2,900.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
3,000.00	0.00	0.00	3,000.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
3,100.00	0.00	0.00	3,100.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
3,200.00	0.00	0.00	3,200.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
3,300.00	0.00	0.00	3,300.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
3,400.00	0.00	0.00	3,400.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
3,500.00	0.00	0.00	3,500.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
3,600.00	0.00	0.00	3,600.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
3,700.00	0.00	0.00	3,700.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
3,800.00	0.00	0.00	3,800.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
3,900.00	0.00	0.00	3,900.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
4,000.00	0.00	0.00	4,000.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
4,100.00	0.00	0.00	4,100.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
4,200.00	0.00	0.00	4,200.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
4,300.00	0.00	0.00	4,300.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
4,400.00	0.00	0.00	4,400.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
4,500.00	0.00	0.00	4,500.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
4,600.00	0.00	0.00	4,600.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
4,700.00	0.00	0.00	4,700.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
4,800.00	0.00	0.00	4,800.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
4,900.00	0.00	0.00	4,900.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
5,000.00	0.00	0.00	5,000.00	0.00	0.00	14,528,076.67	1,730,921.45	40.00323806	-104.67681246
KOP Begin 10°/100' build									
5,100.00	10.00	123.92	5,099.49	-4.86	7.22	14,528,071.84	1,730,928.69	40.00322472	-104.67678667
5,200.00	20.00	123.92	5,195.96	-19.28	28.67	14,528,057.50	1,730,950.19	40.00318511	-104.67671008

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-06-2L
Company:	Confluence Resources	TVD Reference:	RKB=5081+21 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+21 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-06-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

Planned Survey									
Measured			Vertical			Map	Map		
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
5,300.00	30.00	123.92	5,286.48	-42.84	63.70	14,528,034.07	1,730,985.30	40.00312042	-104.67658501
5,400.00	40.00	123.92	5,368.29	-74.81	111.23	14,528,002.27	1,731,032.95	40.00303263	-104.67641526
5,500.00	50.00	123.92	5,438.91	-114.22	169.83	14,527,963.08	1,731,091.70	40.00292441	-104.67620601
5,523.94	52.39	123.92	5,453.91	-124.63	185.32	14,527,952.72	1,731,107.22	40.00289581	-104.67615072
Begin 52.39° tangent									
5,600.00	52.39	123.92	5,500.33	-158.25	235.32	14,527,919.28	1,731,157.34	40.00280347	-104.67597218
5,700.00	52.39	123.92	5,561.35	-202.46	301.06	14,527,875.30	1,731,223.24	40.00268206	-104.67573743
5,800.00	52.39	123.92	5,622.37	-246.67	366.79	14,527,831.33	1,731,289.14	40.00256065	-104.67550269
5,900.00	52.39	123.92	5,683.39	-290.89	432.53	14,527,787.36	1,731,355.03	40.00243923	-104.67526794
6,000.00	52.39	123.92	5,744.41	-335.10	498.27	14,527,743.39	1,731,420.93	40.00231782	-104.67503320
6,100.00	52.39	123.92	5,805.44	-379.31	564.01	14,527,699.42	1,731,486.83	40.00219641	-104.67479845
6,200.00	52.39	123.92	5,866.46	-423.52	629.75	14,527,655.44	1,731,552.73	40.00207499	-104.67456371
6,300.00	52.39	123.92	5,927.48	-467.73	695.49	14,527,611.47	1,731,618.63	40.00195358	-104.67432897
6,400.00	52.39	123.92	5,988.50	-511.94	761.23	14,527,567.50	1,731,684.53	40.00183216	-104.67409423
6,500.00	52.39	123.92	6,049.53	-556.15	826.97	14,527,523.53	1,731,750.43	40.00171075	-104.67385949
6,600.00	52.39	123.92	6,110.55	-600.36	892.71	14,527,479.56	1,731,816.33	40.00158933	-104.67362475
6,700.00	52.39	123.92	6,171.57	-644.57	958.45	14,527,435.58	1,731,882.23	40.00146792	-104.67339001
6,800.00	52.39	123.92	6,232.59	-688.78	1,024.19	14,527,391.61	1,731,948.13	40.00134650	-104.67315527
6,900.00	52.39	123.92	6,293.61	-732.99	1,089.93	14,527,347.64	1,732,014.03	40.00122508	-104.67292054
7,000.00	52.39	123.92	6,354.64	-777.20	1,155.67	14,527,303.67	1,732,079.93	40.00110366	-104.67268580
7,100.00	52.39	123.92	6,415.66	-821.42	1,221.41	14,527,259.70	1,732,145.83	40.00098224	-104.67245107
7,200.00	52.39	123.92	6,476.68	-865.63	1,287.15	14,527,215.72	1,732,211.73	40.00086082	-104.67221633
7,300.00	52.39	123.92	6,537.70	-909.84	1,352.89	14,527,171.75	1,732,277.63	40.00073941	-104.67198160
7,400.00	52.39	123.92	6,598.73	-954.05	1,418.63	14,527,127.78	1,732,343.52	40.00061799	-104.67174687
7,500.00	52.39	123.92	6,659.75	-998.26	1,484.37	14,527,083.81	1,732,409.42	40.00049657	-104.67151214
7,567.59	52.39	123.92	6,700.99	-1,028.14	1,528.80	14,527,054.09	1,732,453.96	40.00041450	-104.67135349
Begin 10°/100' build/turn									
7,600.00	51.22	120.08	6,721.04	-1,041.64	1,550.39	14,527,040.67	1,732,475.60	40.00037742	-104.67127639
7,700.00	48.44	107.49	6,785.69	-1,072.50	1,619.98	14,527,010.06	1,732,545.30	40.00029267	-104.67102792
7,800.00	47.13	94.09	6,853.05	-1,086.39	1,692.40	14,526,996.43	1,732,617.77	40.00025450	-104.67076933
7,900.00	47.43	80.47	6,921.06	-1,082.90	1,765.45	14,527,000.18	1,732,690.81	40.00026407	-104.67050847
8,000.00	49.30	67.31	6,987.66	-1,062.13	1,836.92	14,527,021.21	1,732,762.20	40.00032109	-104.67025328
8,100.00	52.56	55.12	7,050.83	-1,024.71	1,904.63	14,527,058.88	1,732,829.78	40.00042383	-104.67001149
8,200.00	56.95	44.11	7,108.64	-971.79	1,966.52	14,527,112.03	1,732,891.48	40.00056917	-104.66979047
8,300.00	62.22	34.24	7,159.34	-904.95	2,020.72	14,527,179.06	1,732,945.43	40.00075269	-104.66959692
8,400.00	68.11	25.33	7,201.40	-826.25	2,065.58	14,527,257.92	1,732,990.00	40.00096881	-104.66943673
8,500.00	74.45	17.16	7,233.52	-738.07	2,099.73	14,527,346.23	1,733,023.83	40.00121097	-104.66931476
8,600.00	81.07	9.48	7,254.74	-643.08	2,122.13	14,527,441.30	1,733,045.89	40.00147182	-104.66923473
8,700.00	87.84	2.09	7,264.41	-544.18	2,132.11	14,527,540.23	1,733,055.52	40.00174341	-104.66919905
8,729.52	89.85	359.92	7,265.00	-514.68	2,132.63	14,527,569.73	1,733,055.93	40.00182443	-104.66919719
LP Begin 89.85° lateral section									
8,800.00	89.85	359.92	7,265.18	-444.19	2,132.54	14,527,640.22	1,733,055.58	40.00201799	-104.66919750
8,900.00	89.85	359.92	7,265.44	-344.19	2,132.41	14,527,740.22	1,733,055.09	40.00229260	-104.66919794
9,000.00	89.85	359.92	7,265.70	-244.19	2,132.28	14,527,840.22	1,733,054.59	40.00256722	-104.66919838
9,100.00	89.85	359.92	7,265.96	-144.19	2,132.14	14,527,940.21	1,733,054.10	40.00284183	-104.66919882
9,200.00	89.85	359.92	7,266.22	-44.19	2,132.01	14,528,040.21	1,733,053.60	40.00311645	-104.66919926
9,300.00	89.85	359.92	7,266.48	55.80	2,131.88	14,528,140.21	1,733,053.11	40.00339106	-104.66919970
9,400.00	89.85	359.92	7,266.74	155.80	2,131.75	14,528,240.21	1,733,052.61	40.00366568	-104.66920014
9,500.00	89.85	359.92	7,266.99	255.80	2,131.62	14,528,340.21	1,733,052.12	40.00394029	-104.66920058
9,600.00	89.85	359.92	7,267.25	355.80	2,131.48	14,528,440.20	1,733,051.62	40.00421491	-104.66920102
9,700.00	89.85	359.92	7,267.51	455.80	2,131.35	14,528,540.20	1,733,051.13	40.00448952	-104.66920146
9,800.00	89.85	359.92	7,267.77	555.80	2,131.22	14,528,640.20	1,733,050.64	40.00476414	-104.66920190
9,900.00	89.85	359.92	7,268.03	655.80	2,131.09	14,528,740.20	1,733,050.14	40.00503875	-104.66920234
10,000.00	89.85	359.92	7,268.29	755.80	2,130.96	14,528,840.20	1,733,049.65	40.00531337	-104.66920279

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-06-2L
Company:	Confluence Resources	TVD Reference:	RKB=5081+21 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+21 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-06-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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	89.85	359.92	7,268.55	855.80	2,130.83	14,528,940.20	1,733,049.15	40.00558798	-104.66920323
10,200.00	89.85	359.92	7,268.81	955.80	2,130.69	14,529,040.19	1,733,048.66	40.00586260	-104.66920367
10,300.00	89.85	359.92	7,269.06	1,055.80	2,130.56	14,529,140.19	1,733,048.16	40.00613721	-104.66920411
10,400.00	89.85	359.92	7,269.32	1,155.80	2,130.43	14,529,240.19	1,733,047.67	40.00641183	-104.66920455
10,500.00	89.85	359.92	7,269.58	1,255.80	2,130.30	14,529,340.19	1,733,047.18	40.00668644	-104.66920499
10,600.00	89.85	359.92	7,269.84	1,355.80	2,130.17	14,529,440.19	1,733,046.68	40.00696105	-104.66920543
10,700.00	89.85	359.92	7,270.10	1,455.80	2,130.04	14,529,540.19	1,733,046.19	40.00723567	-104.66920587
10,800.00	89.85	359.92	7,270.36	1,555.80	2,129.90	14,529,640.18	1,733,045.69	40.00751028	-104.66920631
10,900.00	89.85	359.92	7,270.62	1,655.80	2,129.77	14,529,740.18	1,733,045.20	40.00778490	-104.66920675
11,000.00	89.85	359.92	7,270.88	1,755.80	2,129.64	14,529,840.18	1,733,044.70	40.00805951	-104.66920719
11,100.00	89.85	359.92	7,271.13	1,855.80	2,129.51	14,529,940.18	1,733,044.21	40.00833413	-104.66920763
11,200.00	89.85	359.92	7,271.39	1,955.80	2,129.38	14,530,040.18	1,733,043.71	40.00860874	-104.66920807
11,300.00	89.85	359.92	7,271.65	2,055.80	2,129.24	14,530,140.17	1,733,043.22	40.00888336	-104.66920851
11,400.00	89.85	359.92	7,271.91	2,155.80	2,129.11	14,530,240.17	1,733,042.73	40.00915797	-104.66920895
11,500.00	89.85	359.92	7,272.17	2,255.80	2,128.98	14,530,340.17	1,733,042.23	40.00943259	-104.66920939
11,600.00	89.85	359.92	7,272.43	2,355.80	2,128.85	14,530,440.17	1,733,041.74	40.00970720	-104.66920983
11,700.00	89.85	359.92	7,272.69	2,455.79	2,128.72	14,530,540.17	1,733,041.24	40.00998182	-104.66921027
11,800.00	89.85	359.92	7,272.95	2,555.79	2,128.59	14,530,640.17	1,733,040.75	40.01025643	-104.66921071
11,900.00	89.85	359.92	7,273.21	2,655.79	2,128.45	14,530,740.16	1,733,040.25	40.01053104	-104.66921115
12,000.00	89.85	359.92	7,273.46	2,755.79	2,128.32	14,530,840.16	1,733,039.76	40.01080566	-104.66921159
12,100.00	89.85	359.92	7,273.72	2,855.79	2,128.19	14,530,940.16	1,733,039.26	40.01108027	-104.66921203
12,200.00	89.85	359.92	7,273.98	2,955.79	2,128.06	14,531,040.16	1,733,038.77	40.01135489	-104.66921247
12,300.00	89.85	359.92	7,274.24	3,055.79	2,127.93	14,531,140.16	1,733,038.28	40.01162950	-104.66921291
12,400.00	89.85	359.92	7,274.50	3,155.79	2,127.79	14,531,240.16	1,733,037.78	40.01190412	-104.66921335
12,500.00	89.85	359.92	7,274.76	3,255.79	2,127.66	14,531,340.15	1,733,037.29	40.01217873	-104.66921379
12,600.00	89.85	359.92	7,275.02	3,355.79	2,127.53	14,531,440.15	1,733,036.79	40.01245335	-104.66921423
12,700.00	89.85	359.92	7,275.28	3,455.79	2,127.40	14,531,540.15	1,733,036.30	40.01272796	-104.66921467
12,800.00	89.85	359.92	7,275.53	3,555.79	2,127.27	14,531,640.15	1,733,035.80	40.01300257	-104.66921511
12,900.00	89.85	359.92	7,275.79	3,655.79	2,127.14	14,531,740.15	1,733,035.31	40.01327719	-104.66921555
13,000.00	89.85	359.92	7,276.05	3,755.79	2,127.00	14,531,840.14	1,733,034.82	40.01355180	-104.66921599
13,100.00	89.85	359.92	7,276.31	3,855.79	2,126.87	14,531,940.14	1,733,034.32	40.01382642	-104.66921643
13,200.00	89.85	359.92	7,276.57	3,955.79	2,126.74	14,532,040.14	1,733,033.83	40.01410103	-104.66921687
13,300.00	89.85	359.92	7,276.83	4,055.79	2,126.61	14,532,140.14	1,733,033.33	40.01437565	-104.66921731
13,400.00	89.85	359.92	7,277.09	4,155.79	2,126.48	14,532,240.14	1,733,032.84	40.01465026	-104.66921775
13,500.00	89.85	359.92	7,277.35	4,255.79	2,126.35	14,532,340.14	1,733,032.34	40.01492487	-104.66921819
13,600.00	89.85	359.92	7,277.60	4,355.79	2,126.21	14,532,440.13	1,733,031.85	40.01519949	-104.66921863
13,700.00	89.85	359.92	7,277.86	4,455.79	2,126.08	14,532,540.13	1,733,031.35	40.01547410	-104.66921907
13,800.00	89.85	359.92	7,278.12	4,555.79	2,125.95	14,532,640.13	1,733,030.86	40.01574872	-104.66921951
13,900.00	89.85	359.92	7,278.38	4,655.79	2,125.82	14,532,740.13	1,733,030.37	40.01602333	-104.66921995
14,000.00	89.85	359.92	7,278.64	4,755.79	2,125.69	14,532,840.13	1,733,029.87	40.01629795	-104.66922039
14,100.00	89.85	359.92	7,278.90	4,855.78	2,125.55	14,532,940.13	1,733,029.38	40.01657256	-104.66922083
14,200.00	89.85	359.92	7,279.16	4,955.78	2,125.42	14,533,040.12	1,733,028.88	40.01684717	-104.66922127
14,300.00	89.85	359.92	7,279.42	5,055.78	2,125.29	14,533,140.12	1,733,028.39	40.01712179	-104.66922171
14,400.00	89.85	359.92	7,279.68	5,155.78	2,125.16	14,533,240.12	1,733,027.89	40.01739640	-104.66922215
14,500.00	89.85	359.92	7,279.93	5,255.78	2,125.03	14,533,340.12	1,733,027.40	40.01767102	-104.66922259
14,600.00	89.85	359.92	7,280.19	5,355.78	2,124.90	14,533,440.12	1,733,026.90	40.01794563	-104.66922303
14,700.00	89.85	359.92	7,280.45	5,455.78	2,124.76	14,533,540.12	1,733,026.41	40.01822024	-104.66922347
14,800.00	89.85	359.92	7,280.71	5,555.78	2,124.63	14,533,640.11	1,733,025.92	40.01849486	-104.66922391
14,900.00	89.85	359.92	7,280.97	5,655.78	2,124.50	14,533,740.11	1,733,025.42	40.01876947	-104.66922435
15,000.00	89.85	359.92	7,281.23	5,755.78	2,124.37	14,533,840.11	1,733,024.93	40.01904409	-104.66922479
15,100.00	89.85	359.92	7,281.49	5,855.78	2,124.24	14,533,940.11	1,733,024.43	40.01931870	-104.66922523
15,200.00	89.85	359.92	7,281.75	5,955.78	2,124.10	14,534,040.11	1,733,023.94	40.01959331	-104.66922567
15,300.00	89.85	359.92	7,282.00	6,055.78	2,123.97	14,534,140.10	1,733,023.44	40.01986793	-104.66922611
15,400.00	89.85	359.92	7,282.26	6,155.78	2,123.84	14,534,240.10	1,733,022.95	40.02014254	-104.66922655
15,500.00	89.85	359.92	7,282.52	6,255.78	2,123.71	14,534,340.10	1,733,022.45	40.02041716	-104.66922699

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-06-2L
Company:	Confluence Resources	TVD Reference:	RKB=5081+21 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5081+21 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-06-2L	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	plan1		

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	89.85	359.92	7,282.78	6,355.78	2,123.58	14,534,440.10	1,733,021.96	40.02069177	-104.66922743
15,700.00	89.85	359.92	7,283.04	6,455.78	2,123.45	14,534,540.10	1,733,021.47	40.02096638	-104.66922787
15,800.00	89.85	359.92	7,283.30	6,555.78	2,123.31	14,534,640.10	1,733,020.97	40.02124100	-104.66922831
15,900.00	89.85	359.92	7,283.56	6,655.78	2,123.18	14,534,740.09	1,733,020.48	40.02151561	-104.66922875
16,000.00	89.85	359.92	7,283.82	6,755.78	2,123.05	14,534,840.09	1,733,019.98	40.02179023	-104.66922919
16,100.00	89.85	359.92	7,284.07	6,855.78	2,122.92	14,534,940.09	1,733,019.49	40.02206484	-104.66922963
16,200.00	89.85	359.92	7,284.33	6,955.78	2,122.79	14,535,040.09	1,733,018.99	40.02233945	-104.66923007
16,300.00	89.85	359.92	7,284.59	7,055.78	2,122.65	14,535,140.09	1,733,018.50	40.02261407	-104.66923051
16,400.00	89.85	359.92	7,284.85	7,155.78	2,122.52	14,535,240.09	1,733,018.01	40.02288868	-104.66923095
16,500.00	89.85	359.92	7,285.11	7,255.77	2,122.39	14,535,340.08	1,733,017.51	40.02316330	-104.66923139
16,600.00	89.85	359.92	7,285.37	7,355.77	2,122.26	14,535,440.08	1,733,017.02	40.02343791	-104.66923183
16,700.00	89.85	359.92	7,285.63	7,455.77	2,122.13	14,535,540.08	1,733,016.52	40.02371252	-104.66923227
16,800.00	89.85	359.92	7,285.89	7,555.77	2,122.00	14,535,640.08	1,733,016.03	40.02398714	-104.66923271
16,900.00	89.85	359.92	7,286.15	7,655.77	2,121.86	14,535,740.08	1,733,015.53	40.02426175	-104.66923315
17,000.00	89.85	359.92	7,286.40	7,755.77	2,121.73	14,535,840.07	1,733,015.04	40.02453637	-104.66923359
17,100.00	89.85	359.92	7,286.66	7,855.77	2,121.60	14,535,940.07	1,733,014.54	40.02481098	-104.66923403
17,200.00	89.85	359.92	7,286.92	7,955.77	2,121.47	14,536,040.07	1,733,014.05	40.02508559	-104.66923447
17,300.00	89.85	359.92	7,287.18	8,055.77	2,121.34	14,536,140.07	1,733,013.56	40.02536021	-104.66923491
17,400.00	89.85	359.92	7,287.44	8,155.77	2,121.21	14,536,240.07	1,733,013.06	40.02563482	-104.66923535
17,500.00	89.85	359.92	7,287.70	8,255.77	2,121.07	14,536,340.07	1,733,012.57	40.02590943	-104.66923578
17,600.00	89.85	359.92	7,287.96	8,355.77	2,120.94	14,536,440.06	1,733,012.07	40.02618405	-104.66923622
17,700.00	89.85	359.92	7,288.22	8,455.77	2,120.81	14,536,540.06	1,733,011.58	40.02645866	-104.66923666
17,800.00	89.85	359.92	7,288.47	8,555.77	2,120.68	14,536,640.06	1,733,011.08	40.02673328	-104.66923710
17,900.00	89.85	359.92	7,288.73	8,655.77	2,120.55	14,536,740.06	1,733,010.59	40.02700789	-104.66923754
18,000.00	89.85	359.92	7,288.99	8,755.77	2,120.41	14,536,840.06	1,733,010.09	40.02728250	-104.66923798
18,100.00	89.85	359.92	7,289.25	8,855.77	2,120.28	14,536,940.06	1,733,009.60	40.02755712	-104.66923842
18,200.00	89.85	359.92	7,289.51	8,955.77	2,120.15	14,537,040.05	1,733,009.11	40.02783173	-104.66923886
18,300.00	89.85	359.92	7,289.77	9,055.77	2,120.02	14,537,140.05	1,733,008.61	40.02810634	-104.66923930
18,389.53	89.85	359.92	7,290.00	9,145.30	2,119.90	14,537,229.58	1,733,008.17	40.02835222	-104.66923970
PBHL/TD 18389.53 MD/7290.00 TVD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
LP Buford 33-06-2L 470	0.00	0.00	7,265.00	-514.68	2,132.63	14,527,569.73	1,733,055.93	40.00182443	-104.66919719
- plan hits target center									
- Point									
BHL Buford 33-06-2L 47	0.00	0.00	7,290.00	9,145.30	2,119.90	14,537,229.58	1,733,008.17	40.02835222	-104.66923970
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
5,000.00	5,000.00	0.00	0.00	KOP Begin 10°/100' build
5,523.94	5,453.91	-124.63	185.32	Begin 52.39° tangent
7,567.59	6,700.99	-1,028.14	1,528.80	Begin 10°/100' build/turn
8,729.52	7,265.00	-514.68	2,132.63	LP Begin 89.85° lateral section
18,389.53	7,290.00	9,145.30	2,119.90	PBHL/TD 18389.53 MD/7290.00 TVD