



Weld County, Colorado
Section 33-T01N-R65W
Buford 33-10-2L
plan1

Azimuth Corrections:

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

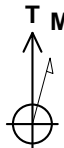
Buford 33-10-2L			
Surf Loc:910 FSL 300 FWL Sect 33-T01N-R65W			
NAD83 Colorado - HARN			
Universal Transverse Mercator (US Survey Feet)			
Zone 13N (108 W to 102 W)			
RKB=5077+25 @ 5102.00ft			
Northing	Easting	Latitude	Longitude
14528001.11	1730772.10	40.00303205	-104.67734676

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSec	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	5377.83	37.78	173.45	5351.03	-119.34	13.71	10.00	-119.07	Begin 37.78° tangent
4	6650.33	37.78	173.45	6356.74	-893.87	102.67	0.00	-891.83	Begin 10°/100' build/turn
5	7924.56	89.92	359.92	7275.00	-439.97	182.23	10.00	-436.55	LP Begin 89.92° lateral section
6	17576.53	89.92	359.92	7288.00	9211.99	169.43	0.00	9213.54	PBHL/TD 17576.53 MD/7288.00 TVD

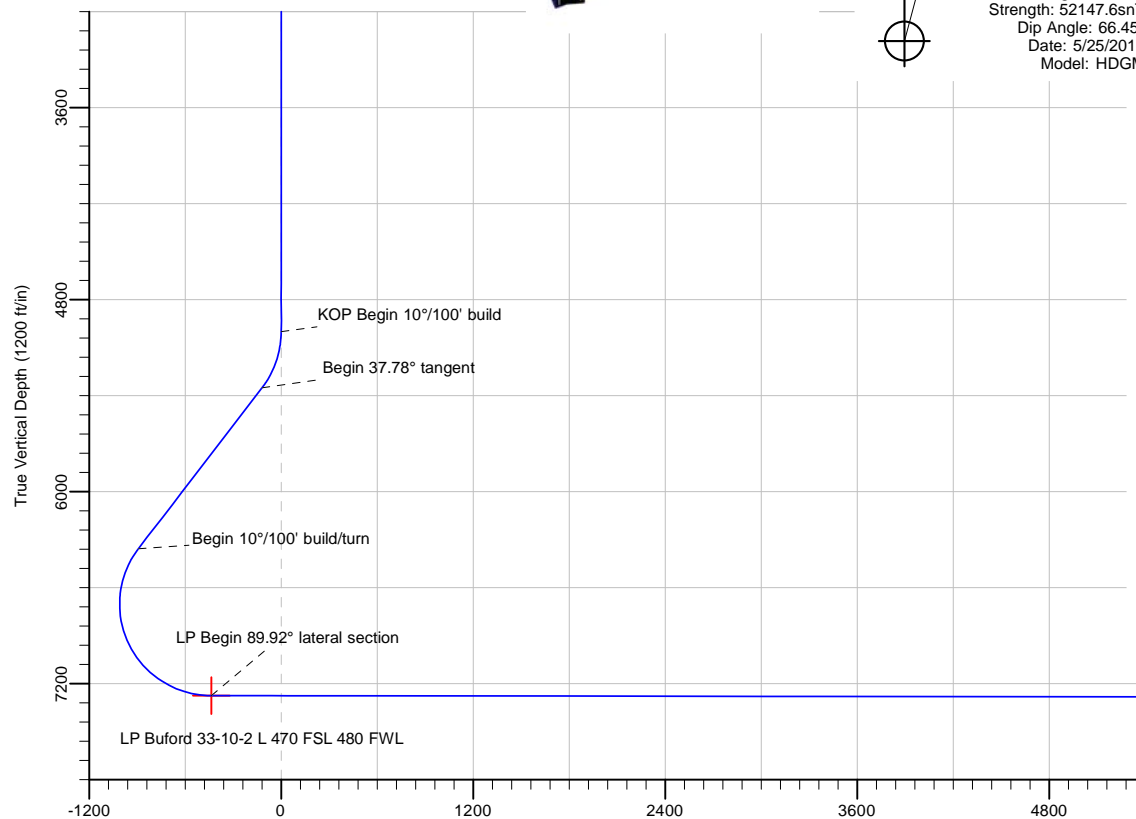
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP Buford 33-10-2 L 470 FSL 480 FWL	7275.00	-439.97	182.23	14527561.80	1730955.92	40.00182381	-104.67669605
BHL Buford 33-10-2 L 470 FNL 480 FWL	7288.00	9211.99	169.43	14537213.63	1730908.18	40.02832958	-104.67674149



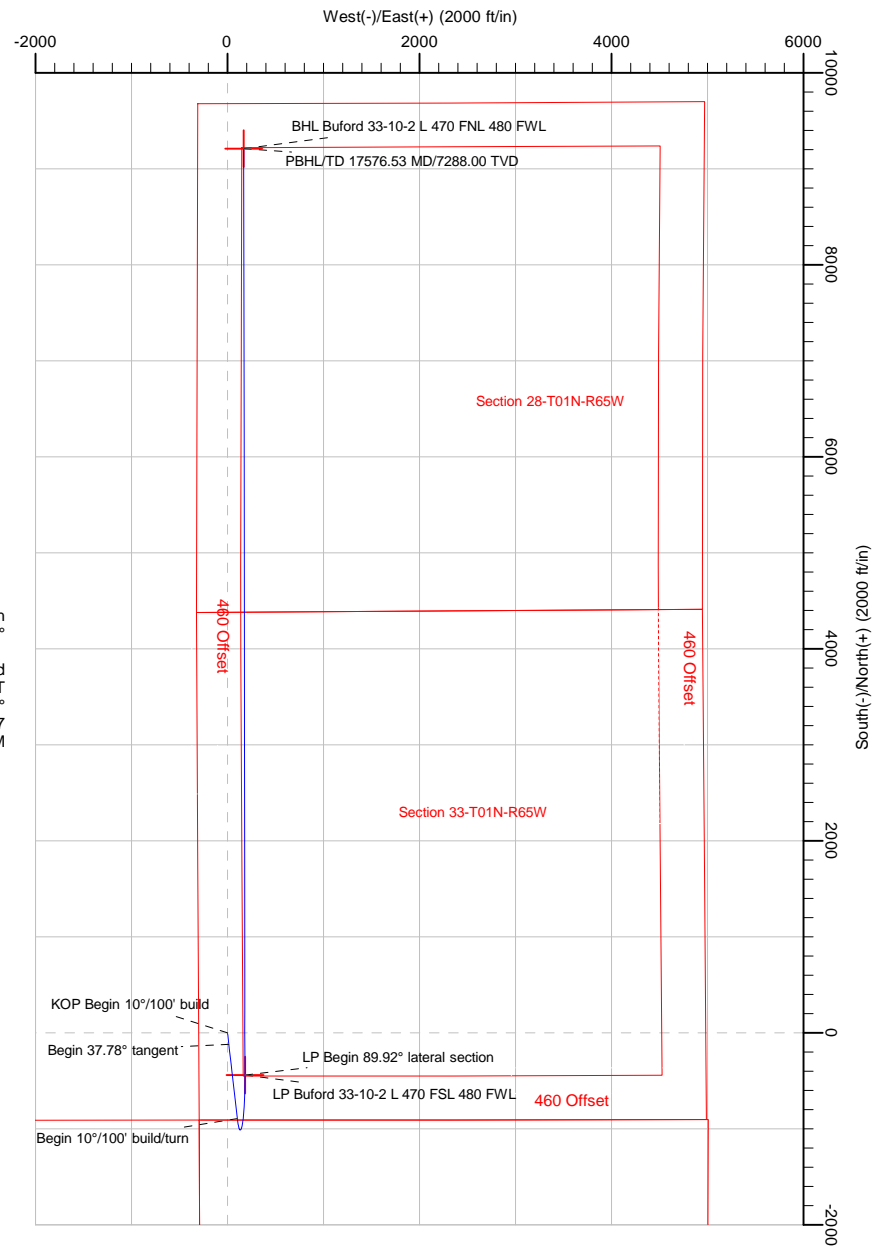
Azimuths to True North
Magnetic North: 8.28°

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



Date: 21:33, May 25 2017

Vertical Section at 1.05° (1200 ft/in)



PBHL/TD 17576.53 MD/7288.00 TVD

BHL Buford 33-10-2 L 470 FNL 480 FWL

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 Buford 33-10-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-10-2L	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 33-10-2L, Surf Loc:910 FSL 300 FWL Sect 33-T01N-R65W					
Well Position	+N/-S	250.00 ft	Northing:	14,528,001.11 usft	Latitude:	40.00303205
	+E/-W	-1.26 ft	Easting:	1,730,772.10 usft	Longitude:	-104.67734675
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,077.00 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	1.05

Plan Survey Tool Program	Date	5/25/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,576.53	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	
5,377.83	37.78	173.45	5,351.03	-119.34	13.71	10.00	10.00	0.00	173.45	
6,650.33	37.78	173.45	6,356.74	-893.87	102.67	0.00	0.00	0.00	0.00	
7,924.56	89.92	359.92	7,275.00	-439.97	182.23	10.00	4.09	-13.62	-171.83	LP Buford 33-10-2 L 4
17,576.53	89.92	359.92	7,288.00	9,211.99	169.43	0.00	0.00	0.00	0.00	BHL Buford 33-10-2 L

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-10-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-10-2L	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	173.45	5,099.49	-8.65	0.99	-8.63	10.00	10.00	0.00
5,200.00	20.00	173.45	5,195.96	-34.33	3.94	-34.25	10.00	10.00	0.00

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Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-10-2L	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	173.45	5,286.48	-76.26	8.76	-76.09	10.00	10.00	0.00
5,377.83	37.78	173.45	5,351.03	-119.34	13.71	-119.07	10.00	10.00	0.00
Begin 37.78° tangent									
5,400.00	37.78	173.45	5,368.56	-132.84	15.26	-132.53	0.00	0.00	0.00
5,500.00	37.78	173.45	5,447.59	-193.70	22.25	-193.26	0.00	0.00	0.00
5,600.00	37.78	173.45	5,526.63	-254.57	29.24	-253.99	0.00	0.00	0.00
5,700.00	37.78	173.45	5,605.66	-315.44	36.23	-314.72	0.00	0.00	0.00
5,800.00	37.78	173.45	5,684.69	-376.30	43.22	-375.45	0.00	0.00	0.00
5,900.00	37.78	173.45	5,763.73	-437.17	50.22	-436.17	0.00	0.00	0.00
6,000.00	37.78	173.45	5,842.76	-498.04	57.21	-496.90	0.00	0.00	0.00
6,100.00	37.78	173.45	5,921.80	-558.90	64.20	-557.63	0.00	0.00	0.00
6,200.00	37.78	173.45	6,000.83	-619.77	71.19	-618.36	0.00	0.00	0.00
6,300.00	37.78	173.45	6,079.86	-680.64	78.18	-679.08	0.00	0.00	0.00
6,400.00	37.78	173.45	6,158.90	-741.50	85.17	-739.81	0.00	0.00	0.00
6,500.00	37.78	173.45	6,237.93	-802.37	92.16	-800.54	0.00	0.00	0.00
6,600.00	37.78	173.45	6,316.97	-863.24	99.16	-861.27	0.00	0.00	0.00
6,650.33	37.78	173.45	6,356.74	-893.87	102.67	-891.83	0.00	0.00	0.00
Begin 10°/100' build/turn									
6,700.00	32.87	172.15	6,397.26	-922.36	106.25	-920.25	10.00	-9.89	-2.61
6,800.00	23.05	168.07	6,485.48	-968.51	114.03	-966.25	10.00	-9.82	-4.08
6,900.00	13.48	158.54	6,580.35	-998.59	122.36	-996.17	10.00	-9.58	-9.53
7,000.00	5.60	116.87	6,678.99	-1,011.67	130.99	-1,009.09	10.00	-7.88	-41.67
7,100.00	8.97	33.50	6,778.39	-1,007.36	139.67	-1,004.62	10.00	3.38	-83.37
7,200.00	18.14	15.38	6,875.54	-985.79	148.12	-982.90	10.00	9.17	-18.12
7,300.00	27.88	9.42	6,967.48	-947.61	156.10	-944.58	10.00	9.74	-5.96
7,400.00	37.75	6.39	7,051.43	-893.99	163.36	-890.83	10.00	9.87	-3.03
7,500.00	47.67	4.48	7,124.82	-826.55	169.67	-823.29	10.00	9.92	-1.91
7,600.00	57.61	3.09	7,185.43	-747.34	174.85	-744.00	10.00	9.94	-1.39
7,700.00	67.56	1.98	7,231.43	-658.77	178.74	-655.37	10.00	9.95	-1.11
7,800.00	77.52	1.03	7,261.40	-563.53	181.22	-560.11	10.00	9.96	-0.96
7,900.00	87.48	0.14	7,274.44	-464.52	182.22	-461.09	10.00	9.96	-0.89
7,924.56	89.92	359.92	7,275.00	-439.97	182.23	-436.55	10.00	9.96	-0.87
LP Begin 89.92° lateral section									
8,000.00	89.92	359.92	7,275.10	-364.53	182.13	-361.12	0.00	0.00	0.00
8,100.00	89.92	359.92	7,275.24	-264.53	182.00	-261.14	0.00	0.00	0.00
8,200.00	89.92	359.92	7,275.37	-164.53	181.86	-161.16	0.00	0.00	0.00
8,300.00	89.92	359.92	7,275.51	-64.53	181.73	-61.18	0.00	0.00	0.00
8,400.00	89.92	359.92	7,275.64	35.47	181.60	38.80	0.00	0.00	0.00
8,500.00	89.92	359.92	7,275.78	135.47	181.47	138.78	0.00	0.00	0.00
8,600.00	89.92	359.92	7,275.91	235.47	181.33	238.76	0.00	0.00	0.00
8,700.00	89.92	359.92	7,276.04	335.47	181.20	338.74	0.00	0.00	0.00
8,800.00	89.92	359.92	7,276.18	435.47	181.07	438.72	0.00	0.00	0.00
8,900.00	89.92	359.92	7,276.31	535.47	180.94	538.70	0.00	0.00	0.00
9,000.00	89.92	359.92	7,276.45	635.47	180.80	638.69	0.00	0.00	0.00
9,100.00	89.92	359.92	7,276.58	735.47	180.67	738.67	0.00	0.00	0.00
9,200.00	89.92	359.92	7,276.72	835.47	180.54	838.65	0.00	0.00	0.00
9,300.00	89.92	359.92	7,276.85	935.47	180.41	938.63	0.00	0.00	0.00
9,400.00	89.92	359.92	7,276.99	1,035.47	180.27	1,038.61	0.00	0.00	0.00
9,500.00	89.92	359.92	7,277.12	1,135.47	180.14	1,138.59	0.00	0.00	0.00
9,600.00	89.92	359.92	7,277.26	1,235.47	180.01	1,238.57	0.00	0.00	0.00
9,700.00	89.92	359.92	7,277.39	1,335.47	179.87	1,338.55	0.00	0.00	0.00
9,800.00	89.92	359.92	7,277.53	1,435.47	179.74	1,438.53	0.00	0.00	0.00
9,900.00	89.92	359.92	7,277.66	1,535.47	179.61	1,538.51	0.00	0.00	0.00

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Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-10-2L	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	89.92	359.92	7,277.80	1,635.47	179.48	1,638.49	0.00	0.00	0.00
10,100.00	89.92	359.92	7,277.93	1,735.47	179.34	1,738.47	0.00	0.00	0.00
10,200.00	89.92	359.92	7,278.06	1,835.47	179.21	1,838.45	0.00	0.00	0.00
10,300.00	89.92	359.92	7,278.20	1,935.47	179.08	1,938.43	0.00	0.00	0.00
10,400.00	89.92	359.92	7,278.33	2,035.47	178.95	2,038.41	0.00	0.00	0.00
10,500.00	89.92	359.92	7,278.47	2,135.47	178.81	2,138.39	0.00	0.00	0.00
10,600.00	89.92	359.92	7,278.60	2,235.46	178.68	2,238.37	0.00	0.00	0.00
10,700.00	89.92	359.92	7,278.74	2,335.46	178.55	2,338.35	0.00	0.00	0.00
10,800.00	89.92	359.92	7,278.87	2,435.46	178.42	2,438.33	0.00	0.00	0.00
10,900.00	89.92	359.92	7,279.01	2,535.46	178.28	2,538.31	0.00	0.00	0.00
11,000.00	89.92	359.92	7,279.14	2,635.46	178.15	2,638.29	0.00	0.00	0.00
11,100.00	89.92	359.92	7,279.28	2,735.46	178.02	2,738.28	0.00	0.00	0.00
11,200.00	89.92	359.92	7,279.41	2,835.46	177.89	2,838.26	0.00	0.00	0.00
11,300.00	89.92	359.92	7,279.55	2,935.46	177.75	2,938.24	0.00	0.00	0.00
11,400.00	89.92	359.92	7,279.68	3,035.46	177.62	3,038.22	0.00	0.00	0.00
11,500.00	89.92	359.92	7,279.82	3,135.46	177.49	3,138.20	0.00	0.00	0.00
11,600.00	89.92	359.92	7,279.95	3,235.46	177.36	3,238.18	0.00	0.00	0.00
11,700.00	89.92	359.92	7,280.09	3,335.46	177.22	3,338.16	0.00	0.00	0.00
11,800.00	89.92	359.92	7,280.22	3,435.46	177.09	3,438.14	0.00	0.00	0.00
11,900.00	89.92	359.92	7,280.35	3,535.46	176.96	3,538.12	0.00	0.00	0.00
12,000.00	89.92	359.92	7,280.49	3,635.46	176.82	3,638.10	0.00	0.00	0.00
12,100.00	89.92	359.92	7,280.62	3,735.46	176.69	3,738.08	0.00	0.00	0.00
12,200.00	89.92	359.92	7,280.76	3,835.46	176.56	3,838.06	0.00	0.00	0.00
12,300.00	89.92	359.92	7,280.89	3,935.46	176.43	3,938.04	0.00	0.00	0.00
12,400.00	89.92	359.92	7,281.03	4,035.46	176.29	4,038.02	0.00	0.00	0.00
12,500.00	89.92	359.92	7,281.16	4,135.46	176.16	4,138.00	0.00	0.00	0.00
12,600.00	89.92	359.92	7,281.30	4,235.46	176.03	4,237.98	0.00	0.00	0.00
12,700.00	89.92	359.92	7,281.43	4,335.46	175.90	4,337.96	0.00	0.00	0.00
12,800.00	89.92	359.92	7,281.57	4,435.46	175.76	4,437.94	0.00	0.00	0.00
12,900.00	89.92	359.92	7,281.70	4,535.46	175.63	4,537.92	0.00	0.00	0.00
13,000.00	89.92	359.92	7,281.84	4,635.46	175.50	4,637.90	0.00	0.00	0.00
13,100.00	89.92	359.92	7,281.97	4,735.46	175.37	4,737.88	0.00	0.00	0.00
13,200.00	89.92	359.92	7,282.11	4,835.46	175.23	4,837.87	0.00	0.00	0.00
13,300.00	89.92	359.92	7,282.24	4,935.46	175.10	4,937.85	0.00	0.00	0.00
13,400.00	89.92	359.92	7,282.37	5,035.46	174.97	5,037.83	0.00	0.00	0.00
13,500.00	89.92	359.92	7,282.51	5,135.46	174.84	5,137.81	0.00	0.00	0.00
13,600.00	89.92	359.92	7,282.64	5,235.46	174.70	5,237.79	0.00	0.00	0.00
13,700.00	89.92	359.92	7,282.78	5,335.46	174.57	5,337.77	0.00	0.00	0.00
13,800.00	89.92	359.92	7,282.91	5,435.46	174.44	5,437.75	0.00	0.00	0.00
13,900.00	89.92	359.92	7,283.05	5,535.46	174.31	5,537.73	0.00	0.00	0.00
14,000.00	89.92	359.92	7,283.18	5,635.46	174.17	5,637.71	0.00	0.00	0.00
14,100.00	89.92	359.92	7,283.32	5,735.46	174.04	5,737.69	0.00	0.00	0.00
14,200.00	89.92	359.92	7,283.45	5,835.46	173.91	5,837.67	0.00	0.00	0.00
14,300.00	89.92	359.92	7,283.59	5,935.46	173.78	5,937.65	0.00	0.00	0.00
14,400.00	89.92	359.92	7,283.72	6,035.46	173.64	6,037.63	0.00	0.00	0.00
14,500.00	89.92	359.92	7,283.86	6,135.46	173.51	6,137.61	0.00	0.00	0.00
14,600.00	89.92	359.92	7,283.99	6,235.46	173.38	6,237.59	0.00	0.00	0.00
14,700.00	89.92	359.92	7,284.13	6,335.46	173.24	6,337.57	0.00	0.00	0.00
14,800.00	89.92	359.92	7,284.26	6,435.46	173.11	6,437.55	0.00	0.00	0.00
14,900.00	89.92	359.92	7,284.40	6,535.46	172.98	6,537.53	0.00	0.00	0.00
15,000.00	89.92	359.92	7,284.53	6,635.46	172.85	6,637.51	0.00	0.00	0.00
15,100.00	89.92	359.92	7,284.66	6,735.46	172.71	6,737.49	0.00	0.00	0.00
15,200.00	89.92	359.92	7,284.80	6,835.46	172.58	6,837.47	0.00	0.00	0.00
15,300.00	89.92	359.92	7,284.93	6,935.46	172.45	6,937.46	0.00	0.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-10-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-10-2L	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	89.92	359.92	7,285.07	7,035.46	172.32	7,037.44	0.00	0.00	0.00
15,500.00	89.92	359.92	7,285.20	7,135.46	172.18	7,137.42	0.00	0.00	0.00
15,600.00	89.92	359.92	7,285.34	7,235.46	172.05	7,237.40	0.00	0.00	0.00
15,700.00	89.92	359.92	7,285.47	7,335.46	171.92	7,337.38	0.00	0.00	0.00
15,800.00	89.92	359.92	7,285.61	7,435.46	171.79	7,437.36	0.00	0.00	0.00
15,900.00	89.92	359.92	7,285.74	7,535.46	171.65	7,537.34	0.00	0.00	0.00
16,000.00	89.92	359.92	7,285.88	7,635.46	171.52	7,637.32	0.00	0.00	0.00
16,100.00	89.92	359.92	7,286.01	7,735.46	171.39	7,737.30	0.00	0.00	0.00
16,200.00	89.92	359.92	7,286.15	7,835.46	171.26	7,837.28	0.00	0.00	0.00
16,300.00	89.92	359.92	7,286.28	7,935.45	171.12	7,937.26	0.00	0.00	0.00
16,400.00	89.92	359.92	7,286.42	8,035.45	170.99	8,037.24	0.00	0.00	0.00
16,500.00	89.92	359.92	7,286.55	8,135.45	170.86	8,137.22	0.00	0.00	0.00
16,600.00	89.92	359.92	7,286.68	8,235.45	170.73	8,237.20	0.00	0.00	0.00
16,700.00	89.92	359.92	7,286.82	8,335.45	170.59	8,337.18	0.00	0.00	0.00
16,800.00	89.92	359.92	7,286.95	8,435.45	170.46	8,437.16	0.00	0.00	0.00
16,900.00	89.92	359.92	7,287.09	8,535.45	170.33	8,537.14	0.00	0.00	0.00
17,000.00	89.92	359.92	7,287.22	8,635.45	170.20	8,637.12	0.00	0.00	0.00
17,100.00	89.92	359.92	7,287.36	8,735.45	170.06	8,737.10	0.00	0.00	0.00
17,200.00	89.92	359.92	7,287.49	8,835.45	169.93	8,837.08	0.00	0.00	0.00
17,300.00	89.92	359.92	7,287.63	8,935.45	169.80	8,937.06	0.00	0.00	0.00
17,400.00	89.92	359.92	7,287.76	9,035.45	169.66	9,037.05	0.00	0.00	0.00
17,500.00	89.92	359.92	7,287.90	9,135.45	169.53	9,137.03	0.00	0.00	0.00
17,576.53	89.92	359.92	7,288.00	9,211.99	169.43	9,213.54	0.00	0.00	0.00
PBHL/TD 17576.53 MD/7288.00 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 33-10-2 L 47C - plan hits target center - Point	0.00	0.00	7,275.00	-439.97	182.23	14,527,561.80	1,730,955.92	40.00182381	-104.67669605
BHL Buford 33-10-2 L 47 - plan hits target center - Point	0.00	0.00	7,288.00	9,211.99	169.43	14,537,213.63	1,730,908.18	40.02832959	-104.67674149

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
5,377.83	5,351.03	-119.34	13.71	Begin 37.78° tangent
6,650.33	6,356.74	-893.87	102.67	Begin 10°/100' build/turn
7,924.56	7,275.00	-439.97	182.23	LP Begin 89.92° lateral section
17,576.53	7,288.00	9,211.99	169.43	PBHL/TD 17576.53 MD/7288.00 TVD

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-10-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-10-2L	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 33-10-2L, Surf Loc:910 FSL 300 FWL Sect 33-T01N-R65W					
Well Position	+N/-S	0.00 ft	Northing:	14,528,001.11 usft	Latitude:	40.00303205
	+E/-W	0.00 ft	Easting:	1,730,772.10 usft	Longitude:	-104.67734675
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,077.00 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	1.05

Plan Survey Tool Program	Date	5/25/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	17,576.53 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	
5,377.83	37.78	173.45	5,351.03	-119.34	13.71	10.00	10.00	0.00	173.45	
6,650.33	37.78	173.45	6,356.74	-893.87	102.67	0.00	0.00	0.00	0.00	
7,924.56	89.92	359.92	7,275.00	-439.97	182.23	10.00	4.09	-13.62	-171.83	LP Buford 33-10-2 L 4
17,576.53	89.92	359.92	7,288.00	9,211.99	169.43	0.00	0.00	0.00	0.00	BHL Buford 33-10-2 L

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-10-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-10-2L	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	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
100.00	0.00	0.00	100.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
200.00	0.00	0.00	200.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
300.00	0.00	0.00	300.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
400.00	0.00	0.00	400.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
500.00	0.00	0.00	500.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
600.00	0.00	0.00	600.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
700.00	0.00	0.00	700.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
800.00	0.00	0.00	800.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
900.00	0.00	0.00	900.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
2,100.00	0.00	0.00	2,100.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
2,200.00	0.00	0.00	2,200.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
2,300.00	0.00	0.00	2,300.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
2,400.00	0.00	0.00	2,400.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
2,500.00	0.00	0.00	2,500.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
2,600.00	0.00	0.00	2,600.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
2,700.00	0.00	0.00	2,700.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
2,800.00	0.00	0.00	2,800.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
2,900.00	0.00	0.00	2,900.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
3,000.00	0.00	0.00	3,000.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
3,100.00	0.00	0.00	3,100.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
3,200.00	0.00	0.00	3,200.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
3,300.00	0.00	0.00	3,300.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
3,400.00	0.00	0.00	3,400.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
3,500.00	0.00	0.00	3,500.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
3,600.00	0.00	0.00	3,600.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
3,700.00	0.00	0.00	3,700.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
3,800.00	0.00	0.00	3,800.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
3,900.00	0.00	0.00	3,900.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
4,000.00	0.00	0.00	4,000.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
4,100.00	0.00	0.00	4,100.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
4,200.00	0.00	0.00	4,200.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
4,300.00	0.00	0.00	4,300.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
4,400.00	0.00	0.00	4,400.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
4,500.00	0.00	0.00	4,500.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
4,600.00	0.00	0.00	4,600.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
4,700.00	0.00	0.00	4,700.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
4,800.00	0.00	0.00	4,800.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
4,900.00	0.00	0.00	4,900.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
5,000.00	0.00	0.00	5,000.00	0.00	0.00	14,528,001.11	1,730,772.10	40.00303205	-104.67734675
KOP Begin 10°/100' build									
5,100.00	10.00	173.45	5,099.49	-8.65	0.99	14,527,992.47	1,730,773.12	40.00300830	-104.67734321
5,200.00	20.00	173.45	5,195.96	-34.33	3.94	14,527,966.80	1,730,776.17	40.00293778	-104.67733267

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-10-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-10-2L	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
5,300.00	30.00	173.45	5,286.48	-76.26	8.76	14,527,924.89	1,730,781.13	40.00282263	-104.67731547
5,377.83	37.78	173.45	5,351.03	-119.34	13.71	14,527,881.82	1,730,786.24	40.00270432	-104.67729780
Begin 37.78° tangent									
5,400.00	37.78	173.45	5,368.56	-132.84	15.26	14,527,868.33	1,730,787.84	40.00266726	-104.67729227
5,500.00	37.78	173.45	5,447.59	-193.70	22.25	14,527,807.49	1,730,795.05	40.00250011	-104.67726730
5,600.00	37.78	173.45	5,526.63	-254.57	29.24	14,527,746.65	1,730,802.26	40.00233296	-104.67724234
5,700.00	37.78	173.45	5,605.66	-315.44	36.23	14,527,685.81	1,730,809.47	40.00216581	-104.67721737
5,800.00	37.78	173.45	5,684.69	-376.30	43.22	14,527,624.97	1,730,816.68	40.00199866	-104.67719241
5,900.00	37.78	173.45	5,763.73	-437.17	50.22	14,527,564.13	1,730,823.90	40.00183151	-104.67716744
6,000.00	37.78	173.45	5,842.76	-498.04	57.21	14,527,503.29	1,730,831.11	40.00166436	-104.67714248
6,100.00	37.78	173.45	5,921.80	-558.90	64.20	14,527,442.45	1,730,838.32	40.00149721	-104.67711751
6,200.00	37.78	173.45	6,000.83	-619.77	71.19	14,527,381.61	1,730,845.53	40.00133006	-104.67709255
6,300.00	37.78	173.45	6,079.86	-680.64	78.18	14,527,320.77	1,730,852.74	40.00116291	-104.67706758
6,400.00	37.78	173.45	6,158.90	-741.50	85.17	14,527,259.93	1,730,859.96	40.00099576	-104.67704262
6,500.00	37.78	173.45	6,237.93	-802.37	92.16	14,527,199.08	1,730,867.17	40.00082861	-104.67701765
6,600.00	37.78	173.45	6,316.97	-863.24	99.16	14,527,138.24	1,730,874.38	40.00066146	-104.67699269
6,650.33	37.78	173.45	6,356.74	-893.87	102.67	14,527,107.62	1,730,878.01	40.00057734	-104.67698013
Begin 10°/100' build/turn									
6,700.00	32.87	172.15	6,397.26	-922.36	106.25	14,527,079.15	1,730,881.69	40.00049910	-104.67696734
6,800.00	23.05	168.07	6,485.48	-968.51	114.03	14,527,033.02	1,730,889.63	40.00037235	-104.67693959
6,900.00	13.48	158.54	6,580.35	-998.59	122.36	14,527,002.98	1,730,898.07	40.00028976	-104.67690984
7,000.00	5.60	116.87	6,678.99	-1,011.67	130.99	14,526,989.93	1,730,906.75	40.00025384	-104.67687901
7,100.00	8.97	33.50	6,778.39	-1,007.36	139.67	14,526,994.27	1,730,915.41	40.00026568	-104.67684803
7,200.00	18.14	15.38	6,875.54	-985.79	148.12	14,527,015.87	1,730,923.79	40.00032492	-104.67681784
7,300.00	27.88	9.42	6,967.48	-947.61	156.10	14,527,054.08	1,730,931.63	40.00042976	-104.67678936
7,400.00	37.75	6.39	7,051.43	-893.99	163.36	14,527,107.73	1,730,938.69	40.00057702	-104.67676345
7,500.00	47.67	4.48	7,124.82	-826.55	169.67	14,527,175.19	1,730,944.76	40.00076222	-104.67674090
7,600.00	57.61	3.09	7,185.43	-747.34	174.85	14,527,254.41	1,730,949.65	40.00097973	-104.67672240
7,700.00	67.56	1.98	7,231.43	-658.77	178.74	14,527,343.00	1,730,953.22	40.00122295	-104.67670851
7,800.00	77.52	1.03	7,261.40	-563.53	181.22	14,527,438.24	1,730,955.36	40.00148449	-104.67669965
7,900.00	87.48	0.14	7,274.44	-464.52	182.22	14,527,537.26	1,730,955.99	40.00175640	-104.67669609
7,924.56	89.92	359.92	7,275.00	-439.97	182.23	14,527,561.80	1,730,955.92	40.00182381	-104.67669605
LP Begin 89.92° lateral section									
8,000.00	89.92	359.92	7,275.10	-364.53	182.13	14,527,637.25	1,730,955.55	40.00203099	-104.67669640
8,100.00	89.92	359.92	7,275.24	-264.53	182.00	14,527,737.25	1,730,955.05	40.00230560	-104.67669687
8,200.00	89.92	359.92	7,275.37	-164.53	181.86	14,527,837.24	1,730,954.56	40.00258022	-104.67669734
8,300.00	89.92	359.92	7,275.51	-64.53	181.73	14,527,937.24	1,730,954.06	40.00285484	-104.67669781
8,400.00	89.92	359.92	7,275.64	35.47	181.60	14,528,037.24	1,730,953.57	40.00312945	-104.67669828
8,500.00	89.92	359.92	7,275.78	135.47	181.47	14,528,137.24	1,730,953.07	40.00340407	-104.67669876
8,600.00	89.92	359.92	7,275.91	235.47	181.33	14,528,237.24	1,730,952.58	40.00367868	-104.67669923
8,700.00	89.92	359.92	7,276.04	335.47	181.20	14,528,337.24	1,730,952.08	40.00395330	-104.67669970
8,800.00	89.92	359.92	7,276.18	435.47	181.07	14,528,437.23	1,730,951.59	40.00422791	-104.67670017
8,900.00	89.92	359.92	7,276.31	535.47	180.94	14,528,537.23	1,730,951.09	40.00450253	-104.67670064
9,000.00	89.92	359.92	7,276.45	635.47	180.80	14,528,637.23	1,730,950.60	40.00477714	-104.67670111
9,100.00	89.92	359.92	7,276.58	735.47	180.67	14,528,737.23	1,730,950.10	40.00505176	-104.67670158
9,200.00	89.92	359.92	7,276.72	835.47	180.54	14,528,837.23	1,730,949.61	40.00532638	-104.67670205
9,300.00	89.92	359.92	7,276.85	935.47	180.41	14,528,937.23	1,730,949.12	40.00560099	-104.67670252
9,400.00	89.92	359.92	7,276.99	1,035.47	180.27	14,529,037.23	1,730,948.62	40.00587561	-104.67670299
9,500.00	89.92	359.92	7,277.12	1,135.47	180.14	14,529,137.22	1,730,948.13	40.00615022	-104.67670346
9,600.00	89.92	359.92	7,277.26	1,235.47	180.01	14,529,237.22	1,730,947.63	40.00642484	-104.67670394
9,700.00	89.92	359.92	7,277.39	1,335.47	179.87	14,529,337.22	1,730,947.14	40.00669945	-104.67670441
9,800.00	89.92	359.92	7,277.53	1,435.47	179.74	14,529,437.22	1,730,946.64	40.00697407	-104.67670488
9,900.00	89.92	359.92	7,277.66	1,535.47	179.61	14,529,537.22	1,730,946.15	40.00724868	-104.67670535
10,000.00	89.92	359.92	7,277.80	1,635.47	179.48	14,529,637.22	1,730,945.65	40.00752330	-104.67670582

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-10-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-10-2L	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	89.92	359.92	7,277.93	1,735.47	179.34	14,529,737.21	1,730,945.16	40.00779791	-104.67670629
10,200.00	89.92	359.92	7,278.06	1,835.47	179.21	14,529,837.21	1,730,944.66	40.00807253	-104.67670676
10,300.00	89.92	359.92	7,278.20	1,935.47	179.08	14,529,937.21	1,730,944.17	40.00834714	-104.67670723
10,400.00	89.92	359.92	7,278.33	2,035.47	178.95	14,530,037.21	1,730,943.67	40.00862176	-104.67670770
10,500.00	89.92	359.92	7,278.47	2,135.47	178.81	14,530,137.21	1,730,943.18	40.00889638	-104.67670817
10,600.00	89.92	359.92	7,278.60	2,235.46	178.68	14,530,237.21	1,730,942.69	40.00917099	-104.67670864
10,700.00	89.92	359.92	7,278.74	2,335.46	178.55	14,530,337.21	1,730,942.19	40.00944561	-104.67670912
10,800.00	89.92	359.92	7,278.87	2,435.46	178.42	14,530,437.20	1,730,941.70	40.00972022	-104.67670959
10,900.00	89.92	359.92	7,279.01	2,535.46	178.28	14,530,537.20	1,730,941.20	40.00999484	-104.67671006
11,000.00	89.92	359.92	7,279.14	2,635.46	178.15	14,530,637.20	1,730,940.71	40.01026945	-104.67671053
11,100.00	89.92	359.92	7,279.28	2,735.46	178.02	14,530,737.20	1,730,940.21	40.01054407	-104.67671100
11,200.00	89.92	359.92	7,279.41	2,835.46	177.89	14,530,837.20	1,730,939.72	40.01081868	-104.67671147
11,300.00	89.92	359.92	7,279.55	2,935.46	177.75	14,530,937.20	1,730,939.22	40.01109330	-104.67671194
11,400.00	89.92	359.92	7,279.68	3,035.46	177.62	14,531,037.20	1,730,938.73	40.01136791	-104.67671241
11,500.00	89.92	359.92	7,279.82	3,135.46	177.49	14,531,137.19	1,730,938.23	40.01164253	-104.67671288
11,600.00	89.92	359.92	7,279.95	3,235.46	177.36	14,531,237.19	1,730,937.74	40.01191714	-104.67671335
11,700.00	89.92	359.92	7,280.09	3,335.46	177.22	14,531,337.19	1,730,937.24	40.01219176	-104.67671382
11,800.00	89.92	359.92	7,280.22	3,435.46	177.09	14,531,437.19	1,730,936.75	40.01246637	-104.67671429
11,900.00	89.92	359.92	7,280.35	3,535.46	176.96	14,531,537.19	1,730,936.26	40.01274099	-104.67671477
12,000.00	89.92	359.92	7,280.49	3,635.46	176.82	14,531,637.19	1,730,935.76	40.01301560	-104.67671524
12,100.00	89.92	359.92	7,280.62	3,735.46	176.69	14,531,737.18	1,730,935.27	40.01329022	-104.67671571
12,200.00	89.92	359.92	7,280.76	3,835.46	176.56	14,531,837.18	1,730,934.77	40.01356483	-104.67671618
12,300.00	89.92	359.92	7,280.89	3,935.46	176.43	14,531,937.18	1,730,934.28	40.01383945	-104.67671665
12,400.00	89.92	359.92	7,281.03	4,035.46	176.29	14,532,037.18	1,730,933.78	40.01411406	-104.67671712
12,500.00	89.92	359.92	7,281.16	4,135.46	176.16	14,532,137.18	1,730,933.29	40.01438868	-104.67671759
12,600.00	89.92	359.92	7,281.30	4,235.46	176.03	14,532,237.18	1,730,932.79	40.01466329	-104.67671806
12,700.00	89.92	359.92	7,281.43	4,335.46	175.90	14,532,337.18	1,730,932.30	40.01493791	-104.67671853
12,800.00	89.92	359.92	7,281.57	4,435.46	175.76	14,532,437.17	1,730,931.80	40.01521252	-104.67671900
12,900.00	89.92	359.92	7,281.70	4,535.46	175.63	14,532,537.17	1,730,931.31	40.01548714	-104.67671947
13,000.00	89.92	359.92	7,281.84	4,635.46	175.50	14,532,637.17	1,730,930.81	40.01576175	-104.67671994
13,100.00	89.92	359.92	7,281.97	4,735.46	175.37	14,532,737.17	1,730,930.32	40.01603637	-104.67672042
13,200.00	89.92	359.92	7,282.11	4,835.46	175.23	14,532,837.17	1,730,929.83	40.01631098	-104.67672089
13,300.00	89.92	359.92	7,282.24	4,935.46	175.10	14,532,937.17	1,730,929.33	40.01658560	-104.67672136
13,400.00	89.92	359.92	7,282.37	5,035.46	174.97	14,533,037.17	1,730,928.84	40.01686021	-104.67672183
13,500.00	89.92	359.92	7,282.51	5,135.46	174.84	14,533,137.16	1,730,928.34	40.01713483	-104.67672230
13,600.00	89.92	359.92	7,282.64	5,235.46	174.70	14,533,237.16	1,730,927.85	40.01740944	-104.67672277
13,700.00	89.92	359.92	7,282.78	5,335.46	174.57	14,533,337.16	1,730,927.35	40.01768406	-104.67672324
13,800.00	89.92	359.92	7,282.91	5,435.46	174.44	14,533,437.16	1,730,926.86	40.01795867	-104.67672371
13,900.00	89.92	359.92	7,283.05	5,535.46	174.31	14,533,537.16	1,730,926.36	40.01823329	-104.67672418
14,000.00	89.92	359.92	7,283.18	5,635.46	174.17	14,533,637.16	1,730,925.87	40.01850790	-104.67672465
14,100.00	89.92	359.92	7,283.32	5,735.46	174.04	14,533,737.15	1,730,925.37	40.01878252	-104.67672512
14,200.00	89.92	359.92	7,283.45	5,835.46	173.91	14,533,837.15	1,730,924.88	40.01905713	-104.67672559
14,300.00	89.92	359.92	7,283.59	5,935.46	173.78	14,533,937.15	1,730,924.38	40.01933175	-104.67672606
14,400.00	89.92	359.92	7,283.72	6,035.46	173.64	14,534,037.15	1,730,923.89	40.01960636	-104.67672653
14,500.00	89.92	359.92	7,283.86	6,135.46	173.51	14,534,137.15	1,730,923.40	40.01988098	-104.67672701
14,600.00	89.92	359.92	7,283.99	6,235.46	173.38	14,534,237.15	1,730,922.90	40.02015559	-104.67672748
14,700.00	89.92	359.92	7,284.13	6,335.46	173.24	14,534,337.15	1,730,922.41	40.02043021	-104.67672795
14,800.00	89.92	359.92	7,284.26	6,435.46	173.11	14,534,437.14	1,730,921.91	40.02070482	-104.67672842
14,900.00	89.92	359.92	7,284.40	6,535.46	172.98	14,534,537.14	1,730,921.42	40.02097944	-104.67672889
15,000.00	89.92	359.92	7,284.53	6,635.46	172.85	14,534,637.14	1,730,920.92	40.02125405	-104.67672936
15,100.00	89.92	359.92	7,284.66	6,735.46	172.71	14,534,737.14	1,730,920.43	40.02152867	-104.67672983
15,200.00	89.92	359.92	7,284.80	6,835.46	172.58	14,534,837.14	1,730,919.93	40.02180328	-104.67673030
15,300.00	89.92	359.92	7,284.93	6,935.46	172.45	14,534,937.14	1,730,919.44	40.02207790	-104.67673077
15,400.00	89.92	359.92	7,285.07	7,035.46	172.32	14,535,037.13	1,730,918.94	40.02235251	-104.67673124
15,500.00	89.92	359.92	7,285.20	7,135.46	172.18	14,535,137.13	1,730,918.45	40.02262712	-104.67673171

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Buford 33-10-2L
Company:	Confluence Resources	TVD Reference:	RKB=5077+25 @ 5102.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5077+25 @ 5102.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Buford 33-10-2L	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	89.92	359.92	7,285.34	7,235.46	172.05	14,535,237.13	1,730,917.95	40.02290174	-104.67673218
15,700.00	89.92	359.92	7,285.47	7,335.46	171.92	14,535,337.13	1,730,917.46	40.02317635	-104.67673265
15,800.00	89.92	359.92	7,285.61	7,435.46	171.79	14,535,437.13	1,730,916.97	40.02345097	-104.67673312
15,900.00	89.92	359.92	7,285.74	7,535.46	171.65	14,535,537.13	1,730,916.47	40.02372558	-104.67673360
16,000.00	89.92	359.92	7,285.88	7,635.46	171.52	14,535,637.13	1,730,915.98	40.02400020	-104.67673407
16,100.00	89.92	359.92	7,286.01	7,735.46	171.39	14,535,737.12	1,730,915.48	40.02427481	-104.67673454
16,200.00	89.92	359.92	7,286.15	7,835.46	171.26	14,535,837.12	1,730,914.99	40.02454943	-104.67673501
16,300.00	89.92	359.92	7,286.28	7,935.45	171.12	14,535,937.12	1,730,914.49	40.02482404	-104.67673548
16,400.00	89.92	359.92	7,286.42	8,035.45	170.99	14,536,037.12	1,730,914.00	40.02509866	-104.67673595
16,500.00	89.92	359.92	7,286.55	8,135.45	170.86	14,536,137.12	1,730,913.50	40.02537327	-104.67673642
16,600.00	89.92	359.92	7,286.68	8,235.45	170.73	14,536,237.12	1,730,913.01	40.02564789	-104.67673689
16,700.00	89.92	359.92	7,286.82	8,335.45	170.59	14,536,337.12	1,730,912.51	40.02592250	-104.67673736
16,800.00	89.92	359.92	7,286.95	8,435.45	170.46	14,536,437.11	1,730,912.02	40.02619711	-104.67673783
16,900.00	89.92	359.92	7,287.09	8,535.45	170.33	14,536,537.11	1,730,911.52	40.02647173	-104.67673830
17,000.00	89.92	359.92	7,287.22	8,635.45	170.20	14,536,637.11	1,730,911.03	40.02674634	-104.67673877
17,100.00	89.92	359.92	7,287.36	8,735.45	170.06	14,536,737.11	1,730,910.54	40.02702096	-104.67673924
17,200.00	89.92	359.92	7,287.49	8,835.45	169.93	14,536,837.11	1,730,910.04	40.02729557	-104.67673971
17,300.00	89.92	359.92	7,287.63	8,935.45	169.80	14,536,937.11	1,730,909.55	40.02757019	-104.67674018
17,400.00	89.92	359.92	7,287.76	9,035.45	169.66	14,537,037.10	1,730,909.05	40.02784480	-104.67674066
17,500.00	89.92	359.92	7,287.90	9,135.45	169.53	14,537,137.10	1,730,908.56	40.02811942	-104.67674113
17,576.53	89.92	359.92	7,288.00	9,211.99	169.43	14,537,213.63	1,730,908.18	40.02832959	-104.67674149
PBHL/TD 17576.53 MD/7288.00 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 33-10-2 L 47C - plan hits target center - Point	0.00	0.00	7,275.00	-439.97	182.23	14,527,561.80	1,730,955.92	40.00182381	-104.67669605
BHL Buford 33-10-2 L 47 - plan hits target center - Point	0.00	0.00	7,288.00	9,211.99	169.43	14,537,213.63	1,730,908.18	40.02832959	-104.67674149

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
5,000.00	5,000.00	0.00	0.00	KOP Begin 10°/100' build	
5,377.83	5,351.03	-119.34	13.71	Begin 37.78° tangent	
6,650.33	6,356.74	-893.87	102.67	Begin 10°/100' build/turn	
7,924.56	7,275.00	-439.97	182.23	LP Begin 89.92° lateral section	
17,576.53	7,288.00	9,211.99	169.43	PBHL/TD 17576.53 MD/7288.00 TVD	