



Weld County, Colorado
Section 33-T01N-R65W
Walla 5-5-1L
plan1

Azimuth Corrections:

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

Walla 5-5-1L			
Surf loc: 860 FSL 300 FWL Sec33-T01N-R65W			
NAD83 Colorado - HARN			
Universal Transverse Mercator (US Survey Feet)			
Zone 13N (108 W to 102 W)			
RKB=5076+25 @ 5101.00ft			
Northing	Easting	Latitude	Longitude
14527951.11	1730772.54	40.00289474	-104.67734583

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	5591.78	59.18	252.81	5492.03	-82.59	-266.90	10.00	149.82	Begin 59.18° tangent section
4	8326.90	59.18	252.81	6893.45	-776.90	-2510.75	0.00	1409.35	Begin 10°/100' build/turn
5	9079.35	90.09	180.12	7119.00	-1330.60	-2873.92	10.00	2039.02	LP Begin 90.09° lateral section
6	18370.14	90.09	180.12	7104.00	-10621.35	-2892.65	0.00	11008.20	PBHL/TD 18370.14 MD/7104.00 TVD

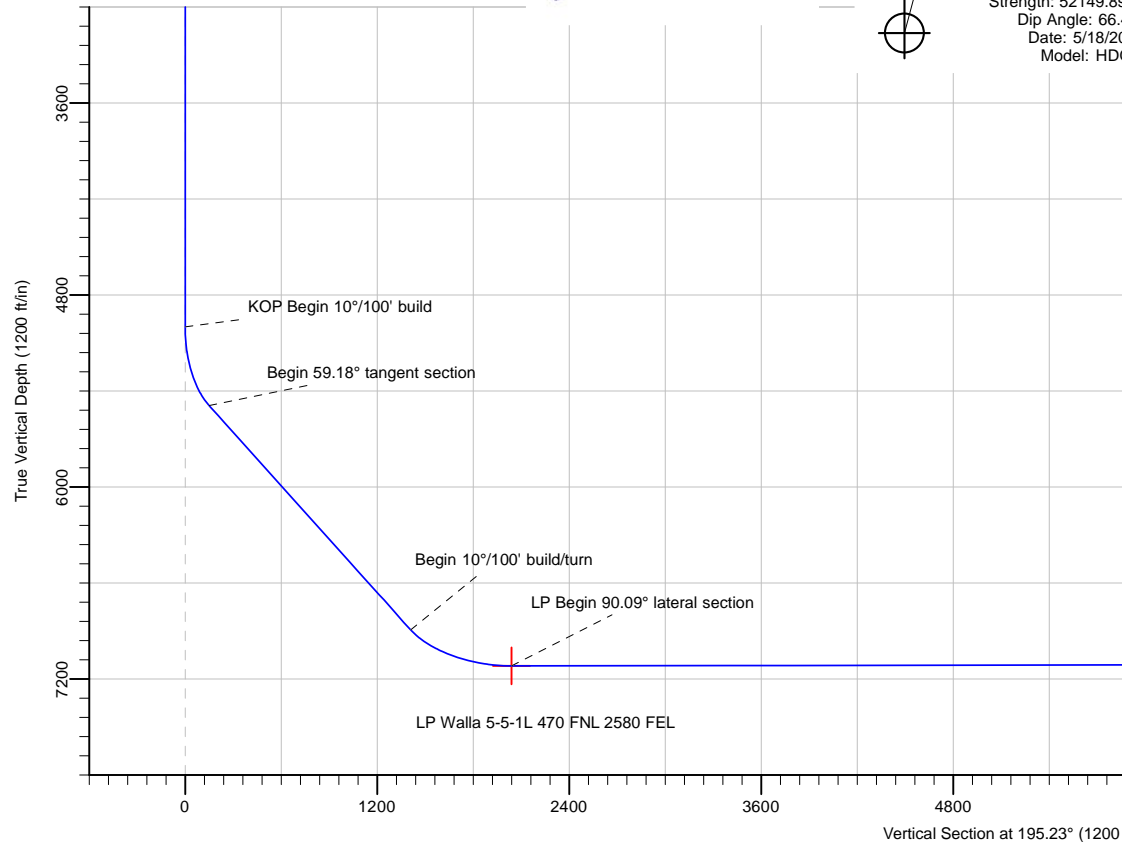
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL Walla 5-5-1L 470 FSL 2580 FEL	7104.00	-10621.35	-2892.65	14517319.38	1727918.37	39.97372625	-104.68767071
LP Walla 5-5-1L 470 FNL 2580 FEL	7119.00	-1330.60	-2873.92	14526610.12	1727903.46	39.99924024	-104.68760774

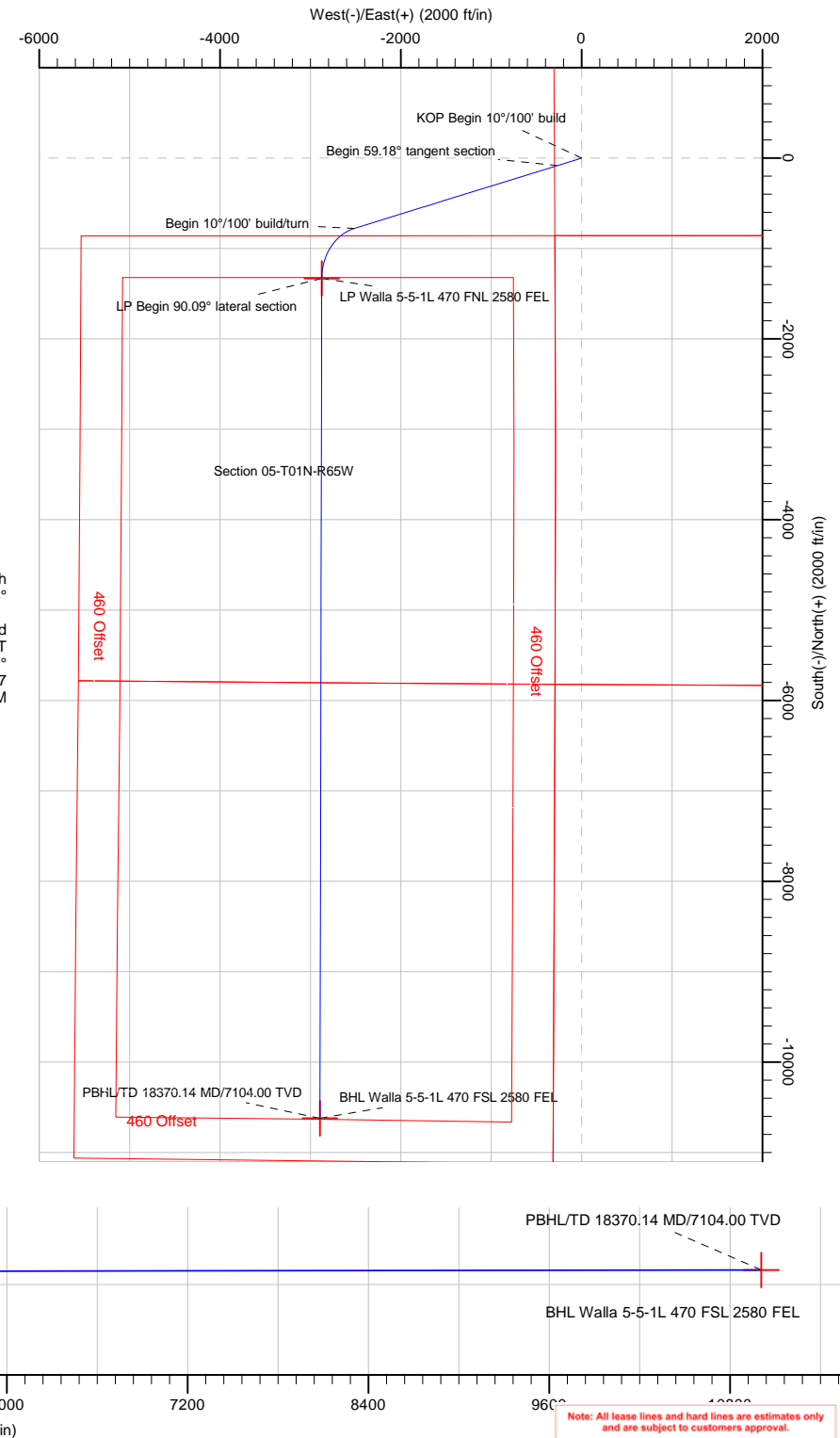


Azimuths to True North
Magnetic North: 8.28°

Magnetic Field
Strength: 52149.8snT
Dip Angle: 66.45°
Date: 5/18/2017
Model: HDGM



Date: 21:15, May 18 2017



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 Walla 5-5-1L
Company:	Confluence Resources	TVD Reference:	RKB=5076+25 @ 5101.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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	Walla 5-5-1L, Surf loc: 860 FSL 300 FWL Sec33-T01N-R65W					
Well Position	+N/-S	200.00 ft	Northing:	14,527,951.11 usft	Latitude:	40.00289474
	+E/-W	-1.01 ft	Easting:	1,730,772.54 usft	Longitude:	-104.67734583
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,076.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/18/2017	8.28	66.45	52,149.80000000

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	195.23

Plan Survey Tool Program	Date	5/18/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,370.14	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	
5,591.78	59.18	252.81	5,492.03	-82.59	-266.90	10.00	10.00	0.00	252.81	
8,326.90	59.18	252.81	6,893.45	-776.90	-2,510.75	0.00	0.00	0.00	0.00	
9,079.35	90.09	180.12	7,119.00	-1,330.60	-2,873.92	10.00	4.11	-9.66	-80.85	LP Walla 5-5-1L 470 F
18,370.14	90.09	180.12	7,104.00	-10,621.35	-2,892.65	0.00	0.00	0.00	0.00	BHL Walla 5-5-1L 470

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-5-1L
Company:	Confluence Resources	TVD Reference:	RKB=5076+25 @ 5101.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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
2,500.01	0.00	0.00	2,500.01	0.00	0.00	0.00	0.00	0.00	0.00
2,600.01	0.00	0.00	2,600.01	0.00	0.00	0.00	0.00	0.00	0.00
2,700.01	0.00	0.00	2,700.01	0.00	0.00	0.00	0.00	0.00	0.00
2,800.01	0.00	0.00	2,800.01	0.00	0.00	0.00	0.00	0.00	0.00
2,900.01	0.00	0.00	2,900.01	0.00	0.00	0.00	0.00	0.00	0.00
3,000.01	0.00	0.00	3,000.01	0.00	0.00	0.00	0.00	0.00	0.00
3,100.01	0.00	0.00	3,100.01	0.00	0.00	0.00	0.00	0.00	0.00
3,200.01	0.00	0.00	3,200.01	0.00	0.00	0.00	0.00	0.00	0.00
3,300.01	0.00	0.00	3,300.01	0.00	0.00	0.00	0.00	0.00	0.00
3,400.01	0.00	0.00	3,400.01	0.00	0.00	0.00	0.00	0.00	0.00
3,500.01	0.00	0.00	3,500.01	0.00	0.00	0.00	0.00	0.00	0.00
3,600.01	0.00	0.00	3,600.01	0.00	0.00	0.00	0.00	0.00	0.00
3,700.01	0.00	0.00	3,700.01	0.00	0.00	0.00	0.00	0.00	0.00
3,800.01	0.00	0.00	3,800.01	0.00	0.00	0.00	0.00	0.00	0.00
3,900.01	0.00	0.00	3,900.01	0.00	0.00	0.00	0.00	0.00	0.00
4,000.01	0.00	0.00	4,000.01	0.00	0.00	0.00	0.00	0.00	0.00
4,100.01	0.00	0.00	4,100.01	0.00	0.00	0.00	0.00	0.00	0.00
4,200.01	0.00	0.00	4,200.01	0.00	0.00	0.00	0.00	0.00	0.00
4,300.01	0.00	0.00	4,300.01	0.00	0.00	0.00	0.00	0.00	0.00
4,400.01	0.00	0.00	4,400.01	0.00	0.00	0.00	0.00	0.00	0.00
4,500.01	0.00	0.00	4,500.01	0.00	0.00	0.00	0.00	0.00	0.00
4,600.01	0.00	0.00	4,600.01	0.00	0.00	0.00	0.00	0.00	0.00
4,700.01	0.00	0.00	4,700.01	0.00	0.00	0.00	0.00	0.00	0.00
4,800.01	0.00	0.00	4,800.01	0.00	0.00	0.00	0.00	0.00	0.00
4,900.01	0.00	0.00	4,900.01	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									
5,000.01	0.00	252.81	5,000.01	0.00	0.00	0.00	0.00	0.00	0.00
5,100.01	10.00	252.81	5,099.50	-2.57	-8.32	4.67	10.00	10.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-5-1L
Company:	Confluence Resources	TVD Reference:	RKB=5076+25 @ 5101.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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)
5,200.01	20.00	252.81	5,195.97	-10.22	-33.01	18.53	10.00	10.00	0.00
5,300.01	30.00	252.81	5,286.49	-22.69	-73.34	41.17	10.00	10.00	0.00
5,400.01	40.00	252.81	5,368.30	-39.63	-128.06	71.89	10.00	10.00	0.00
5,500.01	50.00	252.81	5,438.92	-60.50	-195.53	109.76	10.00	10.00	0.00
5,591.78	59.18	252.81	5,492.03	-82.59	-266.90	149.82	10.00	10.00	0.00
Begin 59.18° tangent section									
5,600.01	59.18	252.81	5,496.25	-84.68	-273.66	153.61	0.00	0.00	0.00
5,700.01	59.18	252.81	5,547.49	-110.06	-355.70	199.66	0.00	0.00	0.00
5,800.01	59.18	252.81	5,598.73	-135.45	-437.73	245.71	0.00	0.00	0.00
5,900.01	59.18	252.81	5,649.97	-160.83	-519.77	291.76	0.00	0.00	0.00
6,000.01	59.18	252.81	5,701.20	-186.22	-601.81	337.81	0.00	0.00	0.00
6,100.01	59.18	252.81	5,752.44	-211.60	-683.85	383.86	0.00	0.00	0.00
6,200.01	59.18	252.81	5,803.68	-236.99	-765.89	429.91	0.00	0.00	0.00
6,300.01	59.18	252.81	5,854.92	-262.37	-847.93	475.96	0.00	0.00	0.00
6,400.01	59.18	252.81	5,906.16	-287.76	-929.97	522.01	0.00	0.00	0.00
6,500.01	59.18	252.81	5,957.39	-313.14	-1,012.00	568.06	0.00	0.00	0.00
6,600.01	59.18	252.81	6,008.63	-338.53	-1,094.04	614.12	0.00	0.00	0.00
6,700.01	59.18	252.81	6,059.87	-363.91	-1,176.08	660.17	0.00	0.00	0.00
6,800.01	59.18	252.81	6,111.11	-389.30	-1,258.12	706.22	0.00	0.00	0.00
6,900.01	59.18	252.81	6,162.34	-414.68	-1,340.16	752.27	0.00	0.00	0.00
7,000.01	59.18	252.81	6,213.58	-440.07	-1,422.20	798.32	0.00	0.00	0.00
7,100.01	59.18	252.81	6,264.82	-465.45	-1,504.24	844.37	0.00	0.00	0.00
7,200.01	59.18	252.81	6,316.06	-490.84	-1,586.27	890.42	0.00	0.00	0.00
7,300.01	59.18	252.81	6,367.30	-516.22	-1,668.31	936.47	0.00	0.00	0.00
7,400.01	59.18	252.81	6,418.53	-541.61	-1,750.35	982.52	0.00	0.00	0.00
7,500.02	59.18	252.81	6,469.77	-566.99	-1,832.39	1,028.57	0.00	0.00	0.00
7,600.02	59.18	252.81	6,521.01	-592.38	-1,914.43	1,074.62	0.00	0.00	0.00
7,700.02	59.18	252.81	6,572.25	-617.76	-1,996.47	1,120.67	0.00	0.00	0.00
7,800.02	59.18	252.81	6,623.49	-643.15	-2,078.51	1,166.72	0.00	0.00	0.00
7,900.02	59.18	252.81	6,674.72	-668.53	-2,160.54	1,212.77	0.00	0.00	0.00
8,000.02	59.18	252.81	6,725.96	-693.92	-2,242.58	1,258.82	0.00	0.00	0.00
8,100.02	59.18	252.81	6,777.20	-719.30	-2,324.62	1,304.87	0.00	0.00	0.00
8,200.02	59.18	252.81	6,828.44	-744.69	-2,406.66	1,350.92	0.00	0.00	0.00
8,300.02	59.18	252.81	6,879.67	-770.07	-2,488.70	1,396.97	0.00	0.00	0.00
8,326.90	59.18	252.81	6,893.45	-776.90	-2,510.75	1,409.35	0.00	0.00	0.00
Begin 10°/100' build/turn									
8,400.02	60.60	244.52	6,930.17	-799.92	-2,569.58	1,447.02	10.00	1.95	-11.34
8,500.02	63.35	233.62	6,977.26	-845.28	-2,645.07	1,510.63	10.00	2.75	-10.90
8,600.02	66.88	223.30	7,019.42	-905.41	-2,712.76	1,586.43	10.00	3.53	-10.32
8,700.02	71.05	213.56	7,055.38	-978.48	-2,770.58	1,672.12	10.00	4.17	-9.74
8,800.02	75.70	204.31	7,084.04	-1,062.25	-2,816.78	1,765.10	10.00	4.65	-9.24
8,900.02	80.69	195.46	7,104.52	-1,154.20	-2,849.96	1,862.53	10.00	4.99	-8.86
9,000.02	85.89	186.85	7,116.22	-1,251.52	-2,869.11	1,961.46	10.00	5.20	-8.60
9,079.35	90.09	180.12	7,119.00	-1,330.60	-2,873.92	2,039.02	10.00	5.29	-8.49
LP Begin 90.09° lateral section									
9,100.02	90.09	180.12	7,118.97	-1,351.26	-2,873.96	2,058.97	0.00	0.00	0.00
9,200.02	90.09	180.12	7,118.81	-1,451.26	-2,874.16	2,155.51	0.00	0.00	0.00
9,300.02	90.09	180.12	7,118.64	-1,551.26	-2,874.37	2,252.05	0.00	0.00	0.00
9,400.02	90.09	180.12	7,118.48	-1,651.26	-2,874.57	2,348.59	0.00	0.00	0.00
9,500.02	90.09	180.12	7,118.32	-1,751.26	-2,874.77	2,445.13	0.00	0.00	0.00
9,600.02	90.09	180.12	7,118.16	-1,851.26	-2,874.97	2,541.67	0.00	0.00	0.00
9,700.02	90.09	180.12	7,118.00	-1,951.26	-2,875.17	2,638.21	0.00	0.00	0.00
9,800.02	90.09	180.12	7,117.84	-2,051.26	-2,875.37	2,734.74	0.00	0.00	0.00

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Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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)
9,900.02	90.09	180.12	7,117.68	-2,151.26	-2,875.58	2,831.28	0.00	0.00	0.00
10,000.02	90.09	180.12	7,117.51	-2,251.26	-2,875.78	2,927.82	0.00	0.00	0.00
10,100.02	90.09	180.12	7,117.35	-2,351.26	-2,875.98	3,024.36	0.00	0.00	0.00
10,200.02	90.09	180.12	7,117.19	-2,451.26	-2,876.18	3,120.90	0.00	0.00	0.00
10,300.02	90.09	180.12	7,117.03	-2,551.26	-2,876.38	3,217.44	0.00	0.00	0.00
10,400.02	90.09	180.12	7,116.87	-2,651.26	-2,876.58	3,313.98	0.00	0.00	0.00
10,500.02	90.09	180.12	7,116.71	-2,751.26	-2,876.78	3,410.51	0.00	0.00	0.00
10,600.02	90.09	180.12	7,116.55	-2,851.26	-2,876.99	3,507.05	0.00	0.00	0.00
10,700.02	90.09	180.12	7,116.38	-2,951.26	-2,877.19	3,603.59	0.00	0.00	0.00
10,800.02	90.09	180.12	7,116.22	-3,051.26	-2,877.39	3,700.13	0.00	0.00	0.00
10,900.02	90.09	180.12	7,116.06	-3,151.26	-2,877.59	3,796.67	0.00	0.00	0.00
11,000.02	90.09	180.12	7,115.90	-3,251.26	-2,877.79	3,893.21	0.00	0.00	0.00
11,100.02	90.09	180.12	7,115.74	-3,351.26	-2,877.99	3,989.75	0.00	0.00	0.00
11,200.02	90.09	180.12	7,115.58	-3,451.26	-2,878.20	4,086.28	0.00	0.00	0.00
11,300.02	90.09	180.12	7,115.41	-3,551.26	-2,878.40	4,182.82	0.00	0.00	0.00
11,400.02	90.09	180.12	7,115.25	-3,651.26	-2,878.60	4,279.36	0.00	0.00	0.00
11,500.02	90.09	180.12	7,115.09	-3,751.26	-2,878.80	4,375.90	0.00	0.00	0.00
11,600.02	90.09	180.12	7,114.93	-3,851.26	-2,879.00	4,472.44	0.00	0.00	0.00
11,700.02	90.09	180.12	7,114.77	-3,951.26	-2,879.20	4,568.98	0.00	0.00	0.00
11,800.02	90.09	180.12	7,114.61	-4,051.26	-2,879.40	4,665.52	0.00	0.00	0.00
11,900.02	90.09	180.12	7,114.45	-4,151.26	-2,879.61	4,762.05	0.00	0.00	0.00
12,000.02	90.09	180.12	7,114.28	-4,251.26	-2,879.81	4,858.59	0.00	0.00	0.00
12,100.02	90.09	180.12	7,114.12	-4,351.26	-2,880.01	4,955.13	0.00	0.00	0.00
12,200.02	90.09	180.12	7,113.96	-4,451.26	-2,880.21	5,051.67	0.00	0.00	0.00
12,300.02	90.09	180.12	7,113.80	-4,551.26	-2,880.41	5,148.21	0.00	0.00	0.00
12,400.03	90.09	180.12	7,113.64	-4,651.26	-2,880.61	5,244.75	0.00	0.00	0.00
12,500.03	90.09	180.12	7,113.48	-4,751.26	-2,880.82	5,341.29	0.00	0.00	0.00
12,600.03	90.09	180.12	7,113.32	-4,851.26	-2,881.02	5,437.83	0.00	0.00	0.00
12,700.03	90.09	180.12	7,113.15	-4,951.26	-2,881.22	5,534.36	0.00	0.00	0.00
12,800.03	90.09	180.12	7,112.99	-5,051.26	-2,881.42	5,630.90	0.00	0.00	0.00
12,900.03	90.09	180.12	7,112.83	-5,151.26	-2,881.62	5,727.44	0.00	0.00	0.00
13,000.03	90.09	180.12	7,112.67	-5,251.26	-2,881.82	5,823.98	0.00	0.00	0.00
13,100.03	90.09	180.12	7,112.51	-5,351.26	-2,882.03	5,920.52	0.00	0.00	0.00
13,200.03	90.09	180.12	7,112.35	-5,451.26	-2,882.23	6,017.06	0.00	0.00	0.00
13,300.03	90.09	180.12	7,112.19	-5,551.26	-2,882.43	6,113.60	0.00	0.00	0.00
13,400.03	90.09	180.12	7,112.02	-5,651.26	-2,882.63	6,210.13	0.00	0.00	0.00
13,500.03	90.09	180.12	7,111.86	-5,751.26	-2,882.83	6,306.67	0.00	0.00	0.00
13,600.03	90.09	180.12	7,111.70	-5,851.26	-2,883.03	6,403.21	0.00	0.00	0.00
13,700.03	90.09	180.12	7,111.54	-5,951.26	-2,883.23	6,499.75	0.00	0.00	0.00
13,800.03	90.09	180.12	7,111.38	-6,051.26	-2,883.44	6,596.29	0.00	0.00	0.00
13,900.03	90.09	180.12	7,111.22	-6,151.26	-2,883.64	6,692.83	0.00	0.00	0.00
14,000.03	90.09	180.12	7,111.06	-6,251.26	-2,883.84	6,789.37	0.00	0.00	0.00
14,100.03	90.09	180.12	7,110.89	-6,351.26	-2,884.04	6,885.90	0.00	0.00	0.00
14,200.03	90.09	180.12	7,110.73	-6,451.26	-2,884.24	6,982.44	0.00	0.00	0.00
14,300.03	90.09	180.12	7,110.57	-6,551.26	-2,884.44	7,078.98	0.00	0.00	0.00
14,400.03	90.09	180.12	7,110.41	-6,651.26	-2,884.65	7,175.52	0.00	0.00	0.00
14,500.03	90.09	180.12	7,110.25	-6,751.26	-2,884.85	7,272.06	0.00	0.00	0.00
14,600.03	90.09	180.12	7,110.09	-6,851.26	-2,885.05	7,368.60	0.00	0.00	0.00
14,700.03	90.09	180.12	7,109.93	-6,951.25	-2,885.25	7,465.14	0.00	0.00	0.00
14,800.03	90.09	180.12	7,109.76	-7,051.25	-2,885.45	7,561.68	0.00	0.00	0.00
14,900.03	90.09	180.12	7,109.60	-7,151.25	-2,885.65	7,658.21	0.00	0.00	0.00
15,000.03	90.09	180.12	7,109.44	-7,251.25	-2,885.85	7,754.75	0.00	0.00	0.00
15,100.03	90.09	180.12	7,109.28	-7,351.25	-2,886.06	7,851.29	0.00	0.00	0.00
15,200.03	90.09	180.12	7,109.12	-7,451.25	-2,886.26	7,947.83	0.00	0.00	0.00

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-5-1L
Company:	Confluence Resources	TVD Reference:	RKB=5076+25 @ 5101.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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)	
15,300.03	90.09	180.12	7,108.96	-7,551.25	-2,886.46	8,044.37	0.00	0.00	0.00	
15,400.03	90.09	180.12	7,108.80	-7,651.25	-2,886.66	8,140.91	0.00	0.00	0.00	
15,500.03	90.09	180.12	7,108.63	-7,751.25	-2,886.86	8,237.45	0.00	0.00	0.00	
15,600.03	90.09	180.12	7,108.47	-7,851.25	-2,887.06	8,333.98	0.00	0.00	0.00	
15,700.03	90.09	180.12	7,108.31	-7,951.25	-2,887.27	8,430.52	0.00	0.00	0.00	
15,800.03	90.09	180.12	7,108.15	-8,051.25	-2,887.47	8,527.06	0.00	0.00	0.00	
15,900.03	90.09	180.12	7,107.99	-8,151.25	-2,887.67	8,623.60	0.00	0.00	0.00	
16,000.03	90.09	180.12	7,107.83	-8,251.25	-2,887.87	8,720.14	0.00	0.00	0.00	
16,100.03	90.09	180.12	7,107.67	-8,351.25	-2,888.07	8,816.68	0.00	0.00	0.00	
16,200.03	90.09	180.12	7,107.50	-8,451.25	-2,888.27	8,913.22	0.00	0.00	0.00	
16,300.03	90.09	180.12	7,107.34	-8,551.25	-2,888.47	9,009.75	0.00	0.00	0.00	
16,400.03	90.09	180.12	7,107.18	-8,651.25	-2,888.68	9,106.29	0.00	0.00	0.00	
16,500.03	90.09	180.12	7,107.02	-8,751.25	-2,888.88	9,202.83	0.00	0.00	0.00	
16,600.03	90.09	180.12	7,106.86	-8,851.25	-2,889.08	9,299.37	0.00	0.00	0.00	
16,700.03	90.09	180.12	7,106.70	-8,951.25	-2,889.28	9,395.91	0.00	0.00	0.00	
16,800.03	90.09	180.12	7,106.54	-9,051.25	-2,889.48	9,492.45	0.00	0.00	0.00	
16,900.03	90.09	180.12	7,106.37	-9,151.25	-2,889.68	9,588.99	0.00	0.00	0.00	
17,000.03	90.09	180.12	7,106.21	-9,251.25	-2,889.89	9,685.52	0.00	0.00	0.00	
17,100.03	90.09	180.12	7,106.05	-9,351.25	-2,890.09	9,782.06	0.00	0.00	0.00	
17,200.03	90.09	180.12	7,105.89	-9,451.25	-2,890.29	9,878.60	0.00	0.00	0.00	
17,300.03	90.09	180.12	7,105.73	-9,551.25	-2,890.49	9,975.14	0.00	0.00	0.00	
17,400.04	90.09	180.12	7,105.57	-9,651.25	-2,890.69	10,071.68	0.00	0.00	0.00	
17,500.04	90.09	180.12	7,105.40	-9,751.25	-2,890.89	10,168.22	0.00	0.00	0.00	
17,600.04	90.09	180.12	7,105.24	-9,851.25	-2,891.09	10,264.76	0.00	0.00	0.00	
17,700.04	90.09	180.12	7,105.08	-9,951.25	-2,891.30	10,361.30	0.00	0.00	0.00	
17,800.04	90.09	180.12	7,104.92	-10,051.25	-2,891.50	10,457.83	0.00	0.00	0.00	
17,900.04	90.09	180.12	7,104.76	-10,151.25	-2,891.70	10,554.37	0.00	0.00	0.00	
18,000.04	90.09	180.12	7,104.60	-10,251.25	-2,891.90	10,650.91	0.00	0.00	0.00	
18,100.04	90.09	180.12	7,104.44	-10,351.25	-2,892.10	10,747.45	0.00	0.00	0.00	
18,200.04	90.09	180.12	7,104.27	-10,451.25	-2,892.30	10,843.99	0.00	0.00	0.00	
18,300.04	90.09	180.12	7,104.11	-10,551.25	-2,892.51	10,940.53	0.00	0.00	0.00	
18,370.14	90.09	180.12	7,104.00	-10,621.35	-2,892.65	11,008.20	0.00	0.00	0.00	
PBHL/TD 18370.14 MD/7104.00 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									
BHL Walla 5-5-1L 470 F'	0.00	0.00	7,104.00	-10,621.35	-2,892.65	14,517,319.38	1,727,918.37	39.97372625	-104.68767071
- plan hits target center									
- Point									
LP Walla 5-5-1L 470 FNI	0.00	0.00	7,119.00	-1,330.60	-2,873.92	14,526,610.12	1,727,903.46	39.99924024	-104.68760774
- plan hits target center									
- Point									

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-5-1L
Company:	Confluence Resources	TVD Reference:	RKB=5076+25 @ 5101.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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	
5,591.78	5,492.03	-82.59	-266.90	Begin 59.18° tangent section	
8,326.90	6,893.45	-776.90	-2,510.75	Begin 10°/100' build/turn	
9,079.35	7,119.00	-1,330.60	-2,873.92	LP Begin 90.09° lateral section	
18,370.14	7,104.00	-10,621.35	-2,892.65	PBHL/TD 18370.14 MD/7104.00 TVD	

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-5-1L
Company:	Confluence Resources	TVD Reference:	RKB=5076+25 @ 5101.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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	Walla 5-5-1L, Surf loc: 860 FSL 300 FWL Sec33-T01N-R65W					
Well Position	+N/-S	0.00 ft	Northing:	14,527,951.11 usft	Latitude:	40.00289474
	+E/-W	0.00 ft	Easting:	1,730,772.54 usft	Longitude:	-104.67734583
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,076.00 ft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/18/2017	8.28	66.45	52,149.80000000

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	195.23

Plan Survey Tool Program	Date	5/18/2017		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,370.14 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	
5,591.78	59.18	252.81	5,492.03	-82.59	-266.90	10.00	10.00	0.00	252.81	
8,326.90	59.18	252.81	6,893.45	-776.90	-2,510.75	0.00	0.00	0.00	0.00	
9,079.35	90.09	180.12	7,119.00	-1,330.60	-2,873.92	10.00	4.11	-9.66	-80.85	LP Walla 5-5-1L 470 F
18,370.14	90.09	180.12	7,104.00	-10,621.35	-2,892.65	0.00	0.00	0.00	0.00	BHL Walla 5-5-1L 470

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-5-1L
Company:	Confluence Resources	TVD Reference:	RKB=5076+25 @ 5101.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
100.00	0.00	0.00	100.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
200.00	0.00	0.00	200.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
300.00	0.00	0.00	300.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
400.00	0.00	0.00	400.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
500.00	0.00	0.00	500.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
600.00	0.00	0.00	600.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
700.00	0.00	0.00	700.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
800.00	0.00	0.00	800.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
900.00	0.00	0.00	900.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
2,100.00	0.00	0.00	2,100.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
2,200.00	0.00	0.00	2,200.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
2,300.00	0.00	0.00	2,300.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
2,400.00	0.00	0.00	2,400.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
2,500.01	0.00	0.00	2,500.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
2,600.01	0.00	0.00	2,600.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
2,700.01	0.00	0.00	2,700.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
2,800.01	0.00	0.00	2,800.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
2,900.01	0.00	0.00	2,900.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
3,000.01	0.00	0.00	3,000.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
3,100.01	0.00	0.00	3,100.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
3,200.01	0.00	0.00	3,200.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
3,300.01	0.00	0.00	3,300.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
3,400.01	0.00	0.00	3,400.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
3,500.01	0.00	0.00	3,500.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
3,600.01	0.00	0.00	3,600.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
3,700.01	0.00	0.00	3,700.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
3,800.01	0.00	0.00	3,800.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
3,900.01	0.00	0.00	3,900.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
4,000.01	0.00	0.00	4,000.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
4,100.01	0.00	0.00	4,100.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
4,200.01	0.00	0.00	4,200.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
4,300.01	0.00	0.00	4,300.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
4,400.01	0.00	0.00	4,400.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
4,500.01	0.00	0.00	4,500.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
4,600.01	0.00	0.00	4,600.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
4,700.01	0.00	0.00	4,700.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
4,800.01	0.00	0.00	4,800.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
4,900.01	0.00	0.00	4,900.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
5,000.00	0.00	0.00	5,000.00	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
KOP Begin 10°/100' build									
5,000.01	0.00	252.81	5,000.01	0.00	0.00	14,527,951.11	1,730,772.54	40.00289474	-104.67734583
5,100.01	10.00	252.81	5,099.50	-2.57	-8.32	14,527,948.51	1,730,764.23	40.00288767	-104.67737553

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-5-1L
Company:	Confluence Resources	TVD Reference:	RKB=5076+25 @ 5101.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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
5,200.01	20.00	252.81	5,195.97	-10.22	-33.01	14,527,940.78	1,730,739.56	40.00286669	-104.67746371
5,300.01	30.00	252.81	5,286.49	-22.69	-73.34	14,527,928.16	1,730,699.28	40.00283242	-104.67760771
5,400.01	40.00	252.81	5,368.30	-39.63	-128.06	14,527,911.03	1,730,644.62	40.00278592	-104.67780313
5,500.01	50.00	252.81	5,438.92	-60.50	-195.53	14,527,889.90	1,730,577.23	40.00272859	-104.67804404
5,591.78	59.18	252.81	5,492.03	-82.59	-266.90	14,527,867.56	1,730,505.94	40.00266794	-104.67829890
Begin 59.18° tangent section									
5,600.01	59.18	252.81	5,496.25	-84.68	-273.66	14,527,865.45	1,730,499.19	40.00266220	-104.67832303
5,700.01	59.18	252.81	5,547.49	-110.06	-355.70	14,527,839.77	1,730,417.24	40.00259248	-104.67861597
5,800.01	59.18	252.81	5,598.73	-135.45	-437.73	14,527,814.08	1,730,335.30	40.00252277	-104.67890892
5,900.01	59.18	252.81	5,649.97	-160.83	-519.77	14,527,788.40	1,730,253.35	40.00245305	-104.67920187
6,000.01	59.18	252.81	5,701.20	-186.22	-601.81	14,527,762.72	1,730,171.41	40.00238333	-104.67949481
6,100.01	59.18	252.81	5,752.44	-211.60	-683.85	14,527,737.04	1,730,089.46	40.00231362	-104.67978776
6,200.01	59.18	252.81	5,803.68	-236.99	-765.89	14,527,711.36	1,730,007.51	40.00224390	-104.68008071
6,300.01	59.18	252.81	5,854.92	-262.37	-847.93	14,527,685.67	1,729,925.57	40.00217418	-104.68037365
6,400.01	59.18	252.81	5,906.16	-287.76	-929.97	14,527,659.99	1,729,843.62	40.00210446	-104.68066659
6,500.01	59.18	252.81	5,957.39	-313.14	-1,012.00	14,527,634.31	1,729,761.68	40.00203474	-104.68095954
6,600.01	59.18	252.81	6,008.63	-338.53	-1,094.04	14,527,608.63	1,729,679.73	40.00196502	-104.68125248
6,700.01	59.18	252.81	6,059.87	-363.91	-1,176.08	14,527,582.95	1,729,597.79	40.00189530	-104.68154542
6,800.01	59.18	252.81	6,111.11	-389.30	-1,258.12	14,527,557.27	1,729,515.84	40.00182557	-104.68183837
6,900.01	59.18	252.81	6,162.34	-414.68	-1,340.16	14,527,531.58	1,729,433.89	40.00175585	-104.68213131
7,000.01	59.18	252.81	6,213.58	-440.07	-1,422.20	14,527,505.90	1,729,351.95	40.00168613	-104.68242425
7,100.01	59.18	252.81	6,264.82	-465.45	-1,504.24	14,527,480.22	1,729,270.00	40.00161640	-104.68271719
7,200.01	59.18	252.81	6,316.06	-490.84	-1,586.27	14,527,454.54	1,729,188.06	40.00154668	-104.68301013
7,300.01	59.18	252.81	6,367.30	-516.22	-1,668.31	14,527,428.86	1,729,106.11	40.00147695	-104.68330306
7,400.01	59.18	252.81	6,418.53	-541.61	-1,750.35	14,527,403.17	1,729,024.16	40.00140722	-104.68359600
7,500.02	59.18	252.81	6,469.77	-566.99	-1,832.39	14,527,377.49	1,728,942.22	40.00133750	-104.68388894
7,600.02	59.18	252.81	6,521.01	-592.38	-1,914.43	14,527,351.81	1,728,860.27	40.00126777	-104.68418188
7,700.02	59.18	252.81	6,572.25	-617.76	-1,996.47	14,527,326.13	1,728,778.33	40.00119804	-104.68447481
7,800.02	59.18	252.81	6,623.49	-643.15	-2,078.51	14,527,300.45	1,728,696.38	40.00112831	-104.68476775
7,900.02	59.18	252.81	6,674.72	-668.53	-2,160.54	14,527,274.76	1,728,614.43	40.00105858	-104.68506069
8,000.02	59.18	252.81	6,725.96	-693.92	-2,242.58	14,527,249.08	1,728,532.49	40.00098885	-104.68535362
8,100.02	59.18	252.81	6,777.20	-719.30	-2,324.62	14,527,223.40	1,728,450.54	40.00091911	-104.68564655
8,200.02	59.18	252.81	6,828.44	-744.69	-2,406.66	14,527,197.72	1,728,368.60	40.00084938	-104.68593949
8,300.02	59.18	252.81	6,879.67	-770.07	-2,488.70	14,527,172.04	1,728,286.65	40.00077965	-104.68623242
8,326.90	59.18	252.81	6,893.45	-776.90	-2,510.75	14,527,165.13	1,728,264.62	40.00076090	-104.68631116
Begin 10°/100' build/turn									
8,400.02	60.60	244.52	6,930.17	-799.92	-2,569.58	14,527,141.90	1,728,205.88	40.00069767	-104.68652121
8,500.02	63.35	233.62	6,977.26	-845.28	-2,645.07	14,527,096.26	1,728,130.55	40.00057306	-104.68679076
8,600.02	66.88	223.30	7,019.42	-905.41	-2,712.76	14,527,035.89	1,728,063.08	40.00040792	-104.68703243
8,700.02	71.05	213.56	7,055.38	-978.48	-2,770.58	14,526,962.62	1,728,005.52	40.00020726	-104.68723888
8,800.02	75.70	204.31	7,084.04	-1,062.25	-2,816.78	14,526,878.67	1,727,959.62	39.99997718	-104.68740383
8,900.02	80.69	195.46	7,104.52	-1,154.20	-2,849.96	14,526,786.61	1,727,926.78	39.99972467	-104.68752227
9,000.02	85.89	186.85	7,116.22	-1,251.52	-2,869.11	14,526,689.22	1,727,907.98	39.99945740	-104.68759060
9,079.35	90.09	180.12	7,119.00	-1,330.60	-2,873.92	14,526,610.12	1,727,903.46	39.99924024	-104.68760774
LP Begin 90.09° lateral section									
9,100.02	90.09	180.12	7,118.97	-1,351.26	-2,873.96	14,526,589.46	1,727,903.49	39.99918350	-104.68760788
9,200.02	90.09	180.12	7,118.81	-1,451.26	-2,874.16	14,526,489.46	1,727,903.65	39.99890888	-104.68760856
9,300.02	90.09	180.12	7,118.64	-1,551.26	-2,874.37	14,526,389.46	1,727,903.81	39.99863426	-104.68760924
9,400.02	90.09	180.12	7,118.48	-1,651.26	-2,874.57	14,526,289.46	1,727,903.97	39.99835965	-104.68760991
9,500.02	90.09	180.12	7,118.32	-1,751.26	-2,874.77	14,526,189.46	1,727,904.13	39.99808503	-104.68761059
9,600.02	90.09	180.12	7,118.16	-1,851.26	-2,874.97	14,526,089.46	1,727,904.29	39.99781041	-104.68761127
9,700.02	90.09	180.12	7,118.00	-1,951.26	-2,875.17	14,525,989.46	1,727,904.45	39.99753580	-104.68761195
9,800.02	90.09	180.12	7,117.84	-2,051.26	-2,875.37	14,525,889.46	1,727,904.62	39.99726118	-104.68761263
9,900.02	90.09	180.12	7,117.68	-2,151.26	-2,875.58	14,525,789.46	1,727,904.78	39.99698657	-104.68761331

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-5-1L
Company:	Confluence Resources	TVD Reference:	RKB=5076+25 @ 5101.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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
10,000.02	90.09	180.12	7,117.51	-2,251.26	-2,875.78	14,525,689.46	1,727,904.94	39.99671195	-104.68761398
10,100.02	90.09	180.12	7,117.35	-2,351.26	-2,875.98	14,525,589.46	1,727,905.10	39.99643733	-104.68761466
10,200.02	90.09	180.12	7,117.19	-2,451.26	-2,876.18	14,525,489.46	1,727,905.26	39.99616272	-104.68761534
10,300.02	90.09	180.12	7,117.03	-2,551.26	-2,876.38	14,525,389.46	1,727,905.42	39.99588810	-104.68761602
10,400.02	90.09	180.12	7,116.87	-2,651.26	-2,876.58	14,525,289.46	1,727,905.58	39.99561348	-104.68761670
10,500.02	90.09	180.12	7,116.71	-2,751.26	-2,876.78	14,525,189.46	1,727,905.74	39.99533887	-104.68761737
10,600.02	90.09	180.12	7,116.55	-2,851.26	-2,876.99	14,525,089.46	1,727,905.90	39.99506425	-104.68761805
10,700.02	90.09	180.12	7,116.38	-2,951.26	-2,877.19	14,524,989.46	1,727,906.06	39.99478964	-104.68761873
10,800.02	90.09	180.12	7,116.22	-3,051.26	-2,877.39	14,524,889.46	1,727,906.22	39.99451502	-104.68761941
10,900.02	90.09	180.12	7,116.06	-3,151.26	-2,877.59	14,524,789.46	1,727,906.38	39.99424040	-104.68762009
11,000.02	90.09	180.12	7,115.90	-3,251.26	-2,877.79	14,524,689.46	1,727,906.54	39.99396579	-104.68762077
11,100.02	90.09	180.12	7,115.74	-3,351.26	-2,877.99	14,524,589.46	1,727,906.70	39.99369117	-104.68762144
11,200.02	90.09	180.12	7,115.58	-3,451.26	-2,878.20	14,524,489.46	1,727,906.86	39.99341655	-104.68762212
11,300.02	90.09	180.12	7,115.41	-3,551.26	-2,878.40	14,524,389.47	1,727,907.02	39.99314194	-104.68762280
11,400.02	90.09	180.12	7,115.25	-3,651.26	-2,878.60	14,524,289.47	1,727,907.18	39.99286732	-104.68762348
11,500.02	90.09	180.12	7,115.09	-3,751.26	-2,878.80	14,524,189.47	1,727,907.34	39.99259270	-104.68762416
11,600.02	90.09	180.12	7,114.93	-3,851.26	-2,879.00	14,524,089.47	1,727,907.50	39.99231809	-104.68762483
11,700.02	90.09	180.12	7,114.77	-3,951.26	-2,879.20	14,523,989.47	1,727,907.66	39.99204347	-104.68762551
11,800.02	90.09	180.12	7,114.61	-4,051.26	-2,879.40	14,523,889.47	1,727,907.82	39.99176885	-104.68762619
11,900.02	90.09	180.12	7,114.45	-4,151.26	-2,879.61	14,523,789.47	1,727,907.99	39.99149424	-104.68762687
12,000.02	90.09	180.12	7,114.28	-4,251.26	-2,879.81	14,523,689.47	1,727,908.15	39.99121962	-104.68762755
12,100.02	90.09	180.12	7,114.12	-4,351.26	-2,880.01	14,523,589.47	1,727,908.31	39.99094501	-104.68762822
12,200.02	90.09	180.12	7,113.96	-4,451.26	-2,880.21	14,523,489.47	1,727,908.47	39.99067039	-104.68762890
12,300.02	90.09	180.12	7,113.80	-4,551.26	-2,880.41	14,523,389.47	1,727,908.63	39.99039577	-104.68762958
12,400.03	90.09	180.12	7,113.64	-4,651.26	-2,880.61	14,523,289.47	1,727,908.79	39.99012116	-104.68763026
12,500.03	90.09	180.12	7,113.48	-4,751.26	-2,880.82	14,523,189.47	1,727,908.95	39.98984654	-104.68763094
12,600.03	90.09	180.12	7,113.32	-4,851.26	-2,881.02	14,523,089.47	1,727,909.11	39.98957192	-104.68763161
12,700.03	90.09	180.12	7,113.15	-4,951.26	-2,881.22	14,522,989.47	1,727,909.27	39.98929731	-104.68763229
12,800.03	90.09	180.12	7,112.99	-5,051.26	-2,881.42	14,522,889.47	1,727,909.43	39.98902269	-104.68763297
12,900.03	90.09	180.12	7,112.83	-5,151.26	-2,881.62	14,522,789.47	1,727,909.59	39.98874807	-104.68763365
13,000.03	90.09	180.12	7,112.67	-5,251.26	-2,881.82	14,522,689.47	1,727,909.75	39.98847346	-104.68763433
13,100.03	90.09	180.12	7,112.51	-5,351.26	-2,882.03	14,522,589.47	1,727,909.91	39.98819884	-104.68763500
13,200.03	90.09	180.12	7,112.35	-5,451.26	-2,882.23	14,522,489.47	1,727,910.07	39.98792422	-104.68763568
13,300.03	90.09	180.12	7,112.19	-5,551.26	-2,882.43	14,522,389.47	1,727,910.23	39.98764961	-104.68763636
13,400.03	90.09	180.12	7,112.02	-5,651.26	-2,882.63	14,522,289.47	1,727,910.39	39.98737499	-104.68763704
13,500.03	90.09	180.12	7,111.86	-5,751.26	-2,882.83	14,522,189.47	1,727,910.55	39.98710037	-104.68763771
13,600.03	90.09	180.12	7,111.70	-5,851.26	-2,883.03	14,522,089.47	1,727,910.71	39.98682576	-104.68763839
13,700.03	90.09	180.12	7,111.54	-5,951.26	-2,883.23	14,521,989.47	1,727,910.87	39.98655114	-104.68763907
13,800.03	90.09	180.12	7,111.38	-6,051.26	-2,883.44	14,521,889.47	1,727,911.03	39.98627652	-104.68763975
13,900.03	90.09	180.12	7,111.22	-6,151.26	-2,883.64	14,521,789.47	1,727,911.19	39.98600191	-104.68764043
14,000.03	90.09	180.12	7,111.06	-6,251.26	-2,883.84	14,521,689.47	1,727,911.36	39.98572729	-104.68764110
14,100.03	90.09	180.12	7,110.89	-6,351.26	-2,884.04	14,521,589.47	1,727,911.52	39.98545267	-104.68764178
14,200.03	90.09	180.12	7,110.73	-6,451.26	-2,884.24	14,521,489.47	1,727,911.68	39.98517806	-104.68764246
14,300.03	90.09	180.12	7,110.57	-6,551.26	-2,884.44	14,521,389.47	1,727,911.84	39.98490344	-104.68764314
14,400.03	90.09	180.12	7,110.41	-6,651.26	-2,884.65	14,521,289.47	1,727,912.00	39.98462882	-104.68764381
14,500.03	90.09	180.12	7,110.25	-6,751.26	-2,884.85	14,521,189.47	1,727,912.16	39.98435421	-104.68764449
14,600.03	90.09	180.12	7,110.09	-6,851.26	-2,885.05	14,521,089.47	1,727,912.32	39.98407959	-104.68764517
14,700.03	90.09	180.12	7,109.93	-6,951.25	-2,885.25	14,520,989.47	1,727,912.48	39.98380497	-104.68764585
14,800.03	90.09	180.12	7,109.76	-7,051.25	-2,885.45	14,520,889.47	1,727,912.64	39.98353035	-104.68764653
14,900.03	90.09	180.12	7,109.60	-7,151.25	-2,885.65	14,520,789.47	1,727,912.80	39.98325574	-104.68764720
15,000.03	90.09	180.12	7,109.44	-7,251.25	-2,885.85	14,520,689.47	1,727,912.96	39.98298112	-104.68764788
15,100.03	90.09	180.12	7,109.28	-7,351.25	-2,886.06	14,520,589.48	1,727,913.12	39.98270650	-104.68764856
15,200.03	90.09	180.12	7,109.12	-7,451.25	-2,886.26	14,520,489.48	1,727,913.28	39.98243189	-104.68764924
15,300.03	90.09	180.12	7,108.96	-7,551.25	-2,886.46	14,520,389.48	1,727,913.44	39.98215727	-104.68764991
15,400.03	90.09	180.12	7,108.80	-7,651.25	-2,886.66	14,520,289.48	1,727,913.60	39.98188265	-104.68765059

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-5-1L
Company:	Confluence Resources	TVD Reference:	RKB=5076+25 @ 5101.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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
15,500.03	90.09	180.12	7,108.63	-7,751.25	-2,886.86	14,520,189.48	1,727,913.76	39.98160804	-104.68765127
15,600.03	90.09	180.12	7,108.47	-7,851.25	-2,887.06	14,520,089.48	1,727,913.92	39.98133342	-104.68765195
15,700.03	90.09	180.12	7,108.31	-7,951.25	-2,887.27	14,519,989.48	1,727,914.08	39.98105880	-104.68765262
15,800.03	90.09	180.12	7,108.15	-8,051.25	-2,887.47	14,519,889.48	1,727,914.24	39.98078419	-104.68765330
15,900.03	90.09	180.12	7,107.99	-8,151.25	-2,887.67	14,519,789.48	1,727,914.40	39.98050957	-104.68765398
16,000.03	90.09	180.12	7,107.83	-8,251.25	-2,887.87	14,519,689.48	1,727,914.57	39.98023495	-104.68765466
16,100.03	90.09	180.12	7,107.67	-8,351.25	-2,888.07	14,519,589.48	1,727,914.73	39.97996033	-104.68765533
16,200.03	90.09	180.12	7,107.50	-8,451.25	-2,888.27	14,519,489.48	1,727,914.89	39.97968572	-104.68765601
16,300.03	90.09	180.12	7,107.34	-8,551.25	-2,888.47	14,519,389.48	1,727,915.05	39.97941110	-104.68765669
16,400.03	90.09	180.12	7,107.18	-8,651.25	-2,888.68	14,519,289.48	1,727,915.21	39.97913648	-104.68765737
16,500.03	90.09	180.12	7,107.02	-8,751.25	-2,888.88	14,519,189.48	1,727,915.37	39.97886187	-104.68765804
16,600.03	90.09	180.12	7,106.86	-8,851.25	-2,889.08	14,519,089.48	1,727,915.53	39.97858725	-104.68765872
16,700.03	90.09	180.12	7,106.70	-8,951.25	-2,889.28	14,518,989.48	1,727,915.69	39.97831263	-104.68765940
16,800.03	90.09	180.12	7,106.54	-9,051.25	-2,889.48	14,518,889.48	1,727,915.85	39.97803801	-104.68766008
16,900.03	90.09	180.12	7,106.37	-9,151.25	-2,889.68	14,518,789.48	1,727,916.01	39.97776340	-104.68766075
17,000.03	90.09	180.12	7,106.21	-9,251.25	-2,889.89	14,518,689.48	1,727,916.17	39.97748878	-104.68766143
17,100.03	90.09	180.12	7,106.05	-9,351.25	-2,890.09	14,518,589.48	1,727,916.33	39.97721416	-104.68766211
17,200.03	90.09	180.12	7,105.89	-9,451.25	-2,890.29	14,518,489.48	1,727,916.49	39.97693955	-104.68766278
17,300.03	90.09	180.12	7,105.73	-9,551.25	-2,890.49	14,518,389.48	1,727,916.65	39.97666493	-104.68766346
17,400.04	90.09	180.12	7,105.57	-9,651.25	-2,890.69	14,518,289.48	1,727,916.81	39.97639031	-104.68766414
17,500.04	90.09	180.12	7,105.40	-9,751.25	-2,890.89	14,518,189.48	1,727,916.97	39.97611569	-104.68766482
17,600.04	90.09	180.12	7,105.24	-9,851.25	-2,891.09	14,518,089.48	1,727,917.13	39.97584108	-104.68766549
17,700.04	90.09	180.12	7,105.08	-9,951.25	-2,891.30	14,517,989.48	1,727,917.29	39.97556646	-104.68766617
17,800.04	90.09	180.12	7,104.92	-10,051.25	-2,891.50	14,517,889.48	1,727,917.45	39.97529184	-104.68766685
17,900.04	90.09	180.12	7,104.76	-10,151.25	-2,891.70	14,517,789.48	1,727,917.61	39.97501723	-104.68766753
18,000.04	90.09	180.12	7,104.60	-10,251.25	-2,891.90	14,517,689.48	1,727,917.77	39.97474261	-104.68766820
18,100.04	90.09	180.12	7,104.44	-10,351.25	-2,892.10	14,517,589.48	1,727,917.94	39.97446799	-104.68766888
18,200.04	90.09	180.12	7,104.27	-10,451.25	-2,892.30	14,517,489.48	1,727,918.10	39.97419337	-104.68766956
18,300.04	90.09	180.12	7,104.11	-10,551.25	-2,892.51	14,517,389.48	1,727,918.26	39.97391876	-104.68767023
18,370.14	90.09	180.12	7,104.00	-10,621.35	-2,892.65	14,517,319.38	1,727,918.37	39.97372625	-104.68767071
PBHL/TD 18370.14 MD/7104.00 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									
BHL Walla 5-5-1L 470 F: - plan hits target center - Point	0.00	0.00	7,104.00	-10,621.35	-2,892.65	14,517,319.38	1,727,918.37	39.97372625	-104.68767071
LP Walla 5-5-1L 470 FNI - plan hits target center - Point	0.00	0.00	7,119.00	-1,330.60	-2,873.92	14,526,610.12	1,727,903.46	39.99924024	-104.68760774

Database:	DB_Jul2216dt_v14	Local Co-ordinate Reference:	Well Walla 5-5-1L
Company:	Confluence Resources	TVD Reference:	RKB=5076+25 @ 5101.00ft
Project:	Weld County, Colorado	MD Reference:	RKB=5076+25 @ 5101.00ft
Site:	Section 33-T01N-R65W	North Reference:	True
Well:	Walla 5-5-1L	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
5,591.78	5,492.03	-82.59	-266.90	Begin 59.18° tangent section
8,326.90	6,893.45	-776.90	-2,510.75	Begin 10°/100' build/turn
9,079.35	7,119.00	-1,330.60	-2,873.92	LP Begin 90.09° lateral section
18,370.14	7,104.00	-10,621.35	-2,892.65	PBHL/TD 18370.14 MD/7104.00 TVD