



Weld County, Colorado  
Section 10 & 15 T04N-R63W  
70 Ranch 10-5-1L  
plan1

Azimuth Corrections:

To convert a Magnetic Direction to a True Direction, Add 8.17° East

70 Ranch 10-5-1L			
Surf Loc: 109 FNL 1772 FWL Section 10-T04N-R63W			
NAD83 Colorado - HARN			
Universal Transverse Mercator (US Survey Feet)			
Zone 13N (108 W to 102 W)			
RKB=4607+25 @ 4632.01ft			
Northing	Easting	Latitude	Longitude
14648737.37	1799954.92	40.33362000	-104.42753000

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	5245.70	24.57	33.41	5238.24	43.31	28.56	10.00	-41.88	Begin 24.57° tangent section
4	5639.03	24.57	33.41	5595.95	179.83	118.61	0.00	-173.91	Begin 10°/100' build/turn
5	6741.64	90.19	179.05	6341.00	-356.89	320.50	10.00	371.92	LP Begin 90.19° lateral section
6	16320.73	90.19	179.05	6309.00	-9934.61	479.52	0.00	9946.17	PBHL/TD 16320.73 MD 6309.00 TVD

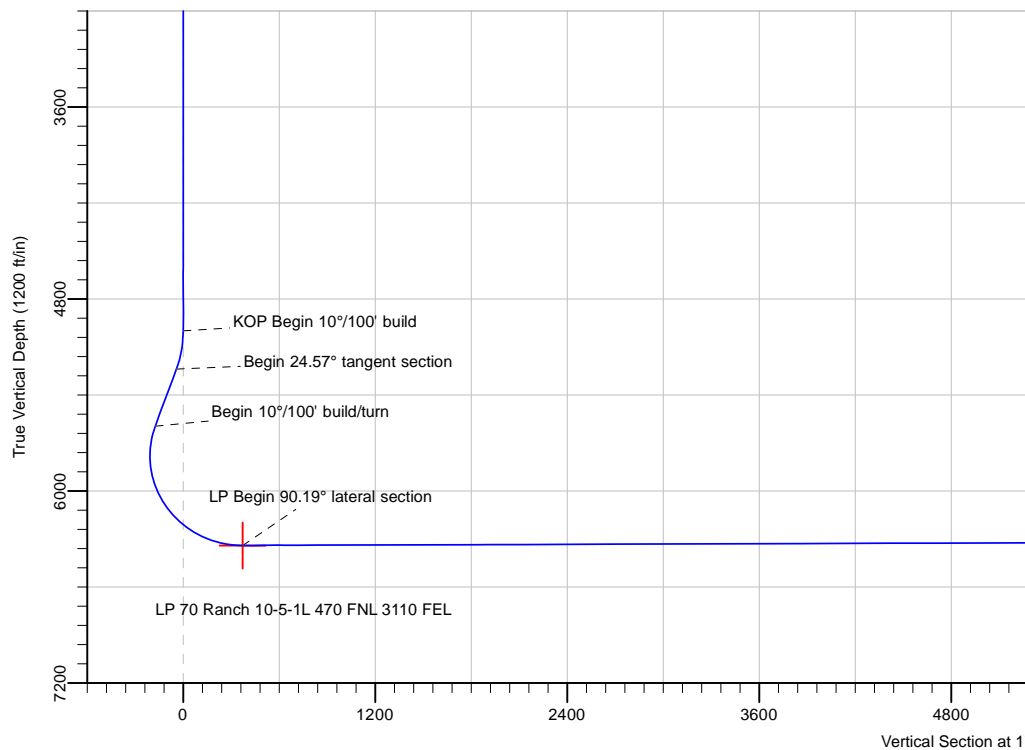
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL 70 Ranch 10-5-1L 470 FSL 3110 FEL	6309.00	-9934.61	479.52	14638806.09	1800498.68	40.30634000	-104.42581000
LP 70 Ranch 10-5-1L 470 FNL 3110 FEL	6341.00	-356.89	320.50	14648382.57	1800277.72	40.33264000	-104.42638000



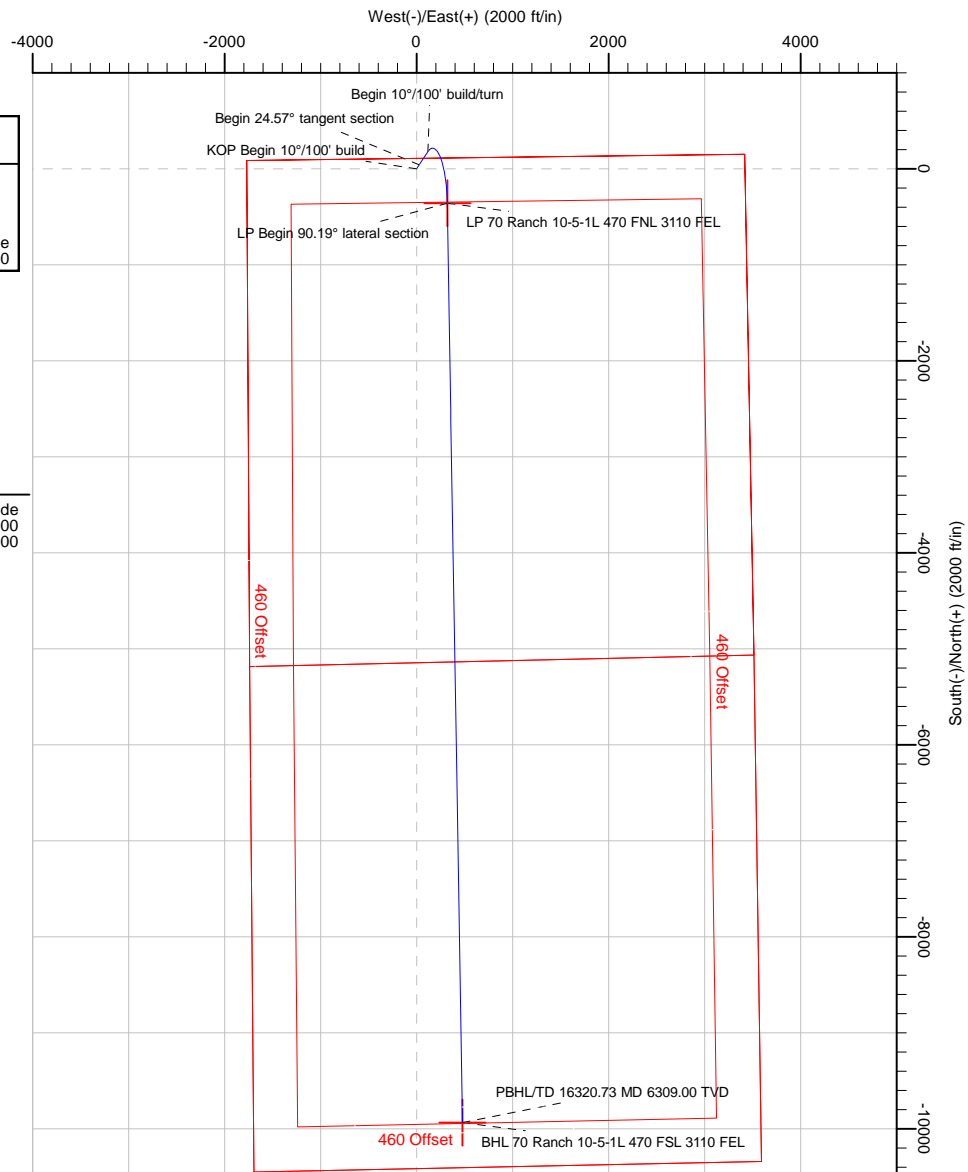
Azimuths to True North  
Magnetic North: 8.17°

Magnetic Field  
Strength: 52358.1snT  
Dip Angle: 66.97°  
Date: 5/7/2017  
Model: HDGM



Date: 11:17, May 08 2017

Vertical Section at 177.24° (1200 ft/in)



PBHL/TD 16320.73 MD 6309.00 TVD

BHL 70 Ranch 10-5-1L 470 FSL 3110 FEL

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

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	plan1		

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

<b>Site</b>	Section 10 & 15 T04N-R63W		
<b>Site Position:</b>		<b>Northing:</b>	14,648,687.65 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,800,150.33 usft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	40.33348000
		<b>Longitude:</b>	-104.42683000
		<b>Grid Convergence:</b>	0.37 °

<b>Well</b>	70 Ranch 10-5-1L, Surf Loc: 109 FNL 1772 FWL Section 10-T04N-R63W		
<b>Well Position</b>	<b>+N/-S</b>	50.99 ft	<b>Northing:</b>
	<b>+E/-W</b>	-195.08 ft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.00 ft		<b>Wellhead Elevation:</b>
			<b>Latitude:</b>
			<b>Longitude:</b>
			<b>Ground Level:</b>

<b>Wellbore</b>	Original Hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	5/7/2017	8.17	66.97	52,358.10000000

<b>Design</b>	plan1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	177.24

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/8/2017		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	16,320.73	plan1 (Original Hole)	

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
5,245.70	24.57	33.41	5,238.24	43.31	28.56	10.00	10.00	0.00	33.41	
5,639.03	24.57	33.41	5,595.95	179.83	118.61	0.00	0.00	0.00	0.00	
6,741.64	90.19	179.05	6,341.00	-356.89	320.50	10.00	5.95	13.21	143.02	LP 70 Ranch 10-5-1L
16,320.73	90.19	179.05	6,309.00	-9,934.61	479.52	0.00	0.00	0.00	0.00	BHL 70 Ranch 10-5-1

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	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	33.41	5,000.01	0.00	0.00	0.00	0.00	0.00	0.00
5,100.01	10.00	33.41	5,099.50	7.27	4.79	-7.03	10.00	10.00	0.00

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<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	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	33.41	5,195.97	28.85	19.03	-27.90	10.00	10.00	0.00
5,245.70	24.57	33.41	5,238.24	43.31	28.56	-41.88	10.00	10.00	0.00
<b>Begin 24.57° tangent section</b>									
5,300.01	24.57	33.41	5,287.63	62.16	41.00	-60.11	0.00	0.00	0.00
5,400.01	24.57	33.41	5,378.58	96.87	63.89	-93.68	0.00	0.00	0.00
5,500.01	24.57	33.41	5,469.52	131.58	86.78	-127.24	0.00	0.00	0.00
5,600.01	24.57	33.41	5,560.47	166.29	109.68	-160.81	0.00	0.00	0.00
5,639.03	24.57	33.41	5,595.95	179.83	118.61	-173.91	0.00	0.00	0.00
<b>Begin 10°/100' build/turn</b>									
5,700.01	20.02	44.17	5,652.39	197.92	132.88	-191.29	10.00	-7.47	17.64
5,800.01	15.01	73.51	5,747.90	213.91	157.28	-206.08	10.00	-5.01	29.34
5,900.01	15.67	111.91	5,844.59	212.55	182.28	-203.51	10.00	0.66	38.40
6,000.01	21.48	137.96	5,939.50	193.86	207.13	-183.65	10.00	5.81	26.06
6,100.01	29.55	151.88	6,029.75	158.42	231.07	-147.10	10.00	8.06	13.92
6,200.01	38.47	160.02	6,112.61	107.31	253.38	-94.97	10.00	8.92	8.14
6,300.01	47.77	165.43	6,185.55	42.08	273.36	-28.86	10.00	9.30	5.41
6,400.01	57.25	169.43	6,246.35	-35.28	290.43	49.25	10.00	9.49	4.00
6,500.01	66.84	172.65	6,293.18	-122.44	304.05	136.96	10.00	9.59	3.22
6,600.01	76.49	175.44	6,324.61	-216.74	313.82	231.61	10.00	9.65	2.79
6,700.01	86.16	178.01	6,339.68	-315.31	319.43	330.34	10.00	9.67	2.57
6,741.64	90.19	179.05	6,341.00	-356.89	320.50	371.92	10.00	9.68	2.51
<b>LP Begin 90.19° lateral section</b>									
6,800.01	90.19	179.05	6,340.81	-415.26	321.47	430.27	0.00	0.00	0.00
6,900.01	90.19	179.05	6,340.47	-515.24	323.13	530.22	0.00	0.00	0.00
7,000.01	90.19	179.05	6,340.14	-615.23	324.79	630.17	0.00	0.00	0.00
7,100.01	90.19	179.05	6,339.80	-715.21	326.45	730.12	0.00	0.00	0.00
7,200.01	90.19	179.05	6,339.47	-815.20	328.11	830.07	0.00	0.00	0.00
7,300.01	90.19	179.05	6,339.13	-915.18	329.77	930.02	0.00	0.00	0.00
7,400.01	90.19	179.05	6,338.80	-1,015.17	331.43	1,029.97	0.00	0.00	0.00
7,500.02	90.19	179.05	6,338.47	-1,115.16	333.09	1,129.92	0.00	0.00	0.00
7,600.02	90.19	179.05	6,338.13	-1,215.14	334.75	1,229.87	0.00	0.00	0.00
7,700.02	90.19	179.05	6,337.80	-1,315.13	336.41	1,329.82	0.00	0.00	0.00
7,800.02	90.19	179.05	6,337.46	-1,415.11	338.07	1,429.77	0.00	0.00	0.00
7,900.02	90.19	179.05	6,337.13	-1,515.10	339.73	1,529.72	0.00	0.00	0.00
8,000.02	90.19	179.05	6,336.80	-1,615.09	341.39	1,629.67	0.00	0.00	0.00
8,100.02	90.19	179.05	6,336.46	-1,715.07	343.05	1,729.62	0.00	0.00	0.00
8,200.02	90.19	179.05	6,336.13	-1,815.06	344.71	1,829.57	0.00	0.00	0.00
8,300.02	90.19	179.05	6,335.79	-1,915.04	346.37	1,929.52	0.00	0.00	0.00
8,400.02	90.19	179.05	6,335.46	-2,015.03	348.03	2,029.47	0.00	0.00	0.00
8,500.02	90.19	179.05	6,335.13	-2,115.01	349.69	2,129.41	0.00	0.00	0.00
8,600.02	90.19	179.05	6,334.79	-2,215.00	351.35	2,229.36	0.00	0.00	0.00
8,700.02	90.19	179.05	6,334.46	-2,314.99	353.01	2,329.31	0.00	0.00	0.00
8,800.02	90.19	179.05	6,334.12	-2,414.97	354.67	2,429.26	0.00	0.00	0.00
8,900.02	90.19	179.05	6,333.79	-2,514.96	356.33	2,529.21	0.00	0.00	0.00
9,000.02	90.19	179.05	6,333.46	-2,614.94	357.99	2,629.16	0.00	0.00	0.00
9,100.02	90.19	179.05	6,333.12	-2,714.93	359.65	2,729.11	0.00	0.00	0.00
9,200.02	90.19	179.05	6,332.79	-2,814.92	361.31	2,829.06	0.00	0.00	0.00
9,300.02	90.19	179.05	6,332.45	-2,914.90	362.97	2,929.01	0.00	0.00	0.00
9,400.02	90.19	179.05	6,332.12	-3,014.89	364.63	3,028.96	0.00	0.00	0.00
9,500.02	90.19	179.05	6,331.79	-3,114.87	366.29	3,128.91	0.00	0.00	0.00
9,600.02	90.19	179.05	6,331.45	-3,214.86	367.95	3,228.86	0.00	0.00	0.00
9,700.02	90.19	179.05	6,331.12	-3,314.85	369.61	3,328.81	0.00	0.00	0.00
9,800.02	90.19	179.05	6,330.78	-3,414.83	371.27	3,428.76	0.00	0.00	0.00

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<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	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	90.19	179.05	6,330.45	-3,514.82	372.93	3,528.71	0.00	0.00	0.00
10,000.02	90.19	179.05	6,330.12	-3,614.80	374.59	3,628.66	0.00	0.00	0.00
10,100.02	90.19	179.05	6,329.78	-3,714.79	376.25	3,728.61	0.00	0.00	0.00
10,200.02	90.19	179.05	6,329.45	-3,814.77	377.91	3,828.56	0.00	0.00	0.00
10,300.02	90.19	179.05	6,329.11	-3,914.76	379.57	3,928.51	0.00	0.00	0.00
10,400.02	90.19	179.05	6,328.78	-4,014.75	381.23	4,028.46	0.00	0.00	0.00
10,500.02	90.19	179.05	6,328.44	-4,114.73	382.89	4,128.41	0.00	0.00	0.00
10,600.02	90.19	179.05	6,328.11	-4,214.72	384.55	4,228.36	0.00	0.00	0.00
10,700.02	90.19	179.05	6,327.78	-4,314.70	386.21	4,328.31	0.00	0.00	0.00
10,800.02	90.19	179.05	6,327.44	-4,414.69	387.87	4,428.26	0.00	0.00	0.00
10,900.02	90.19	179.05	6,327.11	-4,514.68	389.53	4,528.21	0.00	0.00	0.00
11,000.02	90.19	179.05	6,326.77	-4,614.66	391.19	4,628.16	0.00	0.00	0.00
11,100.02	90.19	179.05	6,326.44	-4,714.65	392.85	4,728.11	0.00	0.00	0.00
11,200.02	90.19	179.05	6,326.11	-4,814.63	394.51	4,828.05	0.00	0.00	0.00
11,300.02	90.19	179.05	6,325.77	-4,914.62	396.17	4,928.00	0.00	0.00	0.00
11,400.02	90.19	179.05	6,325.44	-5,014.60	397.83	5,027.95	0.00	0.00	0.00
11,500.02	90.19	179.05	6,325.10	-5,114.59	399.49	5,127.90	0.00	0.00	0.00
11,600.02	90.19	179.05	6,324.77	-5,214.58	401.15	5,227.85	0.00	0.00	0.00
11,700.02	90.19	179.05	6,324.44	-5,314.56	402.81	5,327.80	0.00	0.00	0.00
11,800.02	90.19	179.05	6,324.10	-5,414.55	404.47	5,427.75	0.00	0.00	0.00
11,900.02	90.19	179.05	6,323.77	-5,514.53	406.13	5,527.70	0.00	0.00	0.00
12,000.02	90.19	179.05	6,323.43	-5,614.52	407.79	5,627.65	0.00	0.00	0.00
12,100.02	90.19	179.05	6,323.10	-5,714.51	409.45	5,727.60	0.00	0.00	0.00
12,200.02	90.19	179.05	6,322.77	-5,814.49	411.11	5,827.55	0.00	0.00	0.00
12,300.02	90.19	179.05	6,322.43	-5,914.48	412.77	5,927.50	0.00	0.00	0.00
12,400.03	90.19	179.05	6,322.10	-6,014.46	414.43	6,027.45	0.00	0.00	0.00
12,500.03	90.19	179.05	6,321.76	-6,114.45	416.09	6,127.40	0.00	0.00	0.00
12,600.03	90.19	179.05	6,321.43	-6,214.44	417.75	6,227.35	0.00	0.00	0.00
12,700.03	90.19	179.05	6,321.10	-6,314.42	419.41	6,327.30	0.00	0.00	0.00
12,800.03	90.19	179.05	6,320.76	-6,414.41	421.07	6,427.25	0.00	0.00	0.00
12,900.03	90.19	179.05	6,320.43	-6,514.39	422.73	6,527.20	0.00	0.00	0.00
13,000.03	90.19	179.05	6,320.09	-6,614.38	424.39	6,627.15	0.00	0.00	0.00
13,100.03	90.19	179.05	6,319.76	-6,714.36	426.05	6,727.10	0.00	0.00	0.00
13,200.03	90.19	179.05	6,319.43	-6,814.35	427.72	6,827.05	0.00	0.00	0.00
13,300.03	90.19	179.05	6,319.09	-6,914.34	429.38	6,927.00	0.00	0.00	0.00
13,400.03	90.19	179.05	6,318.76	-7,014.32	431.04	7,026.95	0.00	0.00	0.00
13,500.03	90.19	179.05	6,318.42	-7,114.31	432.70	7,126.90	0.00	0.00	0.00
13,600.03	90.19	179.05	6,318.09	-7,214.29	434.36	7,226.85	0.00	0.00	0.00
13,700.03	90.19	179.05	6,317.75	-7,314.28	436.02	7,326.80	0.00	0.00	0.00
13,800.03	90.19	179.05	6,317.42	-7,414.27	437.68	7,426.75	0.00	0.00	0.00
13,900.03	90.19	179.05	6,317.09	-7,514.25	439.34	7,526.69	0.00	0.00	0.00
14,000.03	90.19	179.05	6,316.75	-7,614.24	441.00	7,626.64	0.00	0.00	0.00
14,100.03	90.19	179.05	6,316.42	-7,714.22	442.66	7,726.59	0.00	0.00	0.00
14,200.03	90.19	179.05	6,316.08	-7,814.21	444.32	7,826.54	0.00	0.00	0.00
14,300.03	90.19	179.05	6,315.75	-7,914.20	445.98	7,926.49	0.00	0.00	0.00
14,400.03	90.19	179.05	6,315.42	-8,014.18	447.64	8,026.44	0.00	0.00	0.00
14,500.03	90.19	179.05	6,315.08	-8,114.17	449.30	8,126.39	0.00	0.00	0.00
14,600.03	90.19	179.05	6,314.75	-8,214.15	450.96	8,226.34	0.00	0.00	0.00
14,700.03	90.19	179.05	6,314.41	-8,314.14	452.62	8,326.29	0.00	0.00	0.00
14,800.03	90.19	179.05	6,314.08	-8,414.12	454.28	8,426.24	0.00	0.00	0.00
14,900.03	90.19	179.05	6,313.75	-8,514.11	455.94	8,526.19	0.00	0.00	0.00
15,000.03	90.19	179.05	6,313.41	-8,614.10	457.60	8,626.14	0.00	0.00	0.00
15,100.03	90.19	179.05	6,313.08	-8,714.08	459.26	8,726.09	0.00	0.00	0.00
15,200.03	90.19	179.05	6,312.74	-8,814.07	460.92	8,826.04	0.00	0.00	0.00

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	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	90.19	179.05	6,312.41	-8,914.05	462.58	8,925.99	0.00	0.00	0.00	
15,400.03	90.19	179.05	6,312.08	-9,014.04	464.24	9,025.94	0.00	0.00	0.00	
15,500.03	90.19	179.05	6,311.74	-9,114.03	465.90	9,125.89	0.00	0.00	0.00	
15,600.03	90.19	179.05	6,311.41	-9,214.01	467.56	9,225.84	0.00	0.00	0.00	
15,700.03	90.19	179.05	6,311.07	-9,314.00	469.22	9,325.79	0.00	0.00	0.00	
15,800.03	90.19	179.05	6,310.74	-9,413.98	470.88	9,425.74	0.00	0.00	0.00	
15,900.03	90.19	179.05	6,310.41	-9,513.97	472.54	9,525.69	0.00	0.00	0.00	
16,000.03	90.19	179.05	6,310.07	-9,613.95	474.20	9,625.64	0.00	0.00	0.00	
16,100.03	90.19	179.05	6,309.74	-9,713.94	475.86	9,725.59	0.00	0.00	0.00	
16,200.03	90.19	179.05	6,309.40	-9,813.93	477.52	9,825.54	0.00	0.00	0.00	
16,300.03	90.19	179.05	6,309.07	-9,913.91	479.18	9,925.49	0.00	0.00	0.00	
16,320.73	90.19	179.05	6,309.00	-9,934.61	479.52	9,946.17	0.00	0.00	0.00	
PBHL/TD 16320.73 MD 6309.00 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	
BHL 70 Ranch 10-5-1L 4 - plan hits target center - Point	0.00	0.00	6,309.00	-9,934.61	479.52	14,638,806.09	1,800,498.68	40.30634000	-104.42581000	
LP 70 Ranch 10-5-1L 47 - plan hits target center - Point	0.00	0.00	6,341.00	-356.89	320.50	14,648,382.56	1,800,277.72	40.33264000	-104.42638000	

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	
5,245.70	5,238.24	43.31	28.56	Begin 24.57° tangent section	
5,639.03	5,595.95	179.83	118.61	Begin 10°/100' build/turn	
6,741.64	6,341.00	-356.89	320.50	LP Begin 90.19° lateral section	
16,320.73	6,309.00	-9,934.61	479.52	PBHL/TD 16320.73 MD 6309.00 TVD	

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	plan1		

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

Site		Section 10 & 15 T04N-R63W			
Site Position:		Northing:	14,648,687.65 usft	Latitude:	40.33348000
From:	Lat/Long	Easting:	1,800,150.33 usft	Longitude:	-104.42683000
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37 °

Well	70 Ranch 10-5-1L, Surf Loc: 109 FNL 1772 FWL Section 10-T04N-R63W					
Well Position	+N/-S	0.00 ft	Northing:	14,648,737.37 usft	Latitude:	40.33362000
	+E/-W	0.00 ft	Easting:	1,799,954.92 usft	Longitude:	-104.42753000
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,607.01 ft

<b>Wellbore</b>	Original Hole				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM	5/7/2017	8.17	66.97	52,358.10000000

<b>Design</b>	plan1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	177.24

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/8/2017		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	16,320.73 plan1 (Original Hole)		

<b>Plan Sections</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
5,245.70	24.57	33.41	5,238.24	43.31	28.56	10.00	10.00	0.00	33.41	
5,639.03	24.57	33.41	5,595.95	179.83	118.61	0.00	0.00	0.00	0.00	
6,741.64	90.19	179.05	6,341.00	-356.89	320.50	10.00	5.95	13.21	143.02	LP 70 Ranch 10-5-1L
16,320.73	90.19	179.05	6,309.00	-9,934.61	479.52	0.00	0.00	0.00	0.00	BHL 70 Ranch 10-5-1



<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	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	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
100.00	0.00	0.00	100.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
200.00	0.00	0.00	200.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
300.00	0.00	0.00	300.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
400.00	0.00	0.00	400.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
500.00	0.00	0.00	500.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
600.00	0.00	0.00	600.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
700.00	0.00	0.00	700.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
800.00	0.00	0.00	800.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
900.00	0.00	0.00	900.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
2,100.00	0.00	0.00	2,100.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
2,200.00	0.00	0.00	2,200.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
2,300.00	0.00	0.00	2,300.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
2,400.00	0.00	0.00	2,400.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
2,500.01	0.00	0.00	2,500.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
2,600.01	0.00	0.00	2,600.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
2,700.01	0.00	0.00	2,700.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
2,800.01	0.00	0.00	2,800.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
2,900.01	0.00	0.00	2,900.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
3,000.01	0.00	0.00	3,000.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
3,100.01	0.00	0.00	3,100.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
3,200.01	0.00	0.00	3,200.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
3,300.01	0.00	0.00	3,300.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
3,400.01	0.00	0.00	3,400.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
3,500.01	0.00	0.00	3,500.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
3,600.01	0.00	0.00	3,600.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
3,700.01	0.00	0.00	3,700.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
3,800.01	0.00	0.00	3,800.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
3,900.01	0.00	0.00	3,900.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
4,000.01	0.00	0.00	4,000.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
4,100.01	0.00	0.00	4,100.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
4,200.01	0.00	0.00	4,200.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
4,300.01	0.00	0.00	4,300.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
4,400.01	0.00	0.00	4,400.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
4,500.01	0.00	0.00	4,500.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
4,600.01	0.00	0.00	4,600.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
4,700.01	0.00	0.00	4,700.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
4,800.01	0.00	0.00	4,800.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
4,900.01	0.00	0.00	4,900.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
5,000.00	0.00	0.00	5,000.00	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
KOP Begin 10°/100' build									
5,000.01	0.00	33.41	5,000.01	0.00	0.00	14,648,737.37	1,799,954.92	40.33362000	-104.42753000
5,100.01	10.00	33.41	5,099.50	7.27	4.79	14,648,744.67	1,799,959.67	40.33363995	-104.42751280



<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	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	33.41	5,195.97	28.85	19.03	14,648,766.34	1,799,973.76	40.33369921	-104.42746173
5,245.70	24.57	33.41	5,238.24	43.31	28.56	14,648,780.86	1,799,983.20	40.33373892	-104.42742751
Begin 24.57° tangent section									
5,300.01	24.57	33.41	5,287.63	62.16	41.00	14,648,799.79	1,799,995.52	40.33379068	-104.42738290
5,400.01	24.57	33.41	5,378.58	96.87	63.89	14,648,834.65	1,800,018.18	40.33388599	-104.42730075
5,500.01	24.57	33.41	5,469.52	131.58	86.78	14,648,869.51	1,800,040.85	40.33398131	-104.42721861
5,600.01	24.57	33.41	5,560.47	166.29	109.68	14,648,904.37	1,800,063.52	40.33407662	-104.42713646
5,639.03	24.57	33.41	5,595.95	179.83	118.61	14,648,917.97	1,800,072.37	40.33411381	-104.42710441
Begin 10°/100' build/turn									
5,700.01	20.02	44.17	5,652.39	197.92	132.88	14,648,936.15	1,800,086.51	40.33416348	-104.42705322
5,800.01	15.01	73.51	5,747.90	213.91	157.28	14,648,952.30	1,800,110.81	40.33420739	-104.42696566
5,900.01	15.67	111.91	5,844.59	212.55	182.28	14,648,951.09	1,800,135.83	40.33420363	-104.42687593
6,000.01	21.48	137.96	5,939.50	193.86	207.13	14,648,932.57	1,800,160.80	40.33415232	-104.42678676
6,100.01	29.55	151.88	6,029.75	158.42	231.07	14,648,897.28	1,800,184.97	40.33405501	-104.42670086
6,200.01	38.47	160.02	6,112.61	107.31	253.38	14,648,846.32	1,800,207.60	40.33391467	-104.42662084
6,300.01	47.77	165.43	6,185.55	42.08	273.36	14,648,781.22	1,800,228.01	40.33373555	-104.42654912
6,400.01	57.25	169.43	6,246.35	-35.28	290.43	14,648,703.96	1,800,245.57	40.33352310	-104.42648790
6,500.01	66.84	172.65	6,293.18	-122.44	304.05	14,648,616.90	1,800,259.76	40.33328377	-104.42643902
6,600.01	76.49	175.44	6,324.61	-216.74	313.82	14,648,522.67	1,800,270.13	40.33302484	-104.42640398
6,700.01	86.16	178.01	6,339.68	-315.31	319.43	14,648,424.14	1,800,276.38	40.33275417	-104.42638384
6,741.64	90.19	179.05	6,341.00	-356.89	320.50	14,648,382.56	1,800,277.72	40.33264000	-104.42638000
LP Begin 90.19° lateral section									
6,800.01	90.19	179.05	6,340.81	-415.26	321.47	14,648,324.20	1,800,279.07	40.33247972	-104.42637653
6,900.01	90.19	179.05	6,340.47	-515.24	323.13	14,648,224.23	1,800,281.38	40.33220516	-104.42637058
7,000.01	90.19	179.05	6,340.14	-615.23	324.79	14,648,124.26	1,800,283.68	40.33193061	-104.42636463
7,100.01	90.19	179.05	6,339.80	-715.21	326.45	14,648,024.29	1,800,285.99	40.33165605	-104.42635867
7,200.01	90.19	179.05	6,339.47	-815.20	328.11	14,647,924.31	1,800,288.30	40.33138150	-104.42635272
7,300.01	90.19	179.05	6,339.13	-915.18	329.77	14,647,824.34	1,800,290.60	40.33110694	-104.42634677
7,400.01	90.19	179.05	6,338.80	-1,015.17	331.43	14,647,724.37	1,800,292.91	40.33083238	-104.42634082
7,500.02	90.19	179.05	6,338.47	-1,115.16	333.09	14,647,624.39	1,800,295.22	40.33055783	-104.42633487
7,600.02	90.19	179.05	6,338.13	-1,215.14	334.75	14,647,524.42	1,800,297.52	40.33028327	-104.42632891
7,700.02	90.19	179.05	6,337.80	-1,315.13	336.41	14,647,424.45	1,800,299.83	40.33000871	-104.42632296
7,800.02	90.19	179.05	6,337.46	-1,415.11	338.07	14,647,324.48	1,800,302.14	40.32973416	-104.42631701
7,900.02	90.19	179.05	6,337.13	-1,515.10	339.73	14,647,224.50	1,800,304.44	40.32945960	-104.42631106
8,000.02	90.19	179.05	6,336.80	-1,615.09	341.39	14,647,124.53	1,800,306.75	40.32918504	-104.42630511
8,100.02	90.19	179.05	6,336.46	-1,715.07	343.05	14,647,024.56	1,800,309.06	40.32891049	-104.42629916
8,200.02	90.19	179.05	6,336.13	-1,815.06	344.71	14,646,924.58	1,800,311.36	40.32863593	-104.42629320
8,300.02	90.19	179.05	6,335.79	-1,915.04	346.37	14,646,824.61	1,800,313.67	40.32836138	-104.42628725
8,400.02	90.19	179.05	6,335.46	-2,015.03	348.03	14,646,724.64	1,800,315.98	40.32808682	-104.42628130
8,500.02	90.19	179.05	6,335.13	-2,115.01	349.69	14,646,624.67	1,800,318.28	40.32781226	-104.42627535
8,600.02	90.19	179.05	6,334.79	-2,215.00	351.35	14,646,524.69	1,800,320.59	40.32753771	-104.42626940
8,700.02	90.19	179.05	6,334.46	-2,314.99	353.01	14,646,424.72	1,800,322.90	40.32726315	-104.42626345
8,800.02	90.19	179.05	6,334.12	-2,414.97	354.67	14,646,324.75	1,800,325.20	40.32698859	-104.42625749
8,900.02	90.19	179.05	6,333.79	-2,514.96	356.33	14,646,224.77	1,800,327.51	40.32671404	-104.42625154
9,000.02	90.19	179.05	6,333.46	-2,614.94	357.99	14,646,124.80	1,800,329.82	40.32643948	-104.42624559
9,100.02	90.19	179.05	6,333.12	-2,714.93	359.65	14,646,024.83	1,800,332.12	40.32616492	-104.42623964
9,200.02	90.19	179.05	6,332.79	-2,814.92	361.31	14,645,924.86	1,800,334.43	40.32589037	-104.42623369
9,300.02	90.19	179.05	6,332.45	-2,914.90	362.97	14,645,824.88	1,800,336.74	40.32561581	-104.42622774
9,400.02	90.19	179.05	6,332.12	-3,014.89	364.63	14,645,724.91	1,800,339.04	40.32534125	-104.42622179
9,500.02	90.19	179.05	6,331.79	-3,114.87	366.29	14,645,624.94	1,800,341.35	40.32506670	-104.42621584
9,600.02	90.19	179.05	6,331.45	-3,214.86	367.95	14,645,524.96	1,800,343.66	40.32479214	-104.42620988
9,700.02	90.19	179.05	6,331.12	-3,314.85	369.61	14,645,424.99	1,800,345.96	40.32451759	-104.42620393
9,800.02	90.19	179.05	6,330.78	-3,414.83	371.27	14,645,325.02	1,800,348.27	40.32424303	-104.42619798
9,900.02	90.19	179.05	6,330.45	-3,514.82	372.93	14,645,225.05	1,800,350.58	40.32396847	-104.42619203

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	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	90.19	179.05	6,330.12	-3,614.80	374.59	14,645,125.07	1,800,352.88	40.32369392	-104.42618608
10,100.02	90.19	179.05	6,329.78	-3,714.79	376.25	14,645,025.10	1,800,355.19	40.32341936	-104.42618013
10,200.02	90.19	179.05	6,329.45	-3,814.77	377.91	14,644,925.13	1,800,357.50	40.32314480	-104.42617418
10,300.02	90.19	179.05	6,329.11	-3,914.76	379.57	14,644,825.15	1,800,359.80	40.32287025	-104.42616823
10,400.02	90.19	179.05	6,328.78	-4,014.75	381.23	14,644,725.18	1,800,362.11	40.32259569	-104.42616228
10,500.02	90.19	179.05	6,328.44	-4,114.73	382.89	14,644,625.21	1,800,364.42	40.32232113	-104.42615633
10,600.02	90.19	179.05	6,328.11	-4,214.72	384.55	14,644,525.24	1,800,366.72	40.32204658	-104.42615037
10,700.02	90.19	179.05	6,327.78	-4,314.70	386.21	14,644,425.26	1,800,369.03	40.32177202	-104.42614442
10,800.02	90.19	179.05	6,327.44	-4,414.69	387.87	14,644,325.29	1,800,371.34	40.32149746	-104.42613847
10,900.02	90.19	179.05	6,327.11	-4,514.68	389.53	14,644,225.32	1,800,373.64	40.32122291	-104.42613252
11,000.02	90.19	179.05	6,326.77	-4,614.66	391.19	14,644,125.34	1,800,375.95	40.32094835	-104.42612657
11,100.02	90.19	179.05	6,326.44	-4,714.65	392.85	14,644,025.37	1,800,378.26	40.32067379	-104.42612062
11,200.02	90.19	179.05	6,326.11	-4,814.63	394.51	14,643,925.40	1,800,380.56	40.32039924	-104.42611467
11,300.02	90.19	179.05	6,325.77	-4,914.62	396.17	14,643,825.43	1,800,382.87	40.32012468	-104.42610872
11,400.02	90.19	179.05	6,325.44	-5,014.60	397.83	14,643,725.45	1,800,385.18	40.31985012	-104.42610277
11,500.02	90.19	179.05	6,325.10	-5,114.59	399.49	14,643,625.48	1,800,387.48	40.31957557	-104.42609682
11,600.02	90.19	179.05	6,324.77	-5,214.58	401.15	14,643,525.51	1,800,389.79	40.31930101	-104.42609087
11,700.02	90.19	179.05	6,324.44	-5,314.56	402.81	14,643,425.53	1,800,392.10	40.31902645	-104.42608492
11,800.02	90.19	179.05	6,324.10	-5,414.55	404.47	14,643,325.56	1,800,394.40	40.31875189	-104.42607897
11,900.02	90.19	179.05	6,323.77	-5,514.53	406.13	14,643,225.59	1,800,396.71	40.31847734	-104.42607302
12,000.02	90.19	179.05	6,323.43	-5,614.52	407.79	14,643,125.62	1,800,399.02	40.31820278	-104.42606707
12,100.02	90.19	179.05	6,323.10	-5,714.51	409.45	14,643,025.64	1,800,401.32	40.31792822	-104.42606112
12,200.02	90.19	179.05	6,322.77	-5,814.49	411.11	14,642,925.67	1,800,403.63	40.31765367	-104.42605517
12,300.02	90.19	179.05	6,322.43	-5,914.48	412.77	14,642,825.70	1,800,405.94	40.31737911	-104.42604922
12,400.03	90.19	179.05	6,322.10	-6,014.46	414.43	14,642,725.73	1,800,408.24	40.31710455	-104.42604327
12,500.03	90.19	179.05	6,321.76	-6,114.45	416.09	14,642,625.75	1,800,410.55	40.31683000	-104.42603732
12,600.03	90.19	179.05	6,321.43	-6,214.44	417.75	14,642,525.78	1,800,412.86	40.31655544	-104.42603137
12,700.03	90.19	179.05	6,321.10	-6,314.42	419.41	14,642,425.81	1,800,415.16	40.31628088	-104.42602542
12,800.03	90.19	179.05	6,320.76	-6,414.41	421.07	14,642,325.83	1,800,417.47	40.31600633	-104.42601947
12,900.03	90.19	179.05	6,320.43	-6,514.39	422.73	14,642,225.86	1,800,419.78	40.31573177	-104.42601352
13,000.03	90.19	179.05	6,320.09	-6,614.38	424.39	14,642,125.89	1,800,422.08	40.31545721	-104.42600757
13,100.03	90.19	179.05	6,319.76	-6,714.36	426.05	14,642,025.92	1,800,424.39	40.31518265	-104.42600162
13,200.03	90.19	179.05	6,319.43	-6,814.35	427.72	14,641,925.94	1,800,426.70	40.31490810	-104.42599567
13,300.03	90.19	179.05	6,319.09	-6,914.34	429.38	14,641,825.97	1,800,429.00	40.31463354	-104.42598972
13,400.03	90.19	179.05	6,318.76	-7,014.32	431.04	14,641,726.00	1,800,431.31	40.31435898	-104.42598377
13,500.03	90.19	179.05	6,318.42	-7,114.31	432.70	14,641,626.02	1,800,433.62	40.31408443	-104.42597782
13,600.03	90.19	179.05	6,318.09	-7,214.29	434.36	14,641,526.05	1,800,435.92	40.31380987	-104.42597187
13,700.03	90.19	179.05	6,317.75	-7,314.28	436.02	14,641,426.08	1,800,438.23	40.31353531	-104.42596592
13,800.03	90.19	179.05	6,317.42	-7,414.27	437.68	14,641,326.11	1,800,440.54	40.31326076	-104.42595997
13,900.03	90.19	179.05	6,317.09	-7,514.25	439.34	14,641,226.13	1,800,442.84	40.31298620	-104.42595402
14,000.03	90.19	179.05	6,316.75	-7,614.24	441.00	14,641,126.16	1,800,445.15	40.31271165	-104.42594807
14,100.03	90.19	179.05	6,316.42	-7,714.22	442.66	14,641,026.19	1,800,447.46	40.31243709	-104.42594212
14,200.03	90.19	179.05	6,316.08	-7,814.21	444.32	14,640,926.21	1,800,449.76	40.31216254	-104.42593617
14,300.03	90.19	179.05	6,315.75	-7,914.20	445.98	14,640,826.24	1,800,452.07	40.31188798	-104.42593022
14,400.03	90.19	179.05	6,315.42	-8,014.18	447.64	14,640,726.27	1,800,454.38	40.31161342	-104.42592427
14,500.03	90.19	179.05	6,315.08	-8,114.17	449.30	14,640,626.30	1,800,456.68	40.31133887	-104.42591832
14,600.03	90.19	179.05	6,314.75	-8,214.15	450.96	14,640,526.32	1,800,458.99	40.31106431	-104.42591237
14,700.03	90.19	179.05	6,314.41	-8,314.14	452.62	14,640,426.35	1,800,461.30	40.31078975	-104.42590642
14,800.03	90.19	179.05	6,314.08	-8,414.12	454.28	14,640,326.38	1,800,463.60	40.31051519	-104.42590047
14,900.03	90.19	179.05	6,313.75	-8,514.11	455.94	14,640,226.40	1,800,465.91	40.31024064	-104.42589452
15,000.03	90.19	179.05	6,313.41	-8,614.10	457.60	14,640,126.43	1,800,468.22	40.30996608	-104.42588857
15,100.03	90.19	179.05	6,313.08	-8,714.08	459.26	14,640,026.46	1,800,470.52	40.30969152	-104.42588262
15,200.03	90.19	179.05	6,312.74	-8,814.07	460.92	14,639,926.49	1,800,472.83	40.30941696	-104.42587667
15,300.03	90.19	179.05	6,312.41	-8,914.05	462.58	14,639,826.51	1,800,475.14	40.30914241	-104.42587073
15,400.03	90.19	179.05	6,312.08	-9,014.04	464.24	14,639,726.54	1,800,477.44	40.30886785	-104.42586478

<b>Database:</b>	DB_Aug0116_LT_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-5-1L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4607+25 @ 4632.01ft
<b>Site:</b>	Section 10 & 15 T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-5-1L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	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	90.19	179.05	6,311.74	-9,114.03	465.90	14,639,626.57	1,800,479.75	40.30859329	-104.42585883
15,600.03	90.19	179.05	6,311.41	-9,214.01	467.56	14,639,526.59	1,800,482.06	40.30831874	-104.42585288
15,700.03	90.19	179.05	6,311.07	-9,314.00	469.22	14,639,426.62	1,800,484.36	40.30804418	-104.42584693
15,800.03	90.19	179.05	6,310.74	-9,413.98	470.88	14,639,326.65	1,800,486.67	40.30776962	-104.42584098
15,900.03	90.19	179.05	6,310.41	-9,513.97	472.54	14,639,226.68	1,800,488.98	40.30749506	-104.42583503
16,000.03	90.19	179.05	6,310.07	-9,613.95	474.20	14,639,126.70	1,800,491.28	40.30722051	-104.42582908
16,100.03	90.19	179.05	6,309.74	-9,713.94	475.86	14,639,026.73	1,800,493.59	40.30694595	-104.42582313
16,200.03	90.19	179.05	6,309.40	-9,813.93	477.52	14,638,926.76	1,800,495.90	40.30667139	-104.42581718
16,300.03	90.19	179.05	6,309.07	-9,913.91	479.18	14,638,826.78	1,800,498.20	40.30639683	-104.42581124
16,320.73	90.19	179.05	6,309.00	-9,934.61	479.52	14,638,806.09	1,800,498.68	40.30634000	-104.42581000
PBHL/TD 16320.73 MD 6309.00 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
BHL 70 Ranch 10-5-1L 4 - plan hits target center - Point	0.00	0.00	6,309.00	-9,934.61	479.52	14,638,806.09	1,800,498.68	40.30634000	-104.42581000
LP 70 Ranch 10-5-1L 47 - plan hits target center - Point	0.00	0.00	6,341.00	-356.89	320.50	14,648,382.56	1,800,277.72	40.33264000	-104.42638000

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	
5,245.70	5,238.24	43.31	28.56	Begin 24.57° tangent section	
5,639.03	5,595.95	179.83	118.61	Begin 10°/100' build/turn	
6,741.64	6,341.00	-356.89	320.50	LP Begin 90.19° lateral section	
16,320.73	6,309.00	-9,934.61	479.52	PBHL/TD 16320.73 MD 6309.00 TVD	