



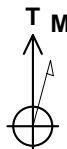
Well: 70 Ranch 10-17-2L  
 Site: Section 03-T04N-R63W  
 Project: Weld County, Colorado  
 Wellbore: Original Hole  
 Design: plan1

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
70 Ranch 10-17-2L SL 260 FSL 1187 FWL	24.00	-29.27	-3.7914649114.68	1799378.33	40.33466627	-104.42959015	
70 Ranch 10-17-2L BHL 470 FSL 1338 FWL	6355.00	-10389.43	207.9014638756.12	1799656.78	40.30621773	-104.42883078	
70 Ranch 10-17-2L LP 470 FNL 1338 FWL	6355.00	-752.68	136.3714648392.19	1799523.15	40.33267983	-104.42908723	

#### Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	KOP Begin 10°/100' build
3	2032.35	3.23	147.35	2032.33	-0.77	0.49	10.00	0.78	Begin 3.23° tangent
4	5815.69	3.23	147.35	5809.64	-180.52	115.69	0.00	182.79	Begin 10°/100' build/turn
5	6688.33	90.00	179.57	6355.00	-752.68	136.37	10.00	755.26	LP Begin 90° lateral
6	16325.34	90.00	179.57	6355.00	-10389.43	207.90	0.00	10391.51	PBHL/TD 16325.34 MD/6355.00 TVD



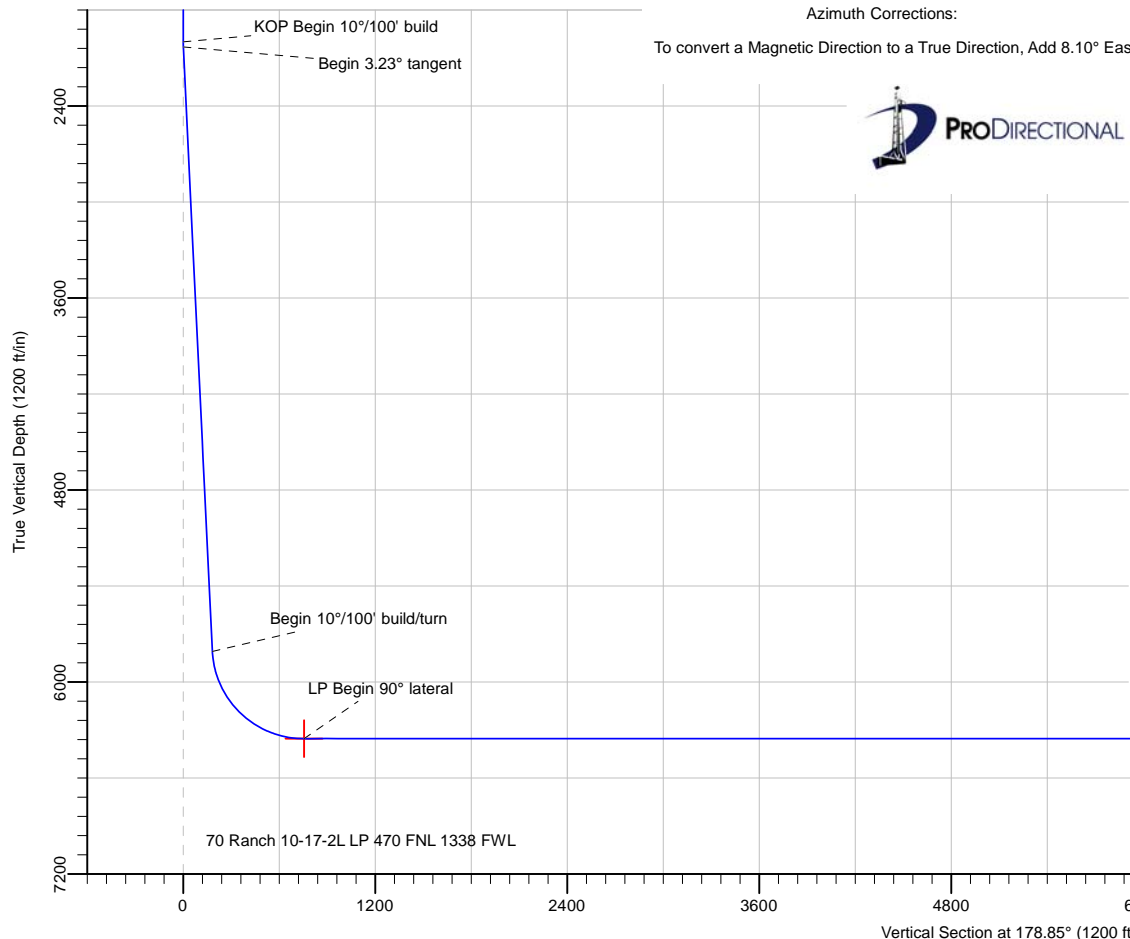
Azimuths to True North  
 Magnetic North: 8.10°

Magnetic Field  
 Strength: 52228.4snT  
 Dip Angle: 66.90°  
 Date: 5/21/2018  
 Model: HDGM

70 Ranch 10-17-2L Surf loc: 260 FSL 1187 FWL Section 03-T04N-R63W			
NAD83 Colorado - HARN Universal Transverse Mercator (US Survey Feet) Zone 13N (108 W to 102 W) RKB=4596+24 @ 4620.00ft			
Northing	Easting	Latitude	Longitude
14649143.98	1799381.93	40.33474666	-104.42957656

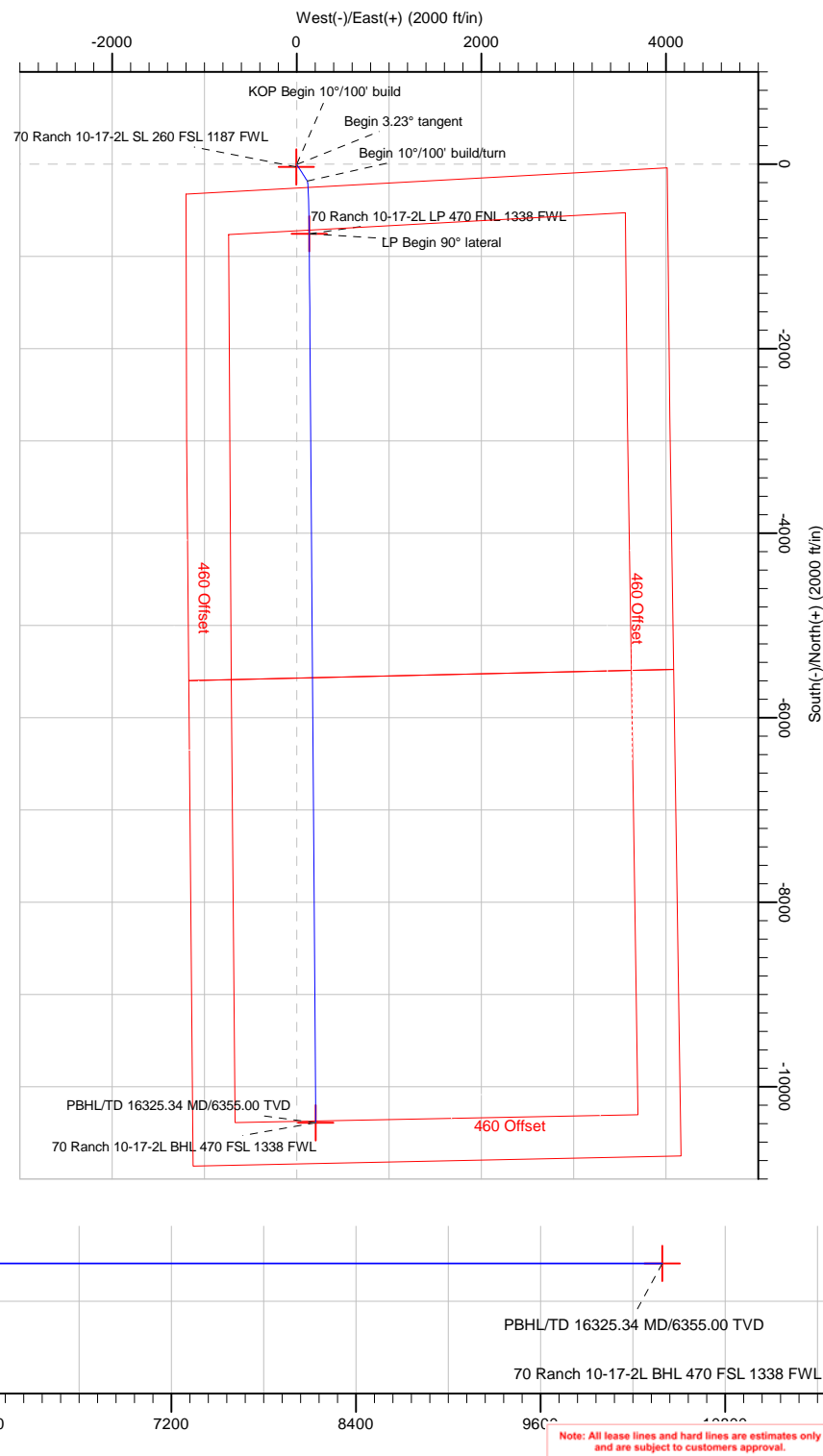
#### Azimuth Corrections:

To convert a Magnetic Direction to a True Direction, Add 8.10° East



Date: 3:02, May 21 2018

Vertical Section at 178.85° (1200 ft/in)



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

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-17-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Site:</b>	Section 03-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-17-2L	<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 03-T04N-R63W			
Site Position:		Northing:	14,650,244.32 usft	Latitude:	40.33774036
From:	Map	Easting:	1,800,940.24 usft	Longitude:	-104.42395937
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37 °

Well	70 Ranch 10-17-2L, Surf loc: 260 FSL 1187 FWL Section 03-T04N-R63W					
Well Position	+N/-S	-1,090.18 ft	Northing:	14,649,143.98 usft	Latitude:	40.33474665
	+E/-W	-1,565.44 ft	Easting:	1,799,381.93 usft	Longitude:	-104.42957657
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,596.00 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	5/21/2018	8.10	66.90	52,228.40000000

<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	178.85

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/21/2018		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	16,325.34	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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,032.35	3.23	147.35	2,032.33	-0.77	0.49	10.00	10.00	0.00	147.35	
5,815.69	3.23	147.35	5,809.64	-180.52	115.69	0.00	0.00	0.00	0.00	
6,688.33	90.00	179.57	6,355.00	-752.68	136.37	10.00	9.94	3.69	32.27	70 Ranch 10-17-2L LI
16,325.34	90.00	179.57	6,355.00	-10,389.43	207.90	0.00	0.00	0.00	0.00	70 Ranch 10-17-2L BI

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-17-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Site:</b>	Section 03-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-17-2L	<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
<b>KOP Begin 10°/100' build</b>									
2,032.35	3.23	147.35	2,032.33	-0.77	0.49	0.78	10.00	10.00	0.00
<b>Begin 3.23° tangent</b>									
2,100.00	3.23	147.35	2,099.88	-3.98	2.55	4.03	0.00	0.00	0.00
2,200.00	3.23	147.35	2,199.72	-8.73	5.60	8.84	0.00	0.00	0.00
2,300.00	3.23	147.35	2,299.56	-13.48	8.64	13.66	0.00	0.00	0.00
2,400.00	3.23	147.35	2,399.40	-18.24	11.69	18.47	0.00	0.00	0.00
2,500.00	3.23	147.35	2,499.24	-22.99	14.73	23.28	0.00	0.00	0.00
2,600.00	3.23	147.35	2,599.08	-27.74	17.78	28.09	0.00	0.00	0.00
2,700.00	3.23	147.35	2,698.92	-32.49	20.82	32.90	0.00	0.00	0.00
2,800.00	3.23	147.35	2,798.76	-37.24	23.87	37.71	0.00	0.00	0.00
2,900.00	3.23	147.35	2,898.60	-41.99	26.91	42.52	0.00	0.00	0.00
3,000.00	3.23	147.35	2,998.44	-46.74	29.96	47.33	0.00	0.00	0.00
3,100.00	3.23	147.35	3,098.28	-51.49	33.00	52.14	0.00	0.00	0.00
3,200.00	3.23	147.35	3,198.12	-56.24	36.05	56.95	0.00	0.00	0.00
3,300.00	3.23	147.35	3,297.96	-61.00	39.09	61.76	0.00	0.00	0.00
3,400.00	3.23	147.35	3,397.80	-65.75	42.13	66.58	0.00	0.00	0.00
3,500.00	3.23	147.35	3,497.64	-70.50	45.18	71.39	0.00	0.00	0.00
3,600.00	3.23	147.35	3,597.48	-75.25	48.22	76.20	0.00	0.00	0.00
3,700.00	3.23	147.35	3,697.33	-80.00	51.27	81.01	0.00	0.00	0.00
3,800.00	3.23	147.35	3,797.17	-84.75	54.31	85.82	0.00	0.00	0.00
3,900.00	3.23	147.35	3,897.01	-89.50	57.36	90.63	0.00	0.00	0.00
4,000.00	3.23	147.35	3,996.85	-94.25	60.40	95.44	0.00	0.00	0.00
4,100.00	3.23	147.35	4,096.69	-99.00	63.45	100.25	0.00	0.00	0.00
4,200.00	3.23	147.35	4,196.53	-103.75	66.49	105.06	0.00	0.00	0.00
4,300.00	3.23	147.35	4,296.37	-108.51	69.54	109.87	0.00	0.00	0.00
4,400.00	3.23	147.35	4,396.21	-113.26	72.58	114.69	0.00	0.00	0.00
4,500.00	3.23	147.35	4,496.05	-118.01	75.63	119.50	0.00	0.00	0.00
4,600.00	3.23	147.35	4,595.89	-122.76	78.67	124.31	0.00	0.00	0.00
4,700.00	3.23	147.35	4,695.73	-127.51	81.72	129.12	0.00	0.00	0.00
4,800.00	3.23	147.35	4,795.57	-132.26	84.76	133.93	0.00	0.00	0.00
4,900.00	3.23	147.35	4,895.41	-137.01	87.81	138.74	0.00	0.00	0.00

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<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Site:</b>	Section 03-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-17-2L	<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)
5,000.00	3.23	147.35	4,995.25	-141.76	90.85	143.55	0.00	0.00	0.00
5,100.00	3.23	147.35	5,095.09	-146.51	93.90	148.36	0.00	0.00	0.00
5,200.00	3.23	147.35	5,194.94	-151.26	96.94	153.17	0.00	0.00	0.00
5,300.00	3.23	147.35	5,294.78	-156.02	99.99	157.98	0.00	0.00	0.00
5,400.00	3.23	147.35	5,394.62	-160.77	103.03	162.80	0.00	0.00	0.00
5,500.00	3.23	147.35	5,494.46	-165.52	106.08	167.61	0.00	0.00	0.00
5,600.00	3.23	147.35	5,594.30	-170.27	109.12	172.42	0.00	0.00	0.00
5,700.00	3.23	147.35	5,694.14	-175.02	112.17	177.23	0.00	0.00	0.00
5,800.00	3.23	147.35	5,793.98	-179.77	115.21	182.04	0.00	0.00	0.00
5,815.69	3.23	147.35	5,809.64	-180.52	115.69	182.79	0.00	0.00	0.00
Begin 10°/100' build/turn									
5,900.00	11.30	170.90	5,893.22	-190.69	118.28	193.02	10.00	9.56	27.93
6,000.00	21.23	175.13	5,989.10	-218.48	121.38	220.86	10.00	9.94	4.23
6,100.00	31.21	176.72	6,078.70	-262.50	124.41	264.94	10.00	9.98	1.60
6,200.00	41.20	177.60	6,159.29	-321.42	127.27	323.90	10.00	9.99	0.88
6,300.00	51.19	178.19	6,228.42	-393.45	129.89	395.97	10.00	9.99	0.58
6,400.00	61.18	178.62	6,284.00	-476.40	132.18	478.95	10.00	9.99	0.44
6,500.00	71.18	178.99	6,324.34	-567.74	134.08	570.31	10.00	9.99	0.36
6,600.00	81.17	179.31	6,348.21	-664.71	135.52	667.29	10.00	10.00	0.32
6,688.33	90.00	179.57	6,355.00	-752.68	136.37	755.26	10.00	10.00	0.30
LP Begin 90° lateral									
6,700.00	90.00	179.57	6,355.00	-764.36	136.46	766.93	0.00	0.00	0.00
6,800.00	90.00	179.57	6,355.00	-864.35	137.20	866.93	0.00	0.00	0.00
6,900.00	90.00	179.57	6,355.00	-964.35	137.94	966.92	0.00	0.00	0.00
7,000.00	90.00	179.57	6,355.00	-1,064.35	138.69	1,066.91	0.00	0.00	0.00
7,100.00	90.00	179.57	6,355.00	-1,164.35	139.43	1,166.90	0.00	0.00	0.00
7,200.00	90.00	179.57	6,355.00	-1,264.34	140.17	1,266.89	0.00	0.00	0.00
7,300.00	90.00	179.57	6,355.00	-1,364.34	140.91	1,366.89	0.00	0.00	0.00
7,400.00	90.00	179.57	6,355.00	-1,464.34	141.66	1,466.88	0.00	0.00	0.00
7,500.00	90.00	179.57	6,355.00	-1,564.34	142.40	1,566.87	0.00	0.00	0.00
7,600.00	90.00	179.57	6,355.00	-1,664.33	143.14	1,666.86	0.00	0.00	0.00
7,700.00	90.00	179.57	6,355.00	-1,764.33	143.88	1,766.86	0.00	0.00	0.00
7,800.00	90.00	179.57	6,355.00	-1,864.33	144.62	1,866.85	0.00	0.00	0.00
7,900.00	90.00	179.57	6,355.00	-1,964.32	145.37	1,966.84	0.00	0.00	0.00
8,000.00	90.00	179.57	6,355.00	-2,064.32	146.11	2,066.83	0.00	0.00	0.00
8,100.00	90.00	179.57	6,355.00	-2,164.32	146.85	2,166.82	0.00	0.00	0.00
8,200.00	90.00	179.57	6,355.00	-2,264.32	147.59	2,266.82	0.00	0.00	0.00
8,300.00	90.00	179.57	6,355.00	-2,364.31	148.34	2,366.81	0.00	0.00	0.00
8,400.00	90.00	179.57	6,355.00	-2,464.31	149.08	2,466.80	0.00	0.00	0.00
8,500.00	90.00	179.57	6,355.00	-2,564.31	149.82	2,566.79	0.00	0.00	0.00
8,600.00	90.00	179.57	6,355.00	-2,664.31	150.56	2,666.78	0.00	0.00	0.00
8,700.00	90.00	179.57	6,355.00	-2,764.30	151.30	2,766.78	0.00	0.00	0.00
8,800.00	90.00	179.57	6,355.00	-2,864.30	152.05	2,866.77	0.00	0.00	0.00
8,900.00	90.00	179.57	6,355.00	-2,964.30	152.79	2,966.76	0.00	0.00	0.00
9,000.00	90.00	179.57	6,355.00	-3,064.29	153.53	3,066.75	0.00	0.00	0.00
9,100.00	90.00	179.57	6,355.00	-3,164.29	154.27	3,166.74	0.00	0.00	0.00
9,200.00	90.00	179.57	6,355.00	-3,264.29	155.02	3,266.74	0.00	0.00	0.00
9,300.00	90.00	179.57	6,355.00	-3,364.29	155.76	3,366.73	0.00	0.00	0.00
9,400.00	90.00	179.57	6,355.00	-3,464.28	156.50	3,466.72	0.00	0.00	0.00
9,500.00	90.00	179.57	6,355.00	-3,564.28	157.24	3,566.71	0.00	0.00	0.00
9,600.00	90.00	179.57	6,355.00	-3,664.28	157.98	3,666.70	0.00	0.00	0.00
9,700.00	90.00	179.57	6,355.00	-3,764.27	158.73	3,766.70	0.00	0.00	0.00
9,800.00	90.00	179.57	6,355.00	-3,864.27	159.47	3,866.69	0.00	0.00	0.00
9,900.00	90.00	179.57	6,355.00	-3,964.27	160.21	3,966.68	0.00	0.00	0.00

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<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Site:</b>	Section 03-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-17-2L	<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)
10,000.00	90.00	179.57	6,355.00	-4,064.27	160.95	4,066.67	0.00	0.00	0.00
10,100.00	90.00	179.57	6,355.00	-4,164.26	161.70	4,166.67	0.00	0.00	0.00
10,200.00	90.00	179.57	6,355.00	-4,264.26	162.44	4,266.66	0.00	0.00	0.00
10,300.00	90.00	179.57	6,355.00	-4,364.26	163.18	4,366.65	0.00	0.00	0.00
10,400.00	90.00	179.57	6,355.00	-4,464.26	163.92	4,466.64	0.00	0.00	0.00
10,500.00	90.00	179.57	6,355.00	-4,564.25	164.66	4,566.63	0.00	0.00	0.00
10,600.00	90.00	179.57	6,355.00	-4,664.25	165.41	4,666.63	0.00	0.00	0.00
10,700.00	90.00	179.57	6,355.00	-4,764.25	166.15	4,766.62	0.00	0.00	0.00
10,800.00	90.00	179.57	6,355.00	-4,864.24	166.89	4,866.61	0.00	0.00	0.00
10,900.00	90.00	179.57	6,355.00	-4,964.24	167.63	4,966.60	0.00	0.00	0.00
11,000.00	90.00	179.57	6,355.00	-5,064.24	168.38	5,066.59	0.00	0.00	0.00
11,100.00	90.00	179.57	6,355.00	-5,164.24	169.12	5,166.59	0.00	0.00	0.00
11,200.00	90.00	179.57	6,355.00	-5,264.23	169.86	5,266.58	0.00	0.00	0.00
11,300.00	90.00	179.57	6,355.00	-5,364.23	170.60	5,366.57	0.00	0.00	0.00
11,400.00	90.00	179.57	6,355.00	-5,464.23	171.35	5,466.56	0.00	0.00	0.00
11,500.00	90.00	179.57	6,355.00	-5,564.23	172.09	5,566.55	0.00	0.00	0.00
11,600.00	90.00	179.57	6,355.00	-5,664.22	172.83	5,666.55	0.00	0.00	0.00
11,700.00	90.00	179.57	6,355.00	-5,764.22	173.57	5,766.54	0.00	0.00	0.00
11,800.00	90.00	179.57	6,355.00	-5,864.22	174.31	5,866.53	0.00	0.00	0.00
11,900.00	90.00	179.57	6,355.00	-5,964.21	175.06	5,966.52	0.00	0.00	0.00
12,000.00	90.00	179.57	6,355.00	-6,064.21	175.80	6,066.51	0.00	0.00	0.00
12,100.00	90.00	179.57	6,355.00	-6,164.21	176.54	6,166.51	0.00	0.00	0.00
12,200.00	90.00	179.57	6,355.00	-6,264.21	177.28	6,266.50	0.00	0.00	0.00
12,300.00	90.00	179.57	6,355.00	-6,364.20	178.03	6,366.49	0.00	0.00	0.00
12,400.00	90.00	179.57	6,355.00	-6,464.20	178.77	6,466.48	0.00	0.00	0.00
12,500.00	90.00	179.57	6,355.00	-6,564.20	179.51	6,566.48	0.00	0.00	0.00
12,600.00	90.00	179.57	6,355.00	-6,664.20	180.25	6,666.47	0.00	0.00	0.00
12,700.00	90.00	179.57	6,355.00	-6,764.19	180.99	6,766.46	0.00	0.00	0.00
12,800.00	90.00	179.57	6,355.00	-6,864.19	181.74	6,866.45	0.00	0.00	0.00
12,900.00	90.00	179.57	6,355.00	-6,964.19	182.48	6,966.44	0.00	0.00	0.00
13,000.00	90.00	179.57	6,355.00	-7,064.18	183.22	7,066.44	0.00	0.00	0.00
13,100.00	90.00	179.57	6,355.00	-7,164.18	183.96	7,166.43	0.00	0.00	0.00
13,200.00	90.00	179.57	6,355.00	-7,264.18	184.71	7,266.42	0.00	0.00	0.00
13,300.00	90.00	179.57	6,355.00	-7,364.18	185.45	7,366.41	0.00	0.00	0.00
13,400.00	90.00	179.57	6,355.00	-7,464.17	186.19	7,466.40	0.00	0.00	0.00
13,500.00	90.00	179.57	6,355.00	-7,564.17	186.93	7,566.40	0.00	0.00	0.00
13,600.00	90.00	179.57	6,355.00	-7,664.17	187.67	7,666.39	0.00	0.00	0.00
13,700.00	90.00	179.57	6,355.00	-7,764.16	188.42	7,766.38	0.00	0.00	0.00
13,800.00	90.00	179.57	6,355.00	-7,864.16	189.16	7,866.37	0.00	0.00	0.00
13,900.00	90.00	179.57	6,355.00	-7,964.16	189.90	7,966.36	0.00	0.00	0.00
14,000.00	90.00	179.57	6,355.00	-8,064.16	190.64	8,066.36	0.00	0.00	0.00
14,100.00	90.00	179.57	6,355.00	-8,164.15	191.39	8,166.35	0.00	0.00	0.00
14,200.00	90.00	179.57	6,355.00	-8,264.15	192.13	8,266.34	0.00	0.00	0.00
14,300.00	90.00	179.57	6,355.00	-8,364.15	192.87	8,366.33	0.00	0.00	0.00
14,400.00	90.00	179.57	6,355.00	-8,464.15	193.61	8,466.32	0.00	0.00	0.00
14,500.00	90.00	179.57	6,355.00	-8,564.14	194.35	8,566.32	0.00	0.00	0.00
14,600.00	90.00	179.57	6,355.00	-8,664.14	195.10	8,666.31	0.00	0.00	0.00
14,700.00	90.00	179.57	6,355.00	-8,764.14	195.84	8,766.30	0.00	0.00	0.00
14,800.00	90.00	179.57	6,355.00	-8,864.13	196.58	8,866.29	0.00	0.00	0.00
14,900.00	90.00	179.57	6,355.00	-8,964.13	197.32	8,966.29	0.00	0.00	0.00
15,000.00	90.00	179.57	6,355.00	-9,064.13	198.07	9,066.28	0.00	0.00	0.00
15,100.00	90.00	179.57	6,355.00	-9,164.13	198.81	9,166.27	0.00	0.00	0.00
15,200.00	90.00	179.57	6,355.00	-9,264.12	199.55	9,266.26	0.00	0.00	0.00
15,300.00	90.00	179.57	6,355.00	-9,364.12	200.29	9,366.25	0.00	0.00	0.00

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-17-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Site:</b>	Section 03-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-17-2L	<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)
15,400.00	90.00	179.57	6,355.00	-9,464.12	201.03	9,466.25	0.00	0.00	0.00
15,500.00	90.00	179.57	6,355.00	-9,564.12	201.78	9,566.24	0.00	0.00	0.00
15,600.00	90.00	179.57	6,355.00	-9,664.11	202.52	9,666.23	0.00	0.00	0.00
15,700.00	90.00	179.57	6,355.00	-9,764.11	203.26	9,766.22	0.00	0.00	0.00
15,800.00	90.00	179.57	6,355.00	-9,864.11	204.00	9,866.21	0.00	0.00	0.00
15,900.00	90.00	179.57	6,355.00	-9,964.10	204.75	9,966.21	0.00	0.00	0.00
16,000.00	90.00	179.57	6,355.00	-10,064.10	205.49	10,066.20	0.00	0.00	0.00
16,100.00	90.00	179.57	6,355.00	-10,164.10	206.23	10,166.19	0.00	0.00	0.00
16,200.00	90.00	179.57	6,355.00	-10,264.10	206.97	10,266.18	0.00	0.00	0.00
16,300.00	90.00	179.57	6,355.00	-10,364.09	207.71	10,366.17	0.00	0.00	0.00
16,325.34	90.00	179.57	6,355.00	-10,389.43	207.90	10,391.51	0.00	0.00	0.00
PBHL/TD 16325.34 MD/6355.00 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
70 Ranch 10-17-2L SL 2 - plan misses target center by 29.52ft at 24.00ft MD (24.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.37	24.00	-29.27	-3.79	14,649,114.68	1,799,378.33	40.33466627	-104.42959016
70 Ranch 10-17-2L BHL - plan hits target center - Point	0.00	0.37	6,355.00	-10,389.43	207.90	14,638,756.12	1,799,656.78	40.30621773	-104.42883079
70 Ranch 10-17-2L LP 4 - plan hits target center - Point	0.00	0.37	6,355.00	-752.68	136.37	14,648,392.19	1,799,523.15	40.33267982	-104.42908724

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,000.00	2,000.00	0.00	0.00	KOP Begin 10°/100' build
2,032.35	2,032.33	-0.77	0.49	Begin 3.23° tangent
5,815.69	5,809.64	-180.52	115.69	Begin 10°/100' build/turn
6,688.33	6,355.00	-752.68	136.37	LP Begin 90° lateral
16,325.34	6,355.00	-10,389.43	207.90	PBHL/TD 16325.34 MD/6355.00 TVD

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-17-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Site:</b>	Section 03-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-17-2L	<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 03-T04N-R63W			
Site Position:		Northing:	14,650,244.32 usft	Latitude:	40.33774036
From:	Map	Easting:	1,800,940.24 usft	Longitude:	-104.42395937
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.37 °

Well	70 Ranch 10-17-2L, Surf loc: 260 FSL 1187 FWL Section 03-T04N-R63W					
Well Position	+N/-S	0.00 ft	Northing:	14,649,143.98 usft	Latitude:	40.33474665
	+E/-W	0.00 ft	Easting:	1,799,381.93 usft	Longitude:	-104.42957657
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,596.00 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	5/21/2018	8.10	66.90	52,228.40000000

<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	178.85

<b>Plan Survey Tool Program</b>	<b>Date</b>	5/21/2018		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	16,325.34 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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,032.35	3.23	147.35	2,032.33	-0.77	0.49	10.00	10.00	0.00	147.35	
5,815.69	3.23	147.35	5,809.64	-180.52	115.69	0.00	0.00	0.00	0.00	
6,688.33	90.00	179.57	6,355.00	-752.68	136.37	10.00	9.94	3.69	32.27	70 Ranch 10-17-2L LI
16,325.34	90.00	179.57	6,355.00	-10,389.43	207.90	0.00	0.00	0.00	0.00	70 Ranch 10-17-2L BI



<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-17-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Site:</b>	Section 03-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-17-2L	<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	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
100.00	0.00	0.00	100.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
200.00	0.00	0.00	200.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
300.00	0.00	0.00	300.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
400.00	0.00	0.00	400.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
500.00	0.00	0.00	500.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
600.00	0.00	0.00	600.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
700.00	0.00	0.00	700.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
800.00	0.00	0.00	800.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
900.00	0.00	0.00	900.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,649,143.98	1,799,381.93	40.33474665	-104.42957657
<b>KOP Begin 10°/100' build</b>									
2,032.35	3.23	147.35	2,032.33	-0.77	0.49	14,649,143.21	1,799,382.43	40.33474454	-104.42957480
<b>Begin 3.23° tangent</b>									
2,100.00	3.23	147.35	2,099.88	-3.98	2.55	14,649,140.01	1,799,384.51	40.33473572	-104.42956741
2,200.00	3.23	147.35	2,199.72	-8.73	5.60	14,649,135.28	1,799,387.58	40.33472267	-104.42955648
2,300.00	3.23	147.35	2,299.56	-13.48	8.64	14,649,130.55	1,799,390.66	40.33470962	-104.42954556
2,400.00	3.23	147.35	2,399.40	-18.24	11.69	14,649,125.82	1,799,393.73	40.33469658	-104.42953463
2,500.00	3.23	147.35	2,499.24	-22.99	14.73	14,649,121.09	1,799,396.81	40.33468353	-104.42952370
2,600.00	3.23	147.35	2,599.08	-27.74	17.78	14,649,116.35	1,799,399.89	40.33467049	-104.42951278
2,700.00	3.23	147.35	2,698.92	-32.49	20.82	14,649,111.62	1,799,402.96	40.33465744	-104.42950185
2,800.00	3.23	147.35	2,798.76	-37.24	23.87	14,649,106.89	1,799,406.04	40.33464439	-104.42949093
2,900.00	3.23	147.35	2,898.60	-41.99	26.91	14,649,102.16	1,799,409.11	40.33463135	-104.42948000
3,000.00	3.23	147.35	2,998.44	-46.74	29.96	14,649,097.43	1,799,412.19	40.33461830	-104.42946908
3,100.00	3.23	147.35	3,098.28	-51.49	33.00	14,649,092.70	1,799,415.26	40.33460526	-104.42945815
3,200.00	3.23	147.35	3,198.12	-56.24	36.05	14,649,087.97	1,799,418.34	40.33459221	-104.42944723
3,300.00	3.23	147.35	3,297.96	-61.00	39.09	14,649,083.24	1,799,421.41	40.33457916	-104.42943630
3,400.00	3.23	147.35	3,397.80	-65.75	42.13	14,649,078.50	1,799,424.49	40.33456612	-104.42942538
3,500.00	3.23	147.35	3,497.64	-70.50	45.18	14,649,073.77	1,799,427.56	40.33455307	-104.42941445
3,600.00	3.23	147.35	3,597.48	-75.25	48.22	14,649,069.04	1,799,430.64	40.33454003	-104.42940352
3,700.00	3.23	147.35	3,697.33	-80.00	51.27	14,649,064.31	1,799,433.71	40.33452698	-104.42939260
3,800.00	3.23	147.35	3,797.17	-84.75	54.31	14,649,059.58	1,799,436.79	40.33451393	-104.42938167
3,900.00	3.23	147.35	3,897.01	-89.50	57.36	14,649,054.85	1,799,439.86	40.33450089	-104.42937075
4,000.00	3.23	147.35	3,996.85	-94.25	60.40	14,649,050.12	1,799,442.94	40.33448784	-104.42935982
4,100.00	3.23	147.35	4,096.69	-99.00	63.45	14,649,045.39	1,799,446.02	40.33447479	-104.42934890
4,200.00	3.23	147.35	4,196.53	-103.75	66.49	14,649,040.65	1,799,449.09	40.33446175	-104.42933797
4,300.00	3.23	147.35	4,296.37	-108.51	69.54	14,649,035.92	1,799,452.17	40.33444870	-104.42932705
4,400.00	3.23	147.35	4,396.21	-113.26	72.58	14,649,031.19	1,799,455.24	40.33443566	-104.42931612
4,500.00	3.23	147.35	4,496.05	-118.01	75.63	14,649,026.46	1,799,458.32	40.33442261	-104.42930520
4,600.00	3.23	147.35	4,595.89	-122.76	78.67	14,649,021.73	1,799,461.39	40.33440956	-104.42929427
4,700.00	3.23	147.35	4,695.73	-127.51	81.72	14,649,017.00	1,799,464.47	40.33439652	-104.42928334
4,800.00	3.23	147.35	4,795.57	-132.26	84.76	14,649,012.27	1,799,467.54	40.33438347	-104.42927242
4,900.00	3.23	147.35	4,895.41	-137.01	87.81	14,649,007.53	1,799,470.62	40.33437043	-104.42926149
5,000.00	3.23	147.35	4,995.25	-141.76	90.85	14,649,002.80	1,799,473.69	40.33435738	-104.42925057



<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-17-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Site:</b>	Section 03-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-17-2L	<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
5,100.00	3.23	147.35	5,095.09	-146.51	93.90	14,648,998.07	1,799,476.77	40.33434433	-104.42923964
5,200.00	3.23	147.35	5,194.94	-151.26	96.94	14,648,993.34	1,799,479.84	40.33433129	-104.42922872
5,300.00	3.23	147.35	5,294.78	-156.02	99.99	14,648,988.61	1,799,482.92	40.33431824	-104.42921779
5,400.00	3.23	147.35	5,394.62	-160.77	103.03	14,648,983.88	1,799,485.99	40.33430520	-104.42920687
5,500.00	3.23	147.35	5,494.46	-165.52	106.08	14,648,979.15	1,799,489.07	40.33429215	-104.42919594
5,600.00	3.23	147.35	5,594.30	-170.27	109.12	14,648,974.42	1,799,492.15	40.33427910	-104.42918502
5,700.00	3.23	147.35	5,694.14	-175.02	112.17	14,648,969.68	1,799,495.22	40.33426606	-104.42917409
5,800.00	3.23	147.35	5,793.98	-179.77	115.21	14,648,964.95	1,799,498.30	40.33425301	-104.42916317
5,815.69	3.23	147.35	5,809.64	-180.52	115.69	14,648,964.21	1,799,498.78	40.33425096	-104.42916145
Begin 10°/100' build/turn									
5,900.00	11.30	170.90	5,893.22	-190.69	118.28	14,648,954.05	1,799,501.44	40.33422302	-104.42915214
6,000.00	21.23	175.13	5,989.10	-218.48	121.38	14,648,926.28	1,799,504.71	40.33414672	-104.42914103
6,100.00	31.21	176.72	6,078.70	-262.50	124.41	14,648,882.28	1,799,508.03	40.33402583	-104.42913017
6,200.00	41.20	177.60	6,159.29	-321.42	127.27	14,648,823.38	1,799,511.27	40.33386404	-104.42911988
6,300.00	51.19	178.19	6,228.42	-393.45	129.89	14,648,751.37	1,799,514.35	40.33366626	-104.42911049
6,400.00	61.18	178.62	6,284.00	-476.40	132.18	14,648,668.44	1,799,517.18	40.33343849	-104.42910227
6,500.00	71.18	178.99	6,324.34	-567.74	134.08	14,648,577.11	1,799,519.66	40.33318766	-104.42909547
6,600.00	81.17	179.31	6,348.21	-664.71	135.52	14,648,480.15	1,799,521.73	40.33292139	-104.42909031
6,688.33	90.00	179.57	6,355.00	-752.68	136.37	14,648,392.19	1,799,523.15	40.33267982	-104.42908724
LP Begin 90° lateral									
6,700.00	90.00	179.57	6,355.00	-764.36	136.46	14,648,380.52	1,799,523.31	40.33264777	-104.42908693
6,800.00	90.00	179.57	6,355.00	-864.35	137.20	14,648,280.53	1,799,524.70	40.33237318	-104.42908426
6,900.00	90.00	179.57	6,355.00	-964.35	137.94	14,648,180.54	1,799,526.09	40.33209859	-104.42908160
7,000.00	90.00	179.57	6,355.00	-1,064.35	138.69	14,648,080.55	1,799,527.47	40.33182400	-104.42907894
7,100.00	90.00	179.57	6,355.00	-1,164.35	139.43	14,647,980.56	1,799,528.86	40.33154942	-104.42907628
7,200.00	90.00	179.57	6,355.00	-1,264.34	140.17	14,647,880.57	1,799,530.25	40.33127483	-104.42907362
7,300.00	90.00	179.57	6,355.00	-1,364.34	140.91	14,647,780.58	1,799,531.63	40.33100024	-104.42907096
7,400.00	90.00	179.57	6,355.00	-1,464.34	141.66	14,647,680.59	1,799,533.02	40.33072565	-104.42906830
7,500.00	90.00	179.57	6,355.00	-1,564.34	142.40	14,647,580.60	1,799,534.41	40.33045106	-104.42906563
7,600.00	90.00	179.57	6,355.00	-1,664.33	143.14	14,647,480.61	1,799,535.79	40.33017648	-104.42906297
7,700.00	90.00	179.57	6,355.00	-1,764.33	143.88	14,647,380.61	1,799,537.18	40.32990189	-104.42906031
7,800.00	90.00	179.57	6,355.00	-1,864.33	144.62	14,647,280.62	1,799,538.57	40.32962730	-104.42905765
7,900.00	90.00	179.57	6,355.00	-1,964.32	145.37	14,647,180.63	1,799,539.95	40.32935271	-104.42905499
8,000.00	90.00	179.57	6,355.00	-2,064.32	146.11	14,647,080.64	1,799,541.34	40.32907813	-104.42905233
8,100.00	90.00	179.57	6,355.00	-2,164.32	146.85	14,646,980.65	1,799,542.73	40.32880354	-104.42904967
8,200.00	90.00	179.57	6,355.00	-2,264.32	147.59	14,646,880.66	1,799,544.11	40.32852895	-104.42904700
8,300.00	90.00	179.57	6,355.00	-2,364.31	148.34	14,646,780.67	1,799,545.50	40.32825436	-104.42904434
8,400.00	90.00	179.57	6,355.00	-2,464.31	149.08	14,646,680.68	1,799,546.89	40.32797978	-104.42904168
8,500.00	90.00	179.57	6,355.00	-2,564.31	149.82	14,646,580.69	1,799,548.27	40.32770519	-104.42903902
8,600.00	90.00	179.57	6,355.00	-2,664.31	150.56	14,646,480.70	1,799,549.66	40.32743060	-104.42903636
8,700.00	90.00	179.57	6,355.00	-2,764.30	151.30	14,646,380.71	1,799,551.05	40.32715601	-104.42903370
8,800.00	90.00	179.57	6,355.00	-2,864.30	152.05	14,646,280.72	1,799,552.43	40.32688143	-104.42903104
8,900.00	90.00	179.57	6,355.00	-2,964.30	152.79	14,646,180.73	1,799,553.82	40.32660684	-104.42902838
9,000.00	90.00	179.57	6,355.00	-3,064.29	153.53	14,646,080.74	1,799,555.21	40.32633225	-104.42902571
9,100.00	90.00	179.57	6,355.00	-3,164.29	154.27	14,645,980.75	1,799,556.59	40.32605766	-104.42902305
9,200.00	90.00	179.57	6,355.00	-3,264.29	155.02	14,645,880.76	1,799,557.98	40.32578307	-104.42902039
9,300.00	90.00	179.57	6,355.00	-3,364.29	155.76	14,645,780.77	1,799,559.37	40.32550849	-104.42901773
9,400.00	90.00	179.57	6,355.00	-3,464.28	156.50	14,645,680.78	1,799,560.75	40.32523390	-104.42901507
9,500.00	90.00	179.57	6,355.00	-3,564.28	157.24	14,645,580.79	1,799,562.14	40.32495931	-104.42901241
9,600.00	90.00	179.57	6,355.00	-3,664.28	157.98	14,645,480.80	1,799,563.53	40.32468472	-104.42900975
9,700.00	90.00	179.57	6,355.00	-3,764.27	158.73	14,645,380.81	1,799,564.91	40.32441014	-104.42900709
9,800.00	90.00	179.57	6,355.00	-3,864.27	159.47	14,645,280.82	1,799,566.30	40.32413555	-104.42900442
9,900.00	90.00	179.57	6,355.00	-3,964.27	160.21	14,645,180.83	1,799,567.69	40.32386096	-104.42900176
10,000.00	90.00	179.57	6,355.00	-4,064.27	160.95	14,645,080.84	1,799,569.07	40.32358637	-104.42899910

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-17-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Site:</b>	Section 03-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-17-2L	<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
10,100.00	90.00	179.57	6,355.00	-4,164.26	161.70	14,644,980.85	1,799,570.46	40.32331178	-104.42899644
10,200.00	90.00	179.57	6,355.00	-4,264.26	162.44	14,644,880.86	1,799,571.85	40.32303720	-104.42899378
10,300.00	90.00	179.57	6,355.00	-4,364.26	163.18	14,644,780.87	1,799,573.23	40.32276261	-104.42899112
10,400.00	90.00	179.57	6,355.00	-4,464.26	163.92	14,644,680.88	1,799,574.62	40.32248802	-104.42898846
10,500.00	90.00	179.57	6,355.00	-4,564.25	164.66	14,644,580.89	1,799,576.00	40.32221343	-104.42898580
10,600.00	90.00	179.57	6,355.00	-4,664.25	165.41	14,644,480.90	1,799,577.39	40.32193884	-104.42898313
10,700.00	90.00	179.57	6,355.00	-4,764.25	166.15	14,644,380.91	1,799,578.78	40.32166426	-104.42898047
10,800.00	90.00	179.57	6,355.00	-4,864.24	166.89	14,644,280.92	1,799,580.16	40.32138967	-104.42897781
10,900.00	90.00	179.57	6,355.00	-4,964.24	167.63	14,644,180.93	1,799,581.55	40.32111508	-104.42897515
11,000.00	90.00	179.57	6,355.00	-5,064.24	168.38	14,644,080.94	1,799,582.94	40.32084049	-104.42897249
11,100.00	90.00	179.57	6,355.00	-5,164.24	169.12	14,643,980.95	1,799,584.32	40.32056590	-104.42896983
11,200.00	90.00	179.57	6,355.00	-5,264.23	169.86	14,643,880.96	1,799,585.71	40.32029132	-104.42896717
11,300.00	90.00	179.57	6,355.00	-5,364.23	170.60	14,643,780.97	1,799,587.10	40.32001673	-104.42896451
11,400.00	90.00	179.57	6,355.00	-5,464.23	171.35	14,643,680.98	1,799,588.48	40.31974214	-104.42896185
11,500.00	90.00	179.57	6,355.00	-5,564.23	172.09	14,643,580.99	1,799,589.87	40.31946755	-104.42895918
11,600.00	90.00	179.57	6,355.00	-5,664.22	172.83	14,643,481.00	1,799,591.26	40.31919296	-104.42895652
11,700.00	90.00	179.57	6,355.00	-5,764.22	173.57	14,643,381.01	1,799,592.64	40.31891838	-104.42895386
11,800.00	90.00	179.57	6,355.00	-5,864.22	174.31	14,643,281.02	1,799,594.03	40.31864379	-104.42895120
11,900.00	90.00	179.57	6,355.00	-5,964.21	175.06	14,643,181.03	1,799,595.42	40.31836920	-104.42894854
12,000.00	90.00	179.57	6,355.00	-6,064.21	175.80	14,643,081.04	1,799,596.80	40.31809461	-104.42894588
12,100.00	90.00	179.57	6,355.00	-6,164.21	176.54	14,642,981.05	1,799,598.19	40.31782002	-104.42894322
12,200.00	90.00	179.57	6,355.00	-6,264.21	177.28	14,642,881.06	1,799,599.58	40.31754544	-104.42894056
12,300.00	90.00	179.57	6,355.00	-6,364.20	178.03	14,642,781.07	1,799,600.96	40.31727085	-104.42893790
12,400.00	90.00	179.57	6,355.00	-6,464.20	178.77	14,642,681.08	1,799,602.35	40.31699626	-104.42893524
12,500.00	90.00	179.57	6,355.00	-6,564.20	179.51	14,642,581.09	1,799,603.74	40.31672167	-104.42893257
12,600.00	90.00	179.57	6,355.00	-6,664.20	180.25	14,642,481.10	1,799,605.12	40.31644708	-104.42892991
12,700.00	90.00	179.57	6,355.00	-6,764.19	180.99	14,642,381.11	1,799,606.51	40.31617249	-104.42892725
12,800.00	90.00	179.57	6,355.00	-6,864.19	181.74	14,642,281.12	1,799,607.90	40.31589791	-104.42892459
12,900.00	90.00	179.57	6,355.00	-6,964.19	182.48	14,642,181.13	1,799,609.28	40.31562332	-104.42892193
13,000.00	90.00	179.57	6,355.00	-7,064.18	183.22	14,642,081.13	1,799,610.67	40.31534873	-104.42891927
13,100.00	90.00	179.57	6,355.00	-7,164.18	183.96	14,641,981.14	1,799,612.06	40.31507414	-104.42891661
13,200.00	90.00	179.57	6,355.00	-7,264.18	184.71	14,641,881.15	1,799,613.44	40.31479955	-104.42891395
13,300.00	90.00	179.57	6,355.00	-7,364.18	185.45	14,641,781.16	1,799,614.83	40.31452496	-104.42891129
13,400.00	90.00	179.57	6,355.00	-7,464.17	186.19	14,641,681.17	1,799,616.22	40.31425038	-104.42890863
13,500.00	90.00	179.57	6,355.00	-7,564.17	186.93	14,641,581.18	1,799,617.60	40.31397579	-104.42890596
13,600.00	90.00	179.57	6,355.00	-7,664.17	187.67	14,641,481.19	1,799,618.99	40.31370120	-104.42890330
13,700.00	90.00	179.57	6,355.00	-7,764.16	188.42	14,641,381.20	1,799,620.38	40.31342661	-104.42890064
13,800.00	90.00	179.57	6,355.00	-7,864.16	189.16	14,641,281.21	1,799,621.76	40.31315202	-104.42889798
13,900.00	90.00	179.57	6,355.00	-7,964.16	189.90	14,641,181.22	1,799,623.15	40.31287743	-104.42889532
14,000.00	90.00	179.57	6,355.00	-8,064.16	190.64	14,641,081.23	1,799,624.54	40.31260286	-104.42889266
14,100.00	90.00	179.57	6,355.00	-8,164.15	191.39	14,640,981.24	1,799,625.92	40.31232827	-104.42889000
14,200.00	90.00	179.57	6,355.00	-8,264.15	192.13	14,640,881.25	1,799,627.31	40.31205368	-104.42888734
14,300.00	90.00	179.57	6,355.00	-8,364.15	192.87	14,640,781.26	1,799,628.70	40.31177909	-104.42888468
14,400.00	90.00	179.57	6,355.00	-8,464.15	193.61	14,640,681.27	1,799,630.08	40.31150450	-104.42888202
14,500.00	90.00	179.57	6,355.00	-8,564.14	194.35	14,640,581.28	1,799,631.47	40.31122991	-104.42887936
14,600.00	90.00	179.57	6,355.00	-8,664.14	195.10	14,640,481.29	1,799,632.86	40.31095533	-104.42887670
14,700.00	90.00	179.57	6,355.00	-8,764.14	195.84	14,640,381.30	1,799,634.24	40.31068074	-104.42887403
14,800.00	90.00	179.57	6,355.00	-8,864.13	196.58	14,640,281.31	1,799,635.63	40.31040615	-104.42887137
14,900.00	90.00	179.57	6,355.00	-8,964.13	197.32	14,640,181.32	1,799,637.02	40.31013156	-104.42886871
15,000.00	90.00	179.57	6,355.00	-9,064.13	198.07	14,640,081.33	1,799,638.40	40.30985697	-104.42886605
15,100.00	90.00	179.57	6,355.00	-9,164.13	198.81	14,639,981.34	1,799,639.79	40.30958238	-104.42886339
15,200.00	90.00	179.57	6,355.00	-9,264.12	199.55	14,639,881.35	1,799,641.18	40.30930779	-104.42886073
15,300.00	90.00	179.57	6,355.00	-9,364.12	200.29	14,639,781.36	1,799,642.56	40.30903321	-104.42885807
15,400.00	90.00	179.57	6,355.00	-9,464.12	201.03	14,639,681.37	1,799,643.95	40.30875862	-104.42885541
15,500.00	90.00	179.57	6,355.00	-9,564.12	201.78	14,639,581.38	1,799,645.34	40.30848403	-104.42885275

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well 70 Ranch 10-17-2L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=4596+24 @ 4620.00ft
<b>Site:</b>	Section 03-T04N-R63W	<b>North Reference:</b>	True
<b>Well:</b>	70 Ranch 10-17-2L	<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
15,600.00	90.00	179.57	6,355.00	-9,664.11	202.52	14,639,481.39	1,799,646.72	40.30820944	-104.42885009
15,700.00	90.00	179.57	6,355.00	-9,764.11	203.26	14,639,381.40	1,799,648.11	40.30793485	-104.42884743
15,800.00	90.00	179.57	6,355.00	-9,864.11	204.00	14,639,281.41	1,799,649.50	40.30766026	-104.42884477
15,900.00	90.00	179.57	6,355.00	-9,964.10	204.75	14,639,181.42	1,799,650.88	40.30738567	-104.42884211
16,000.00	90.00	179.57	6,355.00	-10,064.10	205.49	14,639,081.43	1,799,652.27	40.30711109	-104.42883944
16,100.00	90.00	179.57	6,355.00	-10,164.10	206.23	14,638,981.44	1,799,653.66	40.30683650	-104.42883678
16,200.00	90.00	179.57	6,355.00	-10,264.10	206.97	14,638,881.45	1,799,655.04	40.30656191	-104.42883412
16,300.00	90.00	179.57	6,355.00	-10,364.09	207.71	14,638,781.46	1,799,656.43	40.30628732	-104.42883146
16,325.34	90.00	179.57	6,355.00	-10,389.43	207.90	14,638,756.12	1,799,656.78	40.30621773	-104.42883079
PBHL/TD 16325.34 MD/6355.00 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
70 Ranch 10-17-2L SL 2 - plan misses target center by 29.52ft at 24.00ft MD (24.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.37	24.00	-29.27	-3.79	14,649,114.68	1,799,378.33	40.33466627	-104.42959016
70 Ranch 10-17-2L BHL - plan hits target center - Point	0.00	0.37	6,355.00	-10,389.43	207.90	14,638,756.12	1,799,656.78	40.30621773	-104.42883079
70 Ranch 10-17-2L LP 4 - plan hits target center - Point	0.00	0.37	6,355.00	-752.68	136.37	14,648,392.19	1,799,523.15	40.33267982	-104.42908724

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
2,000.00	2,000.00	0.00	0.00	KOP Begin 10°/100' build
2,032.35	2,032.33	-0.77	0.49	Begin 3.23° tangent
5,815.69	5,809.64	-180.52	115.69	Begin 10°/100' build/turn
6,688.33	6,355.00	-752.68	136.37	LP Begin 90° lateral
16,325.34	6,355.00	-10,389.43	207.90	PBHL/TD 16325.34 MD/6355.00 TVD