

**Weld County, Colorado  
Section 34-T01N-R65W  
Desha 4-5-3L  
plan1**

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	VSec	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	KOP Begin 10°/100' build
3	5583.48	58.35	259.44	5487.73	-49.91	-267.68	10.00	128.31	Begin 58.35° tangent
4	8742.85	58.35	259.44	7145.66	-542.85	-2911.52	0.00	1395.63	Begin 10°/100' build/turn
5	9553.82	89.99	179.91	7403.00	-1109.53	-3320.92	10.00	2059.39	LP Begin 89.99° lateral section
6	18894.58	89.99	179.91	7405.00	-10450.28	-3305.46	0.00	10960.58	PBHL/TD 18894.58 MD/7405.00 TVD

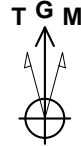
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP Desha 4-5-3L 470 FNL 2580 FEL	7403.00	-1109.53	-3320.92	14526630.47	1733204.90	39.99924356	-104.66867772
BHL Desha 4-5-3L 470 FSL 2580 FEL	7405.00	-10450.28	-3305.46	14517289.74	1733220.36	39.97359232	-104.66874643

Desha 4-5-3L Surf loc: 620 FSL 768 FWL Sec34-T01N-R65W			
NAD83 Colorado - HARN Universal Transverse Mercator (US Survey Feet) Zone 13N (108 W to 102 W) RKB=5140+25 @ 5165.00ft			
Northing	Easting	Latitude	Longitude
14527740.00	1736525.81	40.00225598	-104.65680457

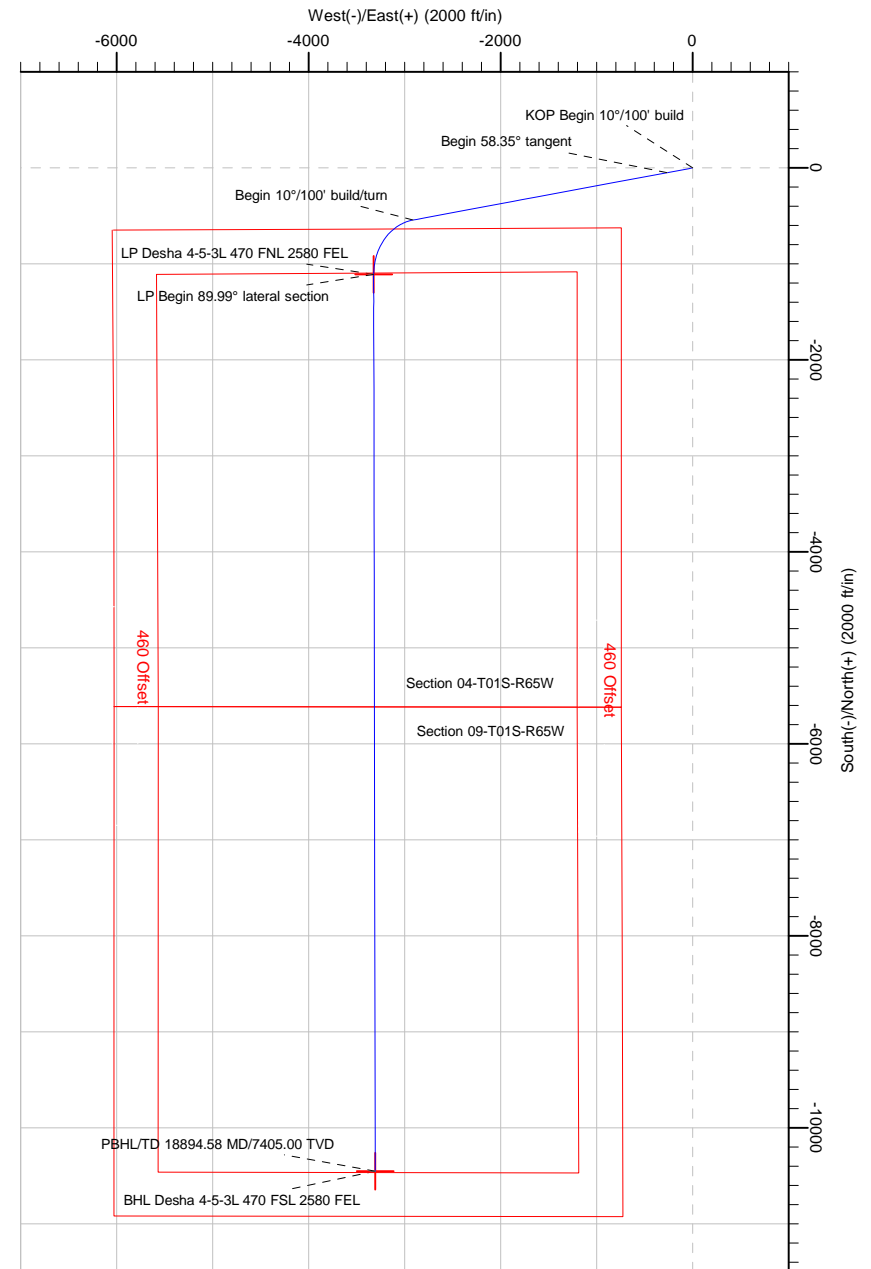
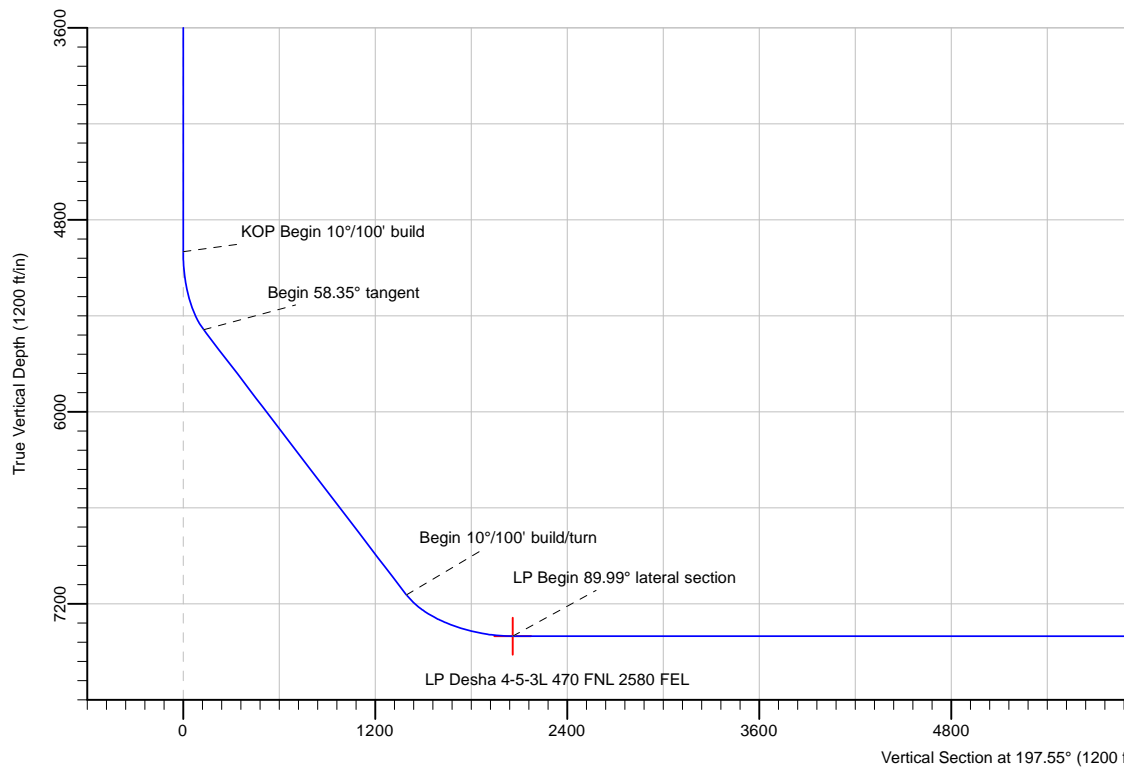
Azimuth Corrections:

To convert a Magnetic Direction to a True Direction, Add 8.27° East



Azimuths to Grid North  
True North: -0.22°  
Magnetic North: 8.05°

Magnetic Field  
Strength: 52109.9nT  
Dip Angle: 66.45°  
Date: 8/29/2017  
Model: HDGM



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 Desha 4-5-3L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<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 34-T01N-R65W			
Site Position:		Northing:	14,527,892.80 usft	Latitude:	40.00267560
From:	Map	Easting:	1,736,525.30 usft	Longitude:	-104.65680429
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.22 °

Well	Desha 4-5-3L, Surf loc: 620 FSL 768 FWL Sec34-T01N-R65W					
Well Position	+N/-S	-152.80 ft	Northing:	14,527,740.00 usft	Latitude:	40.00225598
	+E/-W	0.51 ft	Easting:	1,736,525.81 usft	Longitude:	-104.65680457
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,140.00 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	8/29/2017	8.27	66.45	52,109.90000000

<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	197.55

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/29/2017		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	18,894.58	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	
5,583.48	58.35	259.44	5,487.73	-49.91	-267.68	10.00	10.00	0.00	259.44	
8,742.85	58.35	259.44	7,145.66	-542.85	-2,911.52	0.00	0.00	0.00	0.00	
9,553.82	89.99	179.91	7,403.00	-1,109.53	-3,320.92	10.00	3.90	-9.81	-84.47	LP Desha 4-5-3L 470
18,894.58	89.99	179.91	7,405.00	-10,450.28	-3,305.46	0.00	0.00	0.00	0.00	BHL Desha 4-5-3L 47

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-3L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<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
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>KOP Begin 10°/100' build</b>									
5,100.00	10.00	259.44	5,099.49	-1.60	-8.56	4.10	10.00	10.00	0.00
5,200.00	20.00	259.44	5,195.96	-6.33	-33.97	16.28	10.00	10.00	0.00

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-3L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<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)
5,300.00	30.00	259.44	5,286.48	-14.07	-75.46	36.17	10.00	10.00	0.00
5,400.00	40.00	259.44	5,368.29	-24.57	-131.78	63.17	10.00	10.00	0.00
5,500.00	50.00	259.44	5,438.91	-37.51	-201.20	96.44	10.00	10.00	0.00
5,583.48	58.35	259.44	5,487.73	-49.91	-267.68	128.31	10.00	10.00	0.00
Begin 58.35° tangent									
5,600.00	58.35	259.44	5,496.40	-52.49	-281.50	134.94	0.00	0.00	0.00
5,700.00	58.35	259.44	5,548.88	-68.09	-365.19	175.05	0.00	0.00	0.00
5,800.00	58.35	259.44	5,601.35	-83.69	-448.87	215.16	0.00	0.00	0.00
5,900.00	58.35	259.44	5,653.83	-99.29	-532.55	255.28	0.00	0.00	0.00
6,000.00	58.35	259.44	5,706.31	-114.90	-616.23	295.39	0.00	0.00	0.00
6,100.00	58.35	259.44	5,758.78	-130.50	-699.92	335.50	0.00	0.00	0.00
6,200.00	58.35	259.44	5,811.26	-146.10	-783.60	375.62	0.00	0.00	0.00
6,300.00	58.35	259.44	5,863.74	-161.71	-867.28	415.73	0.00	0.00	0.00
6,400.00	58.35	259.44	5,916.21	-177.31	-950.97	455.84	0.00	0.00	0.00
6,500.00	58.35	259.44	5,968.69	-192.91	-1,034.65	495.95	0.00	0.00	0.00
6,600.00	58.35	259.44	6,021.17	-208.51	-1,118.33	536.07	0.00	0.00	0.00
6,700.00	58.35	259.44	6,073.64	-224.12	-1,202.01	576.18	0.00	0.00	0.00
6,800.00	58.35	259.44	6,126.12	-239.72	-1,285.70	616.29	0.00	0.00	0.00
6,900.00	58.35	259.44	6,178.60	-255.32	-1,369.38	656.41	0.00	0.00	0.00
7,000.00	58.35	259.44	6,231.07	-270.92	-1,453.06	696.52	0.00	0.00	0.00
7,100.00	58.35	259.44	6,283.55	-286.53	-1,536.74	736.63	0.00	0.00	0.00
7,200.00	58.35	259.44	6,336.02	-302.13	-1,620.43	776.74	0.00	0.00	0.00
7,300.00	58.35	259.44	6,388.50	-317.73	-1,704.11	816.86	0.00	0.00	0.00
7,400.00	58.35	259.44	6,440.98	-333.33	-1,787.79	856.97	0.00	0.00	0.00
7,500.00	58.35	259.44	6,493.45	-348.94	-1,871.47	897.08	0.00	0.00	0.00
7,600.00	58.35	259.44	6,545.93	-364.54	-1,955.16	937.20	0.00	0.00	0.00
7,700.00	58.35	259.44	6,598.41	-380.14	-2,038.84	977.31	0.00	0.00	0.00
7,800.00	58.35	259.44	6,650.88	-395.74	-2,122.52	1,017.42	0.00	0.00	0.00
7,900.00	58.35	259.44	6,703.36	-411.35	-2,206.20	1,057.54	0.00	0.00	0.00
8,000.00	58.35	259.44	6,755.84	-426.95	-2,289.89	1,097.65	0.00	0.00	0.00
8,100.00	58.35	259.44	6,808.31	-442.55	-2,373.57	1,137.76	0.00	0.00	0.00
8,200.00	58.35	259.44	6,860.79	-458.16	-2,457.25	1,177.87	0.00	0.00	0.00
8,300.00	58.35	259.44	6,913.27	-473.76	-2,540.93	1,217.99	0.00	0.00	0.00
8,400.00	58.35	259.44	6,965.74	-489.36	-2,624.62	1,258.10	0.00	0.00	0.00
8,500.00	58.35	259.44	7,018.22	-504.96	-2,708.30	1,298.21	0.00	0.00	0.00
8,600.00	58.35	259.44	7,070.70	-520.57	-2,791.98	1,338.33	0.00	0.00	0.00
8,700.00	58.35	259.44	7,123.17	-536.17	-2,875.66	1,378.44	0.00	0.00	0.00
8,742.85	58.35	259.44	7,145.66	-542.85	-2,911.52	1,395.63	0.00	0.00	0.00
Begin 10°/100' build/turn									
8,800.00	59.07	252.80	7,175.37	-554.57	-2,958.89	1,421.08	10.00	1.26	-11.61
8,900.00	61.12	241.51	7,225.34	-588.22	-3,038.54	1,477.19	10.00	2.05	-11.30
9,000.00	64.07	230.74	7,271.47	-637.69	-3,112.03	1,546.52	10.00	2.95	-10.77
9,100.00	67.78	220.56	7,312.34	-701.48	-3,177.11	1,626.96	10.00	3.70	-10.18
9,200.00	72.08	210.94	7,346.72	-777.64	-3,231.80	1,716.07	10.00	4.30	-9.62
9,300.00	76.83	201.81	7,373.57	-863.86	-3,274.46	1,811.14	10.00	4.75	-9.14
9,400.00	81.89	193.03	7,392.07	-957.53	-3,303.78	1,909.29	10.00	5.06	-8.78
9,500.00	87.13	184.47	7,401.65	-1,055.79	-3,318.87	2,007.52	10.00	5.24	-8.56
9,553.82	89.99	179.91	7,403.00	-1,109.53	-3,320.92	2,059.39	10.00	5.31	-8.48
LP Begin 89.99° lateral section									
9,600.00	89.99	179.91	7,403.01	-1,155.71	-3,320.84	2,103.39	0.00	0.00	0.00
9,700.00	89.99	179.91	7,403.03	-1,255.71	-3,320.67	2,198.68	0.00	0.00	0.00
9,800.00	89.99	179.91	7,403.05	-1,355.71	-3,320.51	2,293.98	0.00	0.00	0.00
9,900.00	89.99	179.91	7,403.07	-1,455.71	-3,320.34	2,389.27	0.00	0.00	0.00

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<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<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	89.99	179.91	7,403.10	-1,555.71	-3,320.18	2,484.57	0.00	0.00	0.00	
10,100.00	89.99	179.91	7,403.12	-1,655.71	-3,320.01	2,579.86	0.00	0.00	0.00	
10,200.00	89.99	179.91	7,403.14	-1,755.71	-3,319.85	2,675.16	0.00	0.00	0.00	
10,300.00	89.99	179.91	7,403.16	-1,855.71	-3,319.68	2,770.45	0.00	0.00	0.00	
10,400.00	89.99	179.91	7,403.18	-1,955.71	-3,319.52	2,865.74	0.00	0.00	0.00	
10,500.00	89.99	179.91	7,403.20	-2,055.71	-3,319.35	2,961.04	0.00	0.00	0.00	
10,600.00	89.99	179.91	7,403.22	-2,155.71	-3,319.19	3,056.33	0.00	0.00	0.00	
10,700.00	89.99	179.91	7,403.25	-2,255.71	-3,319.02	3,151.63	0.00	0.00	0.00	
10,800.00	89.99	179.91	7,403.27	-2,355.71	-3,318.85	3,246.92	0.00	0.00	0.00	
10,900.00	89.99	179.91	7,403.29	-2,455.71	-3,318.69	3,342.21	0.00	0.00	0.00	
11,000.00	89.99	179.91	7,403.31	-2,555.71	-3,318.52	3,437.51	0.00	0.00	0.00	
11,100.00	89.99	179.91	7,403.33	-2,655.71	-3,318.36	3,532.80	0.00	0.00	0.00	
11,200.00	89.99	179.91	7,403.35	-2,755.71	-3,318.19	3,628.10	0.00	0.00	0.00	
11,300.00	89.99	179.91	7,403.37	-2,855.71	-3,318.03	3,723.39	0.00	0.00	0.00	
11,400.00	89.99	179.91	7,403.40	-2,955.71	-3,317.86	3,818.69	0.00	0.00	0.00	
11,500.00	89.99	179.91	7,403.42	-3,055.71	-3,317.70	3,913.98	0.00	0.00	0.00	
11,600.00	89.99	179.91	7,403.44	-3,155.71	-3,317.53	4,009.27	0.00	0.00	0.00	
11,700.00	89.99	179.91	7,403.46	-3,255.71	-3,317.36	4,104.57	0.00	0.00	0.00	
11,800.00	89.99	179.91	7,403.48	-3,355.71	-3,317.20	4,199.86	0.00	0.00	0.00	
11,900.00	89.99	179.91	7,403.50	-3,455.71	-3,317.03	4,295.16	0.00	0.00	0.00	
12,000.00	89.99	179.91	7,403.52	-3,555.71	-3,316.87	4,390.45	0.00	0.00	0.00	
12,100.00	89.99	179.91	7,403.55	-3,655.71	-3,316.70	4,485.74	0.00	0.00	0.00	
12,200.00	89.99	179.91	7,403.57	-3,755.71	-3,316.54	4,581.04	0.00	0.00	0.00	
12,300.00	89.99	179.91	7,403.59	-3,855.71	-3,316.37	4,676.33	0.00	0.00	0.00	
12,400.00	89.99	179.91	7,403.61	-3,955.71	-3,316.21	4,771.63	0.00	0.00	0.00	
12,500.00	89.99	179.91	7,403.63	-4,055.71	-3,316.04	4,866.92	0.00	0.00	0.00	
12,600.00	89.99	179.91	7,403.65	-4,155.71	-3,315.87	4,962.21	0.00	0.00	0.00	
12,700.00	89.99	179.91	7,403.67	-4,255.71	-3,315.71	5,057.51	0.00	0.00	0.00	
12,800.00	89.99	179.91	7,403.70	-4,355.71	-3,315.54	5,152.80	0.00	0.00	0.00	
12,900.00	89.99	179.91	7,403.72	-4,455.71	-3,315.38	5,248.10	0.00	0.00	0.00	
13,000.00	89.99	179.91	7,403.74	-4,555.71	-3,315.21	5,343.39	0.00	0.00	0.00	
13,100.00	89.99	179.91	7,403.76	-4,655.71	-3,315.05	5,438.69	0.00	0.00	0.00	
13,200.00	89.99	179.91	7,403.78	-4,755.71	-3,314.88	5,533.98	0.00	0.00	0.00	
13,300.00	89.99	179.91	7,403.80	-4,855.71	-3,314.72	5,629.27	0.00	0.00	0.00	
13,400.00	89.99	179.91	7,403.82	-4,955.70	-3,314.55	5,724.57	0.00	0.00	0.00	
13,500.00	89.99	179.91	7,403.85	-5,055.70	-3,314.39	5,819.86	0.00	0.00	0.00	
13,600.00	89.99	179.91	7,403.87	-5,155.70	-3,314.22	5,915.16	0.00	0.00	0.00	
13,700.00	89.99	179.91	7,403.89	-5,255.70	-3,314.05	6,010.45	0.00	0.00	0.00	
13,800.00	89.99	179.91	7,403.91	-5,355.70	-3,313.89	6,105.74	0.00	0.00	0.00	
13,900.00	89.99	179.91	7,403.93	-5,455.70	-3,313.72	6,201.04	0.00	0.00	0.00	
14,000.00	89.99	179.91	7,403.95	-5,555.70	-3,313.56	6,296.33	0.00	0.00	0.00	
14,100.00	89.99	179.91	7,403.97	-5,655.70	-3,313.39	6,391.63	0.00	0.00	0.00	
14,200.00	89.99	179.91	7,403.99	-5,755.70	-3,313.23	6,486.92	0.00	0.00	0.00	
14,300.00	89.99	179.91	7,404.02	-5,855.70	-3,313.06	6,582.22	0.00	0.00	0.00	
14,400.00	89.99	179.91	7,404.04	-5,955.70	-3,312.90	6,677.51	0.00	0.00	0.00	
14,500.00	89.99	179.91	7,404.06	-6,055.70	-3,312.73	6,772.80	0.00	0.00	0.00	
14,600.00	89.99	179.91	7,404.08	-6,155.70	-3,312.56	6,868.10	0.00	0.00	0.00	
14,700.00	89.99	179.91	7,404.10	-6,255.70	-3,312.40	6,963.39	0.00	0.00	0.00	
14,800.00	89.99	179.91	7,404.12	-6,355.70	-3,312.23	7,058.69	0.00	0.00	0.00	
14,900.00	89.99	179.91	7,404.14	-6,455.70	-3,312.07	7,153.98	0.00	0.00	0.00	
15,000.00	89.99	179.91	7,404.17	-6,555.70	-3,311.90	7,249.27	0.00	0.00	0.00	
15,100.00	89.99	179.91	7,404.19	-6,655.70	-3,311.74	7,344.57	0.00	0.00	0.00	
15,200.00	89.99	179.91	7,404.21	-6,755.70	-3,311.57	7,439.86	0.00	0.00	0.00	
15,300.00	89.99	179.91	7,404.23	-6,855.70	-3,311.41	7,535.16	0.00	0.00	0.00	

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-3L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<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	89.99	179.91	7,404.25	-6,955.70	-3,311.24	7,630.45	0.00	0.00	0.00
15,500.00	89.99	179.91	7,404.27	-7,055.70	-3,311.08	7,725.75	0.00	0.00	0.00
15,600.00	89.99	179.91	7,404.29	-7,155.70	-3,310.91	7,821.04	0.00	0.00	0.00
15,700.00	89.99	179.91	7,404.32	-7,255.70	-3,310.74	7,916.33	0.00	0.00	0.00
15,800.00	89.99	179.91	7,404.34	-7,355.70	-3,310.58	8,011.63	0.00	0.00	0.00
15,900.00	89.99	179.91	7,404.36	-7,455.70	-3,310.41	8,106.92	0.00	0.00	0.00
16,000.00	89.99	179.91	7,404.38	-7,555.70	-3,310.25	8,202.22	0.00	0.00	0.00
16,100.00	89.99	179.91	7,404.40	-7,655.70	-3,310.08	8,297.51	0.00	0.00	0.00
16,200.00	89.99	179.91	7,404.42	-7,755.70	-3,309.92	8,392.80	0.00	0.00	0.00
16,300.00	89.99	179.91	7,404.44	-7,855.70	-3,309.75	8,488.10	0.00	0.00	0.00
16,400.00	89.99	179.91	7,404.47	-7,955.70	-3,309.59	8,583.39	0.00	0.00	0.00
16,500.00	89.99	179.91	7,404.49	-8,055.70	-3,309.42	8,678.69	0.00	0.00	0.00
16,600.00	89.99	179.91	7,404.51	-8,155.70	-3,309.25	8,773.98	0.00	0.00	0.00
16,700.00	89.99	179.91	7,404.53	-8,255.70	-3,309.09	8,869.27	0.00	0.00	0.00
16,800.00	89.99	179.91	7,404.55	-8,355.70	-3,308.92	8,964.57	0.00	0.00	0.00
16,900.00	89.99	179.91	7,404.57	-8,455.70	-3,308.76	9,059.86	0.00	0.00	0.00
17,000.00	89.99	179.91	7,404.59	-8,555.70	-3,308.59	9,155.16	0.00	0.00	0.00
17,100.00	89.99	179.91	7,404.62	-8,655.70	-3,308.43	9,250.45	0.00	0.00	0.00
17,200.00	89.99	179.91	7,404.64	-8,755.70	-3,308.26	9,345.75	0.00	0.00	0.00
17,300.00	89.99	179.91	7,404.66	-8,855.70	-3,308.10	9,441.04	0.00	0.00	0.00
17,400.00	89.99	179.91	7,404.68	-8,955.70	-3,307.93	9,536.33	0.00	0.00	0.00
17,500.00	89.99	179.91	7,404.70	-9,055.70	-3,307.76	9,631.63	0.00	0.00	0.00
17,600.00	89.99	179.91	7,404.72	-9,155.70	-3,307.60	9,726.92	0.00	0.00	0.00
17,700.00	89.99	179.91	7,404.74	-9,255.70	-3,307.43	9,822.22	0.00	0.00	0.00
17,800.00	89.99	179.91	7,404.77	-9,355.70	-3,307.27	9,917.51	0.00	0.00	0.00
17,900.00	89.99	179.91	7,404.79	-9,455.70	-3,307.10	10,012.80	0.00	0.00	0.00
18,000.00	89.99	179.91	7,404.81	-9,555.70	-3,306.94	10,108.10	0.00	0.00	0.00
18,100.00	89.99	179.91	7,404.83	-9,655.70	-3,306.77	10,203.39	0.00	0.00	0.00
18,200.00	89.99	179.91	7,404.85	-9,755.70	-3,306.61	10,298.69	0.00	0.00	0.00
18,300.00	89.99	179.91	7,404.87	-9,855.70	-3,306.44	10,393.98	0.00	0.00	0.00
18,400.00	89.99	179.91	7,404.89	-9,955.70	-3,306.28	10,489.28	0.00	0.00	0.00
18,500.00	89.99	179.91	7,404.92	-10,055.70	-3,306.11	10,584.57	0.00	0.00	0.00
18,600.00	89.99	179.91	7,404.94	-10,155.70	-3,305.94	10,679.86	0.00	0.00	0.00
18,700.00	89.99	179.91	7,404.96	-10,255.70	-3,305.78	10,775.16	0.00	0.00	0.00
18,800.00	89.99	179.91	7,404.98	-10,355.70	-3,305.61	10,870.45	0.00	0.00	0.00
18,894.58	89.99	179.91	7,405.00	-10,450.28	-3,305.46	10,960.58	0.00	0.00	0.00
PBHL/TD 18894.58 MD/7405.00 TVD									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
LP Desha 4-5-3L 470 F - plan hits target center - Point	0.00	0.00	7,403.00	-1,109.53	-3,320.92	14,526,630.47	1,733,204.90	39.99924356	-104.66867772
BHL Desha 4-5-3L 470 F - plan hits target center - Point	0.00	0.00	7,405.00	-10,450.28	-3,305.46	14,517,289.74	1,733,220.36	39.97359232	-104.66874643

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-3L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	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	
5,583.48	5,487.73	-49.91	-267.68	Begin 58.35° tangent	
8,742.85	7,145.66	-542.85	-2,911.52	Begin 10°/100' build/turn	
9,553.82	7,403.00	-1,109.53	-3,320.92	LP Begin 89.99° lateral section	
18,894.58	7,405.00	-10,450.28	-3,305.46	PBHL/TD 18894.58 MD/7405.00 TVD	

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-3L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<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 34-T01N-R65W			
Site Position:		Northing:	14,527,892.80 usft	Latitude:	40.00267560
From:	Map	Easting:	1,736,525.30 usft	Longitude:	-104.65680429
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.22 °

Well	Desha 4-5-3L, Surf loc: 620 FSL 768 FWL Sec34-T01N-R65W					
Well Position	+N/-S	0.00 ft	Northing:	14,527,740.00 usft	Latitude:	40.00225598
	+E/-W	0.00 ft	Easting:	1,736,525.81 usft	Longitude:	-104.65680457
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,140.00 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	8/29/2017	8.27	66.45	52,109.90000000

<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	197.55

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/29/2017		
<b>Depth From (ft)</b>	<b>Depth To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	18,894.58 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	
5,583.48	58.35	259.44	5,487.73	-49.91	-267.68	10.00	10.00	0.00	259.44	
8,742.85	58.35	259.44	7,145.66	-542.85	-2,911.52	0.00	0.00	0.00	0.00	
9,553.82	89.99	179.91	7,403.00	-1,109.53	-3,320.92	10.00	3.90	-9.81	-84.47	LP Desha 4-5-3L 470
18,894.58	89.99	179.91	7,405.00	-10,450.28	-3,305.46	0.00	0.00	0.00	0.00	BHL Desha 4-5-3L 47



<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-3L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<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	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
100.00	0.00	0.00	100.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
200.00	0.00	0.00	200.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
300.00	0.00	0.00	300.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
400.00	0.00	0.00	400.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
500.00	0.00	0.00	500.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
600.00	0.00	0.00	600.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
700.00	0.00	0.00	700.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
800.00	0.00	0.00	800.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
900.00	0.00	0.00	900.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
1,000.00	0.00	0.00	1,000.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
1,100.00	0.00	0.00	1,100.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
1,200.00	0.00	0.00	1,200.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
1,300.00	0.00	0.00	1,300.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
1,400.00	0.00	0.00	1,400.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
1,500.00	0.00	0.00	1,500.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
1,600.00	0.00	0.00	1,600.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
1,700.00	0.00	0.00	1,700.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
1,800.00	0.00	0.00	1,800.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
1,900.00	0.00	0.00	1,900.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
2,000.00	0.00	0.00	2,000.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
2,100.00	0.00	0.00	2,100.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
2,200.00	0.00	0.00	2,200.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
2,300.00	0.00	0.00	2,300.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
2,400.00	0.00	0.00	2,400.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
2,500.00	0.00	0.00	2,500.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
2,600.00	0.00	0.00	2,600.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
2,700.00	0.00	0.00	2,700.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
2,800.00	0.00	0.00	2,800.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
2,900.00	0.00	0.00	2,900.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
3,000.00	0.00	0.00	3,000.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
3,100.00	0.00	0.00	3,100.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
3,200.00	0.00	0.00	3,200.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
3,300.00	0.00	0.00	3,300.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
3,400.00	0.00	0.00	3,400.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
3,500.00	0.00	0.00	3,500.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
3,600.00	0.00	0.00	3,600.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
3,700.00	0.00	0.00	3,700.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
3,800.00	0.00	0.00	3,800.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
3,900.00	0.00	0.00	3,900.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
4,000.00	0.00	0.00	4,000.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
4,100.00	0.00	0.00	4,100.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
4,200.00	0.00	0.00	4,200.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
4,300.00	0.00	0.00	4,300.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
4,400.00	0.00	0.00	4,400.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
4,500.00	0.00	0.00	4,500.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
4,600.00	0.00	0.00	4,600.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
4,700.00	0.00	0.00	4,700.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
4,800.00	0.00	0.00	4,800.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
4,900.00	0.00	0.00	4,900.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
5,000.00	0.00	0.00	5,000.00	0.00	0.00	14,527,740.00	1,736,525.81	40.00225598	-104.65680457
KOP Begin 10°/100' build									
5,100.00	10.00	259.44	5,099.49	-1.60	-8.56	14,527,738.41	1,736,517.25	40.00225169	-104.65683514
5,200.00	20.00	259.44	5,195.96	-6.33	-33.97	14,527,733.67	1,736,491.84	40.00223895	-104.65692595

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-3L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<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
5,300.00	30.00	259.44	5,286.48	-14.07	-75.46	14,527,725.93	1,736,450.35	40.00221815	-104.65707422
5,400.00	40.00	259.44	5,368.29	-24.57	-131.78	14,527,715.44	1,736,394.03	40.00218991	-104.65727545
5,500.00	50.00	259.44	5,438.91	-37.51	-201.20	14,527,702.49	1,736,324.61	40.00215509	-104.65752353
5,583.48	58.35	259.44	5,487.73	-49.91	-267.68	14,527,690.10	1,736,258.13	40.00212176	-104.65776108
<b>Begin 58.35° tangent</b>									
5,600.00	58.35	259.44	5,496.40	-52.49	-281.50	14,527,687.52	1,736,244.30	40.00211482	-104.65781049
5,700.00	58.35	259.44	5,548.88	-68.09	-365.19	14,527,671.92	1,736,160.62	40.00207286	-104.65810952
5,800.00	58.35	259.44	5,601.35	-83.69	-448.87	14,527,656.31	1,736,076.94	40.00203089	-104.65840855
5,900.00	58.35	259.44	5,653.83	-99.29	-532.55	14,527,640.71	1,735,993.26	40.00198892	-104.65870757
6,000.00	58.35	259.44	5,706.31	-114.90	-616.23	14,527,625.11	1,735,909.58	40.00194696	-104.65900660
6,100.00	58.35	259.44	5,758.78	-130.50	-699.92	14,527,609.51	1,735,825.89	40.00190499	-104.65930563
6,200.00	58.35	259.44	5,811.26	-146.10	-783.60	14,527,593.90	1,735,742.21	40.00186302	-104.65960466
6,300.00	58.35	259.44	5,863.74	-161.71	-867.28	14,527,578.30	1,735,658.53	40.00182105	-104.65990368
6,400.00	58.35	259.44	5,916.21	-177.31	-950.97	14,527,562.70	1,735,574.85	40.00177908	-104.66020271
6,500.00	58.35	259.44	5,968.69	-192.91	-1,034.65	14,527,547.09	1,735,491.16	40.00173711	-104.66050174
6,600.00	58.35	259.44	6,021.17	-208.51	-1,118.33	14,527,531.49	1,735,407.48	40.00169514	-104.66080076
6,700.00	58.35	259.44	6,073.64	-224.12	-1,202.01	14,527,515.89	1,735,323.80	40.00165316	-104.66109979
6,800.00	58.35	259.44	6,126.12	-239.72	-1,285.70	14,527,500.29	1,735,240.12	40.00161119	-104.66139881
6,900.00	58.35	259.44	6,178.60	-255.32	-1,369.38	14,527,484.68	1,735,156.43	40.00156921	-104.66169784
7,000.00	58.35	259.44	6,231.07	-270.92	-1,453.06	14,527,469.08	1,735,072.75	40.00152724	-104.66199686
7,100.00	58.35	259.44	6,283.55	-286.53	-1,536.74	14,527,453.48	1,734,989.07	40.00148526	-104.66229588
7,200.00	58.35	259.44	6,336.02	-302.13	-1,620.43	14,527,437.88	1,734,905.39	40.00144329	-104.66259491
7,300.00	58.35	259.44	6,388.50	-317.73	-1,704.11	14,527,422.27	1,734,821.70	40.00140131	-104.66289393
7,400.00	58.35	259.44	6,440.98	-333.33	-1,787.79	14,527,406.67	1,734,738.02	40.00135933	-104.66319295
7,500.00	58.35	259.44	6,493.45	-348.94	-1,871.47	14,527,391.07	1,734,654.34	40.00131735	-104.66349198
7,600.00	58.35	259.44	6,545.93	-364.54	-1,955.16	14,527,375.47	1,734,570.66	40.00127537	-104.66379100
7,700.00	58.35	259.44	6,598.41	-380.14	-2,038.84	14,527,359.86	1,734,486.97	40.00123339	-104.66409002
7,800.00	58.35	259.44	6,650.88	-395.74	-2,122.52	14,527,344.26	1,734,403.29	40.00119141	-104.66438904
7,900.00	58.35	259.44	6,703.36	-411.35	-2,206.20	14,527,328.66	1,734,319.61	40.00114943	-104.66468806
8,000.00	58.35	259.44	6,755.84	-426.95	-2,289.89	14,527,313.06	1,734,235.93	40.00110745	-104.66498708
8,100.00	58.35	259.44	6,808.31	-442.55	-2,373.57	14,527,297.45	1,734,152.24	40.00106546	-104.66528610
8,200.00	58.35	259.44	6,860.79	-458.16	-2,457.25	14,527,281.85	1,734,068.56	40.00102348	-104.66558512
8,300.00	58.35	259.44	6,913.27	-473.76	-2,540.93	14,527,266.25	1,733,984.88	40.00098149	-104.66588414
8,400.00	58.35	259.44	6,965.74	-489.36	-2,624.62	14,527,250.65	1,733,901.20	40.00093951	-104.66618316
8,500.00	58.35	259.44	7,018.22	-504.96	-2,708.30	14,527,235.04	1,733,817.52	40.00089752	-104.66648218
8,600.00	58.35	259.44	7,070.70	-520.57	-2,791.98	14,527,219.44	1,733,733.83	40.00085553	-104.66678120
8,700.00	58.35	259.44	7,123.17	-536.17	-2,875.66	14,527,203.84	1,733,650.15	40.00081354	-104.66708022
8,742.85	58.35	259.44	7,145.66	-542.85	-2,911.52	14,527,197.15	1,733,614.30	40.00079555	-104.66720834
<b>Begin 10°/100' build/turn</b>									
8,800.00	59.07	252.80	7,175.37	-554.57	-2,958.89	14,527,185.44	1,733,566.93	40.00076386	-104.66737764
8,900.00	61.12	241.51	7,225.34	-588.22	-3,038.54	14,527,151.78	1,733,487.27	40.00067226	-104.66766251
9,000.00	64.07	230.74	7,271.47	-637.69	-3,112.03	14,527,102.31	1,733,413.79	40.00053716	-104.66792556
9,100.00	67.78	220.56	7,312.34	-701.48	-3,177.11	14,527,038.53	1,733,348.71	40.00036267	-104.66815879
9,200.00	72.08	210.94	7,346.72	-777.64	-3,231.80	14,526,962.37	1,733,294.01	40.00015408	-104.66835512
9,300.00	76.83	201.81	7,373.57	-863.86	-3,274.46	14,526,876.15	1,733,251.35	39.99991774	-104.66850857
9,400.00	81.89	193.03	7,392.07	-957.53	-3,303.78	14,526,782.48	1,733,222.04	39.99966082	-104.66861450
9,500.00	87.13	184.47	7,401.65	-1,055.79	-3,318.87	14,526,684.22	1,733,206.95	39.99939113	-104.66869686
9,553.82	89.99	179.91	7,403.00	-1,109.53	-3,320.92	14,526,630.47	1,733,204.90	39.99924356	-104.66867772
<b>LP Begin 89.99° lateral section</b>									
9,600.00	89.99	179.91	7,403.01	-1,155.71	-3,320.84	14,526,584.30	1,733,204.98	39.99911675	-104.66867806
9,700.00	89.99	179.91	7,403.03	-1,255.71	-3,320.67	14,526,484.30	1,733,205.14	39.99884213	-104.66867879
9,800.00	89.99	179.91	7,403.05	-1,355.71	-3,320.51	14,526,384.30	1,733,205.31	39.99856752	-104.66867953
9,900.00	89.99	179.91	7,403.07	-1,455.71	-3,320.34	14,526,284.30	1,733,205.47	39.99829290	-104.66868026
10,000.00	89.99	179.91	7,403.10	-1,555.71	-3,320.18	14,526,184.30	1,733,205.64	39.99801829	-104.66868100

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-3L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<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	89.99	179.91	7,403.12	-1,655.71	-3,320.01	14,526,084.30	1,733,205.80	39.99774367	-104.66868174
10,200.00	89.99	179.91	7,403.14	-1,755.71	-3,319.85	14,525,984.30	1,733,205.97	39.99746906	-104.66868247
10,300.00	89.99	179.91	7,403.16	-1,855.71	-3,319.68	14,525,884.30	1,733,206.13	39.99719444	-104.66868321
10,400.00	89.99	179.91	7,403.18	-1,955.71	-3,319.52	14,525,784.30	1,733,206.30	39.99691982	-104.66868394
10,500.00	89.99	179.91	7,403.20	-2,055.71	-3,319.35	14,525,684.30	1,733,206.46	39.99664521	-104.66868468
10,600.00	89.99	179.91	7,403.22	-2,155.71	-3,319.19	14,525,584.30	1,733,206.63	39.99637059	-104.66868542
10,700.00	89.99	179.91	7,403.25	-2,255.71	-3,319.02	14,525,484.30	1,733,206.80	39.99609598	-104.66868615
10,800.00	89.99	179.91	7,403.27	-2,355.71	-3,318.85	14,525,384.30	1,733,206.96	39.99582136	-104.66868689
10,900.00	89.99	179.91	7,403.29	-2,455.71	-3,318.69	14,525,284.30	1,733,207.13	39.99554675	-104.66868763
11,000.00	89.99	179.91	7,403.31	-2,555.71	-3,318.52	14,525,184.30	1,733,207.29	39.99527213	-104.66868836
11,100.00	89.99	179.91	7,403.33	-2,655.71	-3,318.36	14,525,084.30	1,733,207.46	39.99499751	-104.66868910
11,200.00	89.99	179.91	7,403.35	-2,755.71	-3,318.19	14,524,984.30	1,733,207.62	39.99472290	-104.66868983
11,300.00	89.99	179.91	7,403.37	-2,855.71	-3,318.03	14,524,884.30	1,733,207.79	39.99444828	-104.66869057
11,400.00	89.99	179.91	7,403.40	-2,955.71	-3,317.86	14,524,784.30	1,733,207.95	39.99417367	-104.66869131
11,500.00	89.99	179.91	7,403.42	-3,055.71	-3,317.70	14,524,684.30	1,733,208.12	39.99389905	-104.66869204
11,600.00	89.99	179.91	7,403.44	-3,155.71	-3,317.53	14,524,584.30	1,733,208.29	39.99362444	-104.66869278
11,700.00	89.99	179.91	7,403.46	-3,255.71	-3,317.36	14,524,484.30	1,733,208.45	39.99334982	-104.66869351
11,800.00	89.99	179.91	7,403.48	-3,355.71	-3,317.20	14,524,384.30	1,733,208.62	39.99307520	-104.66869425
11,900.00	89.99	179.91	7,403.50	-3,455.71	-3,317.03	14,524,284.30	1,733,208.78	39.99280059	-104.66869499
12,000.00	89.99	179.91	7,403.52	-3,555.71	-3,316.87	14,524,184.30	1,733,208.95	39.99252597	-104.66869572
12,100.00	89.99	179.91	7,403.55	-3,655.71	-3,316.70	14,524,084.31	1,733,209.11	39.99225136	-104.66869646
12,200.00	89.99	179.91	7,403.57	-3,755.71	-3,316.54	14,523,984.31	1,733,209.28	39.99197674	-104.66869719
12,300.00	89.99	179.91	7,403.59	-3,855.71	-3,316.37	14,523,884.31	1,733,209.44	39.99170212	-104.66869793
12,400.00	89.99	179.91	7,403.61	-3,955.71	-3,316.21	14,523,784.31	1,733,209.61	39.99142751	-104.66869866
12,500.00	89.99	179.91	7,403.63	-4,055.71	-3,316.04	14,523,684.31	1,733,209.77	39.99115289	-104.66869940
12,600.00	89.99	179.91	7,403.65	-4,155.71	-3,315.87	14,523,584.31	1,733,209.94	39.99087828	-104.66870014
12,700.00	89.99	179.91	7,403.67	-4,255.71	-3,315.71	14,523,484.31	1,733,210.11	39.99060366	-104.66870087
12,800.00	89.99	179.91	7,403.70	-4,355.71	-3,315.54	14,523,384.31	1,733,210.27	39.99032904	-104.66870161
12,900.00	89.99	179.91	7,403.72	-4,455.71	-3,315.38	14,523,284.31	1,733,210.44	39.99005443	-104.66870234
13,000.00	89.99	179.91	7,403.74	-4,555.71	-3,315.21	14,523,184.31	1,733,210.60	39.98977981	-104.66870308
13,100.00	89.99	179.91	7,403.76	-4,655.71	-3,315.05	14,523,084.31	1,733,210.77	39.98950520	-104.66870382
13,200.00	89.99	179.91	7,403.78	-4,755.71	-3,314.88	14,522,984.31	1,733,210.93	39.98923058	-104.66870455
13,300.00	89.99	179.91	7,403.80	-4,855.71	-3,314.72	14,522,884.31	1,733,211.10	39.98895596	-104.66870529
13,400.00	89.99	179.91	7,403.82	-4,955.70	-3,314.55	14,522,784.31	1,733,211.26	39.98868135	-104.66870602
13,500.00	89.99	179.91	7,403.85	-5,055.70	-3,314.39	14,522,684.31	1,733,211.43	39.98840673	-104.66870676
13,600.00	89.99	179.91	7,403.87	-5,155.70	-3,314.22	14,522,584.31	1,733,211.60	39.98813212	-104.66870749
13,700.00	89.99	179.91	7,403.89	-5,255.70	-3,314.05	14,522,484.31	1,733,211.76	39.98785750	-104.66870823
13,800.00	89.99	179.91	7,403.91	-5,355.70	-3,313.89	14,522,384.31	1,733,211.93	39.98758288	-104.66870896
13,900.00	89.99	179.91	7,403.93	-5,455.70	-3,313.72	14,522,284.31	1,733,212.09	39.98730827	-104.66870970
14,000.00	89.99	179.91	7,403.95	-5,555.70	-3,313.56	14,522,184.31	1,733,212.26	39.98703365	-104.66871044
14,100.00	89.99	179.91	7,403.97	-5,655.70	-3,313.39	14,522,084.31	1,733,212.42	39.98675904	-104.66871117
14,200.00	89.99	179.91	7,403.99	-5,755.70	-3,313.23	14,521,984.31	1,733,212.59	39.98648442	-104.66871191
14,300.00	89.99	179.91	7,404.02	-5,855.70	-3,313.06	14,521,884.31	1,733,212.75	39.98620980	-104.66871264
14,400.00	89.99	179.91	7,404.04	-5,955.70	-3,312.90	14,521,784.31	1,733,212.92	39.98593519	-104.66871338
14,500.00	89.99	179.91	7,404.06	-6,055.70	-3,312.73	14,521,684.31	1,733,213.09	39.98566057	-104.66871411
14,600.00	89.99	179.91	7,404.08	-6,155.70	-3,312.56	14,521,584.31	1,733,213.25	39.98538596	-104.66871485
14,700.00	89.99	179.91	7,404.10	-6,255.70	-3,312.40	14,521,484.31	1,733,213.42	39.98511134	-104.66871559
14,800.00	89.99	179.91	7,404.12	-6,355.70	-3,312.23	14,521,384.31	1,733,213.58	39.98483672	-104.66871632
14,900.00	89.99	179.91	7,404.14	-6,455.70	-3,312.07	14,521,284.31	1,733,213.75	39.98456211	-104.66871706
15,000.00	89.99	179.91	7,404.17	-6,555.70	-3,311.90	14,521,184.32	1,733,213.91	39.98428749	-104.66871779
15,100.00	89.99	179.91	7,404.19	-6,655.70	-3,311.74	14,521,084.32	1,733,214.08	39.98401287	-104.66871853
15,200.00	89.99	179.91	7,404.21	-6,755.70	-3,311.57	14,520,984.32	1,733,214.24	39.98373826	-104.66871926
15,300.00	89.99	179.91	7,404.23	-6,855.70	-3,311.41	14,520,884.32	1,733,214.41	39.98346364	-104.66872000
15,400.00	89.99	179.91	7,404.25	-6,955.70	-3,311.24	14,520,784.32	1,733,214.57	39.98318903	-104.66872073
15,500.00	89.99	179.91	7,404.27	-7,055.70	-3,311.08	14,520,684.32	1,733,214.74	39.98291441	-104.66872147

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-3L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<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	89.99	179.91	7,404.29	-7,155.70	-3,310.91	14,520,584.32	1,733,214.91	39.98263979	-104.66872220	
15,700.00	89.99	179.91	7,404.32	-7,255.70	-3,310.74	14,520,484.32	1,733,215.07	39.98236518	-104.66872294	
15,800.00	89.99	179.91	7,404.34	-7,355.70	-3,310.58	14,520,384.32	1,733,215.24	39.98209056	-104.66872368	
15,900.00	89.99	179.91	7,404.36	-7,455.70	-3,310.41	14,520,284.32	1,733,215.40	39.98181594	-104.66872441	
16,000.00	89.99	179.91	7,404.38	-7,555.70	-3,310.25	14,520,184.32	1,733,215.57	39.98154133	-104.66872515	
16,100.00	89.99	179.91	7,404.40	-7,655.70	-3,310.08	14,520,084.32	1,733,215.73	39.98126671	-104.66872588	
16,200.00	89.99	179.91	7,404.42	-7,755.70	-3,309.92	14,519,984.32	1,733,215.90	39.98099209	-104.66872662	
16,300.00	89.99	179.91	7,404.44	-7,855.70	-3,309.75	14,519,884.32	1,733,216.06	39.98071748	-104.66872735	
16,400.00	89.99	179.91	7,404.47	-7,955.70	-3,309.59	14,519,784.32	1,733,216.23	39.98044286	-104.66872809	
16,500.00	89.99	179.91	7,404.49	-8,055.70	-3,309.42	14,519,684.32	1,733,216.40	39.98016825	-104.66872882	
16,600.00	89.99	179.91	7,404.51	-8,155.70	-3,309.25	14,519,584.32	1,733,216.56	39.97989363	-104.66872956	
16,700.00	89.99	179.91	7,404.53	-8,255.70	-3,309.09	14,519,484.32	1,733,216.73	39.97961901	-104.66873029	
16,800.00	89.99	179.91	7,404.55	-8,355.70	-3,308.92	14,519,384.32	1,733,216.89	39.97934440	-104.66873103	
16,900.00	89.99	179.91	7,404.57	-8,455.70	-3,308.76	14,519,284.32	1,733,217.06	39.97906978	-104.66873176	
17,000.00	89.99	179.91	7,404.59	-8,555.70	-3,308.59	14,519,184.32	1,733,217.22	39.97879516	-104.66873250	
17,100.00	89.99	179.91	7,404.62	-8,655.70	-3,308.43	14,519,084.32	1,733,217.39	39.97852055	-104.66873323	
17,200.00	89.99	179.91	7,404.64	-8,755.70	-3,308.26	14,518,984.32	1,733,217.55	39.97824593	-104.66873397	
17,300.00	89.99	179.91	7,404.66	-8,855.70	-3,308.10	14,518,884.32	1,733,217.72	39.97797131	-104.66873470	
17,400.00	89.99	179.91	7,404.68	-8,955.70	-3,307.93	14,518,784.32	1,733,217.89	39.97769670	-104.66873544	
17,500.00	89.99	179.91	7,404.70	-9,055.70	-3,307.76	14,518,684.32	1,733,218.05	39.97742208	-104.66873618	
17,600.00	89.99	179.91	7,404.72	-9,155.70	-3,307.60	14,518,584.32	1,733,218.22	39.97714746	-104.66873691	
17,700.00	89.99	179.91	7,404.74	-9,255.70	-3,307.43	14,518,484.32	1,733,218.38	39.97687285	-104.66873765	
17,800.00	89.99	179.91	7,404.77	-9,355.70	-3,307.27	14,518,384.32	1,733,218.55	39.97659823	-104.66873838	
17,900.00	89.99	179.91	7,404.79	-9,455.70	-3,307.10	14,518,284.32	1,733,218.71	39.97632361	-104.66873912	
18,000.00	89.99	179.91	7,404.81	-9,555.70	-3,306.94	14,518,184.33	1,733,218.88	39.97604900	-104.66873985	
18,100.00	89.99	179.91	7,404.83	-9,655.70	-3,306.77	14,518,084.33	1,733,219.04	39.97577438	-104.66874059	
18,200.00	89.99	179.91	7,404.85	-9,755.70	-3,306.61	14,517,984.33	1,733,219.21	39.97549976	-104.66874132	
18,300.00	89.99	179.91	7,404.87	-9,855.70	-3,306.44	14,517,884.33	1,733,219.37	39.97522515	-104.66874206	
18,400.00	89.99	179.91	7,404.89	-9,955.70	-3,306.28	14,517,784.33	1,733,219.54	39.97495053	-104.66874279	
18,500.00	89.99	179.91	7,404.92	-10,055.70	-3,306.11	14,517,684.33	1,733,219.71	39.97467591	-104.66874353	
18,600.00	89.99	179.91	7,404.94	-10,155.70	-3,305.94	14,517,584.33	1,733,219.87	39.97440130	-104.66874426	
18,700.00	89.99	179.91	7,404.96	-10,255.70	-3,305.78	14,517,484.33	1,733,220.04	39.97412668	-104.66874500	
18,800.00	89.99	179.91	7,404.98	-10,355.70	-3,305.61	14,517,384.33	1,733,220.20	39.97385206	-104.66874573	
18,894.58	89.99	179.91	7,405.00	-10,450.28	-3,305.46	14,517,289.74	1,733,220.36	39.97359232	-104.66874643	
PBHL/TD 18894.58 MD/7405.00 TVD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
LP Desha 4-5-3L 470 FM - hit/miss target - Shape - Point	0.00	0.00	7,403.00	-1,109.53	-3,320.92	14,526,630.47	1,733,204.90	39.99924356	-104.66867772	
BHL Desha 4-5-3L 470 F - plan hits target center - Point	0.00	0.00	7,405.00	-10,450.28	-3,305.46	14,517,289.74	1,733,220.36	39.97359232	-104.66874643	

<b>Database:</b>	DB_Jul2216dt_v14	<b>Local Co-ordinate Reference:</b>	Well Desha 4-5-3L
<b>Company:</b>	Confluence Resources	<b>TVD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Project:</b>	Weld County, Colorado	<b>MD Reference:</b>	RKB=5140+25 @ 5165.00ft
<b>Site:</b>	Section 34-T01N-R65W	<b>North Reference:</b>	Grid
<b>Well:</b>	Desha 4-5-3L	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Original Hole		
<b>Design:</b>	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
5,583.48	5,487.73	-49.91	-267.68	Begin 58.35° tangent
8,742.85	7,145.66	-542.85	-2,911.52	Begin 10°/100' build/turn
9,553.82	7,403.00	-1,109.53	-3,320.92	LP Begin 89.99° lateral section
18,894.58	7,405.00	-10,450.28	-3,305.46	PBHL/TD 18894.58 MD/7405.00 TVD