



Laramie Energy, LLC

Mesa County, CO

Carrier 0993-16-07 Pad

Carrier 0993-16-04W - Slot A-21

OH

Plan: Design #1

KLX Well Planning Report

13 July, 2023





Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Currier 0993-16-04W - Slot A-21
Company:	Laramie Energy, LLC	TVD Reference:	RKB=30' @ 7487.0usft (30')
Project:	Mesa County, CO	MD Reference:	RKB=30' @ 7487.0usft (30')
Site:	Currier 0993-16-07 Pad	North Reference:	True
Well:	Currier 0993-16-04W	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Project	Mesa County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	Currier 0993-16-07 Pad				
Site Position:		Northing:	1,534,122.03 usft	Latitude:	39.277789
From:	Lat/Long	Easting:	2,356,438.51 usft	Longitude:	-107.773701
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.43 °

Well	Currier 0993-16-04W - Slot A-21					
Well Position	+N/-S	115.8 usft	Northing:	1,534,235.05 usft	Latitude:	39.278107
	+E/-W	110.7 usft	Easting:	2,356,552.05 usft	Longitude:	-107.773310
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	7,457.0 usft

Wellbore	OH
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2023	7/13/2023	8.68	65.13	50,856.30000000

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	314.81

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.00	0.00	
905.2	16.38	314.81	896.3	65.6	-66.0	2.50	2.50	0.00	314.81	
5,519.9	16.38	314.81	5,323.7	982.7	-989.3	0.00	0.00	0.00	0.00	
6,175.1	0.00	0.00	5,970.0	1,048.2	-1,055.3	2.50	-2.50	0.00	180.00	
8,766.1	0.00	0.00	8,561.0	1,048.2	-1,055.3	0.00	0.00	0.00	0.00	PBHL - Currier 16-C



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Project:	Mesa County, CO	MD Reference:	RKB=30' @ 7487.0usft (30')
Site:	Currier 0993-16-07 Pad	North Reference:	True
Well:	Currier 0993-16-04W	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP (Build 2.5° / 100)									
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	1.25	314.81	300.0	0.4	-0.4	0.5	2.50	2.50	0.00
400.0	3.75	314.81	399.9	3.5	-3.5	4.9	2.50	2.50	0.00
500.0	6.25	314.81	499.5	9.6	-9.7	13.6	2.50	2.50	0.00
600.0	8.75	314.81	598.6	18.8	-18.9	26.7	2.50	2.50	0.00
700.0	11.25	314.81	697.1	31.0	-31.2	44.0	2.50	2.50	0.00
800.0	13.75	314.81	794.7	46.3	-46.6	65.7	2.50	2.50	0.00
EOB @ 16.38° Inc. / 314.81° Azm									
905.2	16.38	314.81	896.3	65.6	-66.0	93.0	2.50	2.50	0.00
1,000.0	16.38	314.81	987.3	84.4	-85.0	119.8	0.00	0.00	0.00
1,100.0	16.38	314.81	1,083.2	104.3	-105.0	148.0	0.00	0.00	0.00
1,200.0	16.38	314.81	1,179.1	124.1	-125.0	176.2	0.00	0.00	0.00
1,300.0	16.38	314.81	1,275.1	144.0	-145.0	204.4	0.00	0.00	0.00
1,400.0	16.38	314.81	1,371.0	163.9	-165.0	232.6	0.00	0.00	0.00
8 5/8"									
1,500.0	16.38	314.81	1,467.0	183.8	-185.0	260.8	0.00	0.00	0.00
1,600.0	16.38	314.81	1,562.9	203.6	-205.0	289.0	0.00	0.00	0.00
1,700.0	16.38	314.81	1,658.9	223.5	-225.0	317.2	0.00	0.00	0.00
1,800.0	16.38	314.81	1,754.8	243.4	-245.0	345.4	0.00	0.00	0.00
1,900.0	16.38	314.81	1,850.7	263.3	-265.0	373.6	0.00	0.00	0.00
2,000.0	16.38	314.81	1,946.7	283.1	-285.0	401.8	0.00	0.00	0.00
2,100.0	16.38	314.81	2,042.6	303.0	-305.0	430.0	0.00	0.00	0.00
2,200.0	16.38	314.81	2,138.6	322.9	-325.0	458.2	0.00	0.00	0.00
2,300.0	16.38	314.81	2,234.5	342.8	-345.1	486.4	0.00	0.00	0.00
2,400.0	16.38	314.81	2,330.4	362.6	-365.1	514.6	0.00	0.00	0.00
2,500.0	16.38	314.81	2,426.4	382.5	-385.1	542.8	0.00	0.00	0.00
2,600.0	16.38	314.81	2,522.3	402.4	-405.1	571.0	0.00	0.00	0.00
2,700.0	16.38	314.81	2,618.3	422.3	-425.1	599.2	0.00	0.00	0.00
2,800.0	16.38	314.81	2,714.2	442.1	-445.1	627.4	0.00	0.00	0.00
Wasatch 'G' Sand									
2,846.7	16.38	314.81	2,759.0	451.4	-454.4	640.5	0.00	0.00	0.00
2,900.0	16.38	314.81	2,810.1	462.0	-465.1	655.6	0.00	0.00	0.00
3,000.0	16.38	314.81	2,906.1	481.9	-485.1	683.8	0.00	0.00	0.00
3,100.0	16.38	314.81	3,002.0	501.8	-505.1	712.0	0.00	0.00	0.00
3,200.0	16.38	314.81	3,098.0	521.6	-525.1	740.2	0.00	0.00	0.00
3,300.0	16.38	314.81	3,193.9	541.5	-545.1	768.4	0.00	0.00	0.00
Fort Union									
3,314.7	16.38	314.81	3,208.0	544.4	-548.1	772.5	0.00	0.00	0.00
3,400.0	16.38	314.81	3,289.9	561.4	-565.1	796.6	0.00	0.00	0.00
3,500.0	16.38	314.81	3,385.8	581.3	-585.1	824.8	0.00	0.00	0.00
3,600.0	16.38	314.81	3,481.7	601.1	-605.1	853.0	0.00	0.00	0.00
3,700.0	16.38	314.81	3,577.7	621.0	-625.2	881.2	0.00	0.00	0.00
3,800.0	16.38	314.81	3,673.6	640.9	-645.2	909.4	0.00	0.00	0.00
3,900.0	16.38	314.81	3,769.6	660.8	-665.2	937.6	0.00	0.00	0.00
4,000.0	16.38	314.81	3,865.5	680.6	-685.2	965.8	0.00	0.00	0.00
4,100.0	16.38	314.81	3,961.4	700.5	-705.2	994.0	0.00	0.00	0.00
4,200.0	16.38	314.81	4,057.4	720.4	-725.2	1,022.2	0.00	0.00	0.00
4,300.0	16.38	314.81	4,153.3	740.2	-745.2	1,050.4	0.00	0.00	0.00
Lower Wasatch									



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Site:	Currier 0993-16-07 Pad	North Reference:	True
Well:	Currier 0993-16-04W	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,333.0	16.38	314.81	4,185.0	746.8	-751.8	1,059.7	0.00	0.00	0.00	
4,400.0	16.38	314.81	4,249.3	760.1	-765.2	1,078.6	0.00	0.00	0.00	
4,500.0	16.38	314.81	4,345.2	780.0	-785.2	1,106.8	0.00	0.00	0.00	
4,600.0	16.38	314.81	4,441.1	799.9	-805.2	1,135.0	0.00	0.00	0.00	
4,700.0	16.38	314.81	4,537.1	819.7	-825.2	1,163.2	0.00	0.00	0.00	
4,800.0	16.38	314.81	4,633.0	839.6	-845.2	1,191.4	0.00	0.00	0.00	
4,900.0	16.38	314.81	4,729.0	859.5	-865.2	1,219.6	0.00	0.00	0.00	
5,000.0	16.38	314.81	4,824.9	879.4	-885.3	1,247.8	0.00	0.00	0.00	
Ohio Creek										
5,089.7	16.38	314.81	4,911.0	897.2	-903.2	1,273.1	0.00	0.00	0.00	
5,100.0	16.38	314.81	4,920.9	899.2	-905.3	1,276.0	0.00	0.00	0.00	
5,200.0	16.38	314.81	5,016.8	919.1	-925.3	1,304.2	0.00	0.00	0.00	
5,300.0	16.38	314.81	5,112.7	939.0	-945.3	1,332.4	0.00	0.00	0.00	
Williams Fork										
5,304.4	16.38	314.81	5,117.0	939.9	-946.2	1,333.6	0.00	0.00	0.00	
5,400.0	16.38	314.81	5,208.7	958.9	-965.3	1,360.6	0.00	0.00	0.00	
5,500.0	16.38	314.81	5,304.6	978.7	-985.3	1,388.8	0.00	0.00	0.00	
Drop 2.5° /100'										
5,519.9	16.38	314.81	5,323.7	982.7	-989.3	1,394.4	0.00	0.00	0.00	
5,600.0	14.38	314.81	5,400.9	997.7	-1,004.3	1,415.6	2.50	-2.50	0.00	
5,700.0	11.88	314.81	5,498.3	1,013.7	-1,020.4	1,438.3	2.50	-2.50	0.00	
5,800.0	9.38	314.81	5,596.6	1,026.7	-1,033.5	1,456.8	2.50	-2.50	0.00	
5,900.0	6.88	314.81	5,695.6	1,036.6	-1,043.6	1,470.9	2.50	-2.50	0.00	
6,000.0	4.38	314.81	5,795.1	1,043.5	-1,050.5	1,480.7	2.50	-2.50	0.00	
6,100.0	1.88	314.81	5,894.9	1,047.4	-1,054.4	1,486.2	2.50	-2.50	0.00	
EOD @ Vertical - TOG										
6,175.1	0.00	0.00	5,970.0	1,048.2	-1,055.3	1,487.4	2.50	-2.50	60.19	
6,200.0	0.00	0.00	5,994.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,094.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,194.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,294.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,394.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,494.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,594.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,694.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,794.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
7,100.0	0.00	0.00	6,894.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
7,200.0	0.00	0.00	6,994.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,094.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
Cameo										
7,369.1	0.00	0.00	7,164.0	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,194.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,294.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,394.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,494.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,594.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
Rollins										
7,845.1	0.00	0.00	7,640.0	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,694.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,794.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
8,100.0	0.00	0.00	7,894.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
8,200.0	0.00	0.00	7,994.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,094.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	



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Wellbore:	OH		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
Cozzette										
8,382.1	0.00	0.00	8,177.0	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,194.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,294.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
Corcoran										
8,556.1	0.00	0.00	8,351.0	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,394.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,494.9	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	
TD @ 8766.1' MD / 8561.0' TVD										
8,766.1	0.00	0.00	8,561.0	1,048.2	-1,055.3	1,487.4	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PBHL - Currier 16-04V	0.00	0.00	8,561.0	1,048.2	-1,055.3	1,535,309.37	2,355,523.35	39.280985	-107.777038	
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 50.0)										

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")		
1,500.0	1,467.0	8 5/8"	8-5/8	11		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,846.7	2,759.0	Wasatch 'G' Sand				
3,314.7	3,208.0	Fort Union				
4,333.0	4,185.0	Lower Wasatch				
5,089.7	4,911.0	Ohio Creek				
5,304.4	5,117.0	Williams Fork				
6,175.1	5,970.0	TOG				
7,369.1	7,164.0	Cameo				
7,845.1	7,640.0	Rollins				
8,382.1	8,177.0	Cozzette				
8,556.1	8,351.0	Corcoran				



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Site:	Currier 0993-16-07 Pad	North Reference:	True
Well:	Currier 0993-16-04W	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Design #1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
250.0	250.0	0.0	0.0	KOP (Build 2.5° / 100)
905.2	896.3	65.6	-66.0	EOB @ 16.38° Inc. / 314.81° Azm
5,519.9	5,323.7	982.7	-989.3	Drop 2.5° /100'
6,175.1	5,970.0	1,048.2	-1,055.3	EOD @ Vertical
8,766.1	8,561.0	1,048.2	-1,055.3	TD @ 8766.1' MD / 8561.0' TVD