

Project: Rio Blanco County, CO  
 Site: PCU B27 197 Pad  
 Well: RNPU B27 FED 14D-22 197  
 Wellbore: OH  
 Design: Prelim #3  
 Latitude: 39.941145  
 Longitude: -108.268569  
 Ground Level: 6510.0  
 RKB @ 6540.0usft (30')

FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
2507.0	2651.5	Orange Marker
2650.0	2810.0	Wasatch
5570.0	6047.9	Wasatch G
6032.0	6560.2	Fort Union
7549.0	8180.6	Ohio Creek
8299.0	8930.7	Williams Fork
11196.0	11828.1	Carneo
11746.0	12378.2	Rollins
11828.0	12460.2	Cozzette
12428.0	13060.3	Corcoran

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well RNPU B27 FED 14D-22 197 - Slot 14D-22, True North  
 Vertical (TVD) Reference: RKB @ 6540.0usft (30')  
 Section (VS) Reference: Slot - 14D-22(0.0N, 0.0E)  
 Measured Depth Reference: RKB @ 6540.0usft (30')  
 Calculation Method: Minimum Curvature

WELL DETAILS: RNPU B27 FED 14D-22 197

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	14516335.30	2406084.50	39.941145	-108.268569

PROJECT DETAILS: Rio Blanco County, CO

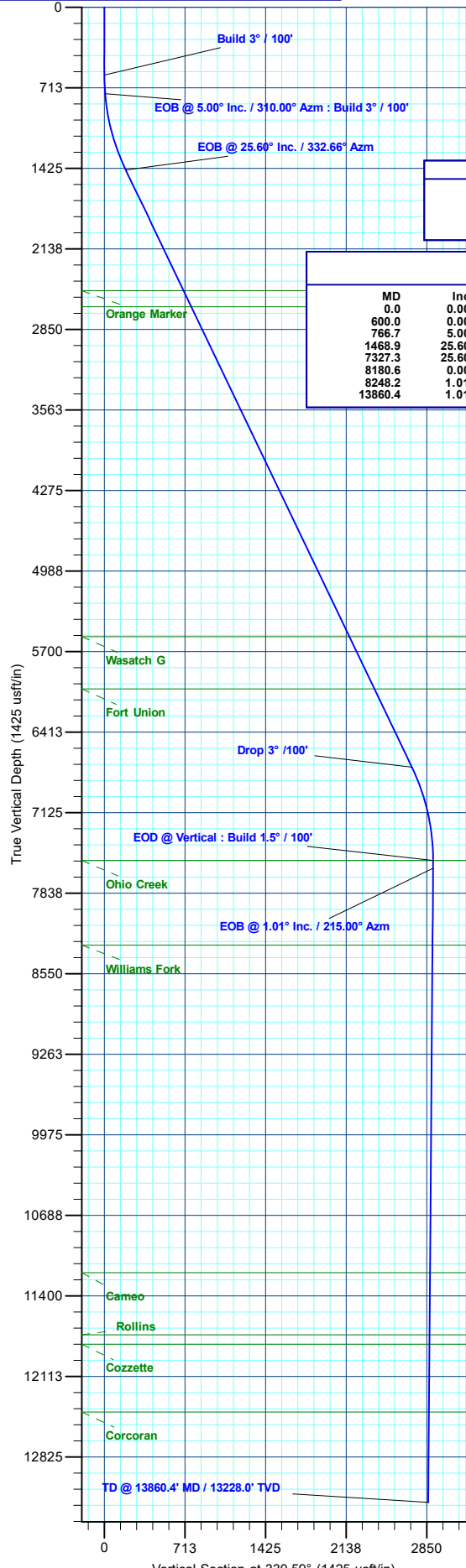
Geodetic System: Universal Transverse Mercator (US Survey Feet)  
 Datum: NAD 1927 - Western US  
 Ellipsoid: Clarke 1866  
 Zone: Zone 12N (114 W to 108 W)  
 System Datum: Mean Sea Level

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
14D-22 - OHCR	7549.0	2575.8	-1348.4	14518868.63	2404657.83	39.948214	-108.273377
14D-22 - PBHL	13228.0	2493.9	-1405.8	14518785.00	2404603.00	39.947990	-108.273581

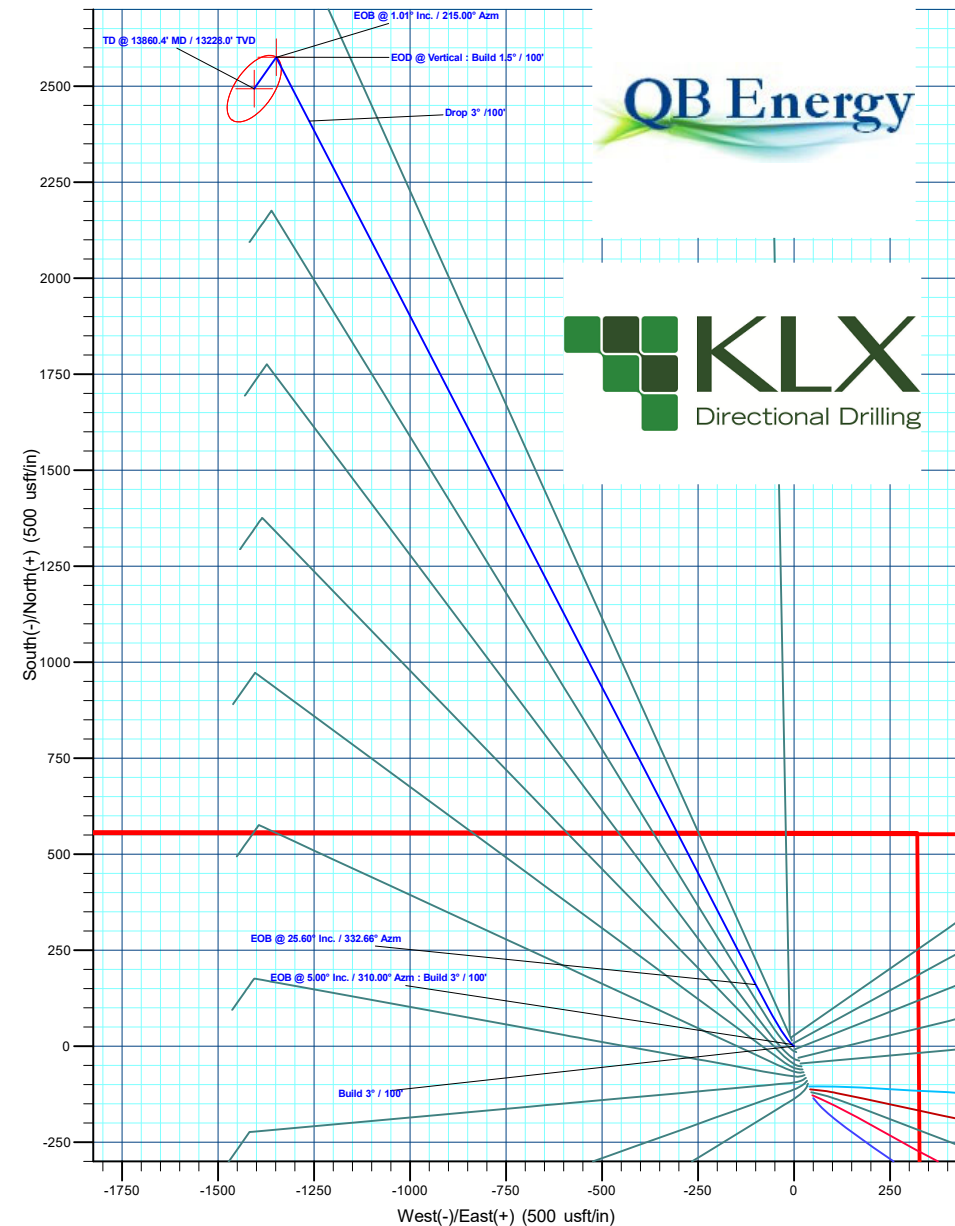
SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSEct	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	Build 3° / 100'
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.0	EOB @ 5.00° Inc. / 310.00° Azm : Build 3° / 100'
766.7	5.00	310.00	766.5	4.7	-5.6	3.00	310.00	6.3	EOB @ 25.60° Inc. / 332.66° Azm
1468.9	25.60	332.66	1440.5	160.9	-99.8	3.00	27.58	189.1	Drop 3° / 100'
7327.3	25.60	332.66	6723.8	2409.3	-1262.3	0.00	0.00	2718.7	EOB @ Vertical : Build 1.5° / 100'
8180.6	0.00	0.00	7549.0	2575.8	-1348.4	3.00	180.00	2906.0	EOD @ Vertical : Build 1.5° / 100'
8248.2	1.01	215.00	7616.7	2575.3	-1348.8	1.50	215.00	2905.8	EOB @ 1.01° Inc. / 215.00° Azm
13860.4	1.01	215.00	13228.0	2493.9	-1405.8	0.00	0.00	2862.8	TD @ 13860.4' MD / 13228.0' TVD



**T M** Azimuths to True North  
 Magnetic North: 9.15°

Magnetic Field  
 Strength: 51080.6nT  
 Dip Angle: 65.83°  
 Date: 9/30/2022  
 Model: HDGM2022



Plan: Prelim #3 (RNPU B27 FED 14D-22 197/OH)  
 Created By: Will Jircik Date: 12:54, June 18 2025



## **QB Energy Operating, LLC**

Rio Blanco County, CO

PCU B27 197 Pad

RNPU B27 FED 14D-22 197 - Slot 14D-22

OH

Plan: Prelim #3

## **KLX Well Planning Report**

18 June, 2025



<b>Database:</b>	KLXDirectional-AD	<b>Local Co-ordinate Reference:</b>	Well RNPU B27 FED 14D-22 197 - Slot 14D-22
<b>Company:</b>	QB Energy Operating, LLC	<b>TVD Reference:</b>	RKB @ 6540.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 6540.0usft (30')
<b>Site:</b>	PCU B27 197 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RNPU B27 FED 14D-22 197	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Prelim #3		

<b>Project</b>	Rio Blanco County, CO		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 - Western US		
<b>Map Zone:</b>	Zone 12N (114 W to 108 W)		

<b>Site</b>	PCU B27 197 Pad				
<b>Site Position:</b>		<b>Northing:</b>	14,516,246.39 usft	<b>Latitude:</b>	39.940899
<b>From:</b>	Map	<b>Easting:</b>	2,406,120.81 usft	<b>Longitude:</b>	-108.268449
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	1.75 °

<b>Well</b>	RNPU B27 FED 14D-22 197 - Slot 14D-22					
<b>Well Position</b>	<b>+N/-S</b>	90.0 usft	<b>Northing:</b>	14,516,335.30 usft	<b>Latitude:</b>	39.941145
	<b>+E/-W</b>	-33.6 usft	<b>Easting:</b>	2,406,084.50 usft	<b>Longitude:</b>	-108.268569
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	6,510.0 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	HDGM2022	9/30/2022	9.15	65.83	51,080.60000000

<b>Design</b>	Prelim #3			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	330.59

<b>Plan Sections</b>										
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	
600.0	0.00	0.00	600.0	0.0	0.0	0.00	0.00	0.00	0.00	
766.7	5.00	310.00	766.5	4.7	-5.6	3.00	3.00	0.00	310.00	
1,468.9	25.60	332.66	1,440.5	160.9	-99.8	3.00	2.93	3.23	27.58	
7,327.3	25.60	332.66	6,723.8	2,409.3	-1,262.3	0.00	0.00	0.00	0.00	
8,180.6	0.00	0.00	7,549.0	2,575.8	-1,348.4	3.00	-3.00	0.00	180.00	14D-22 - OHCR
8,248.2	1.01	215.00	7,616.7	2,575.3	-1,348.8	1.50	1.50	-214.31	215.00	
13,860.4	1.01	215.00	13,228.0	2,493.9	-1,405.8	0.00	0.00	0.00	0.00	14D-22 - PBHL

<b>Database:</b>	KLXDirectional-AD	<b>Local Co-ordinate Reference:</b>	Well RNPU B27 FED 14D-22 197 - Slot 14D-22
<b>Company:</b>	QB Energy Operating, LLC	<b>TVD Reference:</b>	RKB @ 6540.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 6540.0usft (30')
<b>Site:</b>	PCU B27 197 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RNPU B27 FED 14D-22 197	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Prelim #3		

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	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
<b>Build 3° / 100'</b>										
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	3.00	310.00	700.0	1.7	-2.0	2.5	3.00	3.00	0.00	
<b>EOB @ 5.00° Inc. / 310.00° Azm : Build 3° / 100'</b>										
766.7	5.00	310.00	766.5	4.7	-5.6	6.8	3.00	3.00	0.00	
800.0	5.90	314.51	799.6	6.8	-7.9	9.8	3.00	2.71	13.52	
900.0	8.74	322.27	898.8	16.4	-16.2	22.3	3.00	2.84	7.76	
1,000.0	11.66	326.21	997.2	30.8	-26.5	39.9	3.00	2.92	3.94	
1,100.0	14.61	328.58	1,094.6	50.0	-38.7	62.6	3.00	2.95	2.37	
1,200.0	17.58	330.17	1,190.7	73.9	-52.8	90.3	3.00	2.97	1.59	
1,300.0	20.56	331.31	1,285.2	102.4	-68.7	123.0	3.00	2.98	1.14	
1,400.0	23.54	332.17	1,377.8	135.5	-86.5	160.5	3.00	2.98	0.86	
<b>EOB @ 25.60° Inc. / 332.66° Azm</b>										
1,468.9	25.60	332.66	1,440.5	160.9	-99.8	189.1	3.00	2.99	0.70	
1,500.0	25.60	332.66	1,468.5	172.8	-105.9	202.5	0.00	0.00	0.00	
1,600.0	25.60	332.66	1,558.7	211.2	-125.8	245.7	0.00	0.00	0.00	
1,700.0	25.60	332.66	1,648.9	249.6	-145.6	288.9	0.00	0.00	0.00	
1,800.0	25.60	332.66	1,739.1	287.9	-165.5	332.1	0.00	0.00	0.00	
1,900.0	25.60	332.66	1,829.3	326.3	-185.3	375.3	0.00	0.00	0.00	
2,000.0	25.60	332.66	1,919.5	364.7	-205.1	418.4	0.00	0.00	0.00	
2,100.0	25.60	332.66	2,009.7	403.1	-225.0	461.6	0.00	0.00	0.00	
2,200.0	25.60	332.66	2,099.8	441.5	-244.8	504.8	0.00	0.00	0.00	
2,300.0	25.60	332.66	2,190.0	479.8	-264.7	548.0	0.00	0.00	0.00	
2,400.0	25.60	332.66	2,280.2	518.2	-284.5	591.2	0.00	0.00	0.00	
2,500.0	25.60	332.66	2,370.4	556.6	-304.4	634.3	0.00	0.00	0.00	
2,600.0	25.60	332.66	2,460.6	595.0	-324.2	677.5	0.00	0.00	0.00	
<b>Orange Marker</b>										
2,651.5	25.60	332.66	2,507.0	614.7	-334.4	699.7	0.00	0.00	0.00	
2,700.0	25.60	332.66	2,550.8	633.4	-344.1	720.7	0.00	0.00	0.00	
2,800.0	25.60	332.66	2,640.9	671.7	-363.9	763.9	0.00	0.00	0.00	
<b>Wasatch</b>										
2,810.0	25.60	332.66	2,650.0	675.6	-365.9	768.2	0.00	0.00	0.00	
2,900.0	25.60	332.66	2,731.1	710.1	-383.8	807.0	0.00	0.00	0.00	
3,000.0	25.60	332.66	2,821.3	748.5	-403.6	850.2	0.00	0.00	0.00	
3,100.0	25.60	332.66	2,911.5	786.9	-423.4	893.4	0.00	0.00	0.00	
3,200.0	25.60	332.66	3,001.7	825.3	-443.3	936.6	0.00	0.00	0.00	
3,300.0	25.60	332.66	3,091.9	863.6	-463.1	979.8	0.00	0.00	0.00	
3,400.0	25.60	332.66	3,182.0	902.0	-483.0	1,022.9	0.00	0.00	0.00	
3,500.0	25.60	332.66	3,272.2	940.4	-502.8	1,066.1	0.00	0.00	0.00	
3,600.0	25.60	332.66	3,362.4	978.8	-522.7	1,109.3	0.00	0.00	0.00	
3,700.0	25.60	332.66	3,452.6	1,017.2	-542.5	1,152.5	0.00	0.00	0.00	
3,800.0	25.60	332.66	3,542.8	1,055.5	-562.4	1,195.7	0.00	0.00	0.00	
3,900.0	25.60	332.66	3,633.0	1,093.9	-582.2	1,238.8	0.00	0.00	0.00	
4,000.0	25.60	332.66	3,723.1	1,132.3	-602.0	1,282.0	0.00	0.00	0.00	
4,100.0	25.60	332.66	3,813.3	1,170.7	-621.9	1,325.2	0.00	0.00	0.00	
4,200.0	25.60	332.66	3,903.5	1,209.1	-641.7	1,368.4	0.00	0.00	0.00	

<b>Database:</b>	KLXDirectional-AD	<b>Local Co-ordinate Reference:</b>	Well RNPU B27 FED 14D-22 197 - Slot 14D-22
<b>Company:</b>	QB Energy Operating, LLC	<b>TVD Reference:</b>	RKB @ 6540.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 6540.0usft (30')
<b>Site:</b>	PCU B27 197 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RNPU B27 FED 14D-22 197	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Prelim #3		

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)	
4,300.0	25.60	332.66	3,993.7	1,247.4	-661.6	1,411.5	0.00	0.00	0.00	
4,400.0	25.60	332.66	4,083.9	1,285.8	-681.4	1,454.7	0.00	0.00	0.00	
4,500.0	25.60	332.66	4,174.1	1,324.2	-701.3	1,497.9	0.00	0.00	0.00	
4,600.0	25.60	332.66	4,264.3	1,362.6	-721.1	1,541.1	0.00	0.00	0.00	
4,700.0	25.60	332.66	4,354.4	1,401.0	-741.0	1,584.3	0.00	0.00	0.00	
4,800.0	25.60	332.66	4,444.6	1,439.3	-760.8	1,627.4	0.00	0.00	0.00	
4,900.0	25.60	332.66	4,534.8	1,477.7	-780.6	1,670.6	0.00	0.00	0.00	
5,000.0	25.60	332.66	4,625.0	1,516.1	-800.5	1,713.8	0.00	0.00	0.00	
5,100.0	25.60	332.66	4,715.2	1,554.5	-820.3	1,757.0	0.00	0.00	0.00	
5,200.0	25.60	332.66	4,805.4	1,592.9	-840.2	1,800.2	0.00	0.00	0.00	
5,300.0	25.60	332.66	4,895.5	1,631.2	-860.0	1,843.3	0.00	0.00	0.00	
5,400.0	25.60	332.66	4,985.7	1,669.6	-879.9	1,886.5	0.00	0.00	0.00	
5,500.0	25.60	332.66	5,075.9	1,708.0	-899.7	1,929.7	0.00	0.00	0.00	
5,600.0	25.60	332.66	5,166.1	1,746.4	-919.6	1,972.9	0.00	0.00	0.00	
5,700.0	25.60	332.66	5,256.3	1,784.8	-939.4	2,016.1	0.00	0.00	0.00	
5,800.0	25.60	332.66	5,346.5	1,823.1	-959.3	2,059.2	0.00	0.00	0.00	
5,900.0	25.60	332.66	5,436.6	1,861.5	-979.1	2,102.4	0.00	0.00	0.00	
6,000.0	25.60	332.66	5,526.8	1,899.9	-998.9	2,145.6	0.00	0.00	0.00	
<b>Wasatch G</b>										
6,047.9	25.60	332.66	5,570.0	1,918.3	-1,008.4	2,166.3	0.00	0.00	0.00	
6,100.0	25.60	332.66	5,617.0	1,938.3	-1,018.8	2,188.8	0.00	0.00	0.00	
6,200.0	25.60	332.66	5,707.2	1,976.7	-1,038.6	2,231.9	0.00	0.00	0.00	
6,300.0	25.60	332.66	5,797.4	2,015.0	-1,058.5	2,275.1	0.00	0.00	0.00	
6,400.0	25.60	332.66	5,887.6	2,053.4	-1,078.3	2,318.3	0.00	0.00	0.00	
6,500.0	25.60	332.66	5,977.7	2,091.8	-1,098.2	2,361.5	0.00	0.00	0.00	
<b>Fort Union</b>										
6,560.2	25.60	332.66	6,032.0	2,114.9	-1,110.1	2,387.5	0.00	0.00	0.00	
6,600.0	25.60	332.66	6,067.9	2,130.2	-1,118.0	2,404.7	0.00	0.00	0.00	
6,700.0	25.60	332.66	6,158.1	2,168.6	-1,137.9	2,447.8	0.00	0.00	0.00	
6,800.0	25.60	332.66	6,248.3	2,206.9	-1,157.7	2,491.0	0.00	0.00	0.00	
6,900.0	25.60	332.66	6,338.5	2,245.3	-1,177.5	2,534.2	0.00	0.00	0.00	
7,000.0	25.60	332.66	6,428.7	2,283.7	-1,197.4	2,577.4	0.00	0.00	0.00	
7,100.0	25.60	332.66	6,518.9	2,322.1	-1,217.2	2,620.6	0.00	0.00	0.00	
7,200.0	25.60	332.66	6,609.0	2,360.5	-1,237.1	2,663.7	0.00	0.00	0.00	
7,300.0	25.60	332.66	6,699.2	2,398.8	-1,256.9	2,706.9	0.00	0.00	0.00	
<b>Drop 3° / 100'</b>										
7,327.3	25.60	332.66	6,723.8	2,409.3	-1,262.3	2,718.7	0.00	0.00	0.00	
7,400.0	23.42	332.66	6,790.0	2,436.1	-1,276.2	2,748.8	3.00	-3.00	0.00	
7,500.0	20.42	332.66	6,882.8	2,469.2	-1,293.3	2,786.1	3.00	-3.00	0.00	
7,600.0	17.42	332.66	6,977.3	2,498.0	-1,308.2	2,818.5	3.00	-3.00	0.00	
7,700.0	14.42	332.66	7,073.5	2,522.4	-1,320.8	2,845.9	3.00	-3.00	0.00	
7,800.0	11.42	332.66	7,171.0	2,542.3	-1,331.1	2,868.3	3.00	-3.00	0.00	
7,900.0	8.42	332.66	7,269.4	2,557.5	-1,339.0	2,885.5	3.00	-3.00	0.00	
8,000.0	5.42	332.66	7,368.7	2,568.2	-1,344.5	2,897.5	3.00	-3.00	0.00	
8,100.0	2.42	332.66	7,468.5	2,574.3	-1,347.7	2,904.3	3.00	-3.00	0.00	
<b>EOD @ Vertical : Build 1.5° / 100' - Ohio Creek</b>										
8,180.6	0.00	0.00	7,549.0	2,575.8	-1,348.4	2,906.0	3.00	-3.00	0.00	
8,200.0	0.29	215.00	7,568.4	2,575.8	-1,348.5	2,906.0	1.50	1.50	0.00	
<b>EOB @ 1.01° Inc. / 215.00° Azm</b>										
8,248.2	1.01	215.00	7,616.7	2,575.3	-1,348.8	2,905.8	1.50	1.50	0.00	
8,300.0	1.01	215.00	7,668.4	2,574.6	-1,349.3	2,905.4	0.00	0.00	0.00	
8,400.0	1.01	215.00	7,768.4	2,573.1	-1,350.3	2,904.6	0.00	0.00	0.00	

<b>Database:</b>	KLXDirectional-AD	<b>Local Co-ordinate Reference:</b>	Well RNPU B27 FED 14D-22 197 - Slot 14D-22
<b>Company:</b>	QB Energy Operating, LLC	<b>TVD Reference:</b>	RKB @ 6540.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 6540.0usft (30')
<b>Site:</b>	PCU B27 197 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RNPU B27 FED 14D-22 197	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Prelim #3		

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)	
8,500.0	1.01	215.00	7,868.4	2,571.7	-1,351.3	2,903.8	0.00	0.00	0.00	
8,600.0	1.01	215.00	7,968.4	2,570.2	-1,352.4	2,903.1	0.00	0.00	0.00	
8,700.0	1.01	215.00	8,068.4	2,568.8	-1,353.4	2,902.3	0.00	0.00	0.00	
8,800.0	1.01	215.00	8,168.3	2,567.3	-1,354.4	2,901.6	0.00	0.00	0.00	
8,900.0	1.01	215.00	8,268.3	2,565.9	-1,355.4	2,900.8	0.00	0.00	0.00	
<b>Williams Fork</b>										
8,930.7	1.01	215.00	8,299.0	2,565.4	-1,355.7	2,900.6	0.00	0.00	0.00	
9,000.0	1.01	215.00	8,368.3	2,564.4	-1,356.4	2,900.0	0.00	0.00	0.00	
9,100.0	1.01	215.00	8,468.3	2,563.0	-1,357.4	2,899.3	0.00	0.00	0.00	
9,200.0	1.01	215.00	8,568.3	2,561.5	-1,358.5	2,898.5	0.00	0.00	0.00	
9,300.0	1.01	215.00	8,668.3	2,560.1	-1,359.5	2,897.7	0.00	0.00	0.00	
9,400.0	1.01	215.00	8,768.3	2,558.6	-1,360.5	2,897.0	0.00	0.00	0.00	
9,500.0	1.01	215.00	8,868.2	2,557.2	-1,361.5	2,896.2	0.00	0.00	0.00	
9,600.0	1.01	215.00	8,968.2	2,555.7	-1,362.5	2,895.4	0.00	0.00	0.00	
9,700.0	1.01	215.00	9,068.2	2,554.3	-1,363.5	2,894.7	0.00	0.00	0.00	
9,800.0	1.01	215.00	9,168.2	2,552.8	-1,364.6	2,893.9	0.00	0.00	0.00	
9,900.0	1.01	215.00	9,268.2	2,551.4	-1,365.6	2,893.1	0.00	0.00	0.00	
10,000.0	1.01	215.00	9,368.2	2,549.9	-1,366.6	2,892.4	0.00	0.00	0.00	
10,100.0	1.01	215.00	9,468.1	2,548.5	-1,367.6	2,891.6	0.00	0.00	0.00	
10,200.0	1.01	215.00	9,568.1	2,547.0	-1,368.6	2,890.8	0.00	0.00	0.00	
10,300.0	1.01	215.00	9,668.1	2,545.6	-1,369.6	2,890.1	0.00	0.00	0.00	
10,400.0	1.01	215.00	9,768.1	2,544.1	-1,370.6	2,889.3	0.00	0.00	0.00	
10,500.0	1.01	215.00	9,868.1	2,542.7	-1,371.7	2,888.5	0.00	0.00	0.00	
10,600.0	1.01	215.00	9,968.1	2,541.2	-1,372.7	2,887.8	0.00	0.00	0.00	
10,700.0	1.01	215.00	10,068.1	2,539.8	-1,373.7	2,887.0	0.00	0.00	0.00	
10,800.0	1.01	215.00	10,168.0	2,538.3	-1,374.7	2,886.3	0.00	0.00	0.00	
10,900.0	1.01	215.00	10,268.0	2,536.9	-1,375.7	2,885.5	0.00	0.00	0.00	
11,000.0	1.01	215.00	10,368.0	2,535.4	-1,376.7	2,884.7	0.00	0.00	0.00	
11,100.0	1.01	215.00	10,468.0	2,534.0	-1,377.8	2,884.0	0.00	0.00	0.00	
11,200.0	1.01	215.00	10,568.0	2,532.5	-1,378.8	2,883.2	0.00	0.00	0.00	
11,300.0	1.01	215.00	10,668.0	2,531.1	-1,379.8	2,882.4	0.00	0.00	0.00	
11,400.0	1.01	215.00	10,767.9	2,529.6	-1,380.8	2,881.7	0.00	0.00	0.00	
11,500.0	1.01	215.00	10,867.9	2,528.2	-1,381.8	2,880.9	0.00	0.00	0.00	
11,600.0	1.01	215.00	10,967.9	2,526.7	-1,382.8	2,880.1	0.00	0.00	0.00	
11,700.0	1.01	215.00	11,067.9	2,525.3	-1,383.9	2,879.4	0.00	0.00	0.00	
11,800.0	1.01	215.00	11,167.9	2,523.8	-1,384.9	2,878.6	0.00	0.00	0.00	
<b>Cameo</b>										
11,828.1	1.01	215.00	11,196.0	2,523.4	-1,385.2	2,878.4	0.00	0.00	0.00	
11,900.0	1.01	215.00	11,267.9	2,522.4	-1,385.9	2,877.8	0.00	0.00	0.00	
12,000.0	1.01	215.00	11,367.8	2,520.9	-1,386.9	2,877.1	0.00	0.00	0.00	
12,100.0	1.01	215.00	11,467.8	2,519.5	-1,387.9	2,876.3	0.00	0.00	0.00	
12,200.0	1.01	215.00	11,567.8	2,518.0	-1,388.9	2,875.5	0.00	0.00	0.00	
12,300.0	1.01	215.00	11,667.8	2,516.5	-1,389.9	2,874.8	0.00	0.00	0.00	
<b>Rollins</b>										
12,378.2	1.01	215.00	11,746.0	2,515.4	-1,390.7	2,874.2	0.00	0.00	0.00	
12,400.0	1.01	215.00	11,767.8	2,515.1	-1,391.0	2,874.0	0.00	0.00	0.00	
<b>Cozette</b>										
12,460.2	1.01	215.00	11,828.0	2,514.2	-1,391.6	2,873.6	0.00	0.00	0.00	
12,500.0	1.01	215.00	11,867.8	2,513.6	-1,392.0	2,873.2	0.00	0.00	0.00	
12,600.0	1.01	215.00	11,967.8	2,512.2	-1,393.0	2,872.5	0.00	0.00	0.00	
12,700.0	1.01	215.00	12,067.7	2,510.7	-1,394.0	2,871.7	0.00	0.00	0.00	
12,800.0	1.01	215.00	12,167.7	2,509.3	-1,395.0	2,871.0	0.00	0.00	0.00	

<b>Database:</b>	KLXDirectional-AD	<b>Local Co-ordinate Reference:</b>	Well RNPU B27 FED 14D-22 197 - Slot 14D-22
<b>Company:</b>	QB Energy Operating, LLC	<b>TVD Reference:</b>	RKB @ 6540.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 6540.0usft (30')
<b>Site:</b>	PCU B27 197 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RNPU B27 FED 14D-22 197	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Prelim #3		

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)	
12,900.0	1.01	215.00	12,267.7	2,507.8	-1,396.0	2,870.2	0.00	0.00	0.00	
13,000.0	1.01	215.00	12,367.7	2,506.4	-1,397.1	2,869.4	0.00	0.00	0.00	
<b>Corcoran</b>										
13,060.3	1.01	215.00	12,428.0	2,505.5	-1,397.7	2,869.0	0.00	0.00	0.00	
13,100.0	1.01	215.00	12,467.7	2,504.9	-1,398.1	2,868.7	0.00	0.00	0.00	
13,200.0	1.01	215.00	12,567.7	2,503.5	-1,399.1	2,867.9	0.00	0.00	0.00	
13,300.0	1.01	215.00	12,667.6	2,502.0	-1,400.1	2,867.1	0.00	0.00	0.00	
13,400.0	1.01	215.00	12,767.6	2,500.6	-1,401.1	2,866.4	0.00	0.00	0.00	
13,500.0	1.01	215.00	12,867.6	2,499.1	-1,402.1	2,865.6	0.00	0.00	0.00	
13,600.0	1.01	215.00	12,967.6	2,497.7	-1,403.2	2,864.8	0.00	0.00	0.00	
13,700.0	1.01	215.00	13,067.6	2,496.2	-1,404.2	2,864.1	0.00	0.00	0.00	
13,800.0	1.01	215.00	13,167.6	2,494.8	-1,405.2	2,863.3	0.00	0.00	0.00	
<b>TD @ 13860.4' MD / 13228.0' TVD</b>										
13,860.4	1.01	215.00	13,228.0	2,493.9	-1,405.8	2,862.8	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	
14D-22 - OHCR - hit/miss target - Shape - Point	0.00	0.00	7,549.0	2,575.8	-1,348.4	14,518,868.63	2,404,657.83	39.948215	-108.273377	
14D-22 - PBHL - plan hits target center - Ellipse (radii L100.0 W50.0 on 215.00 azi)	0.00	0.00	13,228.0	2,493.9	-1,405.8	14,518,785.00	2,404,603.00	39.947990	-108.273582	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,651.5	2,507.0	Orange Marker				
2,810.0	2,650.0	Wasatch				
6,047.9	5,570.0	Wasatch G				
6,560.2	6,032.0	Fort Union				
8,180.6	7,549.0	Ohio Creek				
8,930.7	8,299.0	Williams Fork				
11,828.1	11,196.0	Cameo				
12,378.2	11,746.0	Rollins				
12,460.2	11,828.0	Cozzette				
13,060.3	12,428.0	Corcoran				

<b>Database:</b>	KLXDirectional-AD	<b>Local Co-ordinate Reference:</b>	Well RNPU B27 FED 14D-22 197 - Slot 14D-22
<b>Company:</b>	QB Energy Operating, LLC	<b>TVD Reference:</b>	RKB @ 6540.0usft (30')
<b>Project:</b>	Rio Blanco County, CO	<b>MD Reference:</b>	RKB @ 6540.0usft (30')
<b>Site:</b>	PCU B27 197 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RNPU B27 FED 14D-22 197	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Prelim #3		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
600.0	600.0	0.0	0.0	Build 3° / 100'
766.7	766.5	4.7	-5.6	EOB @ 5.00° Inc. / 310.00° Azm : Build 3° / 100'
1,468.9	1,440.5	160.9	-99.8	EOB @ 25.60° Inc. / 332.66° Azm
7,327.3	6,723.8	2,409.3	-1,262.3	Drop 3° /100'
8,180.6	7,549.0	2,575.8	-1,348.4	EOD @ Vertical : Build 1.5° / 100'
8,248.2	7,616.7	2,575.3	-1,348.8	EOB @ 1.01° Inc. / 215.00° Azm
13,860.4	13,228.0	2,493.9	-1,405.8	TD @ 13860.4' MD / 13228.0' TVD