

Gunnison Energy Corp.

Delta County, CO (NAD27)

Sec. 23-T12S-R94W

SPU Cockroft 1294 23-41DH1R

Plan B Rev 0

Plan: Plan B Rev 0 Proposal

Sperry Drilling Services

Proposal Report

12 October, 2012

Well Coordinates: 433,343.57 N, 1,329,864.79 E (38° 59' 57.62" N, 107° 51' 29.68" W)

Ground Level: 8,536.00 ft

Local Coordinate Origin: Centered on Well SPU Cockroft 1294 23-41DH1R

Viewing Datum: KB-24' @ 8560.00ft (DHS 20)

TVDs to System: N

North Reference: True

Unit System: API - US Survey Feet - Custom

Geodetic Scale Factor Applied

Version: 2003.16 Build: 431

HALLIBURTON

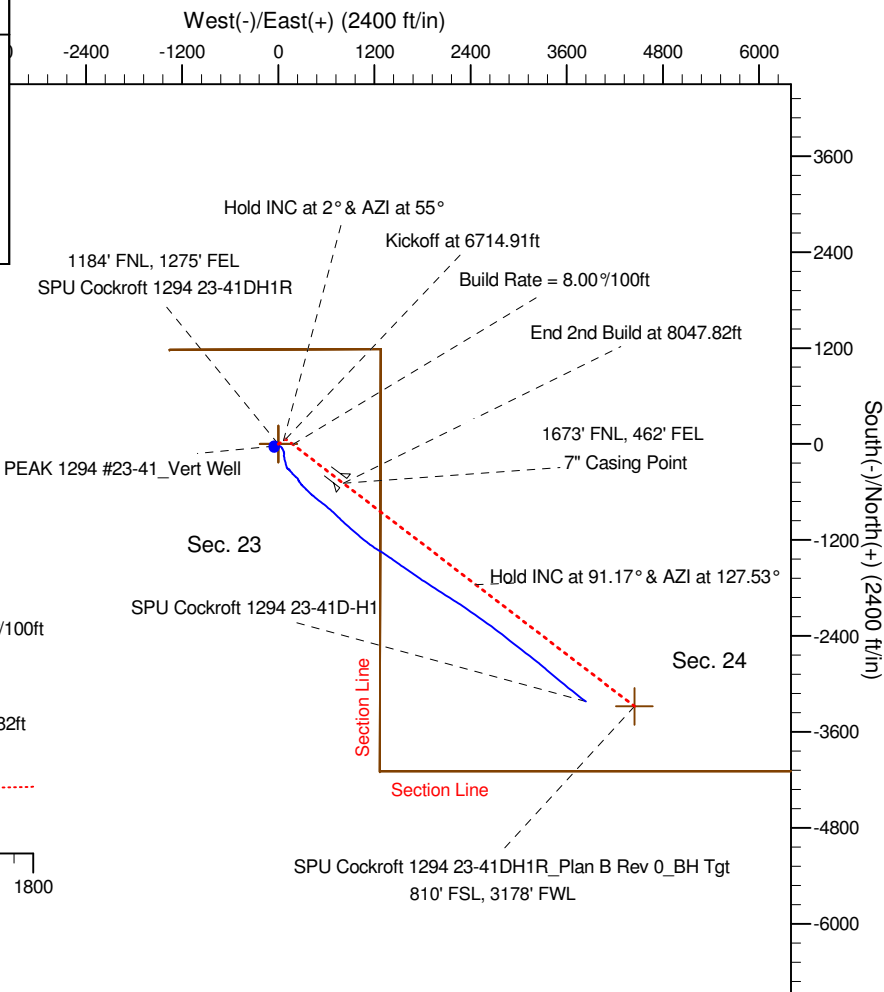
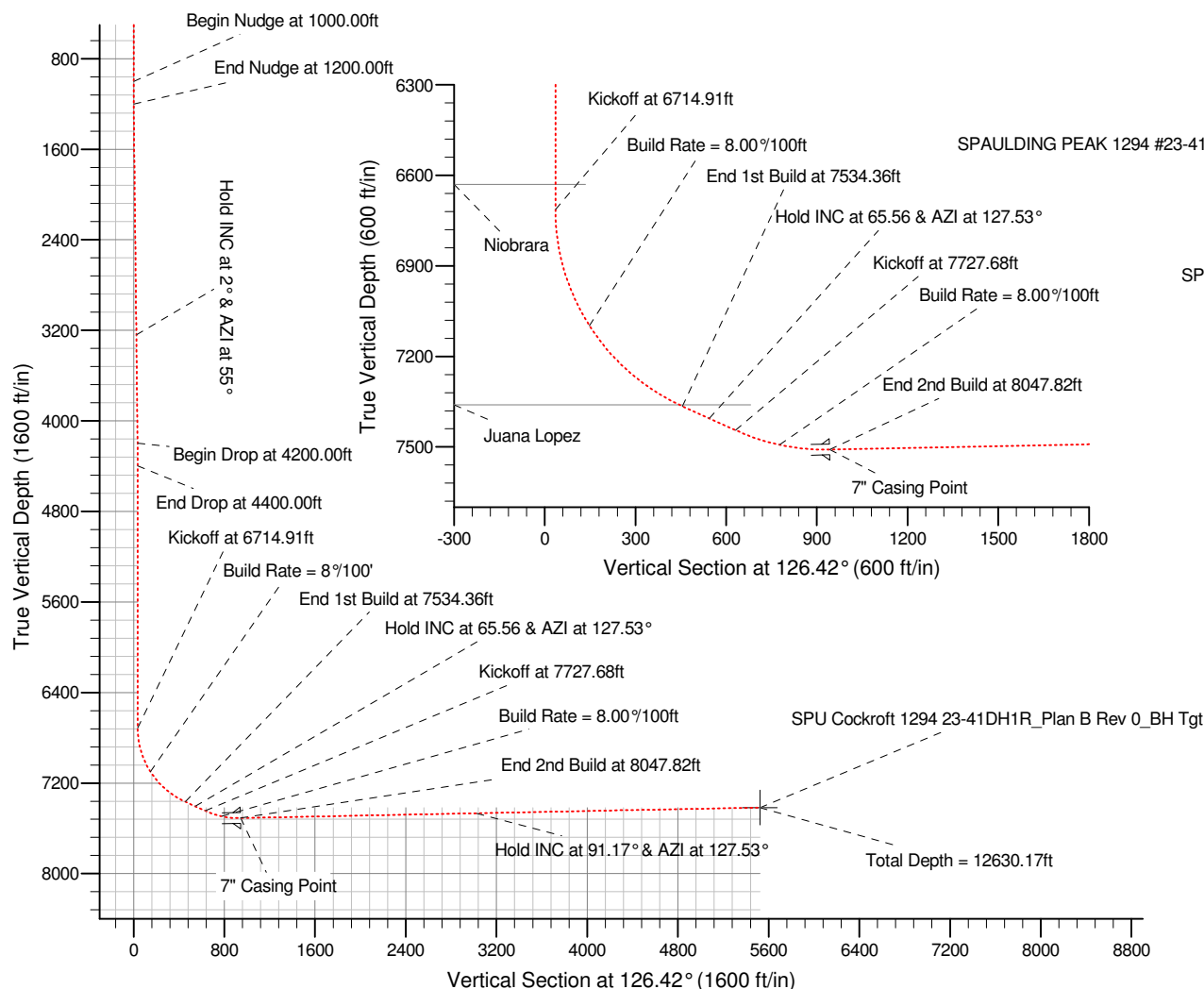
Project: Delta County, CO (NAD27)
 Site: Sec. 23-T12S-R94W
 Well: SPU Cockroft 1294 23-41DH1R
 Wellbore: Plan B Rev 0
 Design: Plan B Rev 0 Proposal

Gunnison Energy Corp.

HALLIBURTON
 Sperry Drilling

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	-0.02	0.00	0.00	0.00	0.00	
2	1000.00	0.00	0.00	1000.00	-0.02	0.00	0.00	0.00	0.00	
3	1200.00	2.00	55.00	1199.96	1.98	2.86	1.00	55.00	1.11	
4	4200.00	2.00	55.00	4198.13	62.03	88.62	0.00	0.00	34.47	
5	4400.00	0.00	0.00	4398.09	64.03	91.48	1.00	180.00	35.58	
6	6714.91	0.00	0.00	6713.00	64.03	91.48	0.00	0.00	35.58	
7	7534.36	65.56	127.53	7365.00	-191.72	424.42	8.00	127.53	455.33	
8	7727.68	65.56	127.53	7445.00	-298.93	563.99	0.00	0.00	631.30	
9	8047.82	91.17	127.53	7509.05	-488.34	810.59	8.00	-0.01	942.19	
10	12630.17	91.17	127.53	7415.75	-3278.98	4444.00	0.00	0.00	5522.74	SPU Cockroft 1294 23-41DH1R_BH Tgt



WELL DETAILS: SPU Cockroft 1294 23-41DH1R

North	Ground Level:	8536.00	Longitude
433343.57	Easting	1329864.79	107° 51' 29.678 W
	Latitude	38° 59' 57.620 N	

Plan: Plan B Rev 0 Proposal (SPU Cockroft 1294 23-41DH1R)

Created By: Isaiah Rodolph Date: 10/12/2012

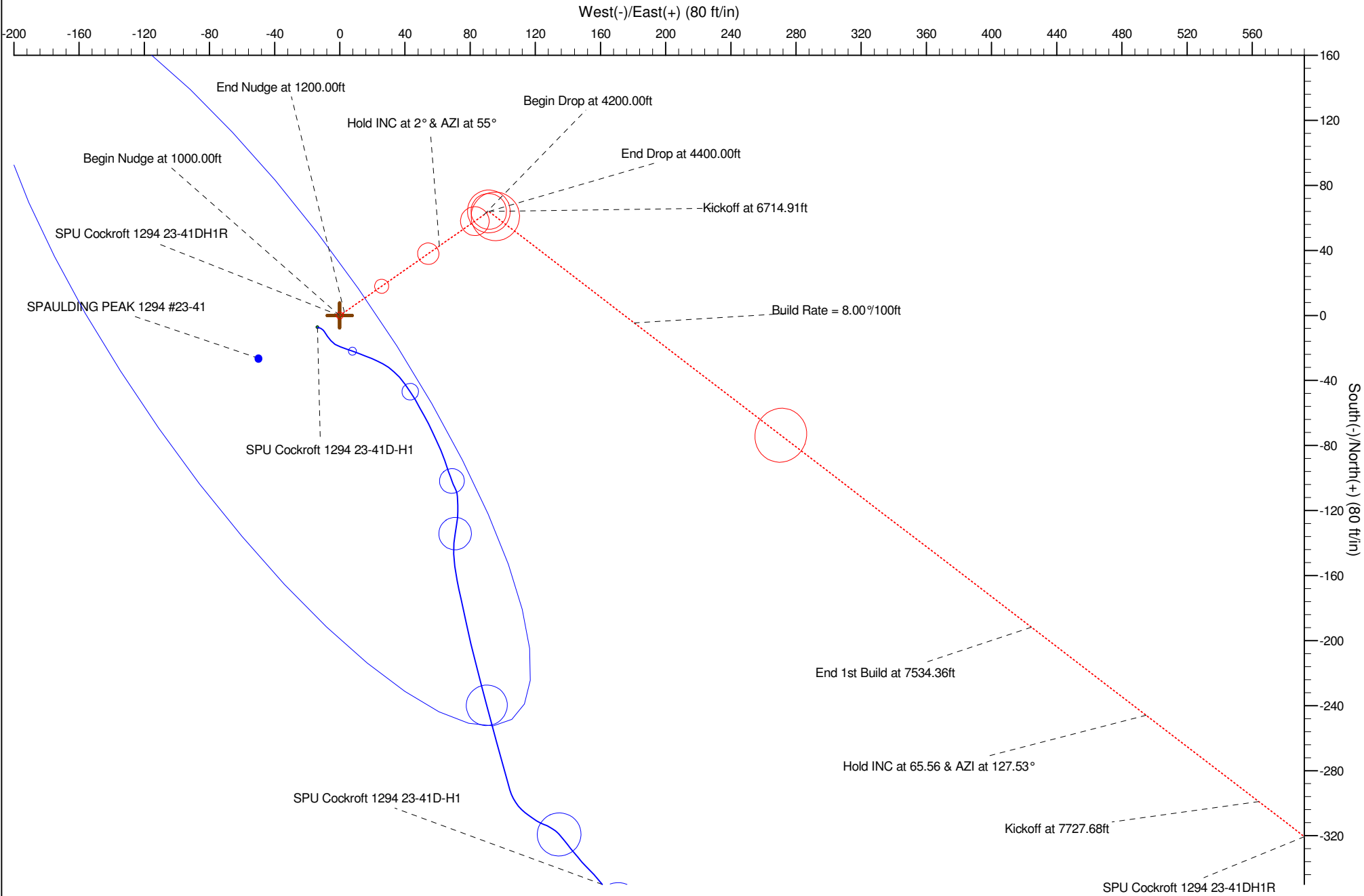
Checked: _____ Date: _____

Reviewed: _____ Date: _____

Approved: _____ Date: _____

Project: Delta County, CO (NAD27)
Site: Sec. 23-T12S-R94W
SPU Cockroft 1294 23-41DH1R
Plan B Rev 0
Plan B Rev 0 Proposal

Gunnison Energy Corp.



Plan Report for SPU Cockroft 1294 23-41DH1R - Plan B Rev 0 Proposal

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)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
898.00	0.00	0.00	898.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
Williams Fork										
900.00	0.00	0.00	900.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	-0.02	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge at 1000.00ft										
1,100.00	1.00	55.00	1,099.99	0.48	0.71	0.28	1.00	1.00	0.00	55.00
1,200.00	2.00	55.00	1,199.96	1.98	2.86	1.11	1.00	1.00	0.00	0.00
End Nudge at 1200.00ft										
1,300.00	2.00	55.00	1,299.90	3.98	5.72	2.22	0.00	0.00	0.00	0.00
1,400.00	2.00	55.00	1,399.84	5.98	8.58	3.34	0.00	0.00	0.00	0.00
1,500.00	2.00	55.00	1,499.78	7.98	11.44	4.45	0.00	0.00	0.00	0.00
1,600.00	2.00	55.00	1,599.72	9.99	14.29	5.56	0.00	0.00	0.00	0.00
1,700.00	2.00	55.00	1,699.65	11.99	17.15	6.67	0.00	0.00	0.00	0.00
1,800.00	2.00	55.00	1,799.59	13.99	20.01	7.78	0.00	0.00	0.00	0.00
1,900.00	2.00	55.00	1,899.53	15.99	22.87	8.90	0.00	0.00	0.00	0.00
2,000.00	2.00	55.00	1,999.47	17.99	25.73	10.01	0.00	0.00	0.00	0.00
2,100.00	2.00	55.00	2,099.41	19.99	28.59	11.12	0.00	0.00	0.00	0.00
2,200.00	2.00	55.00	2,199.35	22.00	31.45	12.23	0.00	0.00	0.00	0.00
2,300.00	2.00	55.00	2,299.29	24.00	34.31	13.34	0.00	0.00	0.00	0.00
2,400.00	2.00	55.00	2,399.23	26.00	37.16	14.45	0.00	0.00	0.00	0.00
2,500.00	2.00	55.00	2,499.17	28.00	40.02	15.57	0.00	0.00	0.00	0.00
2,600.00	2.00	55.00	2,599.11	30.00	42.88	16.68	0.00	0.00	0.00	0.00
2,700.00	2.00	55.00	2,699.05	32.00	45.74	17.79	0.00	0.00	0.00	0.00
2,800.00	2.00	55.00	2,798.98	34.01	48.60	18.90	0.00	0.00	0.00	0.00
2,900.00	2.00	55.00	2,898.92	36.01	51.46	20.01	0.00	0.00	0.00	0.00
3,000.00	2.00	55.00	2,998.86	38.01	54.32	21.13	0.00	0.00	0.00	0.00
3,100.00	2.00	55.00	3,098.80	40.01	57.18	22.24	0.00	0.00	0.00	0.00
3,150.23	2.00	55.00	3,149.00	41.02	58.61	22.80	0.00	0.00	0.00	0.00
Cameo B Coal										
3,200.00	2.00	55.00	3,198.74	42.01	60.04	23.35	0.00	0.00	0.00	0.00
3,240.00	2.00	55.00	3,238.72	42.81	61.18	23.79	0.00	0.00	0.00	0.00
Hold INC at 2° & AZI at 55°										
3,277.31	2.00	55.00	3,276.00	43.56	62.25	24.21	0.00	0.00	0.00	0.00
Rollins SS										
3,300.00	2.00	55.00	3,298.68	44.01	62.89	24.46	0.00	0.00	0.00	0.00
3,400.00	2.00	55.00	3,398.62	46.02	65.75	25.57	0.00	0.00	0.00	0.00
3,500.00	2.00	55.00	3,498.56	48.02	68.61	26.69	0.00	0.00	0.00	0.00
3,600.00	2.00	55.00	3,598.50	50.02	71.47	27.80	0.00	0.00	0.00	0.00
3,700.00	2.00	55.00	3,698.44	52.02	74.33	28.91	0.00	0.00	0.00	0.00
3,741.59	2.00	55.00	3,740.00	52.85	75.52	29.37	0.00	0.00	0.00	0.00
Cozzette SS										
3,800.00	2.00	55.00	3,798.38	54.02	77.19	30.02	0.00	0.00	0.00	0.00
3,900.00	2.00	55.00	3,898.31	56.03	80.05	31.13	0.00	0.00	0.00	0.00
3,933.71	2.00	55.00	3,932.00	56.70	81.01	31.51	0.00	0.00	0.00	0.00
Corcoran SS										
4,000.00	2.00	55.00	3,998.25	58.03	82.91	32.25	0.00	0.00	0.00	0.00
4,100.00	2.00	55.00	4,098.19	60.03	85.76	33.36	0.00	0.00	0.00	0.00
4,200.00	2.00	55.00	4,198.13	62.03	88.62	34.47	0.00	0.00	0.00	0.00
Begin Drop at 4200.00ft										

Plan Report for SPU Cockroft 1294 23-41DH1R - Plan B Rev 0 Proposal

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)	Toolface Azimuth (°)
4,300.00	1.00	55.00	4,298.10	63.53	90.77	35.30	1.00	-1.00	0.00	180.00
4,400.00	0.00	0.00	4,398.09	64.03	91.48	35.58	1.00	-1.00	0.00	-180.00
End Drop at 4400.00ft										
4,500.00	0.00	0.00	4,498.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,598.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,698.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,798.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,898.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,998.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,098.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,198.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
5,224.91	0.00	0.00	5,223.00	64.03	91.48	35.58	0.00	0.00	0.00	0.00
Hot Gamma Marker										
5,300.00	0.00	0.00	5,298.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,398.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,498.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,598.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,698.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,798.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,898.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,998.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,098.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,198.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,298.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,398.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,498.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,598.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
6,632.91	0.00	0.00	6,631.00	64.03	91.48	35.58	0.00	0.00	0.00	0.00
Niobrara										
6,700.00	0.00	0.00	6,698.09	64.03	91.48	35.58	0.00	0.00	0.00	0.00
6,714.91	0.00	0.00	6,713.00	64.03	91.48	35.58	0.00	0.00	0.00	0.00
Kickoff at 6714.91ft										
6,800.00	6.81	127.53	6,797.89	60.96	95.49	40.63	8.00	8.00	0.00	127.53
6,900.00	14.81	127.53	6,896.04	49.54	110.34	59.36	8.00	8.00	0.00	0.00
7,000.00	22.81	127.53	6,990.62	29.92	135.89	91.57	8.00	8.00	0.00	0.00
7,100.00	30.81	127.53	7,079.80	2.47	171.63	136.62	8.00	8.00	0.00	0.00
7,122.00	32.57	127.53	7,098.52	-4.57	180.79	148.18	8.00	8.00	0.00	0.00
Build Rate = 8.00°/100ft										
7,200.00	38.81	127.53	7,161.84	-32.28	216.86	193.65	8.00	8.00	0.00	0.00
7,300.00	46.81	127.53	7,235.15	-73.64	270.70	261.53	8.00	8.00	0.00	0.00
7,400.00	54.81	127.53	7,298.29	-120.81	332.11	338.96	8.00	8.00	0.00	0.00
7,500.00	62.81	127.53	7,350.04	-172.88	399.90	424.41	8.00	8.00	0.00	0.00
7,524.83	64.79	127.53	7,361.00	-186.45	417.56	446.69	8.00	8.00	0.00	0.00
Juana Lopez										
7,534.36	65.56	127.53	7,365.00	-191.72	424.42	455.34	8.00	8.00	0.00	0.00
End 1st Build at 7534.36ft										
7,600.00	65.56	127.53	7,392.16	-228.12	471.81	515.08	0.00	0.00	0.00	0.00
7,632.00	65.56	127.53	7,405.41	-245.87	494.92	544.21	0.00	0.00	0.00	0.00
Hold INC at 65.56 & AZI at 127.53°										
7,700.00	65.56	127.53	7,433.54	-283.58	544.01	606.10	0.00	0.00	0.00	0.00
7,727.68	65.56	127.53	7,445.00	-298.93	563.99	631.30	0.00	0.00	0.00	0.00
Kickoff at 7727.68ft										
7,800.00	71.34	127.53	7,471.55	-339.89	617.31	698.52	8.00	8.00	0.00	-0.01
7,882.00	77.90	127.53	7,493.29	-388.02	679.98	777.52	8.00	8.00	0.00	-0.01
Build Rate = 8.00°/100ft										
7,900.00	79.34	127.53	7,496.84	-398.77	693.97	795.17	8.00	8.00	0.00	-0.01
8,000.00	87.34	127.53	7,508.42	-459.23	772.68	894.39	8.00	8.00	0.00	-0.01
8,047.82	91.17	127.53	7,509.05	-488.35	810.60	942.19	8.00	8.00	0.00	-0.01

Plan Report for SPU Cockroft 1294 23-41DH1R - Plan B Rev 0 Proposal

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)	Toolface Azimuth (°)
End 2nd Build at 8047.82ft - 7" Casing Point										
8,100.00	91.17	127.53	7,507.98	-520.12	851.97	994.35	0.00	0.00	0.00	0.00
8,200.00	91.17	127.53	7,505.95	-581.02	931.26	1,094.31	0.00	0.00	0.00	0.00
8,300.00	91.17	127.53	7,503.91	-641.92	1,010.55	1,194.27	0.00	0.00	0.00	0.00
8,400.00	91.17	127.53	7,501.88	-702.82	1,089.84	1,294.23	0.00	0.00	0.00	0.00
8,500.00	91.17	127.53	7,499.84	-763.72	1,169.14	1,394.19	0.00	0.00	0.00	0.00
8,600.00	91.17	127.53	7,497.80	-824.62	1,248.43	1,494.15	0.00	0.00	0.00	0.00
8,700.00	91.17	127.53	7,495.77	-885.52	1,327.72	1,594.11	0.00	0.00	0.00	0.00
8,800.00	91.17	127.53	7,493.73	-946.42	1,407.01	1,694.08	0.00	0.00	0.00	0.00
8,900.00	91.17	127.53	7,491.70	-1,007.32	1,486.30	1,794.04	0.00	0.00	0.00	0.00
9,000.00	91.17	127.53	7,489.66	-1,068.22	1,565.59	1,894.00	0.00	0.00	0.00	0.00
9,100.00	91.17	127.53	7,487.62	-1,129.12	1,644.88	1,993.96	0.00	0.00	0.00	0.00
9,200.00	91.17	127.53	7,485.59	-1,190.02	1,724.17	2,093.92	0.00	0.00	0.00	0.00
9,300.00	91.17	127.53	7,483.55	-1,250.92	1,803.46	2,193.88	0.00	0.00	0.00	0.00
9,400.00	91.17	127.53	7,481.52	-1,311.82	1,882.76	2,293.84	0.00	0.00	0.00	0.00
9,500.00	91.17	127.53	7,479.48	-1,372.72	1,962.05	2,393.80	0.00	0.00	0.00	0.00
9,600.00	91.17	127.53	7,477.44	-1,433.62	2,041.34	2,493.76	0.00	0.00	0.00	0.00
9,700.00	91.17	127.53	7,475.41	-1,494.52	2,120.63	2,593.72	0.00	0.00	0.00	0.00
9,800.00	91.17	127.53	7,473.37	-1,555.42	2,199.92	2,693.68	0.00	0.00	0.00	0.00
9,900.00	91.17	127.53	7,471.34	-1,616.32	2,279.21	2,793.64	0.00	0.00	0.00	0.00
10,000.00	91.17	127.53	7,469.30	-1,677.22	2,358.50	2,893.60	0.00	0.00	0.00	0.00
10,100.00	91.17	127.53	7,467.26	-1,738.12	2,437.79	2,993.56	0.00	0.00	0.00	0.00
10,132.00	91.17	127.53	7,466.61	-1,757.60	2,463.17	3,025.55	0.00	0.00	0.00	0.00
Hold INC at 91.17° & AZI at 127.53°										
10,200.00	91.17	127.53	7,465.23	-1,799.02	2,517.09	3,093.53	0.00	0.00	0.00	0.00
10,300.00	91.17	127.53	7,463.19	-1,859.92	2,596.38	3,193.49	0.00	0.00	0.00	0.00
10,400.00	91.17	127.53	7,461.16	-1,920.81	2,675.67	3,293.45	0.00	0.00	0.00	0.00
10,500.00	91.17	127.53	7,459.12	-1,981.71	2,754.96	3,393.41	0.00	0.00	0.00	0.00
10,600.00	91.17	127.53	7,457.08	-2,042.61	2,834.25	3,493.37	0.00	0.00	0.00	0.00
10,700.00	91.17	127.53	7,455.05	-2,103.51	2,913.54	3,593.33	0.00	0.00	0.00	0.00
10,800.00	91.17	127.53	7,453.01	-2,164.41	2,992.83	3,693.29	0.00	0.00	0.00	0.00
10,900.00	91.17	127.53	7,450.98	-2,225.31	3,072.12	3,793.25	0.00	0.00	0.00	0.00
11,000.00	91.17	127.53	7,448.94	-2,286.21	3,151.42	3,893.21	0.00	0.00	0.00	0.00
11,100.00	91.17	127.53	7,446.90	-2,347.11	3,230.71	3,993.17	0.00	0.00	0.00	0.00
11,200.00	91.17	127.53	7,444.87	-2,408.01	3,310.00	4,093.13	0.00	0.00	0.00	0.00
11,300.00	91.17	127.53	7,442.83	-2,468.91	3,389.29	4,193.09	0.00	0.00	0.00	0.00
11,400.00	91.17	127.53	7,440.80	-2,529.81	3,468.58	4,293.05	0.00	0.00	0.00	0.00
11,500.00	91.17	127.53	7,438.76	-2,590.71	3,547.87	4,393.01	0.00	0.00	0.00	0.00
11,600.00	91.17	127.53	7,436.72	-2,651.61	3,627.16	4,492.97	0.00	0.00	0.00	0.00
11,700.00	91.17	127.53	7,434.69	-2,712.51	3,706.45	4,592.94	0.00	0.00	0.00	0.00
11,800.00	91.17	127.53	7,432.65	-2,773.41	3,785.75	4,692.90	0.00	0.00	0.00	0.00
11,900.00	91.17	127.53	7,430.62	-2,834.31	3,865.04	4,792.86	0.00	0.00	0.00	0.00
12,000.00	91.17	127.53	7,428.58	-2,895.21	3,944.33	4,892.82	0.00	0.00	0.00	0.00
12,100.00	91.17	127.53	7,426.54	-2,956.11	4,023.62	4,992.78	0.00	0.00	0.00	0.00
12,200.00	91.17	127.53	7,424.51	-3,017.01	4,102.91	5,092.74	0.00	0.00	0.00	0.00
12,300.00	91.17	127.53	7,422.47	-3,077.91	4,182.20	5,192.70	0.00	0.00	0.00	0.00
12,400.00	91.17	127.53	7,420.44	-3,138.81	4,261.49	5,292.66	0.00	0.00	0.00	0.00
12,500.00	91.17	127.53	7,418.40	-3,199.71	4,340.78	5,392.62	0.00	0.00	0.00	0.00
12,600.00	91.17	127.53	7,416.36	-3,260.61	4,420.07	5,492.58	0.00	0.00	0.00	0.00
12,630.17	91.17	127.53	7,415.75	-3,278.98	4,444.00	5,522.74	0.00	0.00	0.00	0.00
Total Depth = 12630.17ft - SPU Cockroft 1294 23-41DH1R_Plan B Rev 0_BH Tgt										

Plan Report for SPU Cockroft 1294 23-41DH1R - Plan B Rev 0 Proposal

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,000.00	1,000.00	-0.02	0.00	Begin Nudge at 1000.00ft
1,200.00	1,199.96	1.98	2.86	End Nudge at 1200.00ft
3,240.00	3,238.72	42.81	61.18	Hold INC at 2° & AZI at 55°
4,200.00	4,198.13	62.03	88.62	Begin Drop at 4200.00ft
4,400.00	4,398.09	64.03	91.48	End Drop at 4400.00ft
6,714.91	6,713.00	64.03	91.48	Kickoff at 6714.91ft
7,122.00	7,098.52	-4.57	180.79	Build Rate = 8.00°/100ft
7,534.36	7,365.00	-191.72	424.42	End 1st Build at 7534.36ft
7,632.00	7,405.41	-245.87	494.92	Hold INC at 65.56 & AZI at 127.53°
7,727.68	7,445.00	-298.93	563.99	Kickoff at 7727.68ft
7,882.00	7,493.29	-388.02	679.98	Build Rate = 8.00°/100ft
8,047.82	7,509.05	-488.35	810.60	End 2nd Build at 8047.82ft
10,132.00	7,466.61	-1,757.60	2,463.17	Hold INC at 91.17° & AZI at 127.53°
12,630.17	7,415.75	-3,278.98	4,444.00	Total Depth = 12630.17ft

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (ft)
				+N/_S (ft)	+E/-W (ft)	
User	SPU Cockroft 1294 23-41DH1R_Plan B Rev 0_BH Tgt	126.42	Slot	-0.02	0.00	0.00

Survey tool program

From (ft)	To (ft)	Survey/Plan	Survey Tool
0.00	12,630.17	Plan B Rev 0 Proposal	MWD

Casing Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
8,047.82	7,509.05	7" Casing Point	7	8-3/4

Formation Details

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
	7,767.00	Dakota			
898.00	898.00	Williams Fork			
3,150.23	3,149.00	Cameo B Coal			
3,277.31	3,276.00	Rollins SS			
3,741.59	3,740.00	Cozzette SS			
3,933.71	3,932.00	Corcoran SS			
5,224.91	5,223.00	Hot Gamma Marker			
6,632.91	6,631.00	Niobrara			
7,524.83	7,361.00	Juana Lopez			

Plan Report for SPU Cockroft 1294 23-41DH1R - Plan B Rev 0 Proposal

Targets associated with this wellbore

Target Name	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Shape
SPU Cockroft 1294 23-41DH1R_Plan B Rev 0_BH Tgt	7,415.75	-3,278.98	4,444.00	Point
SPU Cockroft 1294 23-41DH1R_East Section Line	12.00	0.02	0.00	Polygon
SPU Cockroft 1294 23-41DH1R_North Section Line	12.00	0.02	0.00	Polygon
SPU Cockroft 1294 23-41DH1R_South Section Line	12.00	0.02	0.00	Polygon

**North Reference Sheet for Sec. 23-T12S-R94W - SPU Cockroft 1294 23-41DH1R -
Plan B Rev 0**

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to True North Reference.

Vertical Depths are relative to KB-24' @ 8560.00ft (DHS 20). Northing and Easting are relative to SPU Cockroft 1294 23-41DH1R

Coordinate System is US State Plane 1927 (Exact solution), Colorado Central 502 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Lambert Conformal Conic (2 parallel)

Central Meridian is -105.50°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:39° 45' 0.000 N°

False Easting: 2,000,000.00ft, False Northing: 0.00ft, Scale Reduction: 0.99993748

Grid Coordinates of Well: 433,343.57 ft N, 1,329,864.79 ft E

Geographical Coordinates of Well: 38° 59' 57.62" N, 107° 51' 29.68" W

Grid Convergence at Surface is: -1.49°

Based upon Minimum Curvature type calculations, at a Measured Depth of 12,630.17ft
the Bottom Hole Displacement is 5,522.74ft in the Direction of 126.42° (True).

Magnetic Convergence at surface is: -11.56° (23 October 2012, , BGGM2012)

