

# **Bison Oil & Gas II, LLC**

**WELD COUNTY, COLORADO (NAD 83)**

**HUNT 8-60 17B**

**HUNT 8-60 17B-20-1**

**Wellbore #1**

**Plan: Design #1**

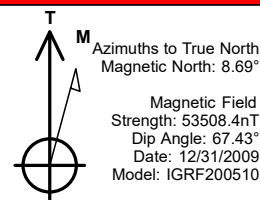
## **Standard Survey Report**

**05 May, 2020**





Project: WELD COUNTY, COLORADO (NAD 83)  
Site: HUNT 8-60 17B  
Well: HUNT 8-60 17B-20-1  
Wellbore: Wellbore #1  
Design: Design #1



#### ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Dep	Annotation
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	Start Build 2.00
1226.89	8.54	254.05	1225.31	-8.72	-30.53	11.85	31.75	Start 4475.97 hold at 1226.89 MD
5702.87	8.54	254.05	5651.69	-191.28	-669.47	259.98	696.26	Start Drop -2.00
6129.76	0.00	0.00	6077.00	-200.00	-700.00	271.83	728.01	Start Build 15.04
6728.26	90.00	180.16	6458.02	-581.02	-701.08	650.89	1109.03	Start DLS 0.02 TFO 89.99
14067.28	90.00	181.95	6458.00	-7918.48	-836.44	7962.54	8448.04	Start 99.70 hold at 14067.28 MD
14166.98	90.00	181.95	6458.00	-8018.13	-839.84	8061.99	8547.74	TD at 14166.98

#### PROPOSED LOCAL COORDINATES:

SHL: 2363 ft FNL & 2475 ft FEL Sec 17

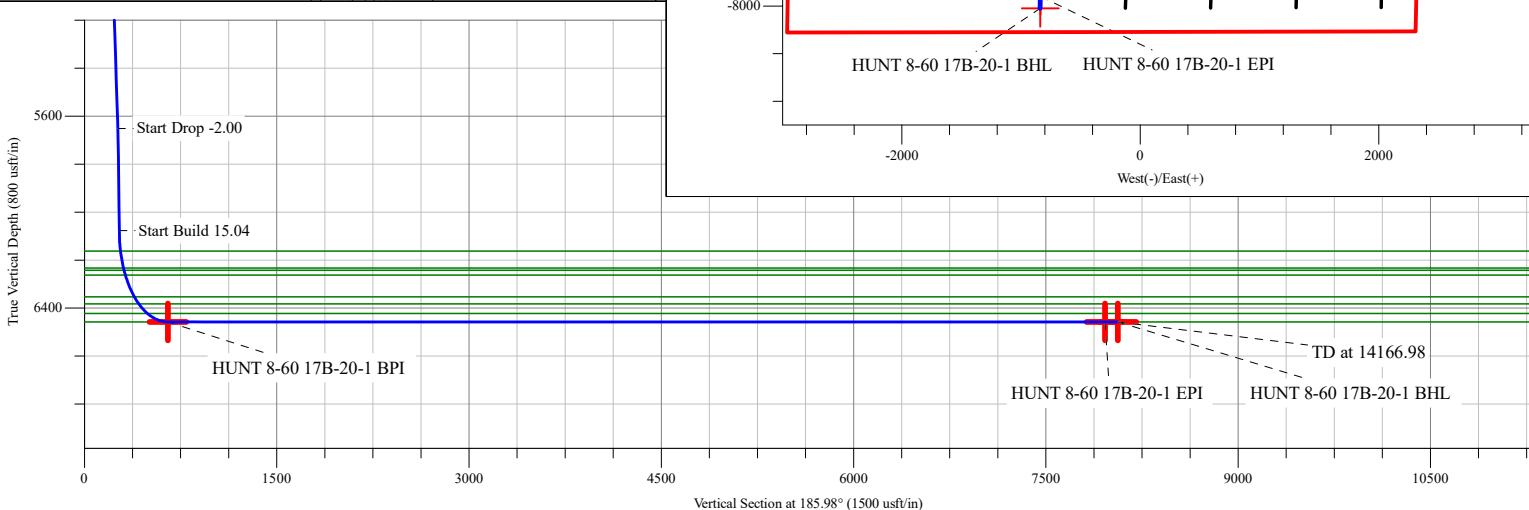
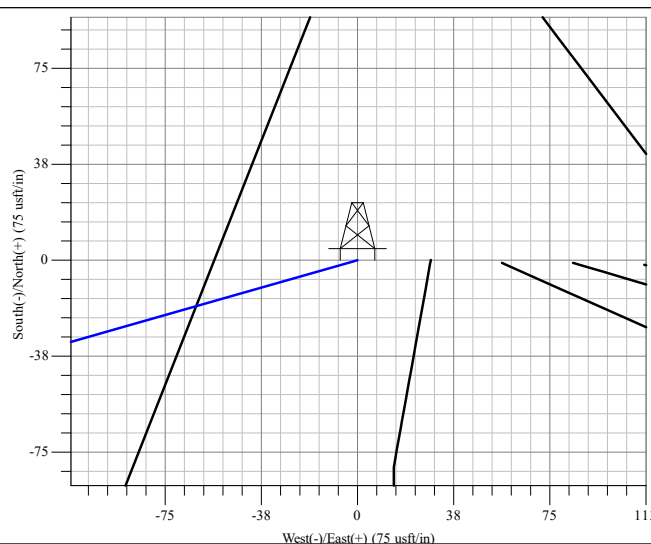
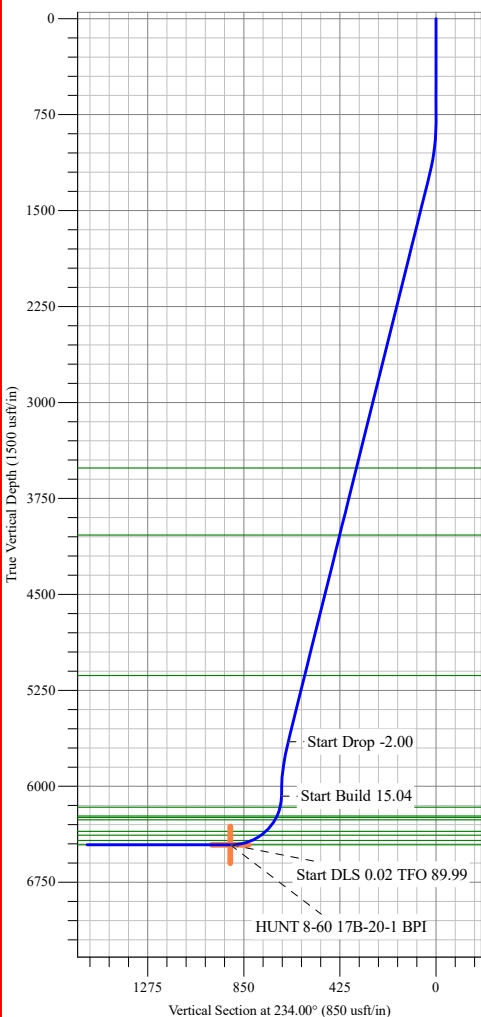
BPI: 2344 ft FSL & 2120 ft FWL Sec 17

EPI: 300 ft FSL & 2120 ft FWL Sec 20

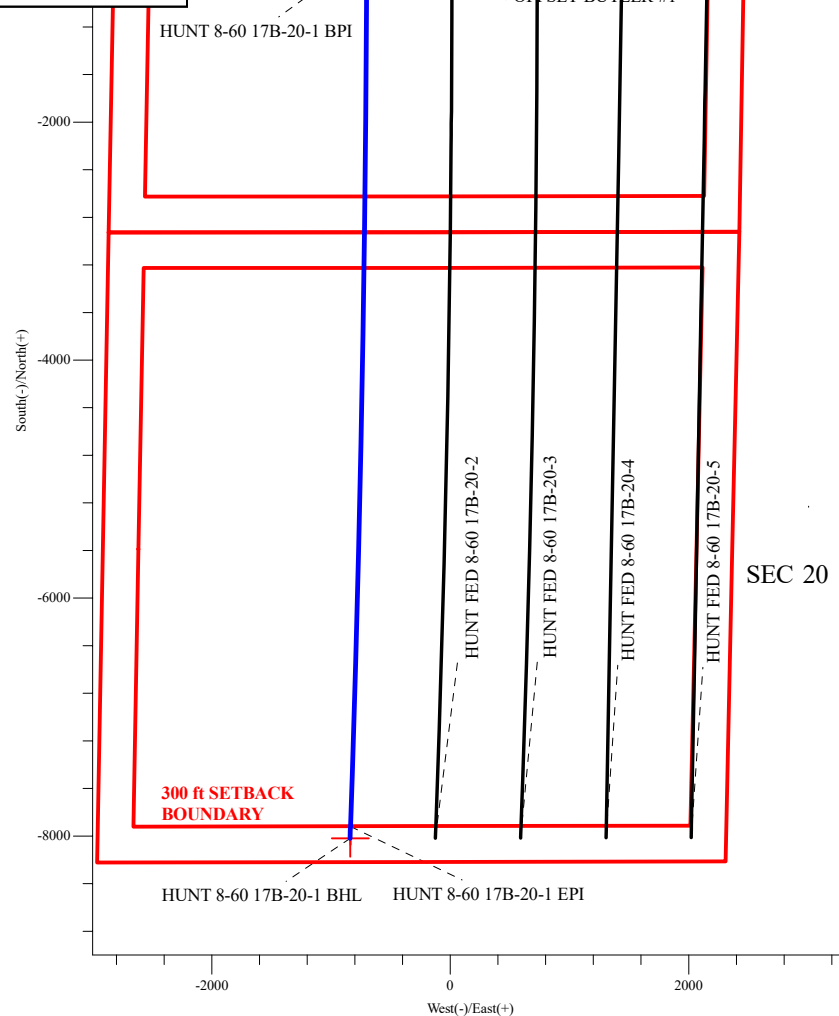
BHL: 200 ft FSL & 2120 ft FWL Sec 20

#### WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
HUNT 8-60 17B-20-1 BPI	6458.00	-582.53	-701.08	1486808.51	3383628.68	40° 39' 41.303 N	104° 7' 1.848 W
HUNT 8-60 17B-20-1 EPI	6458.00	-7918.48	-836.44	1479471.34	3383607.94	40° 38' 28.813 N	104° 7' 3.601 W
HUNT 8-60 17B-20-1 BHL	6458.00	-8018.13	-838.11	1479371.51	3383607.83	40° 38' 27.827 N	104° 7' 3.623 W



#### HUNT 8-60 17B-20-1



SEC 17

SEC 20

## Survey Report



<b>Company:</b>	Bison Oil & Gas II, LLC	<b>Local Co-ordinate Reference:</b>	Well HUNT 8-60 17B-20-1
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>TVD Reference:</b>	GL @ 4937.70usft
<b>Site:</b>	HUNT 8-60 17B	<b>MD Reference:</b>	GL @ 4937.70usft
<b>Well:</b>	HUNT 8-60 17B-20-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	EDM

<b>Project</b>	WELD COUNTY, COLORADO (NAD 83),		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	HUNT 8-60 17B		
<b>Site Position:</b>		<b>Northing:</b>	1,488,068.40 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,416,121.97 usft
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	40° 39' 48.532 N
		<b>Longitude:</b>	104° 0' 0.000 W
		<b>Grid Convergence:</b>	0.97 °

<b>Well</b>	HUNT 8-60 17B-20-1		
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b> 1,487,401.93 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b> 3,384,320.57 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b> usft
			<b>Latitude:</b> 40° 39' 47.059 N
			<b>Longitude:</b> 104° 6' 52.751 W
			<b>Ground Level:</b> 4,937.70 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	12/31/2009	8.69	67.43	53,508.38286047

<b>Design</b>	Design #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	185.98	

<b>Survey Tool Program</b>	<b>Date</b>	4/29/2020			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.00	14,166.98	Design #1 (Wellbore #1)	MWD	Fixed:v2:standard declination	

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)
0.00	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
Start Build 2.00									
900.00	2.00	254.05	899.98	-0.48	-1.68	0.65	2.00	2.00	0.00

## Survey Report



<b>Company:</b>	Bison Oil & Gas II, LLC	<b>Local Co-ordinate Reference:</b>	Well HUNT 8-60 17B-20-1
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>TVD Reference:</b>	GL @ 4937.70usft
<b>Site:</b>	HUNT 8-60 17B	<b>MD Reference:</b>	GL @ 4937.70usft
<b>Well:</b>	HUNT 8-60 17B-20-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	EDM

## 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)
1,000.00	4.00	254.05	999.84	-1.92	-6.71	2.61	2.00	2.00	0.00
1,100.00	6.00	254.05	1,099.45	-4.31	-15.09	5.86	2.00	2.00	0.00
1,200.00	8.00	254.05	1,198.70	-7.66	-26.81	10.41	2.00	2.00	0.00
1,226.89	8.54	254.05	1,225.31	-8.72	-30.53	11.85	2.00	2.00	0.00
<b>Start 4475.97 hold at 1226.89 MD</b>									
1,300.00	8.54	254.05	1,297.61	-11.70	-40.96	15.91	0.00	0.00	0.00
1,400.00	8.54	254.05	1,396.50	-15.78	-55.24	21.45	0.00	0.00	0.00
1,500.00	8.54	254.05	1,495.40	-19.86	-69.51	26.99	0.00	0.00	0.00
1,600.00	8.54	254.05	1,594.29	-23.94	-83.79	32.54	0.00	0.00	0.00
1,700.00	8.54	254.05	1,693.18	-28.02	-98.06	38.08	0.00	0.00	0.00
1,800.00	8.54	254.05	1,792.07	-32.10	-112.34	43.62	0.00	0.00	0.00
1,900.00	8.54	254.05	1,890.96	-36.18	-126.61	49.17	0.00	0.00	0.00
2,000.00	8.54	254.05	1,989.85	-40.25	-140.89	54.71	0.00	0.00	0.00
2,100.00	8.54	254.05	2,088.75	-44.33	-155.16	60.25	0.00	0.00	0.00
2,200.00	8.54	254.05	2,187.64	-48.41	-169.44	65.80	0.00	0.00	0.00
2,300.00	8.54	254.05	2,286.53	-52.49	-183.71	71.34	0.00	0.00	0.00
2,400.00	8.54	254.05	2,385.42	-56.57	-197.99	76.89	0.00	0.00	0.00
2,500.00	8.54	254.05	2,484.31	-60.65	-212.26	82.43	0.00	0.00	0.00
2,600.00	8.54	254.05	2,583.21	-64.73	-226.54	87.97	0.00	0.00	0.00
2,700.00	8.54	254.05	2,682.10	-68.80	-240.81	93.52	0.00	0.00	0.00
2,800.00	8.54	254.05	2,780.99	-72.88	-255.09	99.06	0.00	0.00	0.00
2,900.00	8.54	254.05	2,879.88	-76.96	-269.36	104.60	0.00	0.00	0.00
3,000.00	8.54	254.05	2,978.77	-81.04	-283.64	110.15	0.00	0.00	0.00
3,100.00	8.54	254.05	3,077.66	-85.12	-297.91	115.69	0.00	0.00	0.00
3,200.00	8.54	254.05	3,176.56	-89.20	-312.19	121.23	0.00	0.00	0.00
3,300.00	8.54	254.05	3,275.45	-93.28	-326.46	126.78	0.00	0.00	0.00
3,400.00	8.54	254.05	3,374.34	-97.35	-340.74	132.32	0.00	0.00	0.00
3,500.00	8.54	254.05	3,473.23	-101.43	-355.01	137.86	0.00	0.00	0.00
3,538.19	8.54	254.05	3,511.00	-102.99	-360.47	139.98	0.00	0.00	0.00
<b>Parkman</b>									
3,600.00	8.54	254.05	3,572.12	-105.51	-369.29	143.41	0.00	0.00	0.00
3,700.00	8.54	254.05	3,671.01	-109.59	-383.56	148.95	0.00	0.00	0.00
3,800.00	8.54	254.05	3,769.91	-113.67	-397.84	154.49	0.00	0.00	0.00
3,900.00	8.54	254.05	3,868.80	-117.75	-412.11	160.04	0.00	0.00	0.00
4,000.00	8.54	254.05	3,967.69	-121.83	-426.39	165.58	0.00	0.00	0.00
4,069.08	8.54	254.05	4,036.00	-124.64	-436.25	169.41	0.00	0.00	0.00
<b>Sussex</b>									
4,100.00	8.54	254.05	4,066.58	-125.90	-440.66	171.12	0.00	0.00	0.00
4,200.00	8.54	254.05	4,165.47	-129.98	-454.94	176.67	0.00	0.00	0.00
4,300.00	8.54	254.05	4,264.37	-134.06	-469.21	182.21	0.00	0.00	0.00
4,400.00	8.54	254.05	4,363.26	-138.14	-483.49	187.75	0.00	0.00	0.00
4,500.00	8.54	254.05	4,462.15	-142.22	-497.76	193.30	0.00	0.00	0.00
4,600.00	8.54	254.05	4,561.04	-146.30	-512.04	198.84	0.00	0.00	0.00

## Survey Report



<b>Company:</b>	Bison Oil & Gas II, LLC	<b>Local Co-ordinate Reference:</b>	Well HUNT 8-60 17B-20-1
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>TVD Reference:</b>	GL @ 4937.70usft
<b>Site:</b>	HUNT 8-60 17B	<b>MD Reference:</b>	GL @ 4937.70usft
<b>Well:</b>	HUNT 8-60 17B-20-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	EDM

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)
4,700.00	8.54	254.05	4,659.93	-150.38	-526.31	204.38	0.00	0.00	0.00
4,800.00	8.54	254.05	4,758.82	-154.45	-540.59	209.93	0.00	0.00	0.00
4,900.00	8.54	254.05	4,857.72	-158.53	-554.86	215.47	0.00	0.00	0.00
5,000.00	8.54	254.05	4,956.61	-162.61	-569.14	221.02	0.00	0.00	0.00
5,100.00	8.54	254.05	5,055.50	-166.69	-583.41	226.56	0.00	0.00	0.00
5,179.38	8.54	254.05	5,134.00	-169.93	-594.75	230.96	0.00	0.00	0.00
<b>Shannon</b>									
5,200.00	8.54	254.05	5,154.39	-170.77	-597.69	232.10	0.00	0.00	0.00
5,300.00	8.54	254.05	5,253.28	-174.85	-611.96	237.65	0.00	0.00	0.00
5,400.00	8.54	254.05	5,352.18	-178.93	-626.24	243.19	0.00	0.00	0.00
5,500.00	8.54	254.05	5,451.07	-183.00	-640.51	248.73	0.00	0.00	0.00
5,600.00	8.54	254.05	5,549.96	-187.08	-654.79	254.28	0.00	0.00	0.00
5,702.87	8.54	254.05	5,651.69	-191.28	-669.47	259.98	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,800.00	6.60	254.05	5,747.97	-194.79	-681.77	264.75	2.00	-2.00	0.00
5,900.00	4.60	254.05	5,847.49	-197.47	-691.15	268.39	2.00	-2.00	0.00
6,000.00	2.60	254.05	5,947.29	-199.19	-697.17	270.74	2.00	-2.00	0.00
6,100.00	0.60	254.05	6,047.24	-199.96	-699.85	271.77	2.00	-2.00	0.00
6,129.76	0.00	0.00	6,077.00	-200.00	-700.00	271.83	2.00	-2.00	0.00
<b>Start Build 15.04</b>									
6,150.00	3.04	180.16	6,097.23	-200.54	-700.00	272.37	15.04	15.04	0.00
6,175.00	6.80	180.16	6,122.13	-202.68	-700.01	274.50	15.04	15.04	0.00
6,200.00	10.56	180.16	6,146.84	-206.46	-700.02	278.26	15.04	15.04	0.00
6,216.51	13.04	180.16	6,163.00	-209.83	-700.03	281.61	15.04	15.04	0.00
<b>Sharon Springs Shale</b>									
6,225.00	14.32	180.16	6,171.25	-211.84	-700.03	283.61	15.04	15.04	0.00
6,250.00	18.08	180.16	6,195.26	-218.82	-700.05	290.55	15.04	15.04	0.00
6,275.00	21.84	180.16	6,218.75	-227.35	-700.08	299.04	15.04	15.04	0.00
6,290.48	24.17	180.16	6,233.00	-233.40	-700.09	305.06	15.04	15.04	0.00
<b>Niobrara Formation</b>									
6,300.00	25.60	180.16	6,241.63	-237.40	-700.11	309.04	15.04	15.04	0.00
6,301.52	25.83	180.16	6,243.00	-238.06	-700.11	309.70	15.04	15.04	0.00
<b>Niobrara A Chalk</b>									
6,324.07	29.22	180.16	6,263.00	-248.48	-700.14	320.07	15.04	15.04	0.00
<b>Niobrara A Landing Point</b>									
6,325.00	29.36	180.16	6,263.81	-248.94	-700.14	320.52	15.04	15.04	0.00
6,350.00	33.12	180.16	6,285.18	-261.90	-700.17	333.41	15.04	15.04	0.00
6,375.00	36.88	180.16	6,305.66	-276.24	-700.22	347.68	15.04	15.04	0.00
6,400.00	40.64	180.16	6,325.15	-291.88	-700.26	363.24	15.04	15.04	0.00
6,425.00	44.40	180.16	6,343.57	-308.78	-700.31	380.05	15.04	15.04	0.00
6,438.43	46.42	180.16	6,353.00	-318.34	-700.33	389.56	15.04	15.04	0.00
<b>Niobrara B Chalk</b>									
6,450.00	48.16	180.16	6,360.85	-326.84	-700.36	398.02	15.04	15.04	0.00
6,475.00	51.92	180.16	6,376.90	-346.00	-700.41	417.08	15.04	15.04	0.00
6,485.06	53.43	180.16	6,383.00	-354.00	-700.44	425.04	15.04	15.04	0.00

## Survey Report



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<b>Site:</b>	HUNT 8-60 17B	<b>MD Reference:</b>	GL @ 4937.70usft
<b>Well:</b>	HUNT 8-60 17B-20-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	EDM

## 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)
<b>Niobrara B Landing Point</b>									
6,500.00	55.68	180.16	6,391.67	-366.17	-700.47	437.14	15.04	15.04	0.00
6,525.00	59.43	180.16	6,405.08	-387.26	-700.53	458.13	15.04	15.04	0.00
6,550.00	63.19	180.16	6,417.07	-409.19	-700.59	479.94	15.04	15.04	0.00
6,563.63	65.24	180.16	6,423.00	-421.46	-700.63	492.15	15.04	15.04	0.00
<b>Niobrara C Chalk</b>									
6,575.00	66.95	180.16	6,427.61	-431.86	-700.66	502.49	15.04	15.04	0.00
6,600.00	70.71	180.16	6,436.63	-455.16	-700.72	525.68	15.04	15.04	0.00
6,625.00	74.47	180.16	6,444.11	-479.02	-700.79	549.41	15.04	15.04	0.00
6,650.00	78.23	180.16	6,450.01	-503.30	-700.86	573.58	15.04	15.04	0.00
6,675.00	81.99	180.16	6,454.30	-527.93	-700.93	598.07	15.04	15.04	0.00
6,700.00	85.75	180.16	6,456.97	-552.78	-701.00	622.80	15.04	15.04	0.00
6,724.49	89.43	180.16	6,458.00	-577.24	-701.07	647.13	15.04	15.04	0.00
<b>Niobrara C Landing Point</b>									
6,725.00	89.51	180.16	6,458.00	-577.76	-701.07	647.64	15.04	15.04	0.00
6,728.26	90.00	180.16	6,458.02	-581.02	-701.08	650.89	15.04	15.04	0.00
<b>Start DLS 0.02 TFO 89.99</b>									
6,729.78	90.00	180.16	6,458.02	-582.53	-701.08	652.40	0.00	0.00	0.00
<b>HUNT 8-60 17B-20-1 BPI</b>									
6,800.00	90.00	180.18	6,458.02	-652.76	-701.29	722.26	0.02	0.00	0.02
6,900.00	90.00	180.20	6,458.02	-752.75	-701.62	821.75	0.02	0.00	0.02
7,000.00	90.00	180.23	6,458.02	-852.75	-702.00	921.24	0.02	0.00	0.02
7,100.00	90.00	180.25	6,458.02	-952.75	-702.42	1,020.74	0.02	0.00	0.02
7,200.00	90.00	180.28	6,458.02	-1,052.75	-702.88	1,120.25	0.02	0.00	0.02
7,300.00	90.00	180.30	6,458.02	-1,152.75	-703.39	1,219.75	0.02	0.00	0.02
7,400.00	90.00	180.33	6,458.02	-1,252.75	-703.94	1,319.26	0.02	0.00	0.02
7,500.00	90.00	180.35	6,458.02	-1,352.75	-704.53	1,418.78	0.02	0.00	0.02
7,600.00	90.00	180.37	6,458.02	-1,452.75	-705.16	1,518.30	0.02	0.00	0.02
7,700.00	90.00	180.40	6,458.02	-1,552.74	-705.83	1,617.82	0.02	0.00	0.02
7,800.00	90.00	180.42	6,458.02	-1,652.74	-706.55	1,717.35	0.02	0.00	0.02
7,900.00	90.00	180.45	6,458.02	-1,752.74	-707.31	1,816.88	0.02	0.00	0.02
8,000.00	90.00	180.47	6,458.02	-1,852.73	-708.11	1,916.42	0.02	0.00	0.02
8,100.00	90.00	180.50	6,458.02	-1,952.73	-708.96	2,015.96	0.02	0.00	0.02
8,200.00	90.00	180.52	6,458.02	-2,052.73	-709.85	2,115.50	0.02	0.00	0.02
8,300.00	90.00	180.55	6,458.02	-2,152.72	-710.78	2,215.05	0.02	0.00	0.02
8,400.00	90.00	180.57	6,458.02	-2,252.72	-711.75	2,314.61	0.02	0.00	0.02
8,500.00	90.00	180.59	6,458.02	-2,352.71	-712.77	2,414.16	0.02	0.00	0.02
8,600.00	90.00	180.62	6,458.02	-2,452.71	-713.82	2,513.72	0.02	0.00	0.02
8,700.00	90.00	180.64	6,458.02	-2,552.70	-714.92	2,613.29	0.02	0.00	0.02
8,800.00	90.00	180.67	6,458.02	-2,652.69	-716.07	2,712.86	0.02	0.00	0.02
8,900.00	90.00	180.69	6,458.02	-2,752.69	-717.25	2,812.43	0.02	0.00	0.02
9,000.00	90.00	180.72	6,458.02	-2,852.68	-718.48	2,912.01	0.02	0.00	0.02
9,100.00	90.00	180.74	6,458.02	-2,952.67	-719.75	3,011.59	0.02	0.00	0.02
9,200.00	90.00	180.76	6,458.02	-3,052.66	-721.07	3,111.17	0.02	0.00	0.02

## Survey Report



<b>Company:</b>	Bison Oil & Gas II, LLC	<b>Local Co-ordinate Reference:</b>	Well HUNT 8-60 17B-20-1
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>TVD Reference:</b>	GL @ 4937.70usft
<b>Site:</b>	HUNT 8-60 17B	<b>MD Reference:</b>	GL @ 4937.70usft
<b>Well:</b>	HUNT 8-60 17B-20-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	EDM

## 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)
9,300.00	90.00	180.79	6,458.02	-3,152.65	-722.42	3,210.76	0.02	0.00	0.02
9,400.00	90.00	180.81	6,458.02	-3,252.64	-723.82	3,310.35	0.02	0.00	0.02
9,500.00	90.00	180.84	6,458.02	-3,352.63	-725.26	3,409.95	0.02	0.00	0.02
9,600.00	90.00	180.86	6,458.02	-3,452.62	-726.74	3,509.54	0.02	0.00	0.02
9,700.00	90.00	180.89	6,458.02	-3,552.61	-728.27	3,609.15	0.02	0.00	0.02
9,800.00	90.00	180.91	6,458.02	-3,652.60	-729.84	3,708.76	0.02	0.00	0.02
9,900.00	90.00	180.94	6,458.02	-3,752.59	-731.45	3,808.37	0.02	0.00	0.02
10,000.00	90.00	180.96	6,458.02	-3,852.57	-733.11	3,907.98	0.02	0.00	0.02
10,100.00	90.00	180.98	6,458.01	-3,952.56	-734.80	4,007.60	0.02	0.00	0.02
10,200.00	90.00	181.01	6,458.01	-4,052.54	-736.54	4,107.22	0.02	0.00	0.02
10,300.00	90.00	181.03	6,458.01	-4,152.53	-738.32	4,206.85	0.02	0.00	0.02
10,400.00	90.00	181.06	6,458.01	-4,252.51	-740.15	4,306.48	0.02	0.00	0.02
10,500.00	90.00	181.08	6,458.01	-4,352.49	-742.01	4,406.11	0.02	0.00	0.02
10,600.00	90.00	181.11	6,458.01	-4,452.47	-743.92	4,505.75	0.02	0.00	0.02
10,700.00	90.00	181.13	6,458.01	-4,552.46	-745.87	4,605.39	0.02	0.00	0.02
10,800.00	90.00	181.16	6,458.01	-4,652.44	-747.87	4,705.03	0.02	0.00	0.02
10,900.00	90.00	181.18	6,458.01	-4,752.41	-749.91	4,804.68	0.02	0.00	0.02
11,000.00	90.00	181.20	6,458.01	-4,852.39	-751.99	4,904.33	0.02	0.00	0.02
11,100.00	90.00	181.23	6,458.01	-4,952.37	-754.11	5,003.98	0.02	0.00	0.02
11,200.00	90.00	181.25	6,458.01	-5,052.35	-756.27	5,103.64	0.02	0.00	0.02
11,300.00	90.00	181.28	6,458.01	-5,152.32	-758.48	5,203.30	0.02	0.00	0.02
11,400.00	90.00	181.30	6,458.01	-5,252.30	-760.73	5,302.97	0.02	0.00	0.02
11,500.00	90.00	181.33	6,458.01	-5,352.27	-763.02	5,402.64	0.02	0.00	0.02
11,600.00	90.00	181.35	6,458.01	-5,452.24	-765.36	5,502.31	0.02	0.00	0.02
11,700.00	90.00	181.37	6,458.01	-5,552.22	-767.73	5,601.98	0.02	0.00	0.02
11,800.00	90.00	181.40	6,458.01	-5,652.19	-770.15	5,701.66	0.02	0.00	0.02
11,900.00	90.00	181.42	6,458.01	-5,752.16	-772.62	5,801.35	0.02	0.00	0.02
12,000.00	90.00	181.45	6,458.01	-5,852.12	-775.12	5,901.03	0.02	0.00	0.02
12,100.00	90.00	181.47	6,458.01	-5,952.09	-777.67	6,000.72	0.02	0.00	0.02
12,200.00	90.00	181.50	6,458.01	-6,052.06	-780.26	6,100.41	0.02	0.00	0.02
12,300.00	90.00	181.52	6,458.01	-6,152.02	-782.89	6,200.11	0.02	0.00	0.02
12,400.00	90.00	181.55	6,458.01	-6,251.99	-785.57	6,299.81	0.02	0.00	0.02
12,500.00	90.00	181.57	6,458.01	-6,351.95	-788.29	6,399.51	0.02	0.00	0.02
12,600.00	90.00	181.59	6,458.01	-6,451.91	-791.05	6,499.22	0.02	0.00	0.02
12,700.00	90.00	181.62	6,458.01	-6,551.87	-793.85	6,598.92	0.02	0.00	0.02
12,800.00	90.00	181.64	6,458.01	-6,651.83	-796.69	6,698.64	0.02	0.00	0.02
12,900.00	90.00	181.67	6,458.01	-6,751.79	-799.58	6,798.35	0.02	0.00	0.02
13,000.00	90.00	181.69	6,458.01	-6,851.75	-802.51	6,898.07	0.02	0.00	0.02
13,100.00	90.00	181.72	6,458.00	-6,951.70	-805.49	6,997.79	0.02	0.00	0.02
13,200.00	90.00	181.74	6,458.00	-7,051.66	-808.50	7,097.52	0.02	0.00	0.02
13,300.00	90.00	181.76	6,458.00	-7,151.61	-811.56	7,197.24	0.02	0.00	0.02
13,400.00	90.00	181.79	6,458.00	-7,251.56	-814.66	7,296.98	0.02	0.00	0.02
13,500.00	90.00	181.81	6,458.00	-7,351.51	-817.80	7,396.71	0.02	0.00	0.02
13,600.00	90.00	181.84	6,458.00	-7,451.46	-820.99	7,496.45	0.02	0.00	0.02

## Survey Report



<b>Company:</b>	Bison Oil & Gas II, LLC	<b>Local Co-ordinate Reference:</b>	Well HUNT 8-60 17B-20-1
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>TVD Reference:</b>	GL @ 4937.70usft
<b>Site:</b>	HUNT 8-60 17B	<b>MD Reference:</b>	GL @ 4937.70usft
<b>Well:</b>	HUNT 8-60 17B-20-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	EDM

## 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)
13,700.00	90.00	181.86	6,458.00	-7,551.41	-824.22	7,596.19	0.02	0.00	0.02
13,800.00	90.00	181.89	6,458.00	-7,651.36	-827.49	7,695.93	0.02	0.00	0.02
13,900.00	90.00	181.91	6,458.00	-7,751.30	-830.80	7,795.68	0.02	0.00	0.02
14,000.00	90.00	181.94	6,458.00	-7,851.25	-834.16	7,895.43	0.02	0.00	0.02
14,067.28	90.00	181.95	6,458.00	-7,918.48	-836.44	7,962.54	0.02	0.00	0.02
<b>Start 99.70 hold at 14067.28 MD - HUNT 8-60 17B-20-1 EPI</b>									
14,100.00	90.00	181.95	6,458.00	-7,951.19	-837.56	7,995.18	0.00	0.00	0.00
14,166.98	90.00	181.95	6,458.00	-8,018.13	-839.84	8,061.99	0.00	0.00	0.00
<b>TD at 14166.98 - HUNT 8-60 17B-20-1 zBHL</b>									

## Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
HUNT 8-60 17B-20-1 - plan misses target center by 0.02usft at 6729.78usft MD (6458.02 TVD, -582.53 N, -701.08 E) - Point	0.00	0.00	6,458.00	-582.53	-701.08	1,486,808.52	3,383,628.68	40° 39' 41.303 N	104° 7' 1.848 W
HUNT 8-60 17B-20-1 - plan misses target center by 1.74usft at 14166.98usft MD (6458.00 TVD, -8018.13 N, -839.84 E) - Point	0.00	0.00	6,458.00	-8,018.31	-838.11	1,479,371.51	3,383,607.83	40° 38' 27.827 N	104° 7' 3.623 W
HUNT 8-60 17B-20-1 - plan hits target center - Point	0.00	0.00	6,458.00	-7,918.48	-836.44	1,479,471.35	3,383,607.93	40° 38' 28.813 N	104° 7' 3.601 W

## Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,538.19	3,511.00	Parkman			
4,069.08	4,036.00	Sussex			
5,179.38	5,134.00	Shannon			
6,216.51	6,163.00	Sharon Springs Shale			
6,290.48	6,233.00	Niobrara Formation			
6,301.52	6,243.00	Niobrara A Chalk			
6,324.07	6,263.00	Niobrara A Landing Point			
6,438.43	6,353.00	Niobrara B Chalk			
6,485.06	6,383.00	Niobrara B Landing Point			
6,563.63	6,423.00	Niobrara C Chalk			
6,724.49	6,458.00	Niobrara C Landing Point			



## Survey Report



<b>Company:</b>	Bison Oil & Gas II, LLC	<b>Local Co-ordinate Reference:</b>	Well HUNT 8-60 17B-20-1
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>TVD Reference:</b>	GL @ 4937.70usft
<b>Site:</b>	HUNT 8-60 17B	<b>MD Reference:</b>	GL @ 4937.70usft
<b>Well:</b>	HUNT 8-60 17B-20-1	<b>North Reference:</b>	True
<b>Wellbore:</b>	Wellbore #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Design #1	<b>Database:</b>	EDM

## Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
800	800	0	0	Start Build 2.00
1227	1225	-9	-31	Start 4475.97 hold at 1226.89 MD
5703	5652	-191	-669	Start Drop -2.00
6130	6077	-200	-700	Start Build 15.04
6728	6458	-581	-701	Start DLS 0.02 TFO 89.99
14,067	6458	-7918	-836	Start 99.70 hold at 14067.28 MD
14,167	6458	-8018	-840	TD at 14166.98

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_