

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

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

**ROSS 8-60 18 SESW & SWSE SEC 18 T8N R60W 6th P.M.**

**ROSS 8-60 18-7-5**

**Wellbore #1**

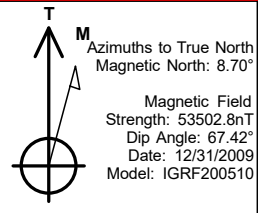
**Plan: Design #1**

## **Standard Survey Report**

**12 April, 2021**



Project: WELD COUNTY, COLORADO (NAD 83)  
Site: ROSS 8-60 18 SESW & SWSE SEC 18 T8N R60W 6th P.M.  
Well: ROSS 8-60 18-7-5  
Wellbore: Wellbore #1  
Design: Design #1



#### ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.0	Start Build 1.50
1244.8	6.67	123.77	1243.8	-14.4	21.5	-13.1	25.9	Start 4199.8 hold at 1244.8 MD
5444.6	6.67	123.77	5415.2	-285.6	427.1	-260.2	513.8	Start Drop -1.50
5889.5	0.00	0.00	5859.0	-300.0	448.6	-273.3	539.7	Start Build 10.00
6789.5	90.00	0.00	6432.0	273.0	448.6	298.7	1112.7	Start DLS 0.01 TFO 180.00
6973.7	89.98	0.00	6432.0	457.2	448.6	482.7	1297.0	Start DLS 0.01 TFO 88.11
15543.7	90.02	1.15	6432.0	9026.6	534.5	9042.4	9866.9	Start 150.0 hold at 15543.7 MD
15693.7	90.02	1.15	6431.9	9176.6	537.5	9192.3	10016.9	TD at 15693.7

#### PROPOSED LOCAL COORDINATES:

SHL: 545 ft FSL & 2548 ft FWL Sec 18

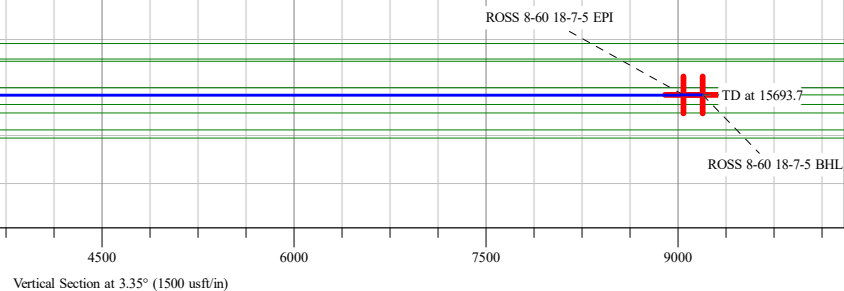
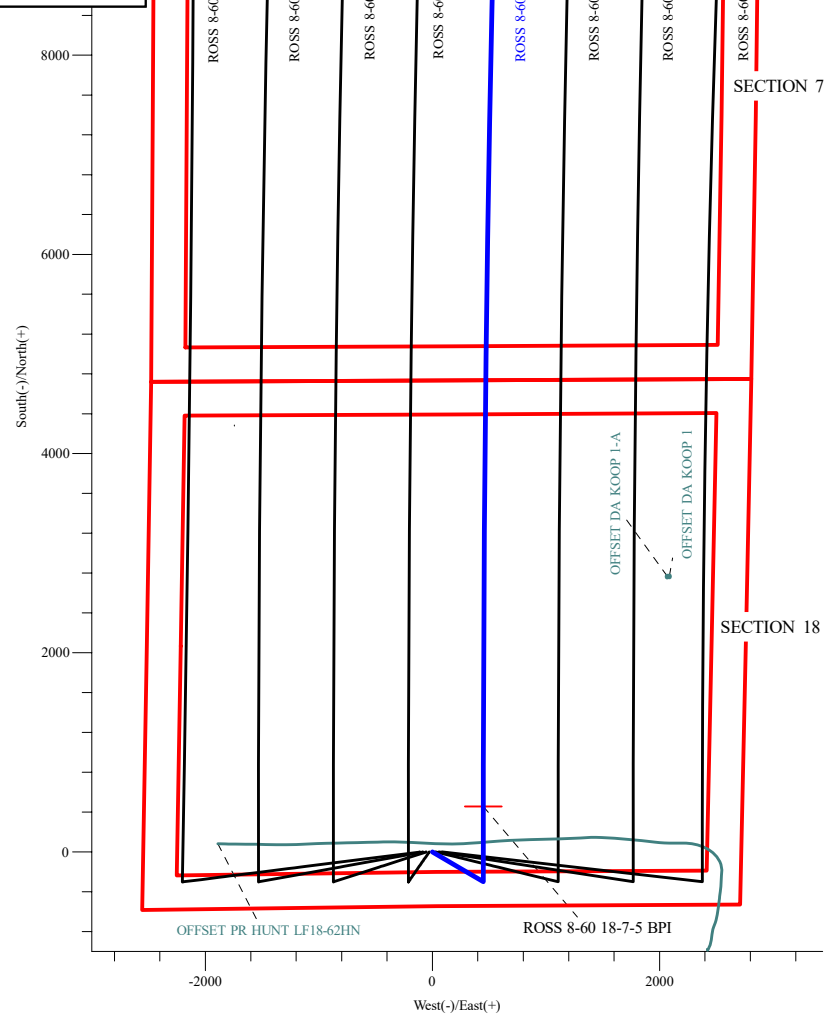
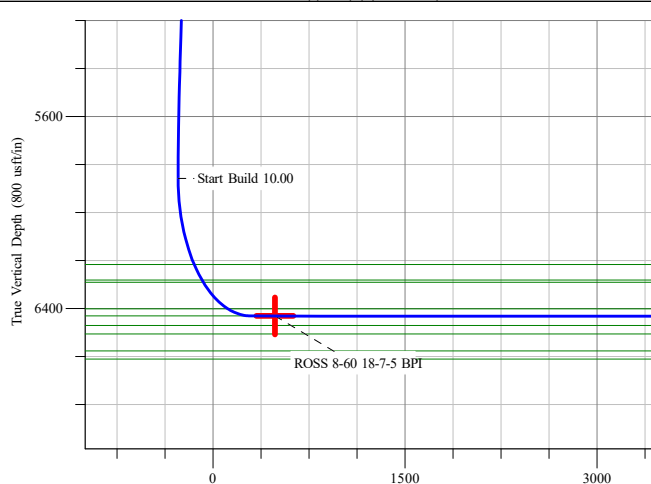
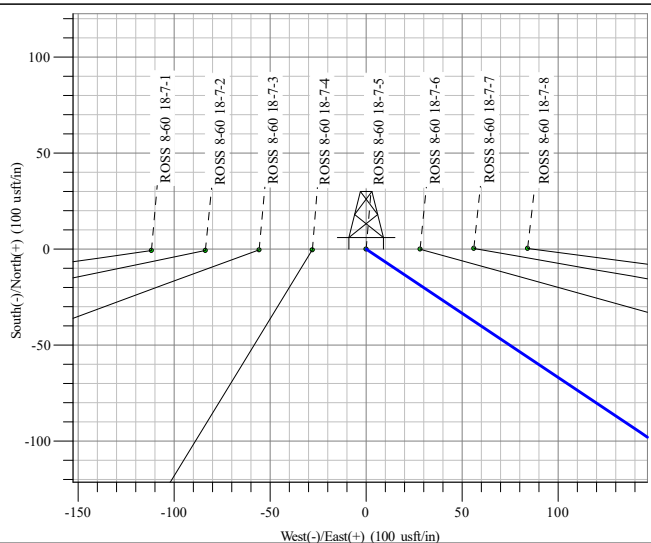
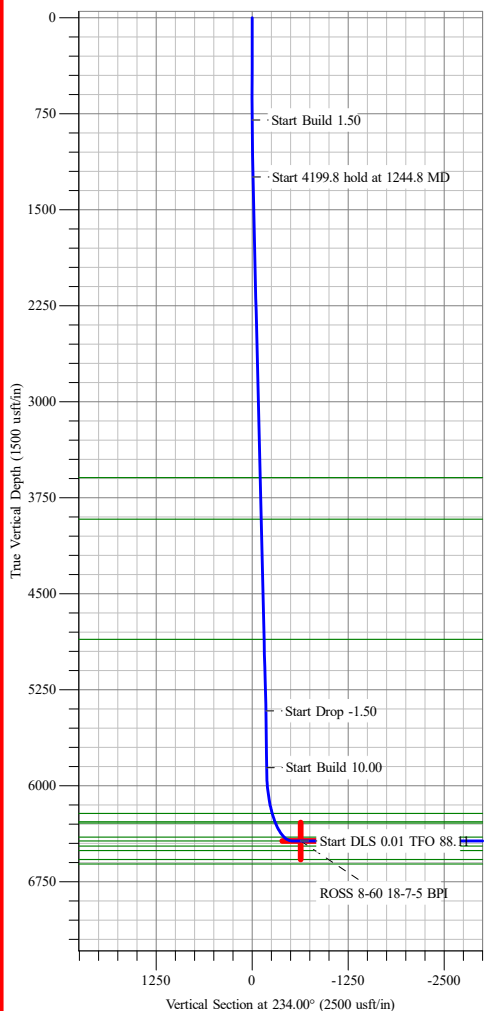
BPI: 1000 ft FSL & 2279 ft FEL Sec 18

EPI: 1000 ft FNL & 2331 ft FEL Sec 7

BHL: 850 ft FNL & 2332 ft FEL Sec 7

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

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
ROSS 8-60 18-7-5 BHL	6432.0	9176.7	535.0	1494101.15	3379177.73	40° 40' 54.037 N 104° 7' 58.138 W	
ROSS 8-60 18-7-5 BPI	6432.0	457.2	448.6	1485381.52	3379225.60	40° 39' 27.878 N 104° 7' 59.261 W	
ROSS 8-60 18-7-5 EPI	6432.0	9026.6	534.5	1493951.06	3379179.49	40° 40' 52.554 N 104° 7' 58.145 W	Point



## Survey Report

<b>Company:</b>	Bison Oil & Gas II, LLC	<b>Local Co-ordinate Reference:</b>	Well ROSS 8-60 18-7-5
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>TVD Reference:</b>	WELL @ 4953.0usft (Original Well Elev)
<b>Site:</b>	ROSS 8-60 18 SESW & SWSE SEC 18 T8N R60W 6th P.M.	<b>MD Reference:</b>	WELL @ 4953.0usft (Original Well Elev)
<b>Well:</b>	ROSS 8-60 18-7-5	<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 5000.16 Single User Db

<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		Using geodetic scale factor

<b>Site</b>	ROSS 8-60 18 SESW & SWSE SEC 18 T8N R60W 6th P.M.		
<b>Site Position:</b>		<b>Northing:</b>	1,484,919.11 usft
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,378,868.10 usft
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	40° 39' 23.364 N
		<b>Longitude:</b>	104° 8' 3.991 W

<b>Well</b>	ROSS 8-60 18-7-5		
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b> 1,484,917.44 usft
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b> 3,378,784.05 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	usft
<b>Grid Convergence:</b>	0.88 °	<b>Ground Level:</b>	4,950.6 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	8.70	67.42	53,502.79647418

<b>Design</b>	Design #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<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	3.35	

<b>Survey Tool Program</b>	<b>Date</b> 4/12/2021				
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.0	15,693.7	Design #1 (Wellbore #1)	MWD	Fixed:v2:standard declination	

<b>Planned Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
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	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	

## Survey Report

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<b>Site:</b>	ROSS 8-60 18 SESW & SWSE SEC 18 T8N R60W 6th P.M.	<b>MD Reference:</b>	WELL @ 4953.0usft (Original Well Elev)
<b>Well:</b>	ROSS 8-60 18-7-5	<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 5000.16 Single User Db

### 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>Start Build 1.50</b>									
900.0	1.50	123.77	900.0	-0.7	1.1	-0.7	1.50	1.50	0.00
1,000.0	3.00	123.77	999.9	-2.9	4.4	-2.7	1.50	1.50	0.00
1,100.0	4.50	123.77	1,099.7	-6.5	9.8	-6.0	1.50	1.50	0.00
1,200.0	6.00	123.77	1,199.3	-11.6	17.4	-10.6	1.50	1.50	0.00
1,244.8	6.67	123.77	1,243.8	-14.4	21.5	-13.1	1.50	1.50	0.00
<b>Start 4199.8 hold at 1244.8 MD</b>									
1,300.0	6.67	123.77	1,298.6	-17.9	26.8	-16.3	0.00	0.00	0.00
1,400.0	6.67	123.77	1,397.9	-24.4	36.5	-22.2	0.00	0.00	0.00
1,500.0	6.67	123.77	1,497.3	-30.9	46.2	-28.1	0.00	0.00	0.00
1,600.0	6.67	123.77	1,596.6	-37.3	55.8	-34.0	0.00	0.00	0.00
1,700.0	6.67	123.77	1,695.9	-43.8	65.5	-39.9	0.00	0.00	0.00
1,800.0	6.67	123.77	1,795.2	-50.2	75.1	-45.8	0.00	0.00	0.00
1,900.0	6.67	123.77	1,894.6	-56.7	84.8	-51.6	0.00	0.00	0.00
2,000.0	6.67	123.77	1,993.9	-63.2	94.4	-57.5	0.00	0.00	0.00
2,100.0	6.67	123.77	2,093.2	-69.6	104.1	-63.4	0.00	0.00	0.00
2,200.0	6.67	123.77	2,192.5	-76.1	113.8	-69.3	0.00	0.00	0.00
2,300.0	6.67	123.77	2,291.8	-82.5	123.4	-75.2	0.00	0.00	0.00
2,400.0	6.67	123.77	2,391.2	-89.0	133.1	-81.1	0.00	0.00	0.00
2,500.0	6.67	123.77	2,490.5	-95.4	142.7	-86.9	0.00	0.00	0.00
2,600.0	6.67	123.77	2,589.8	-101.9	152.4	-92.8	0.00	0.00	0.00
2,700.0	6.67	123.77	2,689.1	-108.4	162.1	-98.7	0.00	0.00	0.00
2,800.0	6.67	123.77	2,788.5	-114.8	171.7	-104.6	0.00	0.00	0.00
2,900.0	6.67	123.77	2,887.8	-121.3	181.4	-110.5	0.00	0.00	0.00
3,000.0	6.67	123.77	2,987.1	-127.7	191.0	-116.3	0.00	0.00	0.00
3,100.0	6.67	123.77	3,086.4	-134.2	200.7	-122.2	0.00	0.00	0.00
3,200.0	6.67	123.77	3,185.7	-140.7	210.3	-128.1	0.00	0.00	0.00
3,300.0	6.67	123.77	3,285.1	-147.1	220.0	-134.0	0.00	0.00	0.00
3,400.0	6.67	123.77	3,384.4	-153.6	229.7	-139.9	0.00	0.00	0.00
3,500.0	6.67	123.77	3,483.7	-160.0	239.3	-145.8	0.00	0.00	0.00
3,600.0	6.67	123.77	3,583.0	-166.5	249.0	-151.6	0.00	0.00	0.00
3,700.0	6.67	123.77	3,682.4	-172.9	258.6	-157.5	0.00	0.00	0.00
3,800.0	6.67	123.77	3,781.7	-179.4	268.3	-163.4	0.00	0.00	0.00
3,900.0	6.67	123.77	3,881.0	-185.9	278.0	-169.3	0.00	0.00	0.00
4,000.0	6.67	123.77	3,980.3	-192.3	287.6	-175.2	0.00	0.00	0.00
4,100.0	6.67	123.77	4,079.6	-198.8	297.3	-181.1	0.00	0.00	0.00
4,200.0	6.67	123.77	4,179.0	-205.2	306.9	-186.9	0.00	0.00	0.00
4,300.0	6.67	123.77	4,278.3	-211.7	316.6	-192.8	0.00	0.00	0.00
4,400.0	6.67	123.77	4,377.6	-218.2	326.2	-198.7	0.00	0.00	0.00
4,500.0	6.67	123.77	4,476.9	-224.6	335.9	-204.6	0.00	0.00	0.00
4,600.0	6.67	123.77	4,576.3	-231.1	345.6	-210.5	0.00	0.00	0.00
4,700.0	6.67	123.77	4,675.6	-237.5	355.2	-216.4	0.00	0.00	0.00
4,800.0	6.67	123.77	4,774.9	-244.0	364.9	-222.2	0.00	0.00	0.00

## Survey Report

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<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>TVD Reference:</b>	WELL @ 4953.0usft (Original Well Elev)
<b>Site:</b>	ROSS 8-60 18 SESW & SWSE SEC 18 T8N R60W 6th P.M.	<b>MD Reference:</b>	WELL @ 4953.0usft (Original Well Elev)
<b>Well:</b>	ROSS 8-60 18-7-5	<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 5000.16 Single User Db

### 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)
4,900.0	6.67	123.77	4,874.2	-250.4	374.5	-228.1	0.00	0.00	0.00
5,000.0	6.67	123.77	4,973.6	-256.9	384.2	-234.0	0.00	0.00	0.00
5,100.0	6.67	123.77	5,072.9	-263.4	393.9	-239.9	0.00	0.00	0.00
5,200.0	6.67	123.77	5,172.2	-269.8	403.5	-245.8	0.00	0.00	0.00
5,300.0	6.67	123.77	5,271.5	-276.3	413.2	-251.6	0.00	0.00	0.00
5,400.0	6.67	123.77	5,370.8	-282.7	422.8	-257.5	0.00	0.00	0.00
5,444.6	6.67	123.77	5,415.2	-285.6	427.1	-260.2	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
5,500.0	5.84	123.77	5,470.2	-289.0	432.2	-263.2	1.50	-1.50	0.00
5,600.0	4.34	123.77	5,569.8	-293.9	439.5	-267.7	1.50	-1.50	0.00
5,700.0	2.84	123.77	5,669.6	-297.4	444.7	-270.9	1.50	-1.50	0.00
5,800.0	1.34	123.77	5,769.5	-299.4	447.8	-272.7	1.50	-1.50	0.00
5,889.5	0.00	0.00	5,859.0	-300.0	448.6	-273.3	1.50	-1.50	-138.34
<b>Start Build 10.00</b>									
5,900.0	1.05	0.00	5,869.5	-299.9	448.6	-273.2	10.00	10.00	0.00
6,000.0	11.05	0.00	5,968.9	-289.4	448.6	-262.6	10.00	10.00	0.00
6,100.0	21.05	0.00	6,064.8	-261.8	448.6	-235.1	10.00	10.00	0.00
6,200.0	31.05	0.00	6,154.6	-217.9	448.6	-191.3	10.00	10.00	0.00
6,300.0	41.05	0.00	6,235.3	-159.1	448.6	-132.6	10.00	10.00	0.00
6,400.0	51.05	0.00	6,304.6	-87.2	448.6	-60.8	10.00	10.00	0.00
6,500.0	61.05	0.00	6,360.4	-4.4	448.6	21.9	10.00	10.00	0.00
6,600.0	71.05	0.00	6,400.9	86.9	448.6	113.0	10.00	10.00	0.00
6,700.0	81.05	0.00	6,425.0	183.9	448.6	209.8	10.00	10.00	0.00
6,789.5	90.00	0.00	6,432.0	273.0	448.6	298.7	10.00	10.00	0.00
<b>Start DLS 0.01 TFO 180.00</b>									
6,800.0	90.00	0.00	6,432.0	283.5	448.6	309.2	0.00	0.00	0.00
6,900.0	89.99	0.00	6,432.0	383.5	448.6	409.1	0.01	-0.01	0.00
6,973.7	89.98	0.00	6,432.0	457.2	448.6	482.7	0.01	-0.01	0.00
<b>Start DLS 0.01 TFO 88.11</b>									
7,000.0	89.98	0.00	6,432.0	483.5	448.6	508.9	0.00	0.00	0.00
7,100.0	89.98	0.02	6,432.0	583.5	448.7	608.7	0.02	0.00	0.02
7,200.0	89.98	0.03	6,432.1	683.5	448.7	708.6	0.01	0.00	0.01
7,300.0	89.98	0.04	6,432.1	783.5	448.8	808.4	0.01	0.00	0.01
7,400.0	89.98	0.06	6,432.1	883.5	448.9	908.2	0.01	0.00	0.01
7,500.0	89.98	0.07	6,432.2	983.5	449.0	1,008.1	0.01	0.00	0.01
7,600.0	89.98	0.08	6,432.2	1,083.5	449.1	1,107.9	0.01	0.00	0.01
7,700.0	89.98	0.10	6,432.2	1,183.5	449.3	1,207.7	0.01	0.00	0.01
7,800.0	89.98	0.11	6,432.2	1,283.5	449.4	1,307.6	0.01	0.00	0.01
7,900.0	89.99	0.12	6,432.3	1,383.5	449.6	1,407.4	0.01	0.00	0.01
8,000.0	89.99	0.14	6,432.3	1,483.5	449.9	1,507.3	0.01	0.00	0.01
8,100.0	89.99	0.15	6,432.3	1,583.5	450.1	1,607.1	0.01	0.00	0.01
8,200.0	89.99	0.16	6,432.3	1,683.5	450.4	1,706.9	0.01	0.00	0.01
8,300.0	89.99	0.18	6,432.4	1,783.5	450.7	1,806.8	0.01	0.00	0.01

## Survey Report

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<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>TVD Reference:</b>	WELL @ 4953.0usft (Original Well Elev)
<b>Site:</b>	ROSS 8-60 18 SESW & SWSE SEC 18 T8N R60W 6th P.M.	<b>MD Reference:</b>	WELL @ 4953.0usft (Original Well Elev)
<b>Well:</b>	ROSS 8-60 18-7-5	<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 5000.16 Single User Db

### 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)
8,400.0	89.99	0.19	6,432.4	1,883.5	451.0	1,906.6	0.01	0.00	0.01
8,500.0	89.99	0.20	6,432.4	1,983.5	451.4	2,006.5	0.01	0.00	0.01
8,600.0	89.99	0.22	6,432.4	2,083.5	451.7	2,106.3	0.01	0.00	0.01
8,700.0	89.99	0.23	6,432.4	2,183.5	452.1	2,206.2	0.01	0.00	0.01
8,800.0	89.99	0.24	6,432.5	2,283.5	452.5	2,306.0	0.01	0.00	0.01
8,900.0	89.99	0.26	6,432.5	2,383.5	453.0	2,405.9	0.01	0.00	0.01
9,000.0	89.99	0.27	6,432.5	2,483.5	453.4	2,505.7	0.01	0.00	0.01
9,100.0	89.99	0.28	6,432.5	2,583.5	453.9	2,605.6	0.01	0.00	0.01
9,200.0	89.99	0.30	6,432.5	2,683.5	454.4	2,705.5	0.01	0.00	0.01
9,300.0	89.99	0.31	6,432.5	2,783.5	455.0	2,805.3	0.01	0.00	0.01
9,400.0	89.99	0.32	6,432.6	2,883.5	455.5	2,905.2	0.01	0.00	0.01
9,500.0	89.99	0.34	6,432.6	2,983.5	456.1	3,005.0	0.01	0.00	0.01
9,600.0	89.99	0.35	6,432.6	3,083.5	456.7	3,104.9	0.01	0.00	0.01
9,700.0	89.99	0.37	6,432.6	3,183.5	457.3	3,204.8	0.01	0.00	0.01
9,800.0	89.99	0.38	6,432.6	3,283.5	458.0	3,304.6	0.01	0.00	0.01
9,900.0	89.99	0.39	6,432.6	3,383.5	458.7	3,404.5	0.01	0.00	0.01
10,000.0	89.99	0.41	6,432.6	3,483.5	459.3	3,504.4	0.01	0.00	0.01
10,100.0	89.99	0.42	6,432.6	3,583.5	460.1	3,604.2	0.01	0.00	0.01
10,200.0	90.00	0.43	6,432.7	3,683.5	460.8	3,704.1	0.01	0.00	0.01
10,300.0	90.00	0.45	6,432.7	3,783.5	461.6	3,804.0	0.01	0.00	0.01
10,400.0	90.00	0.46	6,432.7	3,883.4	462.4	3,903.8	0.01	0.00	0.01
10,500.0	90.00	0.47	6,432.7	3,983.4	463.2	4,003.7	0.01	0.00	0.01
10,600.0	90.00	0.49	6,432.7	4,083.4	464.0	4,103.6	0.01	0.00	0.01
10,700.0	90.00	0.50	6,432.7	4,183.4	464.9	4,203.5	0.01	0.00	0.01
10,800.0	90.00	0.51	6,432.7	4,283.4	465.8	4,303.3	0.01	0.00	0.01
10,900.0	90.00	0.53	6,432.7	4,383.4	466.7	4,403.2	0.01	0.00	0.01
11,000.0	90.00	0.54	6,432.7	4,483.4	467.6	4,503.1	0.01	0.00	0.01
11,100.0	90.00	0.55	6,432.7	4,583.4	468.5	4,603.0	0.01	0.00	0.01
11,200.0	90.00	0.57	6,432.7	4,683.4	469.5	4,702.9	0.01	0.00	0.01
11,300.0	90.00	0.58	6,432.7	4,783.4	470.5	4,802.7	0.01	0.00	0.01
11,400.0	90.00	0.59	6,432.7	4,883.4	471.5	4,902.6	0.01	0.00	0.01
11,500.0	90.00	0.61	6,432.7	4,983.4	472.6	5,002.5	0.01	0.00	0.01
11,600.0	90.00	0.62	6,432.7	5,083.4	473.7	5,102.4	0.01	0.00	0.01
11,700.0	90.00	0.63	6,432.7	5,183.4	474.8	5,202.3	0.01	0.00	0.01
11,800.0	90.00	0.65	6,432.7	5,283.4	475.9	5,302.2	0.01	0.00	0.01
11,900.0	90.00	0.66	6,432.7	5,383.4	477.0	5,402.1	0.01	0.00	0.01
12,000.0	90.00	0.67	6,432.7	5,483.4	478.2	5,501.9	0.01	0.00	0.01
12,100.0	90.00	0.69	6,432.7	5,583.4	479.4	5,601.8	0.01	0.00	0.01
12,200.0	90.00	0.70	6,432.7	5,683.4	480.6	5,701.7	0.01	0.00	0.01
12,300.0	90.00	0.71	6,432.7	5,783.3	481.8	5,801.6	0.01	0.00	0.01
12,400.0	90.01	0.73	6,432.6	5,883.3	483.1	5,901.5	0.01	0.00	0.01
12,500.0	90.01	0.74	6,432.6	5,983.3	484.3	6,001.4	0.01	0.00	0.01

## Survey Report

<b>Company:</b>	Bison Oil & Gas II, LLC	<b>Local Co-ordinate Reference:</b>	Well ROSS 8-60 18-7-5
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>TVD Reference:</b>	WELL @ 4953.0usft (Original Well Elev)
<b>Site:</b>	ROSS 8-60 18 SESW & SWSE SEC 18 T8N R60W 6th P.M.	<b>MD Reference:</b>	WELL @ 4953.0usft (Original Well Elev)
<b>Well:</b>	ROSS 8-60 18-7-5	<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 5000.16 Single User Db

### 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)
12,600.0	90.01	0.75	6,432.6	6,083.3	485.6	6,101.3	0.01	0.00	0.01
12,700.0	90.01	0.77	6,432.6	6,183.3	487.0	6,201.2	0.01	0.00	0.01
12,800.0	90.01	0.78	6,432.6	6,283.3	488.3	6,301.1	0.01	0.00	0.01
12,900.0	90.01	0.79	6,432.6	6,383.3	489.7	6,401.0	0.01	0.00	0.01
13,000.0	90.01	0.81	6,432.6	6,483.3	491.1	6,500.9	0.01	0.00	0.01
13,100.0	90.01	0.82	6,432.6	6,583.3	492.5	6,600.8	0.01	0.00	0.01
13,200.0	90.01	0.83	6,432.6	6,683.3	493.9	6,700.7	0.01	0.00	0.01
13,300.0	90.01	0.85	6,432.5	6,783.2	495.4	6,800.6	0.01	0.00	0.01
13,400.0	90.01	0.86	6,432.5	6,883.2	496.9	6,900.5	0.01	0.00	0.01
13,500.0	90.01	0.87	6,432.5	6,983.2	498.4	7,000.4	0.01	0.00	0.01
13,600.0	90.01	0.89	6,432.5	7,083.2	500.0	7,100.3	0.01	0.00	0.01
13,700.0	90.01	0.90	6,432.5	7,183.2	501.5	7,200.2	0.01	0.00	0.01
13,800.0	90.01	0.91	6,432.4	7,283.2	503.1	7,300.1	0.01	0.00	0.01
13,900.0	90.01	0.93	6,432.4	7,383.2	504.7	7,400.1	0.01	0.00	0.01
14,000.0	90.01	0.94	6,432.4	7,483.2	506.3	7,500.0	0.01	0.00	0.01
14,100.0	90.01	0.95	6,432.4	7,583.1	508.0	7,599.9	0.01	0.00	0.01
14,200.0	90.01	0.97	6,432.4	7,683.1	509.7	7,699.8	0.01	0.00	0.01
14,300.0	90.01	0.98	6,432.3	7,783.1	511.4	7,799.7	0.01	0.00	0.01
14,400.0	90.01	0.99	6,432.3	7,883.1	513.1	7,899.6	0.01	0.00	0.01
14,500.0	90.01	1.01	6,432.3	7,983.1	514.8	7,999.5	0.01	0.00	0.01
14,600.0	90.01	1.02	6,432.3	8,083.1	516.6	8,099.4	0.01	0.00	0.01
14,700.0	90.02	1.03	6,432.2	8,183.1	518.4	8,199.4	0.01	0.00	0.01
14,800.0	90.02	1.05	6,432.2	8,283.0	520.2	8,299.3	0.01	0.00	0.01
14,900.0	90.02	1.06	6,432.2	8,383.0	522.1	8,399.2	0.01	0.00	0.01
15,000.0	90.02	1.07	6,432.2	8,483.0	523.9	8,499.1	0.01	0.00	0.01
15,100.0	90.02	1.09	6,432.1	8,583.0	525.8	8,599.0	0.01	0.00	0.01
15,200.0	90.02	1.10	6,432.1	8,683.0	527.7	8,699.0	0.01	0.00	0.01
15,300.0	90.02	1.11	6,432.1	8,782.9	529.7	8,798.9	0.01	0.00	0.01
15,400.0	90.02	1.13	6,432.0	8,882.9	531.6	8,898.8	0.01	0.00	0.01
15,500.0	90.02	1.14	6,432.0	8,982.9	533.6	8,998.7	0.01	0.00	0.01
15,543.7	90.02	1.15	6,432.0	9,026.6	534.5	9,042.4	0.01	0.00	0.01
<b>Start 150.0 hold at 15543.7 MD</b>									
15,600.0	90.02	1.15	6,432.0	9,082.9	535.6	9,098.7	0.00	0.00	0.00
15,693.7	90.02	1.15	6,431.9	9,176.6	537.5	9,192.3	0.00	0.00	0.00
<b>TD at 15693.7</b>									

## Survey Report

<b>Company:</b>	Bison Oil & Gas II, LLC	<b>Local Co-ordinate Reference:</b>	Well ROSS 8-60 18-7-5
<b>Project:</b>	WELD COUNTY, COLORADO (NAD 83)	<b>TVD Reference:</b>	WELL @ 4953.0usft (Original Well Elev)
<b>Site:</b>	ROSS 8-60 18 SESW & SWSE SEC 18 T8N R60W 6th P.M.	<b>MD Reference:</b>	WELL @ 4953.0usft (Original Well Elev)
<b>Well:</b>	ROSS 8-60 18-7-5	<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 5000.16 Single User Db

### 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
ROSS 8-60 18-7-5 BF - plan misses target center by 2.5usft at 15693.7usft MD (6431.9 TVD, 9176.6 N, 537.5 E) - Point	0.00	0.88	6,432.0	9,176.7	535.0	1,494,101.16	3,379,177.72	40° 40' 54.037 N	104° 7' 58.138 W
ROSS 8-60 18-7-5 EF - plan hits target center - Point	0.00	0.88	6,432.0	9,026.6	534.5	1,493,951.06	3,379,179.48	40° 40' 52.554 N	104° 7' 58.145 W
ROSS 8-60 18-7-5 BF - plan hits target center - Point	0.00	0.88	6,432.0	457.2	448.6	1,485,381.53	3,379,225.60	40° 39' 27.878 N	104° 7' 59.261 W

### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
800	800	0	0	Start Build 1.50
1245	1244	-14	22	Start 4199.8 hold at 1244.8 MD
5445	5415	-286	427	Start Drop -1.50
5889	5859	-300	449	Start Build 10.00
6789	6432	273	449	Start DLS 0.01 TFO 180.00
6974	6432	457	449	Start DLS 0.01 TFO 88.11
15,544	6432	9027	534	Start 150.0 hold at 15543.7 MD
15,694	6432	9177	537	TD at 15693.7