

# **CRESTONE PEAK RESOURCES**

**ARAPAHOE COUNTY**

**SEC 26-T4S-R65W**

**GRIMM MOTOCROSS 4-65 23-24 3BH**

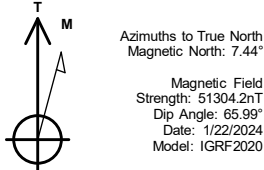
**OWB**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**08 February, 2024**

Project: ARAPAHOE COUNTY  
Site: SEC 26-T4S-R65W  
Well: GRIMM MOTOCROSS 4-65 23-24 3BH  
Wellbore: OWB  
Design: PROPOSAL 1



WELL DETAILS: GRIMM MOTOCROSS 4-65 23-24 3BH

5794.00					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1672499.82	3242335.21	39.676658°N	104.639043°W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
3	1447.36	26.95	346.71	1398.23	302.72	-71.49	2.00	346.71	33.23	
4	8057.88	26.95	346.71	7291.02	3218.19	-760.06	0.00	0.00	353.28	
5	9019.62	90.00	90.44	7860.00	3494.78	-188.28	10.00	102.29	984.49	LP-GM 4-65 23-24 3BH
6	18904.45	90.00	90.44	7860.00	3418.67	9696.25	0.00	0.00	10281.27	PBHL-GM 4-65 23-24 3BH

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	Start Build 2.00
1447.36	26.95	346.71	1398.23	302.72	-71.49	33.23	311.04	Start 6610.53 hold at 1447.36 MD
8057.88	26.95	346.71	7291.02	3218.19	-760.06	353.28	3306.73	Start DLS 10.00 TFO 102.29
9019.62	90.00	90.44	7860.00	3494.78	-188.28	984.49	4008.30	Start 9884.83 hold at 9019.62 MD
12806.82	90.00	90.44	7860.00	3465.62	3598.80	454.39	7795.50	ENTER FED TRACT 600' BUFFER 12806.82' MD, 7860' TVD
14563.91	90.00	90.44	7860.00	3452.09	5355.84	6198.95	9552.59	EXIST FED TRACT 600' BUFFER 14563.91' MD, 7860' TVD
18904.45	90.00	90.44	7860.00	3418.67	9696.25	10281.27	13893.13	TD at 18904.45

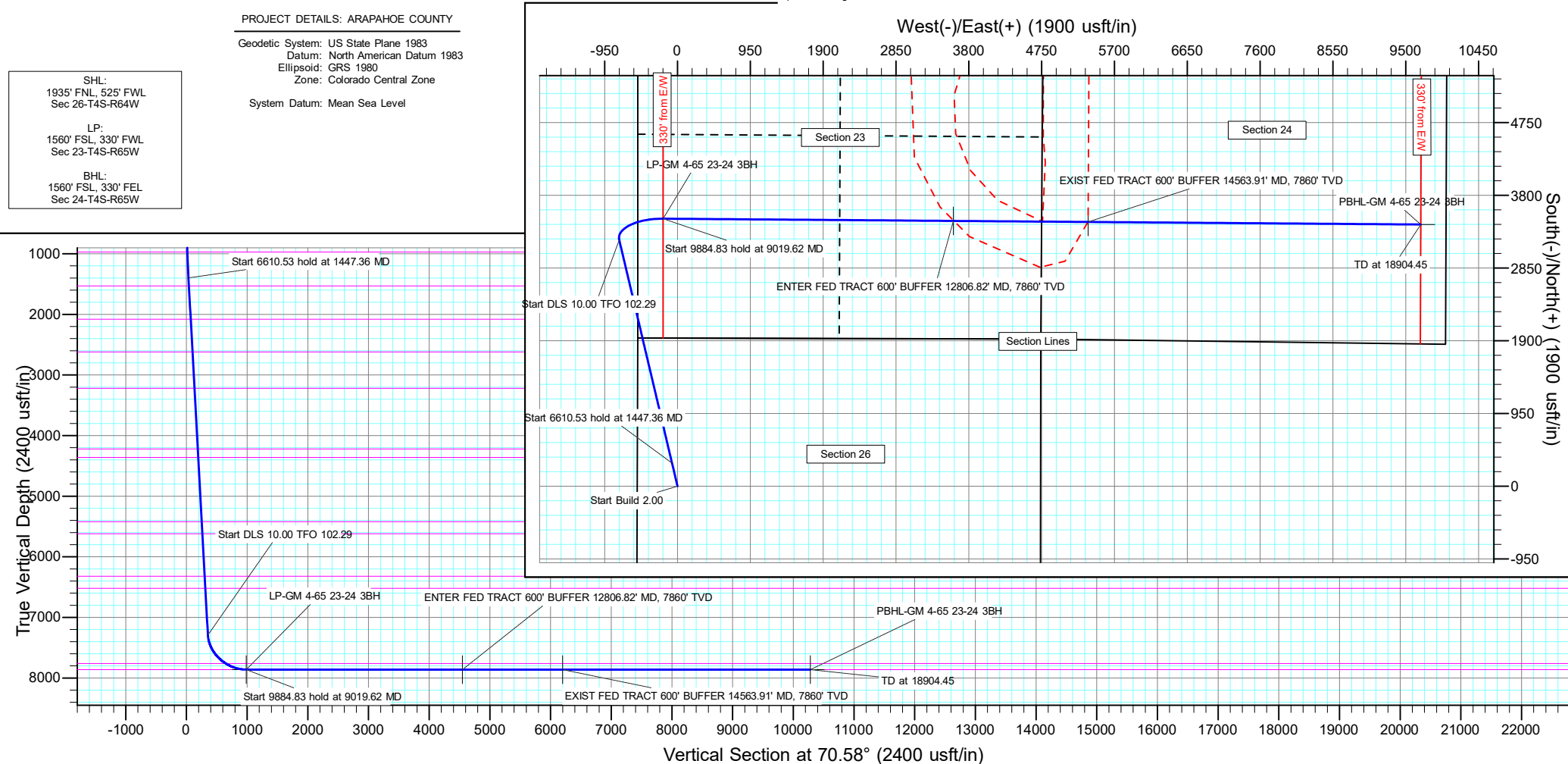
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
ENTER FED-GM 4-65 23-24 3BH	7860.00	3465.89	3598.80	1675999.61	3245900.95	39.686172°N	104.626256°W	Point
- plan misses target center by 0.27usft at 12806.82usft MD (7860.00 TVD, 3465.62 N, 3598.79 E)								
EXIS FED-GM 4-65 23-24 3BH	7860.00	3452.36	5355.84	1676002.73	3247658.02	39.686134°N	104.620013°W	Point
- plan misses target center by 0.27usft at 14563.91usft MD (7860.00 TVD, 3452.09 N, 5355.84 E)								
LP-GM 4-65 23-24 3BH	7860.00	3494.78	-188.28	1675992.61	3242113.82	39.686252°N	104.639712°W	Point
- plan hits target center								
PBHL-GM 4-65 23-24 3BH	7860.00	3418.67	9696.25	1676010.17	3251998.49	39.686038°N	104.604591°W	Point
- plan hits target center								

PROJECT DETAILS: ARAPAHOE COUNTY

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Central Zone  
System Datum: Mean Sea Level

SHL:  
1935' FNL, 525' FWL  
Sec 26-T4S-R64W  
  
LP:  
1560' FSL, 330' FWL  
Sec 23-T4S-R65W  
  
BHL:  
1560' FSL, 330' FEL  
Sec 24-T4S-R65W



# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well GRIMM MOTOCROSS 4-65 23-24 3BH
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KBE 25' @ 5819.00usft
<b>Project:</b>	ARAPAHOE COUNTY	<b>MD Reference:</b>	KBE 25' @ 5819.00usft
<b>Site:</b>	SEC 26-T4S-R65W	<b>North Reference:</b>	True
<b>Well:</b>	GRIMM MOTOCROSS 4-65 23-24 3BH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

<b>Project</b>	ARAPAHOE COUNTY		
<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 Central Zone		Using geodetic scale factor

Site		SEC 26-T4S-R65W			
Site Position:		Northing:	1,674,430.51 usft	Latitude:	39.681972°N
From:	Lat/Long	Easting:	3,241,798.17 usft	Longitude:	104.640886°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.54 °

Well	GRIMM MOTOCROSS 4-65 23-24 3BH					
Well Position	+N/-S	-1,935.71 usft	Northing:	1,672,499.81 usft	Latitude:	39.676658°N
	+E/-W	518.77 usft	Easting:	3,242,335.21 usft	Longitude:	104.639043°W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,794.00 usft

<b>Wellbore</b>	OWB				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	1/22/2024	7.44	65.99	51,304.20234418

Design	PROPOSAL 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	70.58

<b>Plan Survey Tool Program</b>	<b>Date</b>	2/8/2024			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	18,904.45	PROPOSAL 1 (OWB)	MWD OWSG	
				OWSG MWD - Standard	

<b>Plan Sections</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>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	<b>TFO (°)</b>	<b>Target</b>
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	
1,447.36	26.95	346.71	1,398.23	302.72	-71.49	2.00	2.00	0.00	346.71	
8,057.88	26.95	346.71	7,291.02	3,218.19	-760.06	0.00	0.00	0.00	0.00	
9,019.62	90.00	90.44	7,860.00	3,494.78	-188.28	10.00	6.56	10.79	102.29	LP-GM 4-65 23-24 3E
18,904.45	90.00	90.44	7,860.00	3,418.67	9,696.25	0.00	0.00	0.00	0.00	PBHL-GM 4-65 23-24

# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well GRIMM MOTOCROSS 4-65 23-24 3BH
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KBE 25' @ 5819.00usft
<b>Project:</b>	ARAPAHOE COUNTY	<b>MD Reference:</b>	KBE 25' @ 5819.00usft
<b>Site:</b>	SEC 26-T4S-R65W	<b>North Reference:</b>	True
<b>Well:</b>	GRIMM MOTOCROSS 4-65 23-24 3BH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
24.00	0.00	0.00	24.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Denver</b>									
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 2.00</b>									
200.00	2.00	346.71	199.98	1.70	-0.40	0.19	2.00	2.00	0.00
300.00	4.00	346.71	299.84	6.79	-1.60	0.75	2.00	2.00	0.00
400.00	6.00	346.71	399.45	15.27	-3.61	1.68	2.00	2.00	0.00
500.00	8.00	346.71	498.70	27.13	-6.41	2.98	2.00	2.00	0.00
600.00	10.00	346.71	597.47	42.36	-10.00	4.65	2.00	2.00	0.00
700.00	12.00	346.71	695.62	60.93	-14.39	6.69	2.00	2.00	0.00
800.00	14.00	346.71	793.06	82.82	-19.56	9.09	2.00	2.00	0.00
900.00	16.00	346.71	889.64	108.01	-25.51	11.86	2.00	2.00	0.00
983.96	17.68	346.71	970.00	131.68	-31.10	14.45	2.00	2.00	0.00
<b>Arapahoe</b>									
1,000.00	18.00	346.71	985.27	136.46	-32.23	14.98	2.00	2.00	0.00
1,100.00	20.00	346.71	1,079.82	168.14	-39.71	18.46	2.00	2.00	0.00
1,200.00	22.00	346.71	1,173.17	203.02	-47.95	22.29	2.00	2.00	0.00
1,300.00	24.00	346.71	1,265.21	241.04	-56.93	26.46	2.00	2.00	0.00
1,400.00	26.00	346.71	1,355.84	282.17	-66.64	30.98	2.00	2.00	0.00
1,447.36	26.95	346.71	1,398.23	302.72	-71.49	33.23	2.00	2.00	0.00
<b>Start 6610.53 hold at 1447.36 MD</b>									
1,500.00	26.95	346.71	1,445.16	325.93	-76.98	35.78	0.00	0.00	0.00
1,595.18	26.95	346.71	1,530.00	367.91	-86.89	40.39	0.00	0.00	0.00
<b>Laramie-Fox Hills Formation</b>									
1,600.00	26.95	346.71	1,534.30	370.04	-87.39	40.62	0.00	0.00	0.00
1,700.00	26.95	346.71	1,623.44	414.14	-97.81	45.46	0.00	0.00	0.00
1,800.00	26.95	346.71	1,712.59	458.24	-108.23	50.30	0.00	0.00	0.00
1,900.00	26.95	346.71	1,801.73	502.35	-118.64	55.15	0.00	0.00	0.00
2,000.00	26.95	346.71	1,890.87	546.45	-129.06	59.99	0.00	0.00	0.00
2,100.00	26.95	346.71	1,980.01	590.56	-139.48	64.83	0.00	0.00	0.00
2,200.00	26.95	346.71	2,069.16	634.66	-149.89	69.67	0.00	0.00	0.00
2,212.16	26.95	346.71	2,080.00	640.02	-151.16	70.26	0.00	0.00	0.00
<b>Pierre Formation</b>									
2,300.00	26.95	346.71	2,158.30	678.76	-160.31	74.51	0.00	0.00	0.00
2,400.00	26.95	346.71	2,247.44	722.87	-170.72	79.35	0.00	0.00	0.00
2,500.00	26.95	346.71	2,336.58	766.97	-181.14	84.19	0.00	0.00	0.00
2,600.00	26.95	346.71	2,425.73	811.07	-191.56	89.04	0.00	0.00	0.00
2,700.00	26.95	346.71	2,514.87	855.18	-201.97	93.88	0.00	0.00	0.00
2,800.00	26.95	346.71	2,604.01	899.28	-212.39	98.72	0.00	0.00	0.00
2,817.94	26.95	346.71	2,620.00	907.19	-214.26	99.59	0.00	0.00	0.00
<b>Upper Pierre aquifer</b>									
2,900.00	26.95	346.71	2,693.15	943.38	-222.81	103.56	0.00	0.00	0.00
3,000.00	26.95	346.71	2,782.30	987.49	-233.22	108.40	0.00	0.00	0.00
3,100.00	26.95	346.71	2,871.44	1,031.59	-243.64	113.24	0.00	0.00	0.00
3,200.00	26.95	346.71	2,960.58	1,075.69	-254.05	118.08	0.00	0.00	0.00
3,300.00	26.95	346.71	3,049.72	1,119.80	-264.47	122.93	0.00	0.00	0.00
3,400.00	26.95	346.71	3,138.87	1,163.90	-274.89	127.77	0.00	0.00	0.00
3,491.02	26.95	346.71	3,220.00	1,204.04	-284.37	132.17	0.00	0.00	0.00
<b>Base of Upper Pierre aquifer</b>									
3,500.00	26.95	346.71	3,228.01	1,208.00	-285.30	132.61	0.00	0.00	0.00
3,600.00	26.95	346.71	3,317.15	1,252.11	-295.72	137.45	0.00	0.00	0.00
3,700.00	26.95	346.71	3,406.29	1,296.21	-306.14	142.29	0.00	0.00	0.00

# Civitas Resources

## Planning Report

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Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KBE 25' @ 5819.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KBE 25' @ 5819.00usft
Site:	SEC 26-T4S-R65W	North Reference:	True
Well:	GRIMM MOTOCROSS 4-65 23-24 3BH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
3,800.00	26.95	346.71	3,495.44	1,340.31	-316.55	147.13	0.00	0.00	0.00	
3,900.00	26.95	346.71	3,584.58	1,384.42	-326.97	151.97	0.00	0.00	0.00	
4,000.00	26.95	346.71	3,673.72	1,428.52	-337.38	156.82	0.00	0.00	0.00	
4,100.00	26.95	346.71	3,762.86	1,472.63	-347.80	161.66	0.00	0.00	0.00	
4,200.00	26.95	346.71	3,852.01	1,516.73	-358.22	166.50	0.00	0.00	0.00	
4,300.00	26.95	346.71	3,941.15	1,560.83	-368.63	171.34	0.00	0.00	0.00	
4,400.00	26.95	346.71	4,030.29	1,604.94	-379.05	176.18	0.00	0.00	0.00	
4,500.00	26.95	346.71	4,119.43	1,649.04	-389.47	181.02	0.00	0.00	0.00	
4,600.00	26.95	346.71	4,208.58	1,693.14	-399.88	185.87	0.00	0.00	0.00	
4,612.82	26.95	346.71	4,220.00	1,698.80	-401.22	186.49	0.00	0.00	0.00	
Larimer ("Parkman") sandstone										
4,700.00	26.95	346.71	4,297.72	1,737.25	-410.30	190.71	0.00	0.00	0.00	
4,769.87	26.95	346.71	4,360.00	1,768.06	-417.58	194.09	0.00	0.00	0.00	
Pierre Formation										
4,800.00	26.95	346.71	4,386.86	1,781.35	-420.71	195.55	0.00	0.00	0.00	
4,900.00	26.95	346.71	4,476.00	1,825.45	-431.13	200.39	0.00	0.00	0.00	
5,000.00	26.95	346.71	4,565.15	1,869.56	-441.55	205.23	0.00	0.00	0.00	
5,100.00	26.95	346.71	4,654.29	1,913.66	-451.96	210.07	0.00	0.00	0.00	
5,200.00	26.95	346.71	4,743.43	1,957.76	-462.38	214.91	0.00	0.00	0.00	
5,300.00	26.95	346.71	4,832.57	2,001.87	-472.80	219.76	0.00	0.00	0.00	
5,400.00	26.95	346.71	4,921.72	2,045.97	-483.21	224.60	0.00	0.00	0.00	
5,500.00	26.95	346.71	5,010.86	2,090.07	-493.63	229.44	0.00	0.00	0.00	
5,600.00	26.95	346.71	5,100.00	2,134.18	-504.04	234.28	0.00	0.00	0.00	
5,700.00	26.95	346.71	5,189.14	2,178.28	-514.46	239.12	0.00	0.00	0.00	
5,800.00	26.95	346.71	5,278.29	2,222.39	-524.88	243.96	0.00	0.00	0.00	
5,900.00	26.95	346.71	5,367.43	2,266.49	-535.29	248.80	0.00	0.00	0.00	
5,958.98	26.95	346.71	5,420.00	2,292.50	-541.44	251.66	0.00	0.00	0.00	
Terry ("Sussex") sandstone										
6,000.00	26.95	346.71	5,456.57	2,310.59	-545.71	253.65	0.00	0.00	0.00	
6,100.00	26.95	346.71	5,545.71	2,354.70	-556.13	258.49	0.00	0.00	0.00	
6,183.34	26.95	346.71	5,620.00	2,391.45	-564.81	262.52	0.00	0.00	0.00	
Pierre Formation										
6,200.00	26.95	346.71	5,634.86	2,398.80	-566.54	263.33	0.00	0.00	0.00	
6,300.00	26.95	346.71	5,724.00	2,442.90	-576.96	268.17	0.00	0.00	0.00	
6,400.00	26.95	346.71	5,813.14	2,487.01	-587.37	273.01	0.00	0.00	0.00	
6,500.00	26.95	346.71	5,902.28	2,531.11	-597.79	277.85	0.00	0.00	0.00	
6,600.00	26.95	346.71	5,991.43	2,575.21	-608.21	282.69	0.00	0.00	0.00	
6,700.00	26.95	346.71	6,080.57	2,619.32	-618.62	287.54	0.00	0.00	0.00	
6,800.00	26.95	346.71	6,169.71	2,663.42	-629.04	292.38	0.00	0.00	0.00	
6,900.00	26.95	346.71	6,258.85	2,707.52	-639.46	297.22	0.00	0.00	0.00	
6,968.60	26.95	346.71	6,320.00	2,737.78	-646.60	300.54	0.00	0.00	0.00	
Hygiene ("Shannon") sandstone										
7,000.00	26.95	346.71	6,348.00	2,751.63	-649.87	302.06	0.00	0.00	0.00	
7,100.00	26.95	346.71	6,437.14	2,795.73	-660.29	306.90	0.00	0.00	0.00	
7,192.96	26.95	346.71	6,520.00	2,836.73	-669.97	311.40	0.00	0.00	0.00	
Pierre Formation										
7,200.00	26.95	346.71	6,526.28	2,839.83	-670.70	311.74	0.00	0.00	0.00	
7,300.00	26.95	346.71	6,615.42	2,883.94	-681.12	316.58	0.00	0.00	0.00	
7,400.00	26.95	346.71	6,704.57	2,928.04	-691.54	321.43	0.00	0.00	0.00	
7,500.00	26.95	346.71	6,793.71	2,972.14	-701.95	326.27	0.00	0.00	0.00	
7,600.00	26.95	346.71	6,882.85	3,016.25	-712.37	331.11	0.00	0.00	0.00	
7,700.00	26.95	346.71	6,971.99	3,060.35	-722.79	335.95	0.00	0.00	0.00	
7,800.00	26.95	346.71	7,061.14	3,104.46	-733.20	340.79	0.00	0.00	0.00	

# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well GRIMM MOTOCROSS 4-65 23-24 3BH
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KBE 25' @ 5819.00usft
<b>Project:</b>	ARAPAHOE COUNTY	<b>MD Reference:</b>	KBE 25' @ 5819.00usft
<b>Site:</b>	SEC 26-T4S-R65W	<b>North Reference:</b>	True
<b>Well:</b>	GRIMM MOTOCROSS 4-65 23-24 3BH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,900.00	26.95	346.71	7,150.28	3,148.56	-743.62	345.63	0.00	0.00	0.00
8,000.00	26.95	346.71	7,239.42	3,192.66	-754.03	350.48	0.00	0.00	0.00
8,057.88	26.95	346.71	7,291.02	3,218.19	-760.06	353.28	0.00	0.00	0.00
Start DLS 10.00 TFO 102.29									
8,100.00	26.35	356.02	7,328.68	3,236.81	-762.91	356.79	10.00	-1.42	22.09
8,150.00	26.44	7.27	7,373.49	3,258.94	-762.27	364.75	10.00	0.19	22.52
8,200.00	27.40	18.13	7,418.10	3,280.93	-757.28	376.77	10.00	1.91	21.71
8,250.00	29.13	28.05	7,462.16	3,302.62	-747.97	392.76	10.00	3.46	19.84
8,300.00	31.51	36.77	7,505.34	3,323.84	-734.42	412.60	10.00	4.76	17.45
8,350.00	34.40	44.28	7,547.31	3,344.43	-716.72	436.13	10.00	5.78	15.02
8,400.00	37.68	50.70	7,587.75	3,364.23	-695.02	463.18	10.00	6.57	12.83
8,450.00	41.27	56.19	7,626.35	3,383.10	-669.48	493.54	10.00	7.16	10.99
8,500.00	45.07	60.93	7,662.82	3,400.88	-640.29	526.99	10.00	7.62	9.48
8,550.00	49.05	65.07	7,696.88	3,417.45	-607.67	563.26	10.00	7.96	8.28
8,600.00	53.16	68.73	7,728.27	3,432.68	-571.88	602.08	10.00	8.22	7.32
8,650.00	57.38	72.01	7,756.76	3,446.45	-533.18	643.15	10.00	8.42	6.56
8,656.06	57.89	72.39	7,760.00	3,448.01	-528.31	648.27	10.00	8.52	6.21
Sharon Springs Member									
8,700.00	61.66	75.00	7,782.12	3,458.66	-491.87	686.16	10.00	8.59	5.94
8,750.00	66.01	77.75	7,804.16	3,469.21	-448.27	730.79	10.00	8.70	5.50
8,800.00	70.41	80.32	7,822.72	3,478.02	-402.71	776.70	10.00	8.79	5.14
8,850.00	74.84	82.75	7,837.65	3,485.03	-355.52	823.53	10.00	8.86	4.86
8,900.00	79.29	85.08	7,848.84	3,490.19	-307.08	870.93	10.00	8.91	4.66
8,950.00	83.76	87.35	7,856.21	3,493.45	-257.75	918.54	10.00	8.94	4.53
9,000.00	88.24	89.57	7,859.70	3,494.78	-207.91	965.99	10.00	8.96	4.45
9,019.62	90.00	90.44	7,860.00	3,494.78	-188.28	984.49	10.00	8.97	4.43
Start 9884.83 hold at 9019.62 MD - Niobrara Formation									
9,100.00	90.00	90.44	7,860.00	3,494.16	-107.91	1,060.09	0.00	0.00	0.00
9,200.00	90.00	90.44	7,860.00	3,493.39	-7.91	1,154.14	0.00	0.00	0.00
9,300.00	90.00	90.44	7,860.00	3,492.62	92.08	1,248.19	0.00	0.00	0.00
9,400.00	90.00	90.44	7,860.00	3,491.85	192.08	1,342.24	0.00	0.00	0.00
9,500.00	90.00	90.44	7,860.00	3,491.08	292.08	1,436.29	0.00	0.00	0.00
9,600.00	90.00	90.44	7,860.00	3,490.31	392.07	1,530.34	0.00	0.00	0.00
9,700.00	90.00	90.44	7,860.00	3,489.54	492.07	1,624.39	0.00	0.00	0.00
9,800.00	90.00	90.44	7,860.00	3,488.77	592.07	1,718.44	0.00	0.00	0.00
9,900.00	90.00	90.44	7,860.00	3,488.00	692.06	1,812.49	0.00	0.00	0.00
10,000.00	90.00	90.44	7,860.00	3,487.23	792.06	1,906.55	0.00	0.00	0.00
10,100.00	90.00	90.44	7,860.00	3,486.46	892.06	2,000.60	0.00	0.00	0.00
10,200.00	90.00	90.44	7,860.00	3,485.69	992.06	2,094.65	0.00	0.00	0.00
10,300.00	90.00	90.44	7,860.00	3,484.92	1,092.05	2,188.70	0.00	0.00	0.00
10,400.00	90.00	90.44	7,860.00	3,484.15	1,192.05	2,282.75	0.00	0.00	0.00
10,500.00	90.00	90.44	7,860.00	3,483.38	1,292.05	2,376.80	0.00	0.00	0.00
10,600.00	90.00	90.44	7,860.00	3,482.61	1,392.04	2,470.85	0.00	0.00	0.00
10,700.00	90.00	90.44	7,860.00	3,481.84	1,492.04	2,564.90	0.00	0.00	0.00
10,800.00	90.00	90.44	7,860.00	3,481.07	1,592.04	2,658.95	0.00	0.00	0.00
10,900.00	90.00	90.44	7,860.00	3,480.30	1,692.04	2,753.00	0.00	0.00	0.00
11,000.00	90.00	90.44	7,860.00	3,479.53	1,792.03	2,847.06	0.00	0.00	0.00
11,100.00	90.00	90.44	7,860.00	3,478.76	1,892.03	2,941.11	0.00	0.00	0.00
11,200.00	90.00	90.44	7,860.00	3,477.99	1,992.03	3,035.16	0.00	0.00	0.00
11,300.00	90.00	90.44	7,860.00	3,477.22	2,092.02	3,129.21	0.00	0.00	0.00
11,400.00	90.00	90.44	7,860.00	3,476.45	2,192.02	3,223.26	0.00	0.00	0.00
11,500.00	90.00	90.44	7,860.00	3,475.68	2,292.02	3,317.31	0.00	0.00	0.00
11,600.00	90.00	90.44	7,860.00	3,474.91	2,392.01	3,411.36	0.00	0.00	0.00

# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well GRIMM MOTOCROSS 4-65 23-24 3BH
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KBE 25' @ 5819.00usft
<b>Project:</b>	ARAPAHOE COUNTY	<b>MD Reference:</b>	KBE 25' @ 5819.00usft
<b>Site:</b>	SEC 26-T4S-R65W	<b>North Reference:</b>	True
<b>Well:</b>	GRIMM MOTOCROSS 4-65 23-24 3BH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,700.00	90.00	90.44	7,860.00	3,474.14	2,492.01	3,505.41	0.00	0.00	0.00
11,800.00	90.00	90.44	7,860.00	3,473.37	2,592.01	3,599.46	0.00	0.00	0.00
11,900.00	90.00	90.44	7,860.00	3,472.60	2,692.01	3,693.51	0.00	0.00	0.00
12,000.00	90.00	90.44	7,860.00	3,471.83	2,792.00	3,787.57	0.00	0.00	0.00
12,100.00	90.00	90.44	7,860.00	3,471.06	2,892.00	3,881.62	0.00	0.00	0.00
12,200.00	90.00	90.44	7,860.00	3,470.29	2,992.00	3,975.67	0.00	0.00	0.00
12,300.00	90.00	90.44	7,860.00	3,469.52	3,091.99	4,069.72	0.00	0.00	0.00
12,400.00	90.00	90.44	7,860.00	3,468.75	3,191.99	4,163.77	0.00	0.00	0.00
12,500.00	90.00	90.44	7,860.00	3,467.98	3,291.99	4,257.82	0.00	0.00	0.00
12,600.00	90.00	90.44	7,860.00	3,467.21	3,391.98	4,351.87	0.00	0.00	0.00
12,700.00	90.00	90.44	7,860.00	3,466.44	3,491.98	4,445.92	0.00	0.00	0.00
12,800.00	90.00	90.44	7,860.00	3,465.67	3,591.98	4,539.97	0.00	0.00	0.00
12,806.82	90.00	90.44	7,860.00	3,465.62	3,598.80	4,546.39	0.00	0.00	0.00
ENTER FED TRACT 600' BUFFER 12806.82' MD, 7860' TVD									
12,900.00	90.00	90.44	7,860.00	3,464.90	3,691.98	4,634.02	0.00	0.00	0.00
13,000.00	90.00	90.44	7,860.00	3,464.13	3,791.97	4,728.08	0.00	0.00	0.00
13,100.00	90.00	90.44	7,860.00	3,463.36	3,891.97	4,822.13	0.00	0.00	0.00
13,200.00	90.00	90.44	7,860.00	3,462.59	3,991.97	4,916.18	0.00	0.00	0.00
13,300.00	90.00	90.44	7,860.00	3,461.82	4,091.96	5,010.23	0.00	0.00	0.00
13,400.00	90.00	90.44	7,860.00	3,461.05	4,191.96	5,104.28	0.00	0.00	0.00
13,500.00	90.00	90.44	7,860.00	3,460.28	4,291.96	5,198.33	0.00	0.00	0.00
13,600.00	90.00	90.44	7,860.00	3,459.51	4,391.96	5,292.38	0.00	0.00	0.00
13,700.00	90.00	90.44	7,860.00	3,458.74	4,491.95	5,386.43	0.00	0.00	0.00
13,800.00	90.00	90.44	7,860.00	3,457.97	4,591.95	5,480.48	0.00	0.00	0.00
13,900.00	90.00	90.44	7,860.00	3,457.20	4,691.95	5,574.53	0.00	0.00	0.00
14,000.00	90.00	90.44	7,860.00	3,456.43	4,791.94	5,668.59	0.00	0.00	0.00
14,100.00	90.00	90.44	7,860.00	3,455.66	4,891.94	5,762.64	0.00	0.00	0.00
14,200.00	90.00	90.44	7,860.00	3,454.89	4,991.94	5,856.69	0.00	0.00	0.00
14,300.00	90.00	90.44	7,860.00	3,454.12	5,091.93	5,950.74	0.00	0.00	0.00
14,400.00	90.00	90.44	7,860.00	3,453.35	5,191.93	6,044.79	0.00	0.00	0.00
14,500.00	90.00	90.44	7,860.00	3,452.58	5,291.93	6,138.84	0.00	0.00	0.00
14,563.91	90.00	90.44	7,860.00	3,452.09	5,355.84	6,198.95	0.00	0.00	0.00
EXIST FED TRACT 600' BUFFER 14563.91' MD, 7860' TVD									
14,600.00	90.00	90.44	7,860.00	3,451.81	5,391.93	6,232.89	0.00	0.00	0.00
14,700.00	90.00	90.44	7,860.00	3,451.04	5,491.92	6,326.94	0.00	0.00	0.00
14,800.00	90.00	90.44	7,860.00	3,450.27	5,591.92	6,420.99	0.00	0.00	0.00
14,900.00	90.00	90.44	7,860.00	3,449.50	5,691.92	6,515.04	0.00	0.00	0.00
15,000.00	90.00	90.44	7,860.00	3,448.73	5,791.91	6,609.10	0.00	0.00	0.00
15,100.00	90.00	90.44	7,860.00	3,447.96	5,891.91	6,703.15	0.00	0.00	0.00
15,200.00	90.00	90.44	7,860.00	3,447.19	5,991.91	6,797.20	0.00	0.00	0.00
15,300.00	90.00	90.44	7,860.00	3,446.42	6,091.90	6,891.25	0.00	0.00	0.00
15,400.00	90.00	90.44	7,860.00	3,445.65	6,191.90	6,985.30	0.00	0.00	0.00
15,500.00	90.00	90.44	7,860.00	3,444.88	6,291.90	7,079.35	0.00	0.00	0.00
15,600.00	90.00	90.44	7,860.00	3,444.11	6,391.90	7,173.40	0.00	0.00	0.00
15,700.00	90.00	90.44	7,860.00	3,443.34	6,491.89	7,267.45	0.00	0.00	0.00
15,800.00	90.00	90.44	7,860.00	3,442.57	6,591.89	7,361.50	0.00	0.00	0.00
15,900.00	90.00	90.44	7,860.00	3,441.80	6,691.89	7,455.55	0.00	0.00	0.00
16,000.00	90.00	90.44	7,860.00	3,441.03	6,791.88	7,549.61	0.00	0.00	0.00
16,100.00	90.00	90.44	7,860.00	3,440.26	6,891.88	7,643.66	0.00	0.00	0.00
16,200.00	90.00	90.44	7,860.00	3,439.49	6,991.88	7,737.71	0.00	0.00	0.00
16,300.00	90.00	90.44	7,860.00	3,438.72	7,091.88	7,831.76	0.00	0.00	0.00
16,400.00	90.00	90.44	7,860.00	3,437.95	7,191.87	7,925.81	0.00	0.00	0.00
16,500.00	90.00	90.44	7,860.00	3,437.18	7,291.87	8,019.86	0.00	0.00	0.00
16,600.00	90.00	90.44	7,860.00	3,436.41	7,391.87	8,113.91	0.00	0.00	0.00

# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well GRIMM MOTOCROSS 4-65 23-24 3BH
<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KBE 25' @ 5819.00usft
<b>Project:</b>	ARAPAHOE COUNTY	<b>MD Reference:</b>	KBE 25' @ 5819.00usft
<b>Site:</b>	SEC 26-T4S-R65W	<b>North Reference:</b>	True
<b>Well:</b>	GRIMM MOTOCROSS 4-65 23-24 3BH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
16,700.00	90.00	90.44	7,860.00	3,435.64	7,491.86	8,207.96	0.00	0.00	0.00	
16,800.00	90.00	90.44	7,860.00	3,434.87	7,591.86	8,302.01	0.00	0.00	0.00	
16,900.00	90.00	90.44	7,860.00	3,434.10	7,691.86	8,396.06	0.00	0.00	0.00	
17,000.00	90.00	90.44	7,860.00	3,433.33	7,791.85	8,490.12	0.00	0.00	0.00	
17,100.00	90.00	90.44	7,860.00	3,432.56	7,891.85	8,584.17	0.00	0.00	0.00	
17,200.00	90.00	90.44	7,860.00	3,431.79	7,991.85	8,678.22	0.00	0.00	0.00	
17,300.00	90.00	90.44	7,860.00	3,431.02	8,091.85	8,772.27	0.00	0.00	0.00	
17,400.00	90.00	90.44	7,860.00	3,430.25	8,191.84	8,866.32	0.00	0.00	0.00	
17,500.00	90.00	90.44	7,860.00	3,429.48	8,291.84	8,960.37	0.00	0.00	0.00	
17,600.00	90.00	90.44	7,860.00	3,428.71	8,391.84	9,054.42	0.00	0.00	0.00	
17,700.00	90.00	90.44	7,860.00	3,427.94	8,491.83	9,148.47	0.00	0.00	0.00	
17,800.00	90.00	90.44	7,860.00	3,427.17	8,591.83	9,242.52	0.00	0.00	0.00	
17,900.00	90.00	90.44	7,860.00	3,426.40	8,691.83	9,336.57	0.00	0.00	0.00	
18,000.00	90.00	90.44	7,860.00	3,425.63	8,791.82	9,430.63	0.00	0.00	0.00	
18,100.00	90.00	90.44	7,860.00	3,424.86	8,891.82	9,524.68	0.00	0.00	0.00	
18,200.00	90.00	90.44	7,860.00	3,424.09	8,991.82	9,618.73	0.00	0.00	0.00	
18,300.00	90.00	90.44	7,860.00	3,423.32	9,091.82	9,712.78	0.00	0.00	0.00	
18,400.00	90.00	90.44	7,860.00	3,422.55	9,191.81	9,806.83	0.00	0.00	0.00	
18,500.00	90.00	90.44	7,860.00	3,421.78	9,291.81	9,900.88	0.00	0.00	0.00	
18,600.00	90.00	90.44	7,860.00	3,421.01	9,391.81	9,994.93	0.00	0.00	0.00	
18,700.00	90.00	90.44	7,860.00	3,420.24	9,491.80	10,088.98	0.00	0.00	0.00	
18,800.00	90.00	90.44	7,860.00	3,419.47	9,591.80	10,183.03	0.00	0.00	0.00	
18,904.45	90.00	90.44	7,860.00	3,418.67	9,696.25	10,281.27	0.00	0.00	0.00	
TD at 18904.45										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
LP-GM 4-65 23-24 3BH - hit/miss target - Shape - Point	0.00	0.00	7,860.00	3,494.78	-188.28	1,675,992.60	3,242,113.82	39.686252°N	104.639712°W	
ENTER FED-GM 4-65 2 - plan misses target center by 0.27usft at 12806.82usft MD (7860.00 TVD, 3465.62 N, 3598.79 E) - Point	0.00	0.00	7,860.00	3,465.89	3,598.80	1,675,999.60	3,245,900.95	39.686172°N	104.626256°W	
PBHL-GM 4-65 23-24 3BH - plan hits target center - Point	0.00	0.00	7,860.00	3,418.67	9,696.25	1,676,010.17	3,251,998.50	39.686038°N	104.604591°W	
EXIS FED-GM 4-65 23-24 3BH - plan misses target center by 0.27usft at 14563.91usft MD (7860.00 TVD, 3452.09 N, 5355.84 E) - Point	0.00	0.00	7,860.00	3,452.36	5,355.84	1,676,002.72	3,247,658.02	39.686134°N	104.620013°W	



# Civitas Resources

## Planning Report

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<b>Company:</b>	CRESTONE PEAK RESOURCES	<b>TVD Reference:</b>	KBE 25' @ 5819.00usft
<b>Project:</b>	ARAPAHOE COUNTY	<b>MD Reference:</b>	KBE 25' @ 5819.00usft
<b>Site:</b>	SEC 26-T4S-R65W	<b>North Reference:</b>	True
<b>Well:</b>	GRIMM MOTOCROSS 4-65 23-24 3BH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
24.00	24.00	Denver				
983.96	970.00	Arapahoe				
1,595.18	1,530.00	Laramie-Fox Hills Formation				
2,212.16	2,080.00	Pierre Formation				
2,817.94	2,620.00	Upper Pierre aquifer				
3,491.02	3,220.00	Base of Upper Pierre aquifer				
4,612.82	4,220.00	Larimer ("Parkman") sandstone				
4,769.87	4,360.00	Pierre Formation				
5,958.98	5,420.00	Terry ("Sussex") sandstone				
6,183.34	5,620.00	Pierre Formation				
6,968.60	6,320.00	Hygiene ("Shannon") sandstone				
7,192.96	6,520.00	Pierre Formation				
8,656.06	7,760.00	Sharon Springs Member				
9,019.62	7,860.00	Niobrara Formation				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
100.00	100.00	0.00	0.00	Start Build 2.00	
1,447.36	1,398.23	302.72	-71.49	Start 6610.53 hold at 1447.36 MD	
8,057.88	7,291.02	3,218.19	-760.06	Start DLS 10.00 TFO 102.29	
9,019.62	7,860.00	3,494.78	-188.28	Start 9884.83 hold at 9019.62 MD	
12,806.82	7,860.00	3,465.62	3,598.80	ENTER FED TRACT 600' BUFFER 12806.82' MD, 7860' TVD	
14,563.91	7,860.00	3,452.09	5,355.84	EXIST FED TRACT 600' BUFFER 14563.91' MD, 7860' TVD	
18,904.45	7,860.00	3,418.67	9,696.25	TD at 18904.45	