

CRESTONE PEAK RESOURCES

ARAPAHOE COUNTY

SEC 19-T4S-R64W

GRIMM MOTOCROSS 4-65 24-23 1AH

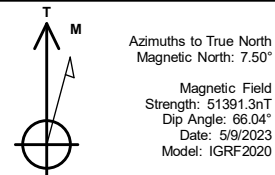
OWB

Plan: PROPOSAL 1

Standard Planning Report

26 October, 2023

Project: ARAPAHOE COUNTY
Site: SEC 19-T4S-R64W
Well: GRIMM MOTOCROSS 4-65 24-23 1AH
Wellbore: OWB
Design: PROPOSAL 1



WELL DETAILS: GRIMM MOTOCROSS 4-65 24-23 1AH

5696.00						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1678426.82	3252960.23	39.692646°N	104.601089°W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	717.00	8.34	335.53	715.53	27.58	-12.55	2.00	335.53	15.20	
4	7165.81	8.34	335.53	7096.14	878.95	-399.98	0.00	0.00	484.56	
5	8030.35	90.00	270.77	7629.00	957.25	-970.85	10.00	-65.00	1060.36	LP-GRIMM MOTOCROSS 1AH
6	12960.15	90.00	270.77	7629.00	1023.12	-5900.20	0.00	0.00	5972.26	MP-GRIMM MOTOCROSS 1AH
7	12968.51	90.00	270.60	7629.00	1023.22	-5908.56	2.00	-90.00	5980.59	PBHL-GRIMM MOTOCROSS 1AH
8	17928.59	90.00	270.60	7629.00	1075.02	-10868.37	0.00	0.00	10921.41	PBHL-GRIMM MOTOCROSS 1AH

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	Start Build 2.00
717.00	8.34	335.53	715.53	27.58	-12.55	15.20	30.30	Start 6448.81 hold at 717.00 MD
7165.81	8.34	335.53	7096.14	878.95	-399.98	484.56	965.68	Start DLS 10.00 TFO -65.00
8030.35	90.00	270.77	7629.00	957.25	-970.85	1060.36	1548.47	Start 4929.80 hold at 8030.35 MD
12589.91	90.00	270.77	7629.00	1018.17	-5530.00	5603.36	6108.03	ENTER FED TRACT @ 12589.91' MD
12960.15	90.00	270.77	7629.00	1023.12	-5900.20	5972.26	6478.27	Start DLS 2.00 TFO -90.00
12968.51	90.00	270.60	7629.00	1023.22	-5908.56	5980.59	6486.63	Start 4960.08 hold at 12968.51 MD
13289.96	90.00	270.60	7629.00	1026.58	-6230.00	6300.79	6808.08	EXIT FED TRACT @ 13289.96
17928.59	90.00	270.60	7629.00	1075.02	-10868.37	10921.41	11446.71	TD at 17928.59

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
ENTER FED TRACT @ 12589.91	7629.00	1018.17	-5530.00	1679390.21	3247420.48	39.695439°N	104.620740°W	Point
- plan hits target center								
EXIT FED TRACT @ 13289.96	7629.00	1026.58	-6230.00	1679391.70	3246720.44	39.695462°N	104.623228°W	Point
- plan hits target center								
LP-GRIMM MOTOCROSS 1AH	7629.00	957.25	-970.85	1679374.41	3251979.97	39.695274°N	104.604539°W	Point
- plan hits target center								
MP-GRIMM MOTOCROSS 1AH	7629.00	1023.12	-5900.20	1679391.50	3247050.25	39.695453°N	104.622056°W	Point
- plan hits target center								
PBHL-GRIMM MOTOCROSS 1AH	7629.00	1075.02	-10868.37	1679394.24	3242081.87	39.695591°N	104.639711°W	Point
- plan hits target center								

PROJECT DETAILS: ARAPAHOE COUNTY

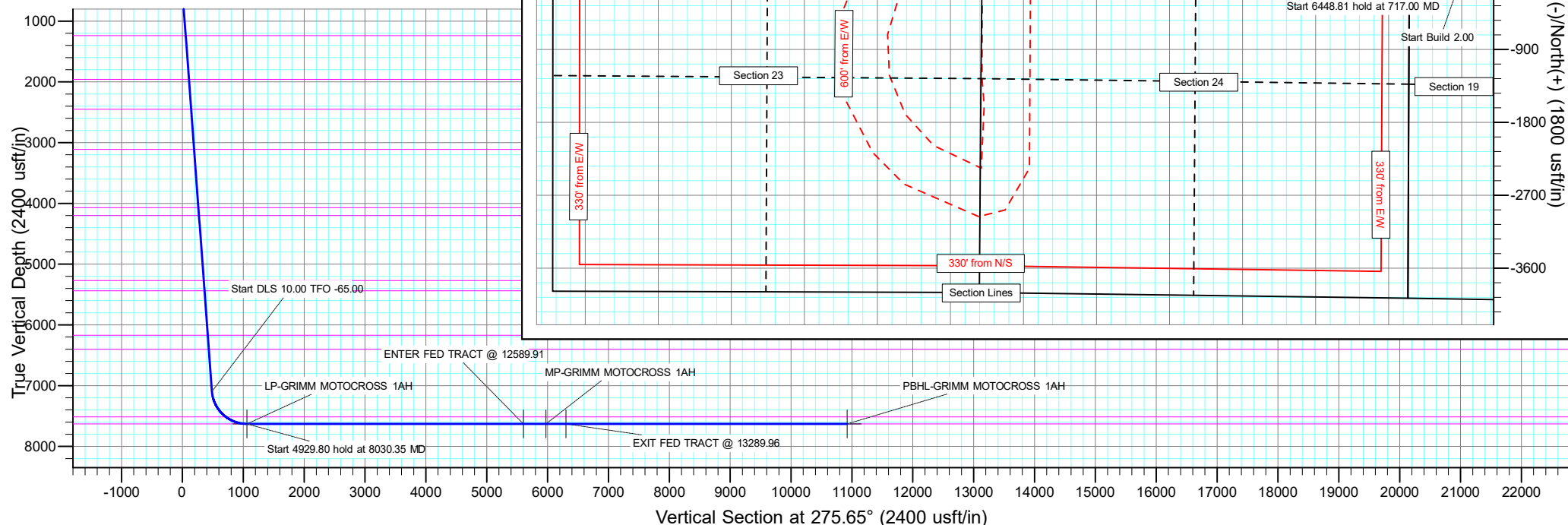
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Central Zone

System Datum: Mean Sea Level

SHL:
1301' FNL, 645' FWL
Sec 19-T4S-R64W

LP:
360' FNL, 330' FEL
Sec 24-T4S-R65W

BHL:
360' FNL, 330' FWL
Sec 23-T4S-R65W



Civitas Resources

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well GRIMM MOTOCROSS 4-65 24-23 1AH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5721.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5721.00usft
Site:	SEC 19-T4S-R64W	North Reference:	True
Well:	GRIMM MOTOCROSS 4-65 24-23 1AH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Project	ARAPAHOE COUNTY		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site		SEC 19-T4S-R64W			
Site Position:		Northing:	1,679,733.25 usft	Latitude:	39.696250°N
From:	Lat/Long	Easting:	3,252,308.22 usft	Longitude:	104.603360°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.57 °

Well	GRIMM MOTOCROSS 4-65 24-23 1AH					
Well Position	+N/-S	-1,312.82 usft	Northing:	1,678,426.82 usft	Latitude:	39.692646°N
	+E/-W	639.09 usft	Easting:	3,252,960.23 usft	Longitude:	104.601089°W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,696.00 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/9/2023	7.50	66.04	51,391.32782321

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	275.65

Plan Survey Tool Program	Date	10/26/2023			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	17,928.27	PROPOSAL 1 (OWB)	MWD OWSG	
				OWSG MWD - Standard	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	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	
717.00	8.34	335.53	715.53	27.58	-12.55	2.00	2.00	0.00	335.53	
7,165.81	8.34	335.53	7,096.14	878.95	-399.98	0.00	0.00	0.00	0.00	
8,030.35	90.00	270.77	7,629.00	957.25	-970.85	10.00	9.45	-7.49	-65.00	LP-GRIMM MOTOCR
12,960.15	90.00	270.77	7,629.00	1,023.12	-5,900.20	0.00	0.00	0.00	0.00	MP-GRIMM MOTOCF
12,968.51	90.00	270.60	7,629.00	1,023.22	-5,908.56	2.00	0.00	-2.00	-90.00	PBHL-GRIMM MOTO
17,928.59	90.00	270.60	7,629.00	1,075.02	-10,868.37	0.00	0.00	0.00	0.00	PBHL-GRIMM MOTO

Civitas Resources

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Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5721.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5721.00usft
Site:	SEC 19-T4S-R64W	North Reference:	True
Well:	GRIMM MOTOCROSS 4-65 24-23 1AH	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)
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
Denver									
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
Start Build 2.00									
400.00	2.00	335.53	399.98	1.59	-0.72	0.88	2.00	2.00	0.00
500.00	4.00	335.53	499.84	6.35	-2.89	3.50	2.00	2.00	0.00
600.00	6.00	335.53	599.45	14.28	-6.50	7.87	2.00	2.00	0.00
639.80	6.80	335.53	639.00	18.32	-8.34	10.10	2.00	2.00	0.00
Arapahoe									
700.00	8.00	335.53	698.70	25.38	-11.55	13.99	2.00	2.00	0.00
717.00	8.34	335.53	715.53	27.58	-12.55	15.20	2.00	2.00	0.00
Start 6448.81 hold at 717.00 MD									
800.00	8.34	335.53	797.65	38.53	-17.53	21.24	0.00	0.00	0.00
900.00	8.34	335.53	896.59	51.73	-23.54	28.52	0.00	0.00	0.00
1,000.00	8.34	335.53	995.54	64.94	-29.55	35.80	0.00	0.00	0.00
1,100.00	8.34	335.53	1,094.48	78.14	-35.56	43.08	0.00	0.00	0.00
1,200.00	8.34	335.53	1,193.42	91.34	-41.57	50.36	0.00	0.00	0.00
1,246.07	8.34	335.53	1,239.00	97.42	-44.33	53.71	0.00	0.00	0.00
Laramie-Fox Hills Formation									
1,300.00	8.34	335.53	1,292.36	104.54	-47.57	57.63	0.00	0.00	0.00
1,400.00	8.34	335.53	1,391.31	117.75	-53.58	64.91	0.00	0.00	0.00
1,500.00	8.34	335.53	1,490.25	130.95	-59.59	72.19	0.00	0.00	0.00
1,600.00	8.34	335.53	1,589.19	144.15	-65.60	79.47	0.00	0.00	0.00
1,700.00	8.34	335.53	1,688.13	157.35	-71.61	86.75	0.00	0.00	0.00
1,800.00	8.34	335.53	1,787.08	170.55	-77.61	94.02	0.00	0.00	0.00
1,900.00	8.34	335.53	1,886.02	183.76	-83.62	101.30	0.00	0.00	0.00
1,973.76	8.34	335.53	1,959.00	193.49	-88.05	106.67	0.00	0.00	0.00
Pierre Formation									
2,000.00	8.34	335.53	1,984.96	196.96	-89.63	108.58	0.00	0.00	0.00
2,100.00	8.34	335.53	2,083.90	210.16	-95.64	115.86	0.00	0.00	0.00
2,200.00	8.34	335.53	2,182.85	223.36	-101.64	123.14	0.00	0.00	0.00
2,300.00	8.34	335.53	2,281.79	236.56	-107.65	130.42	0.00	0.00	0.00
2,400.00	8.34	335.53	2,380.73	249.77	-113.66	137.69	0.00	0.00	0.00
2,469.00	8.34	335.53	2,449.00	258.88	-117.81	142.72	0.00	0.00	0.00
Upper Pierre aquifer									
2,500.00	8.34	335.53	2,479.67	262.97	-119.67	144.97	0.00	0.00	0.00
2,600.00	8.34	335.53	2,578.62	276.17	-125.68	152.25	0.00	0.00	0.00
2,700.00	8.34	335.53	2,677.56	289.37	-131.68	159.53	0.00	0.00	0.00
2,800.00	8.34	335.53	2,776.50	302.57	-137.69	166.81	0.00	0.00	0.00
2,900.00	8.34	335.53	2,875.44	315.78	-143.70	174.08	0.00	0.00	0.00
3,000.00	8.34	335.53	2,974.39	328.98	-149.71	181.36	0.00	0.00	0.00
3,100.00	8.34	335.53	3,073.33	342.18	-155.72	188.64	0.00	0.00	0.00
3,136.05	8.34	335.53	3,109.00	346.94	-157.88	191.26	0.00	0.00	0.00
Base of Upper Pierre aquifer									
3,200.00	8.34	335.53	3,172.27	355.38	-161.72	195.92	0.00	0.00	0.00
3,300.00	8.34	335.53	3,271.21	368.59	-167.73	203.20	0.00	0.00	0.00
3,400.00	8.34	335.53	3,370.16	381.79	-173.74	210.48	0.00	0.00	0.00
3,500.00	8.34	335.53	3,469.10	394.99	-179.75	217.75	0.00	0.00	0.00
3,600.00	8.34	335.53	3,568.04	408.19	-185.75	225.03	0.00	0.00	0.00
3,700.00	8.34	335.53	3,666.98	421.39	-191.76	232.31	0.00	0.00	0.00

Civitas Resources

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well GRIMM MOTOCROSS 4-65 24-23 1AH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5721.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5721.00usft
Site:	SEC 19-T4S-R64W	North Reference:	True
Well:	GRIMM MOTOCROSS 4-65 24-23 1AH	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	8.34	335.53	3,765.93	434.60	-197.77	239.59	0.00	0.00	0.00	
3,900.00	8.34	335.53	3,864.87	447.80	-203.78	246.87	0.00	0.00	0.00	
4,000.00	8.34	335.53	3,963.81	461.00	-209.79	254.14	0.00	0.00	0.00	
4,100.00	8.34	335.53	4,062.75	474.20	-215.79	261.42	0.00	0.00	0.00	
4,106.31	8.34	335.53	4,069.00	475.04	-216.17	261.88	0.00	0.00	0.00	
Larimer ("Parkman") sandstone										
4,200.00	8.34	335.53	4,161.69	487.40	-221.80	268.70	0.00	0.00	0.00	
4,237.70	8.34	335.53	4,199.00	492.38	-224.07	271.44	0.00	0.00	0.00	
Pierre Formation										
4,300.00	8.34	335.53	4,260.64	500.61	-227.81	275.98	0.00	0.00	0.00	
4,400.00	8.34	335.53	4,359.58	513.81	-233.82	283.26	0.00	0.00	0.00	
4,500.00	8.34	335.53	4,458.52	527.01	-239.82	290.54	0.00	0.00	0.00	
4,600.00	8.34	335.53	4,557.46	540.21	-245.83	297.81	0.00	0.00	0.00	
4,700.00	8.34	335.53	4,656.41	553.41	-251.84	305.09	0.00	0.00	0.00	
4,800.00	8.34	335.53	4,755.35	566.62	-257.85	312.37	0.00	0.00	0.00	
4,900.00	8.34	335.53	4,854.29	579.82	-263.86	319.65	0.00	0.00	0.00	
5,000.00	8.34	335.53	4,953.23	593.02	-269.86	326.93	0.00	0.00	0.00	
5,100.00	8.34	335.53	5,052.18	606.22	-275.87	334.20	0.00	0.00	0.00	
5,200.00	8.34	335.53	5,151.12	619.43	-281.88	341.48	0.00	0.00	0.00	
5,300.00	8.34	335.53	5,250.06	632.63	-287.89	348.76	0.00	0.00	0.00	
5,319.14	8.34	335.53	5,269.00	635.15	-289.04	350.15	0.00	0.00	0.00	
Terry ("Sussex") sandstone										
5,400.00	8.34	335.53	5,349.00	645.83	-293.90	356.04	0.00	0.00	0.00	
5,490.96	8.34	335.53	5,439.00	657.84	-299.36	362.66	0.00	0.00	0.00	
Pierre Formation										
5,500.00	8.34	335.53	5,447.95	659.03	-299.90	363.32	0.00	0.00	0.00	
5,600.00	8.34	335.53	5,546.89	672.23	-305.91	370.59	0.00	0.00	0.00	
5,700.00	8.34	335.53	5,645.83	685.44	-311.92	377.87	0.00	0.00	0.00	
5,800.00	8.34	335.53	5,744.77	698.64	-317.93	385.15	0.00	0.00	0.00	
5,900.00	8.34	335.53	5,843.72	711.84	-323.93	392.43	0.00	0.00	0.00	
6,000.00	8.34	335.53	5,942.66	725.04	-329.94	399.71	0.00	0.00	0.00	
6,100.00	8.34	335.53	6,041.60	738.24	-335.95	406.99	0.00	0.00	0.00	
6,200.00	8.34	335.53	6,140.54	751.45	-341.96	414.26	0.00	0.00	0.00	
6,228.76	8.34	335.53	6,169.00	755.24	-343.69	416.36	0.00	0.00	0.00	
Hygiene ("Shannon") sandstone										
6,300.00	8.34	335.53	6,239.49	764.65	-347.97	421.54	0.00	0.00	0.00	
6,400.00	8.34	335.53	6,338.43	777.85	-353.97	428.82	0.00	0.00	0.00	
6,461.22	8.34	335.53	6,399.00	785.93	-357.65	433.28	0.00	0.00	0.00	
Pierre Formation										
6,500.00	8.34	335.53	6,437.37	791.05	-359.98	436.10	0.00	0.00	0.00	
6,600.00	8.34	335.53	6,536.31	804.25	-365.99	443.38	0.00	0.00	0.00	
6,700.00	8.34	335.53	6,635.26	817.46	-372.00	450.65	0.00	0.00	0.00	
6,800.00	8.34	335.53	6,734.20	830.66	-378.01	457.93	0.00	0.00	0.00	
6,900.00	8.34	335.53	6,833.14	843.86	-384.01	465.21	0.00	0.00	0.00	
7,000.00	8.34	335.53	6,932.08	857.06	-390.02	472.49	0.00	0.00	0.00	
7,100.00	8.34	335.53	7,031.03	870.27	-396.03	479.77	0.00	0.00	0.00	
7,165.81	8.34	335.53	7,096.14	878.95	-399.98	484.56	0.00	0.00	0.00	
Start DLS 10.00 TFO -65.00										
7,200.00	10.26	317.87	7,129.89	883.47	-403.05	488.06	10.00	5.62	-51.66	
7,250.00	14.12	302.58	7,178.76	890.06	-411.19	496.80	10.00	7.72	-30.57	
7,300.00	18.53	294.08	7,226.74	896.59	-423.58	509.78	10.00	8.81	-17.00	
7,350.00	23.17	288.82	7,273.46	903.01	-440.16	526.90	10.00	9.28	-10.52	
7,400.00	27.93	285.25	7,318.56	909.26	-460.77	548.04	10.00	9.52	-7.13	

Civitas Resources

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well GRIMM MOTOCROSS 4-65 24-23 1AH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5721.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5721.00usft
Site:	SEC 19-T4S-R64W	North Reference:	True
Well:	GRIMM MOTOCROSS 4-65 24-23 1AH	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)
7,450.00	32.75	282.66	7,361.70	915.31	-485.28	573.02	10.00	9.65	-5.18
7,500.00	37.62	280.67	7,402.56	921.11	-513.49	601.67	10.00	9.74	-3.98
7,550.00	42.51	279.08	7,440.81	926.60	-545.19	633.75	10.00	9.79	-3.18
7,600.00	47.43	277.76	7,476.17	931.76	-580.14	669.04	10.00	9.83	-2.64
7,650.00	52.35	276.64	7,508.38	936.54	-618.07	707.25	10.00	9.85	-2.25
7,659.30	53.27	276.44	7,514.00	937.38	-625.43	714.66	10.00	9.86	-2.07
Sharon Springs Member									
7,700.00	57.29	275.65	7,537.18	940.90	-658.69	748.10	10.00	9.87	-1.95
7,750.00	62.23	274.77	7,562.35	944.81	-701.69	791.28	10.00	9.88	-1.76
7,800.00	67.18	273.96	7,583.71	948.25	-746.75	836.46	10.00	9.89	-1.61
7,850.00	72.13	273.22	7,601.09	951.18	-793.52	883.30	10.00	9.90	-1.50
7,900.00	77.08	272.51	7,614.36	953.58	-841.65	931.43	10.00	9.91	-1.42
7,950.00	82.03	271.83	7,623.42	955.44	-890.77	980.49	10.00	9.91	-1.36
8,000.00	86.99	271.16	7,628.20	956.74	-940.51	1,030.12	10.00	9.91	-1.33
8,030.35	90.00	270.77	7,629.00	957.25	-970.85	1,060.36	10.00	9.91	-1.32
Start 4929.80 hold at 8030.35 MD - Niobrara Formation									
8,100.00	90.00	270.77	7,629.00	958.18	-1,040.49	1,129.75	0.00	0.00	0.00
8,200.00	90.00	270.77	7,629.00	959.52	-1,140.48	1,229.39	0.00	0.00	0.00
8,300.00	90.00	270.77	7,629.00	960.85	-1,240.47	1,329.02	0.00	0.00	0.00
8,400.00	90.00	270.77	7,629.00	962.19	-1,340.46	1,428.66	0.00	0.00	0.00
8,500.00	90.00	270.77	7,629.00	963.53	-1,440.45	1,528.30	0.00	0.00	0.00
8,600.00	90.00	270.77	7,629.00	964.86	-1,540.44	1,627.94	0.00	0.00	0.00
8,700.00	90.00	270.77	7,629.00	966.20	-1,640.43	1,727.57	0.00	0.00	0.00
8,800.00	90.00	270.77	7,629.00	967.53	-1,740.43	1,827.21	0.00	0.00	0.00
8,900.00	90.00	270.77	7,629.00	968.87	-1,840.42	1,926.85	0.00	0.00	0.00
9,000.00	90.00	270.77	7,629.00	970.21	-1,940.41	2,026.48	0.00	0.00	0.00
9,100.00	90.00	270.77	7,629.00	971.54	-2,040.40	2,126.12	0.00	0.00	0.00
9,200.00	90.00	270.77	7,629.00	972.88	-2,140.39	2,225.76	0.00	0.00	0.00
9,300.00	90.00	270.77	7,629.00	974.21	-2,240.38	2,325.39	0.00	0.00	0.00
9,400.00	90.00	270.77	7,629.00	975.55	-2,340.37	2,425.03	0.00	0.00	0.00
9,500.00	90.00	270.77	7,629.00	976.89	-2,440.36	2,524.67	0.00	0.00	0.00
9,600.00	90.00	270.77	7,629.00	978.22	-2,540.35	2,624.31	0.00	0.00	0.00
9,700.00	90.00	270.77	7,629.00	979.56	-2,640.34	2,723.94	0.00	0.00	0.00
9,800.00	90.00	270.77	7,629.00	980.90	-2,740.34	2,823.58	0.00	0.00	0.00
9,900.00	90.00	270.77	7,629.00	982.23	-2,840.33	2,923.22	0.00	0.00	0.00
10,000.00	90.00	270.77	7,629.00	983.57	-2,940.32	3,022.85	0.00	0.00	0.00
10,100.00	90.00	270.77	7,629.00	984.90	-3,040.31	3,122.49	0.00	0.00	0.00
10,200.00	90.00	270.77	7,629.00	986.24	-3,140.30	3,222.13	0.00	0.00	0.00
10,300.00	90.00	270.77	7,629.00	987.58	-3,240.29	3,321.76	0.00	0.00	0.00
10,400.00	90.00	270.77	7,629.00	988.91	-3,340.28	3,421.40	0.00	0.00	0.00
10,500.00	90.00	270.77	7,629.00	990.25	-3,440.27	3,521.04	0.00	0.00	0.00
10,600.00	90.00	270.77	7,629.00	991.58	-3,540.26	3,620.68	0.00	0.00	0.00
10,700.00	90.00	270.77	7,629.00	992.92	-3,640.26	3,720.31	0.00	0.00	0.00
10,800.00	90.00	270.77	7,629.00	994.26	-3,740.25	3,819.95	0.00	0.00	0.00
10,900.00	90.00	270.77	7,629.00	995.59	-3,840.24	3,919.59	0.00	0.00	0.00
11,000.00	90.00	270.77	7,629.00	996.93	-3,940.23	4,019.22	0.00	0.00	0.00
11,100.00	90.00	270.77	7,629.00	998.27	-4,040.22	4,118.86	0.00	0.00	0.00
11,200.00	90.00	270.77	7,629.00	999.60	-4,140.21	4,218.50	0.00	0.00	0.00
11,300.00	90.00	270.77	7,629.00	1,000.94	-4,240.20	4,318.14	0.00	0.00	0.00
11,400.00	90.00	270.77	7,629.00	1,002.27	-4,340.19	4,417.77	0.00	0.00	0.00
11,500.00	90.00	270.77	7,629.00	1,003.61	-4,440.18	4,517.41	0.00	0.00	0.00
11,600.00	90.00	270.77	7,629.00	1,004.95	-4,540.18	4,617.05	0.00	0.00	0.00
11,700.00	90.00	270.77	7,629.00	1,006.28	-4,640.17	4,716.68	0.00	0.00	0.00
11,800.00	90.00	270.77	7,629.00	1,007.62	-4,740.16	4,816.32	0.00	0.00	0.00

Civitas Resources

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well GRIMM MOTOCROSS 4-65 24-23 1AH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5721.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5721.00usft
Site:	SEC 19-T4S-R64W	North Reference:	True
Well:	GRIMM MOTOCROSS 4-65 24-23 1AH	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)
11,900.00	90.00	270.77	7,629.00	1,008.95	-4,840.15	4,915.96	0.00	0.00	0.00
12,000.00	90.00	270.77	7,629.00	1,010.29	-4,940.14	5,015.59	0.00	0.00	0.00
12,100.00	90.00	270.77	7,629.00	1,011.63	-5,040.13	5,115.23	0.00	0.00	0.00
12,200.00	90.00	270.77	7,629.00	1,012.96	-5,140.12	5,214.87	0.00	0.00	0.00
12,300.00	90.00	270.77	7,629.00	1,014.30	-5,240.11	5,314.51	0.00	0.00	0.00
12,400.00	90.00	270.77	7,629.00	1,015.64	-5,340.10	5,414.14	0.00	0.00	0.00
12,500.00	90.00	270.77	7,629.00	1,016.97	-5,440.09	5,513.78	0.00	0.00	0.00
12,589.91	90.00	270.77	7,629.00	1,018.17	-5,530.00	5,603.36	0.00	0.00	0.00
ENTER FED TRACT @ 12589.91' MD									
12,600.00	90.00	270.77	7,629.00	1,018.31	-5,540.09	5,613.42	0.00	0.00	0.00
12,700.00	90.00	270.77	7,629.00	1,019.64	-5,640.08	5,713.05	0.00	0.00	0.00
12,800.00	90.00	270.77	7,629.00	1,020.98	-5,740.07	5,812.69	0.00	0.00	0.00
12,900.00	90.00	270.77	7,629.00	1,022.32	-5,840.06	5,912.33	0.00	0.00	0.00
12,960.15	90.00	270.77	7,629.00	1,023.12	-5,900.20	5,972.26	0.00	0.00	0.00
Start DLS 2.00 TFO -90.00									
12,968.51	90.00	270.60	7,629.00	1,023.22	-5,908.56	5,980.59	2.00	0.00	-2.00
Start 4960.08 hold at 12968.51 MD									
13,000.00	90.00	270.60	7,629.00	1,023.55	-5,940.05	6,011.96	0.00	0.00	0.00
13,100.00	90.00	270.60	7,629.00	1,024.59	-6,040.05	6,111.57	0.00	0.00	0.00
13,200.00	90.00	270.60	7,629.00	1,025.64	-6,140.04	6,211.18	0.00	0.00	0.00
13,289.96	90.00	270.60	7,629.00	1,026.58	-6,230.00	6,300.79	0.00	0.00	0.00
EXIT FED TRACT @ 13289.96									
13,300.00	90.00	270.60	7,629.00	1,026.68	-6,240.04	6,310.79	0.00	0.00	0.00
13,400.00	90.00	270.60	7,629.00	1,027.73	-6,340.03	6,410.40	0.00	0.00	0.00
13,500.00	90.00	270.60	7,629.00	1,028.77	-6,440.02	6,510.01	0.00	0.00	0.00
13,600.00	90.00	270.60	7,629.00	1,029.81	-6,540.02	6,609.63	0.00	0.00	0.00
13,700.00	90.00	270.60	7,629.00	1,030.86	-6,640.01	6,709.24	0.00	0.00	0.00
13,800.00	90.00	270.60	7,629.00	1,031.90	-6,740.01	6,808.85	0.00	0.00	0.00
13,900.00	90.00	270.60	7,629.00	1,032.95	-6,840.00	6,908.46	0.00	0.00	0.00
14,000.00	90.00	270.60	7,629.00	1,033.99	-6,940.00	7,008.07	0.00	0.00	0.00
14,100.00	90.00	270.60	7,629.00	1,035.04	-7,039.99	7,107.68	0.00	0.00	0.00
14,200.00	90.00	270.60	7,629.00	1,036.08	-7,139.99	7,207.30	0.00	0.00	0.00
14,300.00	90.00	270.60	7,629.00	1,037.12	-7,239.98	7,306.91	0.00	0.00	0.00
14,400.00	90.00	270.60	7,629.00	1,038.17	-7,339.98	7,406.52	0.00	0.00	0.00
14,500.00	90.00	270.60	7,629.00	1,039.21	-7,439.97	7,506.13	0.00	0.00	0.00
14,600.00	90.00	270.60	7,629.00	1,040.26	-7,539.96	7,605.74	0.00	0.00	0.00
14,700.00	90.00	270.60	7,629.00	1,041.30	-7,639.96	7,705.36	0.00	0.00	0.00
14,800.00	90.00	270.60	7,629.00	1,042.35	-7,739.95	7,804.97	0.00	0.00	0.00
14,900.00	90.00	270.60	7,629.00	1,043.39	-7,839.95	7,904.58	0.00	0.00	0.00
15,000.00	90.00	270.60	7,629.00	1,044.44	-7,939.94	8,004.19	0.00	0.00	0.00
15,100.00	90.00	270.60	7,629.00	1,045.48	-8,039.94	8,103.80	0.00	0.00	0.00
15,200.00	90.00	270.60	7,629.00	1,046.52	-8,139.93	8,203.41	0.00	0.00	0.00
15,300.00	90.00	270.60	7,629.00	1,047.57	-8,239.93	8,303.03	0.00	0.00	0.00
15,400.00	90.00	270.60	7,629.00	1,048.61	-8,339.92	8,402.64	0.00	0.00	0.00
15,500.00	90.00	270.60	7,629.00	1,049.66	-8,439.92	8,502.25	0.00	0.00	0.00
15,600.00	90.00	270.60	7,629.00	1,050.70	-8,539.91	8,601.86	0.00	0.00	0.00
15,700.00	90.00	270.60	7,629.00	1,051.75	-8,639.90	8,701.47	0.00	0.00	0.00
15,800.00	90.00	270.60	7,629.00	1,052.79	-8,739.90	8,801.08	0.00	0.00	0.00
15,900.00	90.00	270.60	7,629.00	1,053.83	-8,839.89	8,900.70	0.00	0.00	0.00
16,000.00	90.00	270.60	7,629.00	1,054.88	-8,939.89	9,000.31	0.00	0.00	0.00
16,100.00	90.00	270.60	7,629.00	1,055.92	-9,039.88	9,099.92	0.00	0.00	0.00
16,200.00	90.00	270.60	7,629.00	1,056.97	-9,139.88	9,199.53	0.00	0.00	0.00
16,300.00	90.00	270.60	7,629.00	1,058.01	-9,239.87	9,299.14	0.00	0.00	0.00

Civitas Resources

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well GRIMM MOTOCROSS 4-65 24-23 1AH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5721.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5721.00usft
Site:	SEC 19-T4S-R64W	North Reference:	True
Well:	GRIMM MOTOCROSS 4-65 24-23 1AH	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)
16,400.00	90.00	270.60	7,629.00	1,059.06	-9,339.87	9,398.75	0.00	0.00	0.00
16,500.00	90.00	270.60	7,629.00	1,060.10	-9,439.86	9,498.37	0.00	0.00	0.00
16,600.00	90.00	270.60	7,629.00	1,061.14	-9,539.86	9,597.98	0.00	0.00	0.00
16,700.00	90.00	270.60	7,629.00	1,062.19	-9,639.85	9,697.59	0.00	0.00	0.00
16,800.00	90.00	270.60	7,629.00	1,063.23	-9,739.84	9,797.20	0.00	0.00	0.00
16,900.00	90.00	270.60	7,629.00	1,064.28	-9,839.84	9,896.81	0.00	0.00	0.00
17,000.00	90.00	270.60	7,629.00	1,065.32	-9,939.83	9,996.43	0.00	0.00	0.00
17,100.00	90.00	270.60	7,629.00	1,066.37	-10,039.83	10,096.04	0.00	0.00	0.00
17,200.00	90.00	270.60	7,629.00	1,067.41	-10,139.82	10,195.65	0.00	0.00	0.00
17,300.00	90.00	270.60	7,629.00	1,068.46	-10,239.82	10,295.26	0.00	0.00	0.00
17,400.00	90.00	270.60	7,629.00	1,069.50	-10,339.81	10,394.87	0.00	0.00	0.00
17,500.00	90.00	270.60	7,629.00	1,070.54	-10,439.81	10,494.48	0.00	0.00	0.00
17,600.00	90.00	270.60	7,629.00	1,071.59	-10,539.80	10,594.10	0.00	0.00	0.00
17,700.00	90.00	270.60	7,629.00	1,072.63	-10,639.80	10,693.71	0.00	0.00	0.00
17,800.00	90.00	270.60	7,629.00	1,073.68	-10,739.79	10,793.32	0.00	0.00	0.00
17,900.00	90.00	270.60	7,629.00	1,074.72	-10,839.78	10,892.93	0.00	0.00	0.00
17,928.59	90.00	270.60	7,629.00	1,075.02	-10,868.37	10,921.41	0.00	0.00	0.00
TD at 17928.59									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL-GRIMM MOTOCF - plan hits target center - Point	0.00	0.00	7,629.00	1,075.02	-10,868.37	1,679,394.24	3,242,081.87	39.695591°N	104.639711°W
LP-GRIMM MOTOCRO - plan hits target center - Point	0.00	0.00	7,629.00	957.25	-970.85	1,679,374.41	3,251,979.97	39.695274°N	104.604539°W
EXIT FED TRACT @ 13 - plan hits target center - Point	0.00	0.00	7,629.00	1,026.58	-6,230.00	1,679,391.70	3,246,720.44	39.695462°N	104.623228°W
MP-GRIMM MOTOCRO - plan hits target center - Point	0.00	0.00	7,629.00	1,023.12	-5,900.20	1,679,391.50	3,247,050.26	39.695453°N	104.622056°W
ENTER FED TRACT @ - plan hits target center - Point	0.00	0.00	7,629.00	1,018.17	-5,530.00	1,679,390.21	3,247,420.49	39.695440°N	104.620741°W

Civitas Resources

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well GRIMM MOTOCROSS 4-65 24-23 1AH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5721.00usft
Project:	ARAPAHOE COUNTY	MD Reference:	KB 25' @ 5721.00usft
Site:	SEC 19-T4S-R64W	North Reference:	True
Well:	GRIMM MOTOCROSS 4-65 24-23 1AH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
24.00	24.00	Denver				
639.80	639.00	Arapahoe				
1,246.07	1,239.00	Laramie-Fox Hills Formation				
1,973.76	1,959.00	Pierre Formation				
2,469.00	2,449.00	Upper Pierre aquifer				
3,136.05	3,109.00	Base of Upper Pierre aquifer				
4,106.31	4,069.00	Larimer ("Parkman") sandstone				
4,237.70	4,199.00	Pierre Formation				
5,319.14	5,269.00	Terry ("Sussex") sandstone				
5,490.96	5,439.00	Pierre Formation				
6,228.76	6,169.00	Hygiene ("Shannon") sandstone				
6,461.22	6,399.00	Pierre Formation				
7,659.30	7,514.00	Sharon Springs Member				
8,030.35	7,629.00	Niobrara Formation				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
300.00	300.00	0.00	0.00	Start Build 2.00	
717.00	715.53	27.58	-12.55	Start 6448.81 hold at 717.00 MD	
7,165.81	7,096.14	878.95	-399.98	Start DLS 10.00 TFO -65.00	
8,030.35	7,629.00	957.25	-970.85	Start 4929.80 hold at 8030.35 MD	
12,589.91	7,629.00	1,018.17	-5,530.00	ENTER FED TRACT @ 12589.91' MD	
12,960.15	7,629.00	1,023.12	-5,900.20	Start DLS 2.00 TFO -90.00	
12,968.51	7,629.00	1,023.22	-5,908.56	Start 4960.08 hold at 12968.51 MD	
13,289.96	7,629.00	1,026.58	-6,230.00	EXIT FED TRACT @ 13289.96	
17,928.59	7,629.00	1,075.02	-10,868.37	TD at 17928.59	