

CRESTONE PEAK RESOURCES

**ADAMS COUNTY
SEC 28-T3S-R65W
KING 3-65 28-29 4AH**

OWB

Plan: PROPOSAL 1

Standard Planning Report

24 August, 2023

Project: ADAMS COUNTY
Site: SEC 28-T3S-R65W
Well: KING 3-65 28-29 4AH
Wellbore: OWB
Design: PROPOSAL 1



Azimuths to True North
Magnetic North: 7.51°
Magnetic Field
Strength: 51391.6nT
Dip Angle: 66.07°
Date: 8/22/2023
Model: IGRF2020

WELL DETAILS: KING 3-65 28-29 4AH

+N/-S	+E/-W	Northing	Easting	5585.00	Latitude	Longitude	Slot
0.00	0.00	1156291.50	3235875.97		39.759324°N	104.660996°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	Target
2	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	745.27	8.91	138.59	743.48	-25.90	22.84	2.00	138.59	-20.70	
4	7141.20	8.91	138.59	7062.31	-768.53	677.69	0.00	0.00	-614.29	
5	8100.32	90.00	270.31	7690.00	-838.91	107.40	10.00	131.37	-40.21	LP-KING 3-65 28-29 4AH
6	18039.50	90.00	270.31	7690.00	-785.98	-9831.64	0.00	0.00	9863.01	PBHL-KING 3-65 28-29 4AH

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
745.27	8.91	138.59	743.48	-25.90	22.84	-20.70	34.53	Start 6395.93 hold at 745.27 MD
7141.20	8.91	138.59	7062.31	-768.53	677.69	-614.29	1024.65	Start DLS 10.00 TFO 131.37
8100.32	90.00	270.31	7690.00	-838.91	107.40	-40.21	1617.65	Start 9939.18 hold at 8100.32 MD
18039.50	90.00	270.31	7690.00	-785.98	-9831.64	9863.01	11556.83	TD at 18039.50

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
LP-KING 3-65 28-29 4AH	7690.00	-838.91	107.40	1155453.65	3235991.30	39.757021°N	104.660614°W	Point
- plan hits target center								
PBHL-KING 3-65 28-29 4AH	7690.00	-785.98	-9831.64	1155412.55	3226052.27	39.757161°N	104.695965°W	Point
- plan hits target center								

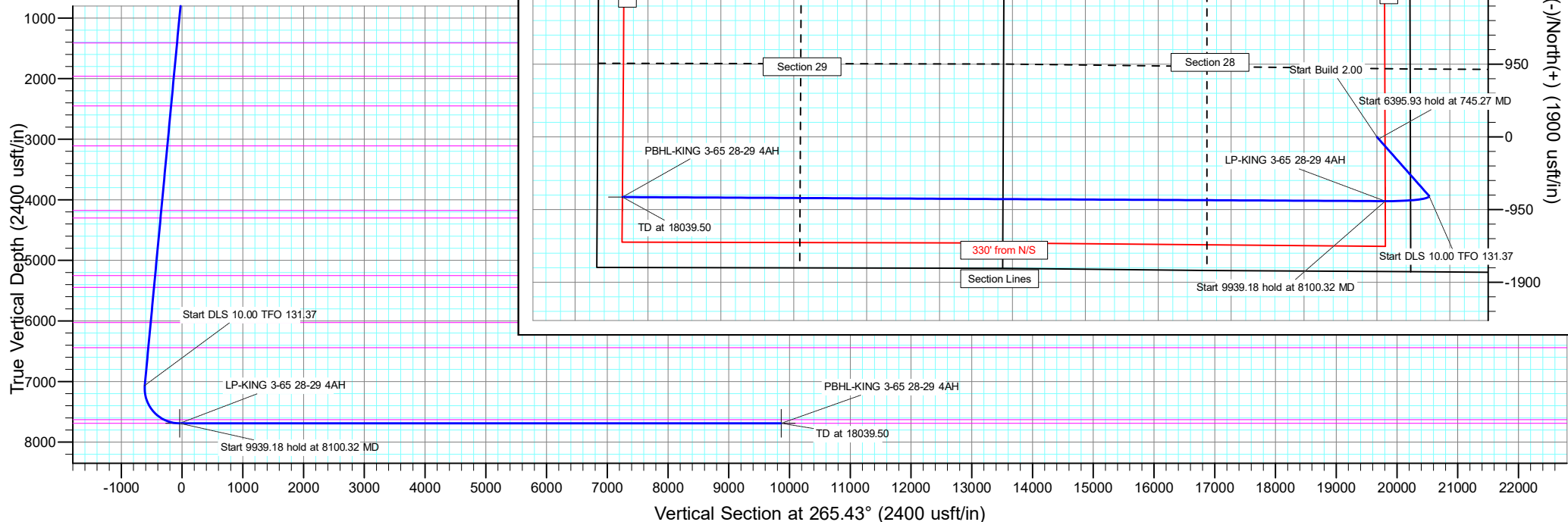
PROJECT DETAILS: ADAMS COUNTY

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

SHL:
1758' FSL, 435' FEL
Sec 28-T3S-R65W

LP:
920' FSL, 330' FEL
Sec 28-T3S-R65W

BHL:
920' FSL, 330' FWL
Sec 29-T3S-R65W



Civitas Resources

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well KING 3-65 28-29 4AH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5610.00usft
Project:	ADAMS COUNTY	MD Reference:	KB 25' @ 5610.00usft
Site:	SEC 28-T3S-R65W	North Reference:	True
Well:	KING 3-65 28-29 4AH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

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

Site	SEC 28-T3S-R65W		
Site Position:		Northing:	1,154,535.24 usft
From:	Lat/Long	Easting:	3,236,332.63 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	39.754491°N
		Longitude:	104.659431°W
		Grid Convergence:	0.54 °

Well	KING 3-65 28-29 4AH					
Well Position	+N/-S	1,760.52 usft	Northing:	1,156,291.50 usft	Latitude:	39.759324°N
	+E/-W	-439.99 usft	Easting:	3,235,875.97 usft	Longitude:	104.660996°W
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	5,585.00 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/22/2023	7.51	66.07	51,391.59461633

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	265.43

Plan Survey Tool Program	Date	8/24/2023		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	18,039.50	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	
745.27	8.91	138.59	743.48	-25.90	22.84	2.00	2.00	0.00	138.59	
7,141.20	8.91	138.59	7,062.31	-768.53	677.69	0.00	0.00	0.00	0.00	
8,100.32	90.00	270.31	7,690.00	-838.91	107.40	10.00	8.46	13.73	131.37	LP-KING 3-65 28-29 4AH
18,039.50	90.00	270.31	7,690.00	-785.98	-9,831.64	0.00	0.00	0.00	0.00	PBHL-KING 3-65 28-29 4AH

Civitas Resources

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well KING 3-65 28-29 4AH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5610.00usft
Project:	ADAMS COUNTY	MD Reference:	KB 25' @ 5610.00usft
Site:	SEC 28-T3S-R65W	North Reference:	True
Well:	KING 3-65 28-29 4AH	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	138.59	399.98	-1.31	1.15	-1.05	2.00	2.00	0.00
500.00	4.00	138.59	499.84	-5.23	4.62	-4.18	2.00	2.00	0.00
600.00	6.00	138.59	599.45	-11.77	10.38	-9.41	2.00	2.00	0.00
700.00	8.00	138.59	698.70	-20.91	18.44	-16.71	2.00	2.00	0.00
745.27	8.91	138.59	743.48	-25.90	22.84	-20.70	2.00	2.00	0.00
Start 6395.93 hold at 745.27 MD									
761.99	8.91	138.59	760.00	-27.84	24.55	-22.26	0.00	0.00	0.00
Arapahoe									
800.00	8.91	138.59	797.55	-32.26	28.44	-25.78	0.00	0.00	0.00
900.00	8.91	138.59	896.34	-43.87	38.68	-35.06	0.00	0.00	0.00
1,000.00	8.91	138.59	995.14	-55.48	48.92	-44.34	0.00	0.00	0.00
1,100.00	8.91	138.59	1,093.93	-67.09	59.16	-53.63	0.00	0.00	0.00
1,200.00	8.91	138.59	1,192.73	-78.70	69.40	-62.91	0.00	0.00	0.00
1,300.00	8.91	138.59	1,291.52	-90.31	79.64	-72.19	0.00	0.00	0.00
1,400.00	8.91	138.59	1,390.32	-101.92	89.88	-81.47	0.00	0.00	0.00
1,419.92	8.91	138.59	1,410.00	-104.24	91.92	-83.32	0.00	0.00	0.00
Laramie-Fox Hills Formation									
1,500.00	8.91	138.59	1,489.11	-113.53	100.11	-90.75	0.00	0.00	0.00
1,600.00	8.91	138.59	1,587.91	-125.14	110.35	-100.03	0.00	0.00	0.00
1,700.00	8.91	138.59	1,686.70	-136.75	120.59	-109.31	0.00	0.00	0.00
1,800.00	8.91	138.59	1,785.49	-148.37	130.83	-118.59	0.00	0.00	0.00
1,900.00	8.91	138.59	1,884.29	-159.98	141.07	-127.87	0.00	0.00	0.00
1,976.63	8.91	138.59	1,960.00	-168.87	148.91	-134.98	0.00	0.00	0.00
Pierre Formation									
2,000.00	8.91	138.59	1,983.08	-171.59	151.31	-137.15	0.00	0.00	0.00
2,100.00	8.91	138.59	2,081.88	-183.20	161.55	-146.43	0.00	0.00	0.00
2,200.00	8.91	138.59	2,180.67	-194.81	171.78	-155.71	0.00	0.00	0.00
2,300.00	8.91	138.59	2,279.47	-206.42	182.02	-164.99	0.00	0.00	0.00
2,400.00	8.91	138.59	2,378.26	-218.03	192.26	-174.28	0.00	0.00	0.00
2,472.61	8.91	138.59	2,450.00	-226.46	199.70	-181.01	0.00	0.00	0.00
Upper Pierre aquifer									
2,500.00	8.91	138.59	2,477.06	-229.64	202.50	-183.56	0.00	0.00	0.00
2,600.00	8.91	138.59	2,575.85	-241.25	212.74	-192.84	0.00	0.00	0.00
2,700.00	8.91	138.59	2,674.65	-252.86	222.98	-202.12	0.00	0.00	0.00
2,800.00	8.91	138.59	2,773.44	-264.47	233.22	-211.40	0.00	0.00	0.00
2,900.00	8.91	138.59	2,872.23	-276.09	243.45	-220.68	0.00	0.00	0.00
3,000.00	8.91	138.59	2,971.03	-287.70	253.69	-229.96	0.00	0.00	0.00
3,100.00	8.91	138.59	3,069.82	-299.31	263.93	-239.24	0.00	0.00	0.00
3,140.67	8.91	138.59	3,110.00	-304.03	268.10	-243.01	0.00	0.00	0.00
Base of Upper Pierre aquifer									
3,200.00	8.91	138.59	3,168.62	-310.92	274.17	-248.52	0.00	0.00	0.00
3,300.00	8.91	138.59	3,267.41	-322.53	284.41	-257.80	0.00	0.00	0.00
3,400.00	8.91	138.59	3,366.21	-334.14	294.65	-267.08	0.00	0.00	0.00
3,500.00	8.91	138.59	3,465.00	-345.75	304.89	-276.36	0.00	0.00	0.00
3,600.00	8.91	138.59	3,563.80	-357.36	315.12	-285.64	0.00	0.00	0.00
3,700.00	8.91	138.59	3,662.59	-368.97	325.36	-294.93	0.00	0.00	0.00

Civitas Resources

Planning Report

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Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5610.00usft
Project:	ADAMS COUNTY	MD Reference:	KB 25' @ 5610.00usft
Site:	SEC 28-T3S-R65W	North Reference:	True
Well:	KING 3-65 28-29 4AH	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	8.91	138.59	3,761.39	-380.58	335.60	-304.21	0.00	0.00	0.00
3,900.00	8.91	138.59	3,860.18	-392.19	345.84	-313.49	0.00	0.00	0.00
4,000.00	8.91	138.59	3,958.97	-403.80	356.08	-322.77	0.00	0.00	0.00
4,100.00	8.91	138.59	4,057.77	-415.42	366.32	-332.05	0.00	0.00	0.00
4,200.00	8.91	138.59	4,156.56	-427.03	376.56	-341.33	0.00	0.00	0.00
4,218.66	8.91	138.59	4,175.00	-429.19	378.47	-343.06	0.00	0.00	0.00
Larimer ("Parkman") sandstone									
4,300.00	8.91	138.59	4,255.36	-438.64	386.79	-350.61	0.00	0.00	0.00
4,345.19	8.91	138.59	4,300.00	-443.88	391.42	-354.80	0.00	0.00	0.00
Pierre Formation									
4,400.00	8.91	138.59	4,354.15	-450.25	397.03	-359.89	0.00	0.00	0.00
4,500.00	8.91	138.59	4,452.95	-461.86	407.27	-369.17	0.00	0.00	0.00
4,600.00	8.91	138.59	4,551.74	-473.47	417.51	-378.45	0.00	0.00	0.00
4,700.00	8.91	138.59	4,650.54	-485.08	427.75	-387.73	0.00	0.00	0.00
4,800.00	8.91	138.59	4,749.33	-496.69	437.99	-397.01	0.00	0.00	0.00
4,900.00	8.91	138.59	4,848.13	-508.30	448.23	-406.29	0.00	0.00	0.00
5,000.00	8.91	138.59	4,946.92	-519.91	458.46	-415.57	0.00	0.00	0.00
5,100.00	8.91	138.59	5,045.71	-531.52	468.70	-424.86	0.00	0.00	0.00
5,200.00	8.91	138.59	5,144.51	-543.14	478.94	-434.14	0.00	0.00	0.00
5,300.00	8.91	138.59	5,243.30	-554.75	489.18	-443.42	0.00	0.00	0.00
5,306.78	8.91	138.59	5,250.00	-555.53	489.87	-444.05	0.00	0.00	0.00
Terry ("Sussex") sandstone									
5,400.00	8.91	138.59	5,342.10	-566.36	499.42	-452.70	0.00	0.00	0.00
5,500.00	8.91	138.59	5,440.89	-577.97	509.66	-461.98	0.00	0.00	0.00
5,504.16	8.91	138.59	5,445.00	-578.45	510.08	-462.36	0.00	0.00	0.00
Pierre Formation									
5,600.00	8.91	138.59	5,539.69	-589.58	519.90	-471.26	0.00	0.00	0.00
5,700.00	8.91	138.59	5,638.48	-601.19	530.13	-480.54	0.00	0.00	0.00
5,800.00	8.91	138.59	5,737.28	-612.80	540.37	-489.82	0.00	0.00	0.00
5,900.00	8.91	138.59	5,836.07	-624.41	550.61	-499.10	0.00	0.00	0.00
6,000.00	8.91	138.59	5,934.87	-636.02	560.85	-508.38	0.00	0.00	0.00
6,091.23	8.91	138.59	6,025.00	-646.62	570.19	-516.85	0.00	0.00	0.00
Hygiene ("Shannon") sandstone									
6,100.00	8.91	138.59	6,033.66	-647.63	571.09	-517.66	0.00	0.00	0.00
6,200.00	8.91	138.59	6,132.45	-659.24	581.33	-526.94	0.00	0.00	0.00
6,300.00	8.91	138.59	6,231.25	-670.85	591.57	-536.22	0.00	0.00	0.00
6,400.00	8.91	138.59	6,330.04	-682.47	601.80	-545.51	0.00	0.00	0.00
6,500.00	8.91	138.59	6,428.84	-694.08	612.04	-554.79	0.00	0.00	0.00
6,511.30	8.91	138.59	6,440.00	-695.39	613.20	-555.83	0.00	0.00	0.00
Pierre Formation									
6,600.00	8.91	138.59	6,527.63	-705.69	622.28	-564.07	0.00	0.00	0.00
6,700.00	8.91	138.59	6,626.43	-717.30	632.52	-573.35	0.00	0.00	0.00
6,800.00	8.91	138.59	6,725.22	-728.91	642.76	-582.63	0.00	0.00	0.00
6,900.00	8.91	138.59	6,824.02	-740.52	653.00	-591.91	0.00	0.00	0.00
7,000.00	8.91	138.59	6,922.81	-752.13	663.24	-601.19	0.00	0.00	0.00
7,100.00	8.91	138.59	7,021.61	-763.74	673.47	-610.47	0.00	0.00	0.00
7,141.20	8.91	138.59	7,062.31	-768.53	677.69	-614.29	0.00	0.00	0.00
Start DLS 10.00 TFO 131.37									
7,150.00	8.35	143.15	7,071.01	-769.55	678.53	-615.04	10.00	-6.31	51.73
7,200.00	6.67	180.03	7,120.61	-775.36	680.70	-616.75	10.00	-3.36	73.77
7,250.00	8.31	217.11	7,170.21	-781.15	678.52	-614.11	10.00	3.28	74.16
7,300.00	11.98	236.84	7,219.43	-786.87	671.99	-607.15	10.00	7.33	39.46
7,350.00	16.36	246.82	7,267.91	-792.49	661.17	-595.92	10.00	8.76	19.96

Civitas Resources

Planning Report

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Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5610.00usft
Project:	ADAMS COUNTY	MD Reference:	KB 25' @ 5610.00usft
Site:	SEC 28-T3S-R65W	North Reference:	True
Well:	KING 3-65 28-29 4AH	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)
7,400.00	21.01	252.57	7,315.26	-797.95	646.14	-580.50	10.00	9.31	11.51
7,450.00	25.79	256.30	7,361.14	-803.21	627.01	-561.01	10.00	9.56	7.44
7,500.00	30.63	258.91	7,405.19	-808.24	603.93	-537.60	10.00	9.69	5.24
7,550.00	35.52	260.87	7,447.07	-813.00	577.07	-510.44	10.00	9.77	3.92
7,600.00	40.43	262.41	7,486.48	-817.44	546.64	-479.76	10.00	9.82	3.08
7,650.00	45.36	263.67	7,523.10	-821.55	512.87	-445.77	10.00	9.85	2.52
7,700.00	50.29	264.73	7,556.66	-825.28	476.01	-408.73	10.00	9.88	2.12
7,750.00	55.24	265.65	7,586.90	-828.60	436.36	-368.94	10.00	9.89	1.84
7,800.00	60.19	266.46	7,613.60	-831.50	394.20	-326.68	10.00	9.90	1.63
7,834.85	63.65	266.98	7,630.00	-833.26	363.51	-295.95	10.00	9.91	1.49
Sharon Springs Member									
7,850.00	65.15	267.20	7,636.55	-833.95	349.86	-282.29	10.00	9.92	1.43
7,900.00	70.11	267.88	7,655.57	-835.93	303.68	-236.10	10.00	9.92	1.36
7,950.00	75.07	268.52	7,670.53	-837.43	256.01	-188.46	10.00	9.93	1.28
8,000.00	80.04	269.13	7,681.30	-838.43	207.21	-139.74	10.00	9.93	1.22
8,050.00	85.00	269.72	7,687.81	-838.92	157.65	-90.30	10.00	9.93	1.18
8,100.32	90.00	270.31	7,690.00	-838.91	107.40	-40.21	10.00	9.93	1.16
Start 9939.18 hold at 8100.32 MD - Niobrara Formation									
8,200.00	90.00	270.31	7,690.00	-838.38	7.72	59.11	0.00	0.00	0.00
8,300.00	90.00	270.31	7,690.00	-837.85	-92.28	158.75	0.00	0.00	0.00
8,400.00	90.00	270.31	7,690.00	-837.32	-192.28	258.39	0.00	0.00	0.00
8,500.00	90.00	270.31	7,690.00	-836.78	-292.28	358.03	0.00	0.00	0.00
8,600.00	90.00	270.31	7,690.00	-836.25	-392.27	457.67	0.00	0.00	0.00
8,700.00	90.00	270.31	7,690.00	-835.72	-492.27	557.31	0.00	0.00	0.00
8,800.00	90.00	270.31	7,690.00	-835.18	-592.27	656.94	0.00	0.00	0.00
8,900.00	90.00	270.31	7,690.00	-834.65	-692.27	756.58	0.00	0.00	0.00
9,000.00	90.00	270.31	7,690.00	-834.12	-792.27	856.22	0.00	0.00	0.00
9,100.00	90.00	270.31	7,690.00	-833.59	-892.27	955.86	0.00	0.00	0.00
9,200.00	90.00	270.31	7,690.00	-833.05	-992.27	1,055.50	0.00	0.00	0.00
9,300.00	90.00	270.31	7,690.00	-832.52	-1,092.26	1,155.13	0.00	0.00	0.00
9,400.00	90.00	270.31	7,690.00	-831.99	-1,192.26	1,254.77	0.00	0.00	0.00
9,500.00	90.00	270.31	7,690.00	-831.46	-1,292.26	1,354.41	0.00	0.00	0.00
9,600.00	90.00	270.31	7,690.00	-830.92	-1,392.26	1,454.05	0.00	0.00	0.00
9,700.00	90.00	270.31	7,690.00	-830.39	-1,492.26	1,553.69	0.00	0.00	0.00
9,800.00	90.00	270.31	7,690.00	-829.86	-1,592.26	1,653.32	0.00	0.00	0.00
9,900.00	90.00	270.31	7,690.00	-829.33	-1,692.26	1,752.96	0.00	0.00	0.00
10,000.00	90.00	270.31	7,690.00	-828.79	-1,792.25	1,852.60	0.00	0.00	0.00
10,100.00	90.00	270.31	7,690.00	-828.26	-1,892.25	1,952.24	0.00	0.00	0.00
10,200.00	90.00	270.31	7,690.00	-827.73	-1,992.25	2,051.88	0.00	0.00	0.00
10,300.00	90.00	270.31	7,690.00	-827.20	-2,092.25	2,151.52	0.00	0.00	0.00
10,400.00	90.00	270.31	7,690.00	-826.66	-2,192.25	2,251.15	0.00	0.00	0.00
10,500.00	90.00	270.31	7,690.00	-826.13	-2,292.25	2,350.79	0.00	0.00	0.00
10,600.00	90.00	270.31	7,690.00	-825.60	-2,392.25	2,450.43	0.00	0.00	0.00
10,700.00	90.00	270.31	7,690.00	-825.07	-2,492.24	2,550.07	0.00	0.00	0.00
10,800.00	90.00	270.31	7,690.00	-824.53	-2,592.24	2,649.71	0.00	0.00	0.00
10,900.00	90.00	270.31	7,690.00	-824.00	-2,692.24	2,749.34	0.00	0.00	0.00
11,000.00	90.00	270.31	7,690.00	-823.47	-2,792.24	2,848.98	0.00	0.00	0.00
11,100.00	90.00	270.31	7,690.00	-822.94	-2,892.24	2,948.62	0.00	0.00	0.00
11,200.00	90.00	270.31	7,690.00	-822.40	-2,992.24	3,048.26	0.00	0.00	0.00
11,300.00	90.00	270.31	7,690.00	-821.87	-3,092.24	3,147.90	0.00	0.00	0.00
11,400.00	90.00	270.31	7,690.00	-821.34	-3,192.23	3,247.53	0.00	0.00	0.00
11,500.00	90.00	270.31	7,690.00	-820.80	-3,292.23	3,347.17	0.00	0.00	0.00
11,600.00	90.00	270.31	7,690.00	-820.27	-3,392.23	3,446.81	0.00	0.00	0.00
11,700.00	90.00	270.31	7,690.00	-819.74	-3,492.23	3,546.45	0.00	0.00	0.00

Civitas Resources

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well KING 3-65 28-29 4AH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5610.00usft
Project:	ADAMS COUNTY	MD Reference:	KB 25' @ 5610.00usft
Site:	SEC 28-T3S-R65W	North Reference:	True
Well:	KING 3-65 28-29 4AH	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)	
11,800.00	90.00	270.31	7,690.00	-819.21	-3,592.23	3,646.09	0.00	0.00	0.00	
11,900.00	90.00	270.31	7,690.00	-818.67	-3,692.23	3,745.73	0.00	0.00	0.00	
12,000.00	90.00	270.31	7,690.00	-818.14	-3,792.23	3,845.36	0.00	0.00	0.00	
12,100.00	90.00	270.31	7,690.00	-817.61	-3,892.22	3,945.00	0.00	0.00	0.00	
12,200.00	90.00	270.31	7,690.00	-817.08	-3,992.22	4,044.64	0.00	0.00	0.00	
12,300.00	90.00	270.31	7,690.00	-816.54	-4,092.22	4,144.28	0.00	0.00	0.00	
12,400.00	90.00	270.31	7,690.00	-816.01	-4,192.22	4,243.92	0.00	0.00	0.00	
12,500.00	90.00	270.31	7,690.00	-815.48	-4,292.22	4,343.55	0.00	0.00	0.00	
12,600.00	90.00	270.31	7,690.00	-814.95	-4,392.22	4,443.19	0.00	0.00	0.00	
12,700.00	90.00	270.31	7,690.00	-814.41	-4,492.22	4,542.83	0.00	0.00	0.00	
12,800.00	90.00	270.31	7,690.00	-813.88	-4,592.22	4,642.47	0.00	0.00	0.00	
12,900.00	90.00	270.31	7,690.00	-813.35	-4,692.21	4,742.11	0.00	0.00	0.00	
13,000.00	90.00	270.31	7,690.00	-812.82	-4,792.21	4,841.74	0.00	0.00	0.00	
13,100.00	90.00	270.31	7,690.00	-812.28	-4,892.21	4,941.38	0.00	0.00	0.00	
13,200.00	90.00	270.31	7,690.00	-811.75	-4,992.21	5,041.02	0.00	0.00	0.00	
13,300.00	90.00	270.31	7,690.00	-811.22	-5,092.21	5,140.66	0.00	0.00	0.00	
13,400.00	90.00	270.31	7,690.00	-810.69	-5,192.21	5,240.30	0.00	0.00	0.00	
13,500.00	90.00	270.31	7,690.00	-810.15	-5,292.21	5,339.94	0.00	0.00	0.00	
13,600.00	90.00	270.31	7,690.00	-809.62	-5,392.20	5,439.57	0.00	0.00	0.00	
13,700.00	90.00	270.31	7,690.00	-809.09	-5,492.20	5,539.21	0.00	0.00	0.00	
13,800.00	90.00	270.31	7,690.00	-808.55	-5,592.20	5,638.85	0.00	0.00	0.00	
13,900.00	90.00	270.31	7,690.00	-808.02	-5,692.20	5,738.49	0.00	0.00	0.00	
14,000.00	90.00	270.31	7,690.00	-807.49	-5,792.20	5,838.13	0.00	0.00	0.00	
14,100.00	90.00	270.31	7,690.00	-806.96	-5,892.20	5,937.76	0.00	0.00	0.00	
14,200.00	90.00	270.31	7,690.00	-806.42	-5,992.20	6,037.40	0.00	0.00	0.00	
14,300.00	90.00	270.31	7,690.00	-805.89	-6,092.19	6,137.04	0.00	0.00	0.00	
14,400.00	90.00	270.31	7,690.00	-805.36	-6,192.19	6,236.68	0.00	0.00	0.00	
14,500.00	90.00	270.31	7,690.00	-804.83	-6,292.19	6,336.32	0.00	0.00	0.00	
14,600.00	90.00	270.31	7,690.00	-804.29	-6,392.19	6,435.95	0.00	0.00	0.00	
14,700.00	90.00	270.31	7,690.00	-803.76	-6,492.19	6,535.59	0.00	0.00	0.00	
14,800.00	90.00	270.31	7,690.00	-803.23	-6,592.19	6,635.23	0.00	0.00	0.00	
14,900.00	90.00	270.31	7,690.00	-802.70	-6,692.19	6,734.87	0.00	0.00	0.00	
15,000.00	90.00	270.31	7,690.00	-802.16	-6,792.18	6,834.51	0.00	0.00	0.00	
15,100.00	90.00	270.31	7,690.00	-801.63	-6,892.18	6,934.14	0.00	0.00	0.00	
15,200.00	90.00	270.31	7,690.00	-801.10	-6,992.18	7,033.78	0.00	0.00	0.00	
15,300.00	90.00	270.31	7,690.00	-800.57	-7,092.18	7,133.42	0.00	0.00	0.00	
15,400.00	90.00	270.31	7,690.00	-800.03	-7,192.18	7,233.06	0.00	0.00	0.00	
15,500.00	90.00	270.31	7,690.00	-799.50	-7,292.18	7,332.70	0.00	0.00	0.00	
15,600.00	90.00	270.31	7,690.00	-798.97	-7,392.18	7,432.34	0.00	0.00	0.00	
15,700.00	90.00	270.31	7,690.00	-798.44	-7,492.17	7,531.97	0.00	0.00	0.00	
15,800.00	90.00	270.31	7,690.00	-797.90	-7,592.17	7,631.61	0.00	0.00	0.00	
15,900.00	90.00	270.31	7,690.00	-797.37	-7,692.17	7,731.25	0.00	0.00	0.00	
16,000.00	90.00	270.31	7,690.00	-796.84	-7,792.17	7,830.89	0.00	0.00	0.00	
16,100.00	90.00	270.31	7,690.00	-796.31	-7,892.17	7,930.53	0.00	0.00	0.00	
16,200.00	90.00	270.31	7,690.00	-795.77	-7,992.17	8,030.16	0.00	0.00	0.00	
16,300.00	90.00	270.31	7,690.00	-795.24	-8,092.17	8,129.80	0.00	0.00	0.00	
16,400.00	90.00	270.31	7,690.00	-794.71	-8,192.16	8,229.44	0.00	0.00	0.00	
16,500.00	90.00	270.31	7,690.00	-794.17	-8,292.16	8,329.08	0.00	0.00	0.00	
16,600.00	90.00	270.31	7,690.00	-793.64	-8,392.16	8,428.72	0.00	0.00	0.00	
16,700.00	90.00	270.31	7,690.00	-793.11	-8,492.16	8,528.35	0.00	0.00	0.00	
16,800.00	90.00	270.31	7,690.00	-792.58	-8,592.16	8,627.99	0.00	0.00	0.00	
16,900.00	90.00	270.31	7,690.00	-792.04	-8,692.16	8,727.63	0.00	0.00	0.00	
17,000.00	90.00	270.31	7,690.00	-791.51	-8,792.16	8,827.27	0.00	0.00	0.00	
17,100.00	90.00	270.31	7,690.00	-790.98	-8,892.15	8,926.91	0.00	0.00	0.00	

Civitas Resources

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well KING 3-65 28-29 4AH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5610.00usft
Project:	ADAMS COUNTY	MD Reference:	KB 25' @ 5610.00usft
Site:	SEC 28-T3S-R65W	North Reference:	True
Well:	KING 3-65 28-29 4AH	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)
17,200.00	90.00	270.31	7,690.00	-790.45	-8,992.15	9,026.55	0.00	0.00	0.00
17,300.00	90.00	270.31	7,690.00	-789.91	-9,092.15	9,126.18	0.00	0.00	0.00
17,400.00	90.00	270.31	7,690.00	-789.38	-9,192.15	9,225.82	0.00	0.00	0.00
17,500.00	90.00	270.31	7,690.00	-788.85	-9,292.15	9,325.46	0.00	0.00	0.00
17,600.00	90.00	270.31	7,690.00	-788.32	-9,392.15	9,425.10	0.00	0.00	0.00
17,700.00	90.00	270.31	7,690.00	-787.78	-9,492.15	9,524.74	0.00	0.00	0.00
17,800.00	90.00	270.31	7,690.00	-787.25	-9,592.14	9,624.37	0.00	0.00	0.00
17,900.00	90.00	270.31	7,690.00	-786.72	-9,692.14	9,724.01	0.00	0.00	0.00
18,000.00	90.00	270.31	7,690.00	-786.19	-9,792.14	9,823.65	0.00	0.00	0.00
18,039.50	90.00	270.31	7,690.00	-785.98	-9,831.64	9,863.01	0.00	0.00	0.00
TD at 18039.50									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
LP-KING 3-65 28-29 4AH	0.00	0.00	7,690.00	-838.91	107.40	1,155,453.65	3,235,991.31	39.757021°N	104.660614°W
- plan hits target center									
- Point									
PBHL-KING 3-65 28-29	0.00	0.00	7,690.00	-785.98	-9,831.64	1,155,412.54	3,226,052.28	39.757161°N	104.695965°W
- plan hits target center									
- Point									

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
24.00	24.00	Denver				
761.99	760.00	Arapahoe				
1,419.92	1,410.00	Laramie-Fox Hills Formation				
1,976.63	1,960.00	Pierre Formation				
2,472.61	2,450.00	Upper Pierre aquifer				
3,140.67	3,110.00	Base of Upper Pierre aquifer				
4,218.66	4,175.00	Larimer ("Parkman") sandstone				
4,345.19	4,300.00	Pierre Formation				
5,306.78	5,250.00	Terry ("Sussex") sandstone				
5,504.16	5,445.00	Pierre Formation				
6,091.23	6,025.00	Hygiene ("Shannon") sandstone				
6,511.30	6,440.00	Pierre Formation				
7,834.85	7,630.00	Sharon Springs Member				
8,100.32	7,690.00	Niobrara Formation				

Civitas Resources

Planning Report

Database:	EDM	Local Co-ordinate Reference:	Well KING 3-65 28-29 4AH
Company:	CRESTONE PEAK RESOURCES	TVD Reference:	KB 25' @ 5610.00usft
Project:	ADAMS COUNTY	MD Reference:	KB 25' @ 5610.00usft
Site:	SEC 28-T3S-R65W	North Reference:	True
Well:	KING 3-65 28-29 4AH	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PROPOSAL 1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
300.00	300.00	0.00	0.00	Start Build 2.00
745.27	743.48	-25.90	22.84	Start 6395.93 hold at 745.27 MD
7,141.20	7,062.31	-768.53	677.69	Start DLS 10.00 TFO 131.37
8,100.32	7,690.00	-838.91	107.40	Start 9939.18 hold at 8100.32 MD
18,039.50	7,690.00	-785.98	-9,831.64	TD at 18039.50