



**CRESTONE PEAK**  
RESOURCES

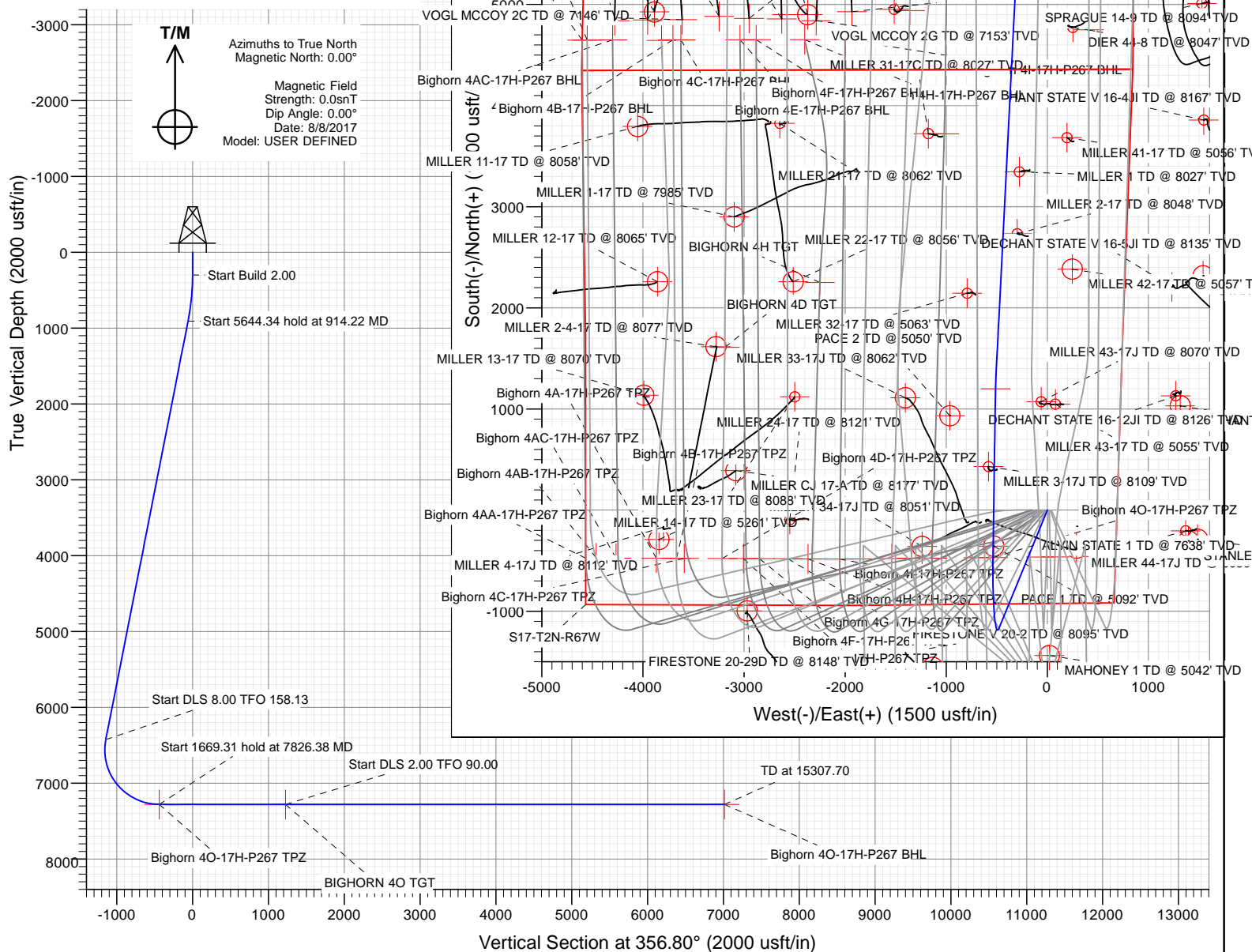
SECTION DETAILS

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	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	914.22	12.28	202.27	909.53	-60.70	-24.86	2.00	202.27	-59.22	
4	6558.57	12.28	202.27	6424.63	-1172.07	-479.92	0.00	0.00	-1143.49	
5	7826.38	90.00	0.86	7280.00	-469.12	-537.41	8.00	158.13	-438.44	Bighorn 40-17H-P267 TPZ
6	9495.69	90.00	0.86	7280.00	1200.00	-512.45	0.00	0.00	1226.70	BIGHORN 40 TGT
7	9596.93	90.00	2.88	7280.00	1301.19	-509.15	2.00	90.00	1327.54	
8	13513.62	90.00	2.88	7280.00	5212.92	-312.25	0.00	0.00	5222.22	
9	13807.70	90.00	357.00	7280.00	5506.87	-312.55	2.00	-90.00	5515.73	
10	15307.70	90.00	357.00	7280.00	7004.81	-391.06	0.00	0.00	7015.72	Bighorn 40-17H-P267 BHL

PLAN #2  
BIGHORN 40-17H-P267  
23 KB @ 4963.00usft  
Ground Level @ 4960.00  
North American Datum 1983  
Well BIGHORN 40-17H-P267, True North

Type	Target	No Target (Freehand)	Azimuth	Origin	Type	Slot	N/S	E/W	From	TVD
Name	BIGHORN 40 TGT		7280.00	1200.00	+N/-S	+E/-W	Latitude	Longitude		
	Bighorn 40-17H-P267 BHL		7280.00	7004.81	-391.06	40.133682	-104.907661			
	Bighorn 40-17H-P267 TPZ		7280.00	-469.12	-537.41	40.132394	-104.909583			

Project: DJ BASIN  
Site: BIGHORN  
Well: BIGHORN 40-17H-P267  
Wellbore: OH  
Design: PLAN #2



WELL DETAILS: BIGHORN 40-17H-P267

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1292097.15	3165619.37	40.133682	-104.907661

**CATHEDRAL**



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well BIGHORN 4O-17H-P267
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 4983.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 4983.00usft
<b>Site:</b>	BIGHORN	<b>North Reference:</b>	True
<b>Well:</b>	BIGHORN 4O-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

<b>Project</b>	DJ BASIN		
<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		

Site		BIGHORN			
Site Position:		Northing:	1,292,097.01 usft	Latitude:	40.133684
From:	Lat/Long	Easting:	3,165,479.29 usft	Longitude:	-104.908162
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38 °

Well	BIGHORN 4O-17H-P267					
Well Position	+N/-S	0.00 usft	Northing:	1,292,097.15 usft	Latitude:	40.133682
	+E/-W	0.00 usft	Easting:	3,165,619.37 usft	Longitude:	-104.907661
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,960.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	User Defined	8/8/2017	0.00	0.00	0.00000000

<b>Design</b>	PLAN #2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	356.80

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	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	
914.22	12.28	202.27	909.53	-60.70	-24.86	2.00	2.00	0.00	202.27	
6,558.57	12.28	202.27	6,424.63	-1,172.07	-479.92	0.00	0.00	0.00	0.00	
7,826.38	90.00	0.86	7,280.00	-469.12	-537.41	8.00	6.13	12.51	158.13	Bighorn 4O-17H-P267
9,495.69	90.00	0.86	7,280.00	1,200.00	-512.45	0.00	0.00	0.00	0.00	BIGHORN 4O TGT
9,596.93	90.00	2.88	7,280.00	1,301.19	-509.15	2.00	0.00	2.00	90.00	
13,513.62	90.00	2.88	7,280.00	5,212.92	-312.25	0.00	0.00	0.00	0.00	
13,807.70	90.00	357.00	7,280.00	5,506.87	-312.55	2.00	0.00	-2.00	-90.00	
15,307.70	90.00	357.00	7,280.00	7,004.81	-391.06	0.00	0.00	0.00	0.00	Bighorn 4O-17H-P267

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well BIGHORN 40-17H-P267
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 4983.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 4983.00usft
<b>Site:</b>	BIGHORN	<b>North Reference:</b>	True
<b>Well:</b>	BIGHORN 40-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
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	
200.00	0.00	0.00	200.00	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	
400.00	2.00	202.27	399.98	-1.62	-0.66	-1.58	2.00	2.00	
500.00	4.00	202.27	499.84	-6.46	-2.64	-6.30	2.00	2.00	
600.00	6.00	202.27	599.45	-14.52	-5.95	-14.17	2.00	2.00	
700.00	8.00	202.27	698.70	-25.80	-10.56	-25.17	2.00	2.00	
800.00	10.00	202.27	797.47	-40.28	-16.49	-39.30	2.00	2.00	
900.00	12.00	202.27	895.62	-57.93	-23.72	-56.52	2.00	2.00	
914.22	12.28	202.27	909.53	-60.70	-24.86	-59.22	2.00	2.00	
1,000.00	12.28	202.27	993.34	-77.59	-31.77	-75.70	0.00	0.00	
1,100.00	12.28	202.27	1,091.05	-97.28	-39.83	-94.91	0.00	0.00	
1,200.00	12.28	202.27	1,188.76	-116.97	-47.90	-114.12	0.00	0.00	
1,300.00	12.28	202.27	1,286.47	-136.66	-55.96	-133.33	0.00	0.00	
1,400.00	12.28	202.27	1,384.18	-156.35	-64.02	-152.54	0.00	0.00	
1,500.00	12.28	202.27	1,481.89	-176.04	-72.08	-171.75	0.00	0.00	
1,600.00	12.28	202.27	1,579.60	-195.73	-80.15	-190.96	0.00	0.00	
1,700.00	12.28	202.27	1,677.31	-215.42	-88.21	-210.17	0.00	0.00	
1,800.00	12.28	202.27	1,775.02	-235.11	-96.27	-229.38	0.00	0.00	
1,900.00	12.28	202.27	1,872.73	-254.80	-104.33	-248.59	0.00	0.00	
2,000.00	12.28	202.27	1,970.44	-274.49	-112.39	-267.80	0.00	0.00	
2,100.00	12.28	202.27	2,068.15	-294.18	-120.46	-287.01	0.00	0.00	
2,200.00	12.28	202.27	2,165.86	-313.87	-128.52	-306.22	0.00	0.00	
2,300.00	12.28	202.27	2,263.58	-333.56	-136.58	-325.43	0.00	0.00	
2,400.00	12.28	202.27	2,361.29	-353.25	-144.64	-344.64	0.00	0.00	
2,500.00	12.28	202.27	2,459.00	-372.94	-152.71	-363.85	0.00	0.00	
2,600.00	12.28	202.27	2,556.71	-392.63	-160.77	-383.06	0.00	0.00	
2,700.00	12.28	202.27	2,654.42	-412.32	-168.83	-402.27	0.00	0.00	
2,800.00	12.28	202.27	2,752.13	-432.01	-176.89	-421.48	0.00	0.00	
2,900.00	12.28	202.27	2,849.84	-451.70	-184.96	-440.69	0.00	0.00	
3,000.00	12.28	202.27	2,947.55	-471.39	-193.02	-459.90	0.00	0.00	
3,100.00	12.28	202.27	3,045.26	-491.08	-201.08	-479.11	0.00	0.00	
3,200.00	12.28	202.27	3,142.97	-510.77	-209.14	-498.32	0.00	0.00	
3,300.00	12.28	202.27	3,240.68	-530.46	-217.20	-517.53	0.00	0.00	
3,400.00	12.28	202.27	3,338.39	-550.15	-225.27	-536.74	0.00	0.00	
3,500.00	12.28	202.27	3,436.10	-569.84	-233.33	-555.95	0.00	0.00	
3,600.00	12.28	202.27	3,533.81	-589.53	-241.39	-575.16	0.00	0.00	
3,700.00	12.28	202.27	3,631.52	-609.22	-249.45	-594.37	0.00	0.00	
3,800.00	12.28	202.27	3,729.23	-628.91	-257.52	-613.58	0.00	0.00	
3,900.00	12.28	202.27	3,826.94	-648.60	-265.58	-632.79	0.00	0.00	
4,000.00	12.28	202.27	3,924.65	-668.29	-273.64	-652.00	0.00	0.00	
4,100.00	12.28	202.27	4,022.36	-687.98	-281.70	-671.21	0.00	0.00	
4,200.00	12.28	202.27	4,120.07	-707.67	-289.77	-690.42	0.00	0.00	
4,300.00	12.28	202.27	4,217.78	-727.36	-297.83	-709.63	0.00	0.00	
4,400.00	12.28	202.27	4,315.49	-747.05	-305.89	-728.84	0.00	0.00	
4,500.00	12.28	202.27	4,413.20	-766.74	-313.95	-748.05	0.00	0.00	
4,600.00	12.28	202.27	4,510.91	-786.43	-322.01	-767.26	0.00	0.00	
4,700.00	12.28	202.27	4,608.62	-806.12	-330.08	-786.47	0.00	0.00	
4,800.00	12.28	202.27	4,706.33	-825.81	-338.14	-805.68	0.00	0.00	
4,900.00	12.28	202.27	4,804.04	-845.50	-346.20	-824.89	0.00	0.00	
5,000.00	12.28	202.27	4,901.75	-865.19	-354.26	-844.10	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well BIGHORN 40-17H-P267
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 4983.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 4983.00usft
<b>Site:</b>	BIGHORN	<b>North Reference:</b>	True
<b>Well:</b>	BIGHORN 40-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
5,100.00	12.28	202.27	4,999.46	-884.88	-362.33	-863.31	0.00	0.00	
5,200.00	12.28	202.27	5,097.17	-904.57	-370.39	-882.52	0.00	0.00	
5,300.00	12.28	202.27	5,194.88	-924.26	-378.45	-901.73	0.00	0.00	
5,400.00	12.28	202.27	5,292.60	-943.95	-386.51	-920.94	0.00	0.00	
5,500.00	12.28	202.27	5,390.31	-963.64	-394.58	-940.15	0.00	0.00	
5,600.00	12.28	202.27	5,488.02	-983.33	-402.64	-959.36	0.00	0.00	
5,700.00	12.28	202.27	5,585.73	-1,003.02	-410.70	-978.57	0.00	0.00	
5,800.00	12.28	202.27	5,683.44	-1,022.71	-418.76	-997.77	0.00	0.00	
5,900.00	12.28	202.27	5,781.15	-1,042.40	-426.82	-1,016.98	0.00	0.00	
6,000.00	12.28	202.27	5,878.86	-1,062.09	-434.89	-1,036.19	0.00	0.00	
6,100.00	12.28	202.27	5,976.57	-1,081.78	-442.95	-1,055.40	0.00	0.00	
6,200.00	12.28	202.27	6,074.28	-1,101.47	-451.01	-1,074.61	0.00	0.00	
6,300.00	12.28	202.27	6,171.99	-1,121.16	-459.07	-1,093.82	0.00	0.00	
6,400.00	12.28	202.27	6,269.70	-1,140.85	-467.14	-1,113.03	0.00	0.00	
6,500.00	12.28	202.27	6,367.41	-1,160.54	-475.20	-1,132.24	0.00	0.00	
6,558.57	12.28	202.27	6,424.63	-1,172.07	-479.92	-1,143.49	0.00	0.00	
6,600.00	9.29	209.93	6,465.33	-1,179.05	-483.26	-1,150.28	8.00	-7.23	
6,700.00	4.55	269.47	6,564.68	-1,186.09	-491.26	-1,156.86	8.00	-4.74	
6,800.00	9.10	331.10	6,664.06	-1,179.19	-499.06	-1,149.54	8.00	4.55	
6,900.00	16.51	345.30	6,761.52	-1,158.49	-506.50	-1,128.46	8.00	7.41	
7,000.00	24.29	350.71	6,855.19	-1,124.39	-513.44	-1,094.03	8.00	7.78	
7,100.00	32.18	353.60	6,943.22	-1,077.55	-519.73	-1,046.91	8.00	7.88	
7,200.00	40.10	355.44	7,023.92	-1,018.89	-525.27	-988.03	8.00	7.93	
7,300.00	48.05	356.76	7,095.70	-949.54	-529.94	-918.53	8.00	7.95	
7,400.00	56.01	357.78	7,157.17	-870.86	-533.65	-839.76	8.00	7.96	
7,500.00	63.98	358.63	7,207.14	-784.37	-536.33	-753.26	8.00	7.97	
7,600.00	71.95	359.37	7,244.63	-691.77	-537.93	-660.71	8.00	7.97	
7,700.00	79.92	0.05	7,268.91	-594.85	-538.41	-563.91	8.00	7.97	
7,800.00	87.90	0.69	7,279.52	-495.49	-537.77	-464.75	8.00	7.97	
7,826.38	90.00	0.86	7,280.00	-469.12	-537.41	-438.44	8.00	7.97	Bighorn 40-17H-P267 TPZ
7,900.00	90.00	0.86	7,280.00	-395.51	-536.31	-365.00	0.00	0.00	
8,000.00	90.00	0.86	7,280.00	-295.52	-534.81	-265.25	0.00	0.00	
8,100.00	90.00	0.86	7,280.00	-195.53	-533.32	-165.50	0.00	0.00	
8,200.00	90.00	0.86	7,280.00	-95.54	-531.82	-65.75	0.00	0.00	
8,300.00	90.00	0.86	7,280.00	4.45	-530.33	34.00	0.00	0.00	
8,400.00	90.00	0.86	7,280.00	104.43	-528.83	133.75	0.00	0.00	
8,500.00	90.00	0.86	7,280.00	204.42	-527.34	233.50	0.00	0.00	
8,600.00	90.00	0.86	7,280.00	304.41	-525.84	333.25	0.00	0.00	
8,700.00	90.00	0.86	7,280.00	404.40	-524.35	433.00	0.00	0.00	
8,800.00	90.00	0.86	7,280.00	504.39	-522.85	532.75	0.00	0.00	
8,900.00	90.00	0.86	7,280.00	604.38	-521.36	632.50	0.00	0.00	
9,000.00	90.00	0.86	7,280.00	704.37	-519.86	732.25	0.00	0.00	
9,100.00	90.00	0.86	7,280.00	804.36	-518.37	832.00	0.00	0.00	
9,200.00	90.00	0.86	7,280.00	904.35	-516.87	931.75	0.00	0.00	
9,300.00	90.00	0.86	7,280.00	1,004.33	-515.38	1,031.50	0.00	0.00	
9,400.00	90.00	0.86	7,280.00	1,104.32	-513.88	1,131.25	0.00	0.00	
9,495.69	90.00	0.86	7,280.00	1,200.00	-512.45	1,226.70	0.00	0.00	BIGHORN 40 TGT
9,500.00	90.00	0.94	7,280.00	1,204.31	-512.38	1,231.00	2.00	0.00	
9,596.93	90.00	2.88	7,280.00	1,301.19	-509.15	1,327.54	2.00	0.00	
9,600.00	90.00	2.88	7,280.00	1,304.25	-508.99	1,330.59	0.00	0.00	
9,700.00	90.00	2.88	7,280.00	1,404.12	-503.97	1,430.03	0.00	0.00	
9,800.00	90.00	2.88	7,280.00	1,504.00	-498.94	1,529.47	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well BIGHORN 40-17H-P267
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 4983.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 4983.00usft
<b>Site:</b>	BIGHORN	<b>North Reference:</b>	True
<b>Well:</b>	BIGHORN 40-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
9,900.00	90.00	2.88	7,280.00	1,603.87	-493.91	1,628.91	0.00	0.00	
10,000.00	90.00	2.88	7,280.00	1,703.74	-488.89	1,728.34	0.00	0.00	
10,100.00	90.00	2.88	7,280.00	1,803.62	-483.86	1,827.78	0.00	0.00	
10,200.00	90.00	2.88	7,280.00	1,903.49	-478.83	1,927.22	0.00	0.00	
10,300.00	90.00	2.88	7,280.00	2,003.36	-473.80	2,026.66	0.00	0.00	
10,400.00	90.00	2.88	7,280.00	2,103.24	-468.78	2,126.10	0.00	0.00	
10,500.00	90.00	2.88	7,280.00	2,203.11	-463.75	2,225.54	0.00	0.00	
10,600.00	90.00	2.88	7,280.00	2,302.98	-458.72	2,324.97	0.00	0.00	
10,700.00	90.00	2.88	7,280.00	2,402.86	-453.70	2,424.41	0.00	0.00	
10,800.00	90.00	2.88	7,280.00	2,502.73	-448.67	2,523.85	0.00	0.00	
10,900.00	90.00	2.88	7,280.00	2,602.61	-443.64	2,623.29	0.00	0.00	
11,000.00	90.00	2.88	7,280.00	2,702.48	-438.61	2,722.73	0.00	0.00	
11,100.00	90.00	2.88	7,280.00	2,802.35	-433.59	2,822.16	0.00	0.00	
11,200.00	90.00	2.88	7,280.00	2,902.23	-428.56	2,921.60	0.00	0.00	
11,300.00	90.00	2.88	7,280.00	3,002.10	-423.53	3,021.04	0.00	0.00	
11,400.00	90.00	2.88	7,280.00	3,101.97	-418.50	3,120.48	0.00	0.00	
11,500.00	90.00	2.88	7,280.00	3,201.85	-413.48	3,219.92	0.00	0.00	
11,600.00	90.00	2.88	7,280.00	3,301.72	-408.45	3,319.35	0.00	0.00	
11,700.00	90.00	2.88	7,280.00	3,401.59	-403.42	3,418.79	0.00	0.00	
11,800.00	90.00	2.88	7,280.00	3,501.47	-398.40	3,518.23	0.00	0.00	
11,900.00	90.00	2.88	7,280.00	3,601.34	-393.37	3,617.67	0.00	0.00	
12,000.00	90.00	2.88	7,280.00	3,701.21	-388.34	3,717.11	0.00	0.00	
12,100.00	90.00	2.88	7,280.00	3,801.09	-383.31	3,816.54	0.00	0.00	
12,200.00	90.00	2.88	7,280.00	3,900.96	-378.29	3,915.98	0.00	0.00	
12,300.00	90.00	2.88	7,280.00	4,000.83	-373.26	4,015.42	0.00	0.00	
12,400.00	90.00	2.88	7,280.00	4,100.71	-368.23	4,114.86	0.00	0.00	
12,500.00	90.00	2.88	7,280.00	4,200.58	-363.21	4,214.30	0.00	0.00	
12,600.00	90.00	2.88	7,280.00	4,300.46	-358.18	4,313.73	0.00	0.00	
12,700.00	90.00	2.88	7,280.00	4,400.33	-353.15	4,413.17	0.00	0.00	
12,800.00	90.00	2.88	7,280.00	4,500.20	-348.12	4,512.61	0.00	0.00	
12,900.00	90.00	2.88	7,280.00	4,600.08	-343.10	4,612.05	0.00	0.00	
13,000.00	90.00	2.88	7,280.00	4,699.95	-338.07	4,711.49	0.00	0.00	
13,100.00	90.00	2.88	7,280.00	4,799.82	-333.04	4,810.92	0.00	0.00	
13,200.00	90.00	2.88	7,280.00	4,899.70	-328.01	4,910.36	0.00	0.00	
13,300.00	90.00	2.88	7,280.00	4,999.57	-322.99	5,009.80	0.00	0.00	
13,400.00	90.00	2.88	7,280.00	5,099.44	-317.96	5,109.24	0.00	0.00	
13,500.00	90.00	2.88	7,280.00	5,199.32	-312.93	5,208.68	0.00	0.00	
13,513.62	90.00	2.88	7,280.00	5,212.92	-312.25	5,222.22	0.00	0.00	
13,600.00	90.00	1.15	7,280.00	5,299.24	-309.21	5,308.24	2.00	0.00	
13,700.00	90.00	359.15	7,280.00	5,399.24	-308.94	5,408.06	2.00	0.00	
13,800.00	90.00	357.15	7,280.00	5,499.18	-312.16	5,508.03	2.00	0.00	
13,807.70	90.00	357.00	7,280.00	5,506.87	-312.55	5,515.73	2.00	0.00	
13,900.00	90.00	357.00	7,280.00	5,599.04	-317.38	5,608.03	0.00	0.00	
14,000.00	90.00	357.00	7,280.00	5,698.91	-322.62	5,708.03	0.00	0.00	
14,100.00	90.00	357.00	7,280.00	5,798.77	-327.85	5,808.03	0.00	0.00	
14,200.00	90.00	357.00	7,280.00	5,898.63	-333.08	5,908.03	0.00	0.00	
14,300.00	90.00	357.00	7,280.00	5,998.50	-338.32	6,008.03	0.00	0.00	
14,400.00	90.00	357.00	7,280.00	6,098.36	-343.55	6,108.03	0.00	0.00	
14,500.00	90.00	357.00	7,280.00	6,198.22	-348.78	6,208.03	0.00	0.00	
14,600.00	90.00	357.00	7,280.00	6,298.09	-354.02	6,308.03	0.00	0.00	
14,700.00	90.00	357.00	7,280.00	6,397.95	-359.25	6,408.03	0.00	0.00	
14,800.00	90.00	357.00	7,280.00	6,497.81	-364.49	6,508.03	0.00	0.00	

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well BIGHORN 4O-17H-P267
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 4983.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 4983.00usft
<b>Site:</b>	BIGHORN	<b>North Reference:</b>	True
<b>Well:</b>	BIGHORN 4O-17H-P267	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

### Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
14,900.00	90.00	357.00	7,280.00	6,597.67	-369.72	6,608.02	0.00	0.00	
15,000.00	90.00	357.00	7,280.00	6,697.54	-374.95	6,708.02	0.00	0.00	
15,100.00	90.00	357.00	7,280.00	6,797.40	-380.19	6,808.02	0.00	0.00	
15,200.00	90.00	357.00	7,280.00	6,897.26	-385.42	6,908.02	0.00	0.00	
15,300.00	90.00	357.00	7,280.00	6,997.13	-390.65	7,008.02	0.00	0.00	
15,307.70	90.00	357.00	7,280.00	7,004.81	-391.06	7,015.72	0.00	0.00	Bighorn 4O-17H-P267 BHL

### 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
BIGHORN 4O TGT - plan hits target center - Point	0.00	0.00	7,280.00	1,200.00	-512.45	1,293,293.70	3,165,098.92	40.136976	-104.909494
Bighorn 4O-17H-P267 B - plan hits target center - Point	0.00	0.00	7,280.00	7,004.81	-391.06	1,299,099.19	3,165,181.54	40.152911	-104.909060
Bighorn 4O-17H-P267 T - plan hits target center - Point	0.00	0.00	7,280.00	-469.12	-537.41	1,291,624.44	3,165,085.11	40.132394	-104.909583