



CRESTONE PEAK  
RESOURCES

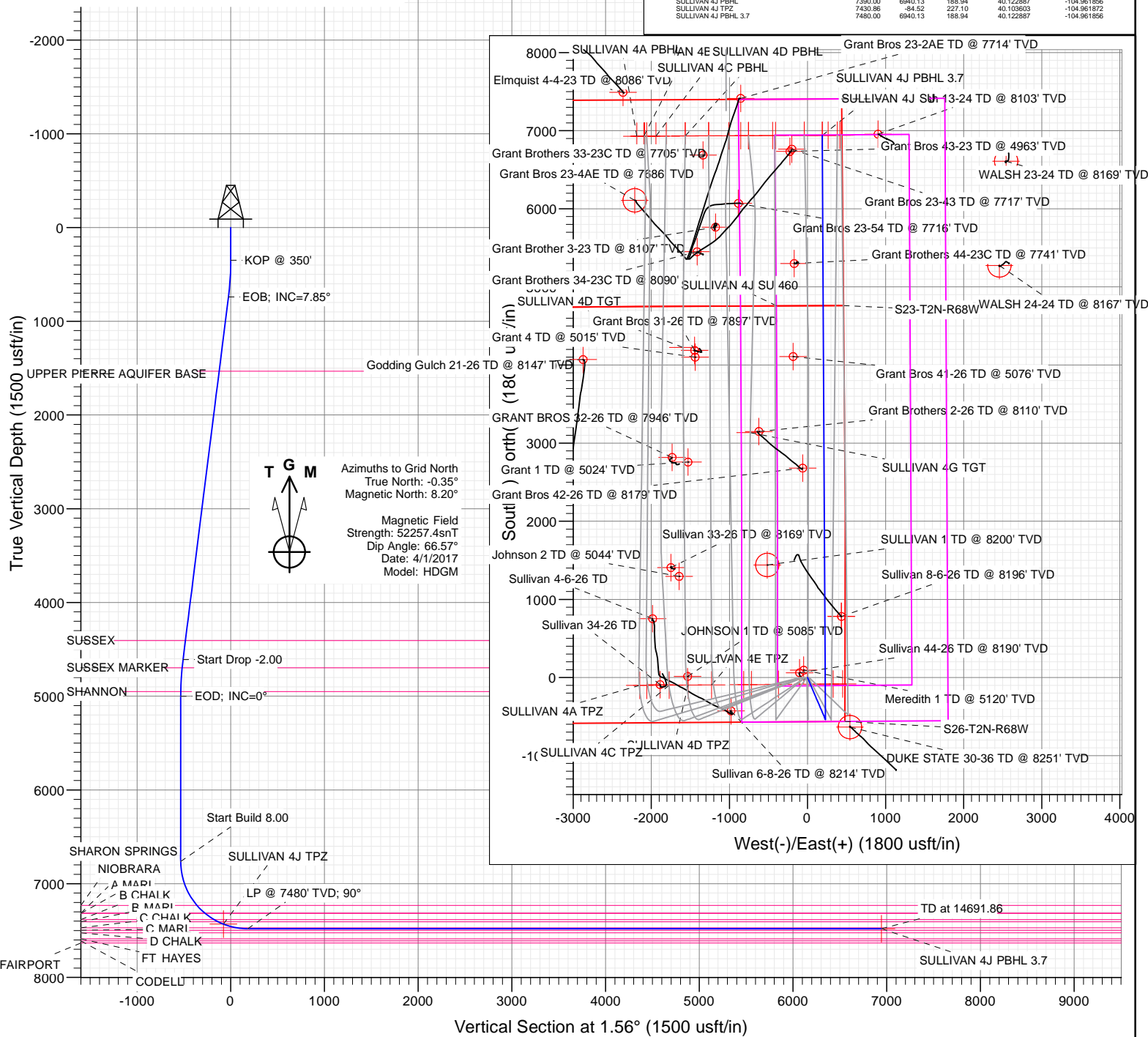
Project: DJ BASIN  
Site: S26-T2N-R68W  
Well: SULLIVAN 4J-26H-P268  
Wellbore: OH  
Design: PLAN #2

#### 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	350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	
3	742.41	7.85	156.97	741.18	-24.69	10.50	2.00	156.97	-24.40	
4	4646.61	7.85	156.97	4608.82	-515.31	219.09	0.00	0.00	-509.15	
5	5039.02	0.00	0.00	5000.00	-540.00	229.59	2.00	180.00	-533.55	
6	6802.82	0.00	0.00	6763.80	-540.00	229.59	0.00	0.00	-533.55	
7	7927.82	90.00	359.69	7480.00	176.19	225.70	8.00	359.69	182.26	
8	14691.86	90.00	359.69	7480.00	6940.13	188.94	0.00	0.00	6942.70	SULLIVAN 4J PBHL 3.7

PLAN #2  
SULLIVAN 4J-26H-P268  
16300 LR  
23 KB @ 4967.00usft  
Ground Level @ 4964.00  
North American Datum 1983  
Well SULLIVAN 4J-26H-P268, Grid North

Name	Type TD	Target No Target (Freehand)	Azimuth 1.56	Origin Type Slot	N/S 0.00	E/W 0.00	From TVD 0.00	Latitude	Longitude
SULLIVAN 4J PBHL			7390.00		+N/-S	+E/-W		40.122867	-104.961856
SULLIVAN 4J TPZ			7430.86		84.52	227.10		40.103839	-104.961872
SULLIVAN 4J PBHL 3.7			7480.00		6940.13	188.94		40.122867	-104.961856



#### WELL DETAILS: SULLIVAN 4J-26H-P268

+N/-S	+E/-W	Northing	Ground Level: Easting	4964.00	Latitude	Longitude
0.00	0.00	1281128.17	3150301.44		40.103839	-104.962682

CATHEDRAL



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site:</b>	S26-T2N-R68W	<b>North Reference:</b>	Grid
<b>Well:</b>	SULLIVAN 4J-26H-P268	<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		S26-T2N-R68W			
Site Position:		Northing:	1,281,128.07 usft	Latitude:	40.103840
From:	Lat/Long	Easting:	3,150,211.37 usft	Longitude:	-104.963004
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence:	0.35 °

Well	SULLIVAN 4J-26H-P268					
Well Position	+N/-S	0.00 usft	Northing:	1,281,128.17 usft	Latitude:	40.103839
	+E/-W	0.00 usft	Easting:	3,150,301.44 usft	Longitude:	-104.962682
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,964.00 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</b>
			(°)	(°)	(nT)
	HDGM	4/1/2017	8.55	66.57	52,257

<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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	1.56

<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	
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	0.00	
742.41	7.85	156.97	741.18	-24.69	10.50	2.00	2.00	0.00	156.97	
4,646.61	7.85	156.97	4,608.82	-515.31	219.09	0.00	0.00	0.00	0.00	
5,039.02	0.00	0.00	5,000.00	-540.00	229.59	2.00	-2.00	0.00	180.00	
6,802.82	0.00	0.00	6,763.80	-540.00	229.59	0.00	0.00	0.00	0.00	
7,927.82	90.00	359.69	7,480.00	176.19	225.70	8.00	8.00	0.00	359.69	
14,691.86	90.00	359.69	7,480.00	6,940.13	188.94	0.00	0.00	0.00	0.00	SULLIVAN 4J PBHL 3

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site:</b>	S26-T2N-R68W	<b>North Reference:</b>	Grid
<b>Well:</b>	SULLIVAN 4J-26H-P268	<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	
350.00	0.00	0.00	350.00	0.00	0.00	0.00	0.00	0.00	KOP @ 350'
400.00	1.00	156.97	400.00	-0.40	0.17	-0.40	2.00	2.00	
500.00	3.00	156.97	499.93	-3.61	1.54	-3.57	2.00	2.00	
600.00	5.00	156.97	599.68	-10.03	4.27	-9.91	2.00	2.00	
700.00	7.00	156.97	699.13	-19.65	8.36	-19.42	2.00	2.00	
742.41	7.85	156.97	741.18	-24.69	10.50	-24.40	2.00	2.00	EOB; INC=7.85°
800.00	7.85	156.97	798.23	-31.93	13.58	-31.55	0.00	0.00	
900.00	7.85	156.97	897.30	-44.50	18.92	-43.97	0.00	0.00	
1,000.00	7.85	156.97	996.36	-57.06	24.26	-56.38	0.00	0.00	
1,100.00	7.85	156.97	1,095.42	-69.63	29.60	-68.80	0.00	0.00	
1,200.00	7.85	156.97	1,194.49	-82.20	34.95	-81.21	0.00	0.00	
1,300.00	7.85	156.97	1,293.55	-94.76	40.29	-93.63	0.00	0.00	
1,400.00	7.85	156.97	1,392.61	-107.33	45.63	-106.05	0.00	0.00	
1,500.00	7.85	156.97	1,491.68	-119.89	50.98	-118.46	0.00	0.00	
1,541.71	7.85	156.97	1,533.00	-125.14	53.20	-123.64	0.00	0.00	UPPER PIERRE AQUIFER BASE
1,600.00	7.85	156.97	1,590.74	-132.46	56.32	-130.88	0.00	0.00	
1,700.00	7.85	156.97	1,689.80	-145.03	61.66	-143.30	0.00	0.00	
1,800.00	7.85	156.97	1,788.87	-157.59	67.00	-155.71	0.00	0.00	
1,900.00	7.85	156.97	1,887.93	-170.16	72.35	-168.13	0.00	0.00	
2,000.00	7.85	156.97	1,986.99	-182.73	77.69	-180.54	0.00	0.00	
2,100.00	7.85	156.97	2,086.06	-195.29	83.03	-192.96	0.00	0.00	
2,200.00	7.85	156.97	2,185.12	-207.86	88.37	-205.38	0.00	0.00	
2,300.00	7.85	156.97	2,284.18	-220.42	93.72	-217.79	0.00	0.00	
2,400.00	7.85	156.97	2,383.25	-232.99	99.06	-230.21	0.00	0.00	
2,500.00	7.85	156.97	2,482.31	-245.56	104.40	-242.63	0.00	0.00	
2,600.00	7.85	156.97	2,581.37	-258.12	109.75	-255.04	0.00	0.00	
2,700.00	7.85	156.97	2,680.44	-270.69	115.09	-267.46	0.00	0.00	
2,800.00	7.85	156.97	2,779.50	-283.26	120.43	-279.87	0.00	0.00	
2,900.00	7.85	156.97	2,878.56	-295.82	125.77	-292.29	0.00	0.00	
3,000.00	7.85	156.97	2,977.63	-308.39	131.12	-304.71	0.00	0.00	
3,100.00	7.85	156.97	3,076.69	-320.95	136.46	-317.12	0.00	0.00	
3,200.00	7.85	156.97	3,175.75	-333.52	141.80	-329.54	0.00	0.00	
3,300.00	7.85	156.97	3,274.82	-346.09	147.14	-341.95	0.00	0.00	
3,400.00	7.85	156.97	3,373.88	-358.65	152.49	-354.37	0.00	0.00	
3,500.00	7.85	156.97	3,472.94	-371.22	157.83	-366.79	0.00	0.00	
3,600.00	7.85	156.97	3,572.01	-383.79	163.17	-379.20	0.00	0.00	
3,700.00	7.85	156.97	3,671.07	-396.35	168.52	-391.62	0.00	0.00	
3,800.00	7.85	156.97	3,770.13	-408.92	173.86	-404.04	0.00	0.00	
3,900.00	7.85	156.97	3,869.20	-421.48	179.20	-416.45	0.00	0.00	
4,000.00	7.85	156.97	3,968.26	-434.05	184.54	-428.87	0.00	0.00	
4,100.00	7.85	156.97	4,067.32	-446.62	189.89	-441.28	0.00	0.00	
4,200.00	7.85	156.97	4,166.39	-459.18	195.23	-453.70	0.00	0.00	
4,300.00	7.85	156.97	4,265.45	-471.75	200.57	-466.12	0.00	0.00	
4,400.00	7.85	156.97	4,364.51	-484.32	205.92	-478.53	0.00	0.00	
4,441.88	7.85	156.97	4,406.00	-489.58	208.15	-483.73	0.00	0.00	SUSSEX
4,500.00	7.85	156.97	4,463.58	-496.88	211.26	-490.95	0.00	0.00	
4,600.00	7.85	156.97	4,562.64	-509.45	216.60	-503.37	0.00	0.00	
4,646.61	7.85	156.97	4,608.82	-515.31	219.09	-509.15	0.00	0.00	Start Drop -2.00

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site:</b>	S26-T2N-R68W	<b>North Reference:</b>	Grid
<b>Well:</b>	SULLIVAN 4J-26H-P268	<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
4,700.00	6.78	156.97	4,661.77	-521.56	221.75	-515.33	2.00	-2.00	
4,734.45	6.09	156.97	4,696.00	-525.11	223.26	-518.84	2.00	-2.00	SUSSEX MARKER
4,800.00	4.78	156.97	4,761.26	-530.83	225.69	-524.49	2.00	-2.00	
4,900.00	2.78	156.97	4,861.03	-536.90	228.27	-530.49	2.00	-2.00	
4,989.02	1.00	156.97	4,950.00	-539.60	229.42	-533.16	2.00	-2.00	SHANNON
5,000.00	0.78	156.97	4,960.98	-539.76	229.49	-533.31	2.00	-2.00	
5,039.02	0.00	0.00	5,000.00	-540.00	229.59	-533.55	2.00	-2.00	EOD; INC=0°
5,100.00	0.00	0.00	5,060.98	-540.00	229.59	-533.55	0.00	0.00	
5,200.00	0.00	0.00	5,160.98	-540.00	229.59	-533.55	0.00	0.00	
5,300.00	0.00	0.00	5,260.98	-540.00	229.59	-533.55	0.00	0.00	
5,400.00	0.00	0.00	5,360.98	-540.00	229.59	-533.55	0.00	0.00	
5,500.00	0.00	0.00	5,460.98	-540.00	229.59	-533.55	0.00	0.00	
5,600.00	0.00	0.00	5,560.98	-540.00	229.59	-533.55	0.00	0.00	
5,700.00	0.00	0.00	5,660.98	-540.00	229.59	-533.55	0.00	0.00	
5,800.00	0.00	0.00	5,760.98	-540.00	229.59	-533.55	0.00	0.00	
5,900.00	0.00	0.00	5,860.98	-540.00	229.59	-533.55	0.00	0.00	
6,000.00	0.00	0.00	5,960.98	-540.00	229.59	-533.55	0.00	0.00	
6,100.00	0.00	0.00	6,060.98	-540.00	229.59	-533.55	0.00	0.00	
6,200.00	0.00	0.00	6,160.98	-540.00	229.59	-533.55	0.00	0.00	
6,300.00	0.00	0.00	6,260.98	-540.00	229.59	-533.55	0.00	0.00	
6,400.00	0.00	0.00	6,360.98	-540.00	229.59	-533.55	0.00	0.00	
6,500.00	0.00	0.00	6,460.98	-540.00	229.59	-533.55	0.00	0.00	
6,600.00	0.00	0.00	6,560.98	-540.00	229.59	-533.55	0.00	0.00	
6,700.00	0.00	0.00	6,660.98	-540.00	229.59	-533.55	0.00	0.00	
6,800.00	0.00	0.00	6,760.98	-540.00	229.59	-533.55	0.00	0.00	
6,802.82	0.00	0.00	6,763.80	-540.00	229.59	-533.55	0.00	0.00	Start Build 8.00
6,900.00	7.77	359.69	6,860.68	-533.42	229.55	-526.97	8.00	8.00	
7,000.00	15.77	359.69	6,958.50	-513.03	229.44	-506.60	8.00	8.00	
7,100.00	23.77	359.69	7,052.52	-479.23	229.26	-472.81	8.00	8.00	
7,200.00	31.77	359.69	7,140.93	-432.67	229.01	-426.27	8.00	8.00	
7,300.00	39.77	359.69	7,222.00	-374.26	228.69	-367.89	8.00	8.00	
7,311.79	40.72	359.69	7,231.00	-366.64	228.65	-360.28	8.00	8.00	SHARON SPRINGS
7,400.00	47.77	359.69	7,294.15	-305.13	228.31	-298.80	8.00	8.00	
7,428.69	50.07	359.69	7,313.00	-283.50	228.20	-277.19	8.00	8.00	NIOBRARA
7,434.96	50.57	359.69	7,317.00	-278.68	228.17	-272.37	8.00	8.00	A MARL
7,500.00	55.77	359.69	7,355.97	-226.64	227.89	-220.35	8.00	8.00	
7,550.73	59.83	359.69	7,383.00	-183.72	227.65	-177.45	8.00	8.00	B CHALK
7,599.38	63.72	359.69	7,406.00	-140.86	227.42	-134.62	8.00	8.00	B MARL
7,600.00	63.77	359.69	7,406.27	-140.30	227.42	-134.06	8.00	8.00	
7,700.00	71.77	359.69	7,444.07	-47.81	226.92	-41.62	8.00	8.00	
7,800.00	79.77	359.69	7,468.62	49.04	226.39	55.18	8.00	8.00	
7,808.00	80.41	359.69	7,470.00	56.92	226.35	63.06	8.00	8.00	C CHALK
7,900.00	87.77	359.69	7,479.46	148.37	225.85	154.46	8.00	8.00	
7,927.82	90.00	359.69	7,480.00	176.19	225.70	182.26	8.00	8.00	LP @ 7480' TVD; 90°
8,000.00	90.00	359.69	7,480.00	248.36	225.31	254.40	0.00	0.00	
8,100.00	90.00	359.69	7,480.00	348.36	224.76	354.35	0.00	0.00	
8,200.00	90.00	359.69	7,480.00	448.36	224.22	454.29	0.00	0.00	
8,300.00	90.00	359.69	7,480.00	548.36	223.68	554.24	0.00	0.00	
8,400.00	90.00	359.69	7,480.00	648.36	223.13	654.19	0.00	0.00	
8,500.00	90.00	359.69	7,480.00	748.35	222.59	754.13	0.00	0.00	
8,600.00	90.00	359.69	7,480.00	848.35	222.05	854.08	0.00	0.00	
8,700.00	90.00	359.69	7,480.00	948.35	221.50	954.03	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 SULLIVAN 4J-26H-P268
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site:</b>	S26-T2N-R68W	<b>North Reference:</b>	Grid
<b>Well:</b>	SULLIVAN 4J-26H-P268	<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
8,800.00	90.00	359.69	7,480.00	1,048.35	220.96	1,053.97	0.00	0.00	
8,900.00	90.00	359.69	7,480.00	1,148.35	220.41	1,153.92	0.00	0.00	
9,000.00	90.00	359.69	7,480.00	1,248.35	219.87	1,253.87	0.00	0.00	
9,100.00	90.00	359.69	7,480.00	1,348.35	219.33	1,353.81	0.00	0.00	
9,200.00	90.00	359.69	7,480.00	1,448.34	218.78	1,453.76	0.00	0.00	
9,300.00	90.00	359.69	7,480.00	1,548.34	218.24	1,553.71	0.00	0.00	
9,400.00	90.00	359.69	7,480.00	1,648.34	217.70	1,653.65	0.00	0.00	
9,500.00	90.00	359.69	7,480.00	1,748.34	217.15	1,753.60	0.00	0.00	
9,600.00	90.00	359.69	7,480.00	1,848.34	216.61	1,853.55	0.00	0.00	
9,700.00	90.00	359.69	7,480.00	1,948.34	216.07	1,953.50	0.00	0.00	
9,800.00	90.00	359.69	7,480.00	2,048.34	215.52	2,053.44	0.00	0.00	
9,900.00	90.00	359.69	7,480.00	2,148.33	214.98	2,153.39	0.00	0.00	
10,000.00	90.00	359.69	7,480.00	2,248.33	214.44	2,253.34	0.00	0.00	
10,100.00	90.00	359.69	7,480.00	2,348.33	213.89	2,353.28	0.00	0.00	
10,200.00	90.00	359.69	7,480.00	2,448.33	213.35	2,453.23	0.00	0.00	
10,300.00	90.00	359.69	7,480.00	2,548.33	212.81	2,553.18	0.00	0.00	
10,400.00	90.00	359.69	7,480.00	2,648.33	212.26	2,653.12	0.00	0.00	
10,500.00	90.00	359.69	7,480.00	2,748.32	211.72	2,753.07	0.00	0.00	
10,600.00	90.00	359.69	7,480.00	2,848.32	211.18	2,853.02	0.00	0.00	
10,700.00	90.00	359.69	7,480.00	2,948.32	210.63	2,952.96	0.00	0.00	
10,800.00	90.00	359.69	7,480.00	3,048.32	210.09	3,052.91	0.00	0.00	
10,900.00	90.00	359.69	7,480.00	3,148.32	209.55	3,152.86	0.00	0.00	
11,000.00	90.00	359.69	7,480.00	3,248.32	209.00	3,252.80	0.00	0.00	
11,100.00	90.00	359.69	7,480.00	3,348.32	208.46	3,352.75	0.00	0.00	
11,200.00	90.00	359.69	7,480.00	3,448.31	207.92	3,452.70	0.00	0.00	
11,300.00	90.00	359.69	7,480.00	3,548.31	207.37	3,552.64	0.00	0.00	
11,400.00	90.00	359.69	7,480.00	3,648.31	206.83	3,652.59	0.00	0.00	
11,500.00	90.00	359.69	7,480.00	3,748.31	206.29	3,752.54	0.00	0.00	
11,600.00	90.00	359.69	7,480.00	3,848.31	205.74	3,852.48	0.00	0.00	
11,700.00	90.00	359.69	7,480.00	3,948.31	205.20	3,952.43	0.00	0.00	
11,800.00	90.00	359.69	7,480.00	4,048.31	204.66	4,052.38	0.00	0.00	
11,900.00	90.00	359.69	7,480.00	4,148.30	204.11	4,152.32	0.00	0.00	
12,000.00	90.00	359.69	7,480.00	4,248.30	203.57	4,252.27	0.00	0.00	
12,100.00	90.00	359.69	7,480.00	4,348.30	203.03	4,352.22	0.00	0.00	
12,200.00	90.00	359.69	7,480.00	4,448.30	202.48	4,452.16	0.00	0.00	
12,300.00	90.00	359.69	7,480.00	4,548.30	201.94	4,552.11	0.00	0.00	
12,400.00	90.00	359.69	7,480.00	4,648.30	201.40	4,652.06	0.00	0.00	
12,500.00	90.00	359.69	7,480.00	4,748.30	200.85	4,752.00	0.00	0.00	
12,600.00	90.00	359.69	7,480.00	4,848.29	200.31	4,851.95	0.00	0.00	
12,700.00	90.00	359.69	7,480.00	4,948.29	199.76	4,951.90	0.00	0.00	
12,800.00	90.00	359.69	7,480.00	5,048.29	199.22	5,051.84	0.00	0.00	
12,900.00	90.00	359.69	7,480.00	5,148.29	198.68	5,151.79	0.00	0.00	
13,000.00	90.00	359.69	7,480.00	5,248.29	198.13	5,251.74	0.00	0.00	
13,100.00	90.00	359.69	7,480.00	5,348.29	197.59	5,351.68	0.00	0.00	
13,200.00	90.00	359.69	7,480.00	5,448.28	197.05	5,451.63	0.00	0.00	
13,300.00	90.00	359.69	7,480.00	5,548.28	196.50	5,551.58	0.00	0.00	
13,400.00	90.00	359.69	7,480.00	5,648.28	195.96	5,651.52	0.00	0.00	
13,500.00	90.00	359.69	7,480.00	5,748.28	195.42	5,751.47	0.00	0.00	
13,600.00	90.00	359.69	7,480.00	5,848.28	194.87	5,851.42	0.00	0.00	
13,700.00	90.00	359.69	7,480.00	5,948.28	194.33	5,951.36	0.00	0.00	
13,800.00	90.00	359.69	7,480.00	6,048.28	193.79	6,051.31	0.00	0.00	
13,900.00	90.00	359.69	7,480.00	6,148.27	193.24	6,151.26	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 SULLIVAN 4J-26H-P268
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site:</b>	S26-T2N-R68W	<b>North Reference:</b>	Grid
<b>Well:</b>	SULLIVAN 4J-26H-P268	<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
14,000.00	90.00	359.69	7,480.00	6,248.27	192.70	6,251.20	0.00	0.00	
14,100.00	90.00	359.69	7,480.00	6,348.27	192.16	6,351.15	0.00	0.00	
14,200.00	90.00	359.69	7,480.00	6,448.27	191.61	6,451.10	0.00	0.00	
14,300.00	90.00	359.69	7,480.00	6,548.27	191.07	6,551.04	0.00	0.00	
14,400.00	90.00	359.69	7,480.00	6,648.27	190.53	6,650.99	0.00	0.00	
14,500.00	90.00	359.69	7,480.00	6,748.27	189.98	6,750.94	0.00	0.00	
14,600.00	90.00	359.69	7,480.00	6,848.26	189.44	6,850.88	0.00	0.00	
14,691.86	90.00	359.69	7,480.00	6,940.13	188.94	6,942.70	0.00	0.00	TD at 14691.86

### 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
SULLIVAN 4J PBHL - plan misses target center by 90.00usft at 14691.86usft MD (7480.00 TVD, 6940.13 N, 188.94 E) - Point	0.00	0.00	7,390.00	6,940.13	188.94	1,288,068.30	3,150,490.38	40.122887	-104.961856
SULLIVAN 4J TPZ - plan misses target center by 0.02usft at 7660.99usft MD (7430.87 TVD, -84.51 N, 227.11 E) - Point	0.00	0.00	7,430.86	-84.52	227.10	1,281,043.65	3,150,528.54	40.103603	-104.961872
SULLIVAN 4J PBHL 3.7 - plan hits target center - Point	0.00	0.00	7,480.00	6,940.13	188.94	1,288,068.30	3,150,490.38	40.122887	-104.961856

### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,541.71	1,533.00	UPPER PIERRE AQUIFER BASE			
4,441.88	4,406.00	SUSSEX			
4,734.45	4,696.00	SUSSEX MARKER			
4,989.02	4,950.00	SHANNON			
7,311.79	7,231.00	SHARON SPRINGS			
7,428.69	7,313.00	NIOBRARA			
7,434.96	7,317.00	A MARL			
7,550.73	7,383.00	B CHALK			
7,599.38	7,406.00	B MARL			
7,808.00	7,470.00	C CHALK			

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Company:</b>	Crestone Peak Resources	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Project:</b>	DJ BASIN	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site:</b>	S26-T2N-R68W	<b>North Reference:</b>	Grid
<b>Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #2		

### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
350.00	350.00	0.00	0.00	KOP @ 350'
742.41	741.18	-24.69	10.50	EOB; INC=7.85°
4,646.61	4,608.82	-515.31	219.09	Start Drop -2.00
5,039.02	5,000.00	-540.00	229.59	EOD; INC=0°
6,802.82	6,763.80	-540.00	229.59	Start Build 8.00
7,927.82	7,480.00	176.19	225.70	LP @ 7480' TVD; 90°
14,691.86	7,480.00	6,940.13	188.94	TD at 14691.86

# **Crestone Peak Resources**

**DJ BASIN**

**S26-T2N-R68W**

**SULLIVAN 4J-26H-P268**

**OH**

**PLAN #2**

## **Anticollision Report**

**31 March, 2017**



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	PLAN #2		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	Stations	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 1,500.00usft	<b>Error Surface:</b>	Elliptical Conic
<b>Warning Levels Evaluated at:</b>	2.00 Sigma		

<b>Survey Tool Program</b>		<b>Date</b>	3/31/2017		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
0.00	14,691.86	PLAN #2 (OH)	MWD+HDGM	OWSG MWD + HDGM	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
S26-T2N-R68W						
Billings 1 - CPR WELL - GYRO						Out of range
Billings 31-34 - CPR WELL - SURVEYS						Out of range
Billings 32-34 - CPR WELL - GYRO						Out of range
Billings 41-34 - CPR WELL - SURVEYS						Out of range
Billings 42-34 - Existing - SURVEYS						Out of range
Billings 8-4-34 - CPR WELL - SURVEYS						Out of range
Bybee 5 - Wellbore #1 - PLAN #1	14,691.86	12,639.47	1,277.42	1,078.10	6.409	CC, ES, SF
Duke State 30-36 - KMG WELL - SURVEYS	6,701.63	6,732.65	328.46	274.38	6.074	CC
Duke State 30-36 - KMG WELL - SURVEYS	6,802.82	6,833.34	328.78	274.21	6.025	ES
Duke State 30-36 - KMG WELL - SURVEYS	6,900.00	6,937.77	329.93	274.84	5.989	SF
Elmquist 0-0-23 - CPR WELL - SURVEYS						Out of range
Elmquist 1 - CPR WELL - GYRO						Out of range
Elmquist 12-23 - CPR WELL - GYRO						Out of range
Elmquist 21-23 - CPR WELL - SURVEYS						Out of range
Elmquist 2-4-23 - CPR WELL - SURVEYS						Out of range
Elmquist 4-2-23 - CPR WELL - SURVEYS						Out of range
Elmquist 4-4-23 - CPR WELL - SURVEYS						Out of range
Godding Gulch 21-26 - CPR WELL - SURVEYS						Out of range
Grant 1 - KPK WELL - NO SURVEYS						Out of range
Grant 4 - KPK WELL - NO SURVEYS						Out of range
Grant Bros 23-2AE - EXTRACTION - SURVEYS	14,691.86	7,876.18	1,156.70	1,006.95	7.724	CC, ES, SF
Grant Bros 23-43 - EXTRACTION - SURVEYS	14,500.00	7,730.66	391.69	244.29	2.657	ES, SF
Grant Bros 23-43 - EXTRACTION - SURVEYS	14,510.25	7,730.85	391.55	244.45	2.662	CC
Grant Bros 23-4AE - EXTRACTION - SURVEYS						Out of range
Grant Bros 23-54 - EXTRACTION - SURVEYS	13,830.07	7,551.25	1,056.56	931.13	8.423	CC, ES
Grant Bros 23-54 - EXTRACTION - SURVEYS	13,900.00	7,551.36	1,058.87	933.09	8.419	SF
Grant Bros 31-26 - CPR WELL - GYRO						Out of range
Grant Bros 32-26 - CPR - GYRO						Out of range
Grant Bros 3-23 - CPR WELL - SURVEYS	13,530.22	7,440.99	1,377.93	1,271.64	12.964	CC, ES
Grant Bros 3-23 - CPR WELL - SURVEYS	13,700.00	7,438.61	1,388.35	1,280.32	12.852	SF
Grant Bros 41-26 - SUNDANCE WELL - NO SURVEYS						Out of range
Grant Bros 42-26 - CPR WELL - SURVEYS	10,428.75	7,506.58	277.22	205.75	3.879	CC, ES, SF
Grant Bros 43-23 - SUNDANCE WELL - NO SURVEYS						Out of range
Grant Brothers 2-26 - CPR - NO SURVEYS	10,905.37	7,437.99	831.92	758.20	11.286	CC, ES
Grant Brothers 2-26 - CPR - NO SURVEYS	11,000.00	7,437.99	837.28	762.65	11.219	SF
Grant Brothers 33-23C - EXTRACTION - NO SURVEYS						Out of range
Grant Brothers 34-23C - EXTRACTION - GYRO						Out of range
Grant Brothers 44-23C - EXTRACTION - GYRO	13,053.73	7,450.52	368.52	263.65	3.514	CC, ES, SF
Haley 31-22 - CPR WELL - SURVEYS						Out of range
Haley 41-22 - CPR WELL - SURVEYS						Out of range
Haley 4-2-22 - CPR WELL - SURVEYS						Out of range
Haley 8-2-22 - CPR WELL - SURVEYS						Out of range
Haley 8-4-22 - CPR WELL - SURVEYS						Out of range
Johnson 1 - KPK - NO SURVEYS						Out of range
Johnson 2 - KPK WELL - NO SURVEYS						Out of range
Meredith 1 - KPK WELL - NO SURVEYS	350.00	321.99	104.85	103.26	65.682	CC, ES
Meredith 1 - KPK WELL - NO SURVEYS	5,200.00	5,119.99	691.49	664.01	25.170	SF
Puritan 6-4-34 - CPR WELL - SURVEYS						Out of range
Sullivan 1 - CPR - NO SURVEYS	9,195.53	7,464.00	733.83	687.08	15.697	CC
Sullivan 1 - CPR - NO SURVEYS	9,200.00	7,464.00	733.84	687.05	15.682	ES
Sullivan 1 - CPR - NO SURVEYS	9,300.00	7,464.00	741.23	693.58	15.556	SF
Sullivan 33-26 - CPR WELL - SURVEYS						Out of range
Sullivan 34-26 - CPR WELL - SURVEYS						Out of range

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

### Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation Factor	Warning
			Between Centres (usft)	Between Ellipses (usft)		
S26-T2N-R68W						
Sullivan 44-26 - CPR WELL - GYRO	137.39	111.38	39.65	39.18	84.842	CC
Sullivan 44-26 - CPR WELL - GYRO	500.00	473.91	40.31	37.94	17.018	ES
Sullivan 44-26 - CPR WELL - GYRO	7,810.35	7,447.50	330.20	289.64	8.142	SF
Sullivan 4-6-26 - CPR WELL - SURVEYS						Out of range
SULLIVAN 4A-26H-P268 - OH - PLAN #4	200.00	200.00	90.07	89.08	90.711	CC, ES
SULLIVAN 4A-26H-P268 - OH - PLAN #4	742.41	719.06	148.06	143.01	29.332	SF
SULLIVAN 4B-26H-P268 - OH - PLAN #4	300.00	300.00	80.00	78.29	46.788	CC, ES
SULLIVAN 4B-26H-P268 - OH - PLAN #4	700.00	685.76	115.30	110.66	24.874	SF
SULLIVAN 4C-26H-P268 - OH - PLAN #3	350.00	350.00	69.93	67.86	33.810	CC
SULLIVAN 4C-26H-P268 - OH - PLAN #3	400.00	400.00	70.10	67.69	28.987	ES
SULLIVAN 4C-26H-P268 - OH - PLAN #3	700.00	691.31	93.69	89.13	20.540	SF
SULLIVAN 4D-26H-P268 - OH - PLAN #2	350.00	350.00	60.14	58.07	29.077	CC
SULLIVAN 4D-26H-P268 - OH - PLAN #2	400.00	400.00	60.31	57.90	24.939	ES
SULLIVAN 4D-26H-P268 - OH - PLAN #2	700.00	695.01	76.71	72.19	16.940	SF
SULLIVAN 4E-26H-P268 - OH - PLAN #2	350.00	350.00	50.07	48.00	24.209	CC
SULLIVAN 4E-26H-P268 - OH - PLAN #2	400.00	400.00	50.25	47.83	20.776	ES
SULLIVAN 4E-26H-P268 - OH - PLAN #2	14,691.86	14,622.60	1,455.01	1,221.66	6.235	SF
SULLIVAN 4F-26H-P268 - OH - PLAN #2	200.00	200.00	40.00	39.01	40.284	CC
SULLIVAN 4F-26H-P268 - OH - PLAN #2	300.00	299.48	40.63	38.93	23.901	ES
SULLIVAN 4F-26H-P268 - OH - PLAN #2	14,691.86	14,856.87	1,205.05	971.33	5.156	SF
SULLIVAN 4G-26H-P268 - OH - PLAN #2	350.00	350.00	29.93	27.86	14.471	CC
SULLIVAN 4G-26H-P268 - OH - PLAN #2	400.00	400.00	30.10	27.68	12.447	ES
SULLIVAN 4G-26H-P268 - OH - PLAN #2	14,691.86	14,536.27	945.57	713.61	4.076	SF
SULLIVAN 4H-26H-P268 - OH - PLAN #2	200.00	200.00	20.14	19.15	20.246	CC
SULLIVAN 4H-26H-P268 - OH - PLAN #2	350.00	349.86	20.54	18.49	10.012	ES
SULLIVAN 4H-26H-P268 - OH - PLAN #2	14,691.86	14,703.04	597.89	363.44	2.550	SF
SULLIVAN 4I-26H-P268 - OH - PLAN #2	336.68	336.68	10.07	8.10	5.118	CC
SULLIVAN 4I-26H-P268 - OH - PLAN #2	400.00	399.98	10.29	7.88	4.281	ES
SULLIVAN 4I-26H-P268 - OH - PLAN #2	14,691.86	14,592.48	246.84	24.15	1.108	Level 2, SF
SULLIVAN 4K-26H-P268 - OH - PLAN #2	499.56	499.49	9.28	6.17	2.986	CC
SULLIVAN 4K-26H-P268 - OH - PLAN #2	500.00	499.93	9.28	6.17	2.983	ES
SULLIVAN 4K-26H-P268 - OH - PLAN #2	14,691.86	14,820.55	231.95	28.51	1.140	Level 2, SF
SULLIVAN 4L-26H-P268 - OH - PLAN #2	200.00	200.00	19.86	18.87	20.004	CC
SULLIVAN 4L-26H-P268 - OH - PLAN #2	14,691.86	14,647.70	225.12	-9.84	0.958	Level 1, ES, SF
Sullivan 6-8-26 - CPR - SURVEYS	4,400.41	4,525.99	1,190.88	1,162.38	41.785	CC
Sullivan 6-8-26 - CPR - SURVEYS	5,832.56	5,888.49	1,194.30	1,159.81	34.626	ES
Sullivan 6-8-26 - CPR - SURVEYS	7,650.00	7,532.93	1,258.58	1,214.07	28.279	SF
Sullivan 8-6-26 - CPR WELL - SURVEYS	8,500.00	7,565.92	208.90	138.78	2.979	SF
Sullivan 8-6-26 - CPR WELL - SURVEYS	8,532.96	7,565.69	206.29	137.19	2.985	CC, ES
Walsh 13-24 - CPR WELL - SURVEYS	14,657.86	7,583.12	800.89	670.45	6.140	CC, ES
Walsh 13-24 - CPR WELL - SURVEYS	14,691.86	7,585.60	801.61	670.75	6.126	SF
Walsh 23-24 - PDC - GYRO						Out of range
Walsh 24-24 - PDC - GYRO						Out of range

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												S26-T2N-R68W - Bybee 5 - Wellbore #1 - PLAN #1		Offset Site Error:		0.00 usft	
Survey Program:												0-MWD+HDGM		Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis				Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning				
14,200.00	7,480.00	12,639.47	7,272.00	110.06	87.87	-84.15	7,256.07	-1,042.36	1,480.24	1,311.22	169.02	8.758					
14,300.00	7,480.00	12,639.47	7,272.00	111.60	87.87	-84.15	7,256.07	-1,042.36	1,427.66	1,251.95	175.70	8.125					
14,400.00	7,480.00	12,639.47	7,272.00	113.14	87.87	-84.15	7,256.07	-1,042.36	1,380.33	1,198.03	182.29	7.572					
14,500.00	7,480.00	12,639.47	7,272.00	114.68	87.87	-84.15	7,256.07	-1,042.36	1,338.81	1,150.18	188.62	7.098					
14,600.00	7,480.00	12,639.47	7,272.00	116.22	87.87	-84.15	7,256.07	-1,042.36	1,303.65	1,109.15	194.50	6.703					
14,691.86	7,480.00	12,639.47	7,272.00	117.64	87.87	-84.15	7,256.07	-1,042.36	1,277.42	1,078.10	199.32	6.409	CC, ES, SF				

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Duke State 30-36 - KMG WELL - SURVEYS												Offset Site Error:	0.00 usft
Survey Program: 40-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
1,700.00	1,689.80	1,681.50	1,681.43	6.25	6.68	-23.03	-1,186.37	1,134.13	1,494.92	1,482.33	12.60	118.669	
1,800.00	1,788.87	1,806.74	1,806.65	6.66	7.21	-23.33	-1,184.54	1,133.37	1,481.02	1,467.54	13.49	109.813	
1,900.00	1,887.93	1,985.22	1,984.81	7.07	7.93	-23.77	-1,176.38	1,127.14	1,462.69	1,448.17	14.52	100.768	
2,000.00	1,986.99	2,143.23	2,142.00	7.49	8.54	-24.11	-1,165.72	1,115.27	1,440.33	1,424.92	15.40	93.508	
2,100.00	2,086.06	2,313.45	2,310.33	7.90	9.29	-24.54	-1,148.02	1,097.41	1,413.44	1,397.12	16.32	86.596	
2,200.00	2,185.12	2,475.48	2,469.16	8.31	10.12	-24.98	-1,125.78	1,074.43	1,381.73	1,364.53	17.19	80.361	
2,300.00	2,284.18	2,614.16	2,603.76	8.72	10.95	-25.38	-1,102.59	1,050.47	1,345.72	1,327.71	18.01	74.738	
2,400.00	2,383.25	2,717.21	2,703.27	9.13	11.63	-25.67	-1,084.49	1,030.77	1,307.97	1,289.21	18.76	69.714	
2,500.00	2,482.31	2,803.08	2,786.20	9.55	12.20	-25.90	-1,069.87	1,013.92	1,270.27	1,250.77	19.50	65.135	
2,600.00	2,581.37	2,896.79	2,876.71	9.96	12.86	-26.20	-1,053.42	996.11	1,232.67	1,212.41	20.26	60.835	
2,700.00	2,680.44	2,977.90	2,956.18	10.37	13.44	-26.49	-1,039.31	981.15	1,195.62	1,174.59	21.02	56.869	
2,800.00	2,779.50	3,072.01	3,046.33	10.79	14.13	-26.82	-1,023.51	963.87	1,159.04	1,137.25	21.80	53.171	
2,900.00	2,878.56	3,166.54	3,137.83	11.20	14.85	-27.18	-1,007.52	946.34	1,122.28	1,099.70	22.58	49.704	
3,000.00	2,977.63	3,252.93	3,221.50	11.61	15.51	-27.54	-992.80	930.63	1,085.76	1,062.39	23.37	46.466	
3,100.00	3,076.69	3,338.36	3,304.37	12.03	16.15	-27.93	-978.56	915.57	1,049.90	1,025.74	24.16	43.454	
3,200.00	3,175.75	3,419.95	3,383.71	12.44	16.76	-28.27	-965.96	901.24	1,014.93	989.97	24.96	40.664	
3,300.00	3,274.82	3,519.66	3,480.80	12.85	17.51	-28.71	-951.14	884.11	980.64	954.88	25.75	38.079	
3,400.00	3,373.88	3,616.24	3,574.61	13.27	18.26	-29.23	-935.40	867.36	945.38	918.82	26.56	35.593	
3,500.00	3,472.94	3,712.12	3,667.73	13.68	19.02	-29.83	-919.32	851.14	910.24	882.86	27.38	33.247	
3,600.00	3,572.01	3,805.42	3,758.29	14.09	19.76	-30.39	-904.31	834.47	874.86	846.67	28.20	31.027	
3,700.00	3,671.07	3,895.84	3,846.11	14.51	20.47	-30.91	-890.61	817.89	839.76	810.74	29.02	28.938	
3,800.00	3,770.13	3,994.01	3,941.45	14.92	21.26	-31.62	-874.63	800.79	804.79	774.95	29.84	26.968	
3,900.00	3,869.20	4,088.38	4,032.90	15.34	22.04	-32.49	-857.82	784.66	769.31	738.61	30.70	25.060	
4,000.00	3,968.26	4,180.47	4,122.18	15.75	22.80	-33.40	-841.56	768.95	734.10	702.52	31.57	23.250	
4,100.00	4,067.32	4,278.31	4,216.95	16.16	23.62	-34.48	-824.03	752.17	698.86	666.42	32.45	21.540	
4,200.00	4,166.39	4,371.11	4,306.67	16.58	24.42	-35.68	-806.55	736.16	663.27	629.90	33.37	19.878	
4,300.00	4,265.45	4,458.15	4,390.94	16.99	25.15	-36.92	-790.40	721.50	628.45	594.11	34.34	18.298	
4,400.00	4,364.51	4,559.46	4,489.21	17.41	25.99	-38.29	-773.69	703.44	594.21	558.98	35.23	16.865	
4,500.00	4,463.58	4,658.00	4,584.32	17.82	26.86	-39.76	-756.83	683.95	558.28	522.12	36.15	15.441	
4,600.00	4,562.64	4,750.45	4,673.49	18.24	27.67	-41.40	-740.46	665.86	522.61	485.43	37.18	14.058	
4,646.61	4,608.82	4,792.35	4,713.92	18.43	28.04	-42.19	-733.19	657.59	506.13	468.45	37.68	13.433	
4,700.00	4,661.77	4,837.40	4,757.46	18.65	28.43	-42.79	-725.61	648.85	488.00	449.71	38.29	12.744	
4,800.00	4,761.26	4,926.32	4,843.69	19.04	29.18	-43.94	-711.26	632.54	457.38	417.97	39.42	11.604	
4,900.00	4,861.03	5,020.07	4,934.66	19.40	29.97	-45.17	-695.79	615.99	430.01	389.48	40.53	10.609	
5,000.00	4,960.98	5,111.67	5,023.63	19.74	30.73	-46.32	-680.51	600.51	405.96	364.27	41.69	9.737	
5,039.02	5,000.00	5,146.60	5,057.67	19.86	31.01	-46.75	-675.07	594.86	397.71	355.57	42.13	9.439	
5,100.00	5,060.98	5,200.00	5,109.91	20.04	31.42	-47.63	-667.44	586.81	386.03	343.22	42.81	9.017	
5,200.00	5,160.98	5,280.00	5,188.78	20.33	31.95	-48.74	-658.00	577.40	370.78	326.85	43.92	8.441	
5,300.00	5,260.98	5,367.08	5,275.15	20.62	32.45	-49.98	-650.27	569.41	359.19	314.30	44.89	8.001	
5,400.00	5,360.98	5,461.73	5,369.24	20.91	32.95	-51.28	-643.40	561.94	349.47	303.68	45.79	7.633	
5,500.00	5,460.98	5,553.12	5,460.29	21.21	33.39	-52.75	-638.22	556.03	341.63	295.00	46.63	7.326	
5,600.00	5,560.98	5,640.00	5,547.05	21.51	33.75	-54.38	-635.02	552.87	337.08	289.69	47.39	7.113	
5,675.34	5,636.32	5,706.27	5,613.31	21.73	33.94	-56.20	-633.80	552.38	336.14	288.30	47.84	7.026	
5,700.00	5,660.98	5,728.88	5,635.92	21.81	33.97	-58.27	-633.66	552.51	336.23	288.27	47.96	7.010	
5,800.00	5,760.98	5,829.68	5,736.71	22.11	34.18	-60.59	-633.95	553.19	336.97	288.43	48.54	6.942	
5,900.00	5,860.98	5,934.99	5,842.02	22.41	34.35	-63.10	-634.39	552.44	336.39	287.33	49.06	6.857	
6,000.00	5,960.98	6,031.20	5,938.23	22.72	34.58	-66.28	-634.12	551.94	335.81	286.18	49.63	6.766	
6,100.00	6,060.98	6,133.28	6,040.30	23.02	34.81	-69.63	-633.20	551.92	335.55	285.28	50.27	6.675	
6,200.00	6,160.98	6,236.74	6,143.75	23.33	35.05	-73.28	-632.99	550.47	334.13	283.27	50.86	6.570	
6,300.00	6,260.98	6,336.94	6,243.93	23.64	35.32	-77.27	-632.57	548.92	332.53	281.06	51.47	6.460	
6,400.00	6,360.98	6,437.40	6,344.37	23.95	35.62	-81.70	-631.95	546.78	330.31	278.20	52.11	6.339	
6,500.00	6,460.98	6,532.93	6,439.89	24.26	35.93	-86.77	-630.80	545.92	329.11	276.31	52.80	6.233	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Duke State 30-36 - KMG WELL - SURVEYS												Offset Site Error:	0.00 usft
Survey Program: 40-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
6,600.00	6,560.98	6,631.99	6,538.95	24.58	36.17	105.86	-629.89	545.91	328.84	275.41	53.43	6.155	
6,700.00	6,660.98	6,731.09	6,638.04	24.89	36.41	105.66	-628.67	545.85	328.46	274.39	54.07	6.075	
6,701.63	6,662.61	6,732.65	6,639.60	24.89	36.41	105.66	-628.66	545.85	328.46	274.38	54.08	6.074 CC	
6,802.82	6,763.80	6,833.34	6,740.29	25.21	36.54	105.56	-628.20	546.32	328.78	274.21	54.57	6.025 ES	
6,850.00	6,810.94	6,882.49	6,789.43	25.36	36.64	106.03	-627.71	546.40	329.15	274.33	54.82	6.004	
6,900.00	6,860.68	6,937.77	6,844.70	25.50	36.82	106.75	-626.69	545.95	329.93	274.84	55.09	5.989 SF	
6,950.00	6,909.95	6,989.60	6,896.50	25.64	37.02	107.95	-625.40	544.88	331.13	275.88	55.25	5.993	
7,000.00	6,958.50	7,036.86	6,943.75	25.77	37.17	109.55	-624.76	543.73	333.66	278.39	55.27	6.037	
7,050.00	7,006.10	7,082.44	6,989.31	25.89	37.27	111.53	-624.89	542.62	338.13	282.99	55.14	6.132	
7,100.00	7,052.52	7,126.82	7,033.68	26.00	37.33	113.72	-625.35	541.68	344.93	290.00	54.93	6.279	
7,150.00	7,097.54	7,169.74	7,076.59	26.10	37.38	115.98	-625.92	540.97	354.41	299.69	54.72	6.477	
7,200.00	7,140.93	7,211.13	7,117.97	26.20	37.43	118.17	-626.50	540.49	366.87	312.33	54.54	6.726	
7,250.00	7,182.49	7,250.71	7,157.55	26.29	37.49	120.20	-627.05	540.24	382.53	328.08	54.44	7.026	
7,300.00	7,222.00	7,288.19	7,195.02	26.38	37.56	121.96	-627.62	540.16	401.53	347.09	54.44	7.376	
7,350.00	7,259.28	7,323.29	7,230.12	26.46	37.64	123.39	-628.25	540.18	423.93	369.41	54.52	7.775	
7,400.00	7,294.15	7,356.09	7,262.90	26.55	37.71	124.43	-628.93	540.27	449.70	395.01	54.69	8.223	
7,450.00	7,326.43	7,387.69	7,294.50	26.64	37.79	125.14	-629.62	540.39	478.66	423.74	54.92	8.715	
7,500.00	7,355.97	7,416.75	7,323.55	26.74	37.86	125.34	-630.21	540.52	510.58	455.38	55.20	9.250	
7,550.00	7,382.63	7,442.91	7,349.71	26.84	37.93	124.94	-630.72	540.64	545.25	489.75	55.50	9.825	
7,600.00	7,406.27	7,465.93	7,372.73	26.94	37.99	123.83	-631.14	540.75	582.42	526.61	55.80	10.437	
7,650.00	7,426.79	7,485.82	7,392.61	27.06	38.04	121.89	-631.50	540.85	621.82	565.71	56.10	11.083	
7,700.00	7,444.07	7,502.47	7,409.25	27.19	38.09	118.95	-631.80	540.93	663.16	606.78	56.39	11.761	
7,750.00	7,458.04	7,515.78	7,422.56	27.34	38.12	114.81	-632.03	541.00	706.16	649.51	56.65	12.465	
7,800.00	7,468.62	7,525.71	7,432.50	27.50	38.15	109.21	-632.20	541.05	750.51	693.62	56.90	13.191	
7,850.00	7,475.78	7,532.18	7,438.96	27.67	38.17	101.93	-632.30	541.09	795.92	738.81	57.11	13.936	
7,900.00	7,479.46	7,535.11	7,441.89	27.85	38.18	92.92	-632.35	541.10	842.10	784.79	57.30	14.696	
7,927.82	7,480.00	7,535.19	7,441.97	27.96	38.18	87.24	-632.35	541.10	868.01	810.62	57.40	15.123	
8,000.00	7,480.00	7,533.96	7,440.74	28.27	38.17	87.01	-632.33	541.10	935.74	878.12	57.62	16.239	
8,100.00	7,480.00	7,532.25	7,439.03	28.76	38.17	86.69	-632.31	541.09	1,030.58	972.68	57.90	17.800	
8,200.00	7,480.00	7,530.52	7,437.31	29.34	38.16	86.38	-632.28	541.08	1,126.30	1,068.17	58.14	19.373	
8,300.00	7,480.00	7,528.79	7,435.57	30.00	38.16	86.06	-632.25	541.07	1,222.71	1,164.37	58.35	20.956	
8,400.00	7,480.00	7,527.04	7,433.82	30.72	38.15	85.74	-632.22	541.06	1,319.65	1,261.12	58.53	22.546	
8,500.00	7,480.00	7,525.28	7,432.07	31.51	38.15	85.42	-632.19	541.05	1,417.02	1,358.32	58.70	24.142	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R68W - Grant Bros 23-2AE - EXTRACTION - SURVEYS												<b>Offset Site Error:</b>	0.00 usft
Survey Program: 118-ISCWSA MWD												<b>Offset Well Error:</b>	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
14,200.00	7,480.00	7,881.73	7,482.70	110.06	41.21	-92.98	7,413.06	-865.26	1,432.06	1,309.39	122.66	11.675	
14,300.00	7,480.00	7,880.63	7,481.60	111.60	41.21	-92.92	7,413.07	-865.30	1,366.26	1,238.25	128.02	10.673	
14,400.00	7,480.00	7,879.51	7,480.48	113.14	41.21	-92.86	7,413.08	-865.35	1,304.83	1,171.26	133.56	9.769	
14,500.00	7,480.00	7,878.38	7,479.35	114.68	41.21	-92.80	7,413.09	-865.40	1,248.38	1,109.18	139.20	8.968	
14,600.00	7,480.00	7,877.24	7,478.21	116.22	41.20	-92.73	7,413.11	-865.44	1,197.64	1,052.84	144.80	8.271	
14,691.86	7,480.00	7,876.18	7,477.15	117.64	41.20	-92.68	7,413.12	-865.49	1,156.70	1,006.95	149.75	7.724 CC, ES, SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Bros 23-43 - EXTRACTION - SURVEYS													Offset Site Error: 0.00 usft	
Survey Program: 177-ISCWSA MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
13,100.00	7,480.00	7,704.80	7,402.00	93.23	37.66	-86.20	6,755.90	-201.62	1,463.36	1,391.12	72.25	20.255		
13,200.00	7,480.00	7,706.62	7,403.83	94.75	37.66	-86.47	6,755.94	-201.62	1,367.29	1,293.25	74.04	18.468		
13,300.00	7,480.00	7,708.45	7,405.66	96.28	37.66	-86.73	6,755.97	-201.62	1,271.82	1,195.68	76.14	16.704		
13,400.00	7,480.00	7,710.28	7,407.49	97.80	37.67	-87.00	6,756.01	-201.62	1,177.09	1,098.46	78.63	14.970		
13,500.00	7,480.00	7,712.12	7,409.32	99.33	37.67	-87.27	6,756.04	-201.62	1,083.31	1,001.72	81.60	13.276		
13,600.00	7,480.00	7,713.96	7,411.16	100.86	37.67	-87.54	6,756.07	-201.62	990.75	905.59	85.16	11.634		
13,700.00	7,480.00	7,715.80	7,413.00	102.39	37.67	-87.81	6,756.11	-201.62	899.77	810.31	89.47	10.057		
13,800.00	7,480.00	7,717.64	7,414.85	103.92	37.67	-88.08	6,756.14	-201.62	810.92	716.22	94.70	8.563		
13,900.00	7,480.00	7,719.49	7,416.70	105.45	37.68	-88.35	6,756.18	-201.62	724.98	623.91	101.07	7.173		
14,000.00	7,480.00	7,721.35	7,418.55	106.99	37.68	-88.62	6,756.21	-201.62	643.10	534.33	108.77	5.912		
14,100.00	7,480.00	7,723.20	7,420.41	108.52	37.68	-88.89	6,756.25	-201.62	567.06	449.16	117.91	4.809		
14,200.00	7,480.00	7,725.06	7,422.27	110.06	37.68	-89.16	6,756.28	-201.62	499.54	371.36	128.18	3.897		
14,300.00	7,480.00	7,726.92	7,424.13	111.60	37.68	-89.43	6,756.32	-201.62	444.42	306.01	138.41	3.211		
14,400.00	7,480.00	7,728.79	7,425.99	113.14	37.69	-89.71	6,756.35	-201.62	406.78	260.81	145.96	2.787		
14,500.00	7,480.00	7,730.66	7,427.86	114.68	37.69	-89.98	6,756.39	-201.62	391.69	244.29	147.40	2.657 ES, SF		
14,510.25	7,480.00	7,730.85	7,428.06	114.84	37.69	-90.01	6,756.39	-201.62	391.55	244.45	147.11	2.662 CC		
14,600.00	7,480.00	7,732.53	7,429.74	116.22	37.69	-90.25	6,756.42	-201.62	401.71	260.40	141.31	2.843		
14,691.86	7,480.00	7,734.26	7,431.46	117.64	37.69	-90.51	6,756.45	-201.62	431.61	300.37	131.24	3.289		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Bros 23-54 - EXTRACTION - SURVEYS												Offset Site Error: 0.00 usft	
Survey Program: 118-ISCWSA MWD												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
12,800.00	7,480.00	7,549.59	7,437.49	88.69	23.12	-90.46	6,072.60	-862.89	1,475.59	1,384.71	90.88	16.237	
12,900.00	7,480.00	7,549.75	7,437.65	90.20	23.12	-90.47	6,072.60	-862.88	1,407.60	1,312.97	94.63	14.875	
13,000.00	7,480.00	7,549.91	7,437.82	91.72	23.12	-90.48	6,072.60	-862.88	1,343.63	1,245.06	98.57	13.632	
13,100.00	7,480.00	7,550.08	7,437.98	93.23	23.12	-90.49	6,072.60	-862.88	1,284.26	1,181.62	102.64	12.512	
13,200.00	7,480.00	7,550.24	7,438.14	94.75	23.12	-90.50	6,072.60	-862.88	1,230.16	1,123.39	106.77	11.521	
13,300.00	7,480.00	7,550.40	7,438.30	96.28	23.12	-90.50	6,072.60	-862.88	1,182.07	1,071.22	110.86	10.663	
13,400.00	7,480.00	7,550.56	7,438.46	97.80	23.13	-90.51	6,072.61	-862.88	1,140.74	1,025.99	114.75	9.941	
13,500.00	7,480.00	7,550.72	7,438.63	99.33	23.13	-90.52	6,072.61	-862.88	1,106.92	988.63	118.29	9.358	
13,600.00	7,480.00	7,550.89	7,438.79	100.86	23.13	-90.53	6,072.61	-862.87	1,081.32	960.01	121.31	8.914	
13,700.00	7,480.00	7,551.04	7,438.95	102.39	23.13	-90.54	6,072.61	-862.87	1,064.53	940.90	123.64	8.610	
13,800.00	7,480.00	7,551.20	7,439.11	103.92	23.13	-90.55	6,072.61	-862.87	1,056.99	931.84	125.15	8.446	
13,830.07	7,480.00	7,551.25	7,439.15	104.38	23.13	-90.55	6,072.61	-862.87	1,056.56	931.13	125.43	8.423 CC, ES	
13,900.00	7,480.00	7,551.36	7,439.26	105.45	23.13	-90.56	6,072.61	-862.87	1,058.87	933.09	125.78	8.419 SF	
14,000.00	7,480.00	7,551.52	7,439.42	106.99	23.13	-90.57	6,072.61	-862.87	1,070.14	944.61	125.53	8.525	
14,100.00	7,480.00	7,551.68	7,439.58	108.52	23.13	-90.57	6,072.61	-862.87	1,090.49	966.02	124.47	8.761	
14,200.00	7,480.00	7,551.84	7,439.74	110.06	23.13	-90.58	6,072.61	-862.86	1,119.45	996.70	122.74	9.120	
14,300.00	7,480.00	7,551.99	7,439.89	111.60	23.13	-90.59	6,072.61	-862.86	1,156.35	1,035.86	120.49	9.597	
14,400.00	7,480.00	7,552.15	7,440.05	113.14	23.13	-90.60	6,072.61	-862.86	1,200.47	1,082.60	117.87	10.184	
14,500.00	7,480.00	7,552.30	7,440.20	114.68	23.13	-90.61	6,072.61	-862.86	1,251.05	1,136.01	115.04	10.875	
14,600.00	7,480.00	7,552.46	7,440.36	116.22	23.13	-90.62	6,072.61	-862.86	1,307.33	1,195.22	112.11	11.662	
14,691.86	7,480.00	7,552.60	7,440.50	117.64	23.13	-90.62	6,072.61	-862.86	1,363.45	1,254.05	109.40	12.463	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Bros 3-23 - CPR WELL - SURVEYS													Offset Site Error: 0.00 usft
Survey Program: 100-Gyro													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
13,000.00	7,480.00	7,448.52	7,446.18	91.72	6.51	-90.76	5,770.90	-1,182.56	1,476.40	1,383.33	93.08	15.862	
13,100.00	7,480.00	7,447.09	7,444.74	93.23	6.51	-90.70	5,770.92	-1,182.57	1,443.52	1,347.30	96.22	15.002	
13,200.00	7,480.00	7,445.66	7,443.32	94.75	6.51	-90.64	5,770.94	-1,182.58	1,416.94	1,317.80	99.14	14.292	
13,300.00	7,480.00	7,444.24	7,441.90	96.28	6.51	-90.58	5,770.96	-1,182.59	1,397.03	1,295.26	101.77	13.728	
13,400.00	7,480.00	7,442.83	7,440.48	97.80	6.50	-90.52	5,770.99	-1,182.60	1,384.07	1,280.05	104.02	13.306	
13,500.00	7,480.00	7,441.42	7,439.07	99.33	6.50	-90.46	5,771.01	-1,182.61	1,378.26	1,272.43	105.83	13.023	
13,530.22	7,480.00	7,440.99	7,438.65	99.79	6.50	-90.44	5,771.02	-1,182.62	1,377.93	1,271.64	106.29	12.964	CC, ES
13,600.00	7,480.00	7,440.01	7,437.67	100.86	6.50	-90.40	5,771.03	-1,182.62	1,379.70	1,272.52	107.18	12.873	
13,700.00	7,480.00	7,438.61	7,436.27	102.39	6.50	-90.34	5,771.05	-1,182.64	1,388.35	1,280.32	108.03	12.852	SF
13,800.00	7,480.00	7,437.21	7,434.87	103.92	6.50	-90.29	5,771.08	-1,182.65	1,404.09	1,295.70	108.39	12.954	
13,900.00	7,480.00	7,435.82	7,433.48	105.45	6.50	-90.23	5,771.10	-1,182.66	1,426.67	1,318.39	108.29	13.175	
14,000.00	7,480.00	7,434.44	7,432.10	106.99	6.50	-90.17	5,771.12	-1,182.67	1,455.79	1,348.03	107.77	13.509	
14,100.00	7,480.00	7,433.06	7,430.72	108.52	6.50	-90.11	5,771.14	-1,182.68	1,491.06	1,384.18	106.88	13.950	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Bros 42-26 - CPR WELL - SURVEYS												Offset Site Error:	0.00 usft
Survey Program: 951-ISCWSA MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
9,000.00	7,480.00	7,500.42	7,435.30	36.24	19.80	-88.82	2,675.54	-65.11	1,455.38	1,411.11	44.27	32.873	
9,100.00	7,480.00	7,500.86	7,435.74	37.32	19.81	-88.91	2,675.54	-65.11	1,357.34	1,312.97	44.38	30.588	
9,200.00	7,480.00	7,501.29	7,436.17	38.43	19.81	-89.00	2,675.54	-65.11	1,259.62	1,215.11	44.51	28.299	
9,300.00	7,480.00	7,501.73	7,436.60	39.57	19.81	-89.09	2,675.54	-65.11	1,162.28	1,117.59	44.69	26.006	
9,400.00	7,480.00	7,502.16	7,437.04	40.75	19.81	-89.18	2,675.55	-65.11	1,065.43	1,020.50	44.94	23.709	
9,500.00	7,480.00	7,502.59	7,437.47	41.95	19.81	-89.27	2,675.55	-65.11	969.23	923.95	45.27	21.408	
9,600.00	7,480.00	7,503.02	7,437.90	43.18	19.81	-89.36	2,675.55	-65.11	873.87	828.13	45.74	19.104	
9,700.00	7,480.00	7,503.45	7,438.33	44.43	19.81	-89.45	2,675.55	-65.11	779.69	733.28	46.41	16.800	
9,800.00	7,480.00	7,503.88	7,438.76	45.70	19.81	-89.54	2,675.55	-65.11	687.14	639.77	47.37	14.505	
9,900.00	7,480.00	7,504.31	7,439.19	46.99	19.81	-89.63	2,675.56	-65.11	597.01	548.21	48.80	12.235	
10,000.00	7,480.00	7,504.74	7,439.62	48.30	19.81	-89.71	2,675.56	-65.11	510.56	459.62	50.93	10.024	
10,100.00	7,480.00	7,505.17	7,440.05	49.62	19.81	-89.80	2,675.56	-65.11	430.02	375.87	54.15	7.941	
10,200.00	7,480.00	7,505.60	7,440.48	50.96	19.81	-89.89	2,675.56	-65.11	359.41	300.55	58.85	6.107	
10,300.00	7,480.00	7,506.03	7,440.90	52.31	19.81	-89.98	2,675.56	-65.11	305.65	240.73	64.93	4.708	
10,400.00	7,480.00	7,506.45	7,441.33	53.68	19.81	-90.07	2,675.56	-65.11	278.70	208.20	70.50	3.953	
10,428.75	7,480.00	7,506.58	7,441.45	54.07	19.81	-90.09	2,675.57	-65.10	277.22	205.75	71.47	3.879	CC, ES, SF
10,500.00	7,480.00	7,506.88	7,441.76	55.05	19.81	-90.16	2,675.57	-65.10	286.23	214.27	71.96	3.978	
10,600.00	7,480.00	7,507.31	7,442.18	56.44	19.81	-90.24	2,675.57	-65.10	325.85	256.91	68.93	4.727	
10,700.00	7,480.00	7,507.73	7,442.61	57.84	19.82	-90.33	2,675.57	-65.10	387.85	323.42	64.43	6.020	
10,800.00	7,480.00	7,508.15	7,443.03	59.25	19.82	-90.42	2,675.57	-65.10	463.33	402.94	60.39	7.673	
10,900.00	7,480.00	7,508.58	7,443.45	60.67	19.82	-90.51	2,675.57	-65.10	546.74	489.48	57.26	9.548	
11,000.00	7,480.00	7,509.00	7,443.88	62.09	19.82	-90.59	2,675.58	-65.10	634.96	580.03	54.93	11.559	
11,100.00	7,480.00	7,509.42	7,444.30	63.52	19.82	-90.68	2,675.58	-65.10	726.24	673.04	53.20	13.651	
11,200.00	7,480.00	7,509.84	7,444.72	64.96	19.82	-90.77	2,675.58	-65.10	819.56	767.66	51.90	15.792	
11,300.00	7,480.00	7,510.27	7,445.14	66.41	19.82	-90.86	2,675.58	-65.10	914.29	863.38	50.90	17.962	
11,400.00	7,480.00	7,510.69	7,445.56	67.86	19.82	-90.94	2,675.58	-65.10	1,010.03	959.90	50.13	20.149	
11,500.00	7,480.00	7,511.11	7,445.98	69.32	19.82	-91.03	2,675.58	-65.10	1,106.53	1,057.01	49.52	22.346	
11,600.00	7,480.00	7,511.53	7,446.40	70.79	19.82	-91.12	2,675.59	-65.10	1,203.60	1,154.57	49.03	24.547	
11,700.00	7,480.00	7,511.94	7,446.82	72.26	19.82	-91.20	2,675.59	-65.10	1,301.12	1,252.48	48.64	26.750	
11,800.00	7,480.00	7,512.36	7,447.24	73.73	19.82	-91.29	2,675.59	-65.10	1,398.98	1,350.66	48.32	28.953	
11,900.00	7,480.00	7,512.78	7,447.66	75.21	19.82	-91.38	2,675.59	-65.09	1,497.13	1,449.07	48.06	31.153	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Brothers 2-26 - CPR - NO SURVEYS													Offset Site Error: 0.00 usft	
Survey Program: 8110-Geolink MWD													Offset Well Error: 0.00 usft	
Reference				Offset		Semi Major Axis			Distance					Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
9,700.00	7,480.00	7,437.99	7,437.99	44.43	12.98	-90.00	3,149.17	-622.39	1,464.58	1,418.13	46.45	31.530		
9,800.00	7,480.00	7,437.99	7,437.99	45.70	12.98	-90.00	3,149.17	-622.39	1,383.45	1,335.60	47.85	28.912		
9,900.00	7,480.00	7,437.99	7,437.99	46.99	12.98	-90.00	3,149.17	-622.39	1,304.94	1,255.47	49.47	26.378		
10,000.00	7,480.00	7,437.99	7,437.99	48.30	12.98	-90.00	3,149.17	-622.39	1,229.55	1,178.22	51.33	23.955		
10,100.00	7,480.00	7,437.99	7,437.99	49.62	12.98	-90.00	3,149.17	-622.39	1,157.89	1,104.45	53.44	21.666		
10,200.00	7,480.00	7,437.99	7,437.99	50.96	12.98	-90.00	3,149.17	-622.39	1,090.70	1,034.89	55.81	19.542		
10,300.00	7,480.00	7,437.99	7,437.99	52.31	12.98	-90.00	3,149.17	-622.39	1,028.86	970.44	58.42	17.610		
10,400.00	7,480.00	7,437.99	7,437.99	53.68	12.98	-90.00	3,149.17	-622.39	973.39	912.16	61.23	15.897		
10,500.00	7,480.00	7,437.99	7,437.99	55.05	12.98	-90.00	3,149.17	-622.39	925.43	861.29	64.14	14.428		
10,600.00	7,480.00	7,437.99	7,437.99	56.44	12.98	-90.00	3,149.17	-622.39	886.19	819.17	67.02	13.223		
10,700.00	7,480.00	7,437.99	7,437.99	57.84	12.98	-90.00	3,149.17	-622.39	856.89	787.20	69.69	12.296		
10,800.00	7,480.00	7,437.99	7,437.99	59.25	12.98	-90.00	3,149.17	-622.39	838.56	766.61	71.96	11.653		
10,900.00	7,480.00	7,437.99	7,437.99	60.67	12.98	-90.00	3,149.17	-622.39	831.93	758.29	73.64	11.297		
10,905.37	7,480.00	7,437.99	7,437.99	60.74	12.98	-90.00	3,149.17	-622.39	831.92	758.20	73.71	11.286 CC, ES		
11,000.00	7,480.00	7,437.99	7,437.99	62.09	12.98	-90.00	3,149.17	-622.39	837.28	762.65	74.63	11.219 SF		
11,100.00	7,480.00	7,437.99	7,437.99	63.52	12.98	-90.00	3,149.17	-622.39	854.38	779.48	74.90	11.407		
11,200.00	7,480.00	7,437.99	7,437.99	64.96	12.98	-90.00	3,149.17	-622.39	882.55	808.03	74.52	11.843		
11,300.00	7,480.00	7,437.99	7,437.99	66.41	12.98	-90.00	3,149.17	-622.39	920.77	847.15	73.62	12.507		
11,400.00	7,480.00	7,437.99	7,437.99	67.86	12.98	-90.00	3,149.17	-622.39	967.86	895.50	72.35	13.377		
11,500.00	7,480.00	7,437.99	7,437.99	69.32	12.98	-90.00	3,149.17	-622.39	1,022.58	951.71	70.87	14.429		
11,600.00	7,480.00	7,437.99	7,437.99	70.79	12.98	-90.00	3,149.17	-622.39	1,083.79	1,014.50	69.28	15.643		
11,700.00	7,480.00	7,437.99	7,437.99	72.26	12.98	-90.00	3,149.17	-622.39	1,150.44	1,082.76	67.68	16.998		
11,800.00	7,480.00	7,437.99	7,437.99	73.73	12.98	-90.00	3,149.17	-622.39	1,221.66	1,155.54	66.12	18.476		
11,900.00	7,480.00	7,437.99	7,437.99	75.21	12.98	-90.00	3,149.17	-622.39	1,296.68	1,232.04	64.64	20.061		
12,000.00	7,480.00	7,437.99	7,437.99	76.69	12.98	-90.00	3,149.17	-622.39	1,374.88	1,311.63	63.25	21.737		
12,100.00	7,480.00	7,437.99	7,437.99	78.18	12.98	-90.00	3,149.17	-622.39	1,455.76	1,393.79	61.96	23.493		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Brothers 44-23C - EXTRACTION - GYRO												Offset Site Error:	0.00 usft
Survey Program: 100-VESSI_GYROFLEX, 7741-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Total Uncertainty Axis	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
11,600.00	7,480.00	7,455.59	7,455.00	70.79	12.36	-90.78	5,300.00	-170.67	1,499.71	1,455.84	43.87	34.186	
11,700.00	7,480.00	7,455.24	7,454.65	72.26	12.36	-90.72	5,300.00	-170.67	1,402.99	1,358.23	44.76	31.347	
11,800.00	7,480.00	7,454.89	7,454.30	73.73	12.36	-90.67	5,300.00	-170.67	1,306.77	1,260.94	45.82	28.518	
11,900.00	7,480.00	7,454.54	7,453.95	75.21	12.36	-90.61	5,300.00	-170.67	1,211.15	1,164.04	47.11	25.707	
12,000.00	7,480.00	7,454.20	7,453.60	76.69	12.35	-90.56	5,300.01	-170.67	1,116.31	1,067.62	48.69	22.926	
12,100.00	7,480.00	7,453.85	7,453.25	78.18	12.35	-90.51	5,300.01	-170.67	1,022.45	971.81	50.64	20.192	
12,200.00	7,480.00	7,453.50	7,452.90	79.67	12.35	-90.45	5,300.01	-170.67	929.87	876.81	53.06	17.525	
12,300.00	7,480.00	7,453.15	7,452.56	81.17	12.35	-90.40	5,300.01	-170.67	839.00	782.90	56.10	14.956	
12,400.00	7,480.00	7,452.80	7,452.21	82.66	12.35	-90.34	5,300.01	-170.67	750.45	690.50	59.94	12.520	
12,500.00	7,480.00	7,452.45	7,451.86	84.17	12.35	-90.29	5,300.01	-170.67	665.15	600.33	64.82	10.261	
12,600.00	7,480.00	7,452.10	7,451.51	85.67	12.35	-90.23	5,300.01	-170.67	584.53	513.54	70.99	8.234	
12,700.00	7,480.00	7,451.76	7,451.16	87.18	12.35	-90.18	5,300.01	-170.67	510.81	432.19	78.62	6.497	
12,800.00	7,480.00	7,451.41	7,450.81	88.69	12.35	-90.13	5,300.02	-170.67	447.42	359.88	87.55	5.111	
12,900.00	7,480.00	7,451.06	7,450.47	90.20	12.35	-90.07	5,300.02	-170.67	399.30	302.67	96.63	4.132	
13,000.00	7,480.00	7,450.71	7,450.12	91.72	12.35	-90.02	5,300.02	-170.67	372.41	269.09	103.33	3.604	
13,053.73	7,480.00	7,450.52	7,449.93	92.53	12.35	-89.99	5,300.02	-170.67	368.52	263.65	104.86	3.514	CC, ES, SF
13,100.00	7,480.00	7,450.36	7,449.77	93.23	12.35	-89.96	5,300.02	-170.67	371.41	266.64	104.77	3.545	
13,200.00	7,480.00	7,450.01	7,449.42	94.75	12.35	-89.91	5,300.02	-170.67	396.48	295.92	100.56	3.943	
13,300.00	7,480.00	7,449.66	7,449.07	96.28	12.35	-89.86	5,300.02	-170.67	443.23	350.05	93.18	4.757	
13,400.00	7,480.00	7,449.32	7,448.72	97.80	12.35	-89.80	5,300.02	-170.67	505.67	420.42	85.26	5.931	
13,500.00	7,480.00	7,448.97	7,448.37	99.33	12.35	-89.75	5,300.02	-170.67	578.75	500.60	78.15	7.405	
13,600.00	7,480.00	7,448.62	7,448.03	100.86	12.35	-89.69	5,300.03	-170.67	658.94	586.70	72.24	9.121	
13,700.00	7,480.00	7,448.27	7,447.68	102.39	12.35	-89.64	5,300.03	-170.67	743.95	676.49	67.46	11.029	
13,800.00	7,480.00	7,447.92	7,447.33	103.92	12.35	-89.58	5,300.03	-170.67	832.29	768.68	63.61	13.084	
13,900.00	7,480.00	7,447.57	7,446.98	105.45	12.35	-89.53	5,300.03	-170.67	923.02	862.50	60.51	15.253	
14,000.00	7,480.00	7,447.22	7,446.63	106.99	12.35	-89.48	5,300.03	-170.67	1,015.49	957.48	58.00	17.507	
14,100.00	7,480.00	7,446.88	7,446.28	108.52	12.35	-89.42	5,300.03	-170.67	1,109.26	1,053.31	55.95	19.826	
14,200.00	7,480.00	7,446.53	7,445.93	110.06	12.35	-89.37	5,300.03	-170.67	1,204.04	1,149.78	54.26	22.191	
14,300.00	7,480.00	7,446.18	7,445.59	111.60	12.35	-89.31	5,300.03	-170.67	1,299.60	1,246.75	52.85	24.589	
14,400.00	7,480.00	7,445.83	7,445.24	113.14	12.35	-89.26	5,300.04	-170.67	1,395.78	1,344.11	51.67	27.011	
14,500.00	7,480.00	7,445.48	7,444.89	114.68	12.35	-89.21	5,300.04	-170.67	1,492.47	1,441.79	50.68	29.448	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Meredith 1 - KPK WELL - NO SURVEYS												Offset Site Error:	0.00 usft
Survey Program: 5120-Geolink MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-27.49	93.01	-48.40	108.53				
100.00	100.00	71.99	71.99	0.14	0.13	-27.49	93.01	-48.40	104.85	104.59	0.26	397.384	
200.00	200.00	171.99	171.99	0.50	0.30	-27.49	93.01	-48.40	104.85	104.06	0.80	131.582	
300.00	300.00	271.99	271.99	0.85	0.47	-27.49	93.01	-48.40	104.85	103.52	1.33	78.845	
350.00	350.00	321.99	321.99	1.03	0.56	-27.49	93.01	-48.40	104.85	103.26	1.60	65.682 CC, ES	
400.00	400.00	371.99	371.99	1.21	0.65	175.56	93.01	-48.40	105.29	103.43	1.85	56.762	
500.00	499.93	471.92	471.92	1.54	0.82	175.70	93.01	-48.40	108.77	106.40	2.37	45.958	
600.00	599.68	571.67	571.67	1.89	1.00	175.95	93.01	-48.40	115.72	112.83	2.89	40.040	
700.00	699.13	671.12	671.12	2.25	1.17	176.27	93.01	-48.40	126.15	122.73	3.42	36.891	
742.41	741.18	713.17	713.17	2.41	1.24	176.42	93.01	-48.40	131.62	127.97	3.65	36.078	
800.00	798.23	770.22	770.22	2.63	1.34	176.62	93.01	-48.40	139.47	135.52	3.95	35.292	
900.00	897.30	869.29	869.29	3.02	1.52	176.92	93.01	-48.40	153.10	148.63	4.48	34.183	
1,000.00	996.36	968.35	968.35	3.42	1.69	177.17	93.01	-48.40	166.74	161.73	5.01	33.288	
1,100.00	1,095.42	1,067.41	1,067.41	3.82	1.86	177.39	93.01	-48.40	180.38	174.84	5.54	32.552	
1,200.00	1,194.49	1,166.48	1,166.48	4.22	2.04	177.57	93.01	-48.40	194.02	187.95	6.08	31.937	
1,300.00	1,293.55	1,265.54	1,265.54	4.62	2.21	177.73	93.01	-48.40	207.67	201.06	6.61	31.416	
1,400.00	1,392.61	1,364.60	1,364.60	5.03	2.38	177.87	93.01	-48.40	221.31	214.17	7.15	30.969	
1,500.00	1,491.68	1,463.67	1,463.67	5.44	2.55	177.99	93.01	-48.40	234.96	227.27	7.68	30.581	
1,600.00	1,590.74	1,562.73	1,562.73	5.84	2.73	178.10	93.01	-48.40	248.60	240.38	8.22	30.243	
1,700.00	1,689.80	1,661.79	1,661.79	6.25	2.90	178.20	93.01	-48.40	262.25	253.49	8.76	29.944	
1,800.00	1,788.87	1,760.86	1,760.86	6.66	3.07	178.29	93.01	-48.40	275.90	266.61	9.30	29.679	
1,900.00	1,887.93	1,859.92	1,859.92	7.07	3.25	178.37	93.01	-48.40	289.55	279.72	9.83	29.441	
2,000.00	1,986.99	1,958.98	1,958.98	7.49	3.42	178.45	93.01	-48.40	303.20	292.83	10.37	29.228	
2,100.00	2,086.06	2,058.05	2,058.05	7.90	3.59	178.51	93.01	-48.40	316.85	305.94	10.91	29.035	
2,200.00	2,185.12	2,157.11	2,157.11	8.31	3.76	178.57	93.01	-48.40	330.50	319.05	11.45	28.860	
2,300.00	2,284.18	2,256.17	2,256.17	8.72	3.94	178.63	93.01	-48.40	344.15	332.16	11.99	28.700	
2,400.00	2,383.25	2,355.24	2,355.24	9.13	4.11	178.68	93.01	-48.40	357.80	345.27	12.53	28.554	
2,500.00	2,482.31	2,454.30	2,454.30	9.55	4.28	178.73	93.01	-48.40	371.45	358.38	13.07	28.420	
2,600.00	2,581.37	2,553.36	2,553.36	9.96	4.46	178.78	93.01	-48.40	385.11	371.50	13.61	28.296	
2,700.00	2,680.44	2,652.43	2,652.43	10.37	4.63	178.82	93.01	-48.40	398.76	384.61	14.15	28.181	
2,800.00	2,779.50	2,751.49	2,751.49	10.79	4.80	178.86	93.01	-48.40	412.41	397.72	14.69	28.074	
2,900.00	2,878.56	2,850.55	2,850.55	11.20	4.98	178.89	93.01	-48.40	426.06	410.83	15.23	27.975	
3,000.00	2,977.63	2,949.62	2,949.62	11.61	5.15	178.93	93.01	-48.40	439.72	423.94	15.77	27.883	
3,100.00	3,076.69	3,048.68	3,048.68	12.03	5.32	178.96	93.01	-48.40	453.37	437.06	16.31	27.797	
3,200.00	3,175.75	3,147.74	3,147.74	12.44	5.49	178.99	93.01	-48.40	467.02	450.17	16.85	27.716	
3,300.00	3,274.82	3,246.81	3,246.81	12.85	5.67	179.02	93.01	-48.40	480.67	463.28	17.39	27.640	
3,400.00	3,373.88	3,345.87	3,345.87	13.27	5.84	179.05	93.01	-48.40	494.33	476.40	17.93	27.568	
3,500.00	3,472.94	3,444.93	3,444.93	13.68	6.01	179.07	93.01	-48.40	507.98	489.51	18.47	27.501	
3,600.00	3,572.01	3,544.00	3,544.00	14.09	6.19	179.10	93.01	-48.40	521.63	502.62	19.01	27.437	
3,700.00	3,671.07	3,643.06	3,643.06	14.51	6.36	179.12	93.01	-48.40	535.29	515.73	19.55	27.377	
3,800.00	3,770.13	3,742.12	3,742.12	14.92	6.53	179.14	93.01	-48.40	548.94	528.85	20.09	27.320	
3,900.00	3,869.20	3,841.19	3,841.19	15.34	6.70	179.16	93.01	-48.40	562.59	541.96	20.63	27.266	
4,000.00	3,968.26	3,940.25	3,940.25	15.75	6.88	179.18	93.01	-48.40	576.25	555.07	21.17	27.215	
4,100.00	4,067.32	4,039.31	4,039.31	16.16	7.05	179.20	93.01	-48.40	589.90	568.19	21.71	27.166	
4,200.00	4,166.39	4,138.38	4,138.38	16.58	7.22	179.22	93.01	-48.40	603.55	581.30	22.25	27.120	
4,300.00	4,265.45	4,237.44	4,237.44	16.99	7.40	179.24	93.01	-48.40	617.21	594.41	22.80	27.076	
4,400.00	4,364.51	4,336.50	4,336.50	17.41	7.57	179.25	93.01	-48.40	630.86	607.52	23.34	27.034	
4,500.00	4,463.58	4,435.57	4,435.57	17.82	7.74	179.27	93.01	-48.40	644.51	620.64	23.88	26.993	
4,600.00	4,562.64	4,534.63	4,534.63	18.24	7.91	179.28	93.01	-48.40	658.17	633.75	24.42	26.955	
4,646.61	4,608.82	4,580.81	4,580.81	18.43	8.00	179.29	93.01	-48.40	664.53	639.86	24.67	26.937	
4,700.00	4,661.77	4,633.76	4,633.76	18.65	8.09	179.30	93.01	-48.40	671.33	646.37	24.96	26.899	
4,800.00	4,761.26	4,733.25	4,733.25	19.04	8.26	179.31	93.01	-48.40	681.40	655.91	25.49	26.728	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Meredith 1 - KPK WELL - NO SURVEYS													Offset Site Error:	0.00 usft
Survey Program: 5120-Geolink MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
4,900.00	4,861.03	4,833.02	4,833.02	19.40	8.44	179.32	93.01	-48.40	687.99	661.97	26.02	26.436		
5,000.00	4,960.98	4,932.97	4,932.97	19.74	8.61	179.32	93.01	-48.40	691.10	664.55	26.55	26.029		
5,039.02	5,000.00	4,971.99	4,971.99	19.86	8.68	-23.71	93.01	-48.40	691.36	664.62	26.75	25.847		
5,100.00	5,060.98	5,032.97	5,032.97	20.04	8.78	-23.71	93.01	-48.40	691.36	664.32	27.05	25.561		
5,111.69	5,072.67	5,044.66	5,044.66	20.07	8.80	-23.71	93.01	-48.40	691.36	664.26	27.11	25.506		
5,200.00	5,160.98	5,119.99	5,119.99	20.33	8.94	-23.71	93.01	-48.40	691.49	664.01	27.47	25.170 SF		
5,300.00	5,260.98	5,119.99	5,119.99	20.62	8.94	-23.71	93.01	-48.40	700.53	673.37	27.17	25.786		
5,400.00	5,360.98	5,119.99	5,119.99	20.91	8.94	-23.71	93.01	-48.40	723.43	697.00	26.42	27.380		
5,500.00	5,460.98	5,119.99	5,119.99	21.21	8.94	-23.71	93.01	-48.40	758.91	733.55	25.36	29.928		
5,600.00	5,560.98	5,119.99	5,119.99	21.51	8.94	-23.71	93.01	-48.40	805.32	781.20	24.11	33.395		
5,700.00	5,660.98	5,119.99	5,119.99	21.81	8.94	-23.71	93.01	-48.40	860.89	838.08	22.81	37.734		
5,800.00	5,760.98	5,119.99	5,119.99	22.11	8.94	-23.71	93.01	-48.40	923.97	902.43	21.54	42.893		
5,900.00	5,860.98	5,119.99	5,119.99	22.41	8.94	-23.71	93.01	-48.40	993.14	972.79	20.35	48.810		
6,000.00	5,960.98	5,119.99	5,119.99	22.72	8.94	-23.71	93.01	-48.40	1,067.20	1,047.94	19.26	55.420		
6,100.00	6,060.98	5,119.99	5,119.99	23.02	8.94	-23.71	93.01	-48.40	1,145.21	1,126.94	18.28	62.656		
6,200.00	6,160.98	5,119.99	5,119.99	23.33	8.94	-23.71	93.01	-48.40	1,226.42	1,209.01	17.41	70.448		
6,300.00	6,260.98	5,119.99	5,119.99	23.64	8.94	-23.71	93.01	-48.40	1,310.23	1,293.59	16.64	78.724		
6,400.00	6,360.98	5,119.99	5,119.99	23.95	8.94	-23.71	93.01	-48.40	1,396.17	1,380.20	15.97	87.415		
6,500.00	6,460.98	5,119.99	5,119.99	24.26	8.94	-23.71	93.01	-48.40	1,483.88	1,468.49	15.39	96.449		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Sullivan 1 - CPR - NO SURVEYS												Offset Site Error:	0.00 usft
Survey Program: 8200-ISCWSA MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
7,900.00	7,479.46	7,463.46	7,463.46	27.85	8.37	-86.08	1,439.88	-515.01	1,488.92	1,454.50	34.42	43.261	
7,927.82	7,480.00	7,464.00	7,464.00	27.96	8.37	-90.00	1,439.88	-515.01	1,464.78	1,430.31	34.47	42.489	
8,000.00	7,480.00	7,464.00	7,464.00	28.27	8.37	-90.00	1,439.88	-515.01	1,402.78	1,368.14	34.64	40.492	
8,100.00	7,480.00	7,464.00	7,464.00	28.76	8.37	-90.00	1,439.88	-515.01	1,318.59	1,283.65	34.94	37.735	
8,200.00	7,480.00	7,464.00	7,464.00	29.34	8.37	-90.00	1,439.88	-515.01	1,236.76	1,201.43	35.34	34.999	
8,300.00	7,480.00	7,464.00	7,464.00	30.00	8.37	-90.00	1,439.88	-515.01	1,157.79	1,121.94	35.85	32.297	
8,400.00	7,480.00	7,464.00	7,464.00	30.72	8.37	-90.00	1,439.88	-515.01	1,082.30	1,045.80	36.50	29.649	
8,500.00	7,480.00	7,464.00	7,464.00	31.51	8.37	-90.00	1,439.88	-515.01	1,011.07	973.74	37.33	27.086	
8,600.00	7,480.00	7,464.00	7,464.00	32.35	8.37	-90.00	1,439.88	-515.01	945.07	906.72	38.35	24.645	
8,700.00	7,480.00	7,464.00	7,464.00	33.25	8.37	-90.00	1,439.88	-515.01	885.47	845.90	39.57	22.378	
8,800.00	7,480.00	7,464.00	7,464.00	34.20	8.37	-90.00	1,439.88	-515.01	833.64	792.66	40.98	20.343	
8,900.00	7,480.00	7,464.00	7,464.00	35.20	8.37	-90.00	1,439.88	-515.01	791.10	748.58	42.52	18.603	
9,000.00	7,480.00	7,464.00	7,464.00	36.24	8.37	-90.00	1,439.88	-515.01	759.43	715.33	44.10	17.219	
9,100.00	7,480.00	7,464.00	7,464.00	37.32	8.37	-90.00	1,439.88	-515.01	740.02	694.45	45.58	16.237	
9,195.53	7,480.00	7,464.00	7,464.00	38.38	8.37	-90.00	1,439.88	-515.01	733.83	687.08	46.75	15.697 CC	
9,200.00	7,480.00	7,464.00	7,464.00	38.43	8.37	-90.00	1,439.88	-515.01	733.84	687.05	46.80	15.682 ES	
9,300.00	7,480.00	7,464.00	7,464.00	39.57	8.37	-90.00	1,439.88	-515.01	741.23	693.58	47.65	15.556 SF	
9,400.00	7,480.00	7,464.00	7,464.00	40.75	8.37	-90.00	1,439.88	-515.01	761.78	713.69	48.09	15.840	
9,500.00	7,480.00	7,464.00	7,464.00	41.95	8.37	-90.00	1,439.88	-515.01	794.49	746.33	48.16	16.498	
9,600.00	7,480.00	7,464.00	7,464.00	43.18	8.37	-90.00	1,439.88	-515.01	837.92	790.00	47.92	17.485	
9,700.00	7,480.00	7,464.00	7,464.00	44.43	8.37	-90.00	1,439.88	-515.01	890.51	843.02	47.48	18.755	
9,800.00	7,480.00	7,464.00	7,464.00	45.70	8.37	-90.00	1,439.88	-515.01	950.73	903.81	46.93	20.260	
9,900.00	7,480.00	7,464.00	7,464.00	46.99	8.37	-90.00	1,439.88	-515.01	1,017.25	970.93	46.32	21.962	
10,000.00	7,480.00	7,464.00	7,464.00	48.30	8.37	-90.00	1,439.88	-515.01	1,088.89	1,043.19	45.70	23.825	
10,100.00	7,480.00	7,464.00	7,464.00	49.62	8.37	-90.00	1,439.88	-515.01	1,164.72	1,119.61	45.11	25.821	
10,200.00	7,480.00	7,464.00	7,464.00	50.96	8.37	-90.00	1,439.88	-515.01	1,243.97	1,199.42	44.55	27.923	
10,300.00	7,480.00	7,464.00	7,464.00	52.31	8.37	-90.00	1,439.88	-515.01	1,326.03	1,282.00	44.03	30.114	
10,400.00	7,480.00	7,464.00	7,464.00	53.68	8.37	-90.00	1,439.88	-515.01	1,410.41	1,366.85	43.56	32.377	
10,500.00	7,480.00	7,464.00	7,464.00	55.05	8.37	-90.00	1,439.88	-515.01	1,496.71	1,453.58	43.14	34.698	



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Sullivan 44-26 - CPR WELL - GYRO												Offset Site Error:	0.00 usft
Survey Program: 100-Geolink MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-111.82	-14.74	-36.84	47.44				
100.00	100.00	74.01	74.01	0.14	0.13	-112.19	-14.98	-36.72	39.66	39.39	0.27	148.085	
137.39	137.39	111.38	111.38	0.27	0.20	-112.65	-15.27	-36.59	39.65	39.18	0.47	84.842 CC	
200.00	200.00	173.88	173.88	0.50	0.30	-113.45	-15.81	-36.45	39.73	38.93	0.80	49.578	
300.00	300.00	273.92	273.91	0.85	0.48	-114.50	-16.61	-36.43	40.04	38.71	1.33	30.003	
350.00	350.00	323.95	323.94	1.03	0.57	-114.85	-16.86	-36.40	40.11	38.51	1.60	25.056	
400.00	400.00	373.95	373.94	1.21	0.65	88.61	-17.01	-36.40	40.16	38.30	1.86	21.605	
500.00	499.93	473.91	473.91	1.54	0.83	93.25	-17.26	-36.40	40.31	37.94	2.37	17.018 ES	
600.00	599.68	573.75	573.74	1.89	1.00	102.01	-17.88	-36.17	41.19	38.30	2.89	14.241	
700.00	699.13	673.29	673.28	2.25	1.18	114.33	-18.55	-35.85	44.22	40.79	3.43	12.898	
742.41	741.18	715.36	715.35	2.41	1.25	120.06	-18.83	-35.71	46.58	42.92	3.66	12.728	
800.00	798.23	772.42	772.40	2.63	1.35	127.03	-19.45	-35.63	50.76	46.79	3.97	12.776	
900.00	897.30	871.19	871.17	3.02	1.52	136.15	-20.77	-35.91	59.74	55.23	4.51	13.236	
1,000.00	996.36	969.94	969.91	3.42	1.70	143.24	-21.19	-36.65	70.69	65.64	5.05	14.000	
1,100.00	1,095.42	1,068.93	1,068.89	3.82	1.87	148.66	-21.14	-37.41	82.72	77.13	5.58	14.813	
1,200.00	1,194.49	1,168.11	1,168.07	4.22	2.04	152.70	-21.13	-38.08	95.20	89.08	6.12	15.557	
1,300.00	1,293.55	1,267.22	1,267.18	4.62	2.22	155.78	-21.25	-38.66	107.88	101.22	6.65	16.210	
1,400.00	1,392.61	1,366.13	1,366.09	5.03	2.39	158.14	-21.45	-39.35	120.82	113.63	7.19	16.804	
1,500.00	1,491.68	1,465.10	1,465.06	5.44	2.56	160.05	-21.53	-40.10	134.05	126.33	7.73	17.350	
1,600.00	1,590.74	1,564.27	1,564.22	5.84	2.73	161.58	-21.72	-40.92	147.37	139.11	8.26	17.833	
1,700.00	1,689.80	1,663.21	1,663.16	6.25	2.91	162.83	-21.98	-41.74	160.72	151.92	8.80	18.260	
1,800.00	1,788.87	1,761.96	1,761.90	6.66	3.08	163.83	-22.24	-42.79	174.28	164.94	9.34	18.662	
1,900.00	1,887.93	1,860.20	1,860.13	7.07	3.25	164.64	-22.40	-44.09	188.13	178.26	9.87	19.053	
2,000.00	1,986.99	1,958.21	1,958.12	7.49	3.42	165.31	-22.21	-45.77	202.52	192.11	10.41	19.457	
2,100.00	2,086.06	2,056.26	2,056.16	7.90	3.60	165.88	-21.72	-47.72	217.34	206.40	10.94	19.862	
2,200.00	2,185.12	2,154.61	2,154.48	8.31	3.77	166.49	-20.71	-49.53	232.52	221.04	11.48	20.257	
2,300.00	2,284.18	2,253.52	2,253.37	8.72	3.94	167.10	-19.45	-51.16	247.79	235.77	12.02	20.621	
2,400.00	2,383.25	2,352.86	2,352.70	9.13	4.12	167.68	-18.19	-52.54	262.95	250.39	12.56	20.940	
2,500.00	2,482.31	2,452.29	2,452.11	9.55	4.29	168.09	-17.41	-54.21	277.90	264.80	13.10	21.213	
2,600.00	2,581.37	2,551.37	2,551.17	9.96	4.47	168.38	-16.98	-56.12	292.71	279.06	13.64	21.456	
2,700.00	2,680.44	2,650.09	2,649.87	10.37	4.64	168.63	-16.60	-58.09	307.53	293.34	14.18	21.683	
2,800.00	2,779.50	2,748.77	2,748.53	10.79	4.82	168.85	-16.16	-60.11	322.43	307.70	14.72	21.900	
2,900.00	2,878.56	2,847.89	2,847.62	11.20	4.99	169.04	-15.77	-62.24	337.35	322.08	15.27	22.098	
3,000.00	2,977.63	2,946.84	2,946.55	11.61	5.17	169.17	-15.59	-64.48	352.15	336.35	15.81	22.276	
3,100.00	3,076.69	3,044.92	3,044.61	12.03	5.34	169.31	-15.23	-66.64	367.09	350.74	16.35	22.458	
3,200.00	3,175.75	3,143.00	3,142.65	12.44	5.52	169.48	-14.56	-68.79	382.28	365.39	16.88	22.643	
3,300.00	3,274.82	3,241.43	3,241.06	12.85	5.69	169.63	-13.79	-71.02	397.59	380.17	17.42	22.822	
3,400.00	3,373.88	3,339.36	3,338.97	13.27	5.86	169.85	-12.59	-72.81	413.03	395.07	17.96	23.003	
3,500.00	3,472.94	3,437.24	3,436.82	13.68	6.04	170.16	-10.71	-74.05	428.77	410.28	18.49	23.192	
3,600.00	3,572.01	3,536.27	3,535.82	14.09	6.21	170.49	-8.68	-75.15	444.53	425.50	19.03	23.364	
3,700.00	3,671.07	3,635.18	3,634.71	14.51	6.39	170.74	-6.91	-76.53	460.24	440.67	19.57	23.523	
3,800.00	3,770.13	3,733.87	3,733.38	14.92	6.56	170.96	-5.21	-78.01	475.96	455.85	20.10	23.674	
3,900.00	3,869.20	3,833.26	3,832.74	15.34	6.74	171.17	-3.53	-79.52	491.66	471.02	20.65	23.813	
4,000.00	3,968.26	3,933.55	3,933.00	15.75	6.91	171.39	-1.97	-80.69	507.08	485.89	21.19	23.926	
4,100.00	4,067.32	4,032.18	4,031.62	16.16	7.09	171.52	-0.87	-82.30	522.37	500.64	21.73	24.036	
4,200.00	4,166.39	4,129.89	4,129.31	16.58	7.26	171.68	0.53	-83.72	537.84	515.57	22.27	24.155	
4,300.00	4,265.45	4,228.07	4,227.46	16.99	7.44	171.84	2.07	-85.15	553.43	530.63	22.80	24.271	
4,400.00	4,364.51	4,326.30	4,325.67	17.41	7.61	172.00	3.76	-86.62	569.18	545.84	23.34	24.389	
4,500.00	4,463.58	4,424.72	4,424.06	17.82	7.78	172.18	5.58	-87.78	584.87	561.00	23.87	24.498	
4,600.00	4,562.64	4,519.78	4,519.10	18.24	7.95	172.35	7.77	-89.08	601.05	576.66	24.39	24.643	
4,646.61	4,608.82	4,565.71	4,565.00	18.43	8.04	172.43	8.92	-89.77	608.71	584.07	24.64	24.703	
4,700.00	4,661.77	4,618.13	4,617.40	18.65	8.13	172.53	10.25	-90.54	617.00	592.07	24.93	24.754	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Sullivan 44-26 - CPR WELL - GYRO												Offset Site Error:	0.00 usft
Survey Program: 100-Geolink MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
4,800.00	4,761.26	4,715.69	4,714.91	19.04	8.30	172.69	12.91	-91.98	630.06	604.61	25.45	24.758	
4,900.00	4,861.03	4,812.71	4,811.87	19.40	8.48	172.81	15.85	-93.47	639.99	614.03	25.96	24.652	
5,000.00	4,960.98	4,907.94	4,907.03	19.74	8.65	172.90	19.39	-94.95	647.05	620.60	26.46	24.458	
5,039.02	5,000.00	4,946.34	4,945.39	19.86	8.72	-30.10	20.96	-95.57	649.02	622.37	26.65	24.355	
5,100.00	5,060.98	5,006.68	5,005.67	20.04	8.83	-30.07	23.46	-96.64	651.75	624.80	26.94	24.191	
5,200.00	5,160.98	5,109.73	5,108.63	20.33	9.02	-30.00	27.62	-98.19	655.99	628.54	27.45	23.897	
5,300.00	5,260.98	5,211.77	5,210.58	20.62	9.20	-29.94	31.41	-99.56	659.88	631.92	27.96	23.604	
5,400.00	5,360.98	5,316.63	5,315.39	20.91	9.39	-29.94	34.38	-101.25	663.14	634.66	28.48	23.284	
5,500.00	5,460.98	5,416.36	5,415.07	21.21	9.57	-29.94	36.97	-102.68	666.10	637.13	28.97	22.990	
5,600.00	5,560.98	5,516.40	5,515.06	21.51	9.75	-29.87	39.97	-103.53	669.12	639.66	29.47	22.706	
5,700.00	5,660.98	5,619.13	5,617.76	21.81	9.93	-29.81	42.75	-104.33	671.86	641.88	29.98	22.409	
5,800.00	5,760.98	5,718.59	5,717.18	22.11	10.11	-29.82	44.91	-105.66	674.41	643.93	30.48	22.127	
5,900.00	5,860.98	5,815.66	5,814.21	22.41	10.29	-29.83	47.32	-107.15	677.33	646.37	30.96	21.877	
6,000.00	5,960.98	5,920.09	5,918.60	22.72	10.47	-29.81	49.96	-108.42	680.13	648.64	31.49	21.600	
6,100.00	6,060.98	6,028.15	6,026.63	23.02	10.66	-29.74	52.04	-108.63	681.88	649.85	32.03	21.287	
6,200.00	6,160.98	6,133.29	6,131.76	23.33	10.84	-29.60	53.63	-107.63	682.73	650.17	32.56	20.969	
6,300.00	6,260.98	6,234.85	6,233.31	23.64	11.02	-29.51	54.34	-106.76	682.91	649.84	33.07	20.651	
6,400.00	6,360.98	6,333.09	6,331.55	23.95	11.19	-29.46	55.08	-106.52	683.45	649.88	33.57	20.362	
6,500.00	6,460.98	6,436.69	6,435.15	24.26	11.37	-29.44	55.33	-106.42	683.61	649.52	34.09	20.054	
6,600.00	6,560.98	6,537.26	6,535.72	24.58	11.54	-29.43	55.32	-106.27	683.53	648.93	34.60	19.757	
6,700.00	6,660.98	6,637.58	6,636.04	24.89	11.71	-29.41	55.35	-105.96	683.40	648.29	35.11	19.467	
6,802.82	6,763.80	6,740.22	6,738.68	25.21	11.89	-29.38	55.33	-105.64	683.22	647.59	35.63	19.177	
6,850.00	6,810.94	6,786.81	6,785.26	25.36	11.97	-29.18	55.35	-105.51	681.82	645.96	35.86	19.012	
6,900.00	6,860.68	6,836.49	6,834.94	25.50	12.05	-29.55	55.42	-105.36	677.42	641.31	36.11	18.760	
6,950.00	6,909.95	6,885.90	6,884.36	25.64	12.14	-30.18	55.51	-105.14	670.00	633.65	36.35	18.432	
7,000.00	6,958.50	6,934.28	6,932.74	25.77	12.22	-31.11	55.63	-104.88	659.66	623.08	36.58	18.033	
7,050.00	7,006.10	6,981.61	6,980.07	25.89	12.30	-32.35	55.77	-104.64	646.50	609.69	36.80	17.566	
7,100.00	7,052.52	7,027.50	7,025.95	26.00	12.38	-33.93	55.91	-104.43	630.65	593.64	37.02	17.037	
7,150.00	7,097.54	7,071.83	7,070.28	26.10	12.46	-35.91	56.06	-104.33	612.32	575.10	37.22	16.451	
7,200.00	7,140.93	7,114.93	7,113.39	26.20	12.54	-38.35	56.20	-104.31	591.68	554.27	37.42	15.813	
7,250.00	7,182.49	7,156.84	7,155.30	26.29	12.61	-41.31	56.29	-104.35	568.95	531.34	37.61	15.127	
7,300.00	7,222.00	7,196.63	7,195.08	26.38	12.68	-44.82	56.33	-104.42	544.39	506.59	37.80	14.402	
7,350.00	7,259.28	7,234.39	7,232.84	26.46	12.74	-48.91	56.35	-104.47	518.39	480.40	37.99	13.645	
7,400.00	7,294.15	7,269.77	7,268.22	26.55	12.80	-53.57	56.40	-104.44	491.35	453.17	38.18	12.868	
7,450.00	7,326.43	7,302.49	7,300.95	26.64	12.86	-58.73	56.45	-104.34	463.81	425.43	38.39	12.083	
7,500.00	7,355.97	7,331.64	7,330.09	26.74	12.91	-64.15	56.54	-104.24	436.46	397.86	38.60	11.307	
7,550.00	7,382.63	7,358.06	7,356.51	26.84	12.96	-69.69	56.65	-104.16	410.10	371.25	38.84	10.557	
7,600.00	7,406.27	7,381.62	7,380.08	26.94	13.00	-75.08	56.77	-104.08	385.66	346.53	39.12	9.857	
7,650.00	7,426.79	7,402.25	7,400.71	27.06	13.03	-80.03	56.90	-104.02	364.25	324.81	39.44	9.235	
7,700.00	7,444.07	7,420.13	7,418.58	27.19	13.06	-84.32	57.02	-103.97	347.09	307.29	39.80	8.721	
7,750.00	7,458.04	7,434.62	7,433.07	27.34	13.09	-87.67	57.11	-103.91	335.43	295.27	40.16	8.352	
7,800.00	7,468.62	7,445.65	7,444.10	27.50	13.11	-89.95	57.18	-103.86	330.35	289.86	40.49	8.158	
7,810.35	7,470.39	7,447.50	7,445.95	27.53	13.11	-90.28	57.19	-103.85	330.20	289.64	40.56	8.142 SF	
7,850.00	7,475.78	7,453.19	7,451.64	27.67	13.12	-91.07	57.22	-103.82	332.52	291.77	40.75	8.159	
7,900.00	7,479.46	7,457.20	7,455.66	27.85	13.13	-90.98	57.24	-103.80	342.02	301.11	40.91	8.360	
7,927.82	7,480.00	7,457.91	7,456.36	27.96	13.13	-90.41	57.25	-103.80	350.32	309.37	40.95	8.555	
8,000.00	7,480.00	7,458.31	7,456.77	28.27	13.13	-90.48	57.25	-103.80	380.58	339.65	40.93	9.297	
8,100.00	7,480.00	7,458.88	7,457.33	28.76	13.13	-90.58	57.25	-103.80	438.98	398.22	40.76	10.770	
8,200.00	7,480.00	7,459.43	7,457.89	29.34	13.13	-90.68	57.26	-103.79	510.46	469.93	40.53	12.593	
8,300.00	7,480.00	7,459.99	7,458.44	30.00	13.13	-90.77	57.26	-103.79	590.28	549.95	40.33	14.637	
8,400.00	7,480.00	7,460.55	7,459.00	30.72	13.13	-90.87	57.26	-103.79	675.49	635.33	40.16	16.820	
8,500.00	7,480.00	7,461.10	7,459.55	31.51	13.13	-90.96	57.27	-103.78	764.30	724.27	40.03	19.095	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design												S26-T2N-R68W - Sullivan 44-26 - CPR WELL - GYRO		Offset Site Error:		0.00 usft	
Survey Program:												100-Geolink MWD		Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft) +E/-W (usft)		Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor					
8,600.00	7,480.00	7,461.65	7,460.10	32.35	13.14	-91.06	57.27	-103.78	855.58	815.66	39.92	21.432					
8,700.00	7,480.00	7,462.19	7,460.65	33.25	13.14	-91.16	57.27	-103.78	948.62	908.78	39.84	23.811					
8,800.00	7,480.00	7,462.74	7,461.19	34.20	13.14	-91.25	57.27	-103.78	1,042.95	1,003.17	39.78	26.221					
8,900.00	7,480.00	7,463.28	7,461.73	35.20	13.14	-91.34	57.28	-103.77	1,138.24	1,098.52	39.73	28.653					
9,000.00	7,480.00	7,463.82	7,462.28	36.24	13.14	-91.44	57.28	-103.77	1,234.28	1,194.60	39.69	31.101					
9,100.00	7,480.00	7,464.36	7,462.81	37.32	13.14	-91.53	57.28	-103.77	1,330.91	1,291.25	39.66	33.560					
9,200.00	7,480.00	7,464.90	7,463.35	38.43	13.14	-91.62	57.29	-103.76	1,427.99	1,388.36	39.64	36.028					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4A-26H-P268 - OH - PLAN #4												Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.07	-0.11	-90.07	90.07				
100.00	100.00	100.00	100.00	0.14	0.14	-90.07	-0.11	-90.07	90.07	89.80	0.28	326.324	
200.00	200.00	200.00	200.00	0.50	0.50	-90.07	-0.11	-90.07	90.07	89.08	0.99	90.711 CC, ES	
300.00	300.00	297.04	297.02	0.85	0.84	-90.37	-0.58	-91.65	91.70	89.97	1.73	53.041	
350.00	350.00	345.49	345.42	1.03	1.01	-90.72	-1.17	-93.61	93.73	91.62	2.11	44.445	
400.00	400.00	393.85	393.70	1.21	1.18	112.03	-1.99	-96.36	96.74	94.26	2.48	38.978	
500.00	499.93	490.12	489.62	1.54	1.53	112.36	-4.31	-104.14	106.18	102.95	3.23	32.911	
600.00	599.68	585.48	584.32	1.89	1.89	113.57	-7.52	-114.89	120.17	116.19	3.98	30.218	
700.00	699.13	679.60	677.37	2.25	2.27	115.24	-11.57	-128.45	138.76	134.04	4.73	29.354	
742.41	741.18	719.06	716.22	2.41	2.44	116.00	-13.52	-135.01	148.06	143.01	5.05	29.332 SF	
800.00	798.23	772.23	768.44	2.63	2.66	117.10	-16.40	-144.66	161.76	156.28	5.48	29.534	
900.00	897.30	863.53	857.62	3.02	3.08	118.35	-21.99	-163.38	187.92	181.71	6.21	30.244	
1,000.00	996.36	953.39	944.73	3.42	3.51	118.97	-28.28	-184.46	216.93	209.97	6.95	31.195	
1,100.00	1,095.42	1,041.66	1,029.60	3.82	3.97	119.17	-35.21	-207.70	248.66	240.97	7.69	32.356	
1,200.00	1,194.49	1,134.03	1,117.83	4.22	4.48	119.15	-43.03	-233.91	282.30	273.90	8.41	33.580	
1,300.00	1,293.55	1,228.17	1,207.72	4.62	5.02	119.13	-51.03	-260.71	316.03	306.89	9.14	34.570	
1,400.00	1,392.61	1,322.31	1,297.61	5.03	5.56	119.11	-59.02	-287.50	349.77	339.88	9.89	35.368	
1,500.00	1,491.68	1,416.45	1,387.50	5.44	6.11	119.10	-67.02	-314.29	383.50	372.85	10.65	36.020	
1,600.00	1,590.74	1,510.59	1,477.39	5.84	6.66	119.09	-75.01	-341.09	417.23	405.82	11.41	36.561	
1,700.00	1,689.80	1,604.73	1,567.29	6.25	7.22	119.08	-83.00	-367.88	450.96	438.78	12.18	37.013	
1,800.00	1,788.87	1,698.87	1,657.18	6.66	7.78	119.07	-91.00	-394.68	484.69	471.73	12.96	37.397	
1,900.00	1,887.93	1,793.01	1,747.07	7.07	8.35	119.06	-98.99	-421.47	518.42	504.68	13.74	37.725	
2,000.00	1,986.99	1,887.14	1,836.96	7.49	8.91	119.05	-106.99	-448.26	552.15	537.63	14.53	38.008	
2,100.00	2,086.06	1,981.28	1,926.85	7.90	9.48	119.05	-114.98	-475.06	585.88	570.57	15.32	38.254	
2,200.00	2,185.12	2,075.42	2,016.74	8.31	10.04	119.04	-122.98	-501.85	619.62	603.51	16.11	38.470	
2,300.00	2,284.18	2,169.56	2,106.63	8.72	10.61	119.04	-130.97	-528.65	653.35	636.45	16.90	38.660	
2,400.00	2,383.25	2,263.70	2,196.52	9.13	11.18	119.03	-138.97	-555.44	687.08	669.38	17.69	38.829	
2,500.00	2,482.31	2,357.84	2,286.41	9.55	11.75	119.03	-146.96	-582.23	720.81	702.32	18.49	38.980	
2,600.00	2,581.37	2,451.98	2,376.30	9.96	12.33	119.03	-154.96	-609.03	754.54	735.25	19.29	39.115	
2,700.00	2,680.44	2,546.12	2,466.19	10.37	12.90	119.02	-162.95	-635.82	788.27	768.18	20.09	39.237	
2,800.00	2,779.50	2,640.26	2,556.08	10.79	13.47	119.02	-170.94	-662.62	822.00	801.11	20.89	39.348	
2,900.00	2,878.56	2,734.40	2,645.98	11.20	14.04	119.02	-178.94	-689.41	855.74	834.04	21.69	39.448	
3,000.00	2,977.63	2,828.54	2,735.87	11.61	14.62	119.01	-186.93	-716.20	889.47	866.97	22.50	39.540	
3,100.00	3,076.69	2,922.68	2,825.76	12.03	15.19	119.01	-194.93	-743.00	923.20	899.90	23.30	39.624	
3,200.00	3,175.75	3,016.81	2,915.65	12.44	15.76	119.01	-202.92	-769.79	956.93	932.83	24.10	39.701	
3,300.00	3,274.82	3,110.95	3,005.54	12.85	16.34	119.01	-210.92	-796.59	990.66	965.75	24.91	39.772	
3,400.00	3,373.88	3,205.09	3,095.43	13.27	16.91	119.01	-218.91	-823.38	1,024.39	998.68	25.71	39.837	
3,500.00	3,472.94	3,299.23	3,185.32	13.68	17.49	119.00	-226.91	-850.17	1,058.12	1,031.60	26.52	39.898	
3,600.00	3,572.01	3,393.37	3,275.21	14.09	18.06	119.00	-234.90	-876.97	1,091.86	1,064.53	27.33	39.954	
3,700.00	3,671.07	3,487.51	3,365.10	14.51	18.64	119.00	-242.90	-903.76	1,125.59	1,097.45	28.13	40.007	
3,800.00	3,770.13	3,581.65	3,454.99	14.92	19.21	119.00	-250.89	-930.56	1,159.32	1,130.38	28.94	40.056	
3,900.00	3,869.20	3,675.79	3,544.88	15.34	19.79	119.00	-258.88	-957.35	1,193.05	1,163.30	29.75	40.102	
4,000.00	3,968.26	3,769.93	3,634.77	15.75	20.36	119.00	-266.88	-984.14	1,226.78	1,196.22	30.56	40.144	
4,100.00	4,067.32	3,864.07	3,724.67	16.16	20.94	119.00	-274.87	-1,010.94	1,260.51	1,229.14	31.37	40.184	
4,200.00	4,166.39	3,958.21	3,814.56	16.58	21.51	119.00	-282.87	-1,037.73	1,294.24	1,262.07	32.18	40.222	
4,300.00	4,265.45	4,052.35	3,904.45	16.99	22.09	118.99	-290.86	-1,064.53	1,327.98	1,294.99	32.99	40.258	
4,400.00	4,364.51	4,146.49	3,994.34	17.41	22.66	118.99	-298.86	-1,091.32	1,361.71	1,327.91	33.80	40.291	
4,500.00	4,463.58	4,240.62	4,084.23	17.82	23.24	118.99	-306.85	-1,118.11	1,395.44	1,360.83	34.61	40.323	
4,600.00	4,562.64	4,334.76	4,174.12	18.24	23.82	118.99	-314.85	-1,144.91	1,429.17	1,393.75	35.42	40.353	
4,646.61	4,608.82	4,378.64	4,216.02	18.43	24.08	118.99	-318.57	-1,157.40	1,444.89	1,409.10	35.79	40.366	
4,700.00	4,661.77	4,428.98	4,264.08	18.65	24.39	119.30	-322.85	-1,171.72	1,462.67	1,426.45	36.22	40.379	
4,800.00	4,761.26	4,523.64	4,354.48	19.04	24.97	119.76	-330.89	-1,198.67	1,494.74	1,457.73	37.01	40.390	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4B-26H-P268 - OH - PLAN #4												Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.04	-0.06	-80.00	80.00				
100.00	100.00	100.00	100.00	0.14	0.14	-90.04	-0.06	-80.00	80.00	79.73	0.28	289.842	
200.00	200.00	200.00	200.00	0.50	0.50	-90.04	-0.06	-80.00	80.00	79.01	0.99	80.570	
300.00	300.00	300.00	300.00	0.85	0.85	-90.04	-0.06	-80.00	80.00	78.29	1.71	46.788	CC, ES
350.00	350.00	348.67	348.67	1.03	1.03	-90.11	-0.15	-80.41	80.42	78.35	2.07	38.897	
400.00	400.00	397.31	397.29	1.21	1.20	112.97	-0.44	-81.61	81.83	79.40	2.43	33.723	
500.00	499.93	494.30	494.15	1.54	1.54	114.14	-1.60	-86.41	88.16	85.01	3.15	27.994	
600.00	599.68	590.58	590.08	1.89	1.88	116.30	-3.50	-94.32	99.27	95.38	3.89	25.521	
700.00	699.13	685.76	684.60	2.25	2.24	118.87	-6.11	-105.22	115.30	110.66	4.64	24.874	SF
742.41	741.18	725.71	724.14	2.41	2.40	119.96	-7.43	-110.70	123.61	118.65	4.95	24.949	
800.00	798.23	779.58	777.35	2.63	2.61	121.39	-9.41	-118.95	136.03	130.65	5.38	25.280	
900.00	897.30	872.19	868.40	3.02	3.00	122.98	-13.35	-135.38	160.04	153.92	6.12	26.147	
1,000.00	996.36	963.47	957.55	3.42	3.40	123.76	-17.91	-154.37	186.95	180.10	6.85	27.293	
1,100.00	1,095.42	1,053.26	1,044.61	3.82	3.83	123.99	-23.05	-175.74	216.61	209.03	7.58	28.574	
1,200.00	1,194.49	1,141.42	1,129.38	4.22	4.28	123.88	-28.70	-199.29	248.94	240.64	8.30	29.986	
1,300.00	1,293.55	1,234.36	1,218.21	4.62	4.78	123.61	-35.07	-225.84	282.96	273.93	9.03	31.348	
1,400.00	1,392.61	1,328.38	1,308.07	5.03	5.30	123.40	-41.53	-252.73	317.01	307.25	9.76	32.464	
1,500.00	1,491.68	1,422.39	1,397.93	5.44	5.84	123.23	-47.99	-279.61	351.07	340.55	10.51	33.391	
1,600.00	1,590.74	1,516.41	1,487.79	5.84	6.38	123.09	-54.44	-306.50	385.13	373.86	11.27	34.169	
1,700.00	1,689.80	1,610.43	1,577.65	6.25	6.92	122.97	-60.90	-333.39	419.19	407.15	12.04	34.829	
1,800.00	1,788.87	1,704.44	1,667.51	6.66	7.47	122.87	-67.35	-360.27	453.25	440.44	12.81	35.396	
1,900.00	1,887.93	1,798.46	1,757.37	7.07	8.03	122.79	-73.81	-387.16	487.31	473.73	13.58	35.886	
2,000.00	1,986.99	1,892.48	1,847.23	7.49	8.58	122.71	-80.26	-414.04	521.38	507.02	14.36	36.313	
2,100.00	2,086.06	1,986.50	1,937.09	7.90	9.14	122.65	-86.72	-440.93	555.44	540.30	15.14	36.688	
2,200.00	2,185.12	2,080.51	2,026.95	8.31	9.70	122.59	-93.17	-467.82	589.51	573.58	15.92	37.020	
2,300.00	2,284.18	2,174.53	2,116.81	8.72	10.26	122.54	-99.63	-494.70	623.57	606.86	16.71	37.316	
2,400.00	2,383.25	2,268.55	2,206.67	9.13	10.82	122.49	-106.09	-521.59	657.64	640.14	17.50	37.580	
2,500.00	2,482.31	2,362.57	2,296.52	9.55	11.39	122.45	-112.54	-548.47	691.71	673.42	18.29	37.818	
2,600.00	2,581.37	2,456.58	2,386.38	9.96	11.95	122.41	-119.00	-575.36	725.77	706.69	19.08	38.033	
2,700.00	2,680.44	2,550.60	2,476.24	10.37	12.52	122.38	-125.45	-602.25	759.84	739.97	19.88	38.228	
2,800.00	2,779.50	2,644.62	2,566.10	10.79	13.09	122.35	-131.91	-629.13	793.91	773.24	20.67	38.406	
2,900.00	2,878.56	2,738.63	2,655.96	11.20	13.65	122.32	-138.36	-656.02	827.98	806.51	21.47	38.569	
3,000.00	2,977.63	2,832.65	2,745.82	11.61	14.22	122.29	-144.82	-682.91	862.04	839.78	22.26	38.718	
3,100.00	3,076.69	2,926.67	2,835.68	12.03	14.79	122.27	-151.27	-709.79	896.11	873.05	23.06	38.856	
3,200.00	3,175.75	3,020.69	2,925.54	12.44	15.36	122.24	-157.73	-736.68	930.18	906.32	23.86	38.983	
3,300.00	3,274.82	3,114.70	3,015.40	12.85	15.93	122.22	-164.19	-763.56	964.25	939.59	24.66	39.101	
3,400.00	3,373.88	3,208.72	3,105.26	13.27	16.50	122.20	-170.64	-790.45	998.32	972.86	25.46	39.210	
3,500.00	3,472.94	3,302.74	3,195.12	13.68	17.06	122.19	-177.10	-817.34	1,032.39	1,006.12	26.26	39.312	
3,600.00	3,572.01	3,396.76	3,284.98	14.09	17.63	122.17	-183.55	-844.22	1,066.45	1,039.39	27.06	39.407	
3,700.00	3,671.07	3,490.77	3,374.84	14.51	18.21	122.15	-190.01	-871.11	1,100.52	1,072.66	27.86	39.495	
3,800.00	3,770.13	3,584.79	3,464.70	14.92	18.78	122.14	-196.46	-897.99	1,134.59	1,105.93	28.67	39.578	
3,900.00	3,869.20	3,678.81	3,554.56	15.34	19.35	122.12	-202.92	-924.88	1,168.66	1,139.19	29.47	39.657	
4,000.00	3,968.26	3,772.82	3,644.42	15.75	19.92	122.11	-209.37	-951.77	1,202.73	1,172.46	30.27	39.730	
4,100.00	4,067.32	3,866.84	3,734.27	16.16	20.49	122.10	-215.83	-978.65	1,236.80	1,205.72	31.08	39.799	
4,200.00	4,166.39	3,960.86	3,824.13	16.58	21.06	122.08	-222.29	-1,005.54	1,270.87	1,238.99	31.88	39.864	
4,300.00	4,265.45	4,054.88	3,913.99	16.99	21.63	122.07	-228.74	-1,032.43	1,304.94	1,272.25	32.68	39.926	
4,400.00	4,364.51	4,148.89	4,003.85	17.41	22.20	122.06	-235.20	-1,059.31	1,339.01	1,305.52	33.49	39.984	
4,500.00	4,463.58	4,242.91	4,093.71	17.82	22.77	122.05	-241.65	-1,086.20	1,373.07	1,338.78	34.29	40.039	
4,600.00	4,562.64	4,336.93	4,183.57	18.24	23.35	122.04	-248.11	-1,113.08	1,407.14	1,372.05	35.10	40.092	
4,646.61	4,608.82	4,380.75	4,225.46	18.43	23.61	122.04	-251.12	-1,125.62	1,423.02	1,387.55	35.47	40.115	
4,700.00	4,661.77	4,431.03	4,273.51	18.65	23.92	122.34	-254.57	-1,139.99	1,440.96	1,405.06	35.90	40.139	
4,800.00	4,761.26	4,525.63	4,363.93	19.04	24.49	122.78	-261.06	-1,167.05	1,473.21	1,436.53	36.68	40.164	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4C-26H-P268 - OH - PLAN #3												Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.01	-0.01	-69.93	69.93				
100.00	100.00	100.00	100.00	0.14	0.14	-90.01	-0.01	-69.93	69.93	69.66	0.28	253.359	
200.00	200.00	200.00	200.00	0.50	0.50	-90.01	-0.01	-69.93	69.93	68.94	0.99	70.428	
300.00	300.00	300.00	300.00	0.85	0.85	-90.01	-0.01	-69.93	69.93	68.22	1.71	40.899	
350.00	350.00	350.00	350.00	1.03	1.03	-90.01	-0.01	-69.93	69.93	67.86	2.07	33.810 CC	
400.00	400.00	400.00	400.00	1.21	1.21	113.35	-0.01	-69.93	70.10	67.69	2.42	28.987 ES	
500.00	499.93	497.65	497.63	1.54	1.55	115.29	-0.59	-71.49	73.13	70.02	3.11	23.501	
600.00	599.68	594.87	594.72	1.89	1.89	118.17	-2.30	-76.15	80.94	77.11	3.83	21.138	
700.00	699.13	691.31	690.81	2.25	2.23	121.27	-5.12	-83.82	93.69	89.13	4.56	20.540 SF	
742.41	741.18	731.89	731.15	2.41	2.38	122.52	-6.63	-87.96	100.60	95.73	4.88	20.630	
800.00	798.23	786.72	785.54	2.63	2.59	124.02	-9.00	-94.40	111.11	105.81	5.30	20.964	
900.00	897.30	881.18	878.92	3.02	2.95	125.45	-13.91	-107.78	131.62	125.59	6.04	21.806	
1,000.00	996.36	974.56	970.71	3.42	3.34	125.82	-19.81	-123.83	154.85	148.07	6.77	22.858	
1,100.00	1,095.42	1,066.67	1,060.67	3.82	3.74	125.55	-26.64	-142.42	180.69	173.18	7.51	24.051	
1,200.00	1,194.49	1,157.73	1,148.92	4.22	4.16	124.89	-34.36	-163.44	209.10	200.85	8.25	25.350	
1,300.00	1,293.55	1,253.22	1,241.16	4.62	4.63	124.19	-42.90	-186.68	238.65	229.65	8.99	26.540	
1,400.00	1,392.61	1,348.72	1,333.39	5.03	5.11	123.64	-51.44	-209.93	268.22	258.47	9.75	27.520	
1,500.00	1,491.68	1,444.22	1,425.62	5.44	5.60	123.20	-59.97	-233.17	297.81	287.30	10.51	28.339	
1,600.00	1,590.74	1,539.72	1,517.86	5.84	6.09	122.83	-68.51	-256.41	327.41	316.14	11.28	29.031	
1,700.00	1,689.80	1,635.22	1,610.09	6.25	6.59	122.53	-77.05	-279.65	357.03	344.98	12.05	29.622	
1,800.00	1,788.87	1,730.72	1,702.32	6.66	7.09	122.28	-85.59	-302.89	386.65	373.82	12.83	30.132	
1,900.00	1,887.93	1,826.22	1,794.56	7.07	7.60	122.06	-94.12	-326.13	416.28	402.66	13.62	30.575	
2,000.00	1,986.99	1,921.72	1,886.79	7.49	8.11	121.87	-102.66	-349.38	445.91	431.51	14.40	30.964	
2,100.00	2,086.06	2,017.22	1,979.02	7.90	8.62	121.70	-111.20	-372.62	475.55	460.36	15.19	31.307	
2,200.00	2,185.12	2,112.71	2,071.26	8.31	9.14	121.55	-119.74	-395.86	505.19	489.21	15.98	31.612	
2,300.00	2,284.18	2,208.21	2,163.49	8.72	9.65	121.42	-128.27	-419.10	534.83	518.06	16.77	31.884	
2,400.00	2,383.25	2,303.71	2,255.72	9.13	10.17	121.31	-136.81	-442.34	564.47	546.91	17.57	32.129	
2,500.00	2,482.31	2,399.21	2,347.96	9.55	10.69	121.20	-145.35	-465.59	594.12	575.76	18.37	32.351	
2,600.00	2,581.37	2,494.71	2,440.19	9.96	11.21	121.11	-153.89	-488.83	623.77	604.61	19.16	32.552	
2,700.00	2,680.44	2,590.21	2,532.42	10.37	11.73	121.02	-162.42	-512.07	653.42	633.46	19.96	32.735	
2,800.00	2,779.50	2,685.71	2,624.66	10.79	12.25	120.94	-170.96	-535.31	683.07	662.31	20.76	32.902	
2,900.00	2,878.56	2,781.21	2,716.89	11.20	12.77	120.87	-179.50	-558.55	712.72	691.16	21.56	33.056	
3,000.00	2,977.63	2,876.71	2,809.12	11.61	13.29	120.80	-188.03	-581.80	742.38	720.01	22.36	33.197	
3,100.00	3,076.69	2,972.20	2,901.36	12.03	13.81	120.74	-196.57	-605.04	772.03	748.87	23.16	33.328	
3,200.00	3,175.75	3,067.70	2,993.59	12.44	14.33	120.68	-205.11	-628.28	801.68	777.72	23.97	33.449	
3,300.00	3,274.82	3,163.20	3,085.82	12.85	14.86	120.63	-213.65	-651.52	831.34	806.57	24.77	33.561	
3,400.00	3,373.88	3,258.70	3,178.05	13.27	15.38	120.58	-222.18	-674.76	861.00	835.42	25.57	33.666	
3,500.00	3,472.94	3,354.20	3,270.29	13.68	15.90	120.53	-230.72	-698.00	890.65	864.27	26.38	33.764	
3,600.00	3,572.01	3,449.70	3,362.52	14.09	16.43	120.49	-239.26	-721.25	920.31	893.13	27.18	33.855	
3,700.00	3,671.07	3,545.20	3,454.75	14.51	16.95	120.45	-247.80	-744.49	949.97	921.98	27.99	33.941	
3,800.00	3,770.13	3,640.70	3,546.99	14.92	17.48	120.41	-256.33	-767.73	979.63	950.83	28.79	34.021	
3,900.00	3,869.20	3,736.20	3,639.22	15.34	18.00	120.38	-264.87	-790.97	1,009.28	979.68	29.60	34.097	
4,000.00	3,968.26	3,831.69	3,731.45	15.75	18.52	120.34	-273.41	-814.21	1,038.94	1,008.54	30.41	34.168	
4,100.00	4,067.32	3,927.19	3,823.69	16.16	19.05	120.31	-281.95	-837.46	1,068.60	1,037.39	31.21	34.235	
4,200.00	4,166.39	4,022.69	3,915.92	16.58	19.57	120.28	-290.48	-860.70	1,098.26	1,066.24	32.02	34.299	
4,300.00	4,265.45	4,118.19	4,008.15	16.99	20.10	120.25	-299.02	-883.94	1,127.92	1,095.09	32.83	34.359	
4,400.00	4,364.51	4,213.69	4,100.39	17.41	20.63	120.23	-307.56	-907.18	1,157.58	1,123.94	33.63	34.416	
4,500.00	4,463.58	4,309.19	4,192.62	17.82	21.15	120.20	-316.10	-930.42	1,187.24	1,152.80	34.44	34.470	
4,600.00	4,562.64	4,404.69	4,284.85	18.24	21.68	120.18	-324.63	-953.66	1,216.90	1,181.65	35.25	34.522	
4,646.61	4,608.82	4,449.20	4,327.85	18.43	21.92	120.16	-328.61	-964.50	1,230.72	1,195.10	35.63	34.545	
4,700.00	4,661.77	4,500.26	4,377.15	18.65	22.20	120.41	-333.18	-976.92	1,246.32	1,210.27	36.05	34.568	
4,800.00	4,761.26	4,596.21	4,469.83	19.04	22.73	120.75	-341.75	-1,000.28	1,274.23	1,237.40	36.84	34.591	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R68W - SULLIVAN 4C-26H-P268 - OH - PLAN #3													<b>Offset Site Error:</b> 0.00 usft
Survey Program: 0-MWD+HDGM													<b>Offset Well Error:</b> 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
4,900.00	4,861.03	4,692.49	4,562.81	19.40	23.26	120.92	-350.36	-1,023.71	1,300.45	1,262.86	37.59	34.591	
5,000.00	4,960.98	4,788.98	4,656.00	19.74	23.79	120.93	-358.99	-1,047.19	1,324.99	1,286.66	38.33	34.570	
5,039.02	5,000.00	4,826.66	4,692.40	19.86	24.00	-82.13	-362.36	-1,056.36	1,334.11	1,295.51	38.60	34.563	
5,100.00	5,060.98	4,885.55	4,749.28	20.04	24.33	-82.45	-367.62	-1,070.69	1,348.19	1,309.18	39.01	34.559	
5,200.00	5,160.98	4,982.14	4,842.55	20.33	24.86	-82.95	-376.26	-1,094.20	1,371.36	1,331.67	39.69	34.554	
5,300.00	5,260.98	5,078.72	4,935.83	20.62	25.39	-83.43	-384.89	-1,117.70	1,394.63	1,354.26	40.37	34.550	
5,400.00	5,360.98	5,175.30	5,029.11	20.91	25.92	-83.90	-393.52	-1,141.21	1,417.99	1,376.94	41.04	34.548	
5,500.00	5,460.98	5,271.88	5,122.39	21.21	26.45	-84.35	-402.16	-1,164.71	1,441.43	1,399.71	41.72	34.547	
5,600.00	5,560.98	5,368.46	5,215.67	21.51	26.99	-84.79	-410.79	-1,188.22	1,464.96	1,422.56	42.40	34.548	
5,700.00	5,660.98	5,465.04	5,308.94	21.81	27.52	-85.22	-419.43	-1,211.72	1,488.57	1,445.49	43.09	34.549	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4D-26H-P268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-89.97	0.03	-60.14	60.14					
100.00	100.00	100.00	100.00	0.14	0.14	-89.97	0.03	-60.14	60.14	59.87	0.28	217.889		
200.00	200.00	200.00	200.00	0.50	0.50	-89.97	0.03	-60.14	60.14	59.15	0.99	60.569		
300.00	300.00	300.00	300.00	0.85	0.85	-89.97	0.03	-60.14	60.14	58.43	1.71	35.173		
350.00	350.00	350.00	350.00	1.03	1.03	-89.97	0.03	-60.14	60.14	58.07	2.07	29.077 CC		
400.00	400.00	400.00	400.00	1.21	1.21	113.44	0.03	-60.14	60.31	57.90	2.42	24.939 ES		
500.00	499.93	499.93	499.93	1.54	1.57	116.38	0.03	-60.14	61.79	58.67	3.11	19.853		
600.00	599.68	597.74	597.72	1.89	1.91	120.95	-0.60	-61.69	66.65	62.84	3.81	17.478		
700.00	699.13	695.01	694.86	2.25	2.25	125.47	-2.47	-66.29	76.71	72.19	4.53	16.940 SF		
742.41	741.18	736.01	735.75	2.41	2.39	127.17	-3.63	-69.14	82.56	77.72	4.84	17.064		
800.00	798.23	791.48	790.98	2.63	2.59	129.07	-5.55	-73.87	91.62	86.37	5.25	17.437		
900.00	897.30	887.24	886.06	3.02	2.94	130.72	-9.81	-84.35	109.52	103.54	5.98	18.312		
1,000.00	996.36	982.13	979.85	3.42	3.30	130.95	-15.21	-97.64	129.93	123.22	6.71	19.356		
1,100.00	1,095.42	1,075.94	1,072.07	3.82	3.68	130.35	-21.70	-113.59	152.80	145.35	7.45	20.516		
1,200.00	1,194.49	1,168.51	1,162.46	4.22	4.08	129.26	-29.21	-132.07	178.12	169.94	8.19	21.758		
1,300.00	1,293.55	1,263.50	1,254.71	4.62	4.51	128.01	-37.74	-153.04	205.27	196.34	8.93	22.983		
1,400.00	1,392.61	1,359.63	1,348.05	5.03	4.96	127.03	-46.40	-174.35	232.57	222.88	9.69	24.007		
1,500.00	1,491.68	1,455.76	1,441.39	5.44	5.42	126.25	-55.07	-195.66	259.92	249.47	10.45	24.869		
1,600.00	1,590.74	1,551.90	1,534.73	5.84	5.88	125.62	-63.73	-216.96	287.31	276.08	11.22	25.602		
1,700.00	1,689.80	1,648.03	1,628.07	6.25	6.35	125.10	-72.39	-238.27	314.72	302.72	12.00	26.233		
1,800.00	1,788.87	1,744.16	1,721.41	6.66	6.83	124.67	-81.06	-259.58	342.15	329.37	12.78	26.781		
1,900.00	1,887.93	1,840.30	1,814.76	7.07	7.31	124.30	-89.72	-280.89	369.60	356.04	13.56	27.259		
2,000.00	1,986.99	1,936.43	1,908.10	7.49	7.80	123.98	-98.38	-302.20	397.06	382.71	14.34	27.680		
2,100.00	2,086.06	2,032.57	2,001.44	7.90	8.28	123.70	-107.05	-323.51	424.53	409.40	15.13	28.054		
2,200.00	2,185.12	2,128.70	2,094.78	8.31	8.77	123.45	-115.71	-344.82	452.01	436.08	15.92	28.388		
2,300.00	2,284.18	2,224.83	2,188.12	8.72	9.26	123.24	-124.37	-366.13	479.49	462.78	16.71	28.687		
2,400.00	2,383.25	2,320.97	2,281.46	9.13	9.75	123.04	-133.04	-387.44	506.98	489.47	17.51	28.957		
2,500.00	2,482.31	2,417.10	2,374.80	9.55	10.24	122.87	-141.70	-408.75	534.48	516.17	18.30	29.201		
2,600.00	2,581.37	2,513.24	2,468.14	9.96	10.74	122.71	-150.36	-430.05	561.98	542.88	19.10	29.424		
2,700.00	2,680.44	2,609.37	2,561.49	10.37	11.23	122.57	-159.03	-451.36	589.48	569.58	19.90	29.627		
2,800.00	2,779.50	2,705.50	2,654.83	10.79	11.73	122.44	-167.69	-472.67	616.99	596.29	20.69	29.814		
2,900.00	2,878.56	2,801.64	2,748.17	11.20	12.22	122.33	-176.35	-493.98	644.49	623.00	21.49	29.985		
3,000.00	2,977.63	2,897.77	2,841.51	11.61	12.72	122.22	-185.02	-515.29	672.01	649.71	22.29	30.144		
3,100.00	3,076.69	2,993.90	2,934.85	12.03	13.22	122.12	-193.68	-536.60	699.52	676.42	23.09	30.290		
3,200.00	3,175.75	3,090.04	3,028.19	12.44	13.71	122.02	-202.34	-557.91	727.03	703.14	23.89	30.426		
3,300.00	3,274.82	3,186.17	3,121.53	12.85	14.21	121.94	-211.01	-579.22	754.55	729.85	24.70	30.553		
3,400.00	3,373.88	3,282.31	3,214.87	13.27	14.71	121.86	-219.67	-600.53	782.07	756.57	25.50	30.671		
3,500.00	3,472.94	3,378.44	3,308.22	13.68	15.21	121.79	-228.34	-621.84	809.59	783.29	26.30	30.782		
3,600.00	3,572.01	3,474.57	3,401.56	14.09	15.71	121.72	-237.00	-643.14	837.11	810.00	27.10	30.885		
3,700.00	3,671.07	3,570.71	3,494.90	14.51	16.21	121.65	-245.66	-664.45	864.63	836.72	27.91	30.982		
3,800.00	3,770.13	3,666.84	3,588.24	14.92	16.71	121.59	-254.33	-685.76	892.15	863.44	28.71	31.073		
3,900.00	3,869.20	3,762.97	3,681.58	15.34	17.21	121.53	-262.99	-707.07	919.67	890.16	29.52	31.159		
4,000.00	3,968.26	3,859.11	3,774.92	15.75	17.71	121.48	-271.65	-728.38	947.20	916.88	30.32	31.241		
4,100.00	4,067.32	3,955.24	3,868.26	16.16	18.21	121.43	-280.32	-749.69	974.72	943.60	31.12	31.317		
4,200.00	4,166.39	4,051.38	3,961.60	16.58	18.71	121.38	-288.98	-771.00	1,002.25	970.32	31.93	31.390		
4,300.00	4,265.45	4,147.51	4,054.95	16.99	19.21	121.33	-297.64	-792.31	1,029.78	997.04	32.73	31.459		
4,400.00	4,364.51	4,243.64	4,148.29	17.41	19.71	121.29	-306.31	-813.62	1,057.30	1,023.76	33.54	31.524		
4,500.00	4,463.58	4,339.78	4,241.63	17.82	20.21	121.25	-314.97	-834.93	1,084.83	1,050.48	34.34	31.586		
4,600.00	4,562.64	4,435.91	4,334.97	18.24	20.71	121.21	-323.63	-856.23	1,112.36	1,077.21	35.15	31.645		
4,646.61	4,608.82	4,480.72	4,378.48	18.43	20.95	121.19	-327.67	-866.17	1,125.19	1,089.66	35.53	31.672		
4,700.00	4,661.77	4,532.11	4,428.37	18.65	21.22	121.41	-332.30	-877.56	1,139.64	1,103.68	35.95	31.698		
4,800.00	4,761.26	4,628.67	4,522.13	19.04	21.72	121.67	-341.00	-898.96	1,165.36	1,128.62	36.73	31.724		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design										S26-T2N-R68W - SULLIVAN 4D-26H-P268 - OH - PLAN #2				Offset Site Error:		0.00 usft	
Survey Program: 0-MWD+HDGM														Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis			Distance										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning				
4,900.00	4,861.03	4,725.52	4,616.17	19.40	22.23	121.76	-349.73	-920.43	1,189.33	1,151.84	37.49	31.722					
5,000.00	4,960.98	4,822.55	4,710.38	19.74	22.73	121.69	-358.48	-941.94	1,211.57	1,173.34	38.23	31.695					
5,039.02	5,000.00	4,860.44	4,747.16	19.86	22.93	-81.42	-361.89	-950.34	1,219.78	1,181.29	38.50	31.685					
5,100.00	5,060.98	4,919.65	4,804.65	20.04	23.24	-81.76	-367.23	-963.46	1,232.45	1,193.54	38.91	31.674					
5,200.00	5,160.98	5,016.74	4,898.93	20.33	23.75	-82.31	-375.98	-984.98	1,253.30	1,213.71	39.59	31.659					
5,300.00	5,260.98	5,113.84	4,993.20	20.62	24.25	-82.84	-384.73	-1,006.50	1,274.26	1,234.00	40.27	31.646					
5,400.00	5,360.98	5,210.93	5,087.48	20.91	24.76	-83.35	-393.48	-1,028.03	1,295.33	1,254.38	40.94	31.636					
5,500.00	5,460.98	5,308.03	5,181.75	21.21	25.27	-83.85	-402.23	-1,049.55	1,316.49	1,274.86	41.62	31.628					
5,600.00	5,560.98	5,405.12	5,276.02	21.51	25.78	-84.33	-410.98	-1,071.07	1,337.75	1,295.44	42.30	31.621					
5,700.00	5,660.98	5,502.22	5,370.30	21.81	26.28	-84.80	-419.73	-1,092.59	1,359.09	1,316.10	42.99	31.617					
5,800.00	5,760.98	5,599.31	5,464.57	22.11	26.79	-85.26	-428.48	-1,114.11	1,380.52	1,336.85	43.67	31.613					
5,900.00	5,860.98	5,696.41	5,558.85	22.41	27.30	-85.70	-437.23	-1,135.64	1,402.03	1,357.68	44.35	31.611					
6,000.00	5,960.98	5,793.50	5,653.12	22.72	27.81	-86.12	-445.98	-1,157.16	1,423.62	1,378.58	45.04	31.610					
6,100.00	6,060.98	5,890.60	5,747.40	23.02	28.31	-86.53	-454.73	-1,178.68	1,445.28	1,399.56	45.72	31.611					
6,200.00	6,160.98	5,987.69	5,841.67	23.33	28.82	-86.94	-463.48	-1,200.20	1,467.01	1,420.60	46.41	31.612					
6,300.00	6,260.98	6,084.79	5,935.95	23.64	29.33	-87.33	-472.23	-1,221.72	1,488.81	1,441.71	47.09	31.613					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4E-26H-P268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-89.92	0.07	-50.07	50.07	49.80	0.28	181.407		
100.00	100.00	100.00	100.00	0.14	0.14	-89.92	0.07	-50.07	50.07	49.08	0.99	50.427		
200.00	200.00	200.00	200.00	0.50	0.50	-89.92	0.07	-50.07	50.07	48.36	1.71	29.284		
300.00	300.00	300.00	300.00	0.85	0.85	-89.92	0.07	-50.07	50.07	48.00	2.07	24.209 CC		
350.00	350.00	350.00	350.00	1.03	1.03	-89.92	0.07	-50.07	50.07	47.83	2.42	20.776 ES		
400.00	400.00	400.00	400.00	1.21	1.21	113.57	0.07	-50.07	50.25	48.63	3.11	16.625		
500.00	499.93	499.93	499.93	1.54	1.57	117.09	0.07	-50.07	51.74	51.45	3.82	14.473		
600.00	599.68	599.68	599.68	1.89	1.93	123.47	0.07	-50.07	55.27	58.45	4.53	13.910		
700.00	699.13	697.47	697.46	2.25	2.27	130.37	-0.52	-51.62	62.98	63.14	4.83	14.069		
742.41	741.18	738.76	738.71	2.41	2.41	132.86	-1.13	-53.21	67.97	70.71	5.24	14.494		
800.00	798.23	794.67	794.52	2.63	2.60	135.50	-2.29	-56.25	75.95	85.94	5.95	15.436		
900.00	897.30	891.34	890.83	3.02	2.94	137.77	-5.21	-63.90	91.89	103.52	6.67	16.513		
1,000.00	996.36	987.31	986.13	3.42	3.29	138.11	-9.26	-74.49	110.19	123.36	7.40	17.670		
1,100.00	1,095.42	1,082.39	1,080.11	3.82	3.65	137.31	-14.39	-87.92	130.76	145.32	8.13	18.874		
1,200.00	1,194.49	1,177.82	1,173.97	4.22	4.03	135.94	-20.56	-104.08	153.45	167.75	8.87	19.902		
1,300.00	1,293.55	1,275.05	1,269.48	4.62	4.43	134.76	-27.05	-121.05	176.62	190.22	9.63	20.763		
1,400.00	1,392.61	1,372.27	1,364.99	5.03	4.84	133.86	-33.53	-138.03	199.85	212.73	10.38	21.490		
1,500.00	1,491.68	1,469.49	1,460.50	5.44	5.25	133.15	-40.02	-155.00	223.11	235.25	11.14	22.110		
1,600.00	1,590.74	1,566.72	1,556.01	5.84	5.67	132.57	-46.51	-171.97	246.40	257.80	11.91	22.646		
1,700.00	1,689.80	1,663.94	1,651.51	6.25	6.10	132.09	-52.99	-188.95	269.71	280.35	12.68	23.112		
1,800.00	1,788.87	1,761.16	1,747.02	6.66	6.52	131.69	-59.48	-205.92	293.03	302.91	13.45	23.520		
1,900.00	1,887.93	1,858.39	1,842.53	7.07	6.95	131.35	-65.97	-222.90	316.36	325.48	14.22	23.881		
2,000.00	1,986.99	1,955.61	1,938.04	7.49	7.39	131.05	-72.45	-239.87	339.71	348.06	15.00	24.202		
2,100.00	2,086.06	2,052.83	2,033.55	7.90	7.82	130.79	-78.94	-256.85	363.06	370.64	15.78	24.490		
2,200.00	2,185.12	2,150.06	2,129.06	8.31	8.26	130.57	-85.42	-273.82	386.42	393.22	16.56	24.748		
2,300.00	2,284.18	2,247.28	2,224.57	8.72	8.69	130.37	-91.91	-290.80	409.78	415.81	17.34	24.982		
2,400.00	2,383.25	2,344.50	2,320.08	9.13	9.13	130.19	-98.40	-307.77	433.15	438.40	18.12	25.194		
2,500.00	2,482.31	2,441.73	2,415.59	9.55	9.57	130.03	-104.88	-324.75	456.52	460.99	18.90	25.387		
2,600.00	2,581.37	2,538.95	2,511.10	9.96	10.01	129.88	-111.37	-341.72	479.89	483.58	19.69	25.565		
2,700.00	2,680.44	2,636.17	2,606.61	10.37	10.45	129.75	-117.86	-358.70	503.27	506.18	20.47	25.727		
2,800.00	2,779.50	2,733.39	2,702.12	10.79	10.89	129.63	-124.34	-375.67	526.65	528.77	21.26	25.877		
2,900.00	2,878.56	2,830.62	2,797.63	11.20	11.34	129.52	-130.83	-392.64	550.03	551.37	22.04	26.016		
3,000.00	2,977.63	2,927.84	2,893.14	11.61	11.78	129.42	-137.31	-409.62	573.41	573.97	22.83	26.145		
3,100.00	3,076.69	3,025.06	2,988.65	12.03	12.22	129.33	-143.80	-426.59	596.79	596.57	23.61	26.264		
3,200.00	3,175.75	3,122.29	3,084.16	12.44	12.67	129.24	-150.29	-443.57	620.18	619.17	24.40	26.376		
3,300.00	3,274.82	3,219.51	3,179.67	12.85	13.11	129.16	-156.77	-460.54	643.57	641.77	25.19	26.480		
3,400.00	3,373.88	3,316.73	3,275.18	13.27	13.55	129.09	-163.26	-477.52	666.95	664.37	25.97	26.577		
3,500.00	3,472.94	3,413.96	3,370.69	13.68	14.00	129.02	-169.75	-494.49	690.34	686.97	26.76	26.669		
3,600.00	3,572.01	3,511.18	3,466.20	14.09	14.44	128.95	-176.23	-511.47	713.73	709.57	27.55	26.755		
3,700.00	3,671.07	3,608.40	3,561.71	14.51	14.89	128.89	-182.72	-528.44	737.12	732.17	28.34	26.836		
3,800.00	3,770.13	3,705.63	3,657.22	14.92	15.33	128.84	-189.20	-545.42	760.51	754.77	29.13	26.912		
3,900.00	3,869.20	3,802.85	3,752.73	15.34	15.78	128.78	-195.69	-562.39	783.90	777.38	29.92	26.984		
4,000.00	3,968.26	3,900.07	3,848.24	15.75	16.22	128.73	-202.18	-579.36	807.30	799.98	30.71	27.052		
4,100.00	4,067.32	3,997.30	3,943.75	16.16	16.67	128.68	-208.66	-596.34	830.69	822.59	31.50	27.117		
4,200.00	4,166.39	4,094.52	4,039.26	16.58	17.12	128.64	-215.15	-613.31	854.08	845.19	32.29	27.178		
4,300.00	4,265.45	4,191.74	4,134.77	16.99	17.56	128.60	-221.64	-630.29	877.48	867.79	33.08	27.236		
4,400.00	4,364.51	4,288.97	4,230.28	17.41	18.01	128.56	-228.12	-647.26	900.87	890.40	33.87	27.292		
4,500.00	4,463.58	4,386.19	4,325.79	17.82	18.46	128.52	-234.61	-664.24	924.26	913.00	34.66	27.345		
4,600.00	4,562.64	4,483.41	4,421.30	18.24	18.90	128.48	-241.09	-681.21	947.66	923.54	35.02	27.368		
4,646.61	4,608.82	4,528.73	4,465.82	18.43	19.11	128.47	-244.12	-689.12	958.56	935.31	35.44	27.389		
4,700.00	4,661.77	4,580.70	4,516.88	18.65	19.35	128.62	-247.58	-698.20	970.75	955.74	36.22	27.390		
4,800.00	4,761.26	4,678.37	4,612.82	19.04	19.80	128.76	-254.10	-715.25	991.96					

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4E-26H-P268 - OH - PLAN #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft	
Reference				Offset		Semi Major Axis			Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
4,900.00	4,861.03	4,776.34	4,709.07	19.40	20.25	128.72	-260.64	-732.36	1,011.05	974.08	36.97	27.348		
5,000.00	4,960.98	4,874.50	4,805.50	19.74	20.70	128.50	-267.19	-749.49	1,028.04	990.34	37.70	27.266		
5,039.02	5,000.00	4,912.83	4,843.16	19.86	20.88	-74.67	-269.74	-756.19	1,034.11	996.14	37.98	27.229		
5,100.00	5,060.98	4,972.74	4,902.00	20.04	21.15	-75.04	-273.74	-766.64	1,043.38	1,004.99	38.39	27.176		
5,200.00	5,160.98	5,070.98	4,998.51	20.33	21.60	-75.63	-280.29	-783.80	1,058.68	1,019.60	39.08	27.092		
5,300.00	5,260.98	5,169.21	5,095.02	20.62	22.05	-76.20	-286.85	-800.95	1,074.08	1,034.32	39.76	27.013		
5,400.00	5,360.98	5,267.45	5,191.52	20.91	22.51	-76.76	-293.40	-818.10	1,089.58	1,049.13	40.44	26.940		
5,500.00	5,460.98	5,365.69	5,288.03	21.21	22.96	-77.30	-299.95	-835.25	1,105.18	1,064.05	41.13	26.871		
5,600.00	5,560.98	5,463.93	5,384.54	21.51	23.41	-77.82	-306.51	-852.40	1,120.87	1,079.06	41.81	26.806		
5,700.00	5,660.98	5,562.16	5,481.04	21.81	23.86	-78.33	-313.06	-869.56	1,136.66	1,094.16	42.50	26.745		
5,800.00	5,760.98	5,660.40	5,577.55	22.11	24.32	-78.83	-319.62	-886.71	1,152.53	1,109.35	43.19	26.688		
5,900.00	5,860.98	5,758.64	5,674.06	22.41	24.77	-79.32	-326.17	-903.86	1,168.49	1,124.62	43.87	26.633		
6,000.00	5,960.98	5,856.88	5,770.56	22.72	25.22	-79.79	-332.72	-921.01	1,184.53	1,139.97	44.56	26.583		
6,100.00	6,060.98	5,955.12	5,867.07	23.02	25.67	-80.25	-339.28	-938.16	1,200.64	1,155.39	45.25	26.535		
6,200.00	6,160.98	6,053.35	5,963.58	23.33	26.12	-80.69	-345.83	-955.31	1,216.83	1,170.89	45.94	26.489		
6,300.00	6,260.98	6,151.59	6,060.08	23.64	26.58	-81.13	-352.39	-972.47	1,233.08	1,186.46	46.63	26.446		
6,400.00	6,360.98	6,249.83	6,156.59	23.95	27.03	-81.55	-358.94	-989.62	1,249.41	1,202.09	47.32	26.406		
6,500.00	6,460.98	6,348.07	6,253.10	24.26	27.48	-81.97	-365.49	-1,006.77	1,265.80	1,217.79	48.01	26.368		
6,600.00	6,560.98	6,446.30	6,349.60	24.58	27.93	-82.37	-372.05	-1,023.92	1,282.25	1,233.56	48.70	26.332		
6,700.00	6,660.98	6,544.54	6,446.11	24.89	28.39	-82.76	-378.60	-1,041.07	1,298.77	1,249.38	49.39	26.297		
6,802.82	6,763.80	6,645.55	6,545.34	25.21	28.85	-83.15	-385.34	-1,058.71	1,315.81	1,265.71	50.10	26.264		
6,850.00	6,810.94	6,691.76	6,590.74	25.36	29.07	-82.47	-388.42	-1,066.78	1,323.46	1,273.04	50.42	26.250		
6,900.00	6,860.68	6,740.29	6,638.41	25.50	29.29	-82.25	-391.66	-1,075.25	1,331.17	1,280.43	50.74	26.236		
6,950.00	6,909.95	6,788.13	6,685.41	25.64	29.51	-82.18	-394.85	-1,083.60	1,338.50	1,287.47	51.04	26.225		
7,000.00	6,958.50	6,834.60	6,731.06	25.77	29.72	-82.26	-397.95	-1,091.72	1,345.52	1,294.21	51.32	26.220		
7,050.00	7,006.10	6,874.56	6,770.37	25.89	29.90	-82.31	-399.36	-1,098.71	1,352.41	1,300.89	51.53	26.247		
7,100.00	7,052.52	6,915.18	6,810.34	26.00	30.07	-82.40	-398.51	-1,105.83	1,359.28	1,307.55	51.73	26.278		
7,150.00	7,097.54	6,956.52	6,850.92	26.10	30.24	-82.51	-395.28	-1,113.08	1,366.10	1,314.18	51.92	26.310		
7,200.00	7,140.93	7,000.00	6,893.30	26.20	30.40	-82.67	-389.32	-1,120.66	1,372.88	1,320.75	52.13	26.336		
7,250.00	7,182.49	7,041.75	6,933.60	26.29	30.55	-82.83	-381.15	-1,127.88	1,379.58	1,327.26	52.31	26.372		
7,300.00	7,222.00	7,085.83	6,975.55	26.38	30.69	-83.03	-369.96	-1,135.41	1,386.19	1,333.68	52.51	26.398		
7,350.00	7,259.28	7,131.02	7,017.77	26.46	30.82	-83.27	-355.78	-1,143.01	1,392.69	1,339.97	52.72	26.417		
7,400.00	7,294.15	7,177.45	7,060.15	26.55	30.94	-83.55	-338.43	-1,150.65	1,399.07	1,346.13	52.94	26.429		
7,450.00	7,326.43	7,225.24	7,102.51	26.64	31.06	-83.86	-317.69	-1,158.30	1,405.29	1,352.13	53.17	26.432		
7,500.00	7,355.97	7,274.55	7,144.69	26.74	31.16	-84.21	-293.33	-1,165.95	1,411.33	1,357.93	53.41	26.426		
7,550.00	7,382.63	7,325.53	7,186.45	26.84	31.26	-84.59	-265.12	-1,173.54	1,417.16	1,363.50	53.66	26.409		
7,600.00	7,406.27	7,378.34	7,227.51	26.94	31.34	-85.02	-232.78	-1,181.02	1,422.75	1,368.82	53.93	26.380		
7,650.00	7,426.79	7,433.15	7,267.52	27.06	31.42	-85.48	-196.06	-1,188.35	1,428.05	1,373.83	54.22	26.340		
7,700.00	7,444.07	7,490.15	7,306.07	27.19	31.48	-85.98	-154.70	-1,195.44	1,433.02	1,378.51	54.51	26.287		
7,750.00	7,458.04	7,549.51	7,342.63	27.34	31.54	-86.51	-108.46	-1,202.20	1,437.62	1,382.79	54.83	26.221		
7,800.00	7,468.62	7,611.39	7,376.60	27.50	31.58	-87.08	-57.14	-1,208.53	1,441.78	1,386.62	55.16	26.140		
7,850.00	7,475.78	7,675.96	7,407.25	27.67	31.61	-87.69	-0.63	-1,214.29	1,445.44	1,389.94	55.50	26.042		
7,900.00	7,479.46	7,743.33	7,433.76	27.85	31.64	-88.31	61.08	-1,219.35	1,448.55	1,392.68	55.87	25.927		
7,927.82	7,480.00	7,782.06	7,446.37	27.96	31.66	-88.67	97.61	-1,221.79	1,450.01	1,393.92	56.09	25.854		
8,000.00	7,480.00	7,887.76	7,470.71	28.27	31.71	-89.63	200.25	-1,226.68	1,452.81	1,396.11	56.70	25.623		
8,100.00	7,480.00	8,028.52	7,480.00	28.76	31.85	-90.00	340.49	-1,229.09	1,453.88	1,396.18	57.70	25.197		
8,200.00	7,480.00	8,128.52	7,480.00	29.34	32.05	-90.00	440.49	-1,229.63	1,453.88	1,395.13	58.74	24.750		
8,300.00	7,480.00	8,228.52	7,480.00	30.00	32.35	-90.00	540.49	-1,230.18	1,453.87	1,393.94	59.93	24.258		
8,400.00	7,480.00	8,328.52	7,480.00	30.72	32.77	-90.00	640.49	-1,230.72	1,453.87	1,392.60	61.27	23.730		
8,500.00	7,480.00	8,428.52	7,480.00	31.51	33.31	-90.00	740.48	-1,231.26	1,453.87	1,391.14	62.73	23.176		
8,600.00	7,480.00	8,528.52	7,480.00	32.35	33.94	-90.00	840.48	-1,231.80	1,453.87	1,389.55	64.32	22.604		
8,700.00	7,480.00	8,628.52	7,480.00	33.25	34.65	-90.00	940.48	-1,232.34	1,453.86	1,387.84	66.02	22.021		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4E-26H-P268 - OH - PLAN #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
8,800.00	7,480.00	8,728.52	7,480.00	34.20	35.44	-90.00	1,040.48	-1,232.88	1,453.86	1,386.03	67.83	21.434		
8,900.00	7,480.00	8,828.52	7,480.00	35.20	36.29	-90.00	1,140.48	-1,233.42	1,453.86	1,384.12	69.74	20.848		
9,000.00	7,480.00	8,928.52	7,480.00	36.24	37.20	-90.00	1,240.48	-1,233.97	1,453.86	1,382.13	71.73	20.268		
9,100.00	7,480.00	9,028.52	7,480.00	37.32	38.16	-90.00	1,340.48	-1,234.51	1,453.86	1,380.05	73.81	19.697		
9,200.00	7,480.00	9,128.52	7,480.00	38.43	39.16	-90.00	1,440.47	-1,235.05	1,453.85	1,377.89	75.96	19.139		
9,300.00	7,480.00	9,228.52	7,480.00	39.57	40.20	-90.00	1,540.47	-1,235.59	1,453.85	1,375.66	78.19	18.594		
9,400.00	7,480.00	9,328.52	7,480.00	40.75	41.28	-90.00	1,640.47	-1,236.13	1,453.85	1,373.37	80.48	18.066		
9,500.00	7,480.00	9,428.52	7,480.00	41.95	42.38	-90.00	1,740.47	-1,236.67	1,453.85	1,371.03	82.82	17.554		
9,600.00	7,480.00	9,528.52	7,480.00	43.18	43.52	-90.00	1,840.47	-1,237.21	1,453.85	1,368.62	85.22	17.060		
9,700.00	7,480.00	9,628.52	7,480.00	44.43	44.69	-90.00	1,940.47	-1,237.75	1,453.84	1,366.17	87.67	16.583		
9,800.00	7,480.00	9,728.52	7,480.00	45.70	45.88	-90.00	2,040.47	-1,238.30	1,453.84	1,363.68	90.16	16.124		
9,900.00	7,480.00	9,828.52	7,480.00	46.99	47.10	-90.00	2,140.46	-1,238.84	1,453.84	1,361.14	92.70	15.683		
10,000.00	7,480.00	9,928.52	7,480.00	48.30	48.34	-90.00	2,240.46	-1,239.38	1,453.84	1,358.56	95.28	15.259		
10,100.00	7,480.00	10,028.52	7,480.00	49.62	49.59	-90.00	2,340.46	-1,239.92	1,453.83	1,355.95	97.88	14.853		
10,200.00	7,480.00	10,128.52	7,480.00	50.96	50.87	-90.00	2,440.46	-1,240.46	1,453.83	1,353.31	100.53	14.462		
10,300.00	7,480.00	10,228.52	7,480.00	52.31	52.16	-90.00	2,540.46	-1,241.00	1,453.83	1,350.63	103.20	14.088		
10,400.00	7,480.00	10,328.52	7,480.00	53.68	53.47	-90.00	2,640.46	-1,241.54	1,453.83	1,347.93	105.90	13.728		
10,500.00	7,480.00	10,428.52	7,480.00	55.05	54.79	-90.00	2,740.46	-1,242.08	1,453.83	1,345.20	108.62	13.384		
10,600.00	7,480.00	10,528.52	7,480.00	56.44	56.13	-90.00	2,840.45	-1,242.63	1,453.82	1,342.45	111.37	13.054		
10,700.00	7,480.00	10,628.52	7,480.00	57.84	57.48	-90.00	2,940.45	-1,243.17	1,453.82	1,339.68	114.15	12.737		
10,800.00	7,480.00	10,728.52	7,480.00	59.25	58.84	-90.00	3,040.45	-1,243.71	1,453.82	1,336.88	116.94	12.432		
10,900.00	7,480.00	10,828.52	7,480.00	60.67	60.21	-90.00	3,140.45	-1,244.25	1,453.82	1,334.07	119.75	12.141		
11,000.00	7,480.00	10,928.52	7,480.00	62.09	61.59	-90.00	3,240.45	-1,244.79	1,453.82	1,331.24	122.58	11.860		
11,100.00	7,480.00	11,028.52	7,480.00	63.52	62.99	-90.00	3,340.45	-1,245.33	1,453.81	1,328.39	125.42	11.591		
11,200.00	7,480.00	11,128.52	7,480.00	64.96	64.39	-90.00	3,440.44	-1,245.87	1,453.81	1,325.53	128.28	11.333		
11,300.00	7,480.00	11,228.52	7,480.00	66.41	65.79	-90.00	3,540.44	-1,246.42	1,453.81	1,322.65	131.16	11.084		
11,400.00	7,480.00	11,328.52	7,480.00	67.86	67.21	-90.00	3,640.44	-1,246.96	1,453.81	1,319.76	134.05	10.845		
11,500.00	7,480.00	11,428.52	7,480.00	69.32	68.64	-90.00	3,740.44	-1,247.50	1,453.81	1,316.86	136.95	10.616		
11,600.00	7,480.00	11,528.52	7,480.00	70.79	70.07	-90.00	3,840.44	-1,248.04	1,453.80	1,313.94	139.86	10.394		
11,700.00	7,480.00	11,628.52	7,480.00	72.26	71.50	-90.00	3,940.44	-1,248.58	1,453.80	1,311.01	142.79	10.182		
11,800.00	7,480.00	11,728.52	7,480.00	73.73	72.95	-90.00	4,040.44	-1,249.12	1,453.80	1,308.08	145.72	9.976		
11,900.00	7,480.00	11,828.52	7,480.00	75.21	74.40	-90.00	4,140.43	-1,249.66	1,453.80	1,305.13	148.67	9.779		
12,000.00	7,480.00	11,941.46	7,480.00	76.69	76.04	-90.00	4,253.38	-1,250.06	1,453.63	1,301.91	151.72	9.581		
12,100.00	7,480.00	12,041.46	7,480.00	78.18	77.49	-90.00	4,353.37	-1,249.71	1,452.74	1,298.07	154.68	9.392		
12,200.00	7,480.00	12,141.45	7,480.00	79.67	78.95	-90.00	4,453.37	-1,249.36	1,451.85	1,294.21	157.64	9.210		
12,300.00	7,480.00	12,241.45	7,480.00	81.17	80.41	-90.00	4,553.36	-1,249.01	1,450.96	1,290.34	160.61	9.034		
12,400.00	7,480.00	12,341.45	7,480.00	82.66	81.87	-90.00	4,653.36	-1,248.66	1,450.06	1,286.47	163.59	8.864		
12,500.00	7,480.00	12,441.44	7,480.00	84.17	83.34	-90.00	4,753.35	-1,248.31	1,449.17	1,282.59	166.58	8.700		
12,600.00	7,480.00	12,541.44	7,480.00	85.67	84.82	-90.00	4,853.35	-1,247.96	1,448.28	1,278.71	169.57	8.541		
12,700.00	7,480.00	12,641.43	7,480.00	87.18	86.29	-90.00	4,953.34	-1,247.61	1,447.39	1,274.81	172.57	8.387		
12,800.00	7,480.00	12,741.43	7,480.00	88.69	87.78	-90.00	5,053.34	-1,247.26	1,446.49	1,270.92	175.58	8.238		
12,900.00	7,480.00	12,841.43	7,480.00	90.20	89.26	-90.00	5,153.34	-1,246.91	1,445.60	1,267.01	178.59	8.095		
13,000.00	7,480.00	12,941.42	7,480.00	91.72	90.75	-90.00	5,253.33	-1,246.57	1,444.71	1,263.10	181.60	7.955		
13,100.00	7,480.00	13,029.67	7,480.00	93.23	92.06	-90.00	5,341.57	-1,246.26	1,443.86	1,259.33	184.54	7.824		
13,118.41	7,480.00	13,046.84	7,480.00	93.51	92.32	-90.00	5,358.75	-1,246.27	1,443.79	1,258.70	185.08	7.801		
13,200.00	7,480.00	13,113.59	7,480.00	94.75	93.33	-90.00	5,425.49	-1,247.23	1,444.45	1,257.02	187.43	7.707		
13,300.00	7,480.00	13,213.58	7,480.00	96.28	94.84	-90.00	5,525.47	-1,248.81	1,445.49	1,255.01	190.48	7.589		
13,400.00	7,480.00	13,313.57	7,480.00	97.80	96.36	-90.00	5,625.45	-1,250.38	1,446.52	1,253.00	193.52	7.475		
13,500.00	7,480.00	13,413.57	7,480.00	99.33	97.88	-90.00	5,725.43	-1,251.96	1,447.56	1,250.98	196.58	7.364		
13,600.00	7,480.00	13,513.56	7,480.00	100.86	99.40	-90.00	5,825.42	-1,253.54	1,448.59	1,248.96	199.64	7.256		
13,700.00	7,480.00	13,613.56	7,480.00	102.39	100.92	-90.00	5,925.40	-1,255.12	1,449.63	1,246.93	202.70	7.152		
13,800.00	7,480.00	13,713.55	7,480.00	103.92	102.45	-90.00	6,025.38	-1,256.70	1,450.66	1,244.90	205.76	7.050		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S26-T2N-R68W - SULLIVAN 4E-26H-P268 - OH - PLAN #2		Offset Site Error:		0.00 usft
Survey Program:													0-MWD+HDGM		Offset Well Error:		0.00 usft
Reference				Offset		Semi Major Axis			Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning				
13,900.00	7,480.00	13,813.55	7,480.00	105.45	103.97	-90.00	6,125.36	-1,258.27	1,451.70	1,242.87	208.83	6.952					
14,000.00	7,480.00	13,913.54	7,480.00	106.99	105.50	-90.00	6,225.34	-1,259.85	1,452.73	1,240.83	211.90	6.856					
14,100.00	7,480.00	14,013.54	7,480.00	108.52	107.04	-90.00	6,325.33	-1,261.43	1,453.77	1,238.79	214.98	6.762					
14,200.00	7,480.00	14,113.53	7,480.00	110.06	108.57	-90.00	6,425.31	-1,263.01	1,454.80	1,236.75	218.06	6.672					
14,300.00	7,480.00	14,213.53	7,480.00	111.60	110.10	-90.00	6,525.29	-1,264.59	1,455.84	1,234.70	221.14	6.583					
14,400.00	7,480.00	14,336.51	7,480.00	113.14	111.99	-90.00	6,648.27	-1,266.06	1,456.59	1,232.17	224.42	6.490					
14,500.00	7,480.00	14,436.51	7,480.00	114.68	113.52	-90.00	6,748.27	-1,266.06	1,456.04	1,228.55	227.49	6.400					
14,600.00	7,480.00	14,536.51	7,480.00	116.22	115.04	-90.00	6,848.26	-1,266.06	1,455.50	1,224.93	230.57	6.313					
14,691.86	7,480.00	14,622.60	7,480.00	117.64	116.37	-90.00	6,934.35	-1,266.06	1,455.01	1,221.66	233.35	6.235 SF					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4F-26H-P268 - OH - PLAN #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.25	-0.18	-40.00	40.00				
100.00	100.00	100.00	100.00	0.14	0.14	-90.25	-0.18	-40.00	40.00	39.72	0.28	144.919	
200.00	200.00	200.00	200.00	0.50	0.50	-90.25	-0.18	-40.00	40.00	39.01	0.99	40.284 CC	
300.00	300.00	299.48	299.46	0.85	0.84	-92.54	-1.80	-40.59	40.63	38.93	1.70	23.901 ES	
350.00	350.00	349.14	349.08	1.03	1.01	-95.28	-3.82	-41.33	41.51	39.46	2.06	20.182	
400.00	400.00	398.37	398.22	1.21	1.19	105.05	-6.36	-42.60	43.22	40.79	2.43	17.811	
500.00	499.93	496.54	496.09	1.54	1.54	102.89	-12.18	-47.54	49.97	46.79	3.18	15.733	
600.00	599.68	594.07	593.04	1.89	1.90	103.99	-18.94	-55.62	60.91	56.97	3.94	15.472	
700.00	699.13	691.12	689.15	2.25	2.29	106.73	-26.61	-66.71	76.05	71.36	4.68	16.239	
742.41	741.18	732.86	730.42	2.41	2.45	108.19	-30.03	-71.88	83.25	78.27	4.98	16.711	
800.00	798.23	789.49	786.43	2.63	2.68	110.22	-34.67	-78.90	93.26	87.87	5.39	17.301	
900.00	897.30	887.82	883.67	3.02	3.08	112.86	-42.72	-91.07	110.85	104.73	6.12	18.120	
1,000.00	996.36	986.16	980.91	3.42	3.49	114.78	-50.78	-103.25	128.60	121.74	6.86	18.738	
1,100.00	1,095.42	1,084.49	1,078.15	3.82	3.90	116.24	-58.83	-115.43	146.46	138.84	7.62	19.224	
1,200.00	1,194.49	1,182.82	1,175.40	4.22	4.30	117.37	-66.89	-127.61	164.39	156.01	8.38	19.613	
1,300.00	1,293.55	1,281.15	1,272.64	4.62	4.72	118.29	-74.95	-139.79	182.37	173.22	9.15	19.930	
1,400.00	1,392.61	1,379.49	1,369.88	5.03	5.13	119.04	-83.00	-151.97	200.39	190.46	9.92	20.194	
1,500.00	1,491.68	1,477.82	1,467.12	5.44	5.54	119.66	-91.06	-164.15	218.43	207.73	10.70	20.416	
1,600.00	1,590.74	1,576.15	1,564.37	5.84	5.96	120.19	-99.11	-176.33	236.50	225.02	11.48	20.605	
1,700.00	1,689.80	1,674.48	1,661.61	6.25	6.37	120.65	-107.17	-188.50	254.58	242.32	12.26	20.768	
1,800.00	1,788.87	1,772.82	1,758.85	6.66	6.78	121.04	-115.22	-200.68	272.68	259.64	13.04	20.910	
1,900.00	1,887.93	1,871.15	1,856.09	7.07	7.20	121.39	-123.28	-212.86	290.78	276.96	13.82	21.035	
2,000.00	1,986.99	1,969.48	1,953.34	7.49	7.61	121.69	-131.34	-225.04	308.90	294.29	14.61	21.146	
2,100.00	2,086.06	2,067.82	2,050.58	7.90	8.03	121.96	-139.39	-237.22	327.02	311.63	15.39	21.244	
2,200.00	2,185.12	2,166.15	2,147.82	8.31	8.45	122.21	-147.45	-249.40	345.15	328.98	16.18	21.333	
2,300.00	2,284.18	2,264.48	2,245.07	8.72	8.86	122.42	-155.50	-261.58	363.29	346.32	16.97	21.413	
2,400.00	2,383.25	2,362.81	2,342.31	9.13	9.28	122.62	-163.56	-273.76	381.43	363.68	17.75	21.485	
2,500.00	2,482.31	2,461.15	2,439.55	9.55	9.69	122.80	-171.61	-285.94	399.57	381.03	18.54	21.550	
2,600.00	2,581.37	2,559.48	2,536.79	9.96	10.11	122.97	-179.67	-298.11	417.72	398.39	19.33	21.611	
2,700.00	2,680.44	2,657.81	2,634.04	10.37	10.53	123.12	-187.73	-310.29	435.87	415.76	20.12	21.666	
2,800.00	2,779.50	2,756.14	2,731.28	10.79	10.94	123.25	-195.78	-322.47	454.03	433.12	20.91	21.716	
2,900.00	2,878.56	2,854.48	2,828.52	11.20	11.36	123.38	-203.84	-334.65	472.18	450.49	21.70	21.763	
3,000.00	2,977.63	2,952.81	2,925.76	11.61	11.78	123.50	-211.89	-346.83	490.34	467.85	22.49	21.807	
3,100.00	3,076.69	3,051.14	3,023.01	12.03	12.19	123.61	-219.95	-359.01	508.50	485.22	23.28	21.847	
3,200.00	3,175.75	3,149.48	3,120.25	12.44	12.61	123.71	-228.00	-371.19	526.66	502.60	24.07	21.884	
3,300.00	3,274.82	3,247.81	3,217.49	12.85	13.03	123.81	-236.06	-383.37	544.82	519.97	24.86	21.920	
3,400.00	3,373.88	3,346.14	3,314.73	13.27	13.44	123.90	-244.12	-395.55	562.99	537.34	25.65	21.952	
3,500.00	3,472.94	3,444.47	3,411.98	13.68	13.86	123.98	-252.17	-407.72	581.16	554.72	26.44	21.983	
3,600.00	3,572.01	3,542.81	3,509.22	14.09	14.28	124.06	-260.23	-419.90	599.32	572.09	27.23	22.012	
3,700.00	3,671.07	3,641.14	3,606.46	14.51	14.69	124.13	-268.28	-432.08	617.49	589.47	28.02	22.039	
3,800.00	3,770.13	3,739.47	3,703.70	14.92	15.11	124.20	-276.34	-444.26	635.66	606.85	28.81	22.065	
3,900.00	3,869.20	3,837.81	3,800.95	15.34	15.53	124.27	-284.39	-456.44	653.83	624.23	29.60	22.089	
4,000.00	3,968.26	3,936.14	3,898.19	15.75	15.95	124.33	-292.45	-468.62	672.00	641.61	30.39	22.112	
4,100.00	4,067.32	4,034.47	3,995.43	16.16	16.36	124.39	-300.51	-480.80	690.17	658.99	31.18	22.134	
4,200.00	4,166.39	4,132.80	4,092.67	16.58	16.78	124.45	-308.56	-492.98	708.34	676.37	31.97	22.154	
4,300.00	4,265.45	4,231.14	4,189.92	16.99	17.20	124.50	-316.62	-505.15	726.51	693.75	32.76	22.174	
4,400.00	4,364.51	4,329.47	4,287.16	17.41	17.61	124.55	-324.67	-517.33	744.69	711.13	33.56	22.192	
4,500.00	4,463.58	4,427.80	4,384.40	17.82	18.03	124.60	-332.73	-529.51	762.86	728.51	34.35	22.210	
4,600.00	4,562.64	4,526.13	4,481.64	18.24	18.45	124.65	-340.78	-541.69	781.03	745.90	35.14	22.227	
4,646.61	4,608.82	4,571.97	4,526.97	18.43	18.64	124.67	-344.54	-547.37	789.51	754.00	35.51	22.235	
4,700.00	4,661.77	4,624.52	4,578.94	18.65	18.87	124.82	-348.84	-553.88	798.93	763.00	35.93	22.237	
4,800.00	4,761.26	4,723.17	4,676.50	19.04	19.29	124.92	-356.93	-566.09	815.08	778.38	36.70	22.209	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4F-26H-P268 - OH - PLAN #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
4,900.00	4,861.03	4,822.02	4,774.25	19.40	19.70	124.79	-365.02	-578.34	829.27	791.82	37.45	22.141		
5,000.00	4,960.98	4,920.94	4,872.08	19.74	20.12	124.45	-373.13	-590.59	841.54	803.35	38.19	22.037		
5,039.02	5,000.00	4,959.54	4,910.24	19.86	20.29	-78.78	-376.29	-595.37	845.82	807.36	38.46	21.992		
5,100.00	5,060.98	5,019.84	4,969.88	20.04	20.54	-79.20	-381.23	-602.84	852.32	813.44	38.87	21.925		
5,200.00	5,160.98	5,118.73	5,067.67	20.33	20.96	-79.89	-389.33	-615.09	863.07	823.51	39.55	21.820		
5,300.00	5,260.98	5,217.62	5,165.47	20.62	21.38	-80.55	-397.43	-627.33	873.94	833.70	40.23	21.721		
5,400.00	5,360.98	5,316.52	5,263.26	20.91	21.80	-81.21	-405.54	-639.58	884.92	844.01	40.92	21.628		
5,500.00	5,460.98	5,415.41	5,361.06	21.21	22.22	-81.84	-413.64	-651.83	896.02	854.42	41.60	21.541		
5,600.00	5,560.98	5,514.30	5,458.85	21.51	22.64	-82.46	-421.74	-664.08	907.23	864.95	42.28	21.459		
5,700.00	5,660.98	5,613.19	5,556.65	21.81	23.06	-83.07	-429.84	-676.33	918.53	875.57	42.96	21.381		
5,800.00	5,760.98	5,712.08	5,654.44	22.11	23.48	-83.66	-437.94	-688.57	929.94	886.30	43.64	21.309		
5,900.00	5,860.98	5,810.97	5,752.24	22.41	23.90	-84.23	-446.04	-700.82	941.45	897.12	44.32	21.240		
6,000.00	5,960.98	5,909.86	5,850.03	22.72	24.32	-84.80	-454.14	-713.07	953.04	908.03	45.01	21.175		
6,100.00	6,060.98	6,008.75	5,947.83	23.02	24.74	-85.34	-462.25	-725.32	964.73	919.04	45.69	21.114		
6,200.00	6,160.98	6,107.65	6,045.62	23.33	25.16	-85.88	-470.35	-737.57	976.50	930.12	46.38	21.057		
6,300.00	6,260.98	6,206.54	6,143.42	23.64	25.58	-86.40	-478.45	-749.81	988.35	941.29	47.06	21.002		
6,400.00	6,360.98	6,305.43	6,241.21	23.95	26.00	-86.91	-486.55	-762.06	1,000.29	952.54	47.74	20.951		
6,500.00	6,460.98	6,404.32	6,339.01	24.26	26.42	-87.41	-494.65	-774.31	1,012.30	963.87	48.43	20.902		
6,600.00	6,560.98	6,503.21	6,436.80	24.58	26.84	-87.90	-502.75	-786.56	1,024.39	975.27	49.12	20.857		
6,700.00	6,660.98	6,602.10	6,534.60	24.89	27.26	-88.38	-510.85	-798.81	1,036.54	986.74	49.80	20.813		
6,802.82	6,763.80	6,703.79	6,635.15	25.21	27.69	-88.85	-519.18	-811.40	1,049.12	998.61	50.51	20.771		
6,850.00	6,810.94	6,750.28	6,681.13	25.36	27.89	-88.38	-522.99	-817.16	1,054.87	1,004.05	50.82	20.755		
6,900.00	6,860.68	6,799.06	6,729.36	25.50	28.10	-88.38	-526.99	-823.20	1,060.93	1,009.79	51.14	20.745		
6,950.00	6,909.95	6,847.08	6,776.86	25.64	28.30	-88.54	-530.92	-829.15	1,067.01	1,015.57	51.44	20.743		
7,000.00	6,958.50	6,894.13	6,823.39	25.77	28.50	-88.85	-534.78	-834.98	1,073.18	1,021.46	51.72	20.751		
7,050.00	7,006.10	6,940.79	6,869.56	25.89	28.70	-89.27	-538.09	-840.77	1,079.56	1,027.58	51.98	20.769		
7,100.00	7,052.52	6,988.75	6,917.13	26.00	28.88	-89.70	-538.61	-846.78	1,086.15	1,033.92	52.23	20.794		
7,150.00	7,097.54	7,038.05	6,965.94	26.10	29.05	-90.15	-535.80	-853.02	1,092.94	1,040.46	52.48	20.826		
7,200.00	7,140.93	7,088.81	7,015.87	26.20	29.21	-90.60	-529.38	-859.45	1,099.88	1,047.16	52.72	20.863		
7,250.00	7,182.49	7,141.18	7,066.76	26.29	29.36	-91.05	-519.03	-866.08	1,106.94	1,053.99	52.95	20.904		
7,300.00	7,222.00	7,195.29	7,118.42	26.38	29.49	-91.52	-504.44	-872.88	1,114.06	1,060.88	53.18	20.948		
7,350.00	7,259.28	7,251.31	7,170.56	26.46	29.62	-91.99	-485.23	-879.82	1,121.20	1,067.79	53.41	20.994		
7,400.00	7,294.15	7,309.37	7,222.86	26.55	29.72	-92.46	-461.05	-886.87	1,128.28	1,074.67	53.62	21.042		
7,450.00	7,326.43	7,369.62	7,274.88	26.64	29.81	-92.93	-431.52	-893.98	1,135.26	1,081.43	53.83	21.091		
7,500.00	7,355.97	7,432.20	7,326.08	26.74	29.89	-93.41	-396.30	-901.08	1,142.03	1,088.01	54.02	21.139		
7,550.00	7,382.63	7,497.21	7,375.83	26.84	29.94	-93.87	-355.08	-908.10	1,148.54	1,094.32	54.22	21.184		
7,600.00	7,406.27	7,564.72	7,423.34	26.94	29.98	-94.33	-307.64	-914.95	1,154.68	1,100.28	54.40	21.224		
7,650.00	7,426.79	7,634.76	7,467.71	27.06	30.00	-94.76	-253.87	-921.51	1,160.37	1,105.77	54.60	21.253		
7,700.00	7,444.07	7,707.29	7,507.92	27.19	29.99	-95.16	-193.86	-927.65	1,165.51	1,110.71	54.80	21.267		
7,750.00	7,458.04	7,782.18	7,542.89	27.34	29.97	-95.52	-127.92	-933.23	1,170.02	1,114.98	55.04	21.259		
7,800.00	7,468.62	7,859.21	7,571.53	27.50	29.92	-95.83	-56.62	-938.10	1,173.79	1,118.48	55.31	21.222		
7,850.00	7,475.78	7,938.06	7,592.80	27.67	29.86	-96.07	19.16	-942.12	1,176.77	1,121.13	55.64	21.151		
7,900.00	7,479.46	8,018.32	7,605.83	27.85	29.80	-96.24	98.26	-945.15	1,178.86	1,122.84	56.02	21.042		
7,927.82	7,480.00	8,063.41	7,609.27	27.96	29.76	-96.29	143.19	-946.37	1,179.64	1,123.37	56.27	20.965		
8,000.00	7,480.00	8,148.12	7,610.00	28.27	29.72	-96.32	227.88	-947.94	1,180.61	1,123.71	56.89	20.752		
8,100.00	7,480.00	8,248.12	7,610.00	28.76	29.95	-96.32	327.86	-949.69	1,181.80	1,123.97	57.83	20.436		
8,200.00	7,480.00	8,348.11	7,610.00	29.34	30.52	-96.31	427.84	-951.43	1,182.99	1,124.07	58.92	20.077		
8,300.00	7,480.00	8,448.10	7,610.00	30.00	31.17	-96.30	527.82	-953.18	1,184.19	1,124.03	60.16	19.683		
8,400.00	7,480.00	8,548.09	7,610.00	30.72	31.88	-96.30	627.79	-954.92	1,185.38	1,123.84	61.54	19.261		
8,500.00	7,480.00	8,648.09	7,610.00	31.51	32.65	-96.29	727.77	-956.67	1,186.58	1,123.53	63.05	18.820		
8,600.00	7,480.00	8,748.08	7,610.00	32.35	33.47	-96.28	827.75	-958.41	1,187.77	1,123.09	64.68	18.364		
8,700.00	7,480.00	8,848.07	7,610.00	33.25	34.35	-96.28	927.73	-960.16	1,188.97	1,122.55	66.42	17.901		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4F-26H-P268 - OH - PLAN #2													Offset Site Error: 0.00 usft			
Survey Program: 0-MWD+HDGM															Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor				
8,800.00	7,480.00	8,948.07	7,610.00	34.20	35.27	-96.27	1,027.70	-961.90	1,190.16	1,121.90	68.26	17.435				
8,900.00	7,480.00	9,048.06	7,610.00	35.20	36.24	-96.26	1,127.68	-963.65	1,191.36	1,121.16	70.20	16.971				
9,000.00	7,480.00	9,148.05	7,610.00	36.24	37.24	-96.26	1,227.66	-965.39	1,192.55	1,120.33	72.22	16.512				
9,100.00	7,480.00	9,248.04	7,610.00	37.32	38.29	-96.25	1,327.64	-967.14	1,193.75	1,119.42	74.33	16.060				
9,200.00	7,480.00	9,348.04	7,610.00	38.43	39.37	-96.25	1,427.61	-968.88	1,194.94	1,118.43	76.51	15.619				
9,300.00	7,480.00	9,448.03	7,610.00	39.57	40.48	-96.24	1,527.59	-970.63	1,196.14	1,117.38	78.75	15.188				
9,400.00	7,480.00	9,548.02	7,610.00	40.75	41.62	-96.23	1,627.57	-972.37	1,197.33	1,116.27	81.06	14.771				
9,500.00	7,480.00	9,648.02	7,610.00	41.95	42.79	-96.23	1,727.55	-974.12	1,198.53	1,115.10	83.43	14.366				
9,600.00	7,480.00	9,748.01	7,610.00	43.18	43.99	-96.22	1,827.52	-975.86	1,199.72	1,113.88	85.84	13.976				
9,700.00	7,480.00	9,848.00	7,610.00	44.43	45.21	-96.21	1,927.50	-977.61	1,200.92	1,112.61	88.31	13.599				
9,800.00	7,480.00	9,947.99	7,610.00	45.70	46.45	-96.21	2,027.48	-979.35	1,202.11	1,111.30	90.81	13.237				
9,900.00	7,480.00	10,047.99	7,610.00	46.99	47.71	-96.20	2,127.46	-981.10	1,203.30	1,109.94	93.36	12.888				
10,000.00	7,480.00	10,147.98	7,610.00	48.30	49.00	-96.20	2,227.43	-982.84	1,204.50	1,108.55	95.95	12.554				
10,100.00	7,480.00	10,247.97	7,610.00	49.62	50.29	-96.19	2,327.41	-984.59	1,205.69	1,107.13	98.57	12.232				
10,200.00	7,480.00	10,347.96	7,610.00	50.96	51.61	-96.18	2,427.39	-986.33	1,206.89	1,105.67	101.22	11.923				
10,300.00	7,480.00	10,447.96	7,610.00	52.31	52.94	-96.18	2,527.37	-988.08	1,208.08	1,104.18	103.90	11.627				
10,400.00	7,480.00	10,547.95	7,610.00	53.68	54.28	-96.17	2,627.34	-989.82	1,209.28	1,102.67	106.61	11.343				
10,500.00	7,480.00	10,647.94	7,610.00	55.05	55.64	-96.17	2,727.32	-991.57	1,210.47	1,101.13	109.34	11.071				
10,600.00	7,480.00	10,747.94	7,610.00	56.44	57.01	-96.16	2,827.30	-993.31	1,211.67	1,099.57	112.10	10.809				
10,700.00	7,480.00	10,847.93	7,610.00	57.84	58.39	-96.15	2,927.28	-995.06	1,212.86	1,097.99	114.87	10.558				
10,800.00	7,480.00	10,947.92	7,610.00	59.25	59.78	-96.15	3,027.25	-996.81	1,214.06	1,096.39	117.67	10.317				
10,900.00	7,480.00	11,047.91	7,610.00	60.67	61.18	-96.14	3,127.23	-998.55	1,215.25	1,094.77	120.49	10.086				
11,000.00	7,480.00	11,147.91	7,610.00	62.09	62.59	-96.14	3,227.21	-1,000.30	1,216.45	1,093.13	123.32	9.864				
11,100.00	7,480.00	11,247.90	7,610.00	63.52	64.01	-96.13	3,327.19	-1,002.04	1,217.64	1,091.47	126.17	9.651				
11,200.00	7,480.00	11,347.89	7,610.00	64.96	65.44	-96.12	3,427.16	-1,003.79	1,218.84	1,089.80	129.03	9.446				
11,300.00	7,480.00	11,447.89	7,610.00	66.41	66.87	-96.12	3,527.14	-1,005.53	1,220.03	1,088.12	131.91	9.249				
11,400.00	7,480.00	11,547.88	7,610.00	67.86	68.32	-96.11	3,627.12	-1,007.28	1,221.23	1,086.42	134.80	9.059				
11,500.00	7,480.00	11,647.87	7,610.00	69.32	69.76	-96.11	3,727.10	-1,009.02	1,222.42	1,084.72	137.71	8.877				
11,600.00	7,480.00	11,747.86	7,610.00	70.79	71.22	-96.10	3,827.07	-1,010.77	1,223.62	1,082.99	140.62	8.701				
11,700.00	7,480.00	11,847.86	7,610.00	72.26	72.68	-96.09	3,927.05	-1,012.51	1,224.81	1,081.26	143.55	8.532				
11,800.00	7,480.00	11,947.85	7,610.00	73.73	74.14	-96.09	4,027.03	-1,014.26	1,226.01	1,079.52	146.49	8.369				
11,900.00	7,480.00	12,047.84	7,610.00	75.21	75.62	-96.08	4,127.01	-1,016.00	1,227.20	1,077.77	149.43	8.212				
12,000.00	7,480.00	12,147.83	7,610.00	76.69	77.09	-96.08	4,226.98	-1,017.75	1,228.40	1,076.01	152.39	8.061				
12,100.00	7,480.00	12,247.83	7,610.00	78.18	78.57	-96.07	4,326.96	-1,019.49	1,229.59	1,074.24	155.35	7.915				
12,200.00	7,480.00	12,347.82	7,610.00	79.67	80.06	-96.06	4,426.94	-1,021.24	1,230.79	1,072.46	158.33	7.774				
12,300.00	7,480.00	12,447.81	7,610.00	81.17	81.55	-96.06	4,526.92	-1,022.98	1,231.98	1,070.68	161.31	7.638				
12,400.00	7,480.00	12,547.81	7,610.00	82.66	83.04	-96.05	4,626.89	-1,024.73	1,233.18	1,068.89	164.29	7.506				
12,500.00	7,480.00	12,647.80	7,610.00	84.17	84.54	-96.05	4,726.87	-1,026.47	1,234.38	1,067.09	167.29	7.379				
12,600.00	7,480.00	12,747.79	7,610.00	85.67	86.04	-96.04	4,826.85	-1,028.22	1,235.57	1,065.28	170.29	7.256				
12,700.00	7,480.00	12,847.78	7,610.00	87.18	87.54	-96.03	4,926.83	-1,029.96	1,236.77	1,063.47	173.29	7.137				
12,800.00	7,480.00	12,947.78	7,610.00	88.69	89.05	-96.03	5,026.80	-1,031.71	1,237.96	1,061.65	176.31	7.022				
12,900.00	7,480.00	13,047.77	7,610.00	90.20	90.56	-96.02	5,126.78	-1,033.45	1,239.16	1,059.83	179.32	6.910				
13,000.00	7,480.00	13,147.76	7,610.00	91.72	92.07	-96.02	5,226.76	-1,035.20	1,240.35	1,058.00	182.35	6.802				
13,100.00	7,480.00	13,247.76	7,610.00	93.23	93.58	-96.01	5,326.74	-1,036.94	1,241.55	1,056.17	185.38	6.697				
13,200.00	7,480.00	13,347.75	7,610.00	94.75	95.10	-96.00	5,426.72	-1,038.69	1,242.74	1,054.33	188.41	6.596				
13,300.00	7,480.00	13,447.74	7,610.00	96.28	96.62	-96.00	5,526.69	-1,040.43	1,243.94	1,052.49	191.45	6.498				
13,400.00	7,480.00	13,547.73	7,610.00	97.80	98.15	-95.99	5,626.67	-1,042.18	1,245.13	1,050.64	194.49	6.402				
13,500.00	7,480.00	13,647.73	7,610.00	99.33	99.67	-95.99	5,726.65	-1,043.92	1,246.33	1,048.79	197.54	6.309				
13,600.00	7,480.00	13,747.72	7,610.00	100.86	101.20	-95.98	5,826.63	-1,045.67	1,247.52	1,046.94	200.59	6.219				
13,700.00	7,480.00	13,847.71	7,610.00	102.39	102.73	-95.98	5,926.60	-1,047.41	1,248.72	1,045.08	203.64	6.132				
13,800.00	7,480.00	13,947.70	7,610.00	103.92	104.26	-95.97	6,026.58	-1,049.16	1,249.91	1,043.22	206.70	6.047				
13,900.00	7,480.00	14,132.23	7,610.00	105.45	107.03	-95.99	6,210.99	-1,045.70	1,247.32	1,037.11	210.21	5.934				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S26-T2N-R68W - SULLIVAN 4F-26H-P268 - OH - PLAN #2		Offset Site Error:		0.00 usft	
Survey Program:													0-MWD+HDGM		Offset Well Error:		0.00 usft	
Reference				Offset		Semi Major Axis			Distance						Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor						
14,000.00	7,480.00	14,232.07	7,610.00	106.99	108.49	-96.02	6,310.71	-1,040.65	1,241.76	1,028.55	213.20	5.824						
14,100.00	7,480.00	14,331.91	7,610.00	108.52	109.97	-96.05	6,410.42	-1,035.60	1,236.19	1,019.99	216.20	5.718						
14,200.00	7,480.00	14,431.76	7,610.00	110.06	111.44	-96.07	6,510.14	-1,030.56	1,230.62	1,011.42	219.20	5.614						
14,300.00	7,480.00	14,531.60	7,610.00	111.60	112.91	-96.10	6,609.86	-1,025.51	1,225.05	1,002.85	222.20	5.513						
14,400.00	7,480.00	14,631.44	7,610.00	113.14	114.39	-96.13	6,709.57	-1,020.46	1,219.49	994.28	225.21	5.415						
14,500.00	7,480.00	14,731.29	7,610.00	114.68	115.87	-96.16	6,809.29	-1,015.41	1,213.92	985.71	228.21	5.319						
14,600.00	7,480.00	14,831.13	7,610.00	116.22	117.35	-96.19	6,909.00	-1,010.37	1,208.35	977.13	231.22	5.226						
14,691.86	7,480.00	14,856.87	7,610.00	117.64	117.73	-96.19	6,934.71	-1,009.06	1,205.05	971.33	233.72	5.156 SF						

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4G-26H-P268 - OH - PLAN #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.25	-0.13	-29.93	29.93	29.65	0.28	108.436	
100.00	100.00	100.00	100.00	0.14	0.14	-90.25	-0.13	-29.93	29.93	28.94	0.99	30.143	
200.00	200.00	200.00	200.00	0.50	0.50	-90.25	-0.13	-29.93	29.93	28.22	1.71	17.504	
300.00	300.00	300.00	300.00	0.85	0.85	-90.25	-0.13	-29.93	29.93	27.86	2.07	14.471 CC	
350.00	350.00	350.00	350.00	1.03	1.03	-90.25	-0.13	-29.93	29.93	27.68	2.42	12.447 ES	
400.00	400.00	400.00	400.00	1.21	1.21	113.55	-0.13	-29.93	30.10	28.55	3.11	10.172	
500.00	499.93	499.93	499.93	1.54	1.57	119.31	-0.13	-29.93	31.66	31.78	3.82	9.322	
600.00	599.68	599.68	599.68	1.89	1.93	129.07	-0.13	-29.93	35.60	38.44	4.53	9.476	
700.00	699.13	699.13	699.13	2.25	2.29	139.84	-0.13	-29.93	42.97	42.46	4.84	9.770	
742.41	741.18	741.18	741.18	2.41	2.44	144.06	-0.13	-29.93	47.31	48.63	5.25	10.256	
800.00	798.23	798.23	798.23	2.63	2.64	148.96	-0.13	-29.93	53.89	60.28	5.95	11.125	
900.00	897.30	896.95	896.93	3.02	2.98	153.64	-1.18	-31.19	66.24	72.68	6.65	11.931	
1,000.00	996.36	995.70	995.54	3.42	3.31	154.38	-4.40	-35.07	79.33	85.63	7.36	12.639	
1,100.00	1,095.42	1,094.25	1,093.73	3.82	3.65	152.82	-9.78	-41.54	92.98	99.33	8.08	13.294	
1,200.00	1,194.49	1,192.37	1,191.15	4.22	4.00	149.88	-17.28	-50.56	107.40	113.91	8.82	13.916	
1,300.00	1,293.55	1,290.72	1,288.45	4.62	4.36	146.50	-26.38	-61.50	122.73	128.85	9.57	14.463	
1,400.00	1,392.61	1,389.29	1,385.97	5.03	4.73	143.81	-35.58	-72.56	138.42	144.03	10.33	14.942	
1,500.00	1,491.68	1,487.87	1,483.49	5.44	5.11	141.68	-44.78	-83.62	154.36	159.36	11.10	15.363	
1,600.00	1,590.74	1,586.44	1,581.01	5.84	5.49	139.94	-53.98	-94.69	170.46	174.82	11.86	15.734	
1,700.00	1,689.80	1,685.02	1,678.53	6.25	5.88	138.50	-63.18	-105.75	186.69	190.37	12.64	16.063	
1,800.00	1,788.87	1,783.59	1,776.05	6.66	6.27	137.30	-72.38	-116.81	203.01	206.00	13.41	16.356	
1,900.00	1,887.93	1,882.17	1,873.57	7.07	6.67	136.27	-81.58	-127.88	219.41	221.68	14.19	16.618	
2,000.00	1,986.99	1,980.74	1,971.09	7.49	7.07	135.39	-90.78	-138.94	235.87	237.40	14.97	16.854	
2,100.00	2,086.06	2,079.32	2,068.61	7.90	7.47	134.62	-99.98	-150.01	252.38	253.17	15.76	17.067	
2,200.00	2,185.12	2,177.89	2,166.13	8.31	7.87	133.95	-109.18	-161.07	268.92	268.96	16.54	17.260	
2,300.00	2,284.18	2,276.47	2,263.65	8.72	8.27	133.35	-118.38	-172.13	285.50	284.78	17.33	17.436	
2,400.00	2,383.25	2,375.05	2,361.17	9.13	8.67	132.82	-127.58	-183.20	302.10	300.62	18.11	17.597	
2,500.00	2,482.31	2,473.62	2,458.69	9.55	9.08	132.34	-136.78	-194.26	318.73	316.48	18.90	17.745	
2,600.00	2,581.37	2,572.20	2,556.21	9.96	9.49	131.92	-145.99	-205.32	335.38	332.35	19.69	17.881	
2,700.00	2,680.44	2,670.77	2,653.73	10.37	9.89	131.53	-155.19	-216.39	352.04	348.24	20.48	18.006	
2,800.00	2,779.50	2,769.35	2,751.25	10.79	10.30	131.18	-164.39	-227.45	368.71	364.14	21.27	18.122	
2,900.00	2,878.56	2,867.92	2,848.77	11.20	10.71	130.85	-173.59	-238.51	385.40	380.05	22.06	18.230	
3,000.00	2,977.63	2,966.50	2,946.29	11.61	11.12	130.56	-182.79	-249.58	402.10	395.96	22.85	18.330	
3,100.00	3,076.69	3,065.07	3,043.81	12.03	11.53	130.29	-191.99	-260.64	418.81	411.89	23.64	18.424	
3,200.00	3,175.75	3,163.65	3,141.33	12.44	11.94	130.04	-201.19	-271.71	435.53	427.82	24.43	18.512	
3,300.00	3,274.82	3,262.22	3,238.85	12.85	12.35	129.80	-210.39	-282.77	452.25	443.76	25.22	18.594	
3,400.00	3,373.88	3,360.80	3,336.37	13.27	12.76	129.59	-219.59	-293.83	468.99	459.71	26.02	18.671	
3,500.00	3,472.94	3,459.38	3,433.89	13.68	13.17	129.39	-228.79	-304.90	485.72	475.66	26.81	18.743	
3,600.00	3,572.01	3,557.95	3,531.41	14.09	13.58	129.20	-237.99	-315.96	502.47	491.61	27.60	18.812	
3,700.00	3,671.07	3,656.53	3,628.93	14.51	13.99	129.02	-247.19	-327.02	519.22	507.57	28.39	18.876	
3,800.00	3,770.13	3,755.10	3,726.44	14.92	14.40	128.86	-256.39	-338.09	535.97	523.54	29.19	18.937	
3,900.00	3,869.20	3,853.68	3,823.96	15.34	14.82	128.71	-265.59	-349.15	552.73	539.50	30.78	19.049	
4,000.00	3,968.26	3,952.25	3,921.48	15.75	15.23	128.56	-274.79	-360.21	569.49	555.47	31.57	19.101	
4,100.00	4,067.32	4,050.83	4,019.00	16.16	15.64	128.42	-283.99	-371.28	586.25	571.45	32.36	19.151	
4,200.00	4,166.39	4,149.40	4,116.52	16.58	16.06	128.29	-293.19	-382.34	603.02	587.42	33.16	19.198	
4,300.00	4,265.45	4,247.98	4,214.04	16.99	16.47	128.17	-302.39	-393.40	619.79	603.40	33.95	19.242	
4,400.00	4,364.51	4,346.55	4,311.56	17.41	16.88	128.05	-311.59	-404.47	636.56	619.38	34.75	19.285	
4,500.00	4,463.58	4,445.13	4,409.08	17.82	17.29	127.94	-320.79	-415.53	653.33	635.36	35.12	19.304	
4,600.00	4,562.64	4,543.71	4,506.60	18.24	17.71	127.84	-329.99	-426.60	670.11	642.81	35.54	19.319	
4,646.61	4,608.82	4,589.65	4,552.06	18.43	17.90	127.79	-334.28	-431.75	677.93	651.05	36.32	19.307	
4,700.00	4,661.77	4,642.32	4,604.16	18.65	18.12	127.85	-339.20	-437.66	686.59				
4,800.00	4,761.26	4,741.17	4,701.95	19.04	18.54	127.75	-348.42	-448.76	701.19				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4G-26H-P268 - OH - PLAN #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
4,900.00	4,861.03	4,840.15	4,799.87	19.40	18.95	127.41	-357.66	-459.87	713.72	676.64	37.08	19.248		
5,000.00	4,960.98	4,939.16	4,897.82	19.74	19.37	126.84	-366.90	-470.98	724.24	686.41	37.83	19.147		
5,039.02	5,000.00	4,977.77	4,936.02	19.86	19.53	-76.48	-370.50	-475.31	727.81	689.71	38.10	19.101		
5,100.00	5,060.98	5,038.10	4,995.70	20.04	19.78	-77.03	-376.13	-482.08	733.21	694.68	38.52	19.032		
5,200.00	5,160.98	5,137.03	5,093.57	20.33	20.20	-77.92	-385.37	-493.19	742.20	702.98	39.22	18.926		
5,300.00	5,260.98	5,235.96	5,191.44	20.62	20.62	-78.79	-394.60	-504.29	751.37	711.46	39.91	18.828		
5,400.00	5,360.98	5,334.88	5,289.31	20.91	21.03	-79.64	-403.83	-515.39	760.71	720.11	40.60	18.738		
5,500.00	5,460.98	5,433.81	5,387.18	21.21	21.45	-80.47	-413.07	-526.50	770.21	728.92	41.29	18.655		
5,600.00	5,560.98	5,532.74	5,485.05	21.51	21.86	-81.28	-422.30	-537.60	779.87	737.89	41.98	18.578		
5,700.00	5,660.98	5,631.67	5,582.91	21.81	22.28	-82.07	-431.53	-548.70	789.68	747.02	42.67	18.508		
5,800.00	5,760.98	5,730.60	5,680.78	22.11	22.70	-82.84	-440.77	-559.81	799.64	756.28	43.36	18.444		
5,900.00	5,860.98	5,829.53	5,778.65	22.41	23.11	-83.59	-450.00	-570.91	809.74	765.69	44.05	18.384		
6,000.00	5,960.98	5,928.46	5,876.52	22.72	23.53	-84.32	-459.23	-582.01	819.97	775.24	44.73	18.330		
6,100.00	6,060.98	6,027.39	5,974.39	23.02	23.95	-85.03	-468.47	-593.12	830.34	784.91	45.42	18.280		
6,200.00	6,160.98	6,126.32	6,072.26	23.33	24.36	-85.73	-477.70	-604.22	840.83	794.72	46.11	18.235		
6,300.00	6,260.98	6,225.24	6,170.13	23.64	24.78	-86.41	-486.93	-615.32	851.44	804.64	46.80	18.193		
6,400.00	6,360.98	6,324.17	6,268.00	23.95	25.20	-87.07	-496.17	-626.43	862.17	814.68	47.49	18.155		
6,500.00	6,460.98	6,423.10	6,365.87	24.26	25.61	-87.72	-505.40	-637.53	873.01	824.83	48.18	18.120		
6,600.00	6,560.98	6,522.03	6,463.74	24.58	26.03	-88.35	-514.63	-648.63	883.95	835.09	48.87	18.089		
6,700.00	6,660.98	6,620.96	6,561.61	24.89	26.45	-88.96	-523.87	-659.74	895.01	845.45	49.56	18.060		
6,802.82	6,763.80	6,722.46	6,662.14	25.21	26.86	-89.46	-531.52	-671.13	906.48	856.23	50.25	18.038		
6,850.00	6,810.94	6,769.12	6,708.50	25.36	27.03	-88.80	-531.04	-676.37	911.75	861.20	50.56	18.035		
6,900.00	6,860.68	6,818.65	6,757.56	25.50	27.19	-88.43	-527.20	-681.89	917.28	866.43	50.85	18.039		
6,950.00	6,909.95	6,868.28	6,806.34	25.64	27.34	-88.07	-519.94	-687.36	922.72	871.59	51.12	18.049		
7,000.00	6,958.50	6,918.01	6,854.61	25.77	27.47	-87.72	-509.28	-692.76	928.04	876.66	51.38	18.064		
7,050.00	7,006.10	6,967.85	6,902.12	25.89	27.59	-87.39	-495.24	-698.05	933.22	881.61	51.61	18.082		
7,100.00	7,052.52	7,017.80	6,948.65	26.00	27.69	-87.07	-477.86	-703.21	938.24	886.41	51.83	18.103		
7,150.00	7,097.54	7,067.86	6,993.97	26.10	27.79	-86.76	-457.22	-708.23	943.07	891.04	52.03	18.125		
7,200.00	7,140.93	7,118.04	7,037.85	26.20	27.86	-86.48	-433.38	-713.06	947.69	895.46	52.23	18.146		
7,250.00	7,182.49	7,168.33	7,080.06	26.29	27.93	-86.21	-406.44	-717.68	952.07	899.65	52.41	18.165		
7,300.00	7,222.00	7,218.75	7,120.38	26.38	27.98	-85.95	-376.52	-722.08	956.19	903.59	52.59	18.180		
7,350.00	7,259.28	7,269.28	7,158.60	26.46	28.02	-85.72	-343.74	-726.23	960.03	907.26	52.78	18.191		
7,400.00	7,294.15	7,319.93	7,194.51	26.55	28.06	-85.51	-308.24	-730.10	963.58	910.62	52.96	18.194		
7,450.00	7,326.43	7,370.70	7,227.91	26.64	28.08	-85.33	-270.20	-733.67	966.82	913.66	53.15	18.190		
7,500.00	7,355.97	7,421.56	7,258.61	26.74	28.09	-85.16	-229.78	-736.93	969.72	916.37	53.35	18.175		
7,550.00	7,382.63	7,472.53	7,286.44	26.84	28.09	-85.02	-187.19	-739.85	972.28	918.71	53.57	18.150		
7,600.00	7,406.27	7,523.60	7,311.23	26.94	28.08	-84.90	-142.64	-742.41	974.48	920.68	53.80	18.112		
7,650.00	7,426.79	7,574.75	7,332.84	27.06	28.07	-84.81	-96.34	-744.61	976.31	922.26	54.06	18.060		
7,700.00	7,444.07	7,625.97	7,351.14	27.19	28.05	-84.73	-48.54	-746.43	977.77	923.44	54.34	17.995		
7,750.00	7,458.04	7,677.26	7,366.01	27.34	28.03	-84.69	0.51	-747.85	978.84	924.21	54.64	17.916		
7,800.00	7,468.62	7,728.60	7,377.37	27.50	28.01	-84.67	50.56	-748.87	979.52	924.56	54.96	17.823		
7,850.00	7,475.78	7,779.99	7,385.14	27.67	28.00	-84.67	101.34	-749.49	979.81	924.50	55.31	17.715		
7,900.00	7,479.46	7,831.41	7,389.27	27.85	28.02	-84.70	152.58	-749.68	979.70	924.02	55.68	17.595		
7,927.82	7,480.00	7,860.03	7,389.99	27.96	28.06	-84.73	181.19	-749.62	979.47	923.57	55.90	17.523		
8,000.00	7,480.00	7,932.30	7,390.00	28.27	28.28	-84.72	253.46	-749.24	978.70	922.20	56.51	17.320		
8,100.00	7,480.00	8,032.30	7,390.00	28.76	28.76	-84.72	353.46	-748.71	977.64	920.16	57.48	17.007		
8,200.00	7,480.00	8,132.29	7,390.00	29.34	29.34	-84.71	453.45	-748.19	976.58	917.97	58.61	16.662		
8,300.00	7,480.00	8,232.29	7,390.00	30.00	30.00	-84.71	553.44	-747.67	975.52	915.63	59.89	16.289		
8,400.00	7,480.00	8,332.28	7,390.00	30.72	30.72	-84.70	653.44	-747.14	974.45	913.16	61.30	15.897		
8,500.00	7,480.00	8,432.27	7,390.00	31.51	31.50	-84.69	753.43	-746.62	973.39	910.56	62.83	15.492		
8,600.00	7,480.00	8,532.27	7,390.00	32.35	32.34	-84.69	853.42	-746.10	972.33	907.84	64.49	15.078		
8,700.00	7,480.00	8,632.26	7,390.00	33.25	33.23	-84.68	953.41	-745.57	971.27	905.01	66.25	14.660		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4G-26H-P268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
8,800.00	7,480.00	8,732.26	7,390.00	34.20	34.16	-84.68	1,053.41	-745.05	970.20	902.09	68.12	14.243		
8,900.00	7,480.00	8,832.25	7,390.00	35.20	35.14	-84.67	1,153.40	-744.53	969.14	899.07	70.07	13.830		
9,000.00	7,480.00	8,932.25	7,390.00	36.24	36.16	-84.67	1,253.39	-744.00	968.08	895.96	72.12	13.424		
9,100.00	7,480.00	9,032.24	7,390.00	37.32	37.22	-84.66	1,353.39	-743.48	967.02	892.78	74.24	13.026		
9,200.00	7,480.00	9,132.23	7,390.00	38.43	38.31	-84.65	1,453.38	-742.95	965.95	889.53	76.43	12.639		
9,300.00	7,480.00	9,232.23	7,390.00	39.57	39.43	-84.65	1,553.37	-742.43	964.89	886.21	78.68	12.263		
9,400.00	7,480.00	9,332.22	7,390.00	40.75	40.58	-84.64	1,653.37	-741.91	963.83	882.83	81.00	11.899		
9,500.00	7,480.00	9,432.22	7,390.00	41.95	41.76	-84.64	1,753.36	-741.38	962.77	879.39	83.37	11.548		
9,600.00	7,480.00	9,532.21	7,390.00	43.18	42.97	-84.63	1,853.35	-740.86	961.71	875.91	85.80	11.209		
9,700.00	7,480.00	9,632.21	7,390.00	44.43	44.20	-84.62	1,953.34	-740.34	960.64	872.38	88.27	10.884		
9,800.00	7,480.00	9,732.20	7,390.00	45.70	45.45	-84.62	2,053.34	-739.81	959.58	868.80	90.78	10.571		
9,900.00	7,480.00	9,832.19	7,390.00	46.99	46.71	-84.61	2,153.33	-739.29	958.52	865.19	93.33	10.271		
10,000.00	7,480.00	9,932.19	7,390.00	48.30	48.00	-84.61	2,253.32	-738.77	957.46	861.54	95.91	9.982		
10,100.00	7,480.00	10,032.18	7,390.00	49.62	49.30	-84.60	2,353.32	-738.24	956.39	857.86	98.53	9.706		
10,200.00	7,480.00	10,132.18	7,390.00	50.96	50.62	-84.59	2,453.31	-737.72	955.33	854.15	101.18	9.442		
10,300.00	7,480.00	10,232.17	7,390.00	52.31	51.96	-84.59	2,553.30	-737.20	954.27	850.41	103.86	9.188		
10,400.00	7,480.00	10,332.17	7,390.00	53.68	53.30	-84.58	2,653.29	-736.67	953.21	846.64	106.57	8.945		
10,500.00	7,480.00	10,432.16	7,390.00	55.05	54.66	-84.58	2,753.29	-736.15	952.14	842.85	109.29	8.712		
10,600.00	7,480.00	10,532.15	7,390.00	56.44	56.03	-84.57	2,853.28	-735.62	951.08	839.04	112.04	8.488		
10,700.00	7,480.00	10,632.15	7,390.00	57.84	57.41	-84.56	2,953.27	-735.10	950.02	835.20	114.82	8.274		
10,800.00	7,480.00	10,732.14	7,390.00	59.25	58.80	-84.56	3,053.27	-734.58	948.96	831.35	117.61	8.069		
10,900.00	7,480.00	10,841.17	7,390.00	60.67	60.32	-84.55	3,162.29	-733.88	947.81	827.32	120.49	7.866		
11,000.00	7,480.00	10,949.75	7,390.00	62.09	61.84	-84.53	3,270.85	-731.39	944.96	821.59	123.37	7.660		
11,100.00	7,480.00	11,049.71	7,390.00	63.52	63.24	-84.52	3,370.77	-729.00	942.04	815.84	126.20	7.465		
11,200.00	7,480.00	11,149.67	7,390.00	64.96	64.65	-84.50	3,470.70	-726.61	939.11	810.08	129.04	7.278		
11,300.00	7,480.00	11,249.62	7,390.00	66.41	66.07	-84.48	3,570.63	-724.21	936.19	804.30	131.89	7.098		
11,400.00	7,480.00	11,349.58	7,390.00	67.86	67.49	-84.46	3,670.56	-721.82	933.26	798.51	134.76	6.925		
11,500.00	7,480.00	11,449.54	7,390.00	69.32	68.92	-84.45	3,770.49	-719.43	930.34	792.70	137.64	6.759		
11,600.00	7,480.00	11,549.49	7,390.00	70.79	70.35	-84.43	3,870.41	-717.03	927.42	786.89	140.53	6.600		
11,700.00	7,480.00	11,649.45	7,390.00	72.26	71.79	-84.41	3,970.34	-714.64	924.49	781.06	143.43	6.446		
11,800.00	7,480.00	11,749.41	7,390.00	73.73	73.24	-84.39	4,070.27	-712.24	921.57	775.23	146.34	6.298		
11,900.00	7,480.00	11,849.36	7,390.00	75.21	74.69	-84.38	4,170.20	-709.85	918.64	769.39	149.26	6.155		
12,000.00	7,480.00	11,949.32	7,390.00	76.69	76.14	-84.36	4,270.13	-707.46	915.72	763.54	152.18	6.017		
12,100.00	7,480.00	12,049.28	7,390.00	78.18	77.60	-84.34	4,370.06	-705.06	912.80	757.68	155.12	5.884		
12,200.00	7,480.00	12,149.24	7,390.00	79.67	79.06	-84.32	4,469.98	-702.67	909.87	751.81	158.06	5.756		
12,300.00	7,480.00	12,249.19	7,390.00	81.17	80.53	-84.30	4,569.91	-700.27	906.95	745.93	161.01	5.633		
12,400.00	7,480.00	12,349.15	7,390.00	82.66	82.00	-84.28	4,669.84	-697.88	904.02	740.05	163.97	5.513		
12,500.00	7,480.00	12,449.11	7,390.00	84.17	83.47	-84.27	4,769.77	-695.49	901.10	734.17	166.93	5.398		
12,600.00	7,480.00	12,549.06	7,390.00	85.67	84.95	-84.25	4,869.70	-693.09	898.18	728.27	169.90	5.286		
12,700.00	7,480.00	12,649.02	7,390.00	87.18	86.43	-84.23	4,969.62	-690.70	895.25	722.38	172.88	5.178		
12,800.00	7,480.00	12,748.98	7,390.00	88.69	87.91	-84.21	5,069.55	-688.31	892.33	716.47	175.86	5.074		
12,900.00	7,480.00	12,848.93	7,390.00	90.20	89.40	-84.19	5,169.48	-685.91	889.41	710.56	178.85	4.973		
13,000.00	7,480.00	12,948.89	7,390.00	91.72	90.89	-84.17	5,269.41	-683.52	886.49	704.65	181.84	4.875		
13,100.00	7,480.00	13,048.85	7,390.00	93.23	92.38	-84.15	5,369.34	-681.12	883.56	698.73	184.83	4.780		
13,200.00	7,480.00	13,148.80	7,390.00	94.75	93.87	-84.13	5,469.26	-678.73	880.64	692.81	187.83	4.688		
13,300.00	7,480.00	13,248.76	7,390.00	96.28	95.37	-84.11	5,569.19	-676.34	877.72	686.88	190.84	4.599		
13,400.00	7,480.00	13,348.72	7,390.00	97.80	96.86	-84.09	5,669.12	-673.94	874.79	680.95	193.84	4.513		
13,500.00	7,480.00	13,448.67	7,390.00	99.33	98.36	-84.07	5,769.05	-671.55	871.87	675.02	196.86	4.429		
13,600.00	7,480.00	13,548.62	7,390.00	100.86	99.65	-84.06	5,869.00	-669.16	868.94	669.10	199.77	4.352		
13,646.32	7,480.00	13,569.62	7,390.00	101.56	100.19	-84.06	5,889.98	-669.88	869.19	668.12	201.07	4.323		
13,700.00	7,480.00	13,600.00	7,390.00	102.39	100.65	-84.06	5,920.36	-670.20	869.66	667.29	202.36	4.298		
13,800.00	7,480.00	13,687.61	7,390.00	103.92	102.01	-84.07	6,007.92	-672.94	872.32	667.13	205.19	4.251		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design										S26-T2N-R68W - SULLIVAN 4G-26H-P268 - OH - PLAN #2				Offset Site Error:		0.00 usft
Survey Program: 0-MWD+HDGM												Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor				
13,900.00	7,480.00	13,764.19	7,390.00	105.45	103.21	-84.10	6,084.36	-677.53	877.74	670.01	207.73	4.225				
14,000.00	7,480.00	13,847.02	7,390.00	106.99	104.52	-84.15	6,166.88	-684.65	885.70	675.36	210.34	4.211				
14,100.00	7,480.00	13,946.64	7,390.00	108.52	106.10	-84.20	6,266.08	-693.85	894.35	680.90	213.45	4.190				
14,200.00	7,480.00	14,046.26	7,390.00	110.06	107.69	-84.26	6,365.27	-703.05	903.00	686.43	216.57	4.170				
14,300.00	7,480.00	14,145.89	7,390.00	111.60	109.27	-84.31	6,464.47	-712.25	911.66	691.96	219.69	4.150				
14,400.00	7,480.00	14,245.51	7,390.00	113.14	110.86	-84.37	6,563.67	-721.46	920.31	697.49	222.82	4.130				
14,500.00	7,480.00	14,345.13	7,390.00	114.68	112.45	-84.42	6,662.86	-730.66	928.96	703.01	225.95	4.111				
14,600.00	7,480.00	14,444.75	7,390.00	116.22	114.05	-84.47	6,762.06	-739.86	937.62	708.54	229.08	4.093				
14,691.86	7,480.00	14,536.27	7,390.00	117.64	115.51	-84.52	6,853.18	-748.31	945.57	713.61	231.96	4.076 SF				



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4H-26H-P268 - OH - PLAN #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.28	-0.10	-20.14	20.14				
100.00	100.00	100.00	100.00	0.14	0.14	-90.28	-0.10	-20.14	20.14	19.86	0.28	72.495	
200.00	200.00	200.00	200.00	0.50	0.50	-90.28	-0.10	-20.14	20.14	19.15	0.99	20.246 CC	
203.89	203.89	203.89	203.89	0.51	0.51	-90.28	-0.10	-20.14	20.14	19.12	1.02	19.706	
300.00	300.00	299.96	299.94	0.85	0.84	-95.22	-1.84	-20.14	20.22	18.53	1.70	11.918	
350.00	350.00	349.86	349.79	1.03	1.02	-101.28	-4.02	-20.14	20.54	18.49	2.05	10.012 ES	
400.00	400.00	399.69	399.53	1.21	1.19	94.88	-7.05	-20.14	21.38	18.97	2.40	8.897	
500.00	499.93	498.74	498.26	1.54	1.55	86.98	-14.83	-21.60	25.77	22.61	3.15	8.169	
600.00	599.68	597.42	596.37	1.89	1.91	87.29	-24.30	-25.98	33.61	29.69	3.92	8.578	
700.00	699.13	695.41	693.47	2.25	2.30	91.37	-35.41	-33.22	44.82	40.13	4.68	9.567	
742.41	741.18	737.32	734.89	2.41	2.46	93.55	-40.55	-36.99	50.46	45.47	4.99	10.116	
800.00	798.23	794.32	791.22	2.63	2.69	96.36	-47.55	-42.12	58.26	52.86	5.40	10.786	
900.00	897.30	893.29	889.04	3.02	3.10	99.78	-59.70	-51.02	72.05	65.90	6.15	11.725	
1,000.00	996.36	992.26	986.86	3.42	3.50	102.11	-71.85	-59.93	86.01	79.10	6.91	12.452	
1,100.00	1,095.42	1,091.23	1,084.68	3.82	3.91	103.78	-84.00	-68.84	100.06	92.38	7.68	13.026	
1,200.00	1,194.49	1,190.21	1,182.49	4.22	4.33	105.04	-96.15	-77.74	114.18	105.72	8.46	13.490	
1,300.00	1,293.55	1,289.18	1,280.31	4.62	4.74	106.02	-108.30	-86.65	128.35	119.09	9.25	13.871	
1,400.00	1,392.61	1,388.15	1,378.13	5.03	5.16	106.80	-120.45	-95.56	142.54	132.49	10.05	14.189	
1,500.00	1,491.68	1,487.12	1,475.95	5.44	5.58	107.45	-132.60	-104.46	156.75	145.91	10.84	14.458	
1,600.00	1,590.74	1,586.09	1,573.76	5.84	6.00	107.98	-144.75	-113.37	170.98	159.34	11.64	14.688	
1,700.00	1,689.80	1,685.06	1,671.58	6.25	6.41	108.44	-156.90	-122.28	185.22	172.78	12.44	14.888	
1,800.00	1,788.87	1,784.03	1,769.40	6.66	6.83	108.83	-169.05	-131.19	199.47	186.23	13.24	15.062	
1,900.00	1,887.93	1,883.00	1,867.22	7.07	7.25	109.16	-181.20	-140.09	213.73	199.68	14.05	15.216	
2,000.00	1,986.99	1,981.97	1,965.03	7.49	7.67	109.46	-193.35	-149.00	228.00	213.15	14.85	15.352	
2,100.00	2,086.06	2,080.94	2,062.85	7.90	8.09	109.72	-205.50	-157.91	242.27	226.61	15.66	15.474	
2,200.00	2,185.12	2,179.91	2,160.67	8.31	8.51	109.95	-217.65	-166.81	256.54	240.08	16.46	15.583	
2,300.00	2,284.18	2,278.88	2,258.49	8.72	8.94	110.16	-229.80	-175.72	270.82	253.55	17.27	15.682	
2,400.00	2,383.25	2,377.86	2,356.30	9.13	9.36	110.35	-241.95	-184.63	285.10	267.03	18.08	15.771	
2,500.00	2,482.31	2,476.83	2,454.12	9.55	9.78	110.51	-254.10	-193.53	299.39	280.50	18.89	15.853	
2,600.00	2,581.37	2,575.80	2,551.94	9.96	10.20	110.67	-266.25	-202.44	313.68	293.98	19.69	15.928	
2,700.00	2,680.44	2,674.77	2,649.76	10.37	10.62	110.81	-278.40	-211.35	327.96	307.46	20.50	15.996	
2,800.00	2,779.50	2,773.74	2,747.57	10.79	11.04	110.94	-290.55	-220.25	342.26	320.94	21.31	16.060	
2,900.00	2,878.56	2,872.71	2,845.39	11.20	11.46	111.05	-302.70	-229.16	356.55	334.43	22.12	16.118	
3,000.00	2,977.63	2,971.68	2,943.21	11.61	11.88	111.16	-314.86	-238.07	370.84	347.91	22.93	16.173	
3,100.00	3,076.69	3,070.65	3,041.03	12.03	12.31	111.26	-327.01	-246.97	385.14	361.40	23.74	16.223	
3,200.00	3,175.75	3,169.62	3,138.84	12.44	12.73	111.36	-339.16	-255.88	399.43	374.88	24.55	16.270	
3,300.00	3,274.82	3,268.59	3,236.66	12.85	13.15	111.44	-351.31	-264.79	413.73	388.37	25.36	16.314	
3,400.00	3,373.88	3,367.56	3,334.48	13.27	13.57	111.52	-363.46	-273.69	428.03	401.86	26.17	16.355	
3,500.00	3,472.94	3,466.53	3,432.30	13.68	13.99	111.60	-375.61	-282.60	442.33	415.34	26.98	16.394	
3,600.00	3,572.01	3,565.51	3,530.11	14.09	14.42	111.67	-387.76	-291.51	456.62	428.83	27.79	16.430	
3,700.00	3,671.07	3,664.48	3,627.93	14.51	14.84	111.74	-399.91	-300.42	470.92	442.32	28.60	16.464	
3,800.00	3,770.13	3,763.45	3,725.75	14.92	15.26	111.80	-412.06	-309.32	485.23	455.81	29.41	16.496	
3,900.00	3,869.20	3,862.42	3,823.57	15.34	15.68	111.86	-424.21	-318.23	499.53	469.30	30.22	16.527	
4,000.00	3,968.26	3,961.39	3,921.38	15.75	16.10	111.92	-436.36	-327.14	513.83	482.79	31.04	16.556	
4,100.00	4,067.32	4,060.36	4,019.20	16.16	16.53	111.97	-448.51	-336.04	528.13	496.28	31.85	16.583	
4,200.00	4,166.39	4,159.33	4,117.02	16.58	16.95	112.02	-460.66	-344.95	542.43	509.77	32.66	16.609	
4,300.00	4,265.45	4,258.30	4,214.84	16.99	17.37	112.07	-472.81	-353.86	556.74	523.27	33.47	16.634	
4,400.00	4,364.51	4,357.27	4,312.65	17.41	17.79	112.11	-484.96	-362.76	571.04	536.76	34.28	16.657	
4,500.00	4,463.58	4,456.24	4,410.47	17.82	18.22	112.16	-497.11	-371.67	585.34	550.25	35.09	16.680	
4,600.00	4,562.64	4,555.21	4,508.29	18.24	18.64	112.20	-509.26	-380.58	599.65	563.74	35.90	16.701	
4,646.61	4,608.82	4,601.35	4,553.88	18.43	18.84	112.22	-514.92	-384.73	606.31	570.03	36.28	16.711	
4,700.00	4,661.77	4,660.45	4,612.36	18.65	19.08	112.36	-521.85	-389.80	613.55	576.79	36.76	16.691	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4H-26H-P268 - OH - PLAN #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
4,800.00	4,761.26	4,774.54	4,725.68	19.04	19.54	112.56	-532.48	-397.60	624.30	586.67	37.63	16.589		
4,900.00	4,861.03	4,889.26	4,840.06	19.40	19.96	112.69	-539.49	-402.74	631.36	592.92	38.44	16.424		
5,000.00	4,960.98	5,004.34	4,955.05	19.74	20.35	112.75	-542.81	-405.17	634.69	595.51	39.18	16.197		
5,039.02	5,000.00	5,049.28	5,000.00	19.86	20.49	-90.28	-543.10	-405.38	634.98	595.54	39.44	16.099		
5,100.00	5,060.98	5,110.26	5,060.98	20.04	20.66	-90.28	-543.10	-405.38	634.98	595.18	39.79	15.957		
5,200.00	5,160.98	5,210.26	5,160.98	20.33	20.94	-90.28	-543.10	-405.38	634.98	594.60	40.37	15.727		
5,300.00	5,260.98	5,310.26	5,260.98	20.62	21.22	-90.28	-543.10	-405.38	634.98	594.02	40.96	15.502		
5,400.00	5,360.98	5,410.26	5,360.98	20.91	21.51	-90.28	-543.10	-405.38	634.98	593.43	41.55	15.282		
5,500.00	5,460.98	5,510.26	5,460.98	21.21	21.80	-90.28	-543.10	-405.38	634.98	592.83	42.14	15.067		
5,600.00	5,560.98	5,610.26	5,560.98	21.51	22.09	-90.28	-543.10	-405.38	634.98	592.24	42.74	14.857		
5,700.00	5,660.98	5,710.26	5,660.98	21.81	22.38	-90.28	-543.10	-405.38	634.98	591.64	43.34	14.651		
5,800.00	5,760.98	5,810.26	5,760.98	22.11	22.68	-90.28	-543.10	-405.38	634.98	591.03	43.95	14.449		
5,900.00	5,860.98	5,910.26	5,860.98	22.41	22.97	-90.28	-543.10	-405.38	634.98	590.42	44.55	14.252		
6,000.00	5,960.98	6,010.26	5,960.98	22.72	23.27	-90.28	-543.10	-405.38	634.98	589.81	45.16	14.059		
6,100.00	6,060.98	6,110.26	6,060.98	23.02	23.57	-90.28	-543.10	-405.38	634.98	589.20	45.78	13.871		
6,200.00	6,160.98	6,210.26	6,160.98	23.33	23.87	-90.28	-543.10	-405.38	634.98	588.58	46.39	13.686		
6,300.00	6,260.98	6,310.26	6,260.98	23.64	24.18	-90.28	-543.10	-405.38	634.98	587.96	47.01	13.506		
6,400.00	6,360.98	6,410.26	6,360.98	23.95	24.48	-90.28	-543.10	-405.38	634.98	587.34	47.64	13.330		
6,500.00	6,460.98	6,510.26	6,460.98	24.26	24.79	-90.28	-543.10	-405.38	634.98	586.72	48.26	13.157		
6,600.00	6,560.98	6,610.26	6,560.98	24.58	25.10	-90.28	-543.10	-405.38	634.98	586.09	48.89	12.988		
6,700.00	6,660.98	6,710.26	6,660.98	24.89	25.40	-90.28	-543.10	-405.38	634.98	585.46	49.52	12.823		
6,802.82	6,763.80	6,813.09	6,763.80	25.21	25.72	-90.28	-543.10	-405.38	634.98	584.81	50.17	12.657		
6,850.00	6,810.94	6,860.38	6,811.06	25.36	25.87	-89.97	-541.54	-405.38	634.97	584.51	50.46	12.584		
6,900.00	6,860.68	6,910.51	6,860.92	25.50	26.01	-89.97	-536.48	-405.39	634.96	584.21	50.75	12.512		
6,950.00	6,909.95	6,960.63	6,910.31	25.64	26.14	-89.97	-527.95	-405.41	634.93	583.91	51.02	12.445		
7,000.00	6,958.50	7,010.76	6,958.97	25.77	26.26	-89.97	-515.99	-405.44	634.89	583.61	51.27	12.383		
7,050.00	7,006.10	7,060.88	7,006.68	25.89	26.37	-89.97	-500.66	-405.47	634.83	583.33	51.51	12.325		
7,100.00	7,052.52	7,110.99	7,053.19	26.00	26.48	-89.97	-482.03	-405.50	634.77	583.04	51.73	12.272		
7,150.00	7,097.54	7,161.11	7,098.29	26.10	26.57	-89.97	-460.19	-405.55	634.70	582.76	51.93	12.222		
7,200.00	7,140.93	7,211.22	7,141.74	26.20	26.65	-89.97	-435.26	-405.60	634.61	582.49	52.13	12.175		
7,250.00	7,182.49	7,261.32	7,183.35	26.29	26.73	-89.97	-407.35	-405.65	634.52	582.20	52.31	12.130		
7,300.00	7,222.00	7,311.42	7,222.89	26.38	26.80	-89.98	-376.61	-405.72	634.41	581.92	52.49	12.086		
7,350.00	7,259.28	7,361.52	7,260.19	26.46	26.86	-89.98	-343.18	-405.78	634.30	581.62	52.67	12.042		
7,400.00	7,294.15	7,411.61	7,295.05	26.55	26.92	-89.98	-307.23	-405.86	634.18	581.32	52.86	11.998		
7,450.00	7,326.43	7,461.69	7,327.31	26.64	26.97	-89.98	-268.94	-405.94	634.04	581.00	53.04	11.953		
7,500.00	7,355.97	7,511.76	7,356.82	26.74	27.02	-89.98	-228.49	-406.02	633.91	580.66	53.24	11.906		
7,550.00	7,382.63	7,561.83	7,383.42	26.84	27.08	-89.98	-186.09	-406.10	633.76	580.31	53.46	11.856		
7,600.00	7,406.27	7,611.89	7,406.99	26.94	27.14	-89.99	-141.94	-406.19	633.61	579.93	53.69	11.802		
7,650.00	7,426.79	7,661.94	7,427.42	27.06	27.21	-89.99	-96.26	-406.28	633.46	579.52	53.93	11.745		
7,700.00	7,444.07	7,711.98	7,444.60	27.19	27.29	-89.99	-49.27	-406.38	633.30	579.09	54.21	11.683		
7,750.00	7,458.04	7,762.02	7,458.47	27.34	27.38	-89.99	-1.20	-406.48	633.13	578.63	54.50	11.617		
7,800.00	7,468.62	7,812.04	7,468.94	27.50	27.49	-89.99	47.71	-406.58	632.97	578.15	54.82	11.547		
7,850.00	7,475.78	7,862.06	7,475.97	27.67	27.62	-90.00	97.22	-406.68	632.80	577.64	55.16	11.472		
7,900.00	7,479.46	7,912.07	7,479.53	27.85	27.77	-90.00	147.09	-406.78	632.63	577.10	55.53	11.393		
7,927.82	7,480.00	7,939.89	7,480.00	27.96	27.86	-90.00	174.91	-406.83	632.53	576.79	55.74	11.347		
8,000.00	7,480.00	8,012.07	7,480.00	28.27	28.13	-90.00	247.08	-406.98	632.29	575.93	56.35	11.220		
8,100.00	7,480.00	8,112.07	7,480.00	28.76	28.59	-90.00	347.08	-407.18	631.95	574.61	57.34	11.022		
8,200.00	7,480.00	8,212.07	7,480.00	29.34	29.14	-90.00	447.08	-407.38	631.60	573.13	58.47	10.801		
8,300.00	7,480.00	8,312.07	7,480.00	30.00	29.76	-90.00	547.08	-407.59	631.26	571.50	59.76	10.563		
8,400.00	7,480.00	8,412.07	7,480.00	30.72	30.46	-90.00	647.08	-407.79	630.92	569.74	61.18	10.312		
8,500.00	7,480.00	8,512.07	7,480.00	31.51	31.23	-90.00	747.08	-407.99	630.58	567.85	62.73	10.052		
8,600.00	7,480.00	8,612.07	7,480.00	32.35	32.06	-90.00	847.08	-408.19	630.24	565.84	64.40	9.786		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4H-26H-P268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDMG													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
8,700.00	7,480.00	8,712.07	7,480.00	33.25	32.94	-90.00	947.08	-408.40	629.90	563.72	66.18	9.518		
8,800.00	7,480.00	8,812.06	7,480.00	34.20	33.88	-90.00	1,047.08	-408.60	629.56	561.50	68.06	9.250		
8,900.00	7,480.00	8,912.06	7,480.00	35.20	34.86	-90.00	1,147.07	-408.80	629.22	559.18	70.04	8.984		
9,000.00	7,480.00	9,012.06	7,480.00	36.24	35.88	-90.00	1,247.07	-409.00	628.88	556.78	72.10	8.723		
9,100.00	7,480.00	9,112.06	7,480.00	37.32	36.95	-90.00	1,347.07	-409.21	628.53	554.30	74.23	8.467		
9,200.00	7,480.00	9,212.06	7,480.00	38.43	38.05	-90.00	1,447.07	-409.41	628.19	551.75	76.44	8.218		
9,300.00	7,480.00	9,312.06	7,480.00	39.57	39.18	-90.00	1,547.07	-409.61	627.85	549.13	78.72	7.976		
9,400.00	7,480.00	9,412.06	7,480.00	40.75	40.35	-90.00	1,647.07	-409.81	627.51	546.46	81.06	7.742		
9,500.00	7,480.00	9,512.06	7,480.00	41.95	41.54	-90.00	1,747.07	-410.02	627.17	543.72	83.45	7.516		
9,600.00	7,480.00	9,612.06	7,480.00	43.18	42.75	-90.00	1,847.07	-410.22	626.83	540.94	85.89	7.298		
9,700.00	7,480.00	9,712.06	7,480.00	44.43	43.99	-90.00	1,947.07	-410.42	626.49	538.11	88.38	7.089		
9,800.00	7,480.00	9,812.06	7,480.00	45.70	45.25	-90.00	2,047.07	-410.62	626.15	535.24	90.91	6.888		
9,900.00	7,480.00	9,912.06	7,480.00	46.99	46.54	-90.00	2,147.07	-410.82	625.81	532.33	93.48	6.695		
10,000.00	7,480.00	10,012.06	7,480.00	48.30	47.83	-90.00	2,247.07	-411.03	625.47	529.38	96.08	6.510		
10,100.00	7,480.00	10,112.06	7,480.00	49.62	49.15	-90.00	2,347.07	-411.23	625.12	526.40	98.72	6.332		
10,200.00	7,480.00	10,212.06	7,480.00	50.96	50.48	-90.00	2,447.06	-411.43	624.78	523.39	101.39	6.162		
10,300.00	7,480.00	10,312.06	7,480.00	52.31	51.83	-90.00	2,547.06	-411.63	624.44	520.35	104.09	5.999		
10,400.00	7,480.00	10,412.06	7,480.00	53.68	53.18	-90.00	2,647.06	-411.84	624.10	517.29	106.81	5.843		
10,500.00	7,480.00	10,512.05	7,480.00	55.05	54.56	-90.00	2,747.06	-412.04	623.76	514.20	109.56	5.693		
10,600.00	7,480.00	10,612.05	7,480.00	56.44	55.94	-90.00	2,847.06	-412.24	623.42	511.09	112.33	5.550		
10,700.00	7,480.00	10,712.05	7,480.00	57.84	57.33	-90.00	2,947.06	-412.44	623.08	507.96	115.12	5.412		
10,800.00	7,480.00	10,812.05	7,480.00	59.25	58.73	-90.00	3,047.06	-412.65	622.74	504.81	117.93	5.280		
10,900.00	7,480.00	10,912.05	7,480.00	60.67	60.14	-90.00	3,147.06	-412.85	622.40	501.64	120.76	5.154		
11,000.00	7,480.00	11,012.05	7,480.00	62.09	61.56	-90.00	3,247.06	-413.05	622.06	498.45	123.60	5.033		
11,100.00	7,480.00	11,112.05	7,480.00	63.52	62.99	-90.00	3,347.06	-413.25	621.71	495.25	126.47	4.916		
11,200.00	7,480.00	11,212.05	7,480.00	64.96	64.42	-90.00	3,447.06	-413.46	621.37	492.03	129.34	4.804		
11,300.00	7,480.00	11,312.05	7,480.00	66.41	65.86	-90.00	3,547.06	-413.66	621.03	488.80	132.23	4.697		
11,400.00	7,480.00	11,412.05	7,480.00	67.86	67.31	-90.00	3,647.06	-413.86	620.69	485.56	135.13	4.593		
11,500.00	7,480.00	11,512.05	7,480.00	69.32	68.77	-90.00	3,747.05	-414.06	620.35	482.31	138.04	4.494		
11,600.00	7,480.00	11,612.05	7,480.00	70.79	70.23	-90.00	3,847.05	-414.27	620.01	479.04	140.97	4.398		
11,700.00	7,480.00	11,712.05	7,480.00	72.26	71.69	-90.00	3,947.05	-414.47	619.67	475.77	143.90	4.306		
11,800.00	7,480.00	11,812.05	7,480.00	73.73	73.16	-90.00	4,047.05	-414.67	619.33	472.48	146.85	4.218		
11,900.00	7,480.00	11,912.05	7,480.00	75.21	74.63	-90.00	4,147.05	-414.87	618.99	469.19	149.80	4.132		
12,000.00	7,480.00	12,012.05	7,480.00	76.69	76.11	-90.00	4,247.05	-415.07	618.64	465.88	152.76	4.050		
12,100.00	7,480.00	12,112.05	7,480.00	78.18	77.60	-90.00	4,347.05	-415.28	618.30	462.57	155.73	3.970		
12,200.00	7,480.00	12,212.05	7,480.00	79.67	79.08	-90.00	4,447.05	-415.48	617.96	459.25	158.71	3.894		
12,300.00	7,480.00	12,312.04	7,480.00	81.17	80.57	-90.00	4,547.05	-415.68	617.62	455.92	161.70	3.820		
12,400.00	7,480.00	12,412.04	7,480.00	82.66	82.07	-90.00	4,647.05	-415.88	617.28	452.59	164.69	3.748		
12,500.00	7,480.00	12,512.04	7,480.00	84.17	83.56	-90.00	4,747.05	-416.09	616.94	449.25	167.69	3.679		
12,600.00	7,480.00	12,612.04	7,480.00	85.67	85.07	-90.00	4,847.05	-416.29	616.60	445.90	170.70	3.612		
12,700.00	7,480.00	12,712.04	7,480.00	87.18	86.57	-90.00	4,947.05	-416.49	616.26	442.55	173.71	3.548		
12,800.00	7,480.00	12,812.04	7,480.00	88.69	88.07	-90.00	5,047.04	-416.69	615.92	439.19	176.72	3.485		
12,900.00	7,480.00	12,912.04	7,480.00	90.20	89.58	-90.00	5,147.04	-416.90	615.58	435.83	179.75	3.425		
13,000.00	7,480.00	13,012.04	7,480.00	91.72	91.10	-90.00	5,247.04	-417.10	615.23	432.46	182.77	3.366		
13,100.00	7,480.00	13,112.04	7,480.00	93.23	92.61	-90.00	5,347.04	-417.30	614.89	429.09	185.81	3.309		
13,200.00	7,480.00	13,212.04	7,480.00	94.75	94.13	-90.00	5,447.04	-417.50	614.55	425.71	188.84	3.254		
13,300.00	7,480.00	13,312.04	7,480.00	96.28	95.64	-90.00	5,547.04	-417.71	614.21	422.33	191.88	3.201		
13,400.00	7,480.00	13,412.04	7,480.00	97.80	97.17	-90.00	5,647.04	-417.91	613.87	418.94	194.93	3.149		
13,500.00	7,480.00	13,512.04	7,480.00	99.33	98.69	-90.00	5,747.04	-418.11	613.53	415.55	197.98	3.099		
13,600.00	7,480.00	13,612.04	7,480.00	100.86	100.21	-90.00	5,847.04	-418.31	613.19	412.16	201.03	3.050		
13,700.00	7,480.00	13,712.04	7,480.00	102.39	101.74	-90.00	5,947.04	-418.52	612.85	408.76	204.09	3.003		
13,800.00	7,480.00	13,812.04	7,480.00	103.92	103.27	-90.00	6,047.04	-418.72	612.51	405.36	207.15	2.957		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design										S26-T2N-R68W - SULLIVAN 4H-26H-P268 - OH - PLAN #2				Offset Site Error:		0.00 usft	
Survey Program: 0-MWD+HDGM														Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis			Distance										
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning				
13,900.00	7,480.00	13,912.04	7,480.00	105.45	104.80	-90.00	6,147.04	-418.92	612.16	401.95	210.21	2.912					
14,000.00	7,480.00	14,012.03	7,480.00	106.99	106.33	-90.00	6,247.03	-419.12	611.82	398.54	213.28	2.869					
14,100.00	7,480.00	14,112.03	7,480.00	108.52	107.86	-90.00	6,347.03	-419.32	611.48	395.13	216.35	2.826					
14,200.00	7,480.00	14,212.03	7,480.00	110.06	109.40	-90.00	6,447.03	-419.53	611.14	391.72	219.42	2.785					
14,300.00	7,480.00	14,312.03	7,480.00	111.60	110.93	-90.00	6,547.03	-419.73	610.80	388.30	222.50	2.745					
14,400.00	7,480.00	14,412.03	7,480.00	113.14	112.47	-90.00	6,647.03	-419.93	610.46	384.88	225.58	2.706					
14,500.00	7,480.00	14,512.03	7,480.00	114.68	114.01	-90.00	6,747.03	-420.13	610.12	381.46	228.66	2.668					
14,600.00	7,480.00	14,676.55	7,480.00	116.22	116.47	-90.00	6,911.27	-411.87	604.60	373.34	231.26	2.614					
14,691.86	7,480.00	14,703.04	7,480.00	117.64	116.84	-90.00	6,937.59	-408.94	597.89	363.44	234.45	2.550 SF					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4I-26H-P268 - OH - PLAN #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-90.25	-0.04	-10.07	10.07				
100.00	100.00	100.00	100.00	0.14	0.14	-90.25	-0.04	-10.07	10.07	9.79	0.28	36.483	
200.00	200.00	200.00	200.00	0.50	0.50	-90.25	-0.04	-10.07	10.07	9.08	0.99	10.142	
300.00	300.00	300.00	300.00	0.85	0.85	-90.25	-0.04	-10.07	10.07	8.36	1.71	5.889	
336.68	336.68	336.68	336.68	0.99	0.98	-91.59	-0.28	-10.06	10.07	8.10	1.97	5.118 CC	
350.00	350.00	350.00	350.00	1.03	1.03	-92.73	-0.48	-10.06	10.07	8.01	2.06	4.887	
400.00	400.00	399.98	399.96	1.21	1.20	105.28	-1.79	-10.02	10.29	7.88	2.40	4.281 ES	
500.00	499.93	499.88	499.72	1.54	1.54	96.39	-7.01	-9.88	11.91	8.83	3.08	3.864	
600.00	599.68	599.67	599.13	1.89	1.89	90.67	-15.70	-9.64	15.02	11.22	3.80	3.956	
700.00	699.13	699.46	698.21	2.25	2.26	88.76	-27.50	-9.31	19.35	14.82	4.53	4.269	
742.41	741.18	741.82	740.25	2.41	2.42	90.45	-32.73	-9.16	21.26	16.41	4.85	4.386	
800.00	798.23	799.34	797.33	2.63	2.64	93.37	-39.84	-8.97	23.91	18.63	5.28	4.526	
900.00	897.30	899.22	896.44	3.02	3.03	97.14	-52.18	-8.62	28.61	22.56	6.05	4.727	
1,000.00	996.36	999.09	995.54	3.42	3.42	99.84	-64.52	-8.28	33.40	26.56	6.83	4.887	
1,100.00	1,095.42	1,098.97	1,094.65	3.82	3.82	101.86	-76.86	-7.94	38.24	30.62	7.62	5.016	
1,200.00	1,194.49	1,198.84	1,193.76	4.22	4.21	103.43	-89.21	-7.60	43.12	34.71	8.42	5.122	
1,300.00	1,293.55	1,298.72	1,292.87	4.62	4.61	104.67	-101.55	-7.26	48.03	38.81	9.22	5.211	
1,400.00	1,392.61	1,398.59	1,391.98	5.03	5.01	105.69	-113.89	-6.91	52.96	42.94	10.02	5.286	
1,500.00	1,491.68	1,498.47	1,491.09	5.44	5.41	106.53	-126.23	-6.57	57.90	47.08	10.82	5.350	
1,600.00	1,590.74	1,598.34	1,590.20	5.84	5.81	107.24	-138.57	-6.23	62.85	51.22	11.63	5.406	
1,700.00	1,689.80	1,698.21	1,689.30	6.25	6.21	107.84	-150.91	-5.89	67.81	55.37	12.43	5.454	
1,800.00	1,788.87	1,798.09	1,788.41	6.66	6.61	108.36	-163.25	-5.54	72.77	59.53	13.24	5.497	
1,900.00	1,887.93	1,897.96	1,887.52	7.07	7.02	108.82	-175.60	-5.20	77.74	63.70	14.05	5.535	
2,000.00	1,986.99	1,997.84	1,986.63	7.49	7.42	109.22	-187.94	-4.86	82.71	67.86	14.85	5.569	
2,100.00	2,086.06	2,097.71	2,085.74	7.90	7.82	109.58	-200.28	-4.52	87.69	72.03	15.66	5.599	
2,200.00	2,185.12	2,197.59	2,184.85	8.31	8.22	109.89	-212.62	-4.18	92.67	76.20	16.47	5.627	
2,300.00	2,284.18	2,297.46	2,283.96	8.72	8.63	110.18	-224.96	-3.83	97.66	80.38	17.28	5.652	
2,400.00	2,383.25	2,397.34	2,383.06	9.13	9.03	110.44	-237.30	-3.49	102.64	84.55	18.09	5.674	
2,500.00	2,482.31	2,497.21	2,482.17	9.55	9.43	110.67	-249.65	-3.15	107.63	88.73	18.90	5.695	
2,600.00	2,581.37	2,597.09	2,581.28	9.96	9.84	110.88	-261.99	-2.81	112.62	92.91	19.71	5.714	
2,700.00	2,680.44	2,696.96	2,680.39	10.37	10.24	111.08	-274.33	-2.47	117.61	97.09	20.52	5.732	
2,800.00	2,779.50	2,796.84	2,779.50	10.79	10.64	111.25	-286.67	-2.12	122.60	101.27	21.33	5.748	
2,900.00	2,878.56	2,896.71	2,878.61	11.20	11.05	111.42	-299.01	-1.78	127.59	105.45	22.14	5.763	
3,000.00	2,977.63	2,996.58	2,977.72	11.61	11.45	111.57	-311.35	-1.44	132.59	109.64	22.95	5.777	
3,100.00	3,076.69	3,096.46	3,076.83	12.03	11.86	111.71	-323.69	-1.10	137.58	113.82	23.76	5.790	
3,200.00	3,175.75	3,196.33	3,175.93	12.44	12.26	111.85	-336.04	-0.75	142.58	118.01	24.57	5.802	
3,300.00	3,274.82	3,296.21	3,275.04	12.85	12.66	111.97	-348.38	-0.41	147.57	122.19	25.38	5.814	
3,400.00	3,373.88	3,396.08	3,374.15	13.27	13.07	112.08	-360.72	-0.07	152.57	126.38	26.19	5.825	
3,500.00	3,472.94	3,495.96	3,473.26	13.68	13.47	112.19	-373.06	0.27	157.57	130.56	27.01	5.835	
3,600.00	3,572.01	3,595.83	3,572.37	14.09	13.88	112.29	-385.40	0.61	162.57	134.75	27.82	5.844	
3,700.00	3,671.07	3,695.71	3,671.48	14.51	14.28	112.38	-397.74	0.96	167.57	138.94	28.63	5.853	
3,800.00	3,770.13	3,795.58	3,770.59	14.92	14.69	112.47	-410.09	1.30	172.56	143.12	29.44	5.861	
3,900.00	3,869.20	3,895.46	3,869.69	15.34	15.09	112.56	-422.43	1.64	177.56	147.31	30.25	5.870	
4,000.00	3,968.26	3,995.33	3,968.80	15.75	15.49	112.64	-434.77	1.98	182.56	151.50	31.06	5.877	
4,100.00	4,067.32	4,095.21	4,067.91	16.16	15.90	112.71	-447.11	2.33	187.56	155.69	31.88	5.884	
4,200.00	4,166.39	4,195.08	4,167.02	16.58	16.30	112.78	-459.45	2.67	192.56	159.88	32.69	5.891	
4,300.00	4,265.45	4,294.95	4,266.13	16.99	16.71	112.85	-471.79	3.01	197.56	164.06	33.50	5.898	
4,400.00	4,364.51	4,394.83	4,365.24	17.41	17.11	112.92	-484.13	3.35	202.56	168.25	34.31	5.904	
4,500.00	4,463.58	4,494.70	4,464.35	17.82	17.52	112.98	-496.48	3.69	207.57	172.44	35.12	5.910	
4,600.00	4,562.64	4,594.58	4,563.45	18.24	17.92	113.04	-508.82	4.04	212.57	176.63	35.93	5.915	
4,646.61	4,608.82	4,641.13	4,609.65	18.43	18.11	113.06	-514.57	4.20	214.90	178.59	36.31	5.918	
4,700.00	4,661.77	4,694.42	4,662.54	18.65	18.33	113.03	-521.11	4.38	217.37	180.63	36.74	5.916	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4I-26H-P268 - OH - PLAN #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
4,800.00	4,761.26	4,794.14	4,761.74	19.04	18.71	112.90	-531.12	4.65	221.04	183.51	37.52	5.891		
4,900.00	4,861.03	4,893.91	4,861.30	19.40	19.08	112.81	-537.69	4.84	223.44	185.18	38.26	5.840		
5,000.00	4,960.98	4,993.72	4,961.05	19.74	19.43	112.77	-540.78	4.92	224.57	185.62	38.95	5.766		
5,039.02	5,000.00	5,032.67	5,000.00	19.86	19.55	-90.27	-541.04	4.93	224.66	185.47	39.19	5.733		
5,100.00	5,060.98	5,093.65	5,060.98	20.04	19.73	-90.27	-541.04	4.93	224.66	185.12	39.54	5.681		
5,200.00	5,160.98	5,193.65	5,160.98	20.33	20.02	-90.27	-541.04	4.93	224.66	184.54	40.13	5.599		
5,300.00	5,260.98	5,293.65	5,260.98	20.62	20.31	-90.27	-541.04	4.93	224.66	183.95	40.71	5.518		
5,400.00	5,360.98	5,393.65	5,360.98	20.91	20.61	-90.27	-541.04	4.93	224.66	183.36	41.31	5.439		
5,500.00	5,460.98	5,493.65	5,460.98	21.21	20.90	-90.27	-541.04	4.93	224.66	182.76	41.90	5.362		
5,600.00	5,560.98	5,593.65	5,560.98	21.51	21.20	-90.27	-541.04	4.93	224.66	182.16	42.50	5.286		
5,700.00	5,660.98	5,693.65	5,660.98	21.81	21.51	-90.27	-541.04	4.93	224.66	181.56	43.10	5.212		
5,800.00	5,760.98	5,793.65	5,760.98	22.11	21.81	-90.27	-541.04	4.93	224.66	180.95	43.71	5.140		
5,900.00	5,860.98	5,893.65	5,860.98	22.41	22.11	-90.27	-541.04	4.93	224.66	180.34	44.32	5.069		
6,000.00	5,960.98	5,993.65	5,960.98	22.72	22.42	-90.27	-541.04	4.93	224.66	179.73	44.93	5.000		
6,100.00	6,060.98	6,093.65	6,060.98	23.02	22.73	-90.27	-541.04	4.93	224.66	179.12	45.55	4.933		
6,200.00	6,160.98	6,193.65	6,160.98	23.33	23.04	-90.27	-541.04	4.93	224.66	178.50	46.16	4.867		
6,300.00	6,260.98	6,293.65	6,260.98	23.64	23.35	-90.27	-541.04	4.93	224.66	177.88	46.79	4.802		
6,400.00	6,360.98	6,393.65	6,360.98	23.95	23.66	-90.27	-541.04	4.93	224.66	177.25	47.41	4.739		
6,500.00	6,460.98	6,493.65	6,460.98	24.26	23.97	-90.27	-541.04	4.93	224.66	176.63	48.04	4.677		
6,600.00	6,560.98	6,593.65	6,560.98	24.58	24.29	-90.27	-541.04	4.93	224.66	176.00	48.67	4.616		
6,700.00	6,660.98	6,693.65	6,660.98	24.89	24.60	-90.27	-541.04	4.93	224.66	175.36	49.30	4.557		
6,757.47	6,718.45	6,751.14	6,718.45	25.07	24.78	-89.91	-539.65	4.93	224.66	175.01	49.65	4.525		
6,802.82	6,763.80	6,796.18	6,763.27	25.21	24.91	-88.84	-535.43	4.94	224.70	174.79	49.90	4.503		
6,850.00	6,810.94	6,842.52	6,809.03	25.36	25.04	-87.04	-528.16	4.95	224.88	174.73	50.14	4.485		
6,900.00	6,860.68	6,891.24	6,856.53	25.50	25.17	-85.49	-517.34	4.97	225.20	174.84	50.36	4.471		
6,950.00	6,909.95	6,939.57	6,902.81	25.64	25.28	-83.97	-503.44	4.99	225.66	175.10	50.55	4.464		
7,000.00	6,958.50	6,987.53	6,947.70	25.77	25.39	-82.50	-486.60	5.01	226.24	175.53	50.71	4.462		
7,050.00	7,006.10	7,035.13	6,991.05	25.89	25.50	-81.06	-466.95	5.04	226.92	176.10	50.82	4.465		
7,100.00	7,052.52	7,082.39	7,032.69	26.00	25.59	-79.69	-444.63	5.08	227.70	176.80	50.90	4.473		
7,150.00	7,097.54	7,129.33	7,072.51	26.10	25.69	-78.36	-419.80	5.12	228.55	177.61	50.94	4.487		
7,200.00	7,140.93	7,175.96	7,110.38	26.20	25.78	-77.11	-392.59	5.16	229.45	178.52	50.93	4.505		
7,250.00	7,182.49	7,222.32	7,146.19	26.29	25.87	-75.92	-363.17	5.21	230.38	179.49	50.89	4.527		
7,300.00	7,222.00	7,268.41	7,179.83	26.38	25.96	-74.80	-331.67	5.25	231.33	180.51	50.82	4.552		
7,350.00	7,259.28	7,314.25	7,211.22	26.46	26.05	-73.76	-298.27	5.31	232.27	181.55	50.72	4.579		
7,400.00	7,294.15	7,359.88	7,240.26	26.55	26.14	-72.79	-263.10	5.36	233.19	182.58	50.61	4.608		
7,450.00	7,326.43	7,405.29	7,266.90	26.64	26.24	-71.91	-226.32	5.42	234.07	183.57	50.49	4.636		
7,500.00	7,355.97	7,450.00	7,290.79	26.74	26.34	-71.12	-188.54	5.48	234.88	184.52	50.36	4.664		
7,550.00	7,382.63	7,495.59	7,312.67	26.84	26.46	-70.39	-148.56	5.54	235.61	185.33	50.28	4.686		
7,600.00	7,406.27	7,540.50	7,331.70	26.94	26.58	-69.75	-107.88	5.60	236.25	186.04	50.21	4.705		
7,650.00	7,426.79	7,585.29	7,348.10	27.06	26.71	-69.20	-66.21	5.67	236.79	186.60	50.18	4.718		
7,700.00	7,444.07	7,629.97	7,361.84	27.19	26.84	-68.74	-23.70	5.73	237.20	187.00	50.21	4.725		
7,750.00	7,458.04	7,674.56	7,372.88	27.34	26.99	-68.36	19.49	5.80	237.49	187.20	50.29	4.723		
7,800.00	7,468.62	7,719.08	7,381.20	27.50	27.15	-68.07	63.22	5.87	237.64	187.20	50.44	4.712		
7,850.00	7,475.78	7,763.54	7,386.78	27.67	27.31	-67.86	107.32	5.94	237.65	186.99	50.66	4.691		
7,900.00	7,479.46	7,807.98	7,389.61	27.85	27.49	-67.75	151.66	6.00	237.52	186.56	50.96	4.661		
7,927.82	7,480.00	7,832.85	7,390.00	27.96	27.59	-67.72	176.53	6.04	237.38	186.22	51.16	4.640		
8,000.00	7,480.00	7,905.02	7,390.00	28.27	27.91	-67.67	248.70	6.15	236.91	185.15	51.76	4.577		
8,100.00	7,480.00	8,005.02	7,390.00	28.76	28.43	-67.61	348.70	6.31	236.27	183.55	52.71	4.482		
8,200.00	7,480.00	8,105.02	7,390.00	29.34	29.02	-67.54	448.70	6.46	235.62	181.80	53.82	4.378		
8,300.00	7,480.00	8,205.01	7,390.00	30.00	29.69	-67.48	548.69	6.62	234.97	179.92	55.06	4.268		
8,400.00	7,480.00	8,305.01	7,390.00	30.72	30.42	-67.41	648.69	6.78	234.33	177.90	56.43	4.153		
8,500.00	7,480.00	8,405.01	7,390.00	31.51	31.22	-67.35	748.69	6.93	233.69	175.77	57.92	4.035		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4I-26H-P268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
8,600.00	7,480.00	8,505.01	7,390.00	32.35	32.08	-67.28	848.69	7.09	233.04	173.52	59.52	3.915		
8,700.00	7,480.00	8,605.01	7,390.00	33.25	32.98	-67.21	948.68	7.24	232.40	171.17	61.22	3.796		
8,800.00	7,480.00	8,705.00	7,390.00	34.20	33.94	-67.15	1,048.68	7.40	231.75	168.74	63.02	3.678		
8,900.00	7,480.00	8,805.00	7,390.00	35.20	34.95	-67.08	1,148.68	7.55	231.11	166.21	64.90	3.561		
9,000.00	7,480.00	8,905.00	7,390.00	36.24	35.99	-67.01	1,248.68	7.71	230.47	163.61	66.85	3.447		
9,100.00	7,480.00	9,005.00	7,390.00	37.32	37.07	-66.95	1,348.67	7.86	229.82	160.94	68.88	3.337		
9,200.00	7,480.00	9,104.99	7,390.00	38.43	38.19	-66.88	1,448.67	8.02	229.18	158.21	70.97	3.229		
9,300.00	7,480.00	9,204.99	7,390.00	39.57	39.34	-66.81	1,548.67	8.17	228.54	155.42	73.12	3.126		
9,400.00	7,480.00	9,304.99	7,390.00	40.75	40.52	-66.74	1,648.67	8.33	227.90	152.58	75.32	3.026		
9,500.00	7,480.00	9,404.99	7,390.00	41.95	41.73	-66.67	1,748.66	8.48	227.25	149.68	77.57	2.930		
9,600.00	7,480.00	9,504.98	7,390.00	43.18	42.96	-66.60	1,848.66	8.64	226.61	146.75	79.86	2.837		
9,700.00	7,480.00	9,604.98	7,390.00	44.43	44.21	-66.53	1,948.66	8.79	225.97	143.77	82.20	2.749		
9,800.00	7,480.00	9,704.98	7,390.00	45.70	45.48	-66.46	2,048.66	8.95	225.33	140.76	84.57	2.665		
9,900.00	7,480.00	9,804.98	7,390.00	46.99	46.77	-66.39	2,148.65	9.10	224.69	137.72	86.97	2.584		
10,000.00	7,480.00	9,904.97	7,390.00	48.30	48.08	-66.32	2,248.65	9.26	224.05	134.65	89.40	2.506		
10,100.00	7,480.00	10,004.97	7,390.00	49.62	49.41	-66.24	2,348.65	9.41	223.41	131.55	91.86	2.432		
10,200.00	7,480.00	10,104.97	7,390.00	50.96	50.75	-66.17	2,448.65	9.57	222.77	128.42	94.35	2.361		
10,300.00	7,480.00	10,204.97	7,390.00	52.31	52.10	-66.10	2,548.64	9.72	222.13	125.28	96.86	2.293		
10,400.00	7,480.00	10,304.96	7,390.00	53.68	53.47	-66.03	2,648.64	9.88	221.50	122.11	99.39	2.229		
10,500.00	7,480.00	10,404.96	7,390.00	55.05	54.85	-65.95	2,748.64	10.03	220.86	118.92	101.93	2.167		
10,600.00	7,480.00	10,504.96	7,390.00	56.44	56.23	-65.88	2,848.63	10.19	220.22	115.72	104.50	2.107		
10,700.00	7,480.00	10,604.96	7,390.00	57.84	57.63	-65.80	2,948.63	10.34	219.58	112.50	107.08	2.051		
10,800.00	7,480.00	10,704.95	7,390.00	59.25	59.04	-65.73	3,048.63	10.50	218.95	109.27	109.68	1.996		
10,900.00	7,480.00	10,804.95	7,390.00	60.67	60.46	-65.65	3,148.63	10.65	218.31	106.03	112.28	1.944		
11,000.00	7,480.00	10,904.95	7,390.00	62.09	61.88	-65.58	3,248.62	10.81	217.67	102.77	114.90	1.894		
11,100.00	7,480.00	11,004.95	7,390.00	63.52	63.31	-65.50	3,348.62	10.96	217.04	99.50	117.54	1.847		
11,200.00	7,480.00	11,104.94	7,390.00	64.96	64.75	-65.42	3,448.62	11.12	216.40	96.22	120.18	1.801		
11,300.00	7,480.00	11,204.94	7,390.00	66.41	66.20	-65.35	3,548.62	11.27	215.77	92.94	122.83	1.757		
11,400.00	7,480.00	11,304.94	7,390.00	67.86	67.65	-65.27	3,648.61	11.43	215.13	89.64	125.49	1.714		
11,500.00	7,480.00	11,404.94	7,390.00	69.32	69.10	-65.19	3,748.61	11.58	214.50	86.34	128.15	1.674		
11,600.00	7,480.00	11,504.93	7,390.00	70.79	70.57	-65.11	3,848.61	11.74	213.86	83.04	130.83	1.635		
11,700.00	7,480.00	11,604.93	7,390.00	72.26	72.03	-65.03	3,948.61	11.89	213.23	79.72	133.51	1.597		
11,800.00	7,480.00	11,704.93	7,390.00	73.73	73.51	-64.95	4,048.60	12.05	212.60	76.40	136.19	1.561		
11,900.00	7,480.00	11,804.93	7,390.00	75.21	74.98	-64.87	4,148.60	12.20	211.97	73.08	138.88	1.526		
11,955.70	7,480.00	11,859.29	7,390.00	76.03	75.79	-64.84	4,202.96	12.22	211.68	71.31	140.37	1.508		
12,000.00	7,480.00	11,900.88	7,390.00	76.69	76.41	-64.87	4,244.56	11.69	211.97	70.39	141.58	1.497 Level 3		
12,100.00	7,480.00	12,000.87	7,390.00	78.18	77.91	-65.03	4,344.53	9.74	213.25	68.74	144.50	1.476 Level 3		
12,200.00	7,480.00	12,100.87	7,390.00	79.67	79.41	-65.19	4,444.50	7.79	214.53	67.09	147.44	1.455 Level 3		
12,300.00	7,480.00	12,200.86	7,390.00	81.17	80.92	-65.35	4,544.47	5.83	215.81	65.42	150.38	1.435 Level 3		
12,400.00	7,480.00	12,300.85	7,390.00	82.66	82.43	-65.50	4,644.44	3.88	217.09	63.75	153.33	1.416 Level 3		
12,500.00	7,480.00	12,400.84	7,390.00	84.17	83.94	-65.66	4,744.41	1.93	218.37	62.08	156.29	1.397 Level 3		
12,600.00	7,480.00	12,500.83	7,390.00	85.67	85.46	-65.81	4,844.38	-0.02	219.65	60.39	159.26	1.379 Level 3		
12,700.00	7,480.00	12,600.82	7,390.00	87.18	86.98	-65.96	4,944.35	-1.98	220.94	58.70	162.24	1.362 Level 3		
12,800.00	7,480.00	12,700.81	7,390.00	88.69	88.50	-66.11	5,044.32	-3.93	222.23	57.01	165.22	1.345 Level 3		
12,900.00	7,480.00	12,800.80	7,390.00	90.20	90.02	-66.25	5,144.29	-5.88	223.52	55.31	168.21	1.329 Level 3		
13,000.00	7,480.00	12,900.79	7,390.00	91.72	91.55	-66.40	5,244.27	-7.83	224.81	53.60	171.21	1.313 Level 3		
13,100.00	7,480.00	13,000.78	7,390.00	93.23	93.08	-66.54	5,344.24	-9.78	226.10	51.89	174.21	1.298 Level 3		
13,200.00	7,480.00	13,100.77	7,390.00	94.75	94.61	-66.68	5,444.21	-11.74	227.39	50.18	177.22	1.283 Level 3		
13,300.00	7,480.00	13,200.76	7,390.00	96.28	96.15	-66.82	5,544.18	-13.69	228.69	48.46	180.23	1.269 Level 3		
13,400.00	7,480.00	13,300.75	7,390.00	97.80	97.68	-66.96	5,644.15	-15.64	229.98	46.73	183.25	1.255 Level 3		
13,500.00	7,480.00	13,400.74	7,390.00	99.33	99.22	-67.10	5,744.12	-17.59	231.28	45.00	186.28	1.242 Level 2		
13,600.00	7,480.00	13,500.73	7,390.00	100.86	100.76	-67.23	5,844.09	-19.55	232.58	43.27	189.31	1.229 Level 2		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4I-26H-P268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
13,700.00	7,480.00	13,600.72	7,390.00	102.39	102.30	-67.37	5,944.06	-21.50	233.88	41.54	192.34	1.216	Level 2	
13,800.00	7,480.00	13,700.71	7,390.00	103.92	103.85	-67.50	6,044.03	-23.45	235.18	39.80	195.38	1.204	Level 2	
13,900.00	7,480.00	13,800.70	7,390.00	105.45	105.39	-67.63	6,144.00	-25.40	236.48	38.06	198.43	1.192	Level 2	
14,000.00	7,480.00	13,900.69	7,390.00	106.99	106.94	-67.76	6,243.98	-27.35	237.79	36.31	201.48	1.180	Level 2	
14,100.00	7,480.00	14,000.68	7,390.00	108.52	108.49	-67.89	6,343.95	-29.31	239.09	34.56	204.53	1.169	Level 2	
14,200.00	7,480.00	14,100.67	7,390.00	110.06	110.04	-68.01	6,443.92	-31.26	240.40	32.81	207.59	1.158	Level 2	
14,300.00	7,480.00	14,200.66	7,390.00	111.60	111.59	-68.14	6,543.89	-33.21	241.70	31.05	210.65	1.147	Level 2	
14,400.00	7,480.00	14,300.65	7,390.00	113.14	113.14	-68.26	6,643.86	-35.16	243.01	29.30	213.72	1.137	Level 2	
14,500.00	7,480.00	14,400.64	7,390.00	114.68	114.69	-68.38	6,743.83	-37.12	244.32	27.54	216.79	1.127	Level 2	
14,600.00	7,480.00	14,500.63	7,390.00	116.22	116.25	-68.50	6,843.80	-39.07	245.63	25.77	219.86	1.117	Level 2	
14,691.86	7,480.00	14,592.48	7,390.00	117.64	117.68	-68.61	6,935.64	-40.86	246.84	24.15	222.68	1.108	Level 2, SF	



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4K-26H-P268 - OH - PLAN #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	89.77	0.04	10.07	10.07					
100.00	100.00	100.00	100.00	0.14	0.14	89.77	0.04	10.07	10.07	9.79	0.28	36.483		
200.00	200.00	200.00	200.00	0.50	0.50	89.77	0.04	10.07	10.07	9.08	0.99	10.142		
300.00	300.00	300.00	300.00	0.85	0.85	89.77	0.04	10.07	10.07	8.36	1.71	5.889		
350.00	350.00	350.00	350.00	1.03	1.03	89.77	0.04	10.07	10.07	8.00	2.07	4.869		
400.00	400.00	400.00	400.00	1.21	1.21	-69.52	0.04	10.07	9.91	7.49	2.42	4.097		
499.56	499.49	499.49	499.49	1.54	1.57	-90.00	0.04	10.07	9.28	6.17	3.11	2.986 CC		
500.00	499.93	499.93	499.93	1.54	1.57	-90.14	0.04	10.07	9.28	6.17	3.11	2.983 ES		
600.00	599.68	599.68	599.68	1.89	1.93	-126.91	0.04	10.07	11.63	7.81	3.82	3.043		
700.00	699.13	699.66	699.64	2.25	2.27	-148.90	-1.48	10.90	18.35	13.83	4.53	4.055		
742.41	741.18	742.15	742.10	2.41	2.41	-153.56	-3.05	11.76	21.70	16.87	4.83	4.492		
800.00	798.23	799.99	799.83	2.63	2.61	-157.32	-6.08	13.42	25.90	20.66	5.24	4.941		
900.00	897.30	900.75	900.20	3.02	2.96	-159.45	-13.80	17.63	30.86	24.89	5.97	5.168		
1,000.00	996.36	1,001.60	1,000.29	3.42	3.32	-158.43	-24.59	23.53	32.72	26.01	6.71	4.877		
1,100.00	1,095.42	1,101.59	1,099.37	3.82	3.69	-156.47	-36.43	29.99	33.44	26.01	7.42	4.505		
1,200.00	1,194.49	1,201.58	1,198.44	4.22	4.07	-154.60	-48.26	36.46	34.19	26.05	8.15	4.196		
1,300.00	1,293.55	1,301.57	1,297.52	4.62	4.45	-152.81	-60.10	42.93	34.99	26.10	8.88	3.938		
1,400.00	1,392.61	1,401.56	1,396.60	5.03	4.84	-151.10	-71.94	49.39	35.81	26.18	9.63	3.719		
1,500.00	1,491.68	1,501.55	1,495.67	5.44	5.23	-149.47	-83.77	55.86	36.67	26.29	10.38	3.532		
1,600.00	1,590.74	1,601.54	1,594.75	5.84	5.63	-147.91	-95.61	62.33	37.55	26.41	11.14	3.371		
1,700.00	1,689.80	1,701.53	1,693.83	6.25	6.03	-146.43	-107.45	68.79	38.46	26.56	11.91	3.230		
1,800.00	1,788.87	1,801.53	1,792.91	6.66	6.43	-145.02	-119.28	75.26	39.40	26.72	12.68	3.108		
1,900.00	1,887.93	1,901.52	1,891.98	7.07	6.83	-143.67	-131.12	81.73	40.36	26.90	13.45	3.000		
2,000.00	1,986.99	2,001.51	1,991.06	7.49	7.24	-142.39	-142.95	88.19	41.34	27.10	14.23	2.904		
2,100.00	2,086.06	2,101.50	2,090.14	7.90	7.64	-141.16	-154.79	94.66	42.33	27.32	15.02	2.819		
2,200.00	2,185.12	2,201.49	2,189.21	8.31	8.05	-140.00	-166.63	101.12	43.35	27.55	15.81	2.743		
2,300.00	2,284.18	2,301.48	2,288.29	8.72	8.45	-138.88	-178.46	107.59	44.39	27.79	16.60	2.674		
2,400.00	2,383.25	2,401.47	2,387.37	9.13	8.86	-137.82	-190.30	114.06	45.44	28.04	17.39	2.612		
2,500.00	2,482.31	2,501.46	2,486.45	9.55	9.27	-136.81	-202.14	120.52	46.50	28.31	18.19	2.556		
2,600.00	2,581.37	2,601.45	2,585.52	9.96	9.67	-135.84	-213.97	126.99	47.58	28.59	18.99	2.506		
2,700.00	2,680.44	2,701.45	2,684.60	10.37	10.08	-134.92	-225.81	133.46	48.67	28.88	19.79	2.459		
2,800.00	2,779.50	2,801.44	2,783.68	10.79	10.49	-134.03	-237.64	139.92	49.78	29.18	20.60	2.417		
2,900.00	2,878.56	2,901.43	2,882.76	11.20	10.90	-133.19	-249.48	146.39	50.89	29.49	21.40	2.378		
3,000.00	2,977.63	3,001.42	2,981.83	11.61	11.31	-132.38	-261.32	152.86	52.02	29.81	22.21	2.342		
3,100.00	3,076.69	3,101.41	3,080.91	12.03	11.72	-131.61	-273.15	159.32	53.16	30.13	23.02	2.309		
3,200.00	3,175.75	3,201.40	3,179.99	12.44	12.13	-130.86	-284.99	165.79	54.30	30.47	23.83	2.278		
3,300.00	3,274.82	3,301.39	3,279.06	12.85	12.54	-130.15	-296.82	172.26	55.46	30.81	24.65	2.250		
3,400.00	3,373.88	3,401.38	3,378.14	13.27	12.95	-129.47	-308.66	178.72	56.62	31.16	25.46	2.224		
3,500.00	3,472.94	3,501.37	3,477.22	13.68	13.36	-128.82	-320.50	185.19	57.79	31.51	26.27	2.199		
3,600.00	3,572.01	3,601.36	3,576.30	14.09	13.77	-128.19	-332.33	191.65	58.97	31.88	27.09	2.177		
3,700.00	3,671.07	3,701.36	3,675.37	14.51	14.18	-127.58	-344.17	198.12	60.15	32.24	27.91	2.155		
3,800.00	3,770.13	3,801.35	3,774.45	14.92	14.60	-127.00	-356.01	204.59	61.34	32.62	28.72	2.135		
3,900.00	3,869.20	3,901.34	3,873.53	15.34	15.01	-126.45	-367.84	211.05	62.54	32.99	29.54	2.117		
4,000.00	3,968.26	4,001.33	3,972.60	15.75	15.42	-125.91	-379.68	217.52	63.74	33.38	30.36	2.099		
4,100.00	4,067.32	4,101.32	4,071.68	16.16	15.83	-125.39	-391.51	223.99	64.95	33.77	31.18	2.083		
4,200.00	4,166.39	4,201.31	4,170.76	16.58	16.24	-124.89	-403.35	230.45	66.16	34.16	32.00	2.067		
4,300.00	4,265.45	4,301.30	4,269.84	16.99	16.65	-124.41	-415.19	236.92	67.38	34.55	32.82	2.053		
4,400.00	4,364.51	4,401.29	4,368.91	17.41	17.07	-123.95	-427.02	243.39	68.60	34.96	33.64	2.039		
4,500.00	4,463.58	4,501.28	4,467.99	17.82	17.48	-123.50	-438.86	249.85	69.83	35.36	34.47	2.026		
4,600.00	4,562.64	4,601.27	4,567.07	18.24	17.89	-123.07	-450.70	256.32	71.06	35.77	35.29	2.014		
4,646.61	4,608.82	4,647.88	4,613.25	18.43	18.08	-122.88	-456.21	259.33	71.63	35.96	35.67	2.008		
4,700.00	4,661.77	4,701.26	4,666.14	18.65	18.30	-122.33	-462.53	262.79	72.02	35.90	36.12	1.994		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4K-26H-P268 - OH - PLAN #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
4,800.00	4,761.26	4,801.19	4,765.16	19.04	18.71	-119.46	-474.36	269.25	71.42	34.38	37.04	1.928	
4,900.00	4,861.03	4,900.94	4,864.00	19.40	19.13	-113.98	-486.17	275.70	69.51	31.47	38.04	1.827	
5,000.00	4,960.98	5,000.39	4,962.54	19.74	19.54	-105.44	-497.94	282.13	67.25	28.18	39.07	1.721	
5,039.02	5,000.00	5,039.09	5,000.88	19.86	19.70	55.75	-502.52	284.63	66.60	27.15	39.45	1.688	
5,087.66	5,048.64	5,087.28	5,048.64	20.00	19.89	61.35	-508.23	287.75	66.27	26.40	39.87	1.662	
5,100.00	5,060.98	5,099.51	5,060.75	20.04	19.94	62.78	-509.67	288.54	66.29	26.33	39.97	1.659	
5,200.00	5,160.98	5,198.84	5,159.22	20.33	20.35	73.84	-521.11	294.79	67.90	27.29	40.61	1.672	
5,300.00	5,260.98	5,299.02	5,258.88	20.62	20.74	81.91	-530.04	299.67	70.81	29.70	41.11	1.722	
5,400.00	5,360.98	5,399.80	5,359.43	20.91	21.11	86.82	-535.93	302.89	73.42	31.82	41.60	1.765	
5,500.00	5,460.98	5,500.93	5,460.50	21.21	21.46	89.02	-538.72	304.41	74.83	32.69	42.15	1.776	
5,600.00	5,560.98	5,601.41	5,560.98	21.51	21.76	89.20	-538.96	304.54	74.96	32.22	42.73	1.754	
5,700.00	5,660.98	5,701.41	5,660.98	21.81	22.06	89.20	-538.96	304.54	74.96	31.62	43.33	1.730	
5,800.00	5,760.98	5,801.41	5,760.98	22.11	22.36	89.20	-538.96	304.54	74.96	31.02	43.94	1.706	
5,900.00	5,860.98	5,901.41	5,860.98	22.41	22.66	89.20	-538.96	304.54	74.96	30.41	44.55	1.683	
6,000.00	5,960.98	6,001.41	5,960.98	22.72	22.96	89.20	-538.96	304.54	74.96	29.80	45.16	1.660	
6,100.00	6,060.98	6,101.41	6,060.98	23.02	23.26	89.20	-538.96	304.54	74.96	29.19	45.77	1.638	
6,200.00	6,160.98	6,201.41	6,160.98	23.33	23.57	89.20	-538.96	304.54	74.96	28.57	46.39	1.616	
6,300.00	6,260.98	6,301.41	6,260.98	23.64	23.87	89.20	-538.96	304.54	74.96	27.95	47.00	1.595	
6,400.00	6,360.98	6,401.41	6,360.98	23.95	24.18	89.20	-538.96	304.54	74.96	27.33	47.63	1.574	
6,500.00	6,460.98	6,501.41	6,460.98	24.26	24.49	89.20	-538.96	304.54	74.96	26.71	48.25	1.553	
6,600.00	6,560.98	6,601.41	6,560.98	24.58	24.80	89.20	-538.96	304.54	74.96	26.08	48.88	1.534	
6,700.00	6,660.98	6,701.41	6,660.98	24.89	25.11	89.20	-538.96	304.54	74.96	25.45	49.51	1.514	
6,802.82	6,763.80	6,804.23	6,763.80	25.21	25.43	89.20	-538.96	304.54	74.96	24.80	50.16	1.494 Level 3	
6,832.93	6,793.90	6,834.33	6,793.90	25.31	25.53	90.00	-538.96	304.54	74.95	24.63	50.33	1.489 Level 3	
6,850.00	6,810.94	6,851.37	6,810.94	25.36	25.58	90.70	-538.96	304.54	74.96	24.55	50.41	1.487 Level 3	
6,900.00	6,860.68	6,901.11	6,860.68	25.50	25.73	94.50	-538.96	304.54	75.19	24.63	50.56	1.487 Level 3	
6,950.00	6,909.95	6,950.68	6,910.25	25.64	25.89	100.59	-538.77	304.54	76.30	25.73	50.57	1.509	
7,000.00	6,958.50	7,001.09	6,960.56	25.77	26.04	106.98	-535.84	304.57	78.54	28.08	50.47	1.556	
7,050.00	7,006.10	7,052.17	7,011.21	25.89	26.19	112.92	-529.27	304.64	81.76	31.50	50.26	1.627	
7,100.00	7,052.52	7,103.94	7,061.93	26.00	26.32	118.29	-518.95	304.74	85.82	35.90	49.92	1.719	
7,150.00	7,097.54	7,156.43	7,112.45	26.10	26.45	123.06	-504.77	304.89	90.53	41.13	49.40	1.832	
7,200.00	7,140.93	7,209.63	7,162.47	26.20	26.57	127.24	-486.66	305.08	95.74	47.05	48.69	1.966	
7,250.00	7,182.49	7,263.57	7,211.66	26.29	26.68	130.85	-464.57	305.30	101.28	53.52	47.76	2.121	
7,300.00	7,222.00	7,318.25	7,259.68	26.38	26.79	133.95	-438.46	305.57	107.01	60.40	46.61	2.296	
7,350.00	7,259.28	7,373.66	7,306.17	26.46	26.89	136.59	-408.34	305.88	112.81	67.55	45.25	2.493	
7,400.00	7,294.15	7,429.79	7,350.76	26.55	26.99	138.83	-374.25	306.22	118.54	74.84	43.70	2.713	
7,450.00	7,326.43	7,486.64	7,393.04	26.64	27.08	140.71	-336.29	306.61	124.12	82.13	41.99	2.956	
7,500.00	7,355.97	7,544.16	7,432.64	26.74	27.17	142.28	-294.58	307.04	129.45	89.29	40.16	3.224	
7,550.00	7,382.63	7,602.34	7,469.14	26.84	27.26	143.56	-249.30	307.50	134.46	96.19	38.26	3.514	
7,600.00	7,406.27	7,661.12	7,502.17	26.94	27.36	144.60	-200.70	308.00	139.06	102.69	36.37	3.823	
7,650.00	7,426.79	7,720.45	7,531.36	27.06	27.47	145.40	-149.07	308.53	143.21	108.63	34.58	4.142	
7,700.00	7,444.07	7,780.27	7,556.36	27.19	27.60	146.01	-94.74	309.08	146.84	113.87	32.97	4.454	
7,750.00	7,458.04	7,840.51	7,576.86	27.34	27.74	146.42	-38.12	309.66	149.92	118.25	31.67	4.734	
7,800.00	7,468.62	7,901.09	7,592.61	27.50	27.90	146.65	20.35	310.26	152.42	121.63	30.79	4.951	
7,850.00	7,475.78	7,961.93	7,603.40	27.67	28.08	146.71	80.20	310.87	154.29	123.88	30.42	5.073	
7,900.00	7,479.46	8,022.93	7,609.08	27.85	28.28	146.60	140.92	311.49	155.54	124.93	30.61	5.081	
7,927.82	7,480.00	8,056.92	7,610.00	27.96	28.40	146.47	174.89	311.84	155.95	124.99	30.97	5.036	
8,000.00	7,480.00	8,129.50	7,610.00	28.27	28.70	146.13	247.47	312.58	156.58	124.81	31.78	4.928	
8,100.00	7,480.00	8,229.49	7,610.00	28.76	29.17	145.65	347.45	313.61	157.46	124.48	32.98	4.774	
8,200.00	7,480.00	8,329.48	7,610.00	29.34	29.72	145.18	447.43	314.63	158.35	124.05	34.30	4.616	
8,300.00	7,480.00	8,429.47	7,610.00	30.00	30.35	144.72	547.42	315.65	159.25	123.52	35.73	4.457	
8,400.00	7,480.00	8,529.45	7,610.00	30.72	31.05	144.26	647.40	316.68	160.16	122.90	37.26	4.298	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4K-26H-P268 - OH - PLAN #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
8,500.00	7,480.00	8,629.44	7,610.00	31.51	31.81	143.81	747.38	317.70	161.08	122.20	38.88	4.143	
8,600.00	7,480.00	8,729.43	7,610.00	32.35	32.63	143.37	847.36	318.72	162.01	121.42	40.59	3.992	
8,700.00	7,480.00	8,829.42	7,610.00	33.25	33.50	142.92	947.35	319.74	162.95	120.58	42.37	3.846	
8,800.00	7,480.00	8,929.41	7,610.00	34.20	34.43	142.49	1,047.33	320.77	163.90	119.67	44.23	3.706	
8,900.00	7,480.00	9,029.39	7,610.00	35.20	35.40	142.05	1,147.31	321.79	164.86	118.71	46.15	3.572	
9,000.00	7,480.00	9,129.38	7,610.00	36.24	36.41	141.63	1,247.29	322.81	165.82	117.69	48.13	3.445	
9,100.00	7,480.00	9,229.37	7,610.00	37.32	37.47	141.21	1,347.28	323.83	166.80	116.63	50.17	3.324	
9,200.00	7,480.00	9,329.36	7,610.00	38.43	38.55	140.79	1,447.26	324.86	167.79	115.52	52.27	3.210	
9,300.00	7,480.00	9,429.34	7,610.00	39.57	39.67	140.38	1,547.24	325.88	168.78	114.37	54.41	3.102	
9,400.00	7,480.00	9,529.33	7,610.00	40.75	40.83	139.97	1,647.22	326.90	169.78	113.18	56.61	2.999	
9,500.00	7,480.00	9,629.32	7,610.00	41.95	42.00	139.57	1,747.21	327.93	170.80	111.96	58.84	2.903	
9,600.00	7,480.00	9,729.31	7,610.00	43.18	43.21	139.17	1,847.19	328.95	171.82	110.70	61.11	2.811	
9,700.00	7,480.00	9,829.30	7,610.00	44.43	44.43	138.78	1,947.17	329.97	172.84	109.42	63.43	2.725	
9,800.00	7,480.00	9,929.28	7,610.00	45.70	45.68	138.39	2,047.15	330.99	173.88	108.10	65.78	2.643	
9,900.00	7,480.00	10,029.27	7,610.00	46.99	46.95	138.01	2,147.14	332.02	174.92	106.76	68.16	2.566	
10,000.00	7,480.00	10,129.26	7,610.00	48.30	48.24	137.63	2,247.12	333.04	175.98	105.40	70.58	2.493	
10,100.00	7,480.00	10,229.25	7,610.00	49.62	49.54	137.25	2,347.10	334.06	177.04	104.01	73.02	2.424	
10,200.00	7,480.00	10,329.23	7,610.00	50.96	50.86	136.88	2,447.08	335.08	178.10	102.61	75.50	2.359	
10,300.00	7,480.00	10,429.22	7,610.00	52.31	52.19	136.52	2,547.07	336.11	179.18	101.18	78.00	2.297	
10,400.00	7,480.00	10,529.21	7,610.00	53.68	53.54	136.16	2,647.05	337.13	180.26	99.73	80.53	2.238	
10,500.00	7,480.00	10,629.20	7,610.00	55.05	54.89	135.80	2,747.03	338.15	181.35	98.27	83.08	2.183	
10,600.00	7,480.00	10,729.19	7,610.00	56.44	56.26	135.45	2,847.01	339.18	182.44	96.78	85.66	2.130	
10,700.00	7,480.00	10,829.17	7,610.00	57.84	57.64	135.10	2,947.00	340.20	183.55	95.29	88.26	2.080	
10,800.00	7,480.00	10,929.16	7,610.00	59.25	59.03	134.75	3,046.98	341.22	184.65	93.77	90.88	2.032	
10,900.00	7,480.00	11,029.15	7,610.00	60.67	60.43	134.41	3,146.96	342.24	185.77	92.25	93.52	1.986	
11,000.00	7,480.00	11,129.14	7,610.00	62.09	61.84	134.08	3,246.94	343.27	186.89	90.71	96.19	1.943	
11,100.00	7,480.00	11,229.12	7,610.00	63.52	63.25	133.75	3,346.93	344.29	188.02	89.15	98.87	1.902	
11,200.00	7,480.00	11,329.11	7,610.00	64.96	64.67	133.42	3,446.91	345.31	189.15	87.59	101.57	1.862	
11,300.00	7,480.00	11,429.10	7,610.00	66.41	66.10	133.09	3,546.89	346.33	190.30	86.01	104.28	1.825	
11,400.00	7,480.00	11,529.09	7,610.00	67.86	67.54	132.77	3,646.87	347.36	191.44	84.42	107.02	1.789	
11,500.00	7,480.00	11,629.07	7,610.00	69.32	68.98	132.46	3,746.86	348.38	192.59	82.83	109.77	1.755	
11,600.00	7,480.00	11,729.06	7,610.00	70.79	70.43	132.14	3,846.84	349.40	193.75	81.22	112.54	1.722	
11,700.00	7,480.00	11,829.05	7,610.00	72.26	71.88	131.84	3,946.82	350.43	194.92	79.60	115.32	1.690	
11,800.00	7,480.00	11,929.04	7,610.00	73.73	73.34	131.53	4,046.80	351.45	196.09	77.97	118.11	1.660	
11,900.00	7,480.00	12,029.03	7,610.00	75.21	74.80	131.23	4,146.79	352.47	197.26	76.34	120.92	1.631	
12,000.00	7,480.00	12,129.01	7,610.00	76.69	76.27	130.93	4,246.77	353.49	198.44	74.70	123.75	1.604	
12,100.00	7,480.00	12,229.00	7,610.00	78.18	77.74	130.64	4,346.75	354.52	199.63	73.05	126.58	1.577	
12,200.00	7,480.00	12,328.99	7,610.00	79.67	79.22	130.35	4,446.73	355.54	200.82	71.39	129.43	1.552	
12,300.00	7,480.00	12,428.98	7,610.00	81.17	80.70	130.06	4,546.72	356.56	202.02	69.72	132.29	1.527	
12,400.00	7,480.00	12,528.96	7,610.00	82.66	82.18	129.77	4,646.70	357.58	203.22	68.05	135.16	1.503	
12,500.00	7,480.00	12,628.95	7,610.00	84.17	83.67	129.49	4,746.68	358.61	204.42	66.38	138.05	1.481 Level 3	
12,600.00	7,480.00	12,728.94	7,610.00	85.67	85.16	129.22	4,846.66	359.63	205.64	64.69	140.94	1.459 Level 3	
12,700.00	7,480.00	12,828.93	7,610.00	87.18	86.65	128.94	4,946.65	360.65	206.85	63.00	143.85	1.438 Level 3	
12,800.00	7,480.00	12,928.92	7,610.00	88.69	88.15	128.67	5,046.63	361.68	208.07	61.31	146.76	1.418 Level 3	
12,900.00	7,480.00	13,028.90	7,610.00	90.20	89.64	128.40	5,146.61	362.70	209.30	59.61	149.69	1.398 Level 3	
13,000.00	7,480.00	13,128.89	7,610.00	91.72	91.14	128.14	5,246.59	363.72	210.53	57.90	152.62	1.379 Level 3	
13,100.00	7,480.00	13,228.88	7,610.00	93.23	92.65	127.88	5,346.58	364.74	211.76	56.19	155.57	1.361 Level 3	
13,200.00	7,480.00	13,328.87	7,610.00	94.75	94.15	127.62	5,446.56	365.77	213.00	54.48	158.52	1.344 Level 3	
13,300.00	7,480.00	13,428.85	7,610.00	96.28	95.66	127.36	5,546.54	366.79	214.24	52.76	161.48	1.327 Level 3	
13,400.00	7,480.00	13,528.84	7,610.00	97.80	97.17	127.11	5,646.52	367.81	215.49	51.04	164.45	1.310 Level 3	
13,500.00	7,480.00	13,628.83	7,610.00	99.33	98.68	126.86	5,746.51	368.83	216.74	49.31	167.43	1.295 Level 3	
13,600.00	7,480.00	13,728.82	7,610.00	100.86	100.20	126.61	5,846.49	369.86	218.00	47.59	170.41	1.279 Level 3	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4K-26H-P268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
13,700.00	7,480.00	13,828.80	7,610.00	102.39	101.71	126.37	5,946.47	370.88	219.26	45.85	173.40	1.264	Level 3	
13,800.00	7,480.00	13,928.79	7,610.00	103.92	103.23	126.13	6,046.45	371.90	220.52	44.12	176.40	1.250	Level 3	
13,900.00	7,480.00	14,028.78	7,610.00	105.45	104.75	125.89	6,146.44	372.93	221.79	42.38	179.41	1.236	Level 2	
14,000.00	7,480.00	14,128.77	7,610.00	106.99	106.27	125.65	6,246.42	373.95	223.06	40.63	182.42	1.223	Level 2	
14,100.00	7,480.00	14,228.76	7,610.00	108.52	107.79	125.42	6,346.40	374.97	224.33	38.89	185.44	1.210	Level 2	
14,200.00	7,480.00	14,328.74	7,610.00	110.06	109.32	125.19	6,446.38	375.99	225.61	37.14	188.47	1.197	Level 2	
14,300.00	7,480.00	14,428.73	7,610.00	111.60	110.84	124.96	6,546.37	377.02	226.89	35.39	191.50	1.185	Level 2	
14,400.00	7,480.00	14,528.72	7,610.00	113.14	112.37	124.74	6,646.35	378.04	228.18	33.64	194.54	1.173	Level 2	
14,500.00	7,480.00	14,628.71	7,610.00	114.68	113.90	124.51	6,746.33	379.06	229.47	31.88	197.58	1.161	Level 2	
14,600.00	7,480.00	14,728.69	7,610.00	116.22	115.43	124.29	6,846.31	380.08	230.76	30.12	200.63	1.150	Level 2	
14,691.86	7,480.00	14,820.55	7,610.00	117.64	116.84	124.09	6,938.16	381.02	231.95	28.51	203.44	1.140	Level 2, SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4L-26H-P268 - OH - PLAN #2													Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	90.51	-0.18	19.86	19.86					
100.00	100.00	100.00	100.00	0.14	0.14	90.51	-0.18	19.86	19.86	19.59	0.28	71.961		
200.00	200.00	200.00	200.00	0.50	0.50	90.51	-0.18	19.86	19.86	18.87	0.99	20.004 CC		
300.00	300.00	299.46	299.44	0.85	0.84	93.72	-1.37	21.11	21.16	19.44	1.72	12.293		
350.00	350.00	349.11	349.05	1.03	1.02	97.20	-2.86	22.66	22.86	20.76	2.10	10.895		
400.00	400.00	398.70	398.54	1.21	1.19	-56.48	-4.95	24.83	25.12	22.65	2.47	10.171		
500.00	499.93	497.72	497.19	1.54	1.55	-52.94	-10.88	31.01	30.48	27.27	3.22	9.480		
600.00	599.68	596.51	595.25	1.89	1.92	-52.13	-19.15	39.63	36.79	32.81	3.97	9.261		
700.00	699.13	695.60	693.19	2.25	2.32	-53.15	-29.58	50.49	43.69	38.99	4.70	9.287		
742.41	741.18	737.93	734.98	2.41	2.50	-54.38	-34.19	55.29	46.21	41.20	5.01	9.229		
800.00	798.23	795.40	791.74	2.63	2.73	-56.32	-40.46	61.82	49.42	44.01	5.42	9.120		
900.00	897.30	895.21	890.30	3.02	3.15	-59.14	-51.35	73.16	55.12	48.96	6.17	8.940		
1,000.00	996.36	995.01	988.86	3.42	3.57	-61.43	-62.23	84.50	60.93	53.99	6.93	8.789		
1,100.00	1,095.42	1,094.82	1,087.42	3.82	3.99	-63.32	-73.12	95.84	66.81	59.10	7.71	8.662		
1,200.00	1,194.49	1,194.62	1,185.98	4.22	4.42	-64.90	-84.00	107.18	72.76	64.25	8.50	8.554		
1,300.00	1,293.55	1,294.43	1,284.54	4.62	4.84	-66.24	-94.89	118.52	78.75	69.44	9.30	8.463		
1,400.00	1,392.61	1,394.23	1,383.10	5.03	5.27	-67.39	-105.77	129.86	84.78	74.67	10.11	8.386		
1,500.00	1,491.68	1,494.04	1,481.66	5.44	5.70	-68.39	-116.66	141.20	90.84	79.92	10.92	8.318		
1,600.00	1,590.74	1,593.84	1,580.21	5.84	6.13	-69.26	-127.54	152.54	96.92	85.18	11.73	8.260		
1,700.00	1,689.80	1,693.65	1,678.77	6.25	6.55	-70.03	-138.43	163.88	103.02	90.47	12.55	8.209		
1,800.00	1,788.87	1,793.45	1,777.33	6.66	6.98	-70.72	-149.32	175.22	109.14	95.77	13.37	8.164		
1,900.00	1,887.93	1,893.26	1,875.89	7.07	7.41	-71.33	-160.20	186.55	115.27	101.08	14.19	8.124		
2,000.00	1,986.99	1,993.06	1,974.45	7.49	7.84	-71.88	-171.09	197.89	121.42	106.40	15.01	8.088		
2,100.00	2,086.06	2,092.86	2,073.01	7.90	8.27	-72.37	-181.97	209.23	127.57	111.74	15.83	8.056		
2,200.00	2,185.12	2,192.67	2,171.57	8.31	8.70	-72.82	-192.86	220.57	133.73	117.07	16.66	8.028		
2,300.00	2,284.18	2,292.47	2,270.13	8.72	9.13	-73.24	-203.74	231.91	139.90	122.42	17.48	8.001		
2,400.00	2,383.25	2,392.28	2,368.69	9.13	9.56	-73.61	-214.63	243.25	146.08	127.77	18.31	7.978		
2,500.00	2,482.31	2,492.08	2,467.25	9.55	9.99	-73.96	-225.51	254.59	152.26	133.13	19.14	7.956		
2,600.00	2,581.37	2,591.89	2,565.81	9.96	10.42	-74.28	-236.40	265.93	158.45	138.49	19.97	7.936		
2,700.00	2,680.44	2,691.69	2,664.36	10.37	10.85	-74.57	-247.29	277.27	164.65	143.85	20.79	7.918		
2,800.00	2,779.50	2,791.50	2,762.92	10.79	11.28	-74.84	-258.17	288.61	170.84	149.22	21.62	7.901		
2,900.00	2,878.56	2,891.30	2,861.48	11.20	11.72	-75.10	-269.06	299.95	177.04	154.59	22.45	7.886		
3,000.00	2,977.63	2,991.11	2,960.04	11.61	12.15	-75.33	-279.94	311.28	183.25	159.97	23.28	7.871		
3,100.00	3,076.69	3,090.91	3,058.60	12.03	12.58	-75.56	-290.83	322.62	189.45	165.34	24.11	7.858		
3,200.00	3,175.75	3,190.72	3,157.16	12.44	13.01	-75.76	-301.71	333.96	195.66	170.72	24.94	7.845		
3,300.00	3,274.82	3,290.52	3,255.72	12.85	13.44	-75.96	-312.60	345.30	201.87	176.10	25.77	7.834		
3,400.00	3,373.88	3,390.32	3,354.28	13.27	13.87	-76.14	-323.48	356.64	208.09	181.49	26.60	7.823		
3,500.00	3,472.94	3,490.13	3,452.84	13.68	14.30	-76.31	-334.37	367.98	214.30	186.87	27.43	7.813		
3,600.00	3,572.01	3,589.93	3,551.40	14.09	14.73	-76.48	-345.26	379.32	220.52	192.26	28.26	7.803		
3,700.00	3,671.07	3,689.74	3,649.96	14.51	15.16	-76.63	-356.14	390.66	226.74	197.65	29.09	7.794		
3,800.00	3,770.13	3,789.54	3,748.51	14.92	15.60	-76.78	-367.03	402.00	232.96	203.04	29.92	7.785		
3,900.00	3,869.20	3,889.35	3,847.07	15.34	16.03	-76.91	-377.91	413.34	239.18	208.43	30.75	7.777		
4,000.00	3,968.26	3,989.15	3,945.63	15.75	16.46	-77.04	-388.80	424.68	245.40	213.82	31.59	7.769		
4,100.00	4,067.32	4,088.96	4,044.19	16.16	16.89	-77.17	-399.68	436.01	251.63	219.21	32.42	7.762		
4,200.00	4,166.39	4,188.76	4,142.75	16.58	17.32	-77.29	-410.57	447.35	257.85	224.61	33.25	7.755		
4,300.00	4,265.45	4,288.57	4,241.31	16.99	17.75	-77.40	-421.45	458.69	264.08	230.00	34.08	7.749		
4,400.00	4,364.51	4,388.37	4,339.87	17.41	18.18	-77.51	-432.34	470.03	270.31	235.40	34.91	7.743		
4,500.00	4,463.58	4,488.18	4,438.43	17.82	18.62	-77.61	-443.23	481.37	276.54	240.79	35.74	7.737		
4,600.00	4,562.64	4,587.98	4,536.99	18.24	19.05	-77.71	-454.11	492.71	282.77	246.19	36.58	7.731		
4,646.61	4,608.82	4,636.60	4,585.04	18.43	19.25	-77.79	-459.25	498.07	285.54	248.57	36.98	7.722		
4,700.00	4,661.77	4,693.17	4,641.08	18.65	19.49	-78.01	-464.54	503.58	288.28	250.84	37.44	7.700		
4,800.00	4,761.26	4,799.22	4,746.52	19.04	19.90	-78.31	-472.40	511.76	292.34	254.09	38.25	7.643		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4L-26H-P268 - OH - PLAN #2													Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HDGM													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor		
4,900.00	4,861.03	4,905.37	4,852.40	19.40	20.28	-78.51	-477.54	517.12	295.01	256.01	39.00	7.565		
5,000.00	4,960.98	5,011.58	4,958.55	19.74	20.64	-78.60	-479.97	519.65	296.26	256.59	39.68	7.467		
5,039.02	5,000.00	5,053.03	5,000.00	19.86	20.76	78.35	-480.18	519.86	296.37	256.46	39.91	7.426		
5,100.00	5,060.98	5,114.01	5,060.98	20.04	20.93	78.35	-480.18	519.86	296.37	256.11	40.26	7.361		
5,200.00	5,160.98	5,214.01	5,160.98	20.33	21.22	78.35	-480.18	519.86	296.37	255.53	40.84	7.257		
5,300.00	5,260.98	5,314.01	5,260.98	20.62	21.50	78.35	-480.18	519.86	296.37	254.95	41.42	7.155		
5,400.00	5,360.98	5,414.01	5,360.98	20.91	21.79	78.35	-480.18	519.86	296.37	254.36	42.01	7.055		
5,500.00	5,460.98	5,514.01	5,460.98	21.21	22.08	78.35	-480.18	519.86	296.37	253.77	42.60	6.957		
5,600.00	5,560.98	5,614.01	5,560.98	21.51	22.37	78.35	-480.18	519.86	296.37	253.18	43.20	6.861		
5,700.00	5,660.98	5,714.01	5,660.98	21.81	22.66	78.35	-480.18	519.86	296.37	252.58	43.79	6.767		
5,800.00	5,760.98	5,814.01	5,760.98	22.11	22.96	78.35	-480.18	519.86	296.37	251.98	44.40	6.676		
5,900.00	5,860.98	5,914.01	5,860.98	22.41	23.26	78.35	-480.18	519.86	296.37	251.37	45.00	6.586		
6,000.00	5,960.98	6,014.01	5,960.98	22.72	23.56	78.35	-480.18	519.86	296.37	250.76	45.61	6.498		
6,100.00	6,060.98	6,114.01	6,060.98	23.02	23.86	78.35	-480.18	519.86	296.37	250.15	46.22	6.412		
6,200.00	6,160.98	6,214.01	6,160.98	23.33	24.16	78.35	-480.18	519.86	296.37	249.54	46.84	6.328		
6,300.00	6,260.98	6,314.01	6,260.98	23.64	24.46	78.35	-480.18	519.86	296.37	248.92	47.45	6.245		
6,400.00	6,360.98	6,414.01	6,360.98	23.95	24.77	78.35	-480.18	519.86	296.37	248.30	48.08	6.165		
6,500.00	6,460.98	6,514.01	6,460.98	24.26	25.07	78.35	-480.18	519.86	296.37	247.67	48.70	6.086		
6,600.00	6,560.98	6,614.01	6,560.98	24.58	25.38	78.35	-480.18	519.86	296.37	247.05	49.32	6.009		
6,700.00	6,660.98	6,714.01	6,660.98	24.89	25.69	78.35	-480.18	519.86	296.37	246.42	49.95	5.933		
6,802.82	6,763.80	6,816.83	6,763.80	25.21	26.01	78.35	-480.18	519.86	296.37	245.77	50.60	5.857		
6,820.48	6,781.46	6,833.21	6,780.18	25.27	26.06	78.67	-479.99	519.86	296.37	245.66	50.71	5.844		
6,850.00	6,810.94	6,860.61	6,807.55	25.36	26.14	78.69	-478.84	519.84	296.34	245.44	50.89	5.823		
6,900.00	6,860.68	6,907.02	6,853.75	25.50	26.28	78.76	-474.51	519.78	296.23	245.05	51.18	5.788		
6,950.00	6,909.95	6,953.45	6,899.59	25.64	26.41	78.88	-467.19	519.68	296.04	244.60	51.44	5.755		
7,000.00	6,958.50	7,000.00	6,944.98	25.77	26.52	79.05	-456.88	519.53	295.78	244.11	51.67	5.724		
7,050.00	7,006.10	7,046.46	6,989.52	25.89	26.64	79.27	-443.68	519.34	295.45	243.56	51.88	5.694		
7,100.00	7,052.52	7,093.06	7,033.23	26.00	26.74	79.53	-427.57	519.11	295.05	242.98	52.07	5.666		
7,150.00	7,097.54	7,139.74	7,075.88	26.10	26.83	79.84	-408.62	518.84	294.59	242.34	52.25	5.638		
7,200.00	7,140.93	7,186.52	7,117.29	26.20	26.92	80.20	-386.87	518.53	294.08	241.66	52.41	5.611		
7,250.00	7,182.49	7,233.41	7,157.28	26.29	27.00	80.61	-362.42	518.18	293.51	240.94	52.57	5.583		
7,300.00	7,222.00	7,280.42	7,195.69	26.38	27.08	81.05	-335.32	517.80	292.90	240.18	52.72	5.555		
7,350.00	7,259.28	7,327.56	7,232.33	26.46	27.14	81.54	-305.68	517.37	292.26	239.38	52.88	5.527		
7,400.00	7,294.15	7,374.86	7,267.06	26.55	27.20	82.07	-273.58	516.92	291.58	238.54	53.05	5.497		
7,450.00	7,326.43	7,422.31	7,299.69	26.64	27.26	82.64	-239.14	516.43	290.89	237.67	53.22	5.466		
7,500.00	7,355.97	7,469.95	7,330.09	26.74	27.32	83.25	-202.48	515.90	290.18	236.77	53.41	5.433		
7,550.00	7,382.63	7,517.76	7,358.08	26.84	27.37	83.89	-163.73	515.35	289.47	235.86	53.62	5.399		
7,600.00	7,406.27	7,565.78	7,383.52	26.94	27.42	84.56	-123.03	514.77	288.77	234.93	53.84	5.363		
7,650.00	7,426.79	7,614.00	7,406.27	27.06	27.47	85.27	-80.52	514.16	288.08	233.99	54.09	5.326		
7,700.00	7,444.07	7,662.45	7,426.20	27.19	27.53	86.00	-36.38	513.53	287.40	233.05	54.35	5.288		
7,750.00	7,458.04	7,711.12	7,443.16	27.34	27.60	86.75	9.23	512.88	286.76	232.12	54.64	5.248		
7,800.00	7,468.62	7,760.04	7,457.05	27.50	27.68	87.52	56.12	512.22	286.15	231.21	54.94	5.208		
7,850.00	7,475.78	7,809.20	7,467.75	27.67	27.78	88.31	104.09	511.53	285.58	230.32	55.26	5.168		
7,900.00	7,479.46	7,858.62	7,475.17	27.85	27.90	89.12	152.93	510.84	285.06	229.45	55.60	5.127		
7,927.82	7,480.00	7,886.24	7,477.84	27.96	27.98	89.57	180.41	510.44	284.79	228.99	55.80	5.104		
8,000.00	7,480.00	7,958.30	7,480.00	28.27	28.21	90.00	252.41	509.42	284.14	227.76	56.38	5.040		
8,100.00	7,480.00	8,058.29	7,480.00	28.76	28.63	90.00	352.40	507.99	283.26	225.91	57.35	4.939		
8,200.00	7,480.00	8,158.29	7,480.00	29.34	29.15	90.00	452.38	506.57	282.38	223.90	58.48	4.829		
8,300.00	7,480.00	8,258.29	7,480.00	30.00	29.76	90.00	552.37	505.14	281.49	221.74	59.75	4.711		
8,400.00	7,480.00	8,358.28	7,480.00	30.72	30.45	90.00	652.36	503.72	280.61	219.44	61.17	4.588		
8,500.00	7,480.00	8,458.28	7,480.00	31.51	31.21	90.00	752.34	502.29	279.73	217.02	62.71	4.461		
8,600.00	7,480.00	8,558.27	7,480.00	32.35	32.03	90.00	852.33	500.86	278.85	214.47	64.37	4.332		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4L-26H-P268 - OH - PLAN #2												Offset Site Error:	0.00 usft
Survey Program: O-MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
8,700.00	7,480.00	8,658.27	7,480.00	33.25	32.91	90.00	952.31	499.44	277.97	211.82	66.15	4.202	
8,800.00	7,480.00	8,758.27	7,480.00	34.20	33.85	90.00	1,052.30	498.01	277.08	209.06	68.03	4.073	
8,900.00	7,480.00	8,858.26	7,480.00	35.20	34.83	90.00	1,152.29	496.59	276.20	206.20	70.00	3.946	
9,000.00	7,480.00	8,958.26	7,480.00	36.24	35.86	90.00	1,252.27	495.16	275.32	203.26	72.06	3.821	
9,100.00	7,480.00	9,058.26	7,480.00	37.32	36.92	90.00	1,352.26	493.74	274.44	200.24	74.19	3.699	
9,200.00	7,480.00	9,158.25	7,480.00	38.43	38.02	90.00	1,452.24	492.31	273.55	197.15	76.40	3.580	
9,300.00	7,480.00	9,258.25	7,480.00	39.57	39.16	90.00	1,552.23	490.89	272.67	193.99	78.68	3.466	
9,400.00	7,480.00	9,358.24	7,480.00	40.75	40.33	90.00	1,652.22	489.46	271.79	190.77	81.02	3.355	
9,500.00	7,480.00	9,458.24	7,480.00	41.95	41.52	90.00	1,752.20	488.03	270.91	187.49	83.41	3.248	
9,600.00	7,480.00	9,558.24	7,480.00	43.18	42.74	90.00	1,852.19	486.61	270.03	184.17	85.86	3.145	
9,700.00	7,480.00	9,658.23	7,480.00	44.43	43.99	90.00	1,952.17	485.18	269.14	180.79	88.35	3.046	
9,800.00	7,480.00	9,758.23	7,480.00	45.70	45.26	90.00	2,052.16	483.76	268.26	177.38	90.89	2.952	
9,900.00	7,480.00	9,858.22	7,480.00	46.99	46.54	90.00	2,152.15	482.33	267.38	173.92	93.46	2.861	
10,000.00	7,480.00	9,958.22	7,480.00	48.30	47.85	90.00	2,252.13	480.91	266.50	170.43	96.07	2.774	
10,100.00	7,480.00	10,058.22	7,480.00	49.62	49.17	90.00	2,352.12	479.48	265.61	166.90	98.71	2.691	
10,200.00	7,480.00	10,158.21	7,480.00	50.96	50.51	90.00	2,452.10	478.06	264.73	163.34	101.39	2.611	
10,300.00	7,480.00	10,258.21	7,480.00	52.31	51.86	90.00	2,552.09	476.63	263.85	159.76	104.09	2.535	
10,400.00	7,480.00	10,358.20	7,480.00	53.68	53.22	90.00	2,652.08	475.21	262.97	156.14	106.82	2.462	
10,500.00	7,480.00	10,458.20	7,480.00	55.05	54.60	90.00	2,752.06	473.78	262.09	152.51	109.58	2.392	
10,600.00	7,480.00	10,558.20	7,480.00	56.44	55.99	90.00	2,852.05	472.35	261.20	148.85	112.36	2.325	
10,700.00	7,480.00	10,658.19	7,480.00	57.84	57.39	90.00	2,952.03	470.93	260.32	145.17	115.15	2.261	
10,800.00	7,480.00	10,758.19	7,480.00	59.25	58.80	90.00	3,052.02	469.50	259.44	141.47	117.97	2.199	
10,900.00	7,480.00	10,858.19	7,480.00	60.67	60.22	90.00	3,152.00	468.08	258.56	137.75	120.81	2.140	
11,000.00	7,480.00	10,958.18	7,480.00	62.09	61.64	90.00	3,251.99	466.65	257.68	134.02	123.66	2.084	
11,100.00	7,480.00	11,058.18	7,480.00	63.52	63.08	90.00	3,351.98	465.23	256.79	130.27	126.53	2.030	
11,200.00	7,480.00	11,158.17	7,480.00	64.96	64.52	90.00	3,451.96	463.80	255.91	126.50	129.41	1.978	
11,300.00	7,480.00	11,258.17	7,480.00	66.41	65.97	90.00	3,551.95	462.38	255.03	122.72	132.31	1.928	
11,400.00	7,480.00	11,358.17	7,480.00	67.86	67.43	90.00	3,651.93	460.95	254.15	118.93	135.22	1.880	
11,500.00	7,480.00	11,458.16	7,480.00	69.32	68.89	90.00	3,751.92	459.52	253.26	115.13	138.14	1.833	
11,600.00	7,480.00	11,558.16	7,480.00	70.79	70.36	90.00	3,851.91	458.10	252.38	111.31	141.07	1.789	
11,700.00	7,480.00	11,658.15	7,480.00	72.26	71.83	90.00	3,951.89	456.67	251.50	107.49	144.01	1.746	
11,800.00	7,480.00	11,758.15	7,480.00	73.73	73.31	90.00	4,051.88	455.25	250.62	103.65	146.97	1.705	
11,900.00	7,480.00	11,858.15	7,480.00	75.21	74.79	90.00	4,151.86	453.82	249.74	99.81	149.93	1.666	
12,000.00	7,480.00	11,958.14	7,480.00	76.69	76.28	90.00	4,251.85	452.40	248.85	95.96	152.90	1.628	
12,100.00	7,480.00	12,058.14	7,480.00	78.18	77.77	90.00	4,351.84	450.97	247.97	92.09	155.88	1.591	
12,200.00	7,480.00	12,158.13	7,480.00	79.67	79.27	90.00	4,451.82	449.55	247.09	88.22	158.87	1.555	
12,300.00	7,480.00	12,258.13	7,480.00	81.17	80.77	90.00	4,551.81	448.12	246.21	84.35	161.86	1.521	
12,400.00	7,480.00	12,358.13	7,480.00	82.66	82.27	90.00	4,651.79	446.70	245.32	80.46	164.86	1.488 Level 3	
12,500.00	7,480.00	12,458.12	7,480.00	84.17	83.78	90.00	4,751.78	445.27	244.44	76.57	167.87	1.456 Level 3	
12,600.00	7,480.00	12,558.12	7,480.00	85.67	85.29	90.00	4,851.77	443.84	243.56	72.68	170.88	1.425 Level 3	
12,700.00	7,480.00	12,658.12	7,480.00	87.18	86.80	90.00	4,951.75	442.42	242.68	68.77	173.90	1.395 Level 3	
12,800.00	7,480.00	12,758.11	7,480.00	88.69	88.31	90.00	5,051.74	440.99	241.80	64.87	176.93	1.367 Level 3	
12,900.00	7,480.00	12,858.11	7,480.00	90.20	89.83	90.00	5,151.72	439.57	240.91	60.95	179.96	1.339 Level 3	
13,000.00	7,480.00	12,958.10	7,480.00	91.72	91.35	90.00	5,251.71	438.14	240.03	57.03	183.00	1.312 Level 3	
13,100.00	7,480.00	13,058.10	7,480.00	93.23	92.88	90.00	5,351.70	436.72	239.15	53.11	186.04	1.285 Level 3	
13,200.00	7,480.00	13,158.10	7,480.00	94.75	94.40	90.00	5,451.68	435.29	238.27	49.18	189.09	1.260 Level 3	
13,300.00	7,480.00	13,258.09	7,480.00	96.28	95.93	90.00	5,551.67	433.87	237.39	45.25	192.14	1.235 Level 2	
13,400.00	7,480.00	13,358.09	7,480.00	97.80	97.46	90.00	5,651.65	432.44	236.50	41.31	195.19	1.212 Level 2	
13,500.00	7,480.00	13,458.08	7,480.00	99.33	98.99	90.00	5,751.64	431.01	235.62	37.37	198.25	1.189 Level 2	
13,600.00	7,480.00	13,558.08	7,480.00	100.86	100.52	90.00	5,851.63	429.59	234.74	33.43	201.31	1.166 Level 2	
13,700.00	7,480.00	13,658.08	7,480.00	102.39	102.06	90.00	5,951.61	428.16	233.86	29.48	204.38	1.144 Level 2	
13,800.00	7,480.00	13,758.07	7,480.00	103.92	103.60	90.00	6,051.60	426.74	232.97	25.53	207.45	1.123 Level 2	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design													S26-T2N-R68W - SULLIVAN 4L-26H-P268 - OH - PLAN #2		Offset Site Error:		0.00 usft
Survey Program: 0-MWD+HDGM													Offset Well Error:		0.00 usft		
Reference		Offset		Semi Major Axis			Distance							Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor					
13,900.00	7,480.00	13,858.07	7,480.00	105.45	105.14	90.00	6,151.58	425.31	232.09	21.57	210.52	1.102	Level 2				
14,000.00	7,480.00	13,958.06	7,480.00	106.99	106.68	90.00	6,251.57	423.89	231.21	17.61	213.60	1.082	Level 2				
14,100.00	7,480.00	14,058.06	7,480.00	108.52	108.22	90.00	6,351.56	422.46	230.33	13.65	216.68	1.063	Level 2				
14,200.00	7,480.00	14,158.06	7,480.00	110.06	109.76	90.00	6,451.54	421.04	229.45	9.69	219.76	1.044	Level 2				
14,300.00	7,480.00	14,258.05	7,480.00	111.60	111.31	90.00	6,551.53	419.61	228.56	5.72	222.84	1.026	Level 2				
14,400.00	7,480.00	14,358.05	7,480.00	113.14	112.86	90.00	6,651.51	418.18	227.68	1.75	225.93	1.008	Level 2				
14,500.00	7,480.00	14,458.05	7,480.00	114.68	114.40	90.00	6,751.50	416.76	226.80	-2.22	229.02	0.990	Level 1				
14,600.00	7,480.00	14,558.04	7,480.00	116.22	115.95	90.00	6,851.48	415.33	225.92	-6.20	232.11	0.973	Level 1				
14,689.48	7,480.00	14,647.52	7,480.00	117.61	117.34	90.00	6,940.95	414.06	225.13	-9.75	234.88	0.958	Level 1				
14,691.86	7,480.00	14,647.70	7,480.00	117.64	117.34	90.00	6,941.13	414.06	225.12	-9.84	234.96	0.958	Level 1, ES, SF				



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Sullivan 6-8-26 - CPR - SURVEYS												Offset Site Error: 0.00 usft	
Survey Program: 165-Geolink MWD												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
2,200.00	2,185.12	2,577.12	2,505.89	8.31	11.01	112.37	-264.51	-1,363.20	1,494.34	1,479.47	14.87	100.464	
2,300.00	2,284.18	2,664.56	2,590.38	8.72	11.44	112.42	-273.85	-1,342.72	1,476.14	1,460.62	15.52	95.135	
2,400.00	2,383.25	2,754.84	2,677.58	9.13	11.90	112.39	-285.44	-1,322.39	1,458.84	1,442.63	16.20	90.033	
2,500.00	2,482.31	2,863.95	2,782.66	9.55	12.45	112.31	-300.64	-1,297.27	1,441.04	1,424.10	16.94	85.079	
2,600.00	2,581.37	2,960.29	2,875.52	9.96	12.94	112.26	-313.37	-1,274.97	1,423.13	1,405.49	17.64	80.688	
2,700.00	2,680.44	3,053.15	2,965.10	10.37	13.40	112.23	-325.45	-1,253.69	1,405.46	1,387.15	18.32	76.737	
2,800.00	2,779.50	3,165.99	3,074.06	10.79	13.97	112.23	-339.06	-1,227.75	1,387.72	1,368.70	19.03	72.924	
2,900.00	2,878.56	3,252.99	3,157.98	11.20	14.40	112.23	-349.39	-1,207.26	1,369.43	1,349.76	19.68	69.589	
3,000.00	2,977.63	3,341.50	3,243.50	11.61	14.84	112.23	-360.07	-1,187.12	1,351.93	1,331.57	20.36	66.395	
3,100.00	3,076.69	3,471.15	3,368.78	12.03	15.48	112.30	-374.17	-1,156.94	1,333.86	1,312.83	21.03	63.416	
3,200.00	3,175.75	3,592.31	3,485.39	12.44	16.11	112.42	-386.02	-1,126.25	1,313.70	1,292.01	21.69	60.579	
3,300.00	3,274.82	3,689.99	3,579.10	12.85	16.63	112.51	-395.87	-1,100.50	1,292.51	1,270.19	22.32	57.905	
3,400.00	3,373.88	3,750.48	3,637.33	13.27	16.92	112.55	-402.26	-1,085.44	1,272.89	1,249.92	22.96	55.429	
3,500.00	3,472.94	3,820.88	3,705.45	13.68	17.26	112.54	-411.04	-1,070.04	1,256.17	1,232.54	23.63	53.156	
3,600.00	3,572.01	3,896.83	3,779.06	14.09	17.60	112.48	-421.64	-1,054.58	1,241.11	1,216.80	24.31	51.062	
3,700.00	3,671.07	3,967.85	3,848.38	14.51	17.88	112.49	-430.17	-1,041.70	1,228.24	1,203.31	24.93	49.272	
3,800.00	3,770.13	4,038.99	3,918.26	14.92	18.12	112.59	-436.86	-1,030.24	1,217.47	1,191.97	25.50	47.748	
3,900.00	3,869.20	4,125.99	4,004.12	15.34	18.39	112.79	-443.49	-1,017.85	1,208.50	1,182.45	26.06	46.383	
4,000.00	3,968.26	4,199.35	4,076.74	15.75	18.59	112.99	-448.37	-1,008.72	1,201.31	1,174.74	26.57	45.214	
4,100.00	4,067.32	4,276.28	4,153.10	16.16	18.78	113.24	-452.89	-1,000.56	1,196.04	1,168.97	27.07	44.186	
4,200.00	4,166.39	4,350.64	4,227.07	16.58	18.94	113.49	-456.97	-994.13	1,192.78	1,165.23	27.55	43.301	
4,300.00	4,265.45	4,436.42	4,312.55	16.99	19.11	113.80	-461.31	-988.42	1,191.51	1,163.48	28.03	42.509	
4,400.00	4,364.51	4,525.65	4,401.52	17.41	19.26	114.16	-465.21	-982.94	1,190.88	1,162.38	28.50	41.787	
4,400.41	4,364.93	4,525.99	4,401.86	17.41	19.26	114.16	-465.23	-982.92	1,190.88	1,162.38	28.50	41.785 CC	
4,500.00	4,463.58	4,608.52	4,484.26	17.82	19.38	114.54	-467.66	-978.92	1,191.60	1,162.68	28.92	41.197	
4,600.00	4,562.64	4,695.70	4,571.37	18.24	19.49	114.99	-469.16	-975.82	1,193.72	1,164.38	29.34	40.690	
4,646.61	4,608.82	4,736.99	4,612.64	18.43	19.55	115.21	-469.72	-974.57	1,195.00	1,165.47	29.53	40.470	
4,700.00	4,661.77	4,788.81	4,664.44	18.65	19.60	115.50	-470.29	-973.14	1,196.42	1,166.67	29.75	40.210	
4,800.00	4,761.26	4,885.62	4,761.21	19.04	19.71	115.93	-470.89	-970.70	1,198.25	1,168.08	30.18	39.707	
4,900.00	4,861.03	4,989.36	4,864.92	19.40	19.83	116.25	-470.67	-968.01	1,198.58	1,167.98	30.61	39.160	
5,000.00	4,960.98	5,085.99	4,961.50	19.74	19.94	116.40	-469.88	-965.05	1,196.95	1,165.93	31.03	38.580	
5,039.02	5,000.00	5,123.92	4,999.41	19.86	19.96	-86.62	-469.50	-963.95	1,195.97	1,164.78	31.19	38.344	
5,100.00	5,060.98	5,172.43	5,047.91	20.04	20.00	-86.60	-469.13	-963.00	1,194.81	1,163.39	31.42	38.032	
5,200.00	5,160.98	5,260.99	5,136.46	20.33	20.06	-86.58	-468.81	-962.60	1,194.32	1,162.51	31.81	37.546	
5,205.10	5,166.08	5,260.99	5,136.46	20.34	20.06	-86.58	-468.81	-962.60	1,194.31	1,162.49	31.82	37.537	
5,300.00	5,260.98	5,349.93	5,225.40	20.62	20.12	-86.57	-468.51	-963.03	1,194.78	1,162.58	32.20	37.107	
5,400.00	5,360.98	5,449.99	5,325.46	20.91	20.19	-86.53	-467.73	-963.48	1,195.27	1,162.65	32.61	36.648	
5,500.00	5,460.98	5,549.08	5,424.54	21.21	20.26	-86.48	-466.67	-963.94	1,195.80	1,162.77	33.03	36.207	
5,600.00	5,560.98	5,655.81	5,531.27	21.51	20.35	-86.43	-465.43	-964.37	1,196.29	1,162.82	33.47	35.743	
5,700.00	5,660.98	5,774.76	5,650.21	21.81	20.48	-86.41	-465.14	-963.42	1,195.50	1,161.54	33.96	35.199	
5,800.00	5,760.98	5,861.30	5,736.74	22.11	20.54	-86.41	-465.22	-962.43	1,194.37	1,160.01	34.37	34.755	
5,832.56	5,793.54	5,888.49	5,763.93	22.21	20.56	-86.40	-465.08	-962.36	1,194.30	1,159.81	34.49	34.626 ES	
5,900.00	5,860.98	5,958.99	5,834.42	22.41	20.60	-86.37	-464.38	-962.73	1,194.72	1,159.93	34.79	34.344	
5,903.05	5,864.03	5,958.99	5,834.42	22.42	20.60	-86.37	-464.38	-962.73	1,194.71	1,159.92	34.79	34.339	
6,000.00	5,960.98	6,036.02	5,911.44	22.72	20.64	-86.32	-463.21	-963.75	1,195.97	1,160.83	35.14	34.032	
6,100.00	6,060.98	6,133.99	6,009.37	23.02	20.68	-86.24	-461.41	-965.58	1,197.95	1,162.39	35.56	33.692	
6,200.00	6,160.98	6,226.18	6,101.52	23.33	20.72	-86.15	-459.38	-967.65	1,200.33	1,164.38	35.95	33.393	
6,300.00	6,260.98	6,323.87	6,199.15	23.64	20.76	-86.04	-456.88	-970.01	1,202.91	1,166.56	36.35	33.090	
6,400.00	6,360.98	6,421.91	6,297.12	23.95	20.80	-85.92	-454.24	-972.54	1,205.67	1,168.91	36.76	32.795	
6,500.00	6,460.98	6,521.87	6,397.01	24.26	20.84	-85.80	-451.55	-975.24	1,208.56	1,171.38	37.18	32.503	
6,600.00	6,560.98	6,625.01	6,500.08	24.58	20.89	-85.68	-448.69	-977.83	1,211.28	1,173.66	37.62	32.202	
6,700.00	6,660.98	6,728.93	6,603.93	24.89	20.95	-85.54	-445.73	-980.14	1,213.71	1,175.66	38.05	31.896	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Sullivan 6-8-26 - CPR - SURVEYS										Offset Site Error:		0.00 usft	
Survey Program: 165-Geolink MWD										Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
6,802.82	6,763.80	6,836.27	6,711.21	25.21	21.01	-85.41	-442.66	-982.14	1,215.85	1,177.34	38.51	31.576	
6,850.00	6,810.94	6,886.79	6,761.71	25.36	21.05	-85.06	-441.25	-982.91	1,216.54	1,177.81	38.73	31.413	
6,900.00	6,860.68	6,940.19	6,815.08	25.50	21.09	-85.22	-439.81	-983.58	1,216.85	1,177.87	38.98	31.219	
6,950.00	6,909.95	6,993.18	6,868.04	25.64	21.13	-85.59	-438.44	-984.10	1,216.74	1,177.50	39.24	31.004	
7,000.00	6,958.50	7,043.18	6,918.03	25.77	21.17	-86.12	-437.20	-984.48	1,216.34	1,176.82	39.52	30.778	
7,050.00	7,006.10	7,091.48	6,966.31	25.89	21.21	-86.80	-436.01	-984.83	1,215.80	1,175.99	39.81	30.542	
7,100.00	7,052.52	7,138.66	7,013.48	26.00	21.24	-87.62	-434.87	-985.16	1,215.27	1,175.15	40.11	30.297	
7,150.00	7,097.54	7,184.47	7,059.28	26.10	21.28	-88.55	-433.79	-985.47	1,214.87	1,174.44	40.43	30.048	
7,185.34	7,128.39	7,215.82	7,090.62	26.17	21.31	-89.24	-433.06	-985.68	1,214.77	1,174.11	40.67	29.872	
7,200.00	7,140.93	7,228.58	7,103.37	26.20	21.32	-89.54	-432.77	-985.76	1,214.79	1,174.03	40.77	29.798	
7,250.00	7,182.49	7,270.86	7,145.64	26.29	21.35	-90.58	-431.84	-986.04	1,215.21	1,174.09	41.12	29.552	
7,300.00	7,222.00	7,311.11	7,185.89	26.38	21.39	-91.62	-430.98	-986.29	1,216.32	1,174.83	41.49	29.315	
7,350.00	7,259.28	7,349.14	7,223.90	26.46	21.42	-92.62	-430.20	-986.53	1,218.33	1,176.45	41.88	29.093	
7,400.00	7,294.15	7,387.33	7,262.09	26.55	21.46	-93.64	-429.48	-986.73	1,221.39	1,179.10	42.29	28.881	
7,450.00	7,326.43	7,423.13	7,297.88	26.64	21.50	-94.56	-428.92	-986.82	1,225.67	1,182.95	42.72	28.691	
7,500.00	7,355.97	7,455.73	7,330.48	26.74	21.53	-95.32	-428.50	-986.81	1,231.36	1,188.20	43.16	28.530	
7,550.00	7,382.63	7,484.99	7,359.74	26.84	21.57	-95.88	-428.21	-986.73	1,238.65	1,195.04	43.61	28.405	
7,600.00	7,406.27	7,510.80	7,385.54	26.94	21.59	-96.21	-428.01	-986.61	1,247.68	1,203.63	44.06	28.320	
7,650.00	7,426.79	7,532.93	7,407.67	27.06	21.62	-96.26	-427.89	-986.46	1,258.58	1,214.07	44.51	28.279 SF	
7,700.00	7,444.07	7,550.53	7,425.28	27.19	21.64	-95.97	-427.81	-986.33	1,271.41	1,226.46	44.95	28.287	
7,750.00	7,458.04	7,564.75	7,439.49	27.34	21.66	-95.37	-427.76	-986.22	1,286.20	1,240.82	45.38	28.343	
7,800.00	7,468.62	7,575.52	7,450.27	27.50	21.67	-94.45	-427.73	-986.13	1,302.94	1,257.14	45.80	28.451	
7,850.00	7,475.78	7,582.83	7,457.57	27.67	21.68	-93.19	-427.71	-986.07	1,321.53	1,275.34	46.19	28.608	
7,900.00	7,479.46	7,586.64	7,461.38	27.85	21.68	-91.59	-427.70	-986.04	1,341.89	1,295.32	46.57	28.815	
7,927.82	7,480.00	7,587.25	7,461.99	27.96	21.69	-90.55	-427.69	-986.03	1,353.92	1,307.15	46.77	28.950	
8,000.00	7,480.00	7,587.43	7,462.17	28.27	21.69	-90.56	-427.69	-986.03	1,387.28	1,340.02	47.26	29.357	
8,100.00	7,480.00	7,587.68	7,462.42	28.76	21.69	-90.57	-427.69	-986.03	1,438.20	1,390.32	47.88	30.035	
8,200.00	7,480.00	7,587.93	7,462.67	29.34	21.69	-90.58	-427.69	-986.03	1,494.09	1,445.64	48.45	30.835	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Sullivan 8-6-26 - CPR WELL - SURVEYS												Offset Site Error:	0.00 usft
Survey Program: 966-MWD												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning
5,400.00	5,360.98	5,612.01	5,536.79	20.91	30.68	2.66	938.57	298.21	1,490.68	1,444.90	45.78	32.560	
5,500.00	5,460.98	5,704.53	5,628.20	21.21	31.27	3.03	927.54	307.39	1,479.19	1,432.51	46.68	31.689	
5,600.00	5,560.98	5,816.65	5,738.88	21.51	32.01	3.51	913.82	318.88	1,467.51	1,419.81	47.70	30.768	
5,700.00	5,660.98	5,917.03	5,837.84	21.81	32.69	3.97	900.91	329.67	1,455.29	1,406.62	48.67	29.900	
5,800.00	5,760.98	6,010.00	5,929.53	22.11	33.31	4.39	889.03	339.37	1,443.24	1,393.63	49.60	29.096	
5,900.00	5,860.98	6,093.25	6,011.81	22.41	33.83	4.74	879.07	347.14	1,432.00	1,381.55	50.45	28.383	
6,000.00	5,960.98	6,184.20	6,101.93	22.72	34.38	5.06	869.13	354.43	1,421.75	1,370.44	51.32	27.705	
6,100.00	6,060.98	6,268.22	6,185.25	23.02	34.87	5.36	860.55	361.01	1,412.27	1,360.14	52.14	27.087	
6,200.00	6,160.98	6,362.21	6,278.47	23.33	35.41	5.73	851.76	369.20	1,403.75	1,350.73	53.03	26.473	
6,300.00	6,260.98	6,461.57	6,377.04	23.64	35.98	6.11	842.51	377.63	1,395.33	1,341.39	53.95	25.865	
6,400.00	6,360.98	6,564.37	6,478.99	23.95	36.58	6.52	832.82	386.55	1,386.88	1,331.98	54.90	25.263	
6,500.00	6,460.98	6,665.13	6,578.89	24.26	37.17	6.93	823.08	395.29	1,378.26	1,322.42	55.84	24.682	
6,600.00	6,560.98	6,751.84	6,664.94	24.58	37.66	7.27	815.06	402.37	1,370.06	1,313.37	56.69	24.169	
6,700.00	6,660.98	6,841.33	6,753.89	24.89	38.15	7.58	807.70	408.90	1,362.82	1,305.29	57.53	23.690	
6,802.82	6,763.80	6,931.75	6,843.88	25.21	38.61	7.86	801.03	414.73	1,356.17	1,297.82	58.36	23.239	
6,850.00	6,810.94	6,973.85	6,885.81	25.36	38.82	8.35	798.24	417.19	1,351.92	1,293.19	58.73	23.019	
6,900.00	6,860.68	7,021.18	6,932.98	25.50	39.05	8.59	795.26	419.60	1,344.20	1,285.07	59.13	22.731	
6,950.00	6,909.95	7,056.00	6,967.71	25.64	39.21	8.84	793.15	421.09	1,333.23	1,273.77	59.46	22.424	
7,000.00	6,958.50	7,099.68	7,011.30	25.77	39.40	9.18	790.85	422.62	1,319.21	1,259.40	59.81	22.058	
7,050.00	7,006.10	7,133.84	7,045.42	25.89	39.54	9.54	789.48	423.53	1,302.43	1,242.34	60.09	21.673	
7,100.00	7,052.52	7,171.77	7,083.33	26.00	39.69	9.99	788.33	424.29	1,282.87	1,222.48	60.39	21.243	
7,150.00	7,097.54	7,213.68	7,125.21	26.10	39.85	10.56	787.21	425.02	1,260.35	1,199.65	60.70	20.763	
7,200.00	7,140.93	7,253.86	7,165.38	26.20	40.00	11.25	786.23	425.64	1,234.92	1,173.92	61.00	20.245	
7,250.00	7,182.49	7,291.37	7,202.88	26.29	40.14	12.08	785.42	426.14	1,206.72	1,145.45	61.28	19.693	
7,300.00	7,222.00	7,327.13	7,238.63	26.38	40.27	13.08	784.76	426.56	1,175.91	1,114.37	61.54	19.107	
7,350.00	7,259.28	7,360.98	7,272.47	26.46	40.39	14.31	784.23	426.90	1,142.62	1,080.82	61.80	18.489	
7,400.00	7,294.15	7,393.06	7,304.55	26.55	40.50	15.82	783.81	427.18	1,107.01	1,044.96	62.04	17.843	
7,450.00	7,326.43	7,423.06	7,334.54	26.64	40.59	17.71	783.47	427.44	1,069.22	1,006.95	62.27	17.170	
7,500.00	7,355.97	7,450.57	7,362.05	26.74	40.68	20.08	783.21	427.68	1,029.45	966.95	62.50	16.472	
7,550.00	7,382.63	7,475.46	7,386.94	26.84	40.77	23.10	783.01	427.89	987.88	925.16	62.72	15.752	
7,600.00	7,406.27	7,497.59	7,409.07	26.94	40.84	26.98	782.86	428.09	944.73	881.80	62.93	15.013	
7,650.00	7,426.79	7,517.91	7,429.38	27.06	40.90	32.10	782.74	428.26	900.22	837.07	63.15	14.256	
7,700.00	7,444.07	7,535.14	7,446.62	27.19	40.96	38.82	782.64	428.42	854.55	791.19	63.36	13.487	
7,750.00	7,458.04	7,548.98	7,460.45	27.34	41.00	47.53	782.54	428.54	807.99	744.41	63.58	12.708	
7,800.00	7,468.62	7,559.37	7,470.84	27.50	41.03	58.41	782.47	428.63	760.81	697.01	63.81	11.924	
7,850.00	7,475.78	7,566.25	7,477.73	27.67	41.06	70.98	782.43	428.69	713.29	649.25	64.04	11.138	
7,900.00	7,479.46	7,569.62	7,481.10	27.85	41.07	83.93	782.40	428.72	665.70	601.41	64.29	10.354	
7,927.82	7,480.00	7,569.97	7,481.44	27.96	41.07	90.68	782.40	428.73	639.31	574.87	64.45	9.920	
8,000.00	7,480.00	7,569.45	7,480.93	28.27	41.07	90.54	782.40	428.72	571.47	506.58	64.90	8.806	
8,100.00	7,480.00	7,568.74	7,480.22	28.76	41.06	90.34	782.41	428.71	479.58	413.85	65.73	7.296	
8,200.00	7,480.00	7,568.03	7,479.51	29.34	41.06	90.14	782.41	428.71	391.68	324.76	66.91	5.854	
8,300.00	7,480.00	7,567.33	7,478.80	30.00	41.06	89.94	782.42	428.70	311.16	242.61	68.55	4.539	
8,400.00	7,480.00	7,566.62	7,478.09	30.72	41.06	89.75	782.42	428.70	245.42	175.09	70.33	3.490	
8,500.00	7,480.00	7,565.92	7,477.39	31.51	41.06	89.55	782.43	428.69	208.90	138.78	70.13	2.979 SF	
8,532.96	7,480.00	7,565.69	7,477.16	31.78	41.06	89.49	782.43	428.69	206.29	137.19	69.10	2.985 CC, ES	
8,600.00	7,480.00	7,565.22	7,476.69	32.35	41.05	89.36	782.43	428.68	216.91	151.02	65.89	3.292	
8,700.00	7,480.00	7,564.52	7,476.00	33.25	41.05	89.17	782.44	428.68	265.44	203.70	61.73	4.300	
8,800.00	7,480.00	7,563.83	7,475.30	34.20	41.05	88.97	782.44	428.67	337.44	277.50	59.94	5.630	
8,900.00	7,480.00	7,563.13	7,474.61	35.20	41.05	88.78	782.45	428.66	421.03	361.63	59.40	7.088	
9,000.00	7,480.00	7,562.44	7,473.92	36.24	41.04	88.59	782.45	428.66	510.56	451.23	59.33	8.605	
9,100.00	7,480.00	7,561.76	7,473.23	37.32	41.04	88.40	782.46	428.65	603.39	543.97	59.42	10.155	
9,200.00	7,480.00	7,561.07	7,472.55	38.43	41.04	88.21	782.46	428.65	698.20	638.65	59.55	11.725	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Sullivan 8-6-26 - CPR WELL - SURVEYS													Offset Site Error: 0.00 usft
Survey Program: 966-MWD													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	
9,300.00	7,480.00	7,560.39	7,471.86	39.57	41.04	88.02	782.47	428.64	794.28	734.60	59.68	13.308	
9,400.00	7,480.00	7,559.71	7,471.18	40.75	41.04	87.83	782.47	428.63	891.23	831.41	59.82	14.900	
9,500.00	7,480.00	7,559.03	7,470.51	41.95	41.03	87.64	782.48	428.63	988.78	928.84	59.94	16.496	
9,600.00	7,480.00	7,558.36	7,469.83	43.18	41.03	87.45	782.48	428.62	1,086.78	1,026.72	60.05	18.097	
9,700.00	7,480.00	7,557.68	7,469.16	44.43	41.03	87.27	782.49	428.62	1,185.11	1,124.95	60.16	19.701	
9,800.00	7,480.00	7,557.01	7,468.49	45.70	41.03	87.08	782.49	428.61	1,283.70	1,223.45	60.25	21.306	
9,900.00	7,480.00	7,556.34	7,467.82	46.99	41.03	86.90	782.50	428.60	1,382.49	1,322.15	60.34	22.912	
10,000.00	7,480.00	7,555.68	7,467.15	48.30	41.02	86.71	782.50	428.60	1,481.44	1,421.02	60.42	24.518	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design										S26-T2N-R68W - Walsh 13-24 - CPR WELL - SURVEYS				Offset Site Error:		0.00 usft
Survey Program: 1240-ISCWSA MWD														Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Total Uncertainty Axis	Separation Factor	Warning			
13,400.00	7,480.00	7,484.86	7,481.84	97.80	14.58	91.83	6,902.20	995.96	1,487.61	1,416.09	71.52	20.801				
13,500.00	7,480.00	7,492.61	7,489.45	99.33	14.60	92.38	6,902.87	994.68	1,404.64	1,329.68	74.96	18.739				
13,600.00	7,480.00	7,500.27	7,496.98	100.86	14.62	92.92	6,903.52	993.42	1,323.97	1,245.17	78.80	16.802				
13,700.00	7,480.00	7,507.85	7,504.44	102.39	14.64	93.45	6,904.16	992.20	1,246.05	1,162.99	83.06	15.002				
13,800.00	7,480.00	7,514.00	7,510.49	103.92	14.65	93.89	6,904.68	991.21	1,171.44	1,083.67	87.78	13.346				
13,900.00	7,480.00	7,522.35	7,518.70	105.45	14.67	94.48	6,905.38	989.89	1,100.81	1,007.90	92.91	11.848				
14,000.00	7,480.00	7,529.40	7,525.64	106.99	14.69	94.98	6,905.97	988.79	1,034.98	936.51	98.47	10.511				
14,100.00	7,480.00	7,536.42	7,532.55	108.52	14.71	95.48	6,906.56	987.71	974.91	870.57	104.33	9.344				
14,200.00	7,480.00	7,545.00	7,541.00	110.06	14.73	96.09	6,907.27	986.40	921.74	811.41	110.32	8.355				
14,300.00	7,480.00	7,552.17	7,548.06	111.60	14.75	96.60	6,907.87	985.32	876.71	760.49	116.22	7.544				
14,400.00	7,480.00	7,561.36	7,557.11	113.14	14.77	97.25	6,908.63	983.92	841.12	719.51	121.61	6.917				
14,500.00	7,480.00	7,570.49	7,566.10	114.68	14.80	97.90	6,909.39	982.52	816.21	690.11	126.10	6.473				
14,600.00	7,480.00	7,576.00	7,571.53	116.22	14.81	98.29	6,909.84	981.67	802.97	673.63	129.35	6.208				
14,657.86	7,480.00	7,583.12	7,578.54	117.12	14.83	98.80	6,910.43	980.58	800.89	670.45	130.45	6.140 CC, ES				
14,691.86	7,480.00	7,585.60	7,580.98	117.64	14.84	98.98	6,910.63	980.20	801.61	670.75	130.86	6.126 SF				

# Cathedral Energy Services

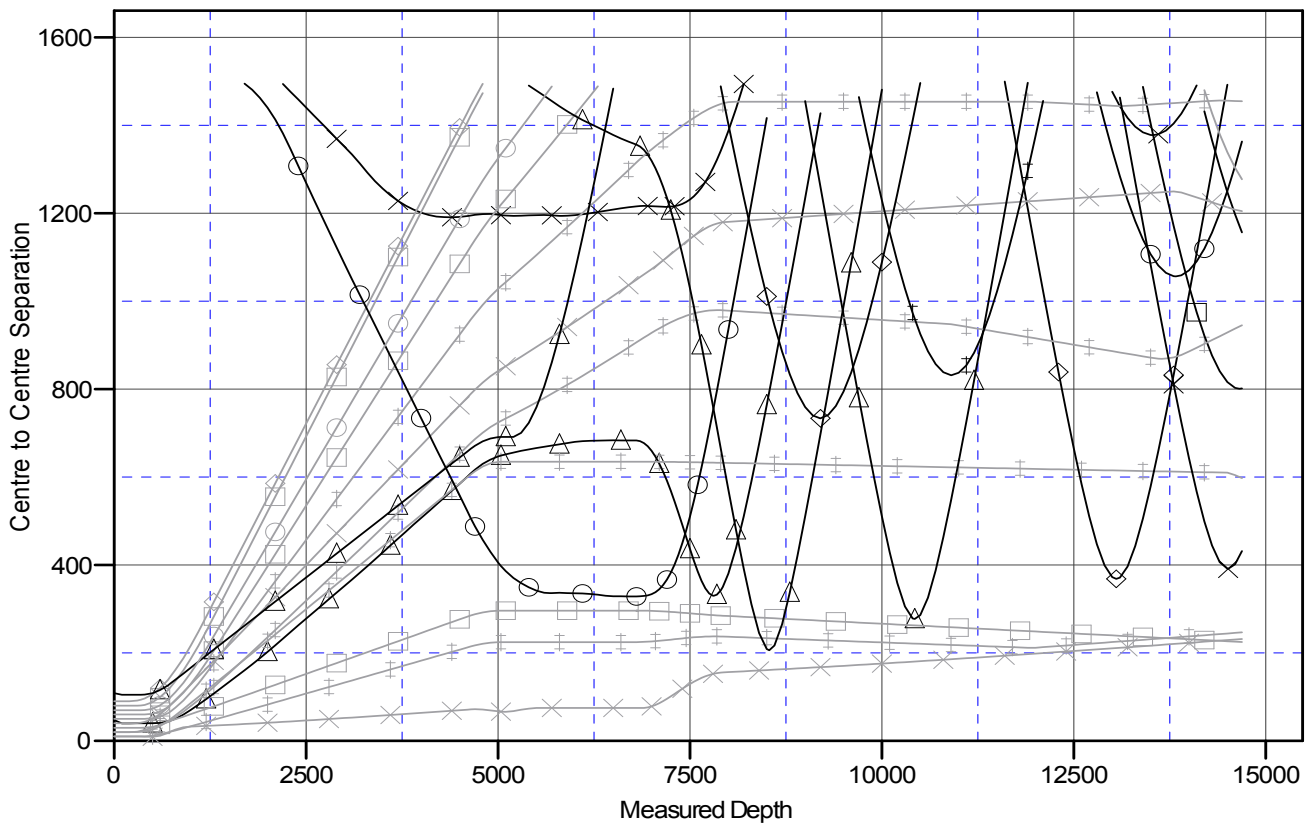
## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4J-26H-P268
<b>Project:</b>	DJ BASIN	<b>TVD Reference:</b>	23' KB @ 4987.00usft
<b>Reference Site:</b>	S26-T2N-R68W	<b>MD Reference:</b>	23' KB @ 4987.00usft
<b>Site Error:</b>	0.00usft	<b>North Reference:</b>	Grid
<b>Reference Well:</b>	SULLIVAN 4J-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	OH	<b>Database:</b>	USA EDM 5000 Multi Users DB
<b>Reference Design:</b>	PLAN #2	<b>Offset TVD Reference:</b>	Offset Datum

Reference Depths are relative to 23' KB @ 4987.00usft  
Offset Depths are relative to Offset Datum  
Central Meridian is -105.500000 °

Coordinates are relative to: SULLIVAN 4J-26H-P268  
Coordinate System is US State Plane 1983, Colorado Northern Zone  
Grid Convergence at Surface is: 0.35°

### Ladder Plot



### LEGEND

— SULLIVAN4I-26H-P268, OH, PLAN #2 V0	◆ GrantBrothers44-23C, EXTRACTION, GYRO V0	— SULLIVAN4G-26H-P268, OH, PLAN#2 V0
▶ GrantBros23-54, EXTRACTION, SURVEYS V0	▣ SULLIVAN4L-26H-P268, OH, PLAN#2 V0	▲ Sullivan 8-6-26, CPR WELL, SURVEYS V0
┆ Sullivan 6-8-26, CPR, SURVEYS V0	✕ SULLIVAN4K-26H-P268, OH, PLAN#2 V0	✱ GrantBrothers2-26, CPR, NO SURVEYS V0
┆ Walsh 13-24, CPR WELL, SURVEYS V0	✕ SULLIVAN4F-26H-P268, OH, PLAN#2 V0	○ Duke State 30-36, KMG WELL, SURVEYS V0
┆ SULLIVAN4B-26H-P268, OH, PLAN#4 V0	✱ SULLIVAN4E-26H-P268, OH, PLAN#2 V0	▲ Meredith 1, KPK WELL, NO SURVEYS V0
▶ GrantBros23-2AE, EXTRACTION, SURVEYS V0	▲ GrantBros42-26, CPR WELL, SURVEYS V0	○ SULLIVAN4C-26H-P268, OH, PLAN#3 V0
┆ GrantBros3-23, CPRWELL, SURVEYS V0	✱ Bybee 5, Wellbore #1, PLAN#1 V0	◆ Sullivan 1, CPR, NO SURVEYS V0
┆ Sullivan 44-26, CPRWELL, GYRO V0	▣ SULLIVAN4D-26H-P268, OH, PLAN#2 V0	✕ GrantBros23-43, EXTRACTION, SURVEYS V0
— SULLIVAN4H-26H-P268, OH, PLAN#2 V0	◆ SULLIVAN4A-26H-P268, OH, PLAN#4 V0	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation