



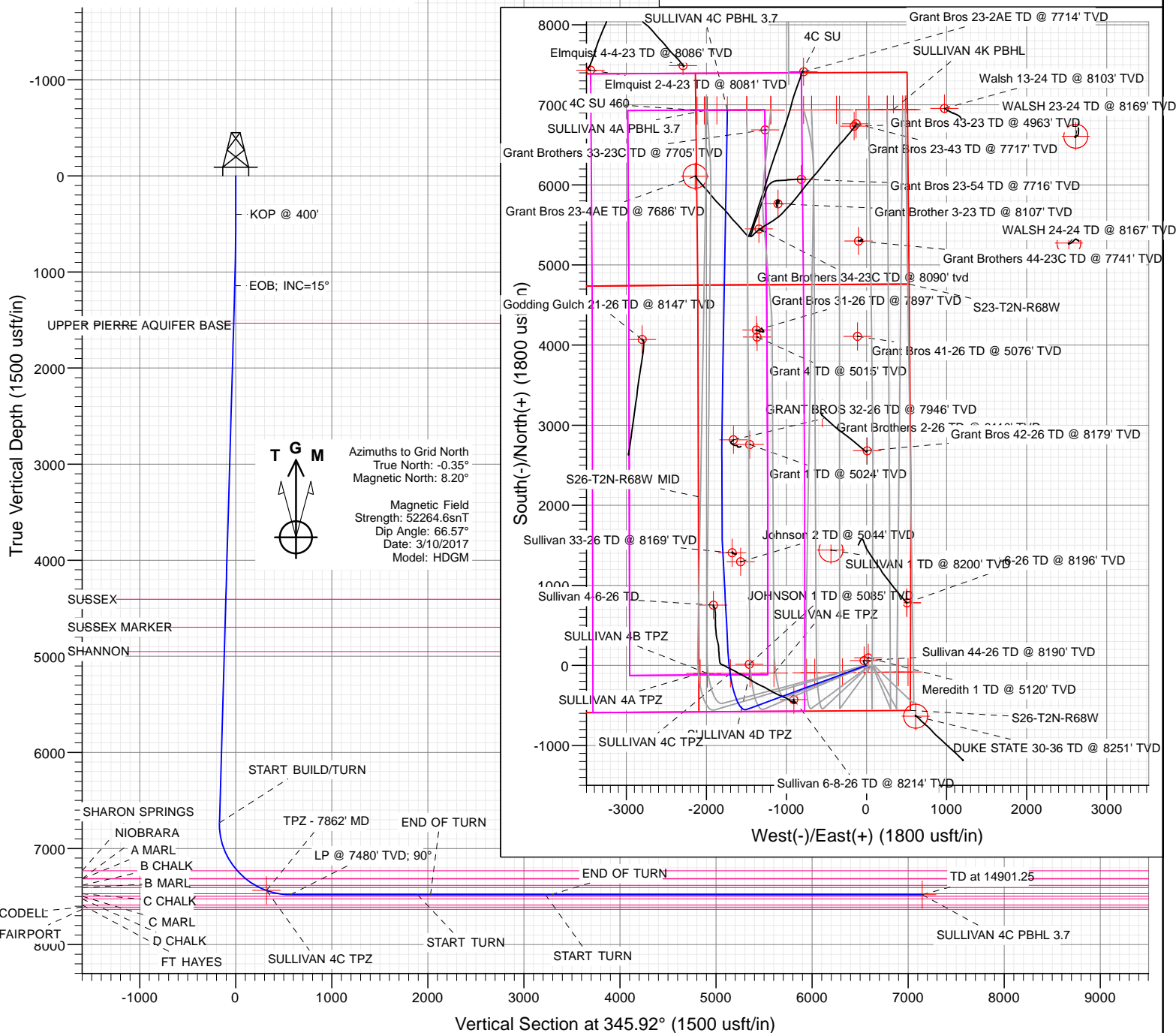
CRESTONE PEAK  
RESOURCES

# SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	1151.35	15.03	249.83	1142.76	-33.78	-91.96	2.00	249.83	-10.39	
4	6939.68	15.03	249.83	6733.16	-551.24	-1500.68	0.00	0.00	-169.48	
5	8119.55	90.00	357.00	7480.00	151.85	-1729.35	8.00	106.62	568.12	
6	9469.55	90.00	357.00	7480.00	1500.00	-1800.00	0.00	0.00	1892.93	
7	9607.34	90.00	359.76	7480.00	1637.72	-1803.90	2.00	90.00	2027.46	
8	10839.04	90.00	359.76	7480.00	2869.41	-1809.14	0.00	0.00	3223.40	
9	10901.25	90.00	1.00	7480.00	2931.62	-1808.73	2.00	90.00	3283.64	
10	14901.25	90.00	1.00	7480.00	6931.01	-1738.92	0.00	0.00	7145.82	SULLIVAN 4C PBHL 3.7

Project: DJ BASIN  
Site: S26-T2N-R68W  
Well: SULLIVAN 4C-26H-P268  
Wellbore: OH  
Design: PLAN #3

Type	Target	Azimuth	Origin	Type	N/S	E/W	From
TD	No Target (Freehand)	345.92	Slot		0.00	0.00	0.00
Name		TVD	+N/-S	+E/-W	Latitude	Longitude	
SULLIVAN 4C PBHL		7390.00	6930.22	-1870.91	40.122895	-104.969472	
SULLIVAN 4C TPZ		7430.94	688.38	-1701.02	40.103840	-104.969015	
SULLIVAN 4C PBHL 3.7		7480.00	6931.01	-1738.92	40.122895	-104.969000	



CATHEDRAL



# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

<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 4C-26H-P268					
Well Position	+N/-S	0.00 usft	Northing:	1,281,128.16 usft	Latitude:	40.103840
	+E/-W	0.00 usft	Easting:	3,150,231.51 usft	Longitude:	-104.962932
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 (nT)</b>
	HDGM	3/10/2017	8.55	66.57	52,265

<b>Design</b>	PLAN #3			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	345.92

<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	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,151.35	15.03	249.83	1,142.76	-33.78	-91.96	2.00	2.00	0.00	249.83	
6,939.68	15.03	249.83	6,733.16	-551.24	-1,500.68	0.00	0.00	0.00	0.00	
8,119.55	90.00	357.00	7,480.00	151.85	-1,729.35	8.00	6.35	9.08	106.62	
9,469.55	90.00	357.00	7,480.00	1,500.00	-1,800.00	0.00	0.00	0.00	0.00	
9,607.34	90.00	359.76	7,480.00	1,637.72	-1,803.90	2.00	0.00	2.00	90.00	
10,839.04	90.00	359.76	7,480.00	2,869.41	-1,809.14	0.00	0.00	0.00	0.00	
10,901.25	90.00	1.00	7,480.00	2,931.62	-1,808.73	2.00	0.00	2.00	90.00	
14,901.25	90.00	1.00	7,480.00	6,931.01	-1,738.92	0.00	0.00	0.00	0.00	SULLIVAN 4C PBHL :

# Cathedral Energy Services

## Planning Report

<b>Database:</b>	USA EDM 5000 Multi Users DB	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	KOP @ 400'
500.00	2.00	249.83	499.98	-0.60	-1.64	-0.19	2.00	2.00	
600.00	4.00	249.83	599.84	-2.41	-6.55	-0.74	2.00	2.00	
700.00	6.00	249.83	699.45	-5.41	-14.73	-1.66	2.00	2.00	
800.00	8.00	249.83	798.70	-9.61	-26.17	-2.96	2.00	2.00	
900.00	10.00	249.83	897.47	-15.01	-40.85	-4.61	2.00	2.00	
1,000.00	12.00	249.83	995.62	-21.59	-58.76	-6.64	2.00	2.00	
1,100.00	14.00	249.83	1,093.06	-29.34	-79.88	-9.02	2.00	2.00	
1,151.35	15.03	249.83	1,142.76	-33.78	-91.96	-10.39	2.00	2.00	EOB; INC=15°
1,200.00	15.03	249.83	1,189.75	-38.13	-103.80	-11.72	0.00	0.00	
1,300.00	15.03	249.83	1,286.33	-47.07	-128.13	-14.47	0.00	0.00	
1,400.00	15.03	249.83	1,382.91	-56.01	-152.47	-17.22	0.00	0.00	
1,500.00	15.03	249.83	1,479.49	-64.95	-176.81	-19.97	0.00	0.00	
1,555.40	15.03	249.83	1,533.00	-69.90	-190.29	-21.49	0.00	0.00	UPPER PIERRE AQUIFER BASE
1,600.00	15.03	249.83	1,576.07	-73.89	-201.15	-22.72	0.00	0.00	
1,700.00	15.03	249.83	1,672.65	-82.83	-225.48	-25.47	0.00	0.00	
1,800.00	15.03	249.83	1,769.23	-91.77	-249.82	-28.21	0.00	0.00	
1,900.00	15.03	249.83	1,865.82	-100.71	-274.16	-30.96	0.00	0.00	
2,000.00	15.03	249.83	1,962.40	-109.65	-298.50	-33.71	0.00	0.00	
2,100.00	15.03	249.83	2,058.98	-118.59	-322.83	-36.46	0.00	0.00	
2,200.00	15.03	249.83	2,155.56	-127.53	-347.17	-39.21	0.00	0.00	
2,300.00	15.03	249.83	2,252.14	-136.47	-371.51	-41.96	0.00	0.00	
2,400.00	15.03	249.83	2,348.72	-145.41	-395.84	-44.71	0.00	0.00	
2,500.00	15.03	249.83	2,445.30	-154.34	-420.18	-47.45	0.00	0.00	
2,600.00	15.03	249.83	2,541.88	-163.28	-444.52	-50.20	0.00	0.00	
2,700.00	15.03	249.83	2,638.46	-172.22	-468.86	-52.95	0.00	0.00	
2,800.00	15.03	249.83	2,735.04	-181.16	-493.19	-55.70	0.00	0.00	
2,900.00	15.03	249.83	2,831.62	-190.10	-517.53	-58.45	0.00	0.00	
3,000.00	15.03	249.83	2,928.20	-199.04	-541.87	-61.20	0.00	0.00	
3,100.00	15.03	249.83	3,024.78	-207.98	-566.21	-63.95	0.00	0.00	
3,200.00	15.03	249.83	3,121.36	-216.92	-590.54	-66.69	0.00	0.00	
3,300.00	15.03	249.83	3,217.94	-225.86	-614.88	-69.44	0.00	0.00	
3,400.00	15.03	249.83	3,314.52	-234.80	-639.22	-72.19	0.00	0.00	
3,500.00	15.03	249.83	3,411.10	-243.74	-663.55	-74.94	0.00	0.00	
3,600.00	15.03	249.83	3,507.68	-252.68	-687.89	-77.69	0.00	0.00	
3,700.00	15.03	249.83	3,604.26	-261.62	-712.23	-80.44	0.00	0.00	
3,800.00	15.03	249.83	3,700.84	-270.56	-736.57	-83.19	0.00	0.00	
3,900.00	15.03	249.83	3,797.42	-279.50	-760.90	-85.94	0.00	0.00	
4,000.00	15.03	249.83	3,894.00	-288.44	-785.24	-88.68	0.00	0.00	
4,100.00	15.03	249.83	3,990.58	-297.38	-809.58	-91.43	0.00	0.00	
4,200.00	15.03	249.83	4,087.16	-306.32	-833.92	-94.18	0.00	0.00	
4,300.00	15.03	249.83	4,183.75	-315.26	-858.25	-96.93	0.00	0.00	
4,400.00	15.03	249.83	4,280.33	-324.20	-882.59	-99.68	0.00	0.00	
4,500.00	15.03	249.83	4,376.91	-333.14	-906.93	-102.43	0.00	0.00	
4,530.12	15.03	249.83	4,406.00	-335.83	-914.26	-103.25	0.00	0.00	SUSSEX
4,600.00	15.03	249.83	4,473.49	-342.08	-931.27	-105.18	0.00	0.00	
4,700.00	15.03	249.83	4,570.07	-351.02	-955.60	-107.92	0.00	0.00	
4,800.00	15.03	249.83	4,666.65	-359.96	-979.94	-110.67	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 4C-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 4C-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

### 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
4,830.39	15.03	249.83	4,696.00	-362.68	-987.34	-111.51	0.00	0.00	SUSSEX MARKER
4,900.00	15.03	249.83	4,763.23	-368.90	-1,004.28	-113.42	0.00	0.00	
5,000.00	15.03	249.83	4,859.81	-377.84	-1,028.61	-116.17	0.00	0.00	
5,093.39	15.03	249.83	4,950.00	-386.19	-1,051.34	-118.74	0.00	0.00	SHANNON
5,100.00	15.03	249.83	4,956.39	-386.78	-1,052.95	-118.92	0.00	0.00	
5,200.00	15.03	249.83	5,052.97	-395.72	-1,077.29	-121.67	0.00	0.00	
5,300.00	15.03	249.83	5,149.55	-404.66	-1,101.63	-124.42	0.00	0.00	
5,400.00	15.03	249.83	5,246.13	-413.60	-1,125.96	-127.16	0.00	0.00	
5,500.00	15.03	249.83	5,342.71	-422.54	-1,150.30	-129.91	0.00	0.00	
5,600.00	15.03	249.83	5,439.29	-431.48	-1,174.64	-132.66	0.00	0.00	
5,700.00	15.03	249.83	5,535.87	-440.42	-1,198.98	-135.41	0.00	0.00	
5,800.00	15.03	249.83	5,632.45	-449.36	-1,223.31	-138.16	0.00	0.00	
5,900.00	15.03	249.83	5,729.03	-458.30	-1,247.65	-140.91	0.00	0.00	
6,000.00	15.03	249.83	5,825.61	-467.24	-1,271.99	-143.66	0.00	0.00	
6,100.00	15.03	249.83	5,922.19	-476.18	-1,296.32	-146.40	0.00	0.00	
6,200.00	15.03	249.83	6,018.77	-485.12	-1,320.66	-149.15	0.00	0.00	
6,300.00	15.03	249.83	6,115.35	-494.06	-1,345.00	-151.90	0.00	0.00	
6,400.00	15.03	249.83	6,211.93	-503.00	-1,369.34	-154.65	0.00	0.00	
6,500.00	15.03	249.83	6,308.51	-511.94	-1,393.67	-157.40	0.00	0.00	
6,600.00	15.03	249.83	6,405.09	-520.88	-1,418.01	-160.15	0.00	0.00	
6,700.00	15.03	249.83	6,501.68	-529.82	-1,442.35	-162.90	0.00	0.00	
6,800.00	15.03	249.83	6,598.26	-538.76	-1,466.69	-165.65	0.00	0.00	
6,900.00	15.03	249.83	6,694.84	-547.69	-1,491.02	-168.39	0.00	0.00	
6,939.68	15.03	249.83	6,733.16	-551.24	-1,500.68	-169.48	0.00	0.00	START BUILD/TURN
7,000.00	14.39	268.75	6,791.54	-554.10	-1,515.52	-168.65	8.00	-1.05	
7,100.00	16.63	297.83	6,888.03	-547.68	-1,540.64	-156.31	8.00	2.24	
7,200.00	21.71	316.90	6,982.55	-527.46	-1,565.98	-130.53	8.00	5.08	
7,300.00	28.13	328.33	7,073.24	-493.84	-1,591.04	-91.82	8.00	6.42	
7,400.00	35.16	335.65	7,158.35	-447.47	-1,615.32	-40.93	8.00	7.03	
7,492.95	41.98	340.44	7,231.00	-393.72	-1,636.80	16.43	8.00	7.33	SHARON SPRINGS
7,500.00	42.50	340.75	7,236.22	-389.25	-1,638.37	21.14	8.00	7.43	
7,600.00	50.01	344.58	7,305.33	-320.32	-1,659.74	93.20	8.00	7.51	
7,612.06	50.92	344.98	7,313.00	-311.35	-1,662.18	102.50	8.00	7.57	NIOBRARA
7,618.44	51.41	345.19	7,317.00	-306.55	-1,663.46	107.47	8.00	7.58	A MARL
7,700.00	57.62	347.64	7,364.33	-242.02	-1,679.00	173.84	8.00	7.62	
7,736.26	60.40	348.62	7,383.00	-211.60	-1,685.39	204.89	8.00	7.66	B CHALK
7,785.74	64.20	349.88	7,406.00	-168.57	-1,693.55	248.62	8.00	7.68	B MARL
7,800.00	65.29	350.22	7,412.08	-155.87	-1,695.78	261.48	8.00	7.69	
7,862.93	70.14	351.68	7,435.94	-98.38	-1,704.92	319.46	8.00	7.71	TPZ - 7862' MD
7,900.00	73.00	352.50	7,447.66	-63.55	-1,709.75	354.43	8.00	7.72	
7,997.80	80.57	354.56	7,470.00	30.99	-1,720.44	448.72	8.00	7.73	C CHALK
8,000.00	80.74	354.60	7,470.36	33.14	-1,720.65	450.86	8.00	7.74	
8,100.00	88.48	356.61	7,479.74	132.33	-1,728.26	548.92	8.00	7.75	
8,119.55	90.00	357.00	7,480.00	151.85	-1,729.35	568.12	8.00	7.75	LP @ 7480' TVD; 90°
8,200.00	90.00	357.00	7,480.00	232.19	-1,733.56	647.07	0.00	0.00	
8,300.00	90.00	357.00	7,480.00	332.05	-1,738.79	745.20	0.00	0.00	
8,400.00	90.00	357.00	7,480.00	431.91	-1,744.02	843.33	0.00	0.00	
8,500.00	90.00	357.00	7,480.00	531.78	-1,749.26	941.47	0.00	0.00	
8,600.00	90.00	357.00	7,480.00	631.64	-1,754.49	1,039.60	0.00	0.00	
8,700.00	90.00	357.00	7,480.00	731.50	-1,759.72	1,137.74	0.00	0.00	
8,800.00	90.00	357.00	7,480.00	831.37	-1,764.96	1,235.87	0.00	0.00	
8,900.00	90.00	357.00	7,480.00	931.23	-1,770.19	1,334.01	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 4C-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 4C-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
9,000.00	90.00	357.00	7,480.00	1,031.09	-1,775.43	1,432.14	0.00	0.00	
9,100.00	90.00	357.00	7,480.00	1,130.95	-1,780.66	1,530.28	0.00	0.00	
9,200.00	90.00	357.00	7,480.00	1,230.82	-1,785.89	1,628.41	0.00	0.00	
9,300.00	90.00	357.00	7,480.00	1,330.68	-1,791.13	1,726.55	0.00	0.00	
9,400.00	90.00	357.00	7,480.00	1,430.54	-1,796.36	1,824.68	0.00	0.00	
9,469.55	90.00	357.00	7,480.00	1,500.00	-1,800.00	1,892.93	0.00	0.00	START TURN
9,500.00	90.00	357.61	7,480.00	1,530.41	-1,801.43	1,922.78	2.00	0.00	
9,600.00	90.00	359.61	7,480.00	1,630.38	-1,803.86	2,020.33	2.00	0.00	
9,607.34	90.00	359.76	7,480.00	1,637.72	-1,803.90	2,027.46	2.00	0.00	END OF TURN
9,700.00	90.00	359.76	7,480.00	1,730.38	-1,804.29	2,117.43	0.00	0.00	
9,800.00	90.00	359.76	7,480.00	1,830.38	-1,804.72	2,214.53	0.00	0.00	
9,900.00	90.00	359.76	7,480.00	1,930.38	-1,805.14	2,311.63	0.00	0.00	
10,000.00	90.00	359.76	7,480.00	2,030.38	-1,805.57	2,408.72	0.00	0.00	
10,100.00	90.00	359.76	7,480.00	2,130.37	-1,806.00	2,505.82	0.00	0.00	
10,200.00	90.00	359.76	7,480.00	2,230.37	-1,806.42	2,602.92	0.00	0.00	
10,300.00	90.00	359.76	7,480.00	2,330.37	-1,806.85	2,700.01	0.00	0.00	
10,400.00	90.00	359.76	7,480.00	2,430.37	-1,807.27	2,797.11	0.00	0.00	
10,500.00	90.00	359.76	7,480.00	2,530.37	-1,807.70	2,894.21	0.00	0.00	
10,600.00	90.00	359.76	7,480.00	2,630.37	-1,808.12	2,991.30	0.00	0.00	
10,700.00	90.00	359.76	7,480.00	2,730.37	-1,808.55	3,088.40	0.00	0.00	
10,800.00	90.00	359.76	7,480.00	2,830.37	-1,808.97	3,185.49	0.00	0.00	
10,839.04	90.00	359.76	7,480.00	2,869.41	-1,809.14	3,223.40	0.00	0.00	START TURN
10,900.00	90.00	0.98	7,480.00	2,930.37	-1,808.75	3,282.43	2.00	0.00	
10,901.25	90.00	1.00	7,480.00	2,931.62	-1,808.73	3,283.64	2.00	0.00	END OF TURN
11,000.00	90.00	1.00	7,480.00	3,030.35	-1,807.00	3,378.99	0.00	0.00	
11,100.00	90.00	1.00	7,480.00	3,130.34	-1,805.26	3,475.54	0.00	0.00	
11,200.00	90.00	1.00	7,480.00	3,230.32	-1,803.51	3,572.10	0.00	0.00	
11,300.00	90.00	1.00	7,480.00	3,330.31	-1,801.77	3,668.65	0.00	0.00	
11,400.00	90.00	1.00	7,480.00	3,430.29	-1,800.02	3,765.20	0.00	0.00	
11,500.00	90.00	1.00	7,480.00	3,530.27	-1,798.28	3,861.76	0.00	0.00	
11,600.00	90.00	1.00	7,480.00	3,630.26	-1,796.53	3,958.31	0.00	0.00	
11,700.00	90.00	1.00	7,480.00	3,730.24	-1,794.79	4,054.87	0.00	0.00	
11,800.00	90.00	1.00	7,480.00	3,830.23	-1,793.04	4,151.42	0.00	0.00	
11,900.00	90.00	1.00	7,480.00	3,930.21	-1,791.30	4,247.98	0.00	0.00	
12,000.00	90.00	1.00	7,480.00	4,030.20	-1,789.55	4,344.53	0.00	0.00	
12,100.00	90.00	1.00	7,480.00	4,130.18	-1,787.81	4,441.09	0.00	0.00	
12,200.00	90.00	1.00	7,480.00	4,230.17	-1,786.06	4,537.64	0.00	0.00	
12,300.00	90.00	1.00	7,480.00	4,330.15	-1,784.32	4,634.19	0.00	0.00	
12,400.00	90.00	1.00	7,480.00	4,430.14	-1,782.57	4,730.75	0.00	0.00	
12,500.00	90.00	1.00	7,480.00	4,530.12	-1,780.83	4,827.30	0.00	0.00	
12,600.00	90.00	1.00	7,480.00	4,630.11	-1,779.08	4,923.86	0.00	0.00	
12,700.00	90.00	1.00	7,480.00	4,730.09	-1,777.34	5,020.41	0.00	0.00	
12,800.00	90.00	1.00	7,480.00	4,830.08	-1,775.59	5,116.97	0.00	0.00	
12,900.00	90.00	1.00	7,480.00	4,930.06	-1,773.85	5,213.52	0.00	0.00	
13,000.00	90.00	1.00	7,480.00	5,030.05	-1,772.10	5,310.07	0.00	0.00	
13,100.00	90.00	1.00	7,480.00	5,130.03	-1,770.35	5,406.63	0.00	0.00	
13,200.00	90.00	1.00	7,480.00	5,230.02	-1,768.61	5,503.18	0.00	0.00	
13,300.00	90.00	1.00	7,480.00	5,330.00	-1,766.86	5,599.74	0.00	0.00	
13,400.00	90.00	1.00	7,480.00	5,429.99	-1,765.12	5,696.29	0.00	0.00	
13,500.00	90.00	1.00	7,480.00	5,529.97	-1,763.37	5,792.85	0.00	0.00	
13,600.00	90.00	1.00	7,480.00	5,629.95	-1,761.63	5,889.40	0.00	0.00	
13,700.00	90.00	1.00	7,480.00	5,729.94	-1,759.88	5,985.96	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 4C-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 4C-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

### 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
13,800.00	90.00	1.00	7,480.00	5,829.92	-1,758.14	6,082.51	0.00	0.00	
13,900.00	90.00	1.00	7,480.00	5,929.91	-1,756.39	6,179.06	0.00	0.00	
14,000.00	90.00	1.00	7,480.00	6,029.89	-1,754.65	6,275.62	0.00	0.00	
14,100.00	90.00	1.00	7,480.00	6,129.88	-1,752.90	6,372.17	0.00	0.00	
14,200.00	90.00	1.00	7,480.00	6,229.86	-1,751.16	6,468.73	0.00	0.00	
14,300.00	90.00	1.00	7,480.00	6,329.85	-1,749.41	6,565.28	0.00	0.00	
14,400.00	90.00	1.00	7,480.00	6,429.83	-1,747.67	6,661.84	0.00	0.00	
14,500.00	90.00	1.00	7,480.00	6,529.82	-1,745.92	6,758.39	0.00	0.00	
14,600.00	90.00	1.00	7,480.00	6,629.80	-1,744.18	6,854.95	0.00	0.00	
14,700.00	90.00	1.00	7,480.00	6,729.79	-1,742.43	6,951.50	0.00	0.00	
14,800.00	90.00	1.00	7,480.00	6,829.77	-1,740.69	7,048.05	0.00	0.00	
14,900.00	90.00	1.00	7,480.00	6,929.76	-1,738.94	7,144.61	0.00	0.00	
14,901.25	90.00	1.00	7,480.00	6,931.01	-1,738.92	7,145.82	0.00	0.00	TD at 14901.25

### 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 4C TPZ - plan misses target center by 43.01usft at 7844.94usft MD (7429.63 TVD, -115.04 N, -1702.42 E) - Point	0.00	0.00	7,390.00	-98.38	-1,701.02	1,281,029.78	3,148,530.49	40.103598	-104.969015
SULLIVAN 4C PBHL - plan misses target center by 159.73usft at 14898.16usft MD (7480.00 TVD, 6927.92 N, -1738.97 E) - Point	0.00	0.00	7,390.00	6,930.22	-1,870.91	1,288,058.38	3,148,360.60	40.122895	-104.969472
SULLIVAN 4C PBHL 3.7 - plan hits target center - Point	0.00	0.00	7,480.00	6,931.01	-1,738.92	1,288,059.17	3,148,492.59	40.122895	-104.969000

### Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,555.40	1,533.00	UPPER PIERRE AQUIFER BASE			
4,530.12	4,406.00	SUSSEX			
4,830.39	4,696.00	SUSSEX MARKER			
5,093.39	4,950.00	SHANNON			
7,492.95	7,231.00	SHARON SPRINGS			
7,612.06	7,313.00	NIOBRARA			
7,618.44	7,317.00	A MARL			
7,736.26	7,383.00	B CHALK			
7,785.74	7,406.00	B MARL			
7,997.80	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 4C-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 4C-26H-P268	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	PLAN #3		

### Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
400.00	400.00	0.00	0.00	KOP @ 400'
1,151.35	1,142.76	-33.78	-91.96	EOB; INC=15°
6,939.68	6,733.16	-551.24	-1,500.68	START BUILD/TURN
7,862.93	7,435.94	-98.38	-1,704.92	TPZ - 7862' MD
8,119.55	7,480.00	151.85	-1,729.35	LP @ 7480' TVD; 90°
9,469.55	7,480.00	1,500.00	-1,800.00	START TURN
9,607.34	7,480.00	1,637.72	-1,803.90	END OF TURN
10,839.04	7,480.00	2,869.41	-1,809.14	START TURN
10,901.25	7,480.00	2,931.62	-1,808.73	END OF TURN
14,901.25	7,480.00	6,931.01	-1,738.92	TD at 14901.25

# **Crestone Peak Resources**

**DJ BASIN**

**S26-T2N-R68W**

**SULLIVAN 4C-26H-P268**

**OH**

**PLAN #3**

## **Anticollision Report**

**22 March, 2017**



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

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

<b>Survey Tool Program</b>	<b>Date</b>	3/22/2017		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	14,901.25	PLAN #3 (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 4C-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 4C-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 #3	<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	14,901.25	12,639.47	842.06	648.58	4.352	CC, ES, SF
Duke State 30-36 - KMG WELL - SURVEYS						Out of range
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	14,901.25	7,605.52	784.37	677.39	7.332	CC, ES, SF
Godding Gulch 21-26 - CPR WELL - SURVEYS	12,014.82	7,695.20	1,011.55	908.85	9.850	CC, ES
Godding Gulch 21-26 - CPR WELL - SURVEYS	12,200.00	7,696.85	1,028.36	921.18	9.595	SF
Grant 1 - KPK WELL - NO SURVEYS						Out of range
Grant 4 - KPK WELL - NO SURVEYS						Out of range
Grant Bros 23-2AE - EXTRACTION - SURVEYS	14,901.25	7,798.06	1,057.49	911.90	7.263	CC, ES, SF
Grant Bros 23-43 - EXTRACTION - SURVEYS						Out of range
Grant Bros 23-4AE - EXTRACTION - SURVEYS	14,072.80	7,534.88	386.75	262.05	3.101	CC
Grant Bros 23-4AE - EXTRACTION - SURVEYS	14,100.00	7,535.04	387.71	260.99	3.060	ES, SF
Grant Bros 23-54 - EXTRACTION - SURVEYS	14,059.46	7,531.46	960.67	836.67	7.747	CC, ES, SF
Grant Bros 31-26 - CPR WELL - GYRO	12,100.00	7,417.34	411.21	321.67	4.593	SF
Grant Bros 31-26 - CPR WELL - GYRO	12,159.39	7,417.69	406.89	318.58	4.607	CC, ES
Grant Bros 32-26 - CPR - GYRO	10,777.03	7,424.68	139.82	70.52	2.018	CC, ES, SF
Grant Bros 3-23 - CPR WELL - SURVEYS	13,700.00	7,424.88	648.40	542.52	6.124	SF
Grant Bros 3-23 - CPR WELL - SURVEYS	13,752.64	7,424.02	646.26	540.91	6.134	CC, ES
Grant Bros 41-26 - SUNDANCE WELL - NO SURVEYS						Out of range
Grant Bros 42-26 - CPR WELL - SURVEYS						Out of range
Grant Bros 43-23 - SUNDANCE WELL - NO SURVEYS						Out of range
Grant Brothers 2-26 - CPR - NO SURVEYS	11,140.71	7,437.99	1,252.28	1,178.21	16.906	CC, ES, SF
Grant Brothers 33-23C - EXTRACTION - NO SURVEYS	14,665.70	7,403.99	475.47	349.84	3.785	CC, ES, SF
Grant Brothers 34-23C - EXTRACTION - GYRO	13,400.00	7,425.82	426.28	319.36	3.987	SF
Grant Brothers 34-23C - EXTRACTION - GYRO	13,424.84	7,425.92	425.56	319.25	4.003	CC, ES
Grant Brothers 44-23C - EXTRACTION - GYRO						Out of range
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	5,337.12	5,085.00	552.79	517.49	15.659	CC, ES, SF
Johnson 2 - KPK WELL - NO SURVEYS						Out of range
Meredith 1 - KPK WELL - NO SURVEYS	400.00	371.99	95.49	93.62	51.259	CC, ES
Meredith 1 - KPK WELL - NO SURVEYS	900.00	869.46	124.75	120.24	27.616	SF
Puritan 6-4-34 - CPR WELL - SURVEYS						Out of range
Sullivan 1 - CPR - NO SURVEYS	9,338.62	7,464.00	1,349.92	1,302.13	28.248	CC, ES
Sullivan 1 - CPR - NO SURVEYS	9,400.00	7,464.00	1,351.31	1,303.37	28.187	SF
Sullivan 33-26 - CPR WELL - SURVEYS	9,372.83	7,432.12	115.12	68.12	2.450	CC, ES, SF
Sullivan 44-26 - CPR WELL - GYRO	100.00	73.80	36.42	36.15	134.574	CC
Sullivan 44-26 - CPR WELL - GYRO	400.00	373.98	37.59	35.73	20.136	ES
Sullivan 44-26 - CPR WELL - GYRO	700.00	673.20	50.55	47.11	14.694	SF

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 4C-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 4C-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 #3	<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 4-6-26 - CPR WELL - SURVEYS	8,719.37	7,520.15	151.97	99.99	2.924	CC, ES, SF
SULLIVAN 4A-26H-P268 - OH - PLAN #3	200.00	200.00	20.14	19.15	20.283	CC, ES
SULLIVAN 4A-26H-P268 - OH - PLAN #3	14,901.25	15,113.68	304.33	94.54	1.451	Level 3, SF
SULLIVAN 4B-26H-P268 - OH - PLAN #3	300.00	300.00	10.07	8.36	5.889	CC, ES
SULLIVAN 4B-26H-P268 - OH - PLAN #3	14,200.00	14,096.75	216.94	11.21	1.054	Level 2, SF
SULLIVAN 4D-26H-P268 - OH - PLAN #2	400.00	400.00	9.79	7.36	4.034	CC, ES
SULLIVAN 4D-26H-P268 - OH - PLAN #2	14,901.25	14,749.80	259.15	41.21	1.189	Level 2, SF
SULLIVAN 4E-26H-P268 - OH - PLAN #2	400.00	400.00	19.86	17.43	8.184	CC, ES
SULLIVAN 4E-26H-P268 - OH - PLAN #2	14,000.00	13,690.25	465.12	262.75	2.298	SF
SULLIVAN 4F-26H-P268 - OH - PLAN #2	541.19	542.61	26.51	23.09	7.742	CC
SULLIVAN 4F-26H-P268 - OH - PLAN #2	600.00	601.61	26.78	22.94	6.964	ES
SULLIVAN 4F-26H-P268 - OH - PLAN #2	14,901.25	14,859.12	961.87	728.21	4.117	SF
SULLIVAN 4G-26H-P268 - OH - PLAN #2	400.00	400.00	40.00	37.58	16.483	CC, ES
SULLIVAN 4G-26H-P268 - OH - PLAN #2	14,901.25	14,625.12	1,056.72	824.19	4.544	SF
SULLIVAN 4H-26H-P268 - OH - PLAN #2	116.33	117.33	49.79	49.40	125.522	CC
SULLIVAN 4H-26H-P268 - OH - PLAN #2	400.00	400.68	50.30	47.90	20.926	ES
SULLIVAN 4H-26H-P268 - OH - PLAN #2	14,901.25	14,696.64	1,399.91	1,166.55	5.999	SF
SULLIVAN 4I-26H-P268 - OH - PLAN #2	300.00	300.00	59.86	58.15	35.009	CC
SULLIVAN 4I-26H-P268 - OH - PLAN #2	400.00	399.92	59.92	57.51	24.859	ES
SULLIVAN 4I-26H-P268 - OH - PLAN #2	700.00	697.80	78.26	73.73	17.263	SF
SULLIVAN 4J-26H-P268 - OH - PLAN #2	303.76	303.76	69.93	68.20	40.263	CC
SULLIVAN 4J-26H-P268 - OH - PLAN #2	400.00	399.52	70.10	67.69	28.993	ES
SULLIVAN 4J-26H-P268 - OH - PLAN #2	700.00	694.38	93.93	89.39	20.708	SF
SULLIVAN 4K-26H-P268 - OH - PLAN #2	400.00	400.00	80.00	77.58	32.966	CC, ES
SULLIVAN 4K-26H-P268 - OH - PLAN #2	800.00	795.50	109.49	104.27	20.966	SF
SULLIVAN 4L-26H-P268 - OH - PLAN #2	200.00	200.00	89.80	88.80	90.431	CC, ES
SULLIVAN 4L-26H-P268 - OH - PLAN #2	700.00	683.80	136.93	132.24	29.232	SF
Sullivan 6-8-26 - CPR - SURVEYS	4,600.00	4,563.36	126.10	87.55	3.271	ES, SF
Sullivan 6-8-26 - CPR - SURVEYS	4,625.13	4,587.95	125.94	87.68	3.292	CC
Sullivan 8-6-26 - CPR WELL - SURVEYS						Out of range
Walsh 13-24 - CPR WELL - SURVEYS						Out of range
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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R68W - Bybee 5 - Wellbore #1 - PLAN #1												<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							
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
14,000.00	7,480.00	12,639.47	7,272.00	104.78	87.87	80.60	7,256.08	-972.42	1,459.89	1,332.59	127.30	11.468	
14,100.00	7,480.00	12,639.47	7,272.00	106.25	87.87	80.60	7,256.08	-972.42	1,375.99	1,243.28	132.71	10.369	
14,200.00	7,480.00	12,639.47	7,272.00	107.73	87.87	80.60	7,256.08	-972.42	1,294.38	1,155.69	138.69	9.333	
14,300.00	7,480.00	12,639.47	7,272.00	109.21	87.87	80.60	7,256.08	-972.42	1,215.52	1,070.25	145.28	8.367	
14,400.00	7,480.00	12,639.47	7,272.00	110.69	87.87	80.60	7,256.08	-972.42	1,139.98	987.50	152.49	7.476	
14,500.00	7,480.00	12,639.47	7,272.00	112.18	87.87	80.60	7,256.08	-972.42	1,068.47	908.19	160.28	6.666	
14,600.00	7,480.00	12,639.47	7,272.00	113.66	87.87	80.60	7,256.08	-972.42	1,001.85	833.29	168.56	5.944	
14,700.00	7,480.00	12,639.47	7,272.00	115.15	87.87	80.60	7,256.08	-972.42	941.15	764.05	177.11	5.314	
14,800.00	7,480.00	12,639.47	7,272.00	116.64	87.87	80.60	7,256.08	-972.42	887.60	702.04	185.56	4.783	
14,901.25	7,480.00	12,639.47	7,272.00	118.16	87.87	80.60	7,256.08	-972.42	842.06	648.58	193.48	4.352	CC, ES, SF

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Elmquist 4-4-23 - CPR WELL - SURVEYS													Offset Site Error:	0.00 usft
Survey Program: 102-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		
14,100.00	7,480.00	7,603.21	7,419.21	106.25	50.34	-89.50	7,489.20	-2,289.95	1,461.58	1,386.10	75.48	19.364		
14,200.00	7,480.00	7,603.50	7,419.49	107.73	50.35	-89.53	7,489.21	-2,289.95	1,369.77	1,292.92	76.85	17.824		
14,300.00	7,480.00	7,603.78	7,419.78	109.21	50.35	-89.56	7,489.21	-2,289.95	1,279.18	1,200.52	78.66	16.262		
14,400.00	7,480.00	7,604.07	7,420.07	110.69	50.35	-89.59	7,489.21	-2,289.95	1,190.11	1,109.07	81.03	14.687		
14,500.00	7,480.00	7,604.36	7,420.35	112.18	50.35	-89.62	7,489.21	-2,289.95	1,102.91	1,018.81	84.10	13.115		
14,600.00	7,480.00	7,604.65	7,420.64	113.66	50.35	-89.65	7,489.21	-2,289.95	1,018.07	930.06	88.01	11.568		
14,700.00	7,480.00	7,604.94	7,420.93	115.15	50.35	-89.68	7,489.21	-2,289.95	936.22	843.26	92.96	10.071		
14,800.00	7,480.00	7,605.23	7,421.22	116.64	50.35	-89.71	7,489.21	-2,289.95	858.23	759.06	99.17	8.654		
14,901.25	7,480.00	7,605.52	7,421.52	118.16	50.35	-89.74	7,489.21	-2,289.95	784.37	677.39	106.97	7.332 CC, ES, SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Godding Gulch 21-26 - CPR WELL - SURVEYS													Offset Site Error:	0.00 usft
Survey Program: 703-ISCWSA MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance				Total		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)	Uncertainty Axis	Separation Factor		
11,000.00	7,480.00	7,686.21	7,432.38	62.80	29.32	-89.17	4,062.59	-2,800.62	1,432.83	1,368.61	64.22	22.311		
11,100.00	7,480.00	7,687.09	7,433.27	64.08	29.32	-89.22	4,062.60	-2,800.63	1,363.84	1,297.04	66.79	20.418		
11,200.00	7,480.00	7,687.98	7,434.15	65.37	29.33	-89.27	4,062.61	-2,800.63	1,298.89	1,229.08	69.81	18.606		
11,300.00	7,480.00	7,688.86	7,435.04	66.68	29.33	-89.32	4,062.61	-2,800.64	1,238.61	1,165.34	73.27	16.905		
11,400.00	7,480.00	7,689.75	7,435.92	68.00	29.33	-89.37	4,062.62	-2,800.64	1,183.72	1,106.58	77.14	15.345		
11,500.00	7,480.00	7,690.63	7,436.81	69.33	29.33	-89.42	4,062.63	-2,800.65	1,135.01	1,053.66	81.35	13.952		
11,600.00	7,480.00	7,691.52	7,437.70	70.66	29.33	-89.47	4,062.64	-2,800.65	1,093.29	1,007.51	85.78	12.745		
11,700.00	7,480.00	7,692.41	7,438.58	72.01	29.33	-89.52	4,062.65	-2,800.66	1,059.40	969.12	90.28	11.734		
11,800.00	7,480.00	7,693.29	7,439.47	73.37	29.33	-89.57	4,062.65	-2,800.66	1,034.10	939.45	94.66	10.925		
11,900.00	7,480.00	7,694.18	7,440.36	74.74	29.33	-89.62	4,062.66	-2,800.67	1,018.04	919.35	98.70	10.315		
12,000.00	7,480.00	7,695.07	7,441.25	76.11	29.33	-89.67	4,062.67	-2,800.67	1,011.66	909.43	102.22	9.897		
12,014.82	7,480.00	7,695.20	7,441.38	76.32	29.33	-89.68	4,062.67	-2,800.67	1,011.55	908.85	102.69	9.850 CC, ES		
12,100.00	7,480.00	7,695.96	7,442.14	77.49	29.33	-89.72	4,062.68	-2,800.68	1,015.13	910.04	105.08	9.660		
12,200.00	7,480.00	7,696.85	7,443.03	78.88	29.34	-89.78	4,062.68	-2,800.68	1,028.36	921.18	107.17	9.595 SF		
12,300.00	7,480.00	7,697.74	7,443.92	80.28	29.34	-89.83	4,062.69	-2,800.68	1,050.98	942.49	108.48	9.688		
12,400.00	7,480.00	7,698.64	7,444.81	81.68	29.34	-89.88	4,062.70	-2,800.69	1,082.40	973.33	109.06	9.925		
12,500.00	7,480.00	7,699.53	7,445.70	83.09	29.34	-89.93	4,062.71	-2,800.69	1,121.88	1,012.86	109.02	10.290		
12,600.00	7,480.00	7,700.42	7,446.60	84.50	29.34	-89.98	4,062.72	-2,800.70	1,168.60	1,060.12	108.48	10.772		
12,700.00	7,480.00	7,701.31	7,447.49	85.92	29.34	-90.03	4,062.72	-2,800.70	1,221.75	1,114.17	107.58	11.357		
12,800.00	7,480.00	7,702.21	7,448.38	87.35	29.34	-90.08	4,062.73	-2,800.71	1,280.50	1,174.09	106.41	12.033		
12,900.00	7,480.00	7,703.10	7,449.28	88.78	29.34	-90.13	4,062.74	-2,800.71	1,344.14	1,239.05	105.09	12.790		
13,000.00	7,480.00	7,704.00	7,450.17	90.21	29.34	-90.18	4,062.75	-2,800.72	1,412.00	1,308.31	103.68	13.618		
13,100.00	7,480.00	7,704.89	7,451.07	91.65	29.35	-90.23	4,062.76	-2,800.72	1,483.49	1,381.25	102.25	14.509		

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Bros 23-2AE - 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		
14,300.00	7,480.00	7,802.67	7,403.71	109.21	41.14	88.51	7,414.01	-798.48	1,442.31	1,328.55	113.77	12.678		
14,400.00	7,480.00	7,801.86	7,402.90	110.69	41.14	88.46	7,414.02	-798.51	1,367.53	1,249.20	118.34	11.556		
14,500.00	7,480.00	7,801.07	7,402.11	112.18	41.14	88.41	7,414.02	-798.54	1,296.16	1,172.88	123.28	10.514		
14,600.00	7,480.00	7,800.29	7,401.33	113.66	41.14	88.36	7,414.03	-798.57	1,228.78	1,100.22	128.56	9.558		
14,700.00	7,480.00	7,799.53	7,400.58	115.15	41.14	88.31	7,414.04	-798.59	1,166.10	1,031.98	134.12	8.695		
14,800.00	7,480.00	7,798.79	7,399.84	116.64	41.14	88.27	7,414.04	-798.62	1,108.90	969.07	139.83	7.930		
14,901.25	7,480.00	7,798.06	7,399.10	118.16	41.14	88.22	7,414.05	-798.64	1,057.49	911.90	145.59	7.263	CC, ES, SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Bros 23-4AE - EXTRACTION - SURVEYS													Offset Site Error:	0.00 usft
Survey Program: 117-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		
12,700.00	7,480.00	7,526.76	7,414.99	85.92	23.64	-88.07	6,109.38	-2,139.94	1,426.22	1,373.12	53.10	26.861		
12,800.00	7,480.00	7,527.35	7,415.58	87.35	23.64	-88.16	6,109.39	-2,139.95	1,330.24	1,277.15	53.09	25.057		
12,900.00	7,480.00	7,527.93	7,416.17	88.78	23.64	-88.25	6,109.39	-2,139.95	1,234.91	1,181.67	53.23	23.199		
13,000.00	7,480.00	7,528.52	7,416.76	90.21	23.64	-88.33	6,109.39	-2,139.96	1,140.37	1,086.77	53.60	21.276		
13,100.00	7,480.00	7,529.11	7,417.35	91.65	23.64	-88.42	6,109.40	-2,139.97	1,046.85	992.55	54.30	19.280		
13,200.00	7,480.00	7,529.70	7,417.94	93.10	23.65	-88.51	6,109.40	-2,139.98	954.64	899.16	55.48	17.206		
13,300.00	7,480.00	7,530.30	7,418.53	94.54	23.65	-88.60	6,109.40	-2,139.98	864.16	806.80	57.37	15.064		
13,400.00	7,480.00	7,530.89	7,419.12	96.00	23.65	-88.68	6,109.41	-2,139.99	776.03	715.79	60.24	12.882		
13,500.00	7,480.00	7,531.48	7,419.71	97.45	23.65	-88.77	6,109.41	-2,140.00	691.14	626.64	64.49	10.717		
13,600.00	7,480.00	7,532.07	7,420.31	98.91	23.65	-88.86	6,109.42	-2,140.01	610.83	540.24	70.59	8.653		
13,700.00	7,480.00	7,532.67	7,420.90	100.37	23.65	-88.95	6,109.42	-2,140.01	537.17	458.07	79.11	6.791		
13,800.00	7,480.00	7,533.26	7,421.49	101.84	23.65	-89.04	6,109.42	-2,140.02	473.28	382.93	90.35	5.238		
13,900.00	7,480.00	7,533.85	7,422.09	103.31	23.65	-89.12	6,109.43	-2,140.03	423.60	319.82	103.78	4.082		
14,000.00	7,480.00	7,534.45	7,422.68	104.78	23.65	-89.21	6,109.43	-2,140.04	393.55	276.39	117.16	3.359		
14,072.80	7,480.00	7,534.88	7,423.12	105.85	23.65	-89.28	6,109.43	-2,140.04	386.75	262.05	124.70	3.101 CC		
14,100.00	7,480.00	7,535.04	7,423.28	106.25	23.65	-89.30	6,109.43	-2,140.04	387.71	260.99	126.72	3.060 ES, SF		
14,200.00	7,480.00	7,535.64	7,423.87	107.73	23.65	-89.39	6,109.44	-2,140.05	407.13	277.24	129.89	3.134		
14,300.00	7,480.00	7,536.24	7,424.47	109.21	23.66	-89.48	6,109.44	-2,140.06	448.55	321.05	127.50	3.518		
14,400.00	7,480.00	7,536.83	7,425.07	110.69	23.66	-89.57	6,109.44	-2,140.07	506.59	384.36	122.23	4.145		
14,500.00	7,480.00	7,537.43	7,425.66	112.18	23.66	-89.65	6,109.45	-2,140.07	576.26	460.06	116.20	4.959		
14,600.00	7,480.00	7,538.03	7,426.26	113.66	23.66	-89.74	6,109.45	-2,140.08	653.84	543.35	110.49	5.918		
14,700.00	7,480.00	7,538.63	7,426.86	115.15	23.66	-89.83	6,109.46	-2,140.09	736.85	631.38	105.47	6.987		
14,800.00	7,480.00	7,539.22	7,427.46	116.64	23.66	-89.92	6,109.46	-2,140.10	823.64	722.46	101.18	8.141		
14,901.25	7,480.00	7,539.83	7,428.07	118.16	23.66	-90.01	6,109.46	-2,140.10	914.27	816.76	97.51	9.377		



# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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
13,000.00	7,480.00	7,528.99	7,416.90	90.21	23.09	89.28	6,072.58	-793.16	1,430.16	1,335.55	94.61	15.116	
13,100.00	7,480.00	7,529.23	7,417.13	91.65	23.09	89.29	6,072.58	-793.15	1,357.74	1,260.12	97.62	13.909	
13,200.00	7,480.00	7,529.47	7,417.37	93.10	23.09	89.31	6,072.58	-793.15	1,289.02	1,188.19	100.83	12.784	
13,300.00	7,480.00	7,529.70	7,417.60	94.54	23.09	89.32	6,072.58	-793.15	1,224.61	1,120.39	104.22	11.751	
13,400.00	7,480.00	7,529.94	7,417.84	96.00	23.09	89.33	6,072.58	-793.15	1,165.24	1,057.51	107.73	10.817	
13,500.00	7,480.00	7,530.17	7,418.07	97.45	23.09	89.35	6,072.58	-793.15	1,111.71	1,000.44	111.27	9.991	
13,600.00	7,480.00	7,530.40	7,418.30	98.91	23.09	89.36	6,072.58	-793.14	1,064.89	950.18	114.71	9.283	
13,700.00	7,480.00	7,530.63	7,418.53	100.37	23.10	89.38	6,072.58	-793.14	1,025.72	907.83	117.89	8.701	
13,800.00	7,480.00	7,530.86	7,418.76	101.84	23.10	89.39	6,072.58	-793.14	995.09	874.50	120.60	8.251	
13,900.00	7,480.00	7,531.09	7,418.99	103.31	23.10	89.40	6,072.58	-793.14	973.82	851.19	122.62	7.942	
14,000.00	7,480.00	7,531.32	7,419.22	104.78	23.10	89.42	6,072.58	-793.13	962.51	838.73	123.78	7.776	
14,059.46	7,480.00	7,531.46	7,419.36	105.65	23.10	89.42	6,072.58	-793.13	960.67	836.67	124.00	7.747	CC, ES, SF
14,100.00	7,480.00	7,531.55	7,419.45	106.25	23.10	89.43	6,072.58	-793.13	961.53	837.58	123.95	7.757	
14,200.00	7,480.00	7,531.78	7,419.68	107.73	23.10	89.44	6,072.58	-793.13	970.90	847.80	123.10	7.887	
14,300.00	7,480.00	7,532.00	7,419.90	109.21	23.10	89.46	6,072.58	-793.13	990.33	869.01	121.31	8.163	
14,400.00	7,480.00	7,532.23	7,420.13	110.69	23.10	89.47	6,072.58	-793.12	1,019.24	900.50	118.74	8.584	
14,500.00	7,480.00	7,532.45	7,420.35	112.18	23.10	89.48	6,072.58	-793.12	1,056.86	941.27	115.59	9.143	
14,600.00	7,480.00	7,532.67	7,420.58	113.66	23.10	89.50	6,072.59	-793.12	1,102.30	990.23	112.07	9.836	
14,700.00	7,480.00	7,532.90	7,420.80	115.15	23.10	89.51	6,072.59	-793.12	1,154.63	1,046.26	108.37	10.655	
14,800.00	7,480.00	7,533.12	7,421.02	116.64	23.10	89.52	6,072.59	-793.12	1,212.96	1,108.33	104.64	11.592	
14,901.25	7,480.00	7,533.34	7,421.24	118.16	23.10	89.54	6,072.59	-793.11	1,277.30	1,176.35	100.95	12.653	

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Bros 31-26 - CPR WELL - GYRO												Offset Site Error:	0.00 usft
Survey Program: 100-VESSI_GYROFLEX												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
10,800.00	7,480.00	7,410.38	7,407.85	60.26	12.91	88.66	4,182.42	-1,380.00	1,418.51	1,358.48	60.03	23.630	
10,839.04	7,480.00	7,410.57	7,408.04	60.76	12.91	88.69	4,182.42	-1,380.00	1,381.40	1,321.00	60.41	22.869	
10,901.25	7,480.00	7,410.88	7,408.35	61.55	12.91	88.64	4,182.42	-1,380.00	1,322.28	1,261.25	61.03	21.667	
11,000.00	7,480.00	7,411.37	7,408.84	62.80	12.91	88.71	4,182.42	-1,379.99	1,228.70	1,166.60	62.10	19.785	
11,100.00	7,480.00	7,411.88	7,409.35	64.08	12.91	88.78	4,182.43	-1,379.99	1,134.82	1,071.45	63.37	17.907	
11,200.00	7,480.00	7,412.39	7,409.86	65.37	12.91	88.85	4,182.43	-1,379.98	1,042.09	977.23	64.87	16.065	
11,300.00	7,480.00	7,412.91	7,410.38	66.68	12.92	88.93	4,182.43	-1,379.98	950.83	884.19	66.64	14.268	
11,400.00	7,480.00	7,413.44	7,410.91	68.00	12.92	89.00	4,182.44	-1,379.98	861.52	792.76	68.75	12.530	
11,500.00	7,480.00	7,413.97	7,411.44	69.33	12.92	89.08	4,182.44	-1,379.97	774.82	703.53	71.29	10.869	
11,600.00	7,480.00	7,414.52	7,411.99	70.66	12.92	89.15	4,182.44	-1,379.97	691.71	617.41	74.31	9.309	
11,700.00	7,480.00	7,415.07	7,412.54	72.01	12.92	89.23	4,182.45	-1,379.97	613.67	535.83	77.84	7.883	
11,800.00	7,480.00	7,415.62	7,413.09	73.37	12.92	89.31	4,182.45	-1,379.96	542.88	461.08	81.80	6.636	
11,900.00	7,480.00	7,416.19	7,413.66	74.74	12.92	89.39	4,182.45	-1,379.96	482.54	396.75	85.78	5.625	
12,000.00	7,480.00	7,416.76	7,414.23	76.11	12.92	89.47	4,182.45	-1,379.95	437.00	348.15	88.85	4.918	
12,100.00	7,480.00	7,417.34	7,414.81	77.49	12.92	89.55	4,182.46	-1,379.95	411.21	321.67	89.54	4.593 SF	
12,159.39	7,480.00	7,417.69	7,415.16	78.32	12.92	89.60	4,182.46	-1,379.95	406.89	318.58	88.31	4.607 CC, ES	
12,200.00	7,480.00	7,417.93	7,415.40	78.88	12.92	89.63	4,182.46	-1,379.95	408.92	322.17	86.75	4.714	
12,300.00	7,480.00	7,418.53	7,416.00	80.28	12.92	89.72	4,182.47	-1,379.94	430.50	349.57	80.94	5.319	
12,400.00	7,480.00	7,419.14	7,416.61	81.68	12.93	89.80	4,182.47	-1,379.94	472.71	398.81	73.90	6.397	
12,500.00	7,480.00	7,419.76	7,417.23	83.09	12.93	89.89	4,182.47	-1,379.93	530.64	463.35	67.28	7.886	
12,600.00	7,480.00	7,420.38	7,417.85	84.50	12.93	89.98	4,182.48	-1,379.93	599.75	537.89	61.85	9.696	
12,700.00	7,480.00	7,421.01	7,418.48	85.92	12.93	90.07	4,182.48	-1,379.92	676.62	618.91	57.71	11.725	
12,800.00	7,480.00	7,421.66	7,419.13	87.35	12.93	90.16	4,182.48	-1,379.92	758.90	704.24	54.66	13.884	
12,900.00	7,480.00	7,422.31	7,419.78	88.78	12.93	90.25	4,182.49	-1,379.91	845.01	792.54	52.47	16.105	
13,000.00	7,480.00	7,422.97	7,420.44	90.21	12.93	90.34	4,182.49	-1,379.91	933.90	882.99	50.91	18.344	
13,100.00	7,480.00	7,423.65	7,421.12	91.65	12.93	90.44	4,182.50	-1,379.91	1,024.83	975.02	49.81	20.574	
13,200.00	7,480.00	7,424.33	7,421.80	93.10	12.93	90.54	4,182.50	-1,379.90	1,117.32	1,068.28	49.04	22.784	
13,300.00	7,480.00	7,425.03	7,422.49	94.54	12.94	90.63	4,182.51	-1,379.90	1,211.00	1,162.49	48.51	24.966	
13,400.00	7,480.00	7,425.73	7,423.20	96.00	12.94	90.73	4,182.51	-1,379.89	1,305.61	1,257.47	48.14	27.120	
13,500.00	7,480.00	7,426.45	7,423.92	97.45	12.94	90.83	4,182.51	-1,379.88	1,400.98	1,353.07	47.90	29.247	
13,600.00	7,480.00	7,427.17	7,424.64	98.91	12.94	90.94	4,182.52	-1,379.88	1,496.95	1,449.19	47.75	31.349	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Bros 32-26 - CPR - GYRO													Offset Site Error: 0.00 usft	
Survey Program: 100-VESSI_GYROFLEX													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	7,399.31	7,396.37	43.75	12.93	82.09	2,807.53	-1,669.48	1,482.11	1,429.57	52.54	28.208		
9,400.00	7,480.00	7,400.00	7,397.07	44.65	12.93	82.28	2,807.55	-1,669.46	1,383.10	1,330.32	52.79	26.202		
9,469.55	7,480.00	7,400.00	7,397.07	45.32	12.93	82.28	2,807.55	-1,669.46	1,314.32	1,261.35	52.97	24.811		
9,500.00	7,480.00	7,400.00	7,397.07	45.61	12.93	81.72	2,807.55	-1,669.46	1,284.22	1,231.15	53.06	24.203		
9,607.34	7,480.00	7,404.23	7,401.29	46.65	12.94	80.75	2,807.62	-1,669.40	1,177.83	1,124.46	53.36	22.072		
9,700.00	7,480.00	7,405.77	7,402.84	47.55	12.94	81.37	2,807.65	-1,669.37	1,085.89	1,032.27	53.62	20.251		
9,800.00	7,480.00	7,407.46	7,404.52	48.57	12.95	82.05	2,807.68	-1,669.35	986.82	932.87	53.95	18.291		
9,900.00	7,480.00	7,409.15	7,406.22	49.62	12.95	82.74	2,807.71	-1,669.32	887.96	833.60	54.36	16.335		
10,000.00	7,480.00	7,410.86	7,407.93	50.70	12.95	83.43	2,807.74	-1,669.29	789.38	734.51	54.87	14.387		
10,100.00	7,480.00	7,412.59	7,409.65	51.81	12.96	84.13	2,807.77	-1,669.26	691.20	635.68	55.52	12.449		
10,200.00	7,480.00	7,414.33	7,411.39	52.95	12.96	84.84	2,807.80	-1,669.24	593.63	537.24	56.40	10.526		
10,300.00	7,480.00	7,416.09	7,413.15	54.12	12.96	85.56	2,807.83	-1,669.21	497.02	439.41	57.61	8.627		
10,400.00	7,480.00	7,417.86	7,414.92	55.31	12.96	86.28	2,807.86	-1,669.18	402.06	342.66	59.40	6.769		
10,500.00	7,480.00	7,419.65	7,416.71	56.52	12.97	87.01	2,807.90	-1,669.15	310.27	248.12	62.16	4.992		
10,600.00	7,480.00	7,421.45	7,418.51	57.75	12.97	87.75	2,807.93	-1,669.12	225.56	159.04	66.52	3.391		
10,700.00	7,480.00	7,423.27	7,420.33	59.00	12.97	88.50	2,807.96	-1,669.09	159.63	88.07	71.56	2.231		
10,777.03	7,480.00	7,424.68	7,421.74	59.97	12.98	89.07	2,807.99	-1,669.07	139.82	70.52	69.30	2.018 CC, ES, SF		
10,800.00	7,480.00	7,425.10	7,422.16	60.26	12.98	89.25	2,808.00	-1,669.06	141.70	75.10	66.60	2.128		
10,839.04	7,480.00	7,425.83	7,422.88	60.76	12.98	89.54	2,808.01	-1,669.05	152.95	91.98	60.98	2.508		
10,901.25	7,480.00	7,426.99	7,424.05	61.55	12.98	90.02	2,808.03	-1,669.03	186.52	133.28	53.24	3.503		
11,000.00	7,480.00	7,428.87	7,425.93	62.80	12.98	90.78	2,808.07	-1,669.00	261.65	213.84	47.80	5.474		
11,100.00	7,480.00	7,430.79	7,427.85	64.08	12.99	91.55	2,808.10	-1,668.97	349.89	303.15	46.74	7.486		
11,200.00	7,480.00	7,432.73	7,429.79	65.37	12.99	92.34	2,808.14	-1,668.94	443.15	396.25	46.89	9.450		
11,300.00	7,480.00	7,434.69	7,431.74	66.68	12.99	93.12	2,808.18	-1,668.91	538.82	491.51	47.31	11.389		
11,400.00	7,480.00	7,436.66	7,433.72	68.00	13.00	93.92	2,808.21	-1,668.88	635.82	588.08	47.75	13.317		
11,500.00	7,480.00	7,438.66	7,435.71	69.33	13.00	94.71	2,808.25	-1,668.84	733.63	685.49	48.14	15.240		
11,600.00	7,480.00	7,440.67	7,437.72	70.66	13.00	95.52	2,808.29	-1,668.81	831.95	783.47	48.48	17.160		
11,700.00	7,480.00	7,442.70	7,439.75	72.01	13.01	96.33	2,808.33	-1,668.78	930.62	881.84	48.78	19.079		
11,800.00	7,480.00	7,444.75	7,441.80	73.37	13.01	97.14	2,808.37	-1,668.75	1,029.55	980.51	49.04	20.995		
11,900.00	7,480.00	7,446.82	7,443.87	74.74	13.01	97.96	2,808.41	-1,668.71	1,128.66	1,079.39	49.26	22.910		
12,000.00	7,480.00	7,448.90	7,445.96	76.11	13.02	98.78	2,808.45	-1,668.68	1,227.91	1,178.44	49.47	24.823		
12,100.00	7,480.00	7,451.01	7,448.06	77.49	13.02	99.60	2,808.49	-1,668.64	1,327.27	1,277.62	49.65	26.734		
12,200.00	7,480.00	7,453.14	7,450.19	78.88	13.03	100.43	2,808.53	-1,668.61	1,426.72	1,376.91	49.81	28.643		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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
12,400.00	7,480.00	7,447.04	7,444.69	81.68	6.51	91.48	5,770.93	-1,112.64	1,498.94	1,432.15	66.79	22.441	
12,500.00	7,480.00	7,445.28	7,442.94	83.09	6.51	91.32	5,770.96	-1,112.65	1,409.38	1,340.58	68.80	20.485	
12,600.00	7,480.00	7,443.54	7,441.19	84.50	6.51	91.17	5,770.99	-1,112.66	1,321.32	1,250.27	71.05	18.596	
12,700.00	7,480.00	7,441.80	7,439.46	85.92	6.50	91.02	5,771.02	-1,112.68	1,235.08	1,161.49	73.59	16.783	
12,800.00	7,480.00	7,440.07	7,437.73	87.35	6.50	90.86	5,771.04	-1,112.69	1,151.06	1,074.62	76.44	15.058	
12,900.00	7,480.00	7,438.35	7,436.01	88.78	6.50	90.71	5,771.07	-1,112.70	1,069.80	990.16	79.63	13.434	
13,000.00	7,480.00	7,436.64	7,434.30	90.21	6.50	90.56	5,771.10	-1,112.72	991.96	908.77	83.18	11.925	
13,100.00	7,480.00	7,434.93	7,432.59	91.65	6.50	90.41	5,771.13	-1,112.73	918.42	831.34	87.08	10.547	
13,200.00	7,480.00	7,433.24	7,430.90	93.10	6.50	90.26	5,771.15	-1,112.75	850.29	759.05	91.24	9.319	
13,300.00	7,480.00	7,431.55	7,429.21	94.54	6.49	90.11	5,771.18	-1,112.76	788.98	693.46	95.52	8.260	
13,400.00	7,480.00	7,429.87	7,427.53	96.00	6.49	89.96	5,771.21	-1,112.78	736.19	636.58	99.61	7.391	
13,500.00	7,480.00	7,428.20	7,425.86	97.45	6.49	89.81	5,771.23	-1,112.79	693.88	590.80	103.08	6.731	
13,600.00	7,480.00	7,426.54	7,424.20	98.91	6.49	89.66	5,771.26	-1,112.81	664.04	558.69	105.35	6.303	
13,700.00	7,480.00	7,424.88	7,422.54	100.37	6.49	89.52	5,771.28	-1,112.82	648.40	542.52	105.89	6.124 SF	
13,752.64	7,480.00	7,424.02	7,421.68	101.14	6.49	89.44	5,771.30	-1,112.83	646.26	540.91	105.35	6.134 CC, ES	
13,800.00	7,480.00	7,423.24	7,420.90	101.84	6.49	89.37	5,771.31	-1,112.84	648.00	543.62	104.38	6.208	
13,900.00	7,480.00	7,421.60	7,419.26	103.31	6.49	89.23	5,771.33	-1,112.85	662.85	561.90	100.94	6.566	
14,000.00	7,480.00	7,419.97	7,417.63	104.78	6.48	89.08	5,771.36	-1,112.87	691.97	595.90	96.07	7.202	
14,100.00	7,480.00	7,418.34	7,416.01	106.25	6.48	88.94	5,771.38	-1,112.89	733.68	643.25	90.43	8.113	
14,200.00	7,480.00	7,416.73	7,414.39	107.73	6.48	88.79	5,771.41	-1,112.90	785.96	701.36	84.60	9.290	
14,300.00	7,480.00	7,415.12	7,412.78	109.21	6.48	88.65	5,771.43	-1,112.92	846.86	767.84	79.02	10.717	
14,400.00	7,480.00	7,413.52	7,411.18	110.69	6.48	88.51	5,771.46	-1,112.94	914.67	840.75	73.92	12.374	
14,500.00	7,480.00	7,411.93	7,409.59	112.18	6.48	88.37	5,771.48	-1,112.95	987.96	918.56	69.40	14.236	
14,600.00	7,480.00	7,410.34	7,408.00	113.66	6.48	88.23	5,771.51	-1,112.97	1,065.59	1,000.13	65.47	16.277	
14,700.00	7,480.00	7,408.76	7,406.43	115.15	6.48	88.09	5,771.53	-1,112.99	1,146.70	1,084.61	62.08	18.470	
14,800.00	7,480.00	7,407.19	7,404.86	116.64	6.47	87.95	5,771.56	-1,113.00	1,230.59	1,171.39	59.20	20.788	
14,901.25	7,480.00	7,405.61	7,403.27	118.16	6.47	87.81	5,771.58	-1,113.02	1,317.81	1,261.10	56.72	23.235	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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							
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
10,300.00	7,480.00	7,437.99	7,437.99	54.12	12.98	90.00	3,149.18	-552.45	1,497.98	1,430.99	66.99	22.360	
10,400.00	7,480.00	7,437.99	7,437.99	55.31	12.98	90.00	3,149.18	-552.45	1,446.12	1,377.86	68.26	21.185	
10,500.00	7,480.00	7,437.99	7,437.99	56.52	12.98	90.00	3,149.18	-552.45	1,399.49	1,329.99	69.50	20.137	
10,600.00	7,480.00	7,437.99	7,437.99	57.75	12.98	90.00	3,149.18	-552.45	1,358.63	1,287.95	70.67	19.224	
10,700.00	7,480.00	7,437.99	7,437.99	59.00	12.98	90.00	3,149.18	-552.45	1,324.07	1,252.33	71.74	18.456	
10,800.00	7,480.00	7,437.99	7,437.99	60.26	12.98	90.00	3,149.18	-552.45	1,296.33	1,223.67	72.66	17.842	
10,839.04	7,480.00	7,437.99	7,437.99	60.76	12.98	90.00	3,149.18	-552.45	1,287.45	1,214.49	72.97	17.645	
10,901.25	7,480.00	7,437.99	7,437.99	61.55	12.98	90.00	3,149.18	-552.45	1,274.97	1,201.59	73.38	17.375	
11,000.00	7,480.00	7,437.99	7,437.99	62.80	12.98	90.00	3,149.18	-552.45	1,260.17	1,186.32	73.85	17.065	
11,100.00	7,480.00	7,437.99	7,437.99	64.08	12.98	90.00	3,149.18	-552.45	1,252.95	1,178.88	74.06	16.918	
11,140.71	7,480.00	7,437.99	7,437.99	64.61	12.98	90.00	3,149.18	-552.45	1,252.28	1,178.21	74.07	16.906 CC, ES, SF	
11,200.00	7,480.00	7,437.99	7,437.99	65.37	12.98	90.00	3,149.18	-552.45	1,253.69	1,179.68	74.01	16.940	
11,300.00	7,480.00	7,437.99	7,437.99	66.68	12.98	90.00	3,149.18	-552.45	1,262.38	1,188.69	73.69	17.131	
11,400.00	7,480.00	7,437.99	7,437.99	68.00	12.98	90.00	3,149.18	-552.45	1,278.85	1,205.73	73.12	17.490	
11,500.00	7,480.00	7,437.99	7,437.99	69.33	12.98	90.00	3,149.18	-552.45	1,302.81	1,230.47	72.34	18.010	
11,600.00	7,480.00	7,437.99	7,437.99	70.66	12.98	90.00	3,149.18	-552.45	1,333.85	1,262.47	71.38	18.687	
11,700.00	7,480.00	7,437.99	7,437.99	72.01	12.98	90.00	3,149.18	-552.45	1,371.50	1,301.21	70.29	19.511	
11,800.00	7,480.00	7,437.99	7,437.99	73.37	12.98	90.00	3,149.18	-552.45	1,415.23	1,346.11	69.12	20.474	
11,900.00	7,480.00	7,437.99	7,437.99	74.74	12.98	90.00	3,149.18	-552.45	1,464.49	1,396.59	67.91	21.566	

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Brothers 33-23C - EXTRACTION - NO SURVEYS											Offset Site Error:		0.00 usft
Survey Program: 8100-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
13,300.00	7,480.00	7,403.99	7,403.99	94.54	12.92	90.00	6,687.19	-1,267.64	1,446.10	1,374.14	71.95	20.097	
13,400.00	7,480.00	7,403.99	7,403.99	96.00	12.92	90.00	6,687.19	-1,267.64	1,352.06	1,278.16	73.89	18.297	
13,500.00	7,480.00	7,403.99	7,403.99	97.45	12.92	90.00	6,687.19	-1,267.64	1,258.94	1,182.82	76.12	16.539	
13,600.00	7,480.00	7,403.99	7,403.99	98.91	12.92	90.00	6,687.19	-1,267.64	1,166.95	1,088.26	78.69	14.829	
13,700.00	7,480.00	7,403.99	7,403.99	100.37	12.92	90.00	6,687.19	-1,267.64	1,076.40	994.72	81.68	13.179	
13,800.00	7,480.00	7,403.99	7,403.99	101.84	12.92	90.00	6,687.19	-1,267.64	987.67	902.51	85.16	11.598	
13,900.00	7,480.00	7,403.99	7,403.99	103.31	12.92	90.00	6,687.19	-1,267.64	901.31	812.08	89.23	10.101	
14,000.00	7,480.00	7,403.99	7,403.99	104.78	12.92	90.00	6,687.19	-1,267.64	818.06	724.08	93.98	8.705	
14,100.00	7,480.00	7,403.99	7,403.99	106.25	12.92	90.00	6,687.19	-1,267.64	738.97	639.51	99.47	7.429	
14,200.00	7,480.00	7,403.99	7,403.99	107.73	12.92	90.00	6,687.19	-1,267.64	665.54	559.86	105.67	6.298	
14,300.00	7,480.00	7,403.99	7,403.99	109.21	12.92	90.00	6,687.19	-1,267.64	599.84	487.46	112.37	5.338	
14,400.00	7,480.00	7,403.99	7,403.99	110.69	12.92	90.00	6,687.19	-1,267.64	544.67	425.74	118.93	4.580	
14,500.00	7,480.00	7,403.99	7,403.99	112.18	12.92	90.00	6,687.19	-1,267.64	503.51	379.36	124.15	4.056	
14,600.00	7,480.00	7,403.99	7,403.99	113.66	12.92	90.00	6,687.19	-1,267.64	479.98	353.57	126.41	3.797	
14,665.70	7,480.00	7,403.99	7,403.99	114.64	12.92	90.00	6,687.19	-1,267.64	475.47	349.84	125.62	3.785 CC, ES, SF	
14,700.00	7,480.00	7,403.99	7,403.99	115.15	12.92	90.00	6,687.19	-1,267.64	476.70	352.26	124.44	3.831	
14,800.00	7,480.00	7,403.99	7,403.99	116.64	12.92	90.00	6,687.19	-1,267.64	494.07	375.72	118.35	4.175	
14,901.25	7,480.00	7,403.99	7,403.99	118.16	12.92	90.00	6,687.19	-1,267.64	530.62	421.09	109.53	4.844	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Grant Brothers 34-23C - EXTRACTION - GYRO												Offset Site Error:	0.00 usft
Survey Program: 100-VESSI_GYROFLEX, 8090-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)					
12,000.00	7,480.00	7,420.45	7,419.69	76.11	12.22	89.69	5,447.37	-1,339.17	1,487.02	1,423.47	63.55	23.399	
12,100.00	7,480.00	7,420.83	7,420.08	77.49	12.22	89.74	5,447.37	-1,339.17	1,391.50	1,326.69	64.81	21.471	
12,200.00	7,480.00	7,421.21	7,420.46	78.88	12.22	89.79	5,447.37	-1,339.17	1,296.65	1,230.39	66.26	19.570	
12,300.00	7,480.00	7,421.60	7,420.85	80.28	12.22	89.84	5,447.38	-1,339.17	1,202.64	1,134.70	67.94	17.702	
12,400.00	7,480.00	7,421.98	7,421.23	81.68	12.22	89.90	5,447.38	-1,339.18	1,109.67	1,039.77	69.90	15.875	
12,500.00	7,480.00	7,422.37	7,421.61	83.09	12.22	89.95	5,447.38	-1,339.18	1,018.04	945.83	72.21	14.098	
12,600.00	7,480.00	7,422.75	7,422.00	84.50	12.22	90.00	5,447.38	-1,339.18	928.14	853.19	74.95	12.384	
12,700.00	7,480.00	7,423.14	7,422.38	85.92	12.22	90.05	5,447.38	-1,339.19	840.52	762.33	78.20	10.749	
12,800.00	7,480.00	7,423.52	7,422.77	87.35	12.22	90.10	5,447.38	-1,339.19	755.99	673.92	82.06	9.212	
12,900.00	7,480.00	7,423.90	7,423.15	88.78	12.22	90.16	5,447.38	-1,339.19	675.68	589.07	86.62	7.801	
13,000.00	7,480.00	7,424.29	7,423.54	90.21	12.22	90.21	5,447.39	-1,339.19	601.32	509.46	91.86	6.546	
13,100.00	7,480.00	7,424.67	7,423.92	91.65	12.22	90.26	5,447.39	-1,339.20	535.37	437.83	97.54	5.489	
13,200.00	7,480.00	7,425.06	7,424.30	93.10	12.22	90.31	5,447.39	-1,339.20	481.30	378.35	102.95	4.675	
13,300.00	7,480.00	7,425.44	7,424.69	94.54	12.22	90.36	5,447.39	-1,339.20	443.49	336.82	106.67	4.158	
13,400.00	7,480.00	7,425.82	7,425.07	96.00	12.22	90.41	5,447.39	-1,339.21	426.28	319.36	106.92	3.987 SF	
13,424.84	7,480.00	7,425.92	7,425.17	96.36	12.22	90.43	5,447.39	-1,339.21	425.56	319.25	106.30	4.003 CC, ES	
13,500.00	7,480.00	7,426.21	7,425.46	97.45	12.22	90.47	5,447.39	-1,339.21	432.14	329.34	102.80	4.204	
13,600.00	7,480.00	7,426.59	7,425.84	98.91	12.22	90.52	5,447.40	-1,339.21	460.19	364.88	95.32	4.828	
13,700.00	7,480.00	7,426.98	7,426.23	100.37	12.22	90.57	5,447.40	-1,339.21	506.77	420.18	86.59	5.853	
13,800.00	7,480.00	7,427.36	7,426.61	101.84	12.23	90.62	5,447.40	-1,339.22	567.31	488.99	78.32	7.244	
13,900.00	7,480.00	7,427.75	7,426.99	103.31	12.23	90.67	5,447.40	-1,339.22	637.87	566.56	71.31	8.946	
14,000.00	7,480.00	7,428.13	7,427.38	104.78	12.23	90.72	5,447.40	-1,339.22	715.48	649.79	65.69	10.892	
14,100.00	7,480.00	7,428.51	7,427.76	106.25	12.23	90.78	5,447.40	-1,339.23	798.08	736.77	61.31	13.017	
14,200.00	7,480.00	7,428.90	7,428.15	107.73	12.23	90.83	5,447.40	-1,339.23	884.29	826.33	57.96	15.258	
14,300.00	7,480.00	7,429.28	7,428.53	109.21	12.23	90.88	5,447.41	-1,339.23	973.14	917.74	55.40	17.566	
14,400.00	7,480.00	7,429.67	7,428.91	110.69	12.23	90.93	5,447.41	-1,339.23	1,063.97	1,010.51	53.46	19.903	
14,500.00	7,480.00	7,430.05	7,429.30	112.18	12.23	90.98	5,447.41	-1,339.24	1,156.31	1,104.33	51.99	22.243	
14,600.00	7,480.00	7,430.44	7,429.68	113.66	12.23	91.03	5,447.41	-1,339.24	1,249.83	1,198.96	50.87	24.570	
14,700.00	7,480.00	7,430.82	7,430.07	115.15	12.23	91.09	5,447.41	-1,339.24	1,344.29	1,294.27	50.02	26.873	
14,800.00	7,480.00	7,431.20	7,430.45	116.64	12.23	91.14	5,447.41	-1,339.24	1,439.49	1,390.11	49.39	29.148	

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Johnson 1 - KPK - NO SURVEYS												Offset Site Error:	0.00 usft
Survey Program: 5085-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	-89.49	13.05	-1,465.31	1,466.23				
100.00	100.00	50.00	50.00	0.14	0.09	-89.49	13.05	-1,465.31	1,465.37	1,465.14	0.23	6,431.936	
200.00	200.00	150.00	150.00	0.50	0.27	-89.49	13.05	-1,465.31	1,465.37	1,464.61	0.77	1,914.191	
300.00	300.00	250.00	250.00	0.85	0.45	-89.49	13.05	-1,465.31	1,465.37	1,464.07	1.30	1,124.412	
400.00	400.00	350.00	350.00	1.21	0.63	-89.49	13.05	-1,465.31	1,465.37	1,463.53	1.84	795.993	
500.00	499.98	449.98	449.98	1.56	0.81	20.72	13.05	-1,465.31	1,463.74	1,461.37	2.37	618.078	
600.00	599.84	549.84	549.84	1.91	0.99	20.82	13.05	-1,465.31	1,458.85	1,455.95	2.89	504.123	
700.00	699.45	649.45	649.45	2.26	1.16	21.00	13.05	-1,465.31	1,450.70	1,447.27	3.43	423.387	
800.00	798.70	748.70	748.70	2.64	1.34	21.26	13.05	-1,465.31	1,439.32	1,435.36	3.96	363.050	
900.00	897.47	847.47	847.47	3.03	1.52	21.60	13.05	-1,465.31	1,424.74	1,420.23	4.51	316.047	
1,000.00	995.62	945.62	945.62	3.44	1.70	22.02	13.05	-1,465.31	1,406.98	1,401.92	5.06	278.202	
1,100.00	1,093.06	1,043.06	1,043.06	3.89	1.87	22.53	13.05	-1,465.31	1,386.09	1,380.47	5.61	246.908	
1,151.35	1,142.76	1,092.76	1,092.76	4.13	1.96	22.83	13.05	-1,465.31	1,374.16	1,368.25	5.91	232.710	
1,200.00	1,189.75	1,139.75	1,139.75	4.37	2.04	23.03	13.05	-1,465.31	1,362.48	1,356.30	6.18	220.522	
1,300.00	1,286.33	1,236.33	1,236.33	4.86	2.22	23.46	13.05	-1,465.31	1,338.53	1,331.79	6.74	198.557	
1,400.00	1,382.91	1,332.91	1,332.91	5.37	2.39	23.91	13.05	-1,465.31	1,314.66	1,307.35	7.31	179.810	
1,500.00	1,479.49	1,429.49	1,429.49	5.88	2.56	24.37	13.05	-1,465.31	1,290.86	1,282.98	7.89	163.654	
1,600.00	1,576.07	1,526.07	1,526.07	6.41	2.74	24.86	13.05	-1,465.31	1,267.15	1,258.68	8.47	149.609	
1,700.00	1,672.65	1,622.65	1,622.65	6.93	2.91	25.35	13.05	-1,465.31	1,243.53	1,234.48	9.06	137.302	
1,800.00	1,769.23	1,719.23	1,719.23	7.46	3.08	25.87	13.05	-1,465.31	1,220.00	1,210.36	9.65	126.439	
1,900.00	1,865.82	1,815.82	1,815.82	8.00	3.25	26.41	13.05	-1,465.31	1,196.58	1,186.33	10.25	116.788	
2,000.00	1,962.40	1,912.40	1,912.40	8.53	3.43	26.97	13.05	-1,465.31	1,173.25	1,162.40	10.85	108.162	
2,100.00	2,058.98	2,008.98	2,008.98	9.07	3.60	27.55	13.05	-1,465.31	1,150.04	1,138.59	11.45	100.411	
2,200.00	2,155.56	2,105.56	2,105.56	9.61	3.77	28.16	13.05	-1,465.31	1,126.95	1,114.88	12.06	93.413	
2,300.00	2,252.14	2,202.14	2,202.14	10.15	3.95	28.79	13.05	-1,465.31	1,103.98	1,091.30	12.68	87.065	
2,400.00	2,348.72	2,298.72	2,298.72	10.69	4.12	29.44	13.05	-1,465.31	1,081.14	1,067.84	13.30	81.285	
2,500.00	2,445.30	2,395.30	2,395.30	11.24	4.29	30.13	13.05	-1,465.31	1,058.45	1,044.53	13.93	76.001	
2,600.00	2,541.88	2,491.88	2,491.88	11.78	4.47	30.84	13.05	-1,465.31	1,035.91	1,021.35	14.56	71.155	
2,700.00	2,638.46	2,588.46	2,588.46	12.32	4.64	31.58	13.05	-1,465.31	1,013.54	998.34	15.20	66.698	
2,800.00	2,735.04	2,685.04	2,685.04	12.87	4.81	32.36	13.05	-1,465.31	991.33	975.49	15.84	62.585	
2,900.00	2,831.62	2,781.62	2,781.62	13.42	4.99	33.17	13.05	-1,465.31	969.31	952.82	16.49	58.782	
3,000.00	2,928.20	2,878.20	2,878.20	13.96	5.16	34.02	13.05	-1,465.31	947.49	930.34	17.15	55.256	
3,100.00	3,024.78	2,974.78	2,974.78	14.51	5.33	34.91	13.05	-1,465.31	925.88	908.07	17.81	51.980	
3,200.00	3,121.36	3,071.36	3,071.36	15.06	5.51	35.84	13.05	-1,465.31	904.50	886.01	18.48	48.932	
3,300.00	3,217.94	3,167.94	3,167.94	15.61	5.68	36.81	13.05	-1,465.31	883.36	864.19	19.17	46.090	
3,400.00	3,314.52	3,264.52	3,264.52	16.15	5.85	37.83	13.05	-1,465.31	862.48	842.62	19.86	43.437	
3,500.00	3,411.10	3,361.10	3,361.10	16.70	6.02	38.90	13.05	-1,465.31	841.88	821.32	20.56	40.956	
3,600.00	3,507.68	3,457.68	3,457.68	17.25	6.20	40.02	13.05	-1,465.31	821.58	800.32	21.27	38.635	
3,700.00	3,604.26	3,554.26	3,554.26	17.80	6.37	41.19	13.05	-1,465.31	801.61	779.63	21.99	36.461	
3,800.00	3,700.84	3,650.84	3,650.84	18.35	6.54	42.43	13.05	-1,465.31	781.99	759.27	22.72	34.423	
3,900.00	3,797.42	3,747.42	3,747.42	18.90	6.72	43.72	13.05	-1,465.31	762.74	739.28	23.46	32.512	
4,000.00	3,894.00	3,844.00	3,844.00	19.45	6.89	45.07	13.05	-1,465.31	743.90	719.69	24.22	30.720	
4,100.00	3,990.58	3,940.58	3,940.58	20.00	7.06	46.50	13.05	-1,465.31	725.50	700.52	24.98	29.039	
4,200.00	4,087.16	4,037.16	4,037.16	20.55	7.24	47.99	13.05	-1,465.31	707.57	681.81	25.76	27.463	
4,300.00	4,183.75	4,133.75	4,133.75	21.10	7.41	49.56	13.05	-1,465.31	690.15	663.59	26.56	25.986	
4,400.00	4,280.33	4,230.33	4,230.33	21.65	7.58	51.21	13.05	-1,465.31	673.28	645.91	27.37	24.603	
4,500.00	4,376.91	4,326.91	4,326.91	22.20	7.76	52.93	13.05	-1,465.31	656.99	628.81	28.19	23.309	
4,600.00	4,473.49	4,423.49	4,423.49	22.75	7.93	54.74	13.05	-1,465.31	641.35	612.33	29.02	22.101	
4,700.00	4,570.07	4,520.07	4,520.07	23.30	8.10	56.63	13.05	-1,465.31	626.38	596.51	29.86	20.974	
4,800.00	4,666.65	4,616.65	4,616.65	23.85	8.27	58.61	13.05	-1,465.31	612.15	581.43	30.72	19.927	
4,900.00	4,763.23	4,713.23	4,713.23	24.40	8.45	60.67	13.05	-1,465.31	598.70	567.11	31.59	18.955	
5,000.00	4,859.81	4,809.81	4,809.81	24.96	8.62	62.82	13.05	-1,465.31	586.09	553.63	32.46	18.057	

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Johnson 1 - KPK - NO SURVEYS													Offset Site Error:	0.00 usft
Survey Program: 5085-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		
5,100.00	4,956.39	4,906.39	4,906.39	25.51	8.79	65.06	13.05	-1,465.31	574.37	541.04	33.33	17.231		
5,200.00	5,052.97	5,002.97	5,002.97	26.06	8.97	67.38	13.05	-1,465.31	563.61	529.39	34.21	16.474		
5,300.00	5,149.55	5,085.00	5,085.00	26.61	9.11	69.41	13.05	-1,465.31	554.04	518.95	35.09	15.790		
5,337.12	5,185.40	5,085.00	5,085.00	26.81	9.11	69.41	13.05	-1,465.31	552.79	517.49	35.30	15.659	CC, ES, SF	
5,400.00	5,246.13	5,085.00	5,085.00	27.16	9.11	69.41	13.05	-1,465.31	556.36	521.04	35.32	15.754		
5,500.00	5,342.71	5,085.00	5,085.00	27.71	9.11	69.41	13.05	-1,465.31	576.29	541.79	34.50	16.705		
5,600.00	5,439.29	5,085.00	5,085.00	28.26	9.11	69.41	13.05	-1,465.31	612.12	579.22	32.90	18.605		
5,700.00	5,535.87	5,085.00	5,085.00	28.82	9.11	69.41	13.05	-1,465.31	661.26	630.37	30.89	21.410		
5,800.00	5,632.45	5,085.00	5,085.00	29.37	9.11	69.41	13.05	-1,465.31	721.00	692.24	28.76	25.071		
5,900.00	5,729.03	5,085.00	5,085.00	29.92	9.11	69.41	13.05	-1,465.31	788.93	762.22	26.71	29.536		
6,000.00	5,825.61	5,085.00	5,085.00	30.47	9.11	69.41	13.05	-1,465.31	863.13	838.29	24.84	34.748		
6,100.00	5,922.19	5,085.00	5,085.00	31.02	9.11	69.41	13.05	-1,465.31	942.11	918.93	23.18	40.649		
6,200.00	6,018.77	5,085.00	5,085.00	31.57	9.11	69.41	13.05	-1,465.31	1,024.77	1,003.05	21.72	47.179		
6,300.00	6,115.35	5,085.00	5,085.00	32.13	9.11	69.41	13.05	-1,465.31	1,110.28	1,089.82	20.46	54.278		
6,400.00	6,211.93	5,085.00	5,085.00	32.68	9.11	69.41	13.05	-1,465.31	1,198.04	1,178.68	19.36	61.886		
6,500.00	6,308.51	5,085.00	5,085.00	33.23	9.11	69.41	13.05	-1,465.31	1,287.58	1,269.18	18.41	69.943		
6,600.00	6,405.09	5,085.00	5,085.00	33.78	9.11	69.41	13.05	-1,465.31	1,378.57	1,360.98	17.59	78.390		
6,700.00	6,501.68	5,085.00	5,085.00	34.33	9.11	69.41	13.05	-1,465.31	1,470.72	1,453.85	16.87	87.171		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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							
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	13.03	93.03	21.54	99.51				
100.00	100.00	71.99	71.99	0.14	0.13	13.03	93.03	21.54	95.49	95.22	0.26	361.893	
200.00	200.00	171.99	171.99	0.50	0.30	13.03	93.03	21.54	95.49	94.69	0.80	119.830	
300.00	300.00	271.99	271.99	0.85	0.47	13.03	93.03	21.54	95.49	94.16	1.33	71.803	
400.00	400.00	371.99	371.99	1.21	0.65	13.03	93.03	21.54	95.49	93.62	1.86	51.259 CC, ES	
500.00	499.98	471.97	471.97	1.56	0.82	124.06	93.03	21.54	96.45	94.07	2.39	40.432	
600.00	599.84	571.83	571.83	1.91	1.00	126.50	93.03	21.54	99.48	96.57	2.91	34.228	
700.00	699.45	671.44	671.44	2.26	1.17	130.24	93.03	21.54	104.91	101.47	3.44	30.530	
800.00	798.70	770.69	770.69	2.64	1.35	134.82	93.03	21.54	113.19	109.21	3.97	28.483	
900.00	897.47	869.46	869.46	3.03	1.52	139.74	93.03	21.54	124.75	120.24	4.52	27.616 SF	
1,000.00	995.62	967.61	967.61	3.44	1.69	144.59	93.03	21.54	139.94	134.88	5.07	27.628	
1,100.00	1,093.06	1,065.05	1,065.05	3.89	1.86	149.06	93.03	21.54	158.93	153.32	5.61	28.305	
1,151.35	1,142.76	1,114.75	1,114.75	4.13	1.95	151.16	93.03	21.54	170.18	164.28	5.90	28.845	
1,200.00	1,189.75	1,161.74	1,161.74	4.37	2.03	153.07	93.03	21.54	181.41	175.25	6.17	29.424	
1,300.00	1,286.33	1,258.32	1,258.32	4.86	2.20	156.34	93.03	21.54	205.01	198.30	6.71	30.569	
1,400.00	1,382.91	1,354.90	1,354.90	5.37	2.36	158.93	93.03	21.54	229.11	221.86	7.25	31.611	
1,500.00	1,479.49	1,451.48	1,451.48	5.88	2.53	161.03	93.03	21.54	253.57	245.78	7.79	32.551	
1,600.00	1,576.07	1,548.06	1,548.06	6.41	2.70	162.76	93.03	21.54	278.29	269.96	8.33	33.397	
1,700.00	1,672.65	1,644.64	1,644.64	6.93	2.87	164.21	93.03	21.54	303.22	294.34	8.88	34.158	
1,800.00	1,769.23	1,741.22	1,741.22	7.46	3.04	165.44	93.03	21.54	328.30	318.88	9.42	34.844	
1,900.00	1,865.82	1,837.81	1,837.81	8.00	3.21	166.49	93.03	21.54	353.51	343.54	9.97	35.463	
2,000.00	1,962.40	1,934.39	1,934.39	8.53	3.38	167.41	93.03	21.54	378.81	368.29	10.52	36.024	
2,100.00	2,058.98	2,030.97	2,030.97	9.07	3.54	168.21	93.03	21.54	404.19	393.13	11.06	36.533	
2,200.00	2,155.56	2,127.55	2,127.55	9.61	3.71	168.91	93.03	21.54	429.64	418.02	11.61	36.998	
2,300.00	2,252.14	2,224.13	2,224.13	10.15	3.88	169.54	93.03	21.54	455.14	442.97	12.16	37.423	
2,400.00	2,348.72	2,320.71	2,320.71	10.69	4.05	170.10	93.03	21.54	480.68	467.97	12.71	37.813	
2,500.00	2,445.30	2,417.29	2,417.29	11.24	4.22	170.60	93.03	21.54	506.27	493.00	13.26	38.171	
2,600.00	2,541.88	2,513.87	2,513.87	11.78	4.39	171.06	93.03	21.54	531.89	518.07	13.81	38.502	
2,700.00	2,638.46	2,610.45	2,610.45	12.32	4.56	171.47	93.03	21.54	557.53	543.17	14.37	38.809	
2,800.00	2,735.04	2,707.03	2,707.03	12.87	4.72	171.85	93.03	21.54	583.20	568.29	14.92	39.093	
2,900.00	2,831.62	2,803.61	2,803.61	13.42	4.89	172.20	93.03	21.54	608.90	593.43	15.47	39.357	
3,000.00	2,928.20	2,900.19	2,900.19	13.96	5.06	172.51	93.03	21.54	634.61	618.59	16.02	39.603	
3,100.00	3,024.78	2,996.77	2,996.77	14.51	5.23	172.81	93.03	21.54	660.34	643.76	16.58	39.833	
3,200.00	3,121.36	3,093.35	3,093.35	15.06	5.40	173.08	93.03	21.54	686.08	668.95	17.13	40.048	
3,300.00	3,217.94	3,189.93	3,189.93	15.61	5.57	173.33	93.03	21.54	711.84	694.15	17.69	40.250	
3,400.00	3,314.52	3,286.51	3,286.51	16.15	5.74	173.56	93.03	21.54	737.61	719.37	18.24	40.439	
3,500.00	3,411.10	3,383.09	3,383.09	16.70	5.90	173.78	93.03	21.54	763.39	744.59	18.79	40.618	
3,600.00	3,507.68	3,479.67	3,479.67	17.25	6.07	173.99	93.03	21.54	789.18	769.83	19.35	40.786	
3,700.00	3,604.26	3,576.25	3,576.25	17.80	6.24	174.18	93.03	21.54	814.98	795.07	19.90	40.945	
3,800.00	3,700.84	3,672.83	3,672.83	18.35	6.41	174.36	93.03	21.54	840.78	820.32	20.46	41.095	
3,900.00	3,797.42	3,769.41	3,769.41	18.90	6.58	174.52	93.03	21.54	866.60	845.58	21.01	41.237	
4,000.00	3,894.00	3,865.99	3,865.99	19.45	6.75	174.68	93.03	21.54	892.42	870.85	21.57	41.372	
4,100.00	3,990.58	3,962.57	3,962.57	20.00	6.92	174.83	93.03	21.54	918.24	896.12	22.13	41.501	
4,200.00	4,087.16	4,059.15	4,059.15	20.55	7.08	174.97	93.03	21.54	944.07	921.39	22.68	41.622	
4,300.00	4,183.75	4,155.74	4,155.74	21.10	7.25	175.11	93.03	21.54	969.91	946.67	23.24	41.738	
4,400.00	4,280.33	4,252.32	4,252.32	21.65	7.42	175.24	93.03	21.54	995.75	971.96	23.79	41.849	
4,500.00	4,376.91	4,348.90	4,348.90	22.20	7.59	175.36	93.03	21.54	1,021.60	997.25	24.35	41.954	
4,600.00	4,473.49	4,445.48	4,445.48	22.75	7.76	175.47	93.03	21.54	1,047.45	1,022.54	24.91	42.055	
4,700.00	4,570.07	4,542.06	4,542.06	23.30	7.93	175.58	93.03	21.54	1,073.30	1,047.84	25.46	42.151	
4,800.00	4,666.65	4,638.64	4,638.64	23.85	8.10	175.68	93.03	21.54	1,099.16	1,073.14	26.02	42.243	
4,900.00	4,763.23	4,735.22	4,735.22	24.40	8.26	175.78	93.03	21.54	1,125.02	1,098.44	26.58	42.331	
5,000.00	4,859.81	4,831.80	4,831.80	24.96	8.43	175.88	93.03	21.54	1,150.88	1,123.75	27.13	42.416	

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R68W - Meredith 1 - KPK WELL - NO SURVEYS													<b>Offset Site Error:</b> 0.00 usft
Survey Program: 5120-Geolink MWD													<b>Offset Well Error:</b> 0.00 usft
Reference		Offset		Semi Major Axis		Distance		Total		Separation		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)	Uncertainty Axis	Factor	
5,100.00	4,956.39	4,928.38	4,928.38	25.51	8.60	175.97	93.03	21.54	1,176.75	1,149.06	27.69	42.497	
5,200.00	5,052.97	5,024.96	5,024.96	26.06	8.77	176.06	93.03	21.54	1,202.62	1,174.37	28.25	42.574	
5,300.00	5,149.55	5,119.99	5,119.99	26.61	8.94	176.14	93.03	21.54	1,228.49	1,199.69	28.80	42.662	
5,400.00	5,246.13	5,119.99	5,119.99	27.16	8.94	176.14	93.03	21.54	1,258.19	1,229.45	28.75	43.768	
5,500.00	5,342.71	5,119.99	5,119.99	27.71	8.94	176.14	93.03	21.54	1,294.96	1,266.40	28.56	45.338	
5,600.00	5,439.29	5,119.99	5,119.99	28.26	8.94	176.14	93.03	21.54	1,338.20	1,309.93	28.27	47.340	
5,700.00	5,535.87	5,119.99	5,119.99	28.82	8.94	176.14	93.03	21.54	1,387.32	1,359.43	27.89	49.742	
5,800.00	5,632.45	5,119.99	5,119.99	29.37	8.94	176.14	93.03	21.54	1,441.71	1,414.26	27.45	52.517	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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							
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	7,464.00	7,464.00	39.67	8.37	90.00	1,439.90	-445.08	1,493.36	1,448.22	45.14	33.080		
8,800.00	7,480.00	7,464.00	7,464.00	40.16	8.37	90.00	1,439.90	-445.08	1,453.41	1,407.80	45.61	31.869		
8,900.00	7,480.00	7,464.00	7,464.00	40.73	8.37	90.00	1,439.90	-445.08	1,419.39	1,373.32	46.07	30.809		
9,000.00	7,480.00	7,464.00	7,464.00	41.38	8.37	90.00	1,439.90	-445.08	1,391.74	1,345.22	46.52	29.915		
9,100.00	7,480.00	7,464.00	7,464.00	42.11	8.37	90.00	1,439.90	-445.08	1,370.85	1,323.90	46.95	29.198		
9,200.00	7,480.00	7,464.00	7,464.00	42.89	8.37	90.00	1,439.90	-445.08	1,357.02	1,309.68	47.34	28.667		
9,300.00	7,480.00	7,464.00	7,464.00	43.75	8.37	90.00	1,439.90	-445.08	1,350.47	1,302.80	47.67	28.329		
9,338.62	7,480.00	7,464.00	7,464.00	44.09	8.37	90.00	1,439.90	-445.08	1,349.92	1,302.13	47.79	28.248 CC, ES		
9,400.00	7,480.00	7,464.00	7,464.00	44.65	8.37	90.00	1,439.90	-445.08	1,351.31	1,303.37	47.94	28.187 SF		
9,469.55	7,480.00	7,464.00	7,464.00	45.32	8.37	90.00	1,439.90	-445.08	1,356.25	1,308.17	48.09	28.205		
9,500.00	7,480.00	7,464.00	7,464.00	45.61	8.37	90.00	1,439.90	-445.08	1,359.37	1,311.23	48.14	28.239		
9,607.34	7,480.00	7,464.00	7,464.00	46.65	8.37	90.00	1,439.90	-445.08	1,373.15	1,324.89	48.25	28.458		
9,700.00	7,480.00	7,464.00	7,464.00	47.55	8.37	90.00	1,439.90	-445.08	1,389.91	1,341.63	48.27	28.792		
9,800.00	7,480.00	7,464.00	7,464.00	48.57	8.37	90.00	1,439.90	-445.08	1,414.60	1,366.36	48.24	29.324		
9,900.00	7,480.00	7,464.00	7,464.00	49.62	8.37	90.00	1,439.90	-445.08	1,445.80	1,397.66	48.15	30.027		
10,000.00	7,480.00	7,464.00	7,464.00	50.70	8.37	90.00	1,439.90	-445.08	1,483.11	1,435.09	48.01	30.890		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Sullivan 33-26 - CPR WELL - SURVEYS													Offset Site Error: 0.00 usft	
Survey Program: 100- GyroFlex													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	7,447.66	7,407.95	7,407.22	38.13	7.46	27.90	1,409.55	-1,680.11	1,473.42	1,430.10	43.31	34.018		
7,950.00	7,460.65	7,419.94	7,419.21	38.15	7.45	31.80	1,409.49	-1,680.04	1,425.58	1,382.21	43.38	32.865		
8,000.00	7,470.36	7,428.87	7,428.14	38.18	7.45	38.43	1,409.45	-1,679.99	1,376.92	1,333.49	43.43	31.703		
8,050.00	7,476.73	7,434.68	7,433.95	38.20	7.44	50.93	1,409.43	-1,679.96	1,327.65	1,284.17	43.48	30.535		
8,100.00	7,479.74	7,437.32	7,436.59	38.23	7.44	76.91	1,409.41	-1,679.95	1,278.01	1,234.49	43.52	29.365		
8,119.55	7,480.00	7,437.49	7,436.76	38.24	7.44	92.37	1,409.41	-1,679.95	1,258.54	1,215.01	43.54	28.908		
8,200.00	7,480.00	7,437.16	7,436.43	38.31	7.44	92.21	1,409.42	-1,679.95	1,178.46	1,134.86	43.60	27.030		
8,300.00	7,480.00	7,436.75	7,436.02	38.45	7.44	92.00	1,409.42	-1,679.95	1,078.98	1,035.29	43.69	24.698		
8,400.00	7,480.00	7,436.33	7,435.60	38.65	7.44	91.80	1,409.42	-1,679.95	979.61	935.81	43.79	22.368		
8,500.00	7,480.00	7,435.92	7,435.18	38.92	7.44	91.59	1,409.42	-1,679.96	880.38	836.46	43.93	20.042		
8,600.00	7,480.00	7,435.50	7,434.76	39.25	7.44	91.38	1,409.42	-1,679.96	781.35	737.26	44.09	17.721		
8,700.00	7,480.00	7,435.07	7,434.34	39.67	7.44	91.17	1,409.42	-1,679.96	682.60	638.30	44.30	15.408		
8,800.00	7,480.00	7,434.64	7,433.91	40.16	7.44	90.96	1,409.43	-1,679.96	584.28	539.69	44.58	13.105		
8,900.00	7,480.00	7,434.21	7,433.48	40.73	7.44	90.74	1,409.43	-1,679.96	486.64	441.66	44.98	10.820		
9,000.00	7,480.00	7,433.78	7,433.04	41.38	7.44	90.52	1,409.43	-1,679.97	390.20	344.64	45.55	8.566		
9,100.00	7,480.00	7,433.34	7,432.61	42.11	7.44	90.31	1,409.43	-1,679.97	296.12	249.66	46.46	6.373		
9,200.00	7,480.00	7,432.90	7,432.16	42.89	7.44	90.09	1,409.43	-1,679.97	207.66	159.70	47.96	4.329		
9,300.00	7,480.00	7,432.45	7,431.72	43.75	7.44	89.86	1,409.43	-1,679.97	136.22	86.64	49.59	2.747		
9,372.83	7,480.00	7,432.12	7,431.39	44.40	7.44	89.70	1,409.44	-1,679.98	115.12	68.12	47.00	2.450 CC, ES, SF		
9,400.00	7,480.00	7,432.00	7,431.27	44.65	7.44	89.64	1,409.44	-1,679.98	118.28	73.53	44.75	2.643		
9,469.55	7,480.00	7,431.69	7,430.95	45.32	7.44	89.48	1,409.44	-1,679.98	150.36	109.80	40.56	3.707		
9,500.00	7,480.00	7,431.55	7,430.82	45.61	7.44	89.42	1,409.44	-1,679.98	171.43	131.52	39.91	4.295		
9,607.34	7,480.00	7,431.07	7,430.34	46.65	7.44	89.23	1,409.44	-1,679.98	259.75	219.85	39.90	6.511		
9,700.00	7,480.00	7,430.67	7,429.94	47.55	7.45	89.04	1,409.44	-1,679.98	344.18	303.71	40.46	8.506		
9,800.00	7,480.00	7,430.23	7,429.50	48.57	7.45	88.84	1,409.44	-1,679.99	439.03	398.05	40.98	10.714		
9,900.00	7,480.00	7,429.79	7,429.06	49.62	7.45	88.63	1,409.45	-1,679.99	535.76	494.40	41.36	12.952		
10,000.00	7,480.00	7,429.34	7,428.61	50.70	7.45	88.43	1,409.45	-1,679.99	633.51	591.85	41.66	15.207		
10,100.00	7,480.00	7,428.89	7,428.16	51.81	7.45	88.22	1,409.45	-1,679.99	731.86	689.98	41.89	17.472		
10,200.00	7,480.00	7,428.44	7,427.71	52.95	7.45	88.00	1,409.45	-1,680.00	830.61	788.54	42.07	19.743		
10,300.00	7,480.00	7,427.98	7,427.25	54.12	7.45	87.79	1,409.45	-1,680.00	929.63	887.40	42.22	22.018		
10,400.00	7,480.00	7,427.52	7,426.79	55.31	7.45	87.58	1,409.46	-1,680.00	1,028.83	986.48	42.35	24.294		
10,500.00	7,480.00	7,427.05	7,426.32	56.52	7.45	87.36	1,409.46	-1,680.00	1,128.18	1,085.72	42.46	26.571		
10,600.00	7,480.00	7,426.58	7,425.85	57.75	7.45	87.14	1,409.46	-1,680.01	1,227.63	1,185.07	42.56	28.848		
10,700.00	7,480.00	7,426.11	7,425.37	59.00	7.45	86.92	1,409.46	-1,680.01	1,327.16	1,284.52	42.64	31.124		
10,800.00	7,480.00	7,425.63	7,424.90	60.26	7.45	86.70	1,409.46	-1,680.01	1,426.76	1,384.04	42.72	33.398		
10,839.04	7,480.00	7,425.44	7,424.71	60.76	7.45	86.61	1,409.47	-1,680.01	1,465.66	1,422.91	42.75	34.286		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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	113.99	-14.73	33.10	44.60				
100.00	100.00	73.80	73.80	0.14	0.13	114.25	-14.96	33.21	36.42	36.15	0.27	134.574 CC	
200.00	200.00	173.83	173.82	0.50	0.30	115.26	-15.80	33.48	37.02	36.22	0.80	46.203	
300.00	300.00	273.88	273.87	0.85	0.48	116.35	-16.59	33.50	37.38	36.05	1.33	28.021	
400.00	400.00	373.98	373.97	1.21	0.65	116.87	-16.99	33.53	37.59	35.73	1.87	20.136 ES	
500.00	499.98	473.85	473.84	1.56	0.83	-134.49	-17.24	33.53	38.91	36.52	2.39	16.284	
600.00	599.84	573.62	573.61	1.91	1.00	-138.77	-17.87	33.76	43.18	40.27	2.91	14.834	
700.00	699.45	673.20	673.19	2.26	1.18	-144.62	-18.53	34.08	50.55	47.11	3.44	14.694 SF	
800.00	798.70	772.58	772.56	2.64	1.35	-150.35	-19.44	34.30	61.27	57.29	3.98	15.409	
900.00	897.47	871.88	871.85	3.03	1.53	-155.12	-20.77	34.02	75.10	70.58	4.52	16.627	
1,000.00	995.62	970.36	970.33	3.44	1.70	-159.71	-21.18	33.28	92.04	86.99	5.06	18.198	
1,100.00	1,093.06	1,067.90	1,067.87	3.89	1.87	-163.57	-21.13	32.53	112.71	107.11	5.60	20.127	
1,151.35	1,142.76	1,117.63	1,117.60	4.13	1.95	-165.20	-21.11	32.18	124.78	118.90	5.88	21.216	
1,200.00	1,189.75	1,164.60	1,164.56	4.37	2.04	-166.55	-21.11	31.87	136.74	130.59	6.14	22.258	
1,300.00	1,286.33	1,261.43	1,261.39	4.86	2.20	-168.68	-21.22	31.31	161.53	154.85	6.68	24.182	
1,400.00	1,382.91	1,358.31	1,358.27	5.37	2.37	-170.22	-21.43	30.64	186.35	179.13	7.22	25.811	
1,500.00	1,479.49	1,455.23	1,455.19	5.88	2.54	-171.43	-21.50	29.92	211.25	203.48	7.76	27.213	
1,600.00	1,576.07	1,552.10	1,552.05	6.41	2.71	-172.36	-21.68	29.11	236.11	227.80	8.31	28.422	
1,700.00	1,672.65	1,649.14	1,649.09	6.93	2.88	-173.10	-21.93	28.32	261.02	252.16	8.86	29.477	
1,800.00	1,769.23	1,746.62	1,746.57	7.46	3.05	-173.73	-22.19	27.32	285.76	276.36	9.41	30.380	
1,900.00	1,865.82	1,844.27	1,844.21	8.00	3.22	-174.28	-22.38	26.08	310.32	300.36	9.96	31.157	
2,000.00	1,962.40	1,942.15	1,942.08	8.53	3.40	-174.82	-22.25	24.46	334.62	324.11	10.51	31.824	
2,100.00	2,058.98	2,039.23	2,039.13	9.07	3.57	-175.34	-21.83	22.55	358.73	347.66	11.07	32.416	
2,200.00	2,155.56	2,135.04	2,134.93	9.61	3.73	-175.86	-20.92	20.75	383.09	371.48	11.61	32.991	
2,300.00	2,252.14	2,230.85	2,230.71	10.15	3.90	-176.35	-19.74	19.12	407.72	395.56	12.16	33.535	
2,400.00	2,348.72	2,327.14	2,326.99	10.69	4.07	-176.79	-18.47	17.76	432.67	419.96	12.71	34.047	
2,500.00	2,445.30	2,426.18	2,426.00	11.24	4.25	-177.15	-17.55	16.19	457.36	444.09	13.27	34.458	
2,600.00	2,541.88	2,524.53	2,524.34	11.78	4.42	-177.43	-17.07	14.35	481.67	467.84	13.84	34.814	
2,700.00	2,638.46	2,621.74	2,621.52	12.32	4.59	-177.67	-16.71	12.41	505.85	491.46	14.39	35.147	
2,800.00	2,735.04	2,718.83	2,718.59	12.87	4.76	-177.90	-16.28	10.45	530.03	515.08	14.95	35.456	
2,900.00	2,831.62	2,816.69	2,816.43	13.42	4.94	-178.11	-15.86	8.38	554.13	538.62	15.51	35.726	
3,000.00	2,928.20	2,914.65	2,914.37	13.96	5.11	-178.28	-15.64	6.18	578.06	561.98	16.07	35.965	
3,100.00	3,024.78	3,010.84	3,010.54	14.51	5.28	-178.45	-15.38	4.04	602.01	585.38	16.63	36.209	
3,200.00	3,121.36	3,107.06	3,106.73	15.06	5.45	-178.63	-14.81	1.94	626.11	608.93	17.18	36.446	
3,300.00	3,217.94	3,204.93	3,204.57	15.61	5.63	-178.81	-14.09	-0.28	650.19	632.45	17.74	36.647	
3,400.00	3,314.52	3,297.58	3,297.19	16.15	5.79	-178.98	-13.16	-2.18	674.55	656.27	18.28	36.908	
3,500.00	3,411.10	3,388.98	3,388.57	16.70	5.95	-179.17	-11.70	-3.56	699.61	680.80	18.80	37.205	
3,600.00	3,507.68	3,484.50	3,484.07	17.25	6.12	-179.39	-9.72	-4.64	725.17	705.82	19.36	37.467	
3,700.00	3,604.26	3,584.13	3,583.67	17.80	6.30	-179.58	-7.78	-5.85	750.63	730.70	19.93	37.664	
3,800.00	3,700.84	3,681.74	3,681.26	18.35	6.47	-179.76	-6.09	-7.29	775.77	755.28	20.49	37.856	
3,900.00	3,797.42	3,778.88	3,778.37	18.90	6.64	-179.92	-4.43	-8.77	800.88	779.83	21.05	38.040	
4,000.00	3,894.00	3,872.85	3,872.32	19.45	6.81	179.94	-2.87	-10.09	826.10	804.50	21.60	38.251	
4,100.00	3,990.58	3,974.92	3,974.37	20.00	6.99	179.82	-1.45	-11.36	851.37	829.18	22.19	38.375	
4,200.00	4,087.16	4,069.64	4,069.07	20.55	7.15	179.72	-0.38	-12.96	876.15	853.41	22.73	38.540	
4,300.00	4,183.75	4,165.54	4,164.95	21.10	7.32	179.61	1.10	-14.29	901.34	878.05	23.29	38.704	
4,400.00	4,280.33	4,262.50	4,261.88	21.65	7.50	179.49	2.66	-15.74	926.46	902.61	23.85	38.846	
4,500.00	4,376.91	4,356.47	4,355.83	22.20	7.66	179.38	4.32	-17.09	951.70	927.30	24.39	39.014	
4,600.00	4,473.49	4,452.24	4,451.58	22.75	7.83	179.27	6.17	-18.18	977.25	952.30	24.95	39.170	
4,700.00	4,570.07	4,549.65	4,548.94	23.30	8.01	179.13	8.53	-19.60	1,002.70	977.19	25.51	39.299	
4,800.00	4,666.65	4,645.61	4,644.87	23.85	8.18	178.99	10.99	-21.01	1,028.19	1,002.12	26.07	39.437	
4,900.00	4,763.23	4,741.65	4,740.86	24.40	8.35	178.84	13.68	-22.43	1,053.75	1,027.12	26.63	39.569	
5,000.00	4,859.81	4,836.57	4,835.72	24.96	8.52	178.69	16.67	-23.92	1,079.38	1,052.20	27.18	39.706	

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 4C-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 4C-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 #3	<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		
5,100.00	4,956.39	4,931.31	4,930.37	25.51	8.69	178.50	20.36	-25.39	1,105.28	1,077.54	27.74	39.847		
5,200.00	5,052.97	5,028.39	5,027.36	26.06	8.87	178.31	24.37	-27.08	1,131.11	1,102.80	28.31	39.960		
5,300.00	5,149.55	5,121.71	5,120.60	26.61	9.04	178.14	28.10	-28.41	1,157.19	1,128.34	28.85	40.108		
5,400.00	5,246.13	5,222.78	5,221.59	27.16	9.22	177.99	31.79	-29.78	1,183.21	1,153.77	29.44	40.187		
5,500.00	5,342.71	5,324.97	5,323.73	27.71	9.41	177.88	34.60	-31.46	1,208.65	1,178.61	30.04	40.238		
5,600.00	5,439.29	5,414.98	5,413.69	28.26	9.57	177.79	36.95	-32.73	1,234.25	1,203.69	30.56	40.383		
5,700.00	5,535.87	5,503.34	5,502.01	28.82	9.72	177.70	39.58	-33.51	1,260.46	1,229.38	31.08	40.556		
5,800.00	5,632.45	5,606.48	5,605.11	29.37	9.91	177.62	42.45	-34.28	1,286.73	1,255.05	31.68	40.616		
5,900.00	5,729.03	5,712.83	5,711.42	29.92	10.10	177.55	44.80	-35.63	1,312.31	1,280.01	32.30	40.630		
6,000.00	5,825.61	5,805.70	5,804.26	30.47	10.27	177.48	47.07	-37.07	1,337.74	1,304.90	32.84	40.732		
6,100.00	5,922.19	5,900.00	5,898.52	31.02	10.44	177.40	49.50	-38.29	1,363.45	1,330.05	33.39	40.830		
6,200.00	6,018.77	5,985.26	5,983.75	31.57	10.59	177.37	51.32	-38.78	1,389.63	1,355.74	33.89	41.007		
6,300.00	6,115.35	6,070.31	6,068.79	32.13	10.73	177.36	52.73	-38.41	1,416.54	1,382.16	34.38	41.204		
6,400.00	6,211.93	6,170.90	6,169.37	32.68	10.91	177.38	54.00	-37.32	1,443.88	1,408.92	34.96	41.301		
6,500.00	6,308.51	6,276.01	6,274.47	33.23	11.09	177.42	54.63	-36.66	1,470.56	1,434.99	35.57	41.345		
6,600.00	6,405.09	6,377.80	6,376.26	33.78	11.26	177.44	55.29	-36.55	1,496.80	1,460.65	36.16	41.399		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Sullivan 4-6-26 - CPR WELL - SURVEYS											Offset Site Error: 0.00 usft		
Survey Program: 74-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
2,900.00	2,831.62	2,697.23	2,655.21	13.42	8.67	43.56	399.31	-1,879.64	1,491.08	1,471.38	19.70	75.685	
3,000.00	2,928.20	2,772.38	2,728.37	13.96	9.00	44.66	416.46	-1,880.22	1,482.53	1,462.07	20.46	72.466	
3,100.00	3,024.78	2,853.03	2,806.63	14.51	9.36	45.87	435.88	-1,881.70	1,476.28	1,455.05	21.23	69.544	
3,200.00	3,121.36	2,952.51	2,903.40	15.06	9.78	47.34	458.84	-1,883.69	1,470.76	1,448.70	22.06	66.677	
3,300.00	3,217.94	3,045.06	2,993.57	15.61	10.18	48.70	479.63	-1,885.73	1,466.10	1,443.25	22.85	64.157	
3,400.00	3,314.52	3,144.69	3,090.54	16.15	10.61	50.18	502.42	-1,887.49	1,462.25	1,438.57	23.69	61.735	
3,500.00	3,411.10	3,252.99	3,195.69	16.70	11.09	51.88	528.36	-1,887.48	1,458.58	1,434.01	24.57	59.366	
3,600.00	3,507.68	3,339.99	3,280.29	17.25	11.46	53.23	548.65	-1,887.42	1,455.62	1,430.29	25.32	57.478	
3,700.00	3,604.26	3,438.25	3,376.13	17.80	11.86	54.71	570.27	-1,888.25	1,453.68	1,427.57	26.11	55.675	
3,800.00	3,700.84	3,541.78	3,477.31	18.35	12.27	56.23	592.17	-1,889.67	1,452.69	1,425.79	26.90	54.009	
3,900.00	3,797.42	3,678.67	3,611.73	18.90	12.76	58.20	617.99	-1,889.00	1,449.63	1,421.84	27.79	52.160	
4,000.00	3,894.00	3,775.46	3,707.05	19.45	13.09	59.57	634.79	-1,888.38	1,446.72	1,418.20	28.52	50.734	
4,100.00	3,990.58	3,892.73	3,823.04	20.00	13.42	61.10	652.00	-1,888.92	1,443.75	1,414.50	29.25	49.355	
4,200.00	4,087.16	4,006.89	3,936.40	20.55	13.71	62.49	665.40	-1,890.33	1,440.19	1,410.24	29.95	48.089	
4,300.00	4,183.75	4,122.08	4,051.06	21.10	13.97	63.82	676.29	-1,892.02	1,435.89	1,405.26	30.63	46.877	
4,400.00	4,280.33	4,234.14	4,162.74	21.65	14.20	65.10	685.49	-1,893.06	1,430.98	1,399.68	31.30	45.724	
4,500.00	4,376.91	4,344.53	4,272.85	22.20	14.41	66.34	693.25	-1,893.76	1,425.61	1,393.66	31.95	44.622	
4,600.00	4,473.49	4,454.59	4,382.73	22.75	14.59	67.54	699.35	-1,894.54	1,419.80	1,387.21	32.59	43.570	
4,700.00	4,570.07	4,595.33	4,523.40	23.30	14.76	69.01	703.41	-1,894.79	1,412.12	1,378.89	33.23	42.491	
4,800.00	4,666.65	4,687.47	4,615.53	23.85	14.88	69.98	705.10	-1,894.52	1,403.98	1,370.13	33.85	41.476	
4,900.00	4,763.23	4,783.31	4,711.35	24.40	15.00	71.00	707.00	-1,894.24	1,396.41	1,361.94	34.47	40.508	
5,000.00	4,859.81	4,876.38	4,804.40	24.96	15.12	72.00	708.94	-1,893.98	1,389.41	1,354.32	35.09	39.592	
5,100.00	4,956.39	4,967.52	4,895.52	25.51	15.24	72.98	711.00	-1,894.04	1,383.24	1,347.52	35.71	38.732	
5,200.00	5,052.97	5,061.17	4,989.14	26.06	15.37	73.99	713.23	-1,894.45	1,377.85	1,341.52	36.33	37.921	
5,300.00	5,149.55	5,156.22	5,084.16	26.61	15.49	75.01	715.43	-1,895.15	1,373.08	1,336.12	36.96	37.152	
5,400.00	5,246.13	5,252.31	5,180.22	27.16	15.62	76.04	717.58	-1,896.09	1,368.85	1,331.26	37.58	36.420	
5,500.00	5,342.71	5,348.71	5,276.59	27.71	15.75	77.07	719.68	-1,897.15	1,365.12	1,326.91	38.21	35.723	
5,600.00	5,439.29	5,449.75	5,377.61	28.26	15.88	78.14	721.62	-1,898.38	1,361.72	1,322.87	38.85	35.054	
5,700.00	5,535.87	5,549.59	5,477.43	28.82	16.01	79.20	723.11	-1,899.69	1,358.48	1,319.00	39.48	34.409	
5,800.00	5,632.45	5,646.01	5,573.83	29.37	16.13	80.22	724.38	-1,901.13	1,355.64	1,315.53	40.11	33.796	
5,900.00	5,729.03	5,742.24	5,670.04	29.92	16.25	81.22	725.54	-1,902.82	1,353.29	1,312.54	40.74	33.214	
6,000.00	5,825.61	5,838.47	5,766.23	30.47	16.37	82.20	726.40	-1,905.16	1,351.43	1,310.06	41.38	32.663	
6,100.00	5,922.19	5,932.24	5,859.96	31.02	16.49	83.13	727.08	-1,907.97	1,350.11	1,308.10	42.01	32.136	
6,200.00	6,018.77	6,024.43	5,952.11	31.57	16.62	84.06	728.17	-1,910.62	1,349.54	1,306.89	42.65	31.642	
6,300.00	6,115.35	6,129.32	6,056.95	32.13	16.75	85.15	729.65	-1,913.12	1,349.40	1,306.08	43.31	31.155	
6,400.00	6,211.93	6,236.75	6,164.37	32.68	16.88	86.29	730.73	-1,914.50	1,348.89	1,304.91	43.98	30.671	
6,500.00	6,308.51	6,337.44	6,265.05	33.23	17.00	87.39	731.53	-1,915.02	1,348.38	1,303.74	44.64	30.205	
6,600.00	6,405.09	6,435.68	6,363.29	33.78	17.13	88.49	732.24	-1,915.04	1,348.12	1,302.81	45.30	29.759	
6,604.21	6,409.16	6,439.68	6,367.29	33.80	17.13	88.53	732.27	-1,915.04	1,348.11	1,302.79	45.33	29.741	
6,700.00	6,501.68	6,530.77	6,458.38	34.33	17.25	89.55	732.98	-1,915.00	1,348.39	1,302.44	45.96	29.341	
6,800.00	6,598.26	6,626.84	6,554.44	34.88	17.37	90.62	733.81	-1,914.98	1,349.26	1,302.65	46.61	28.946	
6,900.00	6,694.84	6,723.57	6,651.17	35.44	17.49	91.70	734.65	-1,914.92	1,350.64	1,303.37	47.27	28.572	
6,939.68	6,733.16	6,762.17	6,689.77	35.66	17.54	92.13	734.99	-1,914.88	1,351.32	1,303.78	47.53	28.429	
6,950.00	6,743.13	6,772.28	6,699.88	35.71	17.55	89.25	735.07	-1,914.86	1,351.43	1,303.83	47.60	28.391	
7,000.00	6,791.54	6,821.39	6,748.99	35.98	17.61	74.42	735.49	-1,914.77	1,350.01	1,302.09	47.92	28.170	
7,050.00	6,839.91	6,870.48	6,798.08	36.23	17.68	59.75	735.88	-1,914.63	1,345.29	1,297.05	48.24	27.888	
7,100.00	6,888.03	6,919.31	6,846.90	36.47	17.74	47.08	736.26	-1,914.44	1,337.27	1,288.73	48.54	27.551	
7,150.00	6,935.65	6,965.63	6,893.22	36.68	17.80	37.05	736.63	-1,914.27	1,326.02	1,277.20	48.82	27.160	
7,200.00	6,982.55	7,011.28	6,938.87	36.88	17.86	29.39	737.03	-1,914.15	1,311.59	1,262.50	49.09	26.718	
7,250.00	7,028.48	7,056.07	6,983.66	37.06	17.92	23.54	737.46	-1,914.07	1,294.05	1,244.71	49.34	26.225	
7,300.00	7,073.24	7,099.95	7,027.54	37.22	17.98	18.99	737.90	-1,914.04	1,273.46	1,223.87	49.58	25.683	
7,350.00	7,116.60	7,143.50	7,071.08	37.37	18.04	15.36	738.37	-1,914.00	1,249.86	1,200.05	49.81	25.093	

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - Sullivan 4-6-26 - CPR WELL - SURVEYS												Offset Site Error: 0.00 usft	
Survey Program: 74-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
7,400.00	7,158.35	7,185.46	7,113.04	37.50	18.09	12.36	738.82	-1,913.92	1,223.36	1,173.34	50.02	24.459	
7,450.00	7,198.29	7,225.64	7,153.22	37.62	18.15	9.77	739.27	-1,913.82	1,194.06	1,143.85	50.21	23.782	
7,500.00	7,236.22	7,263.84	7,191.41	37.72	18.20	7.44	739.71	-1,913.68	1,162.10	1,111.72	50.38	23.065	
7,550.00	7,271.95	7,299.71	7,227.29	37.80	18.25	5.24	740.12	-1,913.53	1,127.63	1,077.09	50.54	22.313	
7,600.00	7,305.33	7,333.25	7,260.82	37.88	18.29	3.04	740.52	-1,913.38	1,090.81	1,040.13	50.67	21.526	
7,650.00	7,336.17	7,364.32	7,291.89	37.94	18.34	0.71	740.90	-1,913.24	1,051.81	1,001.02	50.79	20.709	
7,700.00	7,364.33	7,392.77	7,320.34	37.99	18.37	-1.89	741.25	-1,913.10	1,010.81	959.93	50.88	19.865	
7,750.00	7,389.68	7,418.46	7,346.02	38.04	18.41	-4.98	741.57	-1,912.97	968.03	917.07	50.96	18.997	
7,800.00	7,412.08	7,441.26	7,368.82	38.07	18.44	-8.85	741.86	-1,912.84	923.66	872.65	51.01	18.108	
7,850.00	7,431.44	7,460.96	7,388.52	38.10	18.47	-13.95	742.12	-1,912.74	877.94	826.90	51.04	17.202	
7,900.00	7,447.66	7,477.57	7,405.13	38.13	18.49	-20.98	742.33	-1,912.66	831.09	780.05	51.04	16.283	
7,950.00	7,460.65	7,491.03	7,418.58	38.15	18.51	-30.92	742.51	-1,912.60	783.38	732.36	51.02	15.355	
8,000.00	7,470.36	7,501.26	7,428.81	38.18	18.52	-44.82	742.65	-1,912.56	735.05	684.08	50.97	14.422	
8,050.00	7,476.73	7,508.20	7,435.76	38.20	18.53	-62.47	742.74	-1,912.54	686.39	635.50	50.89	13.488	
8,100.00	7,479.74	7,511.83	7,439.38	38.23	18.54	-80.84	742.79	-1,912.52	637.70	586.93	50.78	12.559	
8,119.55	7,480.00	7,512.34	7,439.89	38.24	18.54	-87.29	742.79	-1,912.52	618.72	568.00	50.72	12.198	
8,200.00	7,480.00	7,513.38	7,440.94	38.31	18.54	-87.68	742.81	-1,912.52	541.11	490.64	50.47	10.722	
8,300.00	7,480.00	7,514.68	7,442.24	38.45	18.54	-88.17	742.82	-1,912.51	446.02	395.98	50.05	8.912	
8,400.00	7,480.00	7,515.98	7,443.54	38.65	18.55	-88.66	742.84	-1,912.51	353.66	304.20	49.46	7.150	
8,500.00	7,480.00	7,517.29	7,444.84	38.92	18.55	-89.15	742.86	-1,912.50	266.85	218.15	48.70	5.480	
8,600.00	7,480.00	7,518.59	7,446.15	39.25	18.55	-89.64	742.88	-1,912.50	193.24	145.05	48.19	4.010	
8,700.00	7,480.00	7,519.90	7,447.45	39.67	18.55	-90.14	742.89	-1,912.50	153.20	102.34	50.86	3.012	
8,719.37	7,480.00	7,520.15	7,447.71	39.76	18.55	-90.23	742.90	-1,912.49	151.97	99.99	51.97	2.924 CC, ES, SF	
8,800.00	7,480.00	7,521.21	7,448.76	40.16	18.55	-90.63	742.91	-1,912.49	172.03	116.18	55.85	3.080	
8,900.00	7,480.00	7,522.52	7,450.08	40.73	18.55	-91.13	742.93	-1,912.49	236.04	179.31	56.73	4.161	
9,000.00	7,480.00	7,523.83	7,451.39	41.38	18.56	-91.62	742.95	-1,912.48	319.11	262.94	56.17	5.681	
9,100.00	7,480.00	7,525.15	7,452.70	42.11	18.56	-92.12	742.96	-1,912.48	409.81	354.23	55.58	7.374	
9,200.00	7,480.00	7,526.47	7,454.02	42.89	18.56	-92.61	742.98	-1,912.47	504.04	448.92	55.12	9.144	
9,300.00	7,480.00	7,527.79	7,455.34	43.75	18.56	-93.11	743.00	-1,912.47	600.13	545.35	54.78	10.955	
9,400.00	7,480.00	7,529.11	7,456.66	44.65	18.56	-93.60	743.02	-1,912.47	697.33	642.80	54.53	12.788	
9,469.55	7,480.00	7,530.03	7,457.58	45.32	18.56	-93.95	743.03	-1,912.46	765.35	710.96	54.39	14.072	
9,500.00	7,480.00	7,530.43	7,457.99	45.61	18.57	-94.33	743.03	-1,912.46	795.24	740.91	54.34	14.636	
9,607.34	7,480.00	7,531.87	7,459.42	46.65	18.57	-96.26	743.05	-1,912.46	901.31	847.11	54.20	16.630	
9,700.00	7,480.00	7,533.11	7,460.66	47.55	18.57	-96.89	743.07	-1,912.45	993.31	939.19	54.12	18.355	
9,800.00	7,480.00	7,534.46	7,462.01	48.57	18.57	-97.56	743.09	-1,912.45	1,092.72	1,038.67	54.05	20.218	
9,900.00	7,480.00	7,535.80	7,463.36	49.62	18.57	-98.24	743.11	-1,912.45	1,192.22	1,138.23	53.99	22.082	
10,000.00	7,480.00	7,537.15	7,464.71	50.70	18.57	-98.91	743.12	-1,912.44	1,291.80	1,237.86	53.94	23.947	
10,100.00	7,480.00	7,538.50	7,466.06	51.81	18.58	-99.58	743.14	-1,912.44	1,391.44	1,337.53	53.91	25.811	
10,200.00	7,480.00	7,539.86	7,467.41	52.95	18.58	-100.25	743.16	-1,912.43	1,491.13	1,437.24	53.88	27.674	

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4A-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	-90.29	-0.10	-20.14	20.14				
100.00	100.00	100.00	100.00	0.14	0.14	-90.29	-0.10	-20.14	20.14	19.86	0.28	72.966	
200.00	200.00	200.00	200.00	0.50	0.50	-90.29	-0.10	-20.14	20.14	19.15	0.99	20.283 CC, ES	
300.00	300.00	299.29	299.27	0.85	0.84	-91.55	-0.59	-21.79	21.81	20.07	1.74	12.544	
400.00	400.00	398.34	398.18	1.21	1.20	-94.39	-2.05	-26.72	26.86	24.35	2.51	10.694	
500.00	499.98	497.08	496.55	1.56	1.56	13.49	-4.47	-34.90	33.66	30.38	3.28	10.270	
600.00	599.84	595.58	594.33	1.91	1.93	12.28	-7.85	-46.29	40.48	36.45	4.03	10.033	
700.00	699.45	693.86	691.42	2.26	2.33	11.69	-12.17	-60.85	47.30	42.51	4.80	9.864	
800.00	798.70	791.91	787.71	2.64	2.75	11.48	-17.41	-78.56	54.10	48.54	5.56	9.733	
900.00	897.47	889.74	883.09	3.03	3.20	11.52	-23.58	-99.37	60.86	54.54	6.32	9.632	
1,000.00	995.62	987.34	977.47	3.44	3.68	11.74	-30.65	-123.23	67.58	60.49	7.09	9.537	
1,100.00	1,093.06	1,085.03	1,071.03	3.89	4.21	12.09	-38.63	-150.15	74.23	66.38	7.85	9.457	
1,151.35	1,142.76	1,136.30	1,119.93	4.13	4.50	12.39	-43.00	-164.91	76.99	68.77	8.22	9.363	
1,200.00	1,189.75	1,184.90	1,166.29	4.37	4.77	12.73	-47.14	-178.89	79.19	70.60	8.58	9.224	
1,300.00	1,286.33	1,284.80	1,261.58	4.86	5.35	13.38	-55.66	-207.64	83.71	74.36	9.34	8.958	
1,400.00	1,382.91	1,384.69	1,356.87	5.37	5.94	13.96	-64.18	-236.38	88.23	78.12	10.12	8.720	
1,500.00	1,479.49	1,484.58	1,452.16	5.88	6.53	14.48	-72.70	-265.12	92.77	81.86	10.91	8.505	
1,600.00	1,576.07	1,584.48	1,547.45	6.41	7.12	14.96	-81.21	-293.87	97.32	85.61	11.71	8.313	
1,700.00	1,672.65	1,684.37	1,642.74	6.93	7.72	15.39	-89.73	-322.61	101.87	89.35	12.52	8.139	
1,800.00	1,769.23	1,784.26	1,738.03	7.46	8.32	15.79	-98.25	-351.36	106.42	93.09	13.33	7.982	
1,900.00	1,865.82	1,884.16	1,833.32	8.00	8.93	16.15	-106.77	-380.10	110.98	96.82	14.16	7.840	
2,000.00	1,962.40	1,984.05	1,928.60	8.53	9.53	16.49	-115.28	-408.85	115.55	100.56	14.99	7.711	
2,100.00	2,058.98	2,083.94	2,023.89	9.07	10.14	16.80	-123.80	-437.59	120.11	104.29	15.82	7.593	
2,200.00	2,155.56	2,183.84	2,119.18	9.61	10.75	17.08	-132.32	-466.33	124.68	108.03	16.66	7.485	
2,300.00	2,252.14	2,283.73	2,214.47	10.15	11.36	17.35	-140.84	-495.08	129.26	111.76	17.50	7.386	
2,400.00	2,348.72	2,383.62	2,309.76	10.69	11.97	17.60	-149.35	-523.82	133.83	115.49	18.35	7.295	
2,500.00	2,445.30	2,483.52	2,405.05	11.24	12.58	17.83	-157.87	-552.57	138.41	119.22	19.20	7.211	
2,600.00	2,541.88	2,583.41	2,500.34	11.78	13.19	18.05	-166.39	-581.31	142.99	122.95	20.05	7.133	
2,700.00	2,638.46	2,683.31	2,595.63	12.32	13.81	18.25	-174.91	-610.06	147.58	126.68	20.90	7.061	
2,800.00	2,735.04	2,783.20	2,690.91	12.87	14.42	18.44	-183.42	-638.80	152.16	130.40	21.76	6.993	
2,900.00	2,831.62	2,883.09	2,786.20	13.42	15.03	18.62	-191.94	-667.54	156.75	134.13	22.62	6.931	
3,000.00	2,928.20	2,982.99	2,881.49	13.96	15.65	18.79	-200.46	-696.29	161.34	137.86	23.48	6.872	
3,100.00	3,024.78	3,082.88	2,976.78	14.51	16.26	18.95	-208.98	-725.03	165.92	141.59	24.34	6.818	
3,200.00	3,121.36	3,182.77	3,072.07	15.06	16.88	19.10	-217.50	-753.78	170.51	145.31	25.20	6.766	
3,300.00	3,217.94	3,282.67	3,167.36	15.61	17.49	19.25	-226.01	-782.52	175.11	149.04	26.07	6.718	
3,400.00	3,314.52	3,382.56	3,262.65	16.15	18.11	19.38	-234.53	-811.27	179.70	152.77	26.93	6.673	
3,500.00	3,411.10	3,482.45	3,357.94	16.70	18.72	19.51	-243.05	-840.01	184.29	156.49	27.80	6.630	
3,600.00	3,507.68	3,582.35	3,453.22	17.25	19.34	19.64	-251.57	-868.75	188.89	160.22	28.67	6.589	
3,700.00	3,604.26	3,682.24	3,548.51	17.80	19.95	19.75	-260.08	-897.50	193.48	163.95	29.53	6.551	
3,800.00	3,700.84	3,782.14	3,643.80	18.35	20.57	19.87	-268.60	-926.24	198.08	167.67	30.40	6.515	
3,900.00	3,797.42	3,882.03	3,739.09	18.90	21.18	19.97	-277.12	-954.99	202.67	171.40	31.28	6.480	
4,000.00	3,894.00	3,981.92	3,834.38	19.45	21.80	20.08	-285.64	-983.73	207.27	175.12	32.15	6.448	
4,100.00	3,990.58	4,081.82	3,929.67	20.00	22.42	20.17	-294.15	-1,012.48	211.87	178.85	33.02	6.417	
4,200.00	4,087.16	4,181.71	4,024.96	20.55	23.03	20.27	-302.67	-1,041.22	216.47	182.58	33.89	6.387	
4,300.00	4,183.75	4,281.60	4,120.25	21.10	23.65	20.36	-311.19	-1,069.96	221.07	186.30	34.77	6.359	
4,400.00	4,280.33	4,381.50	4,215.53	21.65	24.27	20.44	-319.71	-1,098.71	225.67	190.03	35.64	6.332	
4,500.00	4,376.91	4,481.39	4,310.82	22.20	24.88	20.53	-328.22	-1,127.45	230.27	193.75	36.51	6.306	
4,600.00	4,473.49	4,581.28	4,406.11	22.75	25.50	20.61	-336.74	-1,156.20	234.87	197.48	37.39	6.282	
4,700.00	4,570.07	4,681.18	4,501.40	23.30	26.12	20.68	-345.26	-1,184.94	239.47	201.20	38.26	6.258	
4,800.00	4,666.65	4,781.07	4,596.69	23.85	26.73	20.75	-353.78	-1,213.69	244.07	204.93	39.14	6.236	
4,900.00	4,763.23	4,880.96	4,691.98	24.40	27.35	20.83	-362.29	-1,242.43	248.67	208.65	40.02	6.214	
5,000.00	4,859.81	4,980.86	4,787.27	24.96	27.97	20.89	-370.81	-1,271.17	253.27	212.38	40.89	6.193	

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4A-26H-P268 - OH - PLAN #3												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
5,100.00	4,956.39	5,080.75	4,882.56	25.51	28.58	20.96	-379.33	-1,299.92	257.88	216.10	41.77	6.174	
5,200.00	5,052.97	5,180.65	4,977.84	26.06	29.20	21.02	-387.85	-1,328.66	262.48	219.83	42.65	6.154	
5,300.00	5,149.55	5,280.54	5,073.13	26.61	29.82	21.08	-396.37	-1,357.41	267.08	223.55	43.53	6.136	
5,400.00	5,246.13	5,380.43	5,168.42	27.16	30.43	21.14	-404.88	-1,386.15	271.68	227.28	44.41	6.118	
5,500.00	5,342.71	5,480.33	5,263.71	27.71	31.05	21.20	-413.40	-1,414.90	276.29	231.00	45.28	6.101	
5,600.00	5,439.29	5,580.22	5,359.00	28.26	31.67	21.26	-421.92	-1,443.64	280.89	234.73	46.16	6.085	
5,700.00	5,535.87	5,680.11	5,454.29	28.82	32.29	21.31	-430.44	-1,472.38	285.50	238.45	47.04	6.069	
5,800.00	5,632.45	5,780.01	5,549.58	29.37	32.90	21.36	-438.95	-1,501.13	290.10	242.18	47.92	6.054	
5,900.00	5,729.03	5,879.90	5,644.87	29.92	33.52	21.41	-447.47	-1,529.87	294.71	245.90	48.80	6.039	
6,000.00	5,825.61	5,979.79	5,740.15	30.47	34.14	21.46	-455.99	-1,558.62	299.31	249.63	49.68	6.025	
6,100.00	5,922.19	6,079.69	5,835.44	31.02	34.75	21.51	-464.51	-1,587.36	303.92	253.35	50.56	6.011	
6,200.00	6,018.77	6,179.58	5,930.73	31.57	35.37	21.55	-473.02	-1,616.11	308.52	257.08	51.44	5.997	
6,300.00	6,115.35	6,279.48	6,026.02	32.13	35.99	21.60	-481.54	-1,644.85	313.13	260.80	52.32	5.985	
6,400.00	6,211.93	6,379.37	6,121.31	32.68	36.61	21.64	-490.06	-1,673.59	317.73	264.53	53.20	5.972	
6,500.00	6,308.51	6,479.26	6,216.60	33.23	37.22	21.68	-498.58	-1,702.34	322.34	268.25	54.08	5.960	
6,600.00	6,405.09	6,579.16	6,311.89	33.78	37.84	21.72	-507.09	-1,731.08	326.94	271.98	54.97	5.948	
6,700.00	6,501.68	6,679.05	6,407.18	34.33	38.46	21.76	-515.61	-1,759.83	331.55	275.70	55.85	5.937	
6,800.00	6,598.26	6,778.94	6,502.46	34.88	39.08	21.80	-524.13	-1,788.57	336.16	279.43	56.73	5.926	
6,900.00	6,694.84	6,878.84	6,597.75	35.44	39.70	21.84	-532.65	-1,817.32	340.76	283.15	57.61	5.915	
6,939.68	6,733.16	6,918.48	6,635.57	35.66	39.94	21.85	-536.03	-1,828.72	342.59	284.63	57.96	5.911	
6,950.00	6,743.13	6,928.78	6,645.40	35.71	40.00	18.89	-536.91	-1,831.69	343.06	285.01	58.05	5.910	
7,000.00	6,791.54	6,978.68	6,692.99	35.98	40.31	3.35	-541.16	-1,846.04	345.14	286.78	58.36	5.914	
7,050.00	6,839.91	7,028.30	6,740.32	36.23	40.62	-12.54	-545.39	-1,860.32	346.98	288.47	58.50	5.931	
7,100.00	6,888.03	7,077.40	6,787.17	36.47	40.92	-26.88	-549.58	-1,874.45	348.72	290.23	58.49	5.962	
7,150.00	6,935.65	7,125.76	6,833.29	36.68	41.22	-38.96	-553.70	-1,888.37	350.64	292.28	58.35	6.009	
7,200.00	6,982.55	7,174.04	6,879.37	36.88	41.52	-49.01	-557.59	-1,902.26	353.04	294.88	58.16	6.070	
7,250.00	7,028.48	7,224.39	6,927.56	37.06	41.82	-57.31	-558.85	-1,916.75	355.97	297.90	58.07	6.130	
7,300.00	7,073.24	7,276.02	6,976.96	37.22	42.10	-64.19	-556.46	-1,931.53	359.34	301.26	58.08	6.187	
7,350.00	7,116.60	7,329.03	7,027.39	37.37	42.38	-70.04	-550.16	-1,946.55	363.12	304.93	58.19	6.240	
7,400.00	7,158.35	7,383.51	7,078.62	37.50	42.64	-75.11	-539.64	-1,961.75	367.23	308.87	58.37	6.292	
7,450.00	7,198.29	7,439.53	7,130.38	37.62	42.88	-79.57	-524.63	-1,977.01	371.61	313.04	58.56	6.345	
7,500.00	7,236.22	7,497.18	7,182.31	37.72	43.10	-83.56	-504.82	-1,992.25	376.15	317.42	58.74	6.404	
7,550.00	7,271.95	7,556.52	7,234.02	37.80	43.30	-87.15	-479.96	-2,007.34	380.77	321.95	58.82	6.473	
7,600.00	7,305.33	7,617.61	7,285.03	37.88	43.47	-90.41	-449.80	-2,022.12	385.35	326.58	58.78	6.556	
7,650.00	7,336.17	7,680.47	7,334.77	37.94	43.63	-93.36	-414.16	-2,036.42	389.77	331.22	58.55	6.657	
7,700.00	7,364.33	7,745.11	7,382.62	37.99	43.76	-96.05	-372.93	-2,050.06	393.91	335.77	58.13	6.776	
7,750.00	7,389.68	7,811.50	7,427.87	38.04	43.86	-98.48	-326.09	-2,062.82	397.63	340.12	57.51	6.914	
7,800.00	7,412.08	7,879.56	7,469.77	38.07	43.94	-100.67	-273.77	-2,074.49	400.81	344.10	56.71	7.068	
7,850.00	7,431.44	7,949.18	7,507.53	38.10	44.00	-102.62	-216.23	-2,084.81	403.33	347.56	55.77	7.232	
7,900.00	7,447.66	8,020.20	7,540.37	38.13	44.04	-104.33	-153.92	-2,093.58	405.07	350.30	54.77	7.396	
7,950.00	7,460.65	8,092.39	7,567.54	38.15	44.06	-105.80	-87.43	-2,100.57	405.94	352.13	53.81	7.544	
8,000.00	7,470.36	8,165.50	7,588.40	38.18	44.06	-107.02	-17.57	-2,105.61	405.84	352.84	53.00	7.657	
8,050.00	7,476.73	8,239.24	7,602.44	38.20	44.05	-108.00	54.72	-2,108.56	404.71	352.26	52.45	7.716	
8,100.00	7,479.74	8,313.27	7,609.30	38.23	44.04	-108.72	128.40	-2,109.34	402.52	350.26	52.26	7.702	
8,119.55	7,480.00	8,342.23	7,609.99	38.24	44.04	-108.94	157.35	-2,109.04	401.37	349.08	52.29	7.676	
8,200.00	7,480.00	8,423.61	7,610.00	38.31	44.03	-109.20	238.72	-2,107.62	396.06	343.60	52.47	7.549	
8,300.00	7,480.00	8,523.37	7,610.00	38.45	44.05	-109.54	338.46	-2,105.88	389.48	336.67	52.81	7.375	
8,400.00	7,480.00	8,623.13	7,610.00	38.65	44.12	-109.89	438.20	-2,104.14	382.91	329.61	53.31	7.183	
8,500.00	7,480.00	8,722.88	7,610.00	38.92	44.22	-110.25	537.94	-2,102.40	376.36	322.41	53.95	6.976	
8,600.00	7,480.00	8,822.64	7,610.00	39.25	44.36	-110.63	637.68	-2,100.66	369.82	315.08	54.74	6.756	
8,700.00	7,480.00	8,922.40	7,610.00	39.67	44.55	-111.01	737.42	-2,098.92	363.30	307.64	55.66	6.528	
8,800.00	7,480.00	9,022.15	7,610.00	40.16	44.79	-111.42	837.16	-2,097.18	356.79	300.10	56.69	6.293	

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4A-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	
8,900.00	7,480.00	9,121.91	7,610.00	40.73	45.09	-111.83	936.91	-2,095.44	350.31	292.46	57.84	6.056		
9,000.00	7,480.00	9,221.67	7,610.00	41.38	45.44	-112.26	1,036.65	-2,093.69	343.84	284.74	59.10	5.818		
9,100.00	7,480.00	9,321.42	7,610.00	42.11	45.85	-112.71	1,136.39	-2,091.95	337.39	276.95	60.44	5.582		
9,200.00	7,480.00	9,421.18	7,610.00	42.89	46.32	-113.18	1,236.13	-2,090.21	330.97	269.10	61.86	5.350		
9,300.00	7,480.00	9,520.93	7,610.00	43.75	46.86	-113.66	1,335.87	-2,088.47	324.56	261.21	63.36	5.123		
9,400.00	7,480.00	9,620.69	7,610.00	44.65	47.46	-114.17	1,435.61	-2,086.73	318.18	253.27	64.91	4.902		
9,469.55	7,480.00	9,690.07	7,610.00	45.32	47.91	-114.53	1,504.98	-2,085.52	313.76	247.73	66.03	4.752		
9,500.00	7,480.00	9,720.46	7,610.00	45.61	48.12	-114.66	1,535.36	-2,084.99	311.98	245.44	66.53	4.689		
9,607.34	7,480.00	9,827.70	7,610.00	46.65	48.89	-114.97	1,642.59	-2,083.12	308.04	239.55	68.49	4.498		
9,700.00	7,480.00	9,920.34	7,610.00	47.55	49.61	-115.13	1,735.22	-2,081.50	306.21	235.89	70.32	4.354		
9,800.00	7,480.00	10,020.32	7,610.00	48.57	50.44	-115.30	1,835.18	-2,079.76	304.25	231.90	72.35	4.205		
9,900.00	7,480.00	10,120.30	7,610.00	49.62	51.32	-115.48	1,935.14	-2,078.01	302.29	227.86	74.43	4.061		
10,000.00	7,480.00	10,220.27	7,610.00	50.70	52.24	-115.65	2,035.10	-2,076.27	300.33	223.78	76.56	3.923		
10,100.00	7,480.00	10,320.25	7,610.00	51.81	53.21	-115.83	2,135.06	-2,074.52	298.38	219.66	78.72	3.791		
10,200.00	7,480.00	10,420.22	7,610.00	52.95	54.21	-116.02	2,235.02	-2,072.78	296.42	215.51	80.91	3.664		
10,300.00	7,480.00	10,520.20	7,610.00	54.12	55.25	-116.20	2,334.98	-2,071.03	294.47	211.34	83.14	3.542		
10,400.00	7,480.00	10,620.18	7,610.00	55.31	56.32	-116.39	2,434.95	-2,069.29	292.53	207.14	85.39	3.426		
10,500.00	7,480.00	10,720.15	7,610.00	56.52	57.41	-116.58	2,534.91	-2,067.54	290.59	202.92	87.67	3.315		
10,600.00	7,480.00	10,820.13	7,610.00	57.75	58.54	-116.77	2,634.87	-2,065.80	288.65	198.68	89.96	3.208		
10,700.00	7,480.00	10,920.11	7,610.00	59.00	59.69	-116.97	2,734.83	-2,064.05	286.71	194.43	92.28	3.107		
10,800.00	7,480.00	11,020.08	7,610.00	60.26	60.86	-117.17	2,834.79	-2,062.31	284.78	190.16	94.61	3.010		
10,839.04	7,480.00	11,059.11	7,610.00	60.76	61.32	-117.24	2,873.81	-2,061.63	284.02	188.49	95.53	2.973		
10,901.25	7,480.00	11,121.32	7,610.00	61.55	62.07	-117.30	2,936.01	-2,060.54	283.42	186.38	97.04	2.921		
11,000.00	7,480.00	11,220.07	7,610.00	62.80	63.27	-117.30	3,034.75	-2,058.82	283.42	183.87	99.55	2.847		
11,078.87	7,480.00	11,298.94	7,610.00	63.81	64.24	-117.30	3,113.60	-2,057.44	283.42	181.86	101.56	2.791		
11,100.00	7,480.00	11,320.07	7,610.00	64.08	64.50	-117.30	3,134.73	-2,057.07	283.42	181.32	102.10	2.776		
11,200.00	7,480.00	11,420.07	7,610.00	65.37	65.75	-117.30	3,234.72	-2,055.33	283.42	178.75	104.68	2.708		
11,300.00	7,480.00	11,520.07	7,610.00	66.68	67.01	-117.30	3,334.70	-2,053.58	283.42	176.16	107.26	2.642		
11,400.00	7,480.00	11,620.07	7,610.00	68.00	68.29	-117.30	3,434.69	-2,051.84	283.42	173.56	109.87	2.580		
11,500.00	7,480.00	11,720.07	7,610.00	69.33	69.58	-117.30	3,534.67	-2,050.09	283.42	170.94	112.48	2.520		
11,586.67	7,480.00	11,806.74	7,610.00	70.49	70.70	-117.30	3,621.32	-2,048.58	283.42	168.66	114.76	2.470		
11,600.00	7,480.00	11,820.07	7,610.00	70.66	70.88	-117.30	3,634.65	-2,048.35	283.42	168.31	115.11	2.462		
11,700.00	7,480.00	11,920.07	7,610.00	72.01	72.19	-117.30	3,734.64	-2,046.60	283.42	165.67	117.75	2.407		
11,780.86	7,480.00	12,000.93	7,610.00	73.11	73.26	-117.30	3,815.49	-2,045.19	283.42	163.53	119.90	2.364		
11,800.00	7,480.00	12,020.07	7,610.00	73.37	73.52	-117.30	3,834.62	-2,044.86	283.42	163.02	120.41	2.354		
11,900.00	7,480.00	12,120.07	7,610.00	74.74	74.85	-117.30	3,934.61	-2,043.11	283.42	160.35	123.07	2.303		
12,000.00	7,480.00	12,220.07	7,610.00	76.11	76.20	-117.30	4,034.59	-2,041.36	283.42	157.68	125.74	2.254		
12,100.00	7,480.00	12,320.07	7,610.00	77.49	77.55	-117.30	4,134.58	-2,039.62	283.42	155.00	128.42	2.207		
12,200.00	7,480.00	12,420.07	7,610.00	78.88	78.92	-117.30	4,234.56	-2,037.87	283.42	152.31	131.11	2.162		
12,300.00	7,480.00	12,520.07	7,610.00	80.28	80.29	-117.30	4,334.55	-2,036.13	283.42	149.61	133.81	2.118		
12,315.15	7,480.00	12,535.22	7,610.00	80.49	80.50	-117.30	4,349.69	-2,035.86	283.42	149.20	134.22	2.112		
12,400.00	7,480.00	12,620.07	7,610.00	81.68	81.67	-117.30	4,434.53	-2,034.38	283.42	146.91	136.52	2.076		
12,500.00	7,480.00	12,720.07	7,610.00	83.09	83.05	-117.30	4,534.52	-2,032.64	283.42	144.19	139.23	2.036		
12,600.00	7,480.00	12,820.07	7,610.00	84.50	84.44	-117.30	4,634.50	-2,030.89	283.42	141.47	141.95	1.997		
12,700.00	7,480.00	12,920.07	7,610.00	85.92	85.84	-117.30	4,734.49	-2,029.15	283.42	138.75	144.68	1.959		
12,800.00	7,480.00	13,020.07	7,610.00	87.35	87.25	-117.30	4,834.47	-2,027.40	283.42	136.01	147.41	1.923		
12,900.00	7,480.00	13,120.07	7,610.00	88.78	88.66	-117.30	4,934.46	-2,025.66	283.42	133.28	150.15	1.888		
13,000.00	7,480.00	13,220.07	7,610.00	90.21	90.07	-117.30	5,034.44	-2,023.91	283.42	130.53	152.89	1.854		
13,100.00	7,480.00	13,320.07	7,610.00	91.65	91.50	-117.30	5,134.43	-2,022.17	283.42	127.78	155.64	1.821		
13,200.00	7,480.00	13,420.07	7,610.00	93.10	92.92	-117.30	5,234.41	-2,020.42	283.42	125.03	158.39	1.789		
13,300.00	7,480.00	13,520.07	7,610.00	94.54	94.35	-117.30	5,334.40	-2,018.68	283.42	122.27	161.15	1.759		
13,400.00	7,480.00	13,620.07	7,610.00	96.00	95.79	-117.30	5,434.38	-2,016.93	283.42	119.51	163.91	1.729		

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4A-26H-P268 - OH - PLAN #3													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		
13,500.00	7,480.00	13,720.07	7,610.00	97.45	97.23	-117.30	5,534.37	-2,015.19	283.42	116.74	166.68	1.700		
13,600.00	7,480.00	13,820.07	7,610.00	98.91	98.67	-117.30	5,634.35	-2,013.44	283.42	113.97	169.45	1.673		
13,700.00	7,480.00	13,920.07	7,610.00	100.37	100.12	-117.30	5,734.33	-2,011.70	283.42	111.20	172.22	1.646		
13,768.67	7,480.00	13,988.74	7,610.00	101.38	101.11	-117.30	5,802.99	-2,010.50	283.42	109.29	174.13	1.628		
13,800.00	7,480.00	14,020.07	7,610.00	101.84	101.57	-117.30	5,834.32	-2,009.95	283.42	108.42	175.00	1.620		
13,900.00	7,480.00	14,120.07	7,610.00	103.31	103.02	-117.30	5,934.30	-2,008.21	283.42	105.64	177.78	1.594		
14,000.00	7,480.00	14,220.07	7,610.00	104.78	104.48	-117.30	6,034.29	-2,006.46	283.42	102.86	180.57	1.570		
14,035.92	7,480.00	14,255.99	7,610.00	105.31	105.01	-117.30	6,070.21	-2,005.83	283.42	101.86	181.57	1.561		
14,100.00	7,480.00	14,315.87	7,610.00	106.25	105.89	-117.29	6,130.07	-2,004.96	283.60	99.71	183.89	1.542		
14,200.00	7,480.00	14,412.72	7,610.00	107.73	107.33	-117.04	6,226.92	-2,005.98	286.08	98.67	187.41	1.526		
14,300.00	7,480.00	14,512.68	7,610.00	109.21	108.83	-116.78	6,326.87	-2,007.14	288.67	98.07	190.60	1.515		
14,400.00	7,480.00	14,612.64	7,610.00	110.69	110.32	-116.52	6,426.83	-2,008.29	291.26	97.47	193.79	1.503		
14,500.00	7,480.00	14,712.60	7,610.00	112.18	111.82	-116.27	6,526.78	-2,009.44	293.86	96.88	196.98	1.492 Level 3		
14,600.00	7,480.00	14,812.55	7,610.00	113.66	113.33	-116.02	6,626.73	-2,010.59	296.46	96.29	200.17	1.481 Level 3		
14,700.00	7,480.00	14,912.51	7,610.00	115.15	114.83	-115.77	6,726.68	-2,011.75	299.07	95.71	203.36	1.471 Level 3		
14,800.00	7,480.00	15,012.47	7,610.00	116.64	116.34	-115.54	6,826.63	-2,012.90	301.68	95.12	206.56	1.461 Level 3		
14,901.25	7,480.00	15,113.68	7,610.00	118.16	117.87	-115.30	6,927.83	-2,014.07	304.33	94.54	209.79	1.451 Level 3, SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4B-26H-P268 - OH - PLAN #3													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	-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	CC, ES	
400.00	400.00	399.62	399.60	1.21	1.20	-92.38	-0.49	-11.74	11.76	9.32	2.44	4.813		
500.00	499.98	499.10	498.94	1.56	1.55	15.54	-1.82	-16.75	15.20	12.01	3.19	4.771		
600.00	599.84	598.46	597.92	1.91	1.91	15.09	-4.03	-25.08	18.70	14.77	3.93	4.755		
700.00	699.45	697.70	696.42	2.26	2.28	15.60	-7.11	-36.71	22.25	17.56	4.69	4.746		
800.00	798.70	796.82	794.33	2.64	2.68	16.66	-11.07	-51.60	25.85	20.40	5.45	4.744		
900.00	897.47	895.81	891.53	3.03	3.10	18.06	-15.88	-69.74	29.50	23.29	6.21	4.748		
1,000.00	995.62	994.69	987.90	3.44	3.54	19.68	-21.54	-91.08	33.23	26.24	6.98	4.758		
1,100.00	1,093.06	1,093.44	1,083.34	3.89	4.03	21.44	-28.05	-115.59	37.04	29.27	7.77	4.767		
1,151.35	1,142.76	1,144.10	1,131.94	4.13	4.29	22.38	-31.71	-129.40	39.03	30.85	8.18	4.772		
1,200.00	1,189.75	1,192.49	1,178.18	4.37	4.55	23.16	-35.37	-143.19	41.15	32.59	8.56	4.808		
1,300.00	1,286.33	1,292.38	1,273.60	4.86	5.10	24.50	-42.96	-171.76	45.63	36.28	9.35	4.881		
1,400.00	1,382.91	1,392.28	1,369.02	5.37	5.67	25.59	-50.54	-200.33	50.13	39.97	10.16	4.932		
1,500.00	1,479.49	1,492.17	1,464.44	5.88	6.24	26.51	-58.12	-228.90	54.65	43.65	11.00	4.969		
1,600.00	1,576.07	1,592.07	1,559.86	6.41	6.82	27.29	-65.70	-257.46	59.17	47.32	11.85	4.994		
1,700.00	1,672.65	1,691.96	1,655.29	6.93	7.41	27.95	-73.28	-286.03	63.71	51.00	12.71	5.012		
1,800.00	1,769.23	1,791.86	1,750.71	7.46	8.00	28.53	-80.87	-314.60	68.25	54.67	13.58	5.025		
1,900.00	1,865.82	1,891.75	1,846.13	8.00	8.59	29.04	-88.45	-343.17	72.80	58.34	14.47	5.033		
2,000.00	1,962.40	1,991.65	1,941.55	8.53	9.18	29.48	-96.03	-371.74	77.36	62.00	15.35	5.038		
2,100.00	2,058.98	2,091.54	2,036.97	9.07	9.78	29.88	-103.61	-400.30	81.91	65.66	16.25	5.041		
2,200.00	2,155.56	2,191.44	2,132.39	9.61	10.38	30.24	-111.19	-428.87	86.48	69.33	17.15	5.042		
2,300.00	2,252.14	2,291.33	2,227.82	10.15	10.98	30.55	-118.78	-457.44	91.04	72.99	18.06	5.042		
2,400.00	2,348.72	2,391.22	2,323.24	10.69	11.58	30.84	-126.36	-486.01	95.61	76.64	18.97	5.041		
2,500.00	2,445.30	2,491.12	2,418.66	11.24	12.18	31.11	-133.94	-514.57	100.18	80.30	19.88	5.040		
2,600.00	2,541.88	2,591.01	2,514.08	11.78	12.79	31.35	-141.52	-543.14	104.75	83.96	20.79	5.038		
2,700.00	2,638.46	2,690.91	2,609.50	12.32	13.39	31.56	-149.10	-571.71	109.32	87.61	21.71	5.035		
2,800.00	2,735.04	2,790.80	2,704.92	12.87	14.00	31.77	-156.69	-600.28	113.90	91.27	22.63	5.032		
2,900.00	2,831.62	2,890.70	2,800.35	13.42	14.60	31.95	-164.27	-628.85	118.48	94.92	23.56	5.030		
3,000.00	2,928.20	2,990.59	2,895.77	13.96	15.21	32.13	-171.85	-657.41	123.05	98.57	24.48	5.027		
3,100.00	3,024.78	3,090.49	2,991.19	14.51	15.82	32.29	-179.43	-685.98	127.63	102.23	25.41	5.024		
3,200.00	3,121.36	3,190.38	3,086.61	15.06	16.42	32.43	-187.01	-714.55	132.21	105.88	26.33	5.021		
3,300.00	3,217.94	3,290.28	3,182.03	15.61	17.03	32.57	-194.59	-743.12	136.79	109.53	27.26	5.018		
3,400.00	3,314.52	3,390.17	3,277.46	16.15	17.64	32.70	-202.18	-771.69	141.37	113.18	28.19	5.015		
3,500.00	3,411.10	3,490.06	3,372.88	16.70	18.25	32.82	-209.76	-800.25	145.95	116.83	29.12	5.012		
3,600.00	3,507.68	3,589.96	3,468.30	17.25	18.85	32.94	-217.34	-828.82	150.54	120.48	30.06	5.009		
3,700.00	3,604.26	3,689.85	3,563.72	17.80	19.46	33.05	-224.92	-857.39	155.12	124.13	30.99	5.006		
3,800.00	3,700.84	3,789.75	3,659.14	18.35	20.07	33.15	-232.50	-885.96	159.70	127.78	31.92	5.003		
3,900.00	3,797.42	3,889.64	3,754.56	18.90	20.68	33.24	-240.09	-914.52	164.29	131.43	32.86	5.000		
4,000.00	3,894.00	3,989.54	3,849.99	19.45	21.29	33.33	-247.67	-943.09	168.87	135.08	33.79	4.997		
4,100.00	3,990.58	4,089.43	3,945.41	20.00	21.90	33.42	-255.25	-971.66	173.45	138.73	34.73	4.995		
4,200.00	4,087.16	4,189.33	4,040.83	20.55	22.51	33.50	-262.83	-1,000.23	178.04	142.38	35.66	4.992		
4,300.00	4,183.75	4,289.22	4,136.25	21.10	23.12	33.58	-270.41	-1,028.80	182.62	146.02	36.60	4.990		
4,400.00	4,280.33	4,389.11	4,231.67	21.65	23.73	33.65	-278.00	-1,057.36	187.21	149.67	37.54	4.987		
4,500.00	4,376.91	4,489.01	4,327.09	22.20	24.34	33.72	-285.58	-1,085.93	191.80	153.32	38.48	4.985		
4,600.00	4,473.49	4,588.90	4,422.52	22.75	24.95	33.79	-293.16	-1,114.50	196.38	156.97	39.41	4.982		
4,700.00	4,570.07	4,688.80	4,517.94	23.30	25.56	33.85	-300.74	-1,143.07	200.97	160.62	40.35	4.980		
4,800.00	4,666.65	4,788.69	4,613.36	23.85	26.17	33.91	-308.32	-1,171.64	205.56	164.26	41.29	4.978		
4,900.00	4,763.23	4,888.59	4,708.78	24.40	26.78	33.97	-315.90	-1,200.20	210.14	167.91	42.23	4.976		
5,000.00	4,859.81	4,988.48	4,804.20	24.96	27.39	34.03	-323.49	-1,228.77	214.73	171.56	43.17	4.974		

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4B-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
5,100.00	4,956.39	5,088.38	4,899.62	25.51	28.00	34.08	-331.07	-1,257.34	219.32	175.20	44.11	4.972	
5,200.00	5,052.97	5,188.27	4,995.05	26.06	28.61	34.13	-338.65	-1,285.91	223.90	178.85	45.05	4.970	
5,300.00	5,149.55	5,288.17	5,090.47	26.61	29.22	34.18	-346.23	-1,314.47	228.49	182.50	45.99	4.968	
5,400.00	5,246.13	5,388.06	5,185.89	27.16	29.83	34.23	-353.81	-1,343.04	233.08	186.15	46.93	4.966	
5,500.00	5,342.71	5,487.95	5,281.31	27.71	30.44	34.27	-361.40	-1,371.61	237.67	189.79	47.88	4.964	
5,600.00	5,439.29	5,587.85	5,376.73	28.26	31.05	34.32	-368.98	-1,400.18	242.26	193.44	48.82	4.963	
5,700.00	5,535.87	5,687.74	5,472.16	28.82	31.66	34.36	-376.56	-1,428.75	246.84	197.09	49.76	4.961	
5,800.00	5,632.45	5,787.64	5,567.58	29.37	32.27	34.40	-384.14	-1,457.31	251.43	200.73	50.70	4.959	
5,900.00	5,729.03	5,887.53	5,663.00	29.92	32.88	34.44	-391.72	-1,485.88	256.02	204.38	51.64	4.958	
6,000.00	5,825.61	5,987.43	5,758.42	30.47	33.50	34.48	-399.31	-1,514.45	260.61	208.03	52.58	4.956	
6,100.00	5,922.19	6,087.32	5,853.84	31.02	34.11	34.51	-406.89	-1,543.02	265.20	211.67	53.53	4.955	
6,200.00	6,018.77	6,187.22	5,949.26	31.57	34.72	34.55	-414.47	-1,571.58	269.79	215.32	54.47	4.953	
6,300.00	6,115.35	6,287.11	6,044.69	32.13	35.33	34.58	-422.05	-1,600.15	274.38	218.96	55.41	4.952	
6,400.00	6,211.93	6,387.01	6,140.11	32.68	35.94	34.61	-429.63	-1,628.72	278.96	222.61	56.35	4.950	
6,500.00	6,308.51	6,486.90	6,235.53	33.23	36.55	34.65	-437.21	-1,657.29	283.55	226.26	57.30	4.949	
6,600.00	6,405.09	6,586.79	6,330.95	33.78	37.16	34.68	-444.80	-1,685.86	288.14	229.90	58.24	4.947	
6,700.00	6,501.68	6,686.69	6,426.37	34.33	37.77	34.71	-452.38	-1,714.42	292.73	233.55	59.18	4.946	
6,800.00	6,598.26	6,786.58	6,521.79	34.88	38.38	34.74	-459.96	-1,742.99	297.32	237.19	60.13	4.945	
6,900.00	6,694.84	6,886.48	6,617.22	35.44	39.00	34.76	-467.54	-1,771.56	301.91	240.84	61.07	4.944	
6,939.68	6,733.16	6,926.12	6,655.08	35.66	39.24	34.77	-470.55	-1,782.90	303.73	242.29	61.44	4.943	
6,950.00	6,743.13	6,936.43	6,664.93	35.71	39.30	31.81	-471.33	-1,785.84	304.18	242.65	61.54	4.943	
7,000.00	6,791.54	6,984.29	6,710.67	35.98	39.59	16.25	-474.73	-1,799.54	305.78	243.96	61.82	4.946	
7,050.00	6,839.91	7,029.16	6,753.64	36.23	39.86	0.81	-475.45	-1,812.38	307.01	245.05	61.96	4.955	
7,100.00	6,888.03	7,074.16	6,796.70	36.47	40.11	-12.56	-473.17	-1,825.22	308.02	246.00	62.02	4.967	
7,150.00	6,935.65	7,119.32	6,839.68	36.68	40.35	-23.23	-467.88	-1,838.01	308.80	246.80	62.00	4.980	
7,200.00	6,982.55	7,164.64	6,882.38	36.88	40.57	-31.46	-459.56	-1,850.69	309.36	247.43	61.93	4.995	
7,250.00	7,028.48	7,210.12	6,924.60	37.06	40.78	-37.83	-448.23	-1,863.20	309.70	247.87	61.82	5.010	
7,300.00	7,073.24	7,255.79	6,966.17	37.22	40.97	-42.83	-433.88	-1,875.49	309.80	248.12	61.68	5.023	
7,350.00	7,116.60	7,300.00	7,005.44	37.37	41.14	-46.83	-417.23	-1,887.08	309.69	248.26	61.43	5.041	
7,373.26	7,136.24	7,323.03	7,025.46	37.43	41.22	-48.46	-407.50	-1,892.98	309.55	248.12	61.43	5.039	
7,400.00	7,158.35	7,347.67	7,046.52	37.50	41.30	-50.16	-396.31	-1,899.17	309.34	247.99	61.34	5.043	
7,450.00	7,198.29	7,393.90	7,084.92	37.62	41.45	-52.93	-373.19	-1,910.44	308.77	247.59	61.18	5.047	
7,500.00	7,236.22	7,440.33	7,121.88	37.72	41.57	-55.31	-347.25	-1,921.25	307.98	246.95	61.03	5.046	
7,550.00	7,271.95	7,486.96	7,157.19	37.80	41.69	-57.39	-318.60	-1,931.54	306.98	246.07	60.91	5.040	
7,600.00	7,305.33	7,533.80	7,190.66	37.88	41.79	-59.22	-287.33	-1,941.27	305.77	244.95	60.83	5.027	
7,650.00	7,336.17	7,580.85	7,222.12	37.94	41.87	-60.87	-253.57	-1,950.37	304.36	243.57	60.78	5.007	
7,700.00	7,364.33	7,628.11	7,251.38	37.99	41.94	-62.37	-217.43	-1,958.80	302.74	241.95	60.79	4.980	
7,750.00	7,389.68	7,675.58	7,278.25	38.04	42.01	-63.73	-179.08	-1,966.49	300.93	240.08	60.85	4.946	
7,800.00	7,412.08	7,723.26	7,302.58	38.07	42.06	-64.99	-138.67	-1,973.40	298.94	237.98	60.96	4.904	
7,850.00	7,431.44	7,771.15	7,324.20	38.10	42.10	-66.15	-96.39	-1,979.49	296.77	235.65	61.12	4.855	
7,900.00	7,447.66	7,819.24	7,342.98	38.13	42.13	-67.23	-52.43	-1,984.72	294.43	233.10	61.33	4.801	
7,950.00	7,460.85	7,867.54	7,358.76	38.15	42.15	-68.23	-7.00	-1,989.03	291.93	230.35	61.58	4.740	
8,000.00	7,470.36	7,916.04	7,371.43	38.18	42.17	-69.15	39.68	-1,992.41	289.28	227.41	61.88	4.675	
8,050.00	7,476.73	7,964.73	7,380.89	38.20	42.18	-70.00	87.37	-1,994.82	286.49	224.30	62.20	4.606	
8,100.00	7,479.74	8,013.61	7,387.05	38.23	42.19	-70.78	135.83	-1,996.24	283.58	221.03	62.55	4.534	
8,119.55	7,480.00	8,032.77	7,388.54	38.24	42.20	-71.07	154.93	-1,996.52	282.41	219.71	62.69	4.505	
8,200.00	7,480.00	8,112.35	7,390.00	38.31	42.21	-71.06	234.48	-1,996.26	277.70	214.40	63.30	4.387	
8,300.00	7,480.00	8,212.17	7,390.00	38.45	42.26	-70.64	334.29	-1,995.39	271.93	207.76	64.17	4.238	
8,400.00	7,480.00	8,311.98	7,390.00	38.65	42.35	-70.20	434.10	-1,994.52	266.18	201.00	65.17	4.084	
8,500.00	7,480.00	8,411.79	7,390.00	38.92	42.48	-69.75	533.91	-1,993.64	260.44	194.14	66.30	3.928	
8,600.00	7,480.00	8,511.61	7,390.00	39.25	42.65	-69.27	633.72	-1,992.77	254.72	187.18	67.54	3.771	
8,700.00	7,480.00	8,611.42	7,390.00	39.67	42.88	-68.78	733.53	-1,991.90	249.02	180.12	68.89	3.614	

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4B-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				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	8,711.23	7,390.00	40.16	43.16	-68.26	833.34	-1,991.03	243.34	172.99		70.34	3.459
8,900.00	7,480.00	8,811.05	7,390.00	40.73	43.50	-67.71	933.15	-1,990.16	237.68	165.79		71.88	3.306
9,000.00	7,480.00	8,910.86	7,390.00	41.38	43.89	-67.14	1,032.96	-1,989.29	232.04	158.54		73.50	3.157
9,100.00	7,480.00	9,010.67	7,390.00	42.11	44.35	-66.54	1,132.77	-1,988.42	226.42	151.23		75.19	3.011
9,200.00	7,480.00	9,110.49	7,390.00	42.89	44.87	-65.91	1,232.58	-1,987.55	220.83	143.89		76.94	2.870
9,300.00	7,480.00	9,210.30	7,390.00	43.75	45.45	-65.25	1,332.39	-1,986.68	215.27	136.53		78.74	2.734
9,400.00	7,480.00	9,310.11	7,390.00	44.65	46.10	-64.55	1,432.20	-1,985.81	209.74	129.16		80.58	2.603
9,469.55	7,480.00	9,379.54	7,390.00	45.32	46.58	-64.04	1,501.62	-1,985.20	205.92	124.03		81.89	2.515
9,500.00	7,480.00	9,409.94	7,390.00	45.61	46.80	-63.85	1,532.02	-1,984.93	204.39	121.93		82.46	2.479
9,607.34	7,480.00	9,517.22	7,390.00	46.65	47.62	-63.45	1,639.29	-1,984.00	201.34	116.77		84.57	2.381
9,700.00	7,480.00	9,609.87	7,390.00	47.55	48.38	-63.29	1,731.94	-1,983.19	200.27	113.80		86.47	2.316
9,800.00	7,480.00	9,709.86	7,390.00	48.57	49.24	-63.12	1,831.93	-1,982.32	199.11	110.55		88.56	2.248
9,900.00	7,480.00	9,809.85	7,390.00	49.62	50.16	-62.95	1,931.92	-1,981.44	197.95	107.27		90.68	2.183
10,000.00	7,480.00	9,909.84	7,390.00	50.70	51.11	-62.78	2,031.90	-1,980.57	196.79	103.95		92.85	2.120
10,100.00	7,480.00	10,009.84	7,390.00	51.81	52.11	-62.61	2,131.89	-1,979.70	195.64	100.60		95.04	2.059
10,200.00	7,480.00	10,109.83	7,390.00	52.95	53.14	-62.43	2,231.88	-1,978.83	194.49	97.23		97.26	2.000
10,300.00	7,480.00	10,209.82	7,390.00	54.12	54.21	-62.26	2,331.87	-1,977.95	193.34	93.83		99.51	1.943
10,400.00	7,480.00	10,309.81	7,390.00	55.31	55.30	-62.08	2,431.85	-1,977.08	192.19	90.41		101.79	1.888
10,500.00	7,480.00	10,409.80	7,390.00	56.52	56.43	-61.89	2,531.84	-1,976.21	191.05	86.96		104.08	1.836
10,600.00	7,480.00	10,509.79	7,390.00	57.75	57.58	-61.71	2,631.83	-1,975.34	189.90	83.51		106.40	1.785
10,700.00	7,480.00	10,609.78	7,390.00	59.00	58.75	-61.52	2,731.82	-1,974.46	188.76	80.03		108.73	1.736
10,800.00	7,480.00	10,709.78	7,390.00	60.26	59.95	-61.33	2,831.81	-1,973.59	187.62	76.55		111.07	1.689
10,839.04	7,480.00	10,748.81	7,390.00	60.76	60.42	-61.26	2,870.84	-1,973.25	187.18	75.18		111.99	1.671
10,876.24	7,480.00	10,786.01	7,390.00	61.23	60.87	-61.22	2,908.04	-1,972.93	186.96	74.08		112.89	1.656
10,901.25	7,480.00	10,811.02	7,390.00	61.55	61.18	-61.24	2,933.05	-1,972.71	187.06	73.56		113.50	1.648
11,000.00	7,480.00	10,909.77	7,390.00	62.80	62.39	-61.37	3,031.79	-1,971.85	187.82	71.84		115.97	1.619
11,100.00	7,480.00	11,009.76	7,390.00	64.08	63.65	-61.49	3,131.78	-1,970.97	188.58	70.08		118.50	1.591
11,200.00	7,480.00	11,109.76	7,390.00	65.37	64.91	-61.62	3,231.77	-1,970.10	189.35	68.31		121.04	1.564
11,300.00	7,480.00	11,209.76	7,390.00	66.68	66.20	-61.74	3,331.77	-1,969.23	190.12	66.51		123.60	1.538
11,400.00	7,480.00	11,309.75	7,390.00	68.00	67.49	-61.87	3,431.76	-1,968.36	190.89	64.70		126.19	1.513
11,500.00	7,480.00	11,409.75	7,390.00	69.33	68.80	-61.99	3,531.75	-1,967.48	191.66	62.87		128.79	1.488 Level 3
11,600.00	7,480.00	11,509.75	7,390.00	70.66	70.12	-62.11	3,631.74	-1,966.61	192.43	61.02		131.40	1.464 Level 3
11,700.00	7,480.00	11,609.74	7,390.00	72.01	71.45	-62.23	3,731.74	-1,965.74	193.20	59.16		134.04	1.441 Level 3
11,800.00	7,480.00	11,709.74	7,390.00	73.37	72.80	-62.35	3,831.73	-1,964.86	193.97	57.29		136.68	1.419 Level 3
11,900.00	7,480.00	11,809.73	7,390.00	74.74	74.15	-62.47	3,931.72	-1,963.99	194.75	55.40		139.35	1.398 Level 3
12,000.00	7,480.00	11,909.73	7,390.00	76.11	75.51	-62.59	4,031.71	-1,963.12	195.52	53.50		142.02	1.377 Level 3
12,100.00	7,480.00	12,009.73	7,390.00	77.49	76.88	-62.71	4,131.71	-1,962.25	196.29	51.58		144.71	1.356 Level 3
12,200.00	7,480.00	12,109.72	7,390.00	78.88	78.26	-62.83	4,231.70	-1,961.37	197.07	49.66		147.41	1.337 Level 3
12,300.00	7,480.00	12,209.72	7,390.00	80.28	79.65	-62.94	4,331.69	-1,960.50	197.85	47.72		150.13	1.318 Level 3
12,400.00	7,480.00	12,309.71	7,390.00	81.68	81.04	-63.06	4,431.68	-1,959.63	198.62	45.77		152.85	1.299 Level 3
12,500.00	7,480.00	12,409.71	7,390.00	83.09	82.44	-63.17	4,531.68	-1,958.76	199.40	43.81		155.59	1.282 Level 3
12,600.00	7,480.00	12,509.71	7,390.00	84.50	83.85	-63.28	4,631.67	-1,957.88	200.18	41.84		158.34	1.264 Level 3
12,700.00	7,480.00	12,609.70	7,390.00	85.92	85.26	-63.39	4,731.66	-1,957.01	200.96	39.86		161.10	1.247 Level 2
12,800.00	7,480.00	12,709.70	7,390.00	87.35	86.68	-63.50	4,831.65	-1,956.14	201.74	37.87		163.87	1.231 Level 2
12,900.00	7,480.00	12,809.70	7,390.00	88.78	88.10	-63.61	4,931.64	-1,955.27	202.52	35.88		166.65	1.215 Level 2
13,000.00	7,480.00	12,909.69	7,390.00	90.21	89.53	-63.72	5,031.64	-1,954.39	203.31	33.87		169.43	1.200 Level 2
13,100.00	7,480.00	13,009.69	7,390.00	91.65	90.97	-63.83	5,131.63	-1,953.52	204.09	31.86		172.23	1.185 Level 2
13,200.00	7,480.00	13,109.68	7,390.00	93.10	92.41	-63.94	5,231.62	-1,952.65	204.87	29.84		175.03	1.170 Level 2
13,300.00	7,480.00	13,209.68	7,390.00	94.54	93.85	-64.05	5,331.61	-1,951.78	205.66	27.81		177.85	1.156 Level 2
13,400.00	7,480.00	13,309.68	7,390.00	96.00	95.30	-64.15	5,431.61	-1,950.90	206.44	25.77		180.67	1.143 Level 2
13,500.00	7,480.00	13,409.67	7,390.00	97.45	96.75	-64.26	5,531.60	-1,950.03	207.23	23.73		183.50	1.129 Level 2
13,600.00	7,480.00	13,509.67	7,390.00	98.91	98.21	-64.36	5,631.59	-1,949.16	208.01	21.68		186.33	1.116 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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4B-26H-P268 - OH - PLAN #3													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		
13,700.00	7,480.00	13,609.67	7,390.00	100.37	99.67	-64.47	5,731.58	-1,948.28	208.80	19.62	189.18	1.104	Level 2	
13,800.00	7,480.00	13,709.66	7,390.00	101.84	101.13	-64.57	5,831.58	-1,947.41	209.59	17.56	192.03	1.091	Level 2	
13,900.00	7,480.00	13,809.66	7,390.00	103.31	102.60	-64.67	5,931.57	-1,946.54	210.38	15.49	194.88	1.079	Level 2	
14,000.00	7,480.00	13,909.65	7,390.00	104.78	104.07	-64.77	6,031.56	-1,945.67	211.17	13.42	197.75	1.068	Level 2	
14,100.00	7,480.00	14,006.39	7,390.00	106.25	105.50	-64.90	6,128.30	-1,945.06	212.20	11.03	201.17	1.055	Level 2	
14,200.00	7,480.00	14,096.75	7,390.00	107.73	106.87	-65.43	6,218.59	-1,948.23	216.94	11.21	205.73	1.054	Level 2, SF	
14,300.00	7,480.00	14,196.47	7,390.00	109.21	108.41	-66.22	6,318.15	-1,953.92	223.74	14.51	209.23	1.069	Level 2	
14,400.00	7,480.00	14,296.19	7,390.00	110.69	109.96	-66.97	6,417.71	-1,959.62	230.59	17.89	212.70	1.084	Level 2	
14,500.00	7,480.00	14,395.92	7,390.00	112.18	111.50	-67.67	6,517.27	-1,965.31	237.47	21.33	216.14	1.099	Level 2	
14,600.00	7,480.00	14,495.64	7,390.00	113.66	113.05	-68.34	6,616.82	-1,971.01	244.38	24.84	219.54	1.113	Level 2	
14,700.00	7,480.00	14,595.36	7,390.00	115.15	114.60	-68.96	6,716.38	-1,976.71	251.33	28.40	222.93	1.127	Level 2	
14,800.00	7,480.00	14,695.08	7,390.00	116.64	116.15	-69.56	6,815.94	-1,982.40	258.30	32.01	226.29	1.141	Level 2	
14,901.25	7,480.00	14,796.05	7,390.00	118.16	117.73	-70.13	6,916.75	-1,988.17	265.39	35.72	229.67	1.156	Level 2	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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	89.75	0.04	9.79	9.79				
100.00	100.00	100.00	100.00	0.14	0.14	89.75	0.04	9.79	9.79	9.51	0.28	35.470	
200.00	200.00	200.00	200.00	0.50	0.50	89.75	0.04	9.79	9.79	8.80	0.99	9.860	
300.00	300.00	300.00	300.00	0.85	0.85	89.75	0.04	9.79	9.79	8.08	1.71	5.726	
400.00	400.00	400.00	400.00	1.21	1.21	89.75	0.04	9.79	9.79	7.36	2.43	4.034 CC, ES	
500.00	499.98	499.98	499.98	1.56	1.57	-163.05	0.04	9.79	11.45	8.31	3.13	3.653	
600.00	599.84	600.36	600.34	1.91	1.92	-166.66	-0.64	8.17	14.84	11.00	3.84	3.864	
700.00	699.45	700.86	700.69	2.26	2.27	-168.40	-2.70	3.31	18.28	13.72	4.56	4.007	
800.00	798.70	801.48	800.92	2.64	2.62	-169.15	-6.13	-4.81	21.76	16.46	5.30	4.103	
900.00	897.47	902.22	900.90	3.03	2.99	-169.30	-10.93	-16.17	25.25	19.19	6.05	4.170	
1,000.00	995.62	1,003.09	1,000.50	3.44	3.38	-169.07	-17.11	-30.79	28.74	21.93	6.81	4.218	
1,100.00	1,093.06	1,104.07	1,099.60	3.89	3.80	-168.59	-24.66	-48.65	32.24	24.66	7.58	4.254	
1,151.35	1,142.76	1,155.96	1,150.25	4.13	4.02	-168.27	-29.07	-59.08	34.04	26.07	7.98	4.267	
1,200.00	1,189.75	1,204.91	1,197.84	4.37	4.24	-167.83	-33.52	-69.61	35.43	27.08	8.35	4.245	
1,300.00	1,286.33	1,304.87	1,294.98	4.86	4.70	-166.94	-42.71	-91.34	38.04	28.95	9.10	4.182	
1,400.00	1,382.91	1,404.84	1,392.12	5.37	5.17	-166.16	-51.90	-113.08	40.66	30.80	9.86	4.124	
1,500.00	1,479.49	1,504.80	1,489.26	5.88	5.64	-165.47	-61.09	-134.81	43.29	32.65	10.64	4.070	
1,600.00	1,576.07	1,604.76	1,586.39	6.41	6.13	-164.86	-70.27	-156.55	45.92	34.50	11.42	4.020	
1,700.00	1,672.65	1,704.73	1,683.53	6.93	6.62	-164.32	-79.46	-178.28	48.56	36.34	12.22	3.973	
1,800.00	1,769.23	1,804.69	1,780.67	7.46	7.11	-163.84	-88.65	-200.01	51.20	38.17	13.02	3.931	
1,900.00	1,865.82	1,904.66	1,877.81	8.00	7.61	-163.40	-97.84	-221.75	53.84	40.01	13.83	3.892	
2,000.00	1,962.40	2,004.62	1,974.95	8.53	8.11	-163.00	-107.03	-243.48	56.49	41.84	14.65	3.856	
2,100.00	2,058.98	2,104.59	2,072.09	9.07	8.61	-162.64	-116.21	-265.22	59.14	43.67	15.47	3.823	
2,200.00	2,155.56	2,204.55	2,169.23	9.61	9.12	-162.31	-125.40	-286.95	61.79	45.50	16.29	3.792	
2,300.00	2,252.14	2,304.51	2,266.37	10.15	9.63	-162.01	-134.59	-308.68	64.44	47.32	17.12	3.764	
2,400.00	2,348.72	2,404.48	2,363.51	10.69	10.13	-161.73	-143.78	-330.42	67.10	49.15	17.95	3.738	
2,500.00	2,445.30	2,504.44	2,460.65	11.24	10.64	-161.47	-152.96	-352.15	69.75	50.97	18.78	3.713	
2,600.00	2,541.88	2,604.41	2,557.79	11.78	11.15	-161.23	-162.15	-373.89	72.41	52.79	19.62	3.691	
2,700.00	2,638.46	2,704.37	2,654.93	12.32	11.66	-161.01	-171.34	-395.62	75.07	54.61	20.46	3.669	
2,800.00	2,735.04	2,804.34	2,752.07	12.87	12.17	-160.80	-180.53	-417.35	77.73	56.43	21.30	3.650	
2,900.00	2,831.62	2,904.30	2,849.21	13.42	12.69	-160.61	-189.72	-439.09	80.39	58.25	22.14	3.631	
3,000.00	2,928.20	3,004.26	2,946.35	13.96	13.20	-160.43	-198.90	-460.82	83.05	60.07	22.98	3.614	
3,100.00	3,024.78	3,104.23	3,043.49	14.51	13.71	-160.26	-208.09	-482.56	85.71	61.89	23.83	3.597	
3,200.00	3,121.36	3,204.19	3,140.62	15.06	14.23	-160.10	-217.28	-504.29	88.38	63.70	24.67	3.582	
3,300.00	3,217.94	3,304.16	3,237.76	15.61	14.74	-159.95	-226.47	-526.03	91.04	65.52	25.52	3.567	
3,400.00	3,314.52	3,404.12	3,334.90	16.15	15.26	-159.81	-235.66	-547.76	93.71	67.34	26.37	3.553	
3,500.00	3,411.10	3,504.09	3,432.04	16.70	15.77	-159.67	-244.84	-569.49	96.37	69.15	27.22	3.540	
3,600.00	3,507.68	3,604.05	3,529.18	17.25	16.29	-159.55	-254.03	-591.23	99.04	70.97	28.07	3.528	
3,700.00	3,604.26	3,704.01	3,626.32	17.80	16.80	-159.43	-263.22	-612.96	101.70	72.78	28.92	3.517	
3,800.00	3,700.84	3,803.98	3,723.46	18.35	17.32	-159.31	-272.41	-634.70	104.37	74.60	29.77	3.505	
3,900.00	3,797.42	3,903.94	3,820.60	18.90	17.83	-159.20	-281.59	-656.43	107.04	76.41	30.63	3.495	
4,000.00	3,894.00	4,003.91	3,917.74	19.45	18.35	-159.10	-290.78	-678.16	109.70	78.22	31.48	3.485	
4,100.00	3,990.58	4,103.87	4,014.88	20.00	18.87	-159.00	-299.97	-699.90	112.37	80.04	32.33	3.475	
4,200.00	4,087.16	4,203.83	4,112.02	20.55	19.38	-158.91	-309.16	-721.63	115.04	81.85	33.19	3.466	
4,300.00	4,183.75	4,303.80	4,209.16	21.10	19.90	-158.82	-318.35	-743.37	117.71	83.66	34.04	3.458	
4,400.00	4,280.33	4,403.76	4,306.30	21.65	20.42	-158.74	-327.53	-765.10	120.37	85.48	34.90	3.449	
4,500.00	4,376.91	4,503.73	4,403.44	22.20	20.93	-158.65	-336.72	-786.83	123.04	87.29	35.75	3.441	
4,600.00	4,473.49	4,603.69	4,500.58	22.75	21.45	-158.58	-345.91	-808.57	125.71	89.10	36.61	3.434	
4,700.00	4,570.07	4,703.66	4,597.72	23.30	21.97	-158.50	-355.10	-830.30	128.38	90.91	37.47	3.426	
4,800.00	4,666.65	4,803.62	4,694.86	23.85	22.48	-158.43	-364.28	-852.04	131.05	92.72	38.32	3.419	
4,900.00	4,763.23	4,903.58	4,791.99	24.40	23.00	-158.36	-373.47	-873.77	133.72	94.54	39.18	3.413	
5,000.00	4,859.81	5,003.55	4,889.13	24.96	23.52	-158.29	-382.66	-895.50	136.39	96.35	40.04	3.406	

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 4C-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 4C-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 #3	<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				Total Uncertainty Axis	Separation Factor	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)			
5,100.00	4,956.39	5,103.51	4,986.27	25.51	24.04	-158.23	-391.85	-917.24	139.06	98.16	40.90	3.400	
5,200.00	5,052.97	5,203.48	5,083.41	26.06	24.56	-158.17	-401.04	-938.97	141.73	99.97	41.76	3.394	
5,300.00	5,149.55	5,303.44	5,180.55	26.61	25.07	-158.11	-410.22	-960.71	144.40	101.78	42.62	3.388	
5,400.00	5,246.13	5,403.41	5,277.69	27.16	25.59	-158.05	-419.41	-982.44	147.07	103.59	43.47	3.383	
5,500.00	5,342.71	5,503.37	5,374.83	27.71	26.11	-158.00	-428.60	-1,004.17	149.74	105.40	44.33	3.378	
5,600.00	5,439.29	5,603.33	5,471.97	28.26	26.63	-157.95	-437.79	-1,025.91	152.41	107.22	45.19	3.372	
5,700.00	5,535.87	5,703.30	5,569.11	28.82	27.15	-157.90	-446.98	-1,047.64	155.08	109.03	46.05	3.367	
5,800.00	5,632.45	5,803.26	5,666.25	29.37	27.66	-157.85	-456.16	-1,069.38	157.75	110.84	46.91	3.363	
5,900.00	5,729.03	5,903.23	5,783.39	29.92	28.18	-157.80	-465.35	-1,091.11	160.42	112.65	47.77	3.358	
6,000.00	5,825.61	6,003.19	5,860.53	30.47	28.70	-157.75	-474.54	-1,112.84	163.09	114.46	48.63	3.354	
6,100.00	5,922.19	6,103.16	5,957.67	31.02	29.22	-157.71	-483.73	-1,134.58	165.76	116.27	49.49	3.349	
6,200.00	6,018.77	6,203.12	6,054.81	31.57	29.74	-157.66	-492.91	-1,156.31	168.43	118.08	50.35	3.345	
6,300.00	6,115.35	6,303.08	6,151.95	32.13	30.26	-157.62	-502.10	-1,178.05	171.11	119.89	51.21	3.341	
6,400.00	6,211.93	6,403.05	6,249.09	32.68	30.77	-157.58	-511.29	-1,199.78	173.78	121.70	52.08	3.337	
6,500.00	6,308.51	6,503.01	6,346.23	33.23	31.29	-157.54	-520.48	-1,221.51	176.45	123.51	52.94	3.333	
6,600.00	6,405.09	6,602.98	6,443.36	33.78	31.81	-157.50	-529.67	-1,243.25	179.12	125.32	53.80	3.329	
6,700.00	6,501.68	6,702.94	6,540.50	34.33	32.33	-157.47	-538.85	-1,264.98	181.79	127.13	54.66	3.326	
6,800.00	6,598.26	6,803.05	6,637.79	34.88	32.85	-157.45	-547.98	-1,286.75	184.46	128.94	55.52	3.323	
6,900.00	6,694.84	6,903.62	6,735.84	35.44	33.33	-160.02	-548.73	-1,308.73	186.85	131.09	55.76	3.351	
6,939.68	6,733.16	6,942.58	6,773.69	35.66	33.50	-162.14	-545.22	-1,317.24	187.96	132.34	55.62	3.380	
6,950.00	6,743.13	6,952.59	6,783.38	35.71	33.54	-165.79	-543.98	-1,319.42	188.31	132.74	55.57	3.389	
7,000.00	6,791.54	7,000.70	6,829.67	35.98	33.72	175.79	-536.10	-1,329.84	190.41	135.03	55.38	3.438	
7,050.00	6,839.91	7,048.17	6,874.74	36.23	33.88	157.71	-525.21	-1,340.01	193.17	137.93	55.24	3.497	
7,100.00	6,888.03	7,095.05	6,918.45	36.47	34.03	141.85	-511.47	-1,349.89	196.53	141.38	55.15	3.564	
7,150.00	6,935.65	7,141.37	6,960.69	36.68	34.16	128.88	-495.05	-1,359.45	200.42	145.34	55.08	3.639	
7,200.00	6,982.55	7,187.16	7,001.33	36.88	34.27	118.53	-476.11	-1,368.66	204.75	149.75	55.00	3.722	
7,250.00	7,028.48	7,232.46	7,040.29	37.06	34.37	110.25	-454.78	-1,377.52	209.45	154.55	54.90	3.815	
7,300.00	7,073.24	7,277.29	7,077.48	37.22	34.45	103.54	-431.22	-1,385.98	214.44	159.68	54.76	3.916	
7,350.00	7,116.60	7,321.71	7,112.83	37.37	34.52	98.02	-405.58	-1,394.05	219.64	165.07	54.56	4.025	
7,400.00	7,158.35	7,365.73	7,146.26	37.50	34.58	93.41	-378.00	-1,401.70	224.96	170.66	54.31	4.142	
7,450.00	7,198.29	7,409.38	7,177.73	37.62	34.62	89.53	-348.62	-1,408.91	230.36	176.36	54.00	4.266	
7,500.00	7,236.22	7,450.00	7,205.38	37.72	34.66	86.30	-319.56	-1,415.27	235.76	182.29	53.47	4.409	
7,550.00	7,271.95	7,495.73	7,234.53	37.80	34.69	83.43	-284.98	-1,421.99	241.07	187.83	53.24	4.528	
7,600.00	7,305.33	7,538.48	7,259.77	37.88	34.71	81.03	-250.99	-1,427.84	246.29	193.46	52.83	4.662	
7,650.00	7,336.17	7,580.98	7,282.87	37.94	34.72	78.98	-215.73	-1,433.21	251.34	198.93	52.41	4.796	
7,700.00	7,364.33	7,623.27	7,303.78	37.99	34.72	77.24	-179.31	-1,438.09	256.19	204.18	52.01	4.926	
7,750.00	7,389.68	7,665.36	7,322.47	38.04	34.72	75.78	-141.86	-1,442.49	260.79	209.16	51.64	5.050	
7,800.00	7,412.08	7,707.28	7,338.93	38.07	34.72	74.56	-103.50	-1,446.39	265.12	213.80	51.32	5.166	
7,850.00	7,431.44	7,750.00	7,353.41	38.10	34.72	73.57	-63.47	-1,449.85	269.15	218.04	51.11	5.266	
7,900.00	7,447.66	7,790.74	7,365.02	38.13	34.71	72.79	-24.53	-1,452.67	272.84	221.94	50.91	5.360	
7,950.00	7,460.65	7,832.31	7,374.63	38.15	34.70	72.20	15.84	-1,455.04	276.19	225.35	50.84	5.433	
8,000.00	7,470.36	7,873.82	7,381.93	38.18	34.69	71.80	56.66	-1,456.90	279.18	228.30	50.87	5.488	
8,050.00	7,476.73	7,915.28	7,386.90	38.20	34.68	71.58	97.79	-1,458.23	281.78	230.77	51.01	5.524	
8,100.00	7,479.74	7,956.73	7,389.54	38.23	34.68	71.52	139.14	-1,459.05	284.00	232.73	51.27	5.540	
8,119.55	7,480.00	7,972.93	7,389.93	38.24	34.68	71.55	155.34	-1,459.22	284.76	233.37	51.40	5.541	
8,200.00	7,480.00	8,051.27	7,390.00	38.31	34.69	71.79	233.67	-1,459.66	288.30	236.34	51.96	5.548	
8,300.00	7,480.00	8,151.15	7,390.00	38.45	34.76	72.08	333.56	-1,460.20	292.77	239.95	52.81	5.543	
8,400.00	7,480.00	8,251.04	7,390.00	38.65	34.90	72.36	433.45	-1,460.74	297.24	243.40	53.83	5.522	
8,500.00	7,480.00	8,350.93	7,390.00	38.92	35.12	72.63	533.33	-1,461.28	301.71	246.70	55.01	5.485	
8,600.00	7,480.00	8,450.82	7,390.00	39.25	35.44	72.89	633.22	-1,461.83	306.20	249.86	56.34	5.435	
8,700.00	7,480.00	8,550.71	7,390.00	39.67	35.85	73.14	733.11	-1,462.37	310.68	252.88	57.81	5.375	
8,800.00	7,480.00	8,650.60	7,390.00	40.16	36.36	73.39	833.00	-1,462.91	315.18	255.77	59.41	5.306	

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 4C-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 4C-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 #3	<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						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	
8,900.00	7,480.00	8,750.49	7,390.00	40.73	36.97	73.63	932.89	-1,463.45	319.68	258.55	61.13	5.230	
9,000.00	7,480.00	8,850.38	7,390.00	41.38	37.67	73.87	1,032.78	-1,463.99	324.19	261.23	62.96	5.149	
9,100.00	7,480.00	8,950.27	7,390.00	42.11	38.44	74.09	1,132.66	-1,464.53	328.70	263.80	64.90	5.065	
9,200.00	7,480.00	9,050.16	7,390.00	42.89	39.28	74.31	1,232.55	-1,465.07	333.21	266.29	66.93	4.979	
9,300.00	7,480.00	9,150.05	7,390.00	43.75	40.18	74.53	1,332.44	-1,465.61	337.73	268.69	69.05	4.891	
9,400.00	7,480.00	9,249.94	7,390.00	44.65	41.14	74.74	1,432.33	-1,466.15	342.26	271.02	71.24	4.804	
9,469.55	7,480.00	9,319.42	7,390.00	45.32	41.83	74.88	1,501.80	-1,466.52	345.41	272.60	72.81	4.744	
9,500.00	7,480.00	9,349.84	7,390.00	45.61	42.14	74.94	1,532.23	-1,466.69	346.63	273.13	73.51	4.716	
9,607.34	7,480.00	9,457.16	7,390.00	46.65	43.26	75.03	1,639.54	-1,467.27	348.46	272.54	75.92	4.590	
9,700.00	7,480.00	9,549.82	7,390.00	47.55	44.26	75.03	1,732.20	-1,467.77	348.35	270.35	78.00	4.466	
9,800.00	7,480.00	9,649.82	7,390.00	48.57	45.37	75.02	1,832.20	-1,468.31	348.24	267.94	80.31	4.336	
9,900.00	7,480.00	9,749.82	7,390.00	49.62	46.51	75.02	1,932.20	-1,468.85	348.13	265.47	82.66	4.212	
10,000.00	7,480.00	9,849.82	7,390.00	50.70	47.67	75.01	2,032.19	-1,469.39	348.02	262.96	85.06	4.091	
10,100.00	7,480.00	9,949.82	7,390.00	51.81	48.87	75.01	2,132.19	-1,469.94	347.91	260.40	87.51	3.976	
10,200.00	7,480.00	10,049.82	7,390.00	52.95	50.08	75.00	2,232.19	-1,470.48	347.80	257.80	89.99	3.865	
10,300.00	7,480.00	10,149.82	7,390.00	54.12	51.32	75.00	2,332.19	-1,471.02	347.68	255.17	92.51	3.758	
10,400.00	7,480.00	10,249.82	7,390.00	55.31	52.57	74.99	2,432.19	-1,471.56	347.57	252.50	95.07	3.656	
10,500.00	7,480.00	10,349.82	7,390.00	56.52	53.85	74.99	2,532.19	-1,472.10	347.46	249.81	97.65	3.558	
10,600.00	7,480.00	10,449.82	7,390.00	57.75	55.14	74.98	2,632.19	-1,472.64	347.35	247.08	100.27	3.464	
10,700.00	7,480.00	10,549.82	7,390.00	59.00	56.44	74.98	2,732.18	-1,473.18	347.24	244.33	102.91	3.374	
10,800.00	7,480.00	10,649.82	7,390.00	60.26	57.76	74.97	2,832.18	-1,473.72	347.12	241.55	105.57	3.288	
10,839.04	7,480.00	10,688.85	7,390.00	60.76	58.28	74.97	2,871.22	-1,473.93	347.08	240.46	106.62	3.255	
10,901.25	7,480.00	10,751.06	7,390.00	61.55	59.11	74.94	2,933.43	-1,474.27	346.36	238.09	108.27	3.199	
11,000.00	7,480.00	10,849.78	7,390.00	62.80	60.44	74.84	3,032.15	-1,474.80	344.18	233.32	110.86	3.105	
11,100.00	7,480.00	10,949.76	7,390.00	64.08	61.79	74.74	3,132.12	-1,475.35	341.97	228.47	113.51	3.013	
11,200.00	7,480.00	11,049.73	7,390.00	65.37	63.16	74.64	3,232.09	-1,475.89	339.77	223.60	116.17	2.925	
11,300.00	7,480.00	11,149.71	7,390.00	66.68	64.54	74.53	3,332.07	-1,476.43	337.56	218.72	118.84	2.840	
11,400.00	7,480.00	11,249.68	7,390.00	68.00	65.92	74.43	3,432.04	-1,476.97	335.36	213.83	121.53	2.760	
11,500.00	7,480.00	11,349.65	7,390.00	69.33	67.32	74.32	3,532.01	-1,477.51	333.16	208.93	124.23	2.682	
11,600.00	7,480.00	11,449.63	7,390.00	70.66	68.72	74.22	3,631.98	-1,478.05	330.96	204.02	126.94	2.607	
11,700.00	7,480.00	11,549.60	7,390.00	72.01	70.13	74.11	3,731.95	-1,478.59	328.76	199.11	129.65	2.536	
11,800.00	7,480.00	11,649.58	7,390.00	73.37	71.55	74.00	3,831.93	-1,479.13	326.56	194.18	132.38	2.467	
11,900.00	7,480.00	11,749.55	7,390.00	74.74	72.97	73.89	3,931.90	-1,479.67	324.36	189.25	135.12	2.401	
12,000.00	7,480.00	11,849.52	7,390.00	76.11	74.41	73.77	4,031.87	-1,480.21	322.17	184.31	137.86	2.337	
12,100.00	7,480.00	11,949.50	7,390.00	77.49	75.84	73.66	4,131.84	-1,480.75	319.97	179.36	140.61	2.276	
12,200.00	7,480.00	12,049.47	7,390.00	78.88	77.29	73.54	4,231.82	-1,481.30	317.78	174.42	143.36	2.217	
12,300.00	7,480.00	12,149.44	7,390.00	80.28	78.73	73.43	4,331.79	-1,481.84	315.59	169.47	146.12	2.160	
12,400.00	7,480.00	12,249.42	7,390.00	81.68	80.19	73.31	4,431.76	-1,482.38	313.40	164.51	148.89	2.105	
12,500.00	7,480.00	12,349.39	7,390.00	83.09	81.65	73.19	4,531.73	-1,482.92	311.21	159.55	151.66	2.052	
12,600.00	7,480.00	12,449.37	7,390.00	84.50	83.11	73.06	4,631.71	-1,483.46	309.02	154.60	154.43	2.001	
12,700.00	7,480.00	12,549.34	7,390.00	85.92	84.58	72.94	4,731.68	-1,484.00	306.84	149.64	157.20	1.952	
12,800.00	7,480.00	12,649.31	7,390.00	87.35	86.05	72.81	4,831.65	-1,484.54	304.65	144.68	159.97	1.904	
12,900.00	7,480.00	12,749.29	7,390.00	88.78	87.53	72.69	4,931.62	-1,485.08	302.47	139.72	162.75	1.858	
13,000.00	7,480.00	12,849.26	7,390.00	90.21	89.01	72.56	5,031.60	-1,485.62	300.29	134.76	165.53	1.814	
13,100.00	7,480.00	12,949.24	7,390.00	91.65	90.49	72.42	5,131.57	-1,486.16	298.11	129.80	168.31	1.771	
13,200.00	7,480.00	13,049.21	7,390.00	93.10	91.98	72.29	5,231.54	-1,486.70	295.93	124.84	171.08	1.730	
13,300.00	7,480.00	13,149.18	7,390.00	94.54	93.47	72.15	5,331.51	-1,487.25	293.75	119.89	173.86	1.690	
13,400.00	7,480.00	13,249.16	7,390.00	96.00	94.96	72.02	5,431.49	-1,487.79	291.57	114.93	176.64	1.651	
13,500.00	7,480.00	13,349.13	7,390.00	97.45	96.45	71.88	5,531.46	-1,488.33	289.40	109.99	179.42	1.613	
13,600.00	7,480.00	13,449.11	7,390.00	98.91	97.95	71.73	5,631.43	-1,488.87	287.23	105.04	182.19	1.577	
13,700.00	7,480.00	13,549.08	7,390.00	100.37	99.45	71.59	5,731.40	-1,489.41	285.06	100.10	184.96	1.541	
13,800.00	7,480.00	13,649.05	7,390.00	101.84	100.96	71.44	5,831.38	-1,489.95	282.89	95.16	187.73	1.507	

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 4C-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 4C-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 #3	<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						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	13,749.03	7,390.00	103.31	102.46	71.30	5,931.35	-1,490.49	280.72	90.22	190.50	1.474	Level 3	
14,000.00	7,480.00	13,849.00	7,390.00	104.78	103.97	71.15	6,031.32	-1,491.03	278.56	85.30	193.26	1.441	Level 3	
14,100.00	7,480.00	13,948.97	7,390.00	106.25	105.48	70.99	6,131.29	-1,491.57	276.40	80.37	196.02	1.410	Level 3	
14,200.00	7,480.00	14,048.95	7,390.00	107.73	107.00	70.84	6,231.26	-1,492.11	274.24	75.46	198.78	1.380	Level 3	
14,300.00	7,480.00	14,148.92	7,390.00	109.21	108.51	70.68	6,331.24	-1,492.65	272.08	70.55	201.53	1.350	Level 3	
14,400.00	7,480.00	14,248.90	7,390.00	110.69	110.03	70.52	6,431.21	-1,493.20	269.92	65.64	204.28	1.321	Level 3	
14,500.00	7,480.00	14,348.87	7,390.00	112.18	111.55	70.35	6,531.18	-1,493.74	267.77	60.75	207.02	1.293	Level 3	
14,600.00	7,480.00	14,448.84	7,390.00	113.66	113.07	70.19	6,631.15	-1,494.28	265.61	55.86	209.76	1.266	Level 3	
14,700.00	7,480.00	14,548.82	7,390.00	115.15	114.59	70.02	6,731.13	-1,494.82	263.46	50.98	212.49	1.240	Level 2	
14,800.00	7,480.00	14,648.79	7,390.00	116.64	116.12	69.85	6,831.10	-1,495.36	261.32	46.11	215.21	1.214	Level 2	
14,901.25	7,480.00	14,749.80	7,390.00	118.16	117.66	69.67	6,932.10	-1,495.91	259.15	41.21	217.93	1.189	Level 2, SF	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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	89.75	0.09	19.86	19.86				
100.00	100.00	100.00	100.00	0.14	0.14	89.75	0.09	19.86	19.86	19.58	0.28	71.953	
200.00	200.00	200.00	200.00	0.50	0.50	89.75	0.09	19.86	19.86	18.87	0.99	20.001	
300.00	300.00	300.00	300.00	0.85	0.85	89.75	0.09	19.86	19.86	18.15	1.71	11.615	
400.00	400.00	400.00	400.00	1.21	1.21	89.75	0.09	19.86	19.86	17.43	2.43	8.184 CC, ES	
500.00	499.98	499.98	499.98	1.56	1.57	-161.65	0.09	19.86	21.51	18.38	3.13	6.865	
600.00	599.84	599.84	599.84	1.91	1.93	-165.19	0.09	19.86	26.53	22.69	3.84	6.912	
700.00	699.45	700.61	700.59	2.26	2.28	-168.21	-0.54	18.21	33.32	28.77	4.55	7.324	
800.00	798.70	801.64	801.48	2.64	2.63	-170.14	-2.45	13.23	40.15	34.87	5.27	7.613	
900.00	897.47	902.92	902.36	3.03	2.98	-171.44	-5.62	4.91	46.97	40.96	6.01	7.811	
1,000.00	995.62	1,004.45	1,003.11	3.44	3.35	-172.36	-10.09	-6.76	53.78	47.01	6.77	7.949	
1,100.00	1,093.06	1,106.23	1,103.60	3.89	3.74	-173.02	-15.84	-21.81	60.54	53.02	7.52	8.046	
1,151.35	1,142.76	1,158.15	1,154.63	4.13	3.95	-173.29	-19.24	-30.71	64.06	56.15	7.91	8.102	
1,200.00	1,189.75	1,206.67	1,202.30	4.37	4.15	-173.54	-22.47	-39.18	67.66	59.40	8.26	8.190	
1,300.00	1,286.33	1,306.39	1,300.27	4.86	4.56	-174.00	-29.13	-56.59	75.06	66.07	8.99	8.348	
1,400.00	1,382.91	1,406.11	1,398.23	5.37	4.98	-174.37	-35.78	-74.00	82.47	72.74	9.73	8.476	
1,500.00	1,479.49	1,505.84	1,496.20	5.88	5.41	-174.68	-42.43	-91.41	89.88	79.41	10.48	8.580	
1,600.00	1,576.07	1,605.56	1,594.17	6.41	5.84	-174.94	-49.09	-108.82	97.29	86.07	11.23	8.667	
1,700.00	1,672.65	1,705.29	1,692.13	6.93	6.28	-175.17	-55.74	-126.24	104.71	92.73	11.98	8.739	
1,800.00	1,769.23	1,805.01	1,790.10	7.46	6.72	-175.36	-62.39	-143.65	112.12	99.38	12.74	8.801	
1,900.00	1,865.82	1,904.73	1,888.07	8.00	7.16	-175.54	-69.04	-161.06	119.54	106.04	13.50	8.854	
2,000.00	1,962.40	2,004.46	1,986.03	8.53	7.60	-175.69	-75.70	-178.47	126.96	112.69	14.26	8.900	
2,100.00	2,058.98	2,104.18	2,084.00	9.07	8.05	-175.82	-82.35	-195.88	134.37	119.34	15.03	8.940	
2,200.00	2,155.56	2,203.91	2,181.97	9.61	8.50	-175.94	-89.00	-213.29	141.79	125.99	15.80	8.975	
2,300.00	2,252.14	2,303.63	2,279.93	10.15	8.95	-176.05	-95.66	-230.70	149.21	132.64	16.57	9.006	
2,400.00	2,348.72	2,403.35	2,377.90	10.69	9.40	-176.15	-102.31	-248.11	156.63	139.29	17.34	9.034	
2,500.00	2,445.30	2,503.08	2,475.87	11.24	9.85	-176.24	-108.96	-265.52	164.05	145.94	18.11	9.059	
2,600.00	2,541.88	2,602.80	2,573.83	11.78	10.30	-176.32	-115.62	-282.94	171.47	152.59	18.88	9.081	
2,700.00	2,638.46	2,702.53	2,671.80	12.32	10.75	-176.40	-122.27	-300.35	178.89	159.24	19.66	9.101	
2,800.00	2,735.04	2,802.25	2,769.77	12.87	11.21	-176.47	-128.92	-317.76	186.31	165.88	20.43	9.119	
2,900.00	2,831.62	2,901.97	2,867.73	13.42	11.66	-176.53	-135.58	-335.17	193.74	172.53	21.21	9.136	
3,000.00	2,928.20	3,001.70	2,965.70	13.96	12.12	-176.59	-142.23	-352.58	201.16	179.18	21.98	9.151	
3,100.00	3,024.78	3,101.42	3,063.67	14.51	12.57	-176.64	-148.88	-369.99	208.58	185.82	22.76	9.165	
3,200.00	3,121.36	3,201.15	3,161.63	15.06	13.03	-176.69	-155.53	-387.40	216.00	192.47	23.53	9.178	
3,300.00	3,217.94	3,300.87	3,259.60	15.61	13.48	-176.74	-162.19	-404.81	223.42	199.11	24.31	9.190	
3,400.00	3,314.52	3,400.59	3,357.57	16.15	13.94	-176.79	-168.84	-422.23	230.84	205.76	25.09	9.201	
3,500.00	3,411.10	3,500.32	3,455.53	16.70	14.39	-176.83	-175.49	-439.64	238.27	212.40	25.87	9.211	
3,600.00	3,507.68	3,600.04	3,553.50	17.25	14.85	-176.87	-182.15	-457.05	245.69	219.04	26.65	9.220	
3,700.00	3,604.26	3,699.77	3,651.47	17.80	15.31	-176.91	-188.80	-474.46	253.11	225.69	27.43	9.229	
3,800.00	3,700.84	3,799.49	3,749.43	18.35	15.76	-176.94	-195.45	-491.87	260.54	232.33	28.20	9.237	
3,900.00	3,797.42	3,899.21	3,847.40	18.90	16.22	-176.97	-202.11	-509.28	267.96	238.97	28.98	9.245	
4,000.00	3,894.00	3,998.94	3,945.37	19.45	16.68	-177.00	-208.76	-526.69	275.38	245.62	29.76	9.252	
4,100.00	3,990.58	4,098.66	4,043.33	20.00	17.14	-177.03	-215.41	-544.10	282.80	252.26	30.54	9.259	
4,200.00	4,087.16	4,198.39	4,141.30	20.55	17.59	-177.06	-222.07	-561.52	290.23	258.90	31.32	9.265	
4,300.00	4,183.75	4,298.11	4,239.27	21.10	18.05	-177.09	-228.72	-578.93	297.65	265.55	32.10	9.271	
4,400.00	4,280.33	4,397.83	4,337.23	21.65	18.51	-177.11	-235.37	-596.34	305.07	272.19	32.88	9.277	
4,500.00	4,376.91	4,497.56	4,435.20	22.20	18.97	-177.14	-242.02	-613.75	312.50	278.83	33.66	9.283	
4,600.00	4,473.49	4,597.28	4,533.17	22.75	19.42	-177.16	-248.68	-631.16	319.92	285.47	34.45	9.288	
4,700.00	4,570.07	4,697.01	4,631.13	23.30	19.88	-177.18	-255.33	-648.57	327.34	292.12	35.23	9.292	
4,800.00	4,666.65	4,796.73	4,729.10	23.85	20.34	-177.20	-261.98	-665.98	334.77	298.76	36.01	9.297	
4,900.00	4,763.23	4,896.45	4,827.07	24.40	20.80	-177.22	-268.64	-683.39	342.19	305.40	36.79	9.301	
5,000.00	4,859.81	4,996.18	4,925.03	24.96	21.26	-177.24	-275.29	-700.80	349.61	312.04	37.57	9.306	

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 4C-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 4C-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 #3	<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		
5,100.00	4,956.39	5,095.90	5,023.00	25.51	21.72	-177.26	-281.94	-718.22	357.04	318.69	38.35	9.310		
5,200.00	5,052.97	5,195.63	5,120.97	26.06	22.18	-177.28	-288.60	-735.63	364.46	325.33	39.13	9.313		
5,300.00	5,149.55	5,295.35	5,218.93	26.61	22.64	-177.30	-295.25	-753.04	371.88	331.97	39.92	9.317		
5,400.00	5,246.13	5,395.07	5,316.90	27.16	23.09	-177.31	-301.90	-770.45	379.31	338.61	40.70	9.320		
5,500.00	5,342.71	5,494.80	5,414.87	27.71	23.55	-177.33	-308.56	-787.86	386.73	345.25	41.48	9.324		
5,600.00	5,439.29	5,594.52	5,512.83	28.26	24.01	-177.34	-315.21	-805.27	394.16	351.89	42.26	9.327		
5,700.00	5,535.87	5,694.25	5,610.80	28.82	24.47	-177.36	-321.86	-822.68	401.58	358.54	43.04	9.330		
5,800.00	5,632.45	5,793.97	5,708.77	29.37	24.93	-177.37	-328.51	-840.09	409.00	365.18	43.82	9.333		
5,900.00	5,729.03	5,893.70	5,806.73	29.92	25.39	-177.39	-335.17	-857.51	416.43	371.82	44.61	9.335		
6,000.00	5,825.61	5,993.42	5,904.70	30.47	25.85	-177.40	-341.82	-874.92	423.85	378.46	45.39	9.338		
6,100.00	5,922.19	6,093.14	6,002.67	31.02	26.31	-177.41	-348.47	-892.33	431.27	385.10	46.17	9.341		
6,200.00	6,018.77	6,192.87	6,100.63	31.57	26.77	-177.42	-355.13	-909.74	438.70	391.74	46.95	9.343		
6,300.00	6,115.35	6,292.59	6,198.60	32.13	27.23	-177.43	-361.78	-927.15	446.12	398.39	47.74	9.345		
6,400.00	6,211.93	6,392.32	6,296.57	32.68	27.69	-177.45	-368.43	-944.56	453.55	405.03	48.52	9.348		
6,500.00	6,308.51	6,492.04	6,394.53	33.23	28.15	-177.46	-375.09	-961.97	460.97	411.67	49.30	9.350		
6,600.00	6,405.09	6,591.76	6,492.50	33.78	28.60	-177.47	-381.74	-979.38	468.39	418.31	50.08	9.352		
6,700.00	6,501.68	6,691.49	6,590.47	34.33	29.06	-177.48	-388.39	-996.79	475.82	424.95	50.87	9.354		
6,800.00	6,598.26	6,791.21	6,688.43	34.88	29.52	-177.49	-395.05	-1,014.21	483.24	431.59	51.65	9.356		
6,900.00	6,694.84	6,881.01	6,776.72	35.44	29.93	-177.68	-399.36	-1,029.91	491.26	438.90	52.36	9.382		
6,939.68	6,733.16	6,913.60	6,808.79	35.66	30.07	-178.02	-398.57	-1,035.62	495.29	442.69	52.60	9.417		
6,950.00	6,743.13	6,922.02	6,817.07	35.71	30.10	178.80	-398.12	-1,037.10	496.41	443.75	52.65	9.428		
7,000.00	6,791.54	6,962.69	6,856.94	35.98	30.26	162.59	-394.58	-1,044.22	501.85	448.93	52.92	9.483		
7,050.00	6,839.91	7,000.00	6,893.30	36.23	30.40	146.73	-389.31	-1,050.72	507.29	454.17	53.12	9.549		
7,100.00	6,888.03	7,043.38	6,935.16	36.47	30.55	132.99	-380.77	-1,058.22	512.65	459.27	53.38	9.605		
7,150.00	6,935.65	7,083.46	6,973.31	36.68	30.68	122.09	-370.61	-1,065.07	517.92	464.36	53.56	9.670		
7,200.00	6,982.55	7,123.40	7,010.72	36.88	30.80	113.73	-358.35	-1,071.80	523.07	469.35	53.72	9.737		
7,250.00	7,028.48	7,163.23	7,047.29	37.06	30.91	107.35	-344.03	-1,078.39	528.06	474.20	53.86	9.804		
7,300.00	7,073.24	7,200.00	7,080.31	37.22	31.00	102.44	-328.99	-1,084.35	532.87	478.95	53.92	9.882		
7,350.00	7,116.60	7,242.65	7,117.59	37.37	31.10	98.61	-309.42	-1,091.10	537.45	483.36	54.09	9.936		
7,400.00	7,158.35	7,282.30	7,151.16	37.50	31.18	95.60	-289.23	-1,097.19	541.81	487.62	54.19	9.999		
7,450.00	7,198.29	7,321.93	7,183.57	37.62	31.25	93.22	-267.20	-1,103.08	545.92	491.63	54.29	10.056		
7,500.00	7,236.22	7,361.58	7,214.74	37.72	31.32	91.33	-243.36	-1,108.76	549.76	495.37	54.39	10.107		
7,550.00	7,271.95	7,400.00	7,243.65	37.80	31.38	89.83	-218.63	-1,114.04	553.33	498.85	54.48	10.157		
7,600.00	7,305.33	7,441.02	7,273.04	37.88	31.43	88.68	-190.53	-1,119.43	556.62	501.98	54.64	10.187		
7,650.00	7,336.17	7,480.87	7,300.02	37.94	31.47	87.80	-161.63	-1,124.39	559.62	504.82	54.80	10.212		
7,700.00	7,364.33	7,520.83	7,325.44	37.99	31.51	87.16	-131.17	-1,129.08	562.32	507.34	54.99	10.227		
7,750.00	7,389.68	7,560.94	7,349.23	38.04	31.54	86.74	-99.19	-1,133.49	564.74	509.53	55.21	10.230		
7,800.00	7,412.08	7,600.00	7,370.68	38.07	31.57	86.49	-66.79	-1,137.49	566.87	511.43	55.44	10.225		
7,850.00	7,431.44	7,641.69	7,391.61	38.10	31.59	86.44	-30.96	-1,141.41	568.71	512.95	55.76	10.200		
7,900.00	7,447.66	7,682.38	7,410.03	38.13	31.61	86.54	5.16	-1,144.88	570.27	514.18	56.09	10.167		
7,950.00	7,460.65	7,723.34	7,426.49	38.15	31.63	86.79	42.52	-1,148.02	571.57	515.11	56.47	10.122		
8,000.00	7,470.36	7,764.58	7,440.92	38.18	31.65	87.19	81.05	-1,150.80	572.62	515.74	56.88	10.068		
8,050.00	7,476.73	7,806.13	7,453.22	38.20	31.67	87.71	120.66	-1,153.20	573.43	516.10	57.33	10.003		
8,100.00	7,479.74	7,850.00	7,463.73	38.23	31.69	88.41	163.19	-1,155.30	574.01	516.18	57.82	9.927		
8,119.55	7,480.00	7,864.53	7,466.64	38.24	31.70	88.67	177.41	-1,155.90	574.17	516.18	58.00	9.900		
8,200.00	7,480.00	7,933.52	7,476.57	38.31	31.75	89.66	245.62	-1,158.04	575.69	516.94	58.75	9.799		
8,300.00	7,480.00	8,023.20	7,480.00	38.45	31.84	90.00	335.19	-1,159.13	579.67	520.11	59.56	9.732		
8,400.00	7,480.00	8,123.09	7,480.00	38.65	32.04	90.00	435.08	-1,159.67	584.36	523.85	60.51	9.658		
8,500.00	7,480.00	8,222.98	7,480.00	38.92	32.33	90.00	534.97	-1,160.21	589.05	527.45	61.61	9.562		
8,600.00	7,480.00	8,322.87	7,480.00	39.25	32.75	90.00	634.85	-1,160.75	593.75	530.90	62.85	9.447		
8,700.00	7,480.00	8,422.76	7,480.00	39.67	33.27	90.00	734.74	-1,161.29	598.44	534.21	64.23	9.317		
8,800.00	7,480.00	8,522.65	7,480.00	40.16	33.90	90.00	834.63	-1,161.84	603.13	537.39	65.74	9.174		

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 4C-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 4C-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 #3	<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		
8,900.00	7,480.00	8,622.54	7,480.00	40.73	34.61	90.00	934.52	-1,162.38	607.82	540.46	67.37	9.022		
9,000.00	7,480.00	8,722.43	7,480.00	41.38	35.39	90.00	1,034.41	-1,162.92	612.52	543.41	69.11	8.863		
9,100.00	7,480.00	8,822.32	7,480.00	42.11	36.24	90.00	1,134.30	-1,163.46	617.21	546.26	70.95	8.699		
9,200.00	7,480.00	8,922.21	7,480.00	42.89	37.14	90.00	1,234.18	-1,164.00	621.90	549.02	72.89	8.532		
9,300.00	7,480.00	9,022.10	7,480.00	43.75	38.09	90.00	1,334.07	-1,164.54	626.60	551.68	74.91	8.364		
9,400.00	7,480.00	9,121.99	7,480.00	44.65	39.09	90.00	1,433.96	-1,165.08	631.29	554.27	77.02	8.197		
9,469.55	7,480.00	9,191.47	7,480.00	45.32	39.81	90.00	1,503.43	-1,165.46	634.55	556.03	78.53	8.081		
9,500.00	7,480.00	9,221.89	7,480.00	45.61	40.13	90.00	1,533.86	-1,165.62	635.82	556.62	79.20	8.028		
9,607.34	7,480.00	9,329.20	7,480.00	46.65	41.28	90.00	1,641.17	-1,166.20	637.71	556.11	81.59	7.816		
9,700.00	7,480.00	9,421.87	7,480.00	47.55	42.31	90.00	1,733.83	-1,166.70	637.60	553.89	83.71	7.617		
9,800.00	7,480.00	9,521.87	7,480.00	48.57	43.45	90.00	1,833.83	-1,167.24	637.48	551.44	86.04	7.409		
9,900.00	7,480.00	9,621.87	7,480.00	49.62	44.61	90.00	1,933.83	-1,167.79	637.37	548.94	88.43	7.208		
10,000.00	7,480.00	9,721.87	7,480.00	50.70	45.80	90.00	2,033.83	-1,168.33	637.25	546.39	90.87	7.013		
10,100.00	7,480.00	9,821.87	7,480.00	51.81	47.02	90.00	2,133.82	-1,168.87	637.14	543.79	93.35	6.825		
10,200.00	7,480.00	9,921.87	7,480.00	52.95	48.25	90.00	2,233.82	-1,169.41	637.02	541.15	95.87	6.645		
10,300.00	7,480.00	10,021.87	7,480.00	54.12	49.51	90.00	2,333.82	-1,169.95	636.90	538.48	98.43	6.471		
10,400.00	7,480.00	10,121.87	7,480.00	55.31	50.78	90.00	2,433.82	-1,170.49	636.79	535.77	101.02	6.304		
10,500.00	7,480.00	10,221.86	7,480.00	56.52	52.08	90.00	2,533.82	-1,171.03	636.67	533.03	103.65	6.143		
10,600.00	7,480.00	10,321.86	7,480.00	57.75	53.38	90.00	2,633.82	-1,171.57	636.56	530.25	106.30	5.988		
10,700.00	7,480.00	10,421.86	7,480.00	59.00	54.71	90.00	2,733.81	-1,172.12	636.44	527.45	108.99	5.840		
10,800.00	7,480.00	10,521.86	7,480.00	60.26	56.04	90.00	2,833.81	-1,172.66	636.32	524.63	111.70	5.697		
10,839.04	7,480.00	10,560.90	7,480.00	60.76	56.57	90.00	2,872.85	-1,172.87	636.28	523.52	112.76	5.643		
10,901.25	7,480.00	10,623.11	7,480.00	61.55	57.41	90.00	2,935.06	-1,173.21	635.53	521.07	114.46	5.553		
11,000.00	7,480.00	10,721.83	7,480.00	62.80	58.75	90.00	3,033.78	-1,173.74	633.27	516.11	117.16	5.405		
11,100.00	7,480.00	10,821.81	7,480.00	64.08	60.12	90.00	3,133.75	-1,174.28	630.99	511.07	119.92	5.262		
11,200.00	7,480.00	10,921.78	7,480.00	65.37	61.50	90.00	3,233.72	-1,174.82	628.70	506.00	122.70	5.124		
11,300.00	7,480.00	11,021.75	7,480.00	66.68	62.89	90.00	3,333.70	-1,175.36	626.42	500.92	125.49	4.992		
11,400.00	7,480.00	11,121.73	7,480.00	68.00	64.29	90.00	3,433.67	-1,175.90	624.13	495.82	128.31	4.864		
11,500.00	7,480.00	11,221.70	7,480.00	69.33	65.70	90.00	3,533.64	-1,176.45	621.84	490.71	131.13	4.742		
11,600.00	7,480.00	11,321.68	7,480.00	70.66	67.11	90.00	3,633.61	-1,176.99	619.56	485.58	133.98	4.624		
11,700.00	7,480.00	11,421.65	7,480.00	72.01	68.54	90.00	3,733.59	-1,177.53	617.27	480.44	136.83	4.511		
11,800.00	7,480.00	11,521.62	7,480.00	73.37	69.97	90.00	3,833.56	-1,178.07	614.98	475.28	139.70	4.402		
11,900.00	7,480.00	11,621.60	7,480.00	74.74	71.40	90.00	3,933.53	-1,178.61	612.70	470.11	142.58	4.297		
12,000.00	7,480.00	11,721.57	7,480.00	76.11	72.85	90.00	4,033.50	-1,179.15	610.41	464.93	145.48	4.196		
12,100.00	7,480.00	11,821.55	7,480.00	77.49	74.30	90.00	4,133.47	-1,179.69	608.12	459.74	148.38	4.098		
12,200.00	7,480.00	11,926.18	7,480.00	78.88	75.82	90.00	4,238.10	-1,180.34	605.77	454.19	151.58	3.996		
12,300.00	7,480.00	12,052.68	7,480.00	80.28	77.71	90.00	4,364.52	-1,184.79	600.51	444.51	156.00	3.849		
12,400.00	7,480.00	12,170.16	7,480.00	81.68	79.50	90.00	4,481.65	-1,193.75	591.08	431.23	159.85	3.698		
12,500.00	7,480.00	12,269.61	7,480.00	83.09	81.04	90.00	4,580.73	-1,202.41	580.62	417.78	162.84	3.566		
12,600.00	7,480.00	12,369.07	7,480.00	84.50	82.58	90.00	4,679.80	-1,211.08	570.17	404.32	165.85	3.438		
12,700.00	7,480.00	12,468.52	7,480.00	85.92	84.13	90.00	4,778.87	-1,219.75	559.72	390.86	168.86	3.315		
12,800.00	7,480.00	12,567.97	7,480.00	87.35	85.68	90.00	4,877.95	-1,228.42	549.26	377.39	171.88	3.196		
12,900.00	7,480.00	12,667.42	7,480.00	88.78	87.23	90.00	4,977.02	-1,237.08	538.81	363.91	174.90	3.081		
13,000.00	7,480.00	12,766.88	7,480.00	90.21	88.79	90.00	5,076.10	-1,245.75	528.36	350.42	177.94	2.969		
13,100.00	7,480.00	12,866.33	7,480.00	91.65	90.36	90.00	5,175.17	-1,254.42	517.91	336.93	180.98	2.862		
13,200.00	7,480.00	12,965.78	7,480.00	93.10	91.92	90.00	5,274.24	-1,263.09	507.45	323.43	184.02	2.758		
13,300.00	7,480.00	13,065.23	7,480.00	94.54	93.49	90.00	5,373.32	-1,271.76	497.00	309.92	187.07	2.657		
13,400.00	7,480.00	13,164.68	7,480.00	96.00	95.06	90.00	5,472.39	-1,280.42	486.55	296.42	190.13	2.559		
13,500.00	7,480.00	13,260.50	7,480.00	97.45	96.57	90.00	5,567.85	-1,288.69	476.19	283.19	193.00	2.467		
13,600.00	7,480.00	13,346.07	7,480.00	98.91	97.91	90.00	5,653.24	-1,294.22	467.98	272.76	195.22	2.397		
13,700.00	7,480.00	13,431.98	7,480.00	100.37	99.23	90.00	5,739.09	-1,297.21	462.76	265.49	197.27	2.346		
13,800.00	7,480.00	13,518.09	7,480.00	101.84	100.53	90.00	5,825.19	-1,297.62	460.54	261.39	199.15	2.312		

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 4C-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 4C-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 #3	<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					
13,823.87	7,480.00	13,538.65	7,480.00	102.19	100.83	90.00	5,845.76	-1,297.34	460.46	260.88	199.57	2.307					
13,900.00	7,480.00	13,600.00	7,480.00	103.31	101.74	90.00	5,907.08	-1,295.61	461.35	260.92	200.43	2.302					
14,000.00	7,480.00	13,690.25	7,480.00	104.78	103.05	90.00	5,997.19	-1,290.68	465.12	262.75	202.36	2.298 SF					
14,100.00	7,480.00	13,781.38	7,480.00	106.25	104.33	90.00	6,087.98	-1,282.83	471.94	267.61	204.33	2.310					
14,200.00	7,480.00	13,874.75	7,480.00	107.73	105.64	90.00	6,180.86	-1,273.30	480.36	273.85	206.51	2.326					
14,300.00	7,480.00	13,974.39	7,480.00	109.21	107.03	90.00	6,279.99	-1,263.14	488.82	279.38	209.44	2.334					
14,400.00	7,480.00	14,074.04	7,480.00	110.69	108.43	90.00	6,379.11	-1,252.98	497.28	284.91	212.38	2.342					
14,500.00	7,480.00	14,173.68	7,480.00	112.18	109.83	90.00	6,478.23	-1,242.81	505.75	290.43	215.32	2.349					
14,600.00	7,480.00	14,273.32	7,480.00	113.66	111.24	90.00	6,577.35	-1,232.65	514.21	295.95	218.26	2.356					
14,700.00	7,480.00	14,372.96	7,480.00	115.15	112.65	90.00	6,676.47	-1,222.49	522.67	301.46	221.21	2.363					
14,800.00	7,480.00	14,472.60	7,480.00	116.64	114.06	90.00	6,775.59	-1,212.32	531.13	306.97	224.16	2.369					
14,901.25	7,480.00	14,573.49	7,480.00	118.16	115.49	90.00	6,875.95	-1,202.03	539.70	312.55	227.16	2.376					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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						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	90.31	-0.16	29.93	29.93				
100.00	100.00	100.00	100.00	0.14	0.14	90.31	-0.16	29.93	29.93	29.66	0.28	108.443	
200.00	200.00	200.00	200.00	0.50	0.50	90.31	-0.16	29.93	29.93	28.94	0.99	30.145	
300.00	300.00	300.31	300.29	0.85	0.84	93.54	-1.81	29.33	29.39	27.69	1.70	17.286	
400.00	400.00	400.74	400.59	1.21	1.20	103.41	-6.50	27.26	28.03	25.61	2.41	11.614	
500.00	499.98	501.26	500.78	1.56	1.56	-133.01	-12.63	22.13	26.65	23.52	3.13	8.513	
541.19	541.13	542.61	541.92	1.70	1.71	-127.23	-15.49	19.05	26.51	23.09	3.42	7.742 CC	
600.00	599.84	601.61	600.50	1.91	1.93	-119.00	-19.92	13.70	26.78	22.94	3.85	6.964 ES	
700.00	699.45	701.58	699.53	2.26	2.33	-107.34	-28.10	2.73	28.63	24.04	4.59	6.241	
800.00	798.70	801.49	798.48	2.64	2.72	-103.23	-36.34	-8.43	32.08	26.72	5.36	5.988	
900.00	897.47	901.38	897.40	3.03	3.13	-105.31	-44.58	-19.59	36.42	30.27	6.15	5.922	
1,000.00	995.62	1,001.13	996.19	3.44	3.53	-111.47	-52.80	-30.73	41.96	34.99	6.97	6.023	
1,100.00	1,093.06	1,100.62	1,094.71	3.89	3.94	-119.72	-61.01	-41.84	49.52	41.73	7.79	6.355	
1,151.35	1,142.76	1,151.56	1,145.15	4.13	4.15	-124.17	-65.21	-47.53	54.47	46.26	8.22	6.631	
1,200.00	1,189.75	1,199.78	1,192.90	4.37	4.35	-128.09	-69.18	-52.91	59.70	51.08	8.61	6.933	
1,300.00	1,286.33	1,298.88	1,291.05	4.86	4.76	-134.28	-77.36	-63.98	71.10	61.69	9.41	7.554	
1,400.00	1,382.91	1,397.98	1,389.19	5.37	5.16	-138.72	-85.53	-75.05	83.10	72.89	10.21	8.141	
1,500.00	1,479.49	1,497.08	1,487.33	5.88	5.57	-142.04	-93.70	-86.12	95.46	84.46	11.00	8.680	
1,600.00	1,576.07	1,596.18	1,585.47	6.41	5.98	-144.59	-101.87	-97.19	108.07	96.28	11.79	9.168	
1,700.00	1,672.65	1,695.28	1,683.61	6.93	6.39	-146.60	-110.05	-108.26	120.84	108.27	12.58	9.608	
1,800.00	1,769.23	1,794.38	1,781.75	7.46	6.80	-148.23	-118.22	-119.32	133.74	120.37	13.37	10.004	
1,900.00	1,865.82	1,893.48	1,879.89	8.00	7.22	-149.57	-126.39	-130.39	146.72	132.56	14.16	10.362	
2,000.00	1,962.40	1,992.58	1,978.03	8.53	7.63	-150.69	-134.57	-141.46	159.77	144.82	14.95	10.686	
2,100.00	2,058.98	2,091.68	2,076.17	9.07	8.04	-151.64	-142.74	-152.53	172.86	157.12	15.74	10.981	
2,200.00	2,155.56	2,190.78	2,174.31	9.61	8.45	-152.46	-150.91	-163.60	186.00	169.47	16.54	11.249	
2,300.00	2,252.14	2,289.88	2,272.45	10.15	8.86	-153.17	-159.08	-174.67	199.18	181.85	17.33	11.494	
2,400.00	2,348.72	2,388.98	2,370.59	10.69	9.27	-153.80	-167.26	-185.73	212.37	194.25	18.12	11.719	
2,500.00	2,445.30	2,488.08	2,468.73	11.24	9.69	-154.34	-175.43	-196.80	225.59	206.68	18.92	11.925	
2,600.00	2,541.88	2,587.18	2,566.88	11.78	10.10	-154.83	-183.60	-207.87	238.83	219.12	19.71	12.116	
2,700.00	2,638.46	2,686.28	2,665.02	12.32	10.51	-155.27	-191.78	-218.94	252.08	231.58	20.51	12.292	
2,800.00	2,735.04	2,785.38	2,763.16	12.87	10.92	-155.66	-199.95	-230.01	265.35	244.05	21.30	12.456	
2,900.00	2,831.62	2,884.49	2,861.30	13.42	11.33	-156.02	-208.12	-241.08	278.63	256.53	22.10	12.608	
3,000.00	2,928.20	2,983.59	2,959.44	13.96	11.75	-156.34	-216.29	-252.15	291.91	269.02	22.89	12.750	
3,100.00	3,024.78	3,082.69	3,057.58	14.51	12.16	-156.64	-224.47	-263.21	305.21	281.52	23.69	12.883	
3,200.00	3,121.36	3,181.79	3,155.72	15.06	12.57	-156.91	-232.64	-274.28	318.51	294.02	24.49	13.007	
3,300.00	3,217.94	3,280.89	3,253.86	15.61	12.98	-157.16	-240.81	-285.35	331.82	306.53	25.29	13.123	
3,400.00	3,314.52	3,379.99	3,352.00	16.15	13.40	-157.39	-248.99	-296.42	345.13	319.05	26.08	13.232	
3,500.00	3,411.10	3,479.09	3,450.14	16.70	13.81	-157.60	-257.16	-307.49	358.45	331.57	26.88	13.335	
3,600.00	3,507.68	3,578.19	3,548.28	17.25	14.22	-157.80	-265.33	-318.56	371.78	344.10	27.68	13.432	
3,700.00	3,604.26	3,677.29	3,646.42	17.80	14.63	-157.98	-273.50	-329.62	385.10	356.63	28.48	13.524	
3,800.00	3,700.84	3,776.39	3,744.56	18.35	15.05	-158.16	-281.68	-340.69	398.44	369.16	29.27	13.611	
3,900.00	3,797.42	3,875.49	3,842.71	18.90	15.46	-158.32	-289.85	-351.76	411.77	381.70	30.07	13.693	
4,000.00	3,894.00	3,974.59	3,940.85	19.45	15.87	-158.47	-298.02	-362.83	425.11	394.24	30.87	13.771	
4,100.00	3,990.58	4,073.69	4,038.99	20.00	16.28	-158.61	-306.19	-373.90	438.45	406.78	31.67	13.845	
4,200.00	4,087.16	4,172.79	4,137.13	20.55	16.70	-158.74	-314.37	-384.97	451.79	419.33	32.47	13.915	
4,300.00	4,183.75	4,271.89	4,235.27	21.10	17.11	-158.87	-322.54	-396.03	465.14	431.87	33.27	13.982	
4,400.00	4,280.33	4,370.99	4,333.41	21.65	17.52	-158.98	-330.71	-407.10	478.49	444.42	34.06	14.046	
4,500.00	4,376.91	4,470.09	4,431.55	22.20	17.93	-159.10	-338.89	-418.17	491.84	456.97	34.86	14.107	
4,600.00	4,473.49	4,569.19	4,529.69	22.75	18.35	-159.20	-347.06	-429.24	505.19	469.52	35.66	14.166	
4,700.00	4,570.07	4,668.29	4,627.83	23.30	18.76	-159.30	-355.23	-440.31	518.54	482.08	36.46	14.221	
4,800.00	4,666.65	4,767.40	4,725.97	23.85	19.17	-159.40	-363.40	-451.38	531.89	494.63	37.26	14.275	
4,900.00	4,763.23	4,866.50	4,824.11	24.40	19.59	-159.49	-371.58	-462.45	545.25	507.19	38.06	14.326	

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 4C-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 4C-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 #3	<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		
5,000.00	4,859.81	4,965.60	4,922.25	24.96	20.00	-159.58	-379.75	-473.51	558.61	519.75	38.86	14.375		
5,100.00	4,956.39	5,064.70	5,020.39	25.51	20.41	-159.66	-387.92	-484.58	571.96	532.30	39.66	14.422		
5,200.00	5,052.97	5,163.80	5,118.54	26.06	20.82	-159.74	-396.10	-495.65	585.32	544.86	40.46	14.467		
5,300.00	5,149.55	5,262.90	5,216.68	26.61	21.24	-159.81	-404.27	-506.72	598.68	557.43	41.26	14.511		
5,400.00	5,246.13	5,362.00	5,314.82	27.16	21.65	-159.88	-412.44	-517.79	612.04	569.99	42.06	14.553		
5,500.00	5,342.71	5,461.10	5,412.96	27.71	22.06	-159.95	-420.61	-528.86	625.41	582.55	42.86	14.593		
5,600.00	5,439.29	5,560.20	5,511.10	28.26	22.48	-160.02	-428.79	-539.92	638.77	595.11	43.66	14.632		
5,700.00	5,535.87	5,659.30	5,609.24	28.82	22.89	-160.08	-436.96	-550.99	652.13	607.68	44.46	14.669		
5,800.00	5,632.45	5,758.40	5,707.38	29.37	23.30	-160.14	-445.13	-562.06	665.50	620.24	45.26	14.705		
5,900.00	5,729.03	5,857.50	5,805.52	29.92	23.71	-160.20	-453.30	-573.13	678.86	632.81	46.06	14.740		
6,000.00	5,825.61	5,956.60	5,903.66	30.47	24.13	-160.26	-461.48	-584.20	692.23	645.37	46.86	14.774		
6,100.00	5,922.19	6,055.70	6,001.80	31.02	24.54	-160.31	-469.65	-595.27	705.59	657.94	47.66	14.806		
6,200.00	6,018.77	6,154.80	6,099.94	31.57	24.95	-160.36	-477.82	-606.33	718.96	670.51	48.46	14.838		
6,300.00	6,115.35	6,253.90	6,198.08	32.13	25.37	-160.41	-486.00	-617.40	732.33	683.07	49.26	14.868		
6,400.00	6,211.93	6,353.00	6,296.22	32.68	25.78	-160.46	-494.17	-628.47	745.70	695.64	50.06	14.897		
6,500.00	6,308.51	6,452.10	6,394.37	33.23	26.19	-160.51	-502.34	-639.54	759.07	708.21	50.86	14.926		
6,600.00	6,405.09	6,551.20	6,492.51	33.78	26.60	-160.55	-510.51	-650.61	772.43	720.78	51.66	14.954		
6,700.00	6,501.68	6,650.30	6,590.65	34.33	27.02	-160.60	-518.69	-661.68	785.80	733.35	52.46	14.980		
6,800.00	6,598.26	6,749.41	6,688.79	34.88	27.43	-160.64	-526.86	-672.74	799.17	745.92	53.26	15.006		
6,900.00	6,694.84	6,848.51	6,786.93	35.44	27.84	-160.68	-535.03	-683.81	812.54	758.49	54.06	15.031		
6,939.68	6,733.16	6,887.83	6,825.87	35.66	28.01	-160.69	-538.28	-688.21	817.85	763.48	54.37	15.041		
6,950.00	6,743.13	6,898.06	6,836.00	35.71	28.05	-163.79	-539.12	-689.35	819.23	764.78	54.46	15.044		
7,000.00	6,791.54	6,945.86	6,883.43	35.98	28.24	-179.62	-541.61	-694.67	826.07	771.24	54.83	15.065		
7,050.00	6,839.91	6,993.58	6,930.84	36.23	28.41	164.78	-540.92	-699.94	833.15	777.97	55.18	15.099		
7,100.00	6,888.03	7,041.32	6,978.13	36.47	28.57	151.27	-537.05	-705.13	840.42	784.93	55.49	15.145		
7,150.00	6,935.65	7,089.09	7,025.09	36.68	28.71	140.51	-530.02	-710.24	847.86	792.08	55.78	15.201		
7,200.00	6,982.55	7,136.90	7,071.54	36.88	28.83	132.20	-519.84	-715.23	855.42	799.38	56.04	15.265		
7,250.00	7,028.48	7,184.78	7,117.27	37.06	28.94	125.79	-506.55	-720.09	863.08	806.80	56.27	15.337		
7,300.00	7,073.24	7,232.75	7,162.10	37.22	29.04	120.78	-490.19	-724.80	870.79	814.30	56.49	15.415		
7,350.00	7,116.60	7,280.81	7,205.84	37.37	29.13	116.78	-470.80	-729.33	878.52	821.83	56.69	15.497		
7,400.00	7,158.35	7,328.99	7,248.29	37.50	29.21	113.54	-448.45	-733.66	886.24	829.37	56.87	15.583		
7,450.00	7,198.29	7,377.30	7,289.27	37.62	29.27	110.86	-423.22	-737.79	893.90	836.85	57.04	15.671		
7,500.00	7,236.22	7,425.77	7,328.59	37.72	29.32	108.62	-395.17	-741.67	901.47	844.26	57.20	15.759		
7,550.00	7,271.95	7,474.40	7,366.07	37.80	29.36	106.72	-364.40	-745.31	908.91	851.55	57.36	15.846		
7,600.00	7,305.33	7,523.21	7,401.51	37.88	29.39	105.09	-331.03	-748.67	916.19	858.68	57.51	15.931		
7,650.00	7,336.17	7,572.22	7,434.75	37.94	29.41	103.69	-295.15	-751.75	923.28	865.61	57.67	16.010		
7,700.00	7,364.33	7,621.44	7,465.60	37.99	29.42	102.49	-256.92	-754.51	930.13	872.30	57.83	16.084		
7,750.00	7,389.68	7,670.88	7,493.90	38.04	29.42	101.45	-216.46	-756.96	936.72	878.72	58.00	16.150		
7,800.00	7,412.08	7,720.55	7,519.46	38.07	29.42	100.56	-173.94	-759.06	943.02	884.83	58.19	16.206		
7,850.00	7,431.44	7,770.46	7,542.14	38.10	29.40	99.80	-129.53	-760.81	949.00	890.60	58.39	16.252		
7,900.00	7,447.66	7,820.61	7,561.79	38.13	29.38	99.16	-83.42	-762.19	954.61	896.00	58.62	16.286		
7,950.00	7,460.65	7,871.00	7,578.25	38.15	29.35	98.63	-35.81	-763.19	959.85	900.99	58.86	16.307		
8,000.00	7,470.36	7,921.64	7,591.40	38.18	29.32	98.21	13.08	-763.81	964.68	905.55	59.13	16.314		
8,050.00	7,476.73	7,972.53	7,601.13	38.20	29.28	97.89	63.01	-764.02	969.07	909.65	59.42	16.308		
8,100.00	7,479.74	8,023.65	7,607.33	38.23	29.25	97.67	113.75	-763.82	973.02	913.27	59.74	16.287		
8,119.55	7,480.00	8,043.71	7,608.78	38.24	29.24	97.61	133.75	-763.63	974.43	914.56	59.87	16.275		
8,200.00	7,480.00	8,125.23	7,610.00	38.31	29.23	97.64	215.24	-762.35	980.02	919.57	60.45	16.212		
8,300.00	7,480.00	8,224.98	7,610.00	38.45	29.56	97.59	314.98	-760.61	986.93	925.64	61.29	16.103		
8,400.00	7,480.00	8,324.74	7,610.00	38.65	30.09	97.53	414.72	-758.87	993.85	931.57	62.27	15.960		
8,500.00	7,480.00	8,424.49	7,610.00	38.92	30.70	97.48	514.46	-757.12	1,000.76	937.36	63.40	15.785		
8,600.00	7,480.00	8,524.25	7,610.00	39.25	31.37	97.43	614.20	-755.38	1,007.68	943.02	64.66	15.583		
8,700.00	7,480.00	8,624.01	7,610.00	39.67	32.10	97.38	713.94	-753.64	1,014.60	948.54	66.06	15.360		

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 4C-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 4C-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 #3	<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						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	8,723.76	7,610.00	40.16	32.89	97.33	813.68	-751.90	1,021.52	953.95	67.57	15.119		
8,900.00	7,480.00	8,823.52	7,610.00	40.73	33.73	97.28	913.42	-750.16	1,028.44	959.25	69.19	14.864		
9,000.00	7,480.00	8,923.28	7,610.00	41.38	34.61	97.23	1,013.16	-748.42	1,035.36	964.44	70.92	14.599		
9,100.00	7,480.00	9,023.03	7,610.00	42.11	35.54	97.18	1,112.91	-746.68	1,042.28	969.53	72.74	14.328		
9,200.00	7,480.00	9,122.79	7,610.00	42.89	36.52	97.13	1,212.65	-744.94	1,049.20	974.54	74.66	14.053		
9,300.00	7,480.00	9,222.55	7,610.00	43.75	37.53	97.09	1,312.39	-743.20	1,056.12	979.46	76.66	13.777		
9,400.00	7,480.00	9,322.30	7,610.00	44.65	38.57	97.04	1,412.13	-741.46	1,063.04	984.31	78.73	13.502		
9,469.55	7,480.00	9,391.68	7,610.00	45.32	39.32	97.01	1,481.50	-740.24	1,067.86	987.64	80.22	13.312		
9,500.00	7,480.00	9,422.07	7,610.00	45.61	39.65	96.99	1,511.88	-739.71	1,069.81	988.93	80.88	13.227		
9,607.34	7,480.00	9,529.31	7,610.00	46.65	40.84	96.95	1,619.11	-737.84	1,074.12	990.87	83.24	12.904		
9,700.00	7,480.00	9,621.95	7,610.00	47.55	41.90	96.94	1,711.74	-736.23	1,076.11	990.79	85.33	12.612		
9,800.00	7,480.00	9,721.93	7,610.00	48.57	43.06	96.93	1,811.70	-734.48	1,078.27	990.64	87.63	12.305		
9,900.00	7,480.00	9,821.91	7,610.00	49.62	44.25	96.91	1,911.66	-732.74	1,080.42	990.44	89.98	12.007		
10,000.00	7,480.00	9,921.88	7,610.00	50.70	45.47	96.90	2,011.62	-730.99	1,082.58	990.19	92.38	11.718		
10,100.00	7,480.00	10,021.86	7,610.00	51.81	46.70	96.88	2,111.58	-729.25	1,084.73	989.90	94.83	11.439		
10,200.00	7,480.00	10,121.84	7,610.00	52.95	47.95	96.87	2,211.54	-727.50	1,086.89	989.58	97.31	11.169		
10,300.00	7,480.00	10,221.81	7,610.00	54.12	49.22	96.86	2,311.50	-725.76	1,089.04	989.21	99.83	10.909		
10,400.00	7,480.00	10,321.79	7,610.00	55.31	50.51	96.84	2,411.46	-724.01	1,091.20	988.81	102.38	10.658		
10,500.00	7,480.00	10,421.76	7,610.00	56.52	51.81	96.83	2,511.43	-722.27	1,093.35	988.38	104.97	10.416		
10,600.00	7,480.00	10,521.74	7,610.00	57.75	53.13	96.82	2,611.39	-720.52	1,095.51	987.92	107.59	10.182		
10,700.00	7,480.00	10,621.72	7,610.00	59.00	54.46	96.80	2,711.35	-718.78	1,097.66	987.43	110.23	9.958		
10,800.00	7,480.00	10,721.69	7,610.00	60.26	55.80	96.79	2,811.31	-717.03	1,099.82	986.92	112.90	9.742		
10,839.04	7,480.00	10,760.72	7,610.00	60.76	56.33	96.78	2,850.33	-716.35	1,100.66	986.71	113.95	9.659		
10,901.25	7,480.00	10,822.93	7,610.00	61.55	57.17	96.78	2,912.53	-715.27	1,101.33	985.71	115.62	9.525		
11,000.00	7,480.00	10,921.68	7,610.00	62.80	58.51	96.78	3,011.26	-713.54	1,101.33	983.04	118.29	9.311		
11,100.00	7,480.00	11,021.68	7,610.00	64.08	59.89	96.78	3,111.25	-711.80	1,101.33	980.32	121.01	9.101		
11,200.00	7,480.00	11,121.68	7,610.00	65.37	61.27	96.78	3,211.23	-710.05	1,101.33	977.58	123.75	8.900		
11,300.00	7,480.00	11,221.68	7,610.00	66.68	62.66	96.78	3,311.22	-708.31	1,101.33	974.83	126.50	8.706		
11,400.00	7,480.00	11,321.68	7,610.00	68.00	64.06	96.78	3,411.20	-706.56	1,101.33	972.05	129.28	8.519		
11,500.00	7,480.00	11,421.68	7,610.00	69.33	65.47	96.78	3,511.19	-704.82	1,101.33	969.26	132.07	8.339		
11,600.00	7,480.00	11,521.68	7,610.00	70.66	66.89	96.78	3,611.17	-703.07	1,101.33	966.46	134.87	8.166		
11,700.00	7,480.00	11,621.68	7,610.00	72.01	68.31	96.78	3,711.16	-701.33	1,101.33	963.64	137.69	7.999		
11,800.00	7,480.00	11,721.68	7,610.00	73.37	69.74	96.78	3,811.14	-699.58	1,101.33	960.81	140.52	7.838		
11,900.00	7,480.00	11,821.68	7,610.00	74.74	71.17	96.78	3,911.13	-697.84	1,101.33	957.97	143.36	7.682		
12,000.00	7,480.00	11,921.68	7,610.00	76.11	72.61	96.78	4,011.11	-696.09	1,101.33	955.11	146.22	7.532		
12,100.00	7,480.00	12,021.68	7,610.00	77.49	74.05	96.78	4,111.10	-694.34	1,101.33	952.25	149.08	7.387		
12,200.00	7,480.00	12,121.68	7,610.00	78.88	75.50	96.78	4,211.08	-692.60	1,101.33	949.37	151.96	7.248		
12,300.00	7,480.00	12,221.68	7,610.00	80.28	76.96	96.78	4,311.07	-690.85	1,101.33	946.49	154.84	7.113		
12,400.00	7,480.00	12,321.68	7,610.00	81.68	78.42	96.78	4,411.05	-689.11	1,101.33	943.59	157.74	6.982		
12,500.00	7,480.00	12,421.68	7,610.00	83.09	79.88	96.78	4,511.04	-687.36	1,101.33	940.69	160.64	6.856		
12,600.00	7,480.00	12,521.68	7,610.00	84.50	81.35	96.78	4,611.02	-685.62	1,101.33	937.78	163.55	6.734		
12,700.00	7,480.00	12,621.68	7,610.00	85.92	82.82	96.78	4,711.01	-683.87	1,101.33	934.86	166.47	6.616		
12,800.00	7,480.00	12,721.68	7,610.00	87.35	84.29	96.78	4,810.99	-682.13	1,101.33	931.93	169.40	6.501		
12,900.00	7,480.00	12,821.68	7,610.00	88.78	85.77	96.78	4,910.97	-680.38	1,101.33	929.00	172.33	6.391		
13,000.00	7,480.00	12,921.68	7,610.00	90.21	87.25	96.78	5,010.96	-678.64	1,101.33	926.06	175.27	6.284		
13,100.00	7,480.00	13,021.68	7,610.00	91.65	88.73	96.78	5,110.94	-676.89	1,101.33	923.11	178.22	6.180		
13,200.00	7,480.00	13,121.68	7,610.00	93.10	90.22	96.78	5,210.93	-675.15	1,101.33	920.16	181.17	6.079		
13,300.00	7,480.00	13,221.68	7,610.00	94.54	91.71	96.78	5,310.91	-673.40	1,101.33	917.20	184.13	5.981		
13,400.00	7,480.00	13,321.68	7,610.00	96.00	93.20	96.78	5,410.90	-671.66	1,101.33	914.24	187.09	5.887		
13,500.00	7,480.00	13,421.68	7,610.00	97.45	94.70	96.78	5,510.88	-669.91	1,101.33	911.27	190.06	5.795		
13,600.00	7,480.00	13,521.68	7,610.00	98.91	96.19	96.78	5,610.87	-668.17	1,101.33	908.30	193.03	5.705		
13,700.00	7,480.00	13,621.68	7,610.00	100.37	97.69	96.78	5,710.85	-666.42	1,101.33	905.32	196.01	5.619		

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 4C-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 4C-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 #3	<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					
13,800.00	7,480.00	13,721.68	7,610.00	101.84	99.20	96.78	5,810.84	-664.68	1,101.33	902.34	198.99	5.535					
13,900.00	7,480.00	13,821.68	7,610.00	103.31	100.70	96.78	5,910.82	-662.93	1,101.33	899.35	201.98	5.453					
14,000.00	7,480.00	13,921.68	7,610.00	104.78	102.21	96.78	6,010.81	-661.19	1,101.33	896.36	204.97	5.373					
14,100.00	7,480.00	14,046.49	7,610.00	106.25	104.10	96.78	6,135.61	-659.70	1,100.92	892.04	208.89	5.270					
14,200.00	7,480.00	14,214.97	7,610.00	107.73	106.70	96.84	6,303.95	-665.88	1,095.55	881.58	213.96	5.120					
14,300.00	7,480.00	14,381.66	7,610.00	109.21	109.35	96.96	6,469.78	-682.40	1,083.98	865.67	218.31	4.965					
14,400.00	7,480.00	14,545.31	7,610.00	110.69	112.00	97.16	6,631.29	-708.62	1,066.35	844.45	221.90	4.806					
14,500.00	7,480.00	14,704.83	7,610.00	112.18	114.63	97.42	6,786.90	-743.63	1,042.87	818.14	224.73	4.640					
14,600.00	7,480.00	14,842.33	7,610.00	113.66	116.93	97.73	6,919.20	-781.05	1,014.03	786.84	227.19	4.463					
14,700.00	7,480.00	14,859.12	7,610.00	115.15	117.21	97.77	6,935.28	-785.88	986.97	755.84	231.13	4.270					
14,800.00	7,480.00	14,859.12	7,610.00	116.64	117.21	97.77	6,935.28	-785.88	969.37	735.87	233.50	4.151					
14,901.25	7,480.00	14,859.12	7,610.00	118.16	117.21	97.77	6,935.28	-785.88	961.87	728.21	233.66	4.117 SF					

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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		
0.00	0.00	0.00	0.00	0.00	0.00	90.17	-0.12	40.00	40.00					
100.00	100.00	100.00	100.00	0.14	0.14	90.17	-0.12	40.00	40.00	39.73	0.28	144.925		
200.00	200.00	200.00	200.00	0.50	0.50	90.17	-0.12	40.00	40.00	39.01	0.99	40.286		
300.00	300.00	300.00	300.00	0.85	0.85	90.17	-0.12	40.00	40.00	38.29	1.71	23.395		
400.00	400.00	400.00	400.00	1.21	1.21	90.17	-0.12	40.00	40.00	37.58	2.43	16.483	CC, ES	
500.00	499.98	499.98	499.98	1.56	1.57	-160.49	-0.12	40.00	41.64	38.51	3.13	13.290		
600.00	599.84	599.84	599.84	1.91	1.93	-162.60	-0.12	40.00	46.61	42.77	3.84	12.144		
700.00	699.45	699.45	699.45	2.26	2.29	-165.28	-0.12	40.00	54.99	50.44	4.55	12.088		
800.00	798.70	798.70	798.70	2.64	2.64	-167.88	-0.12	40.00	66.85	61.59	5.26	12.701		
900.00	897.47	899.84	899.82	3.03	2.99	-169.50	-1.30	38.73	80.79	74.81	5.98	13.515		
1,000.00	995.62	1,001.41	1,001.25	3.44	3.33	-169.82	-4.94	34.82	95.22	88.52	6.70	14.221		
1,100.00	1,093.06	1,103.36	1,102.79	3.89	3.68	-169.35	-11.05	28.26	110.10	102.67	7.43	14.817		
1,151.35	1,142.76	1,155.84	1,154.93	4.13	3.87	-168.89	-15.15	23.84	117.92	110.10	7.82	15.084		
1,200.00	1,189.75	1,205.66	1,204.31	4.37	4.05	-168.35	-19.65	19.01	125.04	116.86	8.18	15.282		
1,300.00	1,286.33	1,304.64	1,302.30	4.86	4.41	-167.25	-29.13	8.83	139.05	130.14	8.91	15.600		
1,400.00	1,382.91	1,403.62	1,400.30	5.37	4.78	-166.35	-38.61	-1.36	153.10	143.44	9.66	15.853		
1,500.00	1,479.49	1,502.61	1,498.30	5.88	5.16	-165.60	-48.09	-11.55	167.18	156.77	10.41	16.056		
1,600.00	1,576.07	1,601.59	1,596.30	6.41	5.54	-164.97	-57.57	-21.74	181.28	170.11	11.18	16.221		
1,700.00	1,672.65	1,700.57	1,694.30	6.93	5.93	-164.43	-67.05	-31.92	195.41	183.46	11.95	16.357		
1,800.00	1,769.23	1,799.55	1,792.30	7.46	6.32	-163.96	-76.53	-42.11	209.54	196.82	12.72	16.470		
1,900.00	1,865.82	1,898.53	1,890.30	8.00	6.71	-163.55	-86.01	-52.30	223.69	210.19	13.50	16.565		
2,000.00	1,962.40	1,997.52	1,988.30	8.53	7.11	-163.19	-95.49	-62.48	237.85	223.56	14.29	16.646		
2,100.00	2,058.98	2,096.50	2,086.30	9.07	7.51	-162.87	-104.96	-72.67	252.02	236.94	15.08	16.714		
2,200.00	2,155.56	2,195.48	2,184.30	9.61	7.91	-162.59	-114.44	-82.86	266.19	250.32	15.87	16.773		
2,300.00	2,252.14	2,294.46	2,282.30	10.15	8.31	-162.33	-123.92	-93.04	280.37	263.71	16.66	16.824		
2,400.00	2,348.72	2,393.45	2,380.29	10.69	8.71	-162.10	-133.40	-103.23	294.56	277.10	17.46	16.869		
2,500.00	2,445.30	2,492.43	2,478.29	11.24	9.11	-161.89	-142.88	-113.42	308.75	290.49	18.26	16.907		
2,600.00	2,541.88	2,591.41	2,576.29	11.78	9.52	-161.70	-152.36	-123.60	322.94	303.88	19.06	16.942		
2,700.00	2,638.46	2,690.39	2,674.29	12.32	9.92	-161.52	-161.84	-133.79	337.14	317.27	19.86	16.972		
2,800.00	2,735.04	2,789.37	2,772.29	12.87	10.33	-161.36	-171.32	-143.98	351.34	330.67	20.67	16.999		
2,900.00	2,831.62	2,888.36	2,870.29	13.42	10.73	-161.21	-180.80	-154.16	365.54	344.06	21.47	17.023		
3,000.00	2,928.20	2,987.34	2,968.29	13.96	11.14	-161.07	-190.28	-164.35	379.74	357.46	22.28	17.045		
3,100.00	3,024.78	3,086.32	3,066.29	14.51	11.55	-160.94	-199.76	-174.54	393.95	370.86	23.09	17.064		
3,200.00	3,121.36	3,185.30	3,164.29	15.06	11.95	-160.82	-209.24	-184.72	408.16	384.26	23.89	17.082		
3,300.00	3,217.94	3,284.28	3,262.29	15.61	12.36	-160.71	-218.72	-194.91	422.36	397.66	24.70	17.097		
3,400.00	3,314.52	3,383.27	3,360.29	16.15	12.77	-160.61	-228.20	-205.10	436.58	411.06	25.51	17.112		
3,500.00	3,411.10	3,482.25	3,458.29	16.70	13.18	-160.51	-237.68	-215.28	450.79	424.46	26.32	17.125		
3,600.00	3,507.68	3,581.23	3,556.28	17.25	13.59	-160.42	-247.16	-225.47	465.00	437.87	27.13	17.137		
3,700.00	3,604.26	3,680.21	3,654.28	17.80	14.00	-160.33	-256.64	-235.66	479.22	451.27	27.95	17.148		
3,800.00	3,700.84	3,779.19	3,752.28	18.35	14.41	-160.25	-266.11	-245.85	493.43	464.67	28.76	17.158		
3,900.00	3,797.42	3,878.18	3,850.28	18.90	14.82	-160.18	-275.59	-256.03	507.65	478.08	29.57	17.168		
4,000.00	3,894.00	3,977.16	3,948.28	19.45	15.23	-160.10	-285.07	-266.22	521.86	491.48	30.38	17.176		
4,100.00	3,990.58	4,076.14	4,046.28	20.00	15.64	-160.03	-294.55	-276.41	536.08	504.89	31.20	17.184		
4,200.00	4,087.16	4,175.12	4,144.28	20.55	16.05	-159.97	-304.03	-286.59	550.30	518.29	32.01	17.192		
4,300.00	4,183.75	4,274.11	4,242.28	21.10	16.46	-159.91	-313.51	-296.78	564.52	531.70	32.82	17.198		
4,400.00	4,280.33	4,373.09	4,340.28	21.65	16.87	-159.85	-322.99	-306.97	578.74	545.10	33.64	17.205		
4,500.00	4,376.91	4,472.07	4,438.28	22.20	17.28	-159.79	-332.47	-317.15	592.96	558.51	34.45	17.211		
4,600.00	4,473.49	4,571.05	4,536.28	22.75	17.69	-159.74	-341.95	-327.34	607.18	571.91	35.27	17.216		
4,700.00	4,570.07	4,670.03	4,634.28	23.30	18.10	-159.69	-351.43	-337.53	621.40	585.32	36.08	17.221		
4,800.00	4,666.65	4,769.02	4,732.27	23.85	18.52	-159.64	-360.91	-347.71	635.62	598.73	36.90	17.226		
4,900.00	4,763.23	4,868.00	4,830.27	24.40	18.93	-159.59	-370.39	-357.90	649.85	612.13	37.71	17.231		
5,000.00	4,859.81	4,966.98	4,928.27	24.96	19.34	-159.55	-379.87	-368.09	664.07	625.54	38.53	17.235		

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 4C-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 4C-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 #3	<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					
5,100.00	4,956.39	5,065.96	5,026.27	25.51	19.75	-159.51	-389.35	-378.27	678.29	638.95	39.35	17.239					
5,200.00	5,052.97	5,164.94	5,124.27	26.06	20.16	-159.47	-398.83	-388.46	692.52	652.35	40.16	17.243					
5,300.00	5,149.55	5,263.93	5,222.27	26.61	20.57	-159.43	-408.31	-398.65	706.74	665.76	40.98	17.246					
5,400.00	5,246.13	5,362.91	5,320.27	27.16	20.99	-159.39	-417.78	-408.83	720.96	679.17	41.80	17.250					
5,500.00	5,342.71	5,461.89	5,418.27	27.71	21.40	-159.35	-427.26	-419.02	735.19	692.58	42.61	17.253					
5,600.00	5,439.29	5,560.87	5,516.27	28.26	21.81	-159.32	-436.74	-429.21	749.41	705.98	43.43	17.256					
5,700.00	5,535.87	5,659.86	5,614.27	28.82	22.22	-159.29	-446.22	-439.39	763.64	719.39	44.25	17.259					
5,800.00	5,632.45	5,758.84	5,712.27	29.37	22.63	-159.25	-455.70	-449.58	777.86	732.80	45.06	17.261					
5,900.00	5,729.03	5,857.82	5,810.26	29.92	23.05	-159.22	-465.18	-459.77	792.09	746.21	45.88	17.264					
6,000.00	5,825.61	5,956.80	5,908.26	30.47	23.46	-159.19	-474.66	-469.96	806.31	759.61	46.70	17.266					
6,100.00	5,922.19	6,055.78	6,006.26	31.02	23.87	-159.16	-484.14	-480.14	820.54	773.02	47.52	17.268					
6,200.00	6,018.77	6,154.77	6,104.26	31.57	24.28	-159.14	-493.62	-490.33	834.77	786.43	48.33	17.271					
6,300.00	6,115.35	6,253.75	6,202.26	32.13	24.70	-159.11	-503.10	-500.52	848.99	799.84	49.15	17.273					
6,400.00	6,211.93	6,352.73	6,300.26	32.68	25.11	-159.08	-512.58	-510.70	863.22	813.25	49.97	17.275					
6,500.00	6,308.51	6,451.71	6,398.26	33.23	25.52	-159.06	-522.06	-520.89	877.44	826.66	50.79	17.276					
6,600.00	6,405.09	6,550.69	6,496.26	33.78	25.93	-159.03	-531.54	-531.08	891.67	840.06	51.61	17.278					
6,700.00	6,501.68	6,649.68	6,594.26	34.33	26.35	-159.01	-541.02	-541.26	905.90	853.47	52.43	17.280					
6,800.00	6,598.26	6,750.25	6,694.11	34.88	26.74	-159.30	-545.64	-551.67	920.05	866.87	53.18	17.301					
6,900.00	6,694.84	6,848.10	6,790.95	35.44	27.05	-160.40	-536.77	-561.83	934.21	880.49	53.72	17.392					
6,939.68	6,733.16	6,885.32	6,827.33	35.66	27.15	-161.02	-529.92	-565.67	939.98	886.11	53.88	17.447					
6,950.00	6,743.13	6,894.84	6,836.57	35.71	27.17	-164.31	-527.86	-566.65	941.51	887.60	53.91	17.463					
7,000.00	6,791.54	6,940.44	6,880.43	35.98	27.28	178.95	-516.31	-571.29	949.16	895.08	54.08	17.551					
7,050.00	6,839.91	6,985.27	6,922.75	36.23	27.38	162.45	-502.24	-575.79	957.16	902.93	54.23	17.652					
7,100.00	6,888.03	7,029.38	6,963.45	36.47	27.47	148.08	-485.82	-580.13	965.45	911.10	54.35	17.764					
7,150.00	6,935.65	7,072.83	7,002.49	36.68	27.54	136.47	-467.21	-584.31	973.98	919.52	54.46	17.885					
7,200.00	6,982.55	7,115.70	7,039.83	36.88	27.61	127.35	-446.56	-588.32	982.67	928.12	54.55	18.014					
7,250.00	7,028.48	7,158.03	7,075.43	37.06	27.66	120.17	-423.99	-592.16	991.47	936.84	54.63	18.149					
7,300.00	7,073.24	7,200.00	7,109.36	37.22	27.71	114.42	-399.57	-595.84	1,000.30	945.61	54.70	18.288					
7,350.00	7,116.60	7,241.27	7,141.27	37.37	27.75	109.73	-373.65	-599.31	1,009.12	954.36	54.76	18.429					
7,400.00	7,158.35	7,282.27	7,171.46	37.50	27.78	105.83	-346.10	-602.61	1,017.86	963.04	54.81	18.569					
7,450.00	7,198.29	7,322.93	7,199.79	37.62	27.80	102.54	-317.12	-605.73	1,026.45	971.58	54.87	18.708					
7,500.00	7,236.22	7,363.27	7,226.24	37.72	27.82	99.72	-286.81	-608.66	1,034.85	979.93	54.92	18.843					
7,550.00	7,271.95	7,400.00	7,248.81	37.80	27.83	97.32	-257.95	-611.17	1,043.00	988.04	54.96	18.976					
7,600.00	7,305.33	7,443.15	7,273.41	37.88	27.84	95.18	-222.61	-613.93	1,050.85	995.80	55.04	19.092					
7,650.00	7,336.17	7,482.76	7,294.09	37.94	27.84	93.34	-188.91	-616.27	1,058.35	1,003.23	55.12	19.201					
7,700.00	7,364.33	7,522.18	7,312.79	37.99	27.84	91.75	-154.28	-618.41	1,065.45	1,010.24	55.21	19.299					
7,750.00	7,389.68	7,561.45	7,329.51	38.04	27.84	90.36	-118.81	-620.35	1,072.12	1,016.81	55.32	19.382					
7,800.00	7,412.08	7,600.00	7,344.02	38.07	27.84	89.17	-83.14	-622.06	1,078.33	1,022.89	55.44	19.451					
7,850.00	7,431.44	7,639.63	7,356.93	38.10	27.84	88.15	-45.70	-623.61	1,084.02	1,028.43	55.59	19.500					
7,900.00	7,447.66	7,678.59	7,367.59	38.13	27.84	87.29	-8.26	-624.93	1,089.18	1,033.42	55.76	19.532					
7,950.00	7,460.65	7,717.49	7,376.19	38.15	27.85	86.59	29.65	-626.03	1,093.78	1,037.82	55.96	19.546					
8,000.00	7,470.36	7,756.35	7,382.74	38.18	27.87	86.05	67.95	-626.92	1,097.79	1,041.61	56.18	19.540					
8,050.00	7,476.73	7,800.00	7,387.61	38.20	27.92	85.64	111.31	-627.66	1,101.20	1,044.76	56.45	19.509					
8,100.00	7,479.74	7,834.05	7,389.58	38.23	27.98	85.38	145.30	-628.05	1,103.97	1,047.27	56.70	19.470					
8,119.55	7,480.00	7,850.00	7,389.95	38.24	28.02	85.32	161.24	-628.18	1,104.89	1,048.07	56.82	19.447					
8,200.00	7,480.00	7,926.91	7,390.00	38.31	28.28	85.34	238.15	-628.60	1,108.64	1,051.25	57.39	19.318					
8,300.00	7,480.00	8,026.80	7,390.00	38.45	28.75	85.36	338.04	-629.14	1,113.31	1,055.06	58.25	19.112					
8,400.00	7,480.00	8,126.69	7,390.00	38.65	29.33	85.38	437.92	-629.67	1,117.99	1,058.72	59.28	18.860					
8,500.00	7,480.00	8,226.58	7,390.00	38.92	29.98	85.40	537.81	-630.21	1,122.67	1,062.22	60.46	18.570					
8,600.00	7,480.00	8,326.47	7,390.00	39.25	30.70	85.42	637.70	-630.75	1,127.35	1,065.57	61.78	18.248					
8,700.00	7,480.00	8,426.36	7,390.00	39.67	31.49	85.43	737.59	-631.29	1,132.03	1,068.80	63.24	17.901					
8,800.00	7,480.00	8,526.25	7,390.00	40.16	32.33	85.45	837.48	-631.83	1,136.71	1,071.89	64.82	17.536					

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 4C-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 4C-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 #3	<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				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		
8,900.00	7,480.00	8,626.14	7,390.00	40.73	33.22	85.47	937.37	-632.37	1,141.39	1,074.87	66.52	17.158		
9,000.00	7,480.00	8,726.03	7,390.00	41.38	34.17	85.49	1,037.25	-632.91	1,146.07	1,077.74	68.33	16.772		
9,100.00	7,480.00	8,825.92	7,390.00	42.11	35.15	85.51	1,137.14	-633.45	1,150.76	1,080.51	70.24	16.383		
9,200.00	7,480.00	8,925.80	7,390.00	42.89	36.18	85.53	1,237.03	-633.98	1,155.44	1,083.19	72.24	15.993		
9,300.00	7,480.00	9,025.69	7,390.00	43.75	37.24	85.55	1,336.92	-634.52	1,160.12	1,085.79	74.33	15.608		
9,400.00	7,480.00	9,125.58	7,390.00	44.65	38.34	85.56	1,436.81	-635.06	1,164.80	1,088.30	76.49	15.227		
9,469.55	7,480.00	9,195.06	7,390.00	45.32	39.13	85.58	1,506.28	-635.44	1,168.05	1,090.01	78.04	14.967		
9,500.00	7,480.00	9,225.48	7,390.00	45.61	39.48	85.58	1,536.70	-635.60	1,169.32	1,090.59	78.73	14.853		
9,607.34	7,480.00	9,332.80	7,390.00	46.65	40.73	85.59	1,644.02	-636.18	1,171.20	1,090.02	81.18	14.428		
9,700.00	7,480.00	9,425.46	7,390.00	47.55	41.83	85.59	1,736.68	-636.68	1,171.09	1,087.77	83.33	14.054		
9,800.00	7,480.00	9,525.46	7,390.00	48.57	43.05	85.59	1,836.67	-637.22	1,170.98	1,085.28	85.71	13.663		
9,900.00	7,480.00	9,625.46	7,390.00	49.62	44.28	85.59	1,936.67	-637.76	1,170.87	1,082.74	88.13	13.286		
10,000.00	7,480.00	9,725.46	7,390.00	50.70	45.54	85.59	2,036.67	-638.30	1,170.75	1,080.15	90.60	12.922		
10,100.00	7,480.00	9,825.46	7,390.00	51.81	46.82	85.59	2,136.67	-638.84	1,170.64	1,077.52	93.12	12.572		
10,200.00	7,480.00	9,925.46	7,390.00	52.95	48.12	85.59	2,236.67	-639.38	1,170.53	1,074.86	95.67	12.235		
10,300.00	7,480.00	10,025.46	7,390.00	54.12	49.43	85.59	2,336.67	-639.92	1,170.41	1,072.16	98.26	11.912		
10,400.00	7,480.00	10,125.46	7,390.00	55.31	50.76	85.59	2,436.67	-640.45	1,170.30	1,069.42	100.88	11.601		
10,500.00	7,480.00	10,225.46	7,390.00	56.52	52.10	85.59	2,536.66	-640.99	1,170.19	1,066.66	103.53	11.303		
10,600.00	7,480.00	10,325.46	7,390.00	57.75	53.46	85.59	2,636.66	-641.53	1,170.07	1,063.86	106.21	11.017		
10,700.00	7,480.00	10,425.46	7,390.00	59.00	54.83	85.59	2,736.66	-642.07	1,169.96	1,061.04	108.91	10.742		
10,800.00	7,480.00	10,525.46	7,390.00	60.26	56.21	85.59	2,836.66	-642.61	1,169.84	1,058.20	111.64	10.478		
10,839.04	7,480.00	10,564.49	7,390.00	60.76	56.75	85.59	2,875.70	-642.82	1,169.80	1,057.08	112.72	10.378		
10,901.25	7,480.00	10,626.70	7,390.00	61.55	57.62	85.58	2,937.90	-643.16	1,169.06	1,054.63	114.42	10.217		
11,000.00	7,480.00	10,725.43	7,390.00	62.80	59.00	85.58	3,036.63	-643.69	1,166.81	1,049.66	117.14	9.961		
11,100.00	7,480.00	10,825.40	7,390.00	64.08	60.41	85.57	3,136.60	-644.23	1,164.53	1,044.61	119.92	9.711		
11,200.00	7,480.00	10,925.37	7,390.00	65.37	61.83	85.56	3,236.57	-644.77	1,162.25	1,039.55	122.71	9.472		
11,300.00	7,480.00	11,025.35	7,390.00	66.68	63.25	85.55	3,336.54	-645.31	1,159.97	1,034.46	125.51	9.242		
11,400.00	7,480.00	11,125.32	7,390.00	68.00	64.68	85.54	3,436.52	-645.85	1,157.70	1,029.36	128.33	9.021		
11,500.00	7,480.00	11,225.30	7,390.00	69.33	66.12	85.53	3,536.49	-646.39	1,155.42	1,024.25	131.17	8.808		
11,600.00	7,480.00	11,325.27	7,390.00	70.66	67.57	85.52	3,636.46	-646.93	1,153.14	1,019.12	134.02	8.604		
11,700.00	7,480.00	11,425.24	7,390.00	72.01	69.02	85.51	3,736.43	-647.47	1,150.86	1,013.98	136.89	8.407		
11,800.00	7,480.00	11,525.22	7,390.00	73.37	70.48	85.50	3,836.40	-648.00	1,148.59	1,008.82	139.76	8.218		
11,900.00	7,480.00	11,625.19	7,390.00	74.74	71.94	85.50	3,936.38	-648.54	1,146.31	1,003.66	142.65	8.036		
12,000.00	7,480.00	11,725.17	7,390.00	76.11	73.41	85.49	4,036.35	-649.08	1,144.03	998.48	145.55	7.860		
12,100.00	7,480.00	11,825.14	7,390.00	77.49	74.89	85.48	4,136.32	-649.62	1,141.75	993.30	148.46	7.691		
12,200.00	7,480.00	11,925.11	7,390.00	78.88	76.36	85.47	4,236.29	-650.16	1,139.48	988.10	151.38	7.527		
12,300.00	7,480.00	12,025.09	7,390.00	80.28	77.85	85.46	4,336.27	-650.70	1,137.20	982.90	154.30	7.370		
12,400.00	7,480.00	12,125.06	7,390.00	81.68	79.33	85.45	4,436.24	-651.24	1,134.92	977.68	157.24	7.218		
12,500.00	7,480.00	12,225.03	7,390.00	83.09	80.82	85.44	4,536.21	-651.78	1,132.64	972.46	160.18	7.071		
12,600.00	7,480.00	12,325.01	7,390.00	84.50	82.32	85.43	4,636.18	-652.32	1,130.37	967.23	163.13	6.929		
12,700.00	7,480.00	12,424.98	7,390.00	85.92	83.81	85.42	4,736.16	-652.86	1,128.09	962.00	166.09	6.792		
12,800.00	7,480.00	12,524.96	7,390.00	87.35	85.31	85.41	4,836.13	-653.40	1,125.81	956.76	169.06	6.659		
12,900.00	7,480.00	12,624.93	7,390.00	88.78	86.82	85.40	4,936.10	-653.94	1,123.54	951.51	172.03	6.531		
13,000.00	7,480.00	12,724.90	7,390.00	90.21	88.32	85.39	5,036.07	-654.48	1,121.26	946.25	175.00	6.407		
13,100.00	7,480.00	12,824.88	7,390.00	91.65	89.83	85.39	5,136.05	-655.01	1,118.98	940.99	177.99	6.287		
13,200.00	7,480.00	12,924.85	7,390.00	93.10	91.34	85.38	5,236.02	-655.55	1,116.70	935.73	180.98	6.170		
13,300.00	7,480.00	13,024.83	7,390.00	94.54	92.86	85.37	5,335.99	-656.09	1,114.43	930.46	183.97	6.058		
13,400.00	7,480.00	13,124.80	7,390.00	96.00	94.37	85.36	5,435.96	-656.63	1,112.15	925.18	186.97	5.948		
13,500.00	7,480.00	13,224.77	7,390.00	97.45	95.89	85.35	5,535.94	-657.17	1,109.87	919.90	189.97	5.842		
13,600.00	7,480.00	13,324.75	7,390.00	98.91	97.41	85.34	5,635.91	-657.71	1,107.60	914.62	192.98	5.739		
13,700.00	7,480.00	13,424.72	7,390.00	100.37	98.94	85.33	5,735.88	-658.25	1,105.32	909.33	195.99	5.640		
13,800.00	7,480.00	13,524.70	7,390.00	101.84	100.46	85.32	5,835.85	-658.79	1,103.04	904.04	199.01	5.543		

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 4C-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 4C-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 #3	<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	13,624.67	7,390.00	103.31	101.99	85.31	5,935.83	-659.33	1,100.77	898.74	202.03	5.449		
14,000.00	7,480.00	13,724.64	7,390.00	104.78	103.52	85.30	6,035.80	-659.87	1,098.49	893.44	205.05	5.357		
14,100.00	7,480.00	13,852.34	7,390.00	106.25	105.49	85.28	6,163.47	-662.26	1,094.86	885.83	209.03	5.238		
14,200.00	7,480.00	13,952.22	7,390.00	107.73	107.04	85.26	6,263.30	-665.34	1,090.06	877.98	212.07	5.140		
14,300.00	7,480.00	14,052.11	7,390.00	109.21	108.59	85.24	6,363.14	-668.41	1,085.25	870.13	215.12	5.045		
14,400.00	7,480.00	14,151.99	7,390.00	110.69	110.15	85.22	6,462.98	-671.49	1,080.44	862.28	218.17	4.952		
14,500.00	7,480.00	14,251.87	7,390.00	112.18	111.70	85.19	6,562.81	-674.56	1,075.64	854.42	221.22	4.862		
14,600.00	7,480.00	14,351.76	7,390.00	113.66	113.26	85.17	6,662.65	-677.64	1,070.83	846.56	224.27	4.775		
14,700.00	7,480.00	14,451.64	7,390.00	115.15	114.82	85.15	6,762.48	-680.71	1,066.03	838.70	227.33	4.689		
14,800.00	7,480.00	14,551.53	7,390.00	116.64	116.38	85.13	6,862.32	-683.79	1,061.22	830.83	230.39	4.606		
14,901.25	7,480.00	14,625.12	7,390.00	118.16	117.53	85.11	6,935.88	-686.05	1,056.72	824.19	232.53	4.544 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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	1.00	1.00	0.00	0.00	90.09	-0.08	49.79	49.79					
100.00	100.00	101.00	101.00	0.14	0.14	90.09	-0.08	49.79	49.79	49.51	0.28	178.081		
116.33	116.33	117.33	117.33	0.20	0.20	90.09	-0.08	49.79	49.79	49.40	0.40	125.522	CC	
200.00	200.00	201.00	201.00	0.50	0.50	90.09	-0.08	49.79	49.79	48.80	1.00	49.973		
203.98	203.98	204.98	204.98	0.51	0.51	90.10	-0.08	49.79	49.79	48.77	1.02	48.610		
300.00	300.00	300.96	300.93	0.85	0.84	92.14	-1.86	49.79	49.83	48.13	1.70	29.339		
400.00	400.00	400.68	400.51	1.21	1.19	98.12	-7.11	49.79	50.30	47.90	2.40	20.926	ES	
500.00	499.98	501.73	501.23	1.56	1.55	-143.64	-15.07	48.24	51.94	48.82	3.11	16.675		
600.00	599.84	602.60	601.52	1.91	1.93	-135.72	-24.83	43.64	54.97	51.14	3.84	14.322		
700.00	699.45	703.27	701.23	2.26	2.32	-128.37	-36.35	36.01	59.44	54.85	4.58	12.965		
800.00	798.70	802.91	799.71	2.64	2.72	-123.36	-48.58	27.04	65.96	60.61	5.35	12.325		
900.00	897.47	902.50	898.14	3.03	3.13	-121.55	-60.81	18.08	74.64	68.50	6.14	12.152		
1,000.00	995.62	1,001.93	996.42	3.44	3.54	-122.09	-73.02	9.13	85.18	78.22	6.96	12.246		
1,100.00	1,093.06	1,101.08	1,094.41	3.89	3.95	-124.18	-85.19	0.21	97.64	89.85	7.79	12.535		
1,151.35	1,142.76	1,151.84	1,144.58	4.13	4.17	-125.63	-91.42	-4.36	104.86	96.64	8.23	12.749		
1,200.00	1,189.75	1,199.89	1,192.06	4.37	4.37	-127.11	-97.32	-8.68	112.04	103.40	8.64	12.968		
1,300.00	1,286.33	1,298.63	1,289.65	4.86	4.78	-129.63	-109.44	-17.57	126.97	117.48	9.49	13.377		
1,400.00	1,382.91	1,397.37	1,387.24	5.37	5.20	-131.62	-121.56	-26.46	142.09	131.74	10.35	13.734		
1,500.00	1,479.49	1,496.11	1,484.84	5.88	5.61	-133.22	-133.69	-35.34	157.34	146.14	11.20	14.046		
1,600.00	1,576.07	1,594.86	1,582.43	6.41	6.03	-134.54	-145.81	-44.23	172.70	160.64	12.06	14.320		
1,700.00	1,672.65	1,693.60	1,680.02	6.93	6.45	-135.65	-157.93	-53.11	188.13	175.21	12.92	14.563		
1,800.00	1,769.23	1,792.34	1,777.61	7.46	6.87	-136.59	-170.05	-62.00	203.62	189.84	13.78	14.780		
1,900.00	1,865.82	1,891.08	1,875.20	8.00	7.29	-137.39	-182.18	-70.89	219.15	204.51	14.64	14.973		
2,000.00	1,962.40	1,989.83	1,972.80	8.53	7.71	-138.09	-194.30	-79.77	234.72	219.22	15.50	15.147		
2,100.00	2,058.98	2,088.57	2,070.39	9.07	8.13	-138.70	-206.42	-88.66	250.32	233.96	16.36	15.304		
2,200.00	2,155.56	2,187.31	2,167.98	9.61	8.54	-139.24	-218.54	-97.55	265.95	248.73	17.22	15.447		
2,300.00	2,252.14	2,286.05	2,265.57	10.15	8.96	-139.72	-230.67	-106.43	281.59	263.51	18.08	15.577		
2,400.00	2,348.72	2,384.80	2,363.16	10.69	9.38	-140.15	-242.79	-115.32	297.25	278.31	18.94	15.696		
2,500.00	2,445.30	2,483.54	2,460.76	11.24	9.80	-140.53	-254.91	-124.20	312.93	293.13	19.80	15.805		
2,600.00	2,541.88	2,582.28	2,558.35	11.78	10.22	-140.88	-267.03	-133.09	328.62	307.96	20.66	15.906		
2,700.00	2,638.46	2,681.03	2,655.94	12.32	10.65	-141.20	-279.15	-141.98	344.32	322.80	21.52	15.999		
2,800.00	2,735.04	2,779.77	2,753.53	12.87	11.07	-141.49	-291.28	-150.86	360.03	337.65	22.38	16.085		
2,900.00	2,831.62	2,878.51	2,851.12	13.42	11.49	-141.75	-303.40	-159.75	375.75	352.50	23.25	16.165		
3,000.00	2,928.20	2,977.25	2,948.72	13.96	11.91	-142.00	-315.52	-168.64	391.47	367.37	24.11	16.239		
3,100.00	3,024.78	3,076.00	3,046.31	14.51	12.33	-142.22	-327.64	-177.52	407.20	382.24	24.97	16.309		
3,200.00	3,121.36	3,174.74	3,143.90	15.06	12.75	-142.43	-339.77	-186.41	422.94	397.11	25.83	16.374		
3,300.00	3,217.94	3,273.48	3,241.49	15.61	13.17	-142.63	-351.89	-195.30	438.68	411.99	26.69	16.435		
3,400.00	3,314.52	3,372.22	3,339.08	16.15	13.59	-142.81	-364.01	-204.18	454.43	426.88	27.55	16.492		
3,500.00	3,411.10	3,470.97	3,436.68	16.70	14.01	-142.97	-376.13	-213.07	470.18	441.76	28.42	16.546		
3,600.00	3,507.68	3,569.71	3,534.27	17.25	14.43	-143.13	-388.26	-221.95	485.94	456.66	29.28	16.597		
3,700.00	3,604.26	3,668.45	3,631.86	17.80	14.85	-143.28	-400.38	-230.84	501.69	471.55	30.14	16.645		
3,800.00	3,700.84	3,767.19	3,729.45	18.35	15.28	-143.42	-412.50	-239.73	517.45	486.45	31.00	16.690		
3,900.00	3,797.42	3,865.94	3,827.04	18.90	15.70	-143.55	-424.62	-248.61	533.22	501.35	31.87	16.733		
4,000.00	3,894.00	3,964.68	3,924.64	19.45	16.12	-143.67	-436.75	-257.50	548.98	516.26	32.73	16.774		
4,100.00	3,990.58	4,063.42	4,022.23	20.00	16.54	-143.78	-448.87	-266.39	564.75	531.16	33.59	16.813		
4,200.00	4,087.16	4,162.17	4,119.82	20.55	16.96	-143.89	-460.99	-275.27	580.52	546.07	34.45	16.849		
4,300.00	4,183.75	4,260.91	4,217.41	21.10	17.38	-144.00	-473.11	-284.16	596.30	560.98	35.32	16.884		
4,400.00	4,280.33	4,359.65	4,315.00	21.65	17.80	-144.10	-485.24	-293.04	612.07	575.89	36.18	16.918		
4,500.00	4,376.91	4,458.39	4,412.60	22.20	18.22	-144.19	-497.36	-301.93	627.85	590.81	37.04	16.950		
4,600.00	4,473.49	4,557.14	4,510.19	22.75	18.65	-144.28	-509.48	-310.82	643.62	605.72	37.90	16.980		
4,700.00	4,570.07	4,652.43	4,604.41	23.30	19.05	-144.38	-520.95	-319.22	659.52	620.79	38.73	17.028		
4,800.00	4,666.65	4,743.13	4,694.43	23.85	19.41	-144.68	-529.90	-325.78	676.40	636.92	39.48	17.133		

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 4C-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 4C-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 #3	<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
4,900.00	4,763.23	4,833.19	4,784.11	24.40	19.76	-145.18	-536.51	-330.63	694.47	654.30	40.17	17.288	
5,000.00	4,859.81	4,922.43	4,873.19	24.96	20.07	-145.86	-540.81	-333.79	713.79	672.99	40.81	17.492	
5,100.00	4,956.39	5,010.69	4,961.41	25.51	20.37	-146.70	-542.87	-335.29	734.45	693.07	41.38	17.748	
5,200.00	5,052.97	5,103.25	5,053.97	26.06	20.64	-147.70	-543.08	-335.45	756.34	714.40	41.93	18.037	
5,300.00	5,149.55	5,199.83	5,150.55	26.61	20.91	-148.71	-543.08	-335.45	778.58	736.07	42.51	18.314	
5,400.00	5,246.13	5,296.41	5,247.13	27.16	21.18	-149.67	-543.08	-335.45	801.05	757.95	43.10	18.587	
5,500.00	5,342.71	5,392.99	5,343.71	27.71	21.46	-150.57	-543.08	-335.45	823.72	780.03	43.69	18.855	
5,600.00	5,439.29	5,489.57	5,440.29	28.26	21.74	-151.43	-543.08	-335.45	846.58	802.30	44.28	19.117	
5,700.00	5,535.87	5,586.15	5,536.87	28.82	22.02	-152.24	-543.08	-335.45	869.61	824.72	44.89	19.374	
5,800.00	5,632.45	5,682.73	5,633.45	29.37	22.30	-153.01	-543.08	-335.45	892.80	847.31	45.49	19.626	
5,900.00	5,729.03	5,779.32	5,730.03	29.92	22.59	-153.74	-543.08	-335.45	916.13	870.03	46.10	19.871	
6,000.00	5,825.61	5,875.90	5,826.61	30.47	22.87	-154.43	-543.08	-335.45	939.61	892.89	46.72	20.112	
6,100.00	5,922.19	5,972.48	5,923.19	31.02	23.16	-155.09	-543.08	-335.45	963.20	915.86	47.34	20.346	
6,200.00	6,018.77	6,069.06	6,019.77	31.57	23.45	-155.72	-543.08	-335.45	986.92	938.95	47.97	20.576	
6,300.00	6,115.35	6,165.64	6,116.35	32.13	23.74	-156.33	-543.08	-335.45	1,010.74	962.15	48.59	20.799	
6,400.00	6,211.93	6,262.22	6,212.93	32.68	24.03	-156.90	-543.08	-335.45	1,034.67	985.44	49.23	21.018	
6,500.00	6,308.51	6,358.80	6,309.51	33.23	24.32	-157.45	-543.08	-335.45	1,058.68	1,008.82	49.87	21.231	
6,600.00	6,405.09	6,455.38	6,406.09	33.78	24.62	-157.97	-543.08	-335.45	1,082.79	1,032.28	50.51	21.438	
6,700.00	6,501.68	6,551.96	6,502.68	34.33	24.91	-158.47	-543.08	-335.45	1,106.98	1,055.83	51.15	21.641	
6,800.00	6,598.26	6,648.54	6,599.26	34.88	25.21	-158.95	-543.08	-335.45	1,131.25	1,079.45	51.80	21.839	
6,900.00	6,694.84	6,745.12	6,695.84	35.44	25.51	-159.41	-543.08	-335.45	1,155.58	1,103.13	52.45	22.032	
6,939.68	6,733.16	6,783.44	6,734.16	35.66	25.63	-159.59	-543.08	-335.45	1,165.26	1,112.55	52.71	22.107	
6,950.00	6,743.13	6,793.41	6,744.13	35.71	25.66	-162.83	-543.08	-335.45	1,167.78	1,115.01	52.78	22.127	
7,000.00	6,791.54	6,841.39	6,792.10	35.98	25.81	-179.29	-542.52	-335.45	1,180.13	1,127.03	53.10	22.225	
7,050.00	6,839.91	6,889.96	6,839.53	36.23	25.95	164.50	-539.06	-335.45	1,192.65	1,139.26	53.40	22.336	
7,100.00	6,888.03	6,936.38	6,886.49	36.47	26.08	150.39	-532.49	-335.45	1,205.29	1,151.63	53.66	22.460	
7,150.00	6,935.65	6,983.70	6,932.81	36.68	26.20	139.03	-522.85	-335.46	1,217.98	1,164.07	53.91	22.594	
7,200.00	6,982.55	7,030.94	6,978.31	36.88	26.31	130.14	-510.20	-335.46	1,230.65	1,176.52	54.13	22.737	
7,250.00	7,028.48	7,078.14	7,022.85	37.06	26.41	123.18	-494.59	-335.47	1,243.25	1,188.92	54.32	22.886	
7,300.00	7,073.24	7,125.33	7,066.25	37.22	26.50	117.63	-476.09	-335.48	1,255.71	1,201.20	54.50	23.040	
7,350.00	7,116.60	7,172.54	7,108.36	37.37	26.59	113.13	-454.75	-335.49	1,267.97	1,213.31	54.66	23.195	
7,400.00	7,158.35	7,219.81	7,149.02	37.50	26.66	109.40	-430.66	-335.50	1,279.98	1,225.16	54.81	23.351	
7,450.00	7,198.29	7,267.16	7,188.06	37.62	26.73	106.26	-403.89	-335.51	1,291.67	1,236.71	54.95	23.505	
7,500.00	7,236.22	7,314.62	7,225.34	37.72	26.80	103.59	-374.54	-335.53	1,302.98	1,247.90	55.09	23.653	
7,550.00	7,271.95	7,362.21	7,260.68	37.80	26.86	101.29	-342.68	-335.54	1,313.88	1,258.66	55.22	23.794	
7,600.00	7,305.33	7,409.95	7,293.94	37.88	26.91	99.30	-308.44	-335.56	1,324.29	1,268.94	55.35	23.925	
7,650.00	7,336.17	7,457.86	7,324.94	37.94	26.97	97.56	-271.92	-335.58	1,334.17	1,278.68	55.49	24.043	
7,700.00	7,364.33	7,505.97	7,353.55	37.99	27.02	96.06	-233.26	-335.59	1,343.48	1,287.84	55.64	24.146	
7,750.00	7,389.68	7,554.26	7,379.59	38.04	27.07	94.75	-192.59	-335.61	1,352.17	1,296.37	55.80	24.231	
7,800.00	7,412.08	7,602.77	7,402.93	38.07	27.13	93.62	-150.08	-335.63	1,360.19	1,304.21	55.98	24.297	
7,850.00	7,431.44	7,651.48	7,423.41	38.10	27.19	92.66	-105.90	-335.66	1,367.51	1,311.33	56.18	24.341	
7,900.00	7,447.66	7,700.40	7,440.92	38.13	27.27	91.85	-60.23	-335.68	1,374.10	1,317.70	56.40	24.362	
7,950.00	7,460.65	7,749.53	7,455.32	38.15	27.36	91.19	-13.27	-335.70	1,379.92	1,323.27	56.65	24.359	
8,000.00	7,470.36	7,798.85	7,466.51	38.18	27.46	90.66	34.76	-335.72	1,384.94	1,328.02	56.92	24.331	
8,050.00	7,476.73	7,848.36	7,474.39	38.20	27.58	90.27	83.63	-335.75	1,389.13	1,331.92	57.22	24.279	
8,100.00	7,479.74	7,898.05	7,478.88	38.23	27.73	90.01	133.10	-335.77	1,392.49	1,334.95	57.54	24.202	
8,119.55	7,480.00	7,917.52	7,479.70	38.24	27.79	89.95	152.55	-335.78	1,393.57	1,335.90	57.67	24.166	
8,200.00	7,480.00	7,997.82	7,480.00	38.31	28.07	89.96	232.85	-335.82	1,397.74	1,339.49	58.25	23.995	
8,300.00	7,480.00	8,097.69	7,480.00	38.45	28.51	89.96	332.72	-335.86	1,402.93	1,343.80	59.12	23.729	
8,400.00	7,480.00	8,197.55	7,480.00	38.65	29.05	89.96	432.58	-335.91	1,408.11	1,347.96	60.15	23.409	
8,500.00	7,480.00	8,297.42	7,480.00	38.92	29.66	89.96	532.45	-335.96	1,413.30	1,351.97	61.33	23.044	
8,600.00	7,480.00	8,397.28	7,480.00	39.25	30.35	89.96	632.32	-336.01	1,418.48	1,355.83	62.65	22.640	

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 4C-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 4C-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 #3	<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						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	8,497.15	7,480.00	39.67	31.11	89.96	732.18	-336.05	1,423.67	1,359.56	64.11	22.207		
8,800.00	7,480.00	8,597.01	7,480.00	40.16	31.92	89.96	832.05	-336.10	1,428.86	1,363.17	65.69	21.752		
8,900.00	7,480.00	8,696.88	7,480.00	40.73	32.80	89.96	931.91	-336.15	1,434.04	1,366.66	67.38	21.282		
9,000.00	7,480.00	8,796.75	7,480.00	41.38	33.72	89.96	1,031.78	-336.20	1,439.23	1,370.04	69.19	20.802		
9,100.00	7,480.00	8,896.61	7,480.00	42.11	34.69	89.96	1,131.64	-336.25	1,444.41	1,373.33	71.09	20.319		
9,200.00	7,480.00	8,996.48	7,480.00	42.89	35.71	89.96	1,231.51	-336.29	1,449.60	1,376.52	73.08	19.836		
9,300.00	7,480.00	9,096.34	7,480.00	43.75	36.77	89.96	1,331.37	-336.34	1,454.79	1,379.63	75.16	19.356		
9,400.00	7,480.00	9,196.21	7,480.00	44.65	37.86	89.96	1,431.24	-336.39	1,459.97	1,382.66	77.31	18.884		
9,469.55	7,480.00	9,265.67	7,480.00	45.32	38.64	89.96	1,500.70	-336.42	1,463.58	1,384.72	78.86	18.560		
9,500.00	7,480.00	9,296.08	7,480.00	45.61	38.98	89.96	1,531.11	-336.44	1,465.00	1,385.46	79.54	18.419		
9,607.34	7,480.00	9,403.39	7,480.00	46.65	40.23	89.96	1,638.42	-336.49	1,467.41	1,385.44	81.98	17.900		
9,700.00	7,480.00	9,496.05	7,480.00	47.55	41.33	89.96	1,731.08	-336.53	1,467.76	1,383.64	84.13	17.447		
9,800.00	7,480.00	9,596.05	7,480.00	48.57	42.54	89.96	1,831.08	-336.58	1,468.14	1,381.64	86.50	16.973		
9,900.00	7,480.00	9,696.05	7,480.00	49.62	43.77	89.96	1,931.08	-336.63	1,468.52	1,379.60	88.92	16.515		
10,000.00	7,480.00	9,796.04	7,480.00	50.70	45.03	89.96	2,031.08	-336.67	1,468.90	1,377.51	91.39	16.073		
10,100.00	7,480.00	9,896.04	7,480.00	51.81	46.31	89.96	2,131.07	-336.72	1,469.27	1,375.37	93.90	15.647		
10,200.00	7,480.00	9,996.04	7,480.00	52.95	47.60	89.96	2,231.07	-336.77	1,469.65	1,373.20	96.45	15.238		
10,300.00	7,480.00	10,096.04	7,480.00	54.12	48.92	89.96	2,331.07	-336.82	1,470.03	1,371.00	99.03	14.844		
10,400.00	7,480.00	10,196.04	7,480.00	55.31	50.24	89.96	2,431.07	-336.86	1,470.41	1,368.76	101.65	14.465		
10,500.00	7,480.00	10,296.04	7,480.00	56.52	51.59	89.96	2,531.07	-336.91	1,470.79	1,366.49	104.30	14.102		
10,600.00	7,480.00	10,396.04	7,480.00	57.75	52.94	89.96	2,631.07	-336.96	1,471.16	1,364.19	106.98	13.752		
10,700.00	7,480.00	10,496.04	7,480.00	59.00	54.31	89.96	2,731.07	-337.01	1,471.54	1,361.86	109.68	13.417		
10,800.00	7,480.00	10,596.04	7,480.00	60.26	55.69	89.96	2,831.07	-337.05	1,471.92	1,359.51	112.41	13.095		
10,839.04	7,480.00	10,635.08	7,480.00	60.76	56.23	89.96	2,870.11	-337.07	1,472.07	1,358.59	113.48	12.972		
10,901.25	7,480.00	10,697.29	7,480.00	61.55	57.09	89.96	2,932.32	-337.10	1,471.63	1,356.44	115.18	12.776		
11,000.00	7,480.00	10,796.02	7,480.00	62.80	58.48	89.96	3,031.05	-337.15	1,469.86	1,351.95	117.90	12.467		
11,100.00	7,480.00	10,896.00	7,480.00	64.08	59.88	89.96	3,131.03	-337.20	1,468.06	1,347.39	120.68	12.165		
11,200.00	7,480.00	10,995.99	7,480.00	65.37	61.30	89.96	3,231.02	-337.25	1,466.27	1,342.80	123.47	11.876		
11,300.00	7,480.00	11,095.97	7,480.00	66.68	62.73	89.96	3,331.00	-337.29	1,464.48	1,338.20	126.28	11.597		
11,400.00	7,480.00	11,195.96	7,480.00	68.00	64.16	89.96	3,430.99	-337.34	1,462.68	1,333.58	129.10	11.330		
11,500.00	7,480.00	11,295.94	7,480.00	69.33	65.60	89.96	3,530.97	-337.39	1,460.89	1,328.95	131.94	11.072		
11,600.00	7,480.00	11,395.92	7,480.00	70.66	67.04	89.96	3,630.95	-337.44	1,459.10	1,324.31	134.79	10.825		
11,700.00	7,480.00	11,495.91	7,480.00	72.01	68.49	89.96	3,730.94	-337.48	1,457.31	1,319.65	137.66	10.586		
11,800.00	7,480.00	11,595.89	7,480.00	73.37	69.95	89.96	3,830.92	-337.53	1,455.51	1,314.97	140.54	10.357		
11,900.00	7,480.00	11,695.88	7,480.00	74.74	71.41	89.96	3,930.91	-337.58	1,453.72	1,310.29	143.43	10.136		
12,000.00	7,480.00	11,795.86	7,480.00	76.11	72.88	89.96	4,030.89	-337.63	1,451.93	1,305.60	146.33	9.922		
12,100.00	7,480.00	11,895.84	7,480.00	77.49	74.36	89.96	4,130.87	-337.67	1,450.13	1,300.89	149.24	9.717		
12,200.00	7,480.00	11,995.83	7,480.00	78.88	75.83	89.96	4,230.86	-337.72	1,448.34	1,296.18	152.16	9.518		
12,300.00	7,480.00	12,095.81	7,480.00	80.28	77.31	89.96	4,330.84	-337.77	1,446.55	1,291.46	155.09	9.327		
12,400.00	7,480.00	12,195.79	7,480.00	81.68	78.80	89.96	4,430.83	-337.82	1,444.75	1,286.73	158.03	9.142		
12,500.00	7,480.00	12,295.78	7,480.00	83.09	80.29	89.96	4,530.81	-337.86	1,442.96	1,281.99	160.98	8.964		
12,600.00	7,480.00	12,395.76	7,480.00	84.50	81.78	89.96	4,630.79	-337.91	1,441.17	1,277.24	163.93	8.791		
12,700.00	7,480.00	12,495.75	7,480.00	85.92	83.28	89.96	4,730.78	-337.96	1,439.38	1,272.48	166.89	8.625		
12,800.00	7,480.00	12,595.73	7,480.00	87.35	84.77	89.96	4,830.76	-338.01	1,437.58	1,267.72	169.86	8.463		
12,900.00	7,480.00	12,695.71	7,480.00	88.78	86.28	89.96	4,930.75	-338.06	1,435.79	1,262.95	172.84	8.307		
13,000.00	7,480.00	12,795.70	7,480.00	90.21	87.78	89.96	5,030.73	-338.10	1,434.00	1,258.18	175.82	8.156		
13,100.00	7,480.00	12,895.68	7,480.00	91.65	89.29	89.96	5,130.71	-338.15	1,432.20	1,253.40	178.80	8.010		
13,200.00	7,480.00	12,995.67	7,480.00	93.10	90.80	89.96	5,230.70	-338.20	1,430.41	1,248.61	181.80	7.868		
13,300.00	7,480.00	13,095.65	7,480.00	94.54	92.31	89.96	5,330.68	-338.25	1,428.62	1,243.82	184.80	7.731		
13,400.00	7,480.00	13,195.63	7,480.00	96.00	93.83	89.96	5,430.66	-338.29	1,426.83	1,239.03	187.80	7.598		
13,500.00	7,480.00	13,295.62	7,480.00	97.45	95.34	89.96	5,530.65	-338.34	1,425.03	1,234.23	190.81	7.468		
13,600.00	7,480.00	13,395.60	7,480.00	98.91	96.86	89.96	5,630.63	-338.39	1,423.24	1,229.42	193.82	7.343		

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 4C-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 4C-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 #3	<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		
13,700.00	7,480.00	13,495.59	7,480.00	100.37	98.38	89.96	5,730.62	-338.44	1,421.45	1,224.61	196.84	7.221		
13,800.00	7,480.00	13,595.57	7,480.00	101.84	99.91	89.96	5,830.60	-338.48	1,419.65	1,219.80	199.86	7.103		
13,900.00	7,480.00	13,695.55	7,480.00	103.31	101.43	89.96	5,930.58	-338.53	1,417.86	1,214.98	202.88	6.989		
14,000.00	7,480.00	13,795.54	7,480.00	104.78	102.96	89.96	6,030.57	-338.58	1,416.07	1,210.16	205.91	6.877		
14,100.00	7,480.00	13,895.52	7,480.00	106.25	104.49	89.96	6,130.55	-338.63	1,414.28	1,205.33	208.95	6.769		
14,200.00	7,480.00	13,995.51	7,480.00	107.73	106.02	89.96	6,230.54	-338.67	1,412.48	1,200.50	211.98	6.663		
14,300.00	7,480.00	14,095.49	7,480.00	109.21	107.55	89.96	6,330.52	-338.72	1,410.69	1,195.67	215.02	6.561		
14,400.00	7,480.00	14,195.47	7,480.00	110.69	109.08	89.96	6,430.50	-338.77	1,408.90	1,190.83	218.07	6.461		
14,500.00	7,480.00	14,295.46	7,480.00	112.18	110.62	89.96	6,530.49	-338.82	1,407.10	1,185.99	221.11	6.364		
14,600.00	7,480.00	14,395.44	7,480.00	113.66	112.15	89.96	6,630.47	-338.86	1,405.31	1,181.15	224.16	6.269		
14,700.00	7,480.00	14,495.43	7,480.00	115.15	113.69	89.96	6,730.46	-338.91	1,403.52	1,176.30	227.21	6.177		
14,800.00	7,480.00	14,595.41	7,480.00	116.64	115.23	89.96	6,830.44	-338.96	1,401.73	1,171.46	230.27	6.087		
14,901.25	7,480.00	14,696.64	7,480.00	118.16	116.79	89.96	6,931.67	-339.01	1,399.91	1,166.55	233.36	5.999 SF		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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	90.03	-0.03	59.86	59.86				
100.00	100.00	100.00	100.00	0.14	0.14	90.03	-0.03	59.86	59.86	59.59	0.28	216.876	
200.00	200.00	200.00	200.00	0.50	0.50	90.03	-0.03	59.86	59.86	58.87	0.99	60.287	
300.00	300.00	300.00	300.00	0.85	0.85	90.03	-0.03	59.86	59.86	58.15	1.71	35.009 CC	
400.00	400.00	399.92	399.90	1.21	1.20	91.70	-1.77	59.89	59.92	57.51	2.41	24.859 ES	
500.00	499.98	499.62	499.46	1.56	1.54	-153.90	-6.98	59.99	61.96	58.86	3.10	19.996	
600.00	599.84	598.87	598.33	1.91	1.89	-148.53	-15.60	60.14	68.00	64.20	3.80	17.877	
700.00	699.45	697.80	696.56	2.26	2.26	-143.31	-27.28	60.35	78.26	73.73	4.53	17.263 SF	
800.00	798.70	796.78	794.78	2.64	2.63	-140.32	-39.51	60.57	91.84	86.56	5.27	17.417	
900.00	897.47	895.42	892.67	3.03	3.02	-139.26	-51.70	60.79	108.17	102.15	6.02	17.959	
1,000.00	995.62	993.60	990.09	3.44	3.40	-139.44	-63.83	61.01	127.13	120.34	6.79	18.731	
1,100.00	1,093.06	1,091.19	1,086.94	3.89	3.79	-140.36	-75.89	61.23	148.71	141.15	7.56	19.660	
1,151.35	1,142.76	1,141.04	1,136.41	4.13	3.98	-141.00	-82.05	61.34	160.84	152.87	7.97	20.181	
1,200.00	1,189.75	1,188.18	1,183.19	4.37	4.17	-141.75	-87.88	61.44	172.69	164.34	8.35	20.674	
1,300.00	1,286.33	1,285.07	1,279.33	4.86	4.56	-143.01	-99.85	61.66	197.12	187.98	9.14	21.561	
1,400.00	1,382.91	1,381.96	1,375.48	5.37	4.94	-144.00	-111.82	61.87	221.62	211.68	9.94	22.301	
1,500.00	1,479.49	1,478.85	1,471.63	5.88	5.33	-144.78	-123.80	62.09	246.17	235.43	10.74	22.925	
1,600.00	1,576.07	1,575.74	1,567.78	6.41	5.72	-145.42	-135.77	62.30	270.75	259.21	11.54	23.458	
1,700.00	1,672.65	1,672.64	1,663.93	6.93	6.11	-145.96	-147.74	62.52	295.36	283.01	12.35	23.919	
1,800.00	1,769.23	1,769.53	1,760.07	7.46	6.50	-146.42	-159.71	62.73	319.99	306.83	13.16	24.321	
1,900.00	1,865.82	1,866.42	1,856.22	8.00	6.89	-146.80	-171.69	62.95	344.63	330.67	13.97	24.674	
2,000.00	1,962.40	1,963.31	1,952.37	8.53	7.28	-147.14	-183.66	63.17	369.29	354.51	14.78	24.986	
2,100.00	2,058.98	2,060.20	2,048.52	9.07	7.67	-147.44	-195.63	63.38	393.96	378.37	15.59	25.265	
2,200.00	2,155.56	2,157.09	2,144.66	9.61	8.06	-147.70	-207.61	63.60	418.64	402.23	16.41	25.514	
2,300.00	2,252.14	2,253.98	2,240.81	10.15	8.45	-147.93	-219.58	63.81	443.33	426.10	17.22	25.740	
2,400.00	2,348.72	2,350.87	2,336.96	10.69	8.84	-148.13	-231.55	64.03	468.02	449.98	18.04	25.944	
2,500.00	2,445.30	2,447.76	2,433.11	11.24	9.23	-148.32	-243.52	64.24	492.72	473.86	18.86	26.129	
2,600.00	2,541.88	2,544.65	2,529.26	11.78	9.62	-148.49	-255.50	64.46	517.42	497.74	19.67	26.299	
2,700.00	2,638.46	2,641.54	2,625.40	12.32	10.02	-148.64	-267.47	64.67	542.12	521.63	20.49	26.455	
2,800.00	2,735.04	2,738.43	2,721.55	12.87	10.41	-148.78	-279.44	64.89	566.83	545.52	21.31	26.598	
2,900.00	2,831.62	2,835.32	2,817.70	13.42	10.80	-148.91	-291.41	65.10	591.54	569.41	22.13	26.730	
3,000.00	2,928.20	2,932.21	2,913.85	13.96	11.19	-149.03	-303.39	65.32	616.25	593.31	22.95	26.853	
3,100.00	3,024.78	3,029.10	3,009.99	14.51	11.58	-149.14	-315.36	65.53	640.97	617.20	23.77	26.967	
3,200.00	3,121.36	3,125.99	3,106.14	15.06	11.98	-149.24	-327.33	65.75	665.69	641.10	24.59	27.073	
3,300.00	3,217.94	3,222.88	3,202.29	15.61	12.37	-149.33	-339.30	65.96	690.41	665.00	25.41	27.172	
3,400.00	3,314.52	3,319.78	3,298.44	16.15	12.76	-149.42	-351.28	66.18	715.13	688.90	26.23	27.265	
3,500.00	3,411.10	3,416.67	3,394.59	16.70	13.15	-149.50	-363.25	66.40	739.85	712.80	27.05	27.351	
3,600.00	3,507.68	3,513.56	3,490.73	17.25	13.54	-149.57	-375.22	66.61	764.58	736.71	27.87	27.433	
3,700.00	3,604.26	3,610.45	3,586.88	17.80	13.94	-149.65	-387.19	66.83	789.30	760.61	28.69	27.510	
3,800.00	3,700.84	3,707.34	3,683.03	18.35	14.33	-149.71	-399.17	67.04	814.03	784.52	29.51	27.582	
3,900.00	3,797.42	3,804.23	3,779.18	18.90	14.72	-149.77	-411.14	67.26	838.76	808.42	30.33	27.650	
4,000.00	3,894.00	3,901.12	3,875.32	19.45	15.11	-149.83	-423.11	67.47	863.48	832.33	31.16	27.715	
4,100.00	3,990.58	3,998.01	3,971.47	20.00	15.50	-149.89	-435.08	67.69	888.21	856.24	31.98	27.776	
4,200.00	4,087.16	4,094.90	4,067.62	20.55	15.90	-149.94	-447.06	67.90	912.94	880.14	32.80	27.834	
4,300.00	4,183.75	4,191.79	4,163.77	21.10	16.29	-149.99	-459.03	68.12	937.67	904.05	33.62	27.890	
4,400.00	4,280.33	4,288.68	4,259.92	21.65	16.68	-150.04	-471.00	68.33	962.41	927.96	34.44	27.942	
4,500.00	4,376.91	4,385.57	4,356.06	22.20	17.07	-150.09	-482.97	68.55	987.14	951.87	35.27	27.992	
4,600.00	4,473.49	4,482.46	4,452.21	22.75	17.47	-150.13	-494.95	68.76	1,011.87	975.78	36.09	28.040	
4,700.00	4,570.07	4,579.35	4,548.36	23.30	17.86	-150.17	-506.92	68.98	1,036.60	999.69	36.91	28.085	
4,800.00	4,666.65	4,676.24	4,644.51	23.85	18.25	-150.21	-518.89	69.19	1,061.34	1,023.60	37.73	28.128	
4,900.00	4,763.23	4,779.59	4,747.26	24.40	18.66	-150.35	-529.86	69.39	1,085.78	1,047.20	38.59	28.140	
5,000.00	4,859.81	4,883.04	4,850.45	24.96	19.04	-150.67	-537.13	69.52	1,109.67	1,070.27	39.40	28.164	

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 4C-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 4C-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 #3	<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		
5,100.00	4,956.39	4,986.22	4,953.57	25.51	19.40	-151.17	-540.65	69.59	1,133.04	1,092.87	40.17	28.204		
5,200.00	5,052.97	5,085.62	5,052.97	26.06	19.70	-151.79	-541.03	69.59	1,156.05	1,115.19	40.86	28.293		
5,300.00	5,149.55	5,182.20	5,149.55	26.61	19.98	-152.38	-541.03	69.59	1,179.13	1,137.62	41.52	28.402		
5,400.00	5,246.13	5,278.78	5,246.13	27.16	20.27	-152.95	-541.03	69.59	1,202.33	1,160.16	42.17	28.509		
5,500.00	5,342.71	5,375.37	5,342.71	27.71	20.55	-153.49	-541.03	69.59	1,225.63	1,182.80	42.83	28.615		
5,600.00	5,439.29	5,471.95	5,439.29	28.26	20.84	-154.02	-541.03	69.59	1,249.04	1,205.55	43.49	28.718		
5,700.00	5,535.87	5,568.53	5,535.87	28.82	21.13	-154.53	-541.03	69.59	1,272.55	1,228.40	44.16	28.820		
5,800.00	5,632.45	5,665.11	5,632.45	29.37	21.42	-155.02	-541.03	69.59	1,296.15	1,251.33	44.82	28.920		
5,900.00	5,729.03	5,761.69	5,729.03	29.92	21.71	-155.49	-541.03	69.59	1,319.84	1,274.35	45.48	29.017		
6,000.00	5,825.61	5,858.27	5,825.61	30.47	22.00	-155.95	-541.03	69.59	1,343.61	1,297.46	46.15	29.113		
6,100.00	5,922.19	5,954.85	5,922.19	31.02	22.30	-156.39	-541.03	69.59	1,367.46	1,320.64	46.82	29.206		
6,200.00	6,018.77	6,051.43	6,018.77	31.57	22.60	-156.81	-541.03	69.59	1,391.38	1,343.89	47.49	29.298		
6,300.00	6,115.35	6,148.01	6,115.35	32.13	22.89	-157.23	-541.03	69.59	1,415.37	1,367.21	48.16	29.387		
6,400.00	6,211.93	6,244.59	6,211.93	32.68	23.19	-157.62	-541.03	69.59	1,439.43	1,390.60	48.84	29.475		
6,500.00	6,308.51	6,341.17	6,308.51	33.23	23.49	-158.01	-541.03	69.59	1,463.56	1,414.04	49.51	29.560		
6,600.00	6,405.09	6,437.75	6,405.09	33.78	23.80	-158.38	-541.03	69.59	1,487.74	1,437.55	50.19	29.644		

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

Offset Design S26-T2N-R68W - SULLIVAN 4J-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	89.99	0.01	69.93	69.93				
100.00	100.00	100.00	100.00	0.14	0.14	89.99	0.01	69.93	69.93	69.66	0.28	253.359	
200.00	200.00	200.00	200.00	0.50	0.50	89.99	0.01	69.93	69.93	68.94	0.99	70.428	
300.00	300.00	300.00	300.00	0.85	0.85	89.99	0.01	69.93	69.93	68.22	1.71	40.899	
303.76	303.76	303.76	303.76	0.87	0.87	89.99	0.01	69.93	69.93	68.20	1.74	40.263 CC	
400.00	400.00	399.52	399.52	1.21	1.20	90.31	-0.38	70.10	70.10	67.69	2.42	28.993 ES	
500.00	499.98	498.42	498.36	1.56	1.54	-157.51	-3.52	71.44	73.15	70.05	3.11	23.554	
600.00	599.84	596.83	596.53	1.91	1.88	-154.49	-9.77	74.09	81.04	77.23	3.81	21.269	
700.00	699.45	694.38	693.56	2.26	2.23	-151.17	-19.01	78.02	93.93	89.39	4.54	20.708 SF	
800.00	798.70	791.80	790.11	2.64	2.60	-148.23	-30.89	83.07	111.62	106.36	5.27	21.194	
900.00	897.47	889.53	886.93	3.03	2.98	-146.69	-43.17	88.29	132.60	126.60	6.00	22.105	
1,000.00	995.62	986.64	983.13	3.44	3.36	-146.20	-55.37	93.48	156.45	149.71	6.74	23.210	
1,100.00	1,093.06	1,083.01	1,078.59	3.89	3.75	-146.36	-67.48	98.63	183.11	175.61	7.49	24.432	
1,151.35	1,142.76	1,132.16	1,127.28	4.13	3.94	-146.61	-73.66	101.26	197.89	190.00	7.89	25.084	
1,200.00	1,189.75	1,178.62	1,173.31	4.37	4.13	-147.02	-79.50	103.74	212.26	204.00	8.26	25.697	
1,300.00	1,286.33	1,274.12	1,267.92	4.86	4.52	-147.71	-91.50	108.84	241.81	232.78	9.02	26.794	
1,400.00	1,382.91	1,369.62	1,362.52	5.37	4.91	-148.24	-103.50	113.94	271.38	261.58	9.80	27.699	
1,500.00	1,479.49	1,465.12	1,457.12	5.88	5.29	-148.67	-115.50	119.04	300.97	290.40	10.58	28.457	
1,600.00	1,576.07	1,560.62	1,551.73	6.41	5.68	-149.03	-127.50	124.15	330.58	319.22	11.36	29.100	
1,700.00	1,672.65	1,656.12	1,646.33	6.93	6.07	-149.33	-139.50	129.25	360.19	348.05	12.15	29.651	
1,800.00	1,769.23	1,751.62	1,740.94	7.46	6.47	-149.58	-151.50	134.35	389.82	376.88	12.94	30.129	
1,900.00	1,865.82	1,847.12	1,835.54	8.00	6.86	-149.79	-163.50	139.45	419.45	405.71	13.73	30.546	
2,000.00	1,962.40	1,942.61	1,930.15	8.53	7.25	-149.98	-175.50	144.56	449.08	434.55	14.53	30.913	
2,100.00	2,058.98	2,038.11	2,024.75	9.07	7.64	-150.14	-187.50	149.66	478.72	463.39	15.32	31.239	
2,200.00	2,155.56	2,133.61	2,119.36	9.61	8.04	-150.29	-199.50	154.76	508.36	492.23	16.12	31.530	
2,300.00	2,252.14	2,229.11	2,213.96	10.15	8.43	-150.42	-211.50	159.86	538.00	521.08	16.92	31.791	
2,400.00	2,348.72	2,324.61	2,308.56	10.69	8.82	-150.53	-223.50	164.97	567.64	549.92	17.72	32.027	
2,500.00	2,445.30	2,420.11	2,403.17	11.24	9.22	-150.64	-235.50	170.07	597.29	578.76	18.53	32.240	
2,600.00	2,541.88	2,515.61	2,497.77	11.78	9.61	-150.73	-247.51	175.17	626.94	607.61	19.33	32.435	
2,700.00	2,638.46	2,611.11	2,592.38	12.32	10.01	-150.82	-259.51	180.27	656.59	636.46	20.13	32.613	
2,800.00	2,735.04	2,706.61	2,686.98	12.87	10.40	-150.90	-271.51	185.37	686.24	665.30	20.94	32.777	
2,900.00	2,831.62	2,802.10	2,781.59	13.42	10.79	-150.97	-283.51	190.48	715.89	694.15	21.74	32.927	
3,000.00	2,928.20	2,897.60	2,876.19	13.96	11.19	-151.03	-295.51	195.58	745.55	723.00	22.55	33.066	
3,100.00	3,024.78	2,993.10	2,970.80	14.51	11.58	-151.09	-307.51	200.68	775.20	751.85	23.35	33.195	
3,200.00	3,121.36	3,088.60	3,065.40	15.06	11.98	-151.15	-319.51	205.78	804.85	780.70	24.16	33.315	
3,300.00	3,217.94	3,184.10	3,160.00	15.61	12.37	-151.20	-331.51	210.89	834.51	809.54	24.97	33.426	
3,400.00	3,314.52	3,279.60	3,254.61	16.15	12.77	-151.25	-343.51	215.99	864.17	838.39	25.77	33.530	
3,500.00	3,411.10	3,375.10	3,349.21	16.70	13.16	-151.30	-355.51	221.09	893.82	867.24	26.58	33.628	
3,600.00	3,507.68	3,470.60	3,443.82	17.25	13.56	-151.34	-367.51	226.19	923.48	896.09	27.39	33.719	
3,700.00	3,604.26	3,566.10	3,538.42	17.80	13.95	-151.38	-379.51	231.29	953.14	924.94	28.20	33.805	
3,800.00	3,700.84	3,661.59	3,633.03	18.35	14.35	-151.42	-391.51	236.40	982.80	953.79	29.00	33.886	
3,900.00	3,797.42	3,757.09	3,727.63	18.90	14.74	-151.45	-403.51	241.50	1,012.45	982.64	29.81	33.962	
4,000.00	3,894.00	3,852.59	3,822.23	19.45	15.14	-151.49	-415.51	246.60	1,042.11	1,011.49	30.62	34.034	
4,100.00	3,990.58	3,948.09	3,916.84	20.00	15.54	-151.52	-427.51	251.70	1,071.77	1,040.34	31.43	34.102	
4,200.00	4,087.16	4,043.59	4,011.44	20.55	15.93	-151.55	-439.52	256.81	1,101.43	1,069.19	32.24	34.167	
4,300.00	4,183.75	4,139.09	4,106.05	21.10	16.33	-151.58	-451.52	261.91	1,131.09	1,098.04	33.05	34.228	
4,400.00	4,280.33	4,234.59	4,200.65	21.65	16.72	-151.60	-463.52	267.01	1,160.75	1,126.89	33.86	34.286	
4,500.00	4,376.91	4,330.09	4,295.26	22.20	17.12	-151.63	-475.52	272.11	1,190.41	1,155.74	34.66	34.341	
4,600.00	4,473.49	4,425.59	4,389.86	22.75	17.51	-151.65	-487.52	277.21	1,220.07	1,184.60	35.47	34.394	
4,700.00	4,570.07	4,521.08	4,484.47	23.30	17.91	-151.68	-499.52	282.32	1,249.73	1,213.45	36.28	34.444	
4,800.00	4,666.65	4,616.58	4,579.07	23.85	18.30	-151.70	-511.52	287.42	1,279.39	1,242.30	37.09	34.491	
4,900.00	4,763.23	4,731.50	4,693.07	24.40	18.77	-151.77	-524.81	293.07	1,308.57	1,270.52	38.05	34.393	

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 4C-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 4C-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 #3	<b>Offset TVD Reference:</b>	Offset Datum

<b>Offset Design</b> S26-T2N-R68W - SULLIVAN 4J-26H-P268 - OH - PLAN #2												<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	
5,000.00	4,859.81	4,856.37	4,817.48	24.96	19.24	-152.05	-534.63	297.25	1,335.77	1,296.74	39.03	34.228	
5,100.00	4,956.39	4,982.10	4,943.08	25.51	19.68	-152.51	-539.47	299.30	1,360.91	1,320.96	39.95	34.067	
5,200.00	5,052.97	5,091.99	5,052.97	26.06	20.02	-153.05	-539.99	299.52	1,384.35	1,343.64	40.71	34.006	
5,300.00	5,149.55	5,188.57	5,149.55	26.61	20.30	-153.53	-539.99	299.52	1,407.67	1,366.28	41.38	34.015	
5,400.00	5,246.13	5,285.15	5,246.13	27.16	20.58	-153.99	-539.99	299.52	1,431.08	1,389.02	42.06	34.024	
5,500.00	5,342.71	5,381.73	5,342.71	27.71	20.86	-154.43	-539.99	299.52	1,454.57	1,411.84	42.74	34.035	
5,600.00	5,439.29	5,478.31	5,439.29	28.26	21.15	-154.86	-539.99	299.52	1,478.15	1,434.73	43.42	34.047	

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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	89.96	0.05	80.00	80.00					
100.00	100.00	100.00	100.00	0.14	0.14	89.96	0.05	80.00	80.00	79.73	0.28	289.842		
200.00	200.00	200.00	200.00	0.50	0.50	89.96	0.05	80.00	80.00	79.01	0.99	80.570		
300.00	300.00	300.00	300.00	0.85	0.85	89.96	0.05	80.00	80.00	78.29	1.71	46.788		
400.00	400.00	400.00	400.00	1.21	1.21	89.96	0.05	80.00	80.00	77.58	2.43	32.966 CC, ES		
500.00	499.98	499.98	499.98	1.56	1.57	-160.28	0.05	80.00	81.64	78.51	3.13	26.056		
600.00	599.84	599.84	599.84	1.91	1.93	-161.42	0.05	80.00	86.59	82.75	3.84	22.561		
700.00	699.45	698.02	698.00	2.26	2.27	-162.10	-1.42	80.81	95.63	91.10	4.53	21.104		
800.00	798.70	795.50	795.35	2.64	2.59	-161.58	-5.80	83.20	109.49	104.27	5.22	20.966 SF		
900.00	897.47	891.88	891.37	3.03	2.93	-160.30	-12.98	87.13	128.14	122.22	5.92	21.632		
1,000.00	995.62	987.60	986.42	3.44	3.26	-158.63	-22.92	92.56	151.60	144.97	6.64	22.849		
1,100.00	1,093.06	1,082.87	1,080.82	3.89	3.62	-157.30	-34.20	98.72	179.08	171.72	7.36	24.336		
1,151.35	1,142.76	1,131.87	1,129.37	4.13	3.80	-156.88	-40.00	101.88	194.40	186.67	7.74	25.127		
1,200.00	1,189.75	1,178.18	1,175.25	4.37	3.98	-156.69	-45.48	104.88	209.31	201.22	8.09	25.864		
1,300.00	1,286.33	1,273.36	1,269.57	4.86	4.34	-156.37	-56.75	111.04	239.95	231.12	8.83	27.182		
1,400.00	1,382.91	1,368.54	1,363.88	5.37	4.71	-156.13	-68.02	117.19	270.60	261.03	9.57	28.267		
1,500.00	1,479.49	1,463.72	1,458.19	5.88	5.08	-155.93	-79.28	123.35	301.25	290.92	10.33	29.171		
1,600.00	1,576.07	1,558.91	1,552.50	6.41	5.46	-155.77	-90.55	129.50	331.91	320.82	11.09	29.935		
1,700.00	1,672.65	1,654.09	1,646.82	6.93	5.84	-155.64	-101.82	135.66	362.56	350.71	11.85	30.586		
1,800.00	1,769.23	1,749.27	1,741.13	7.46	6.22	-155.53	-113.08	141.81	393.22	380.59	12.62	31.147		
1,900.00	1,865.82	1,844.45	1,835.44	8.00	6.60	-155.43	-124.35	147.97	423.88	410.48	13.40	31.635		
2,000.00	1,962.40	1,939.63	1,929.75	8.53	6.99	-155.35	-135.62	154.12	454.54	440.36	14.18	32.063		
2,100.00	2,058.98	2,034.82	2,024.06	9.07	7.37	-155.28	-146.88	160.28	485.20	470.24	14.96	32.440		
2,200.00	2,155.56	2,130.00	2,118.38	9.61	7.76	-155.22	-158.15	166.43	515.86	500.12	15.74	32.776		
2,300.00	2,252.14	2,225.18	2,212.69	10.15	8.14	-155.16	-169.42	172.59	546.52	530.00	16.52	33.076		
2,400.00	2,348.72	2,320.36	2,307.00	10.69	8.53	-155.11	-180.68	178.75	577.18	559.87	17.31	33.345		
2,500.00	2,445.30	2,415.54	2,401.31	11.24	8.92	-155.06	-191.95	184.90	607.84	589.75	18.10	33.589		
2,600.00	2,541.88	2,510.73	2,495.63	11.78	9.30	-155.02	-203.22	191.06	638.51	619.62	18.89	33.809		
2,700.00	2,638.46	2,605.91	2,589.94	12.32	9.69	-154.99	-214.49	197.21	669.17	649.49	19.68	34.011		
2,800.00	2,735.04	2,701.09	2,684.25	12.87	10.08	-154.95	-225.75	203.37	699.83	679.37	20.47	34.195		
2,900.00	2,831.62	2,796.27	2,778.56	13.42	10.47	-154.92	-237.02	209.52	730.50	709.24	21.26	34.364		
3,000.00	2,928.20	2,891.46	2,872.87	13.96	10.86	-154.89	-248.29	215.68	761.16	739.11	22.05	34.520		
3,100.00	3,024.78	2,986.64	2,967.19	14.51	11.25	-154.87	-259.55	221.83	791.82	768.98	22.84	34.663		
3,200.00	3,121.36	3,081.82	3,061.50	15.06	11.64	-154.84	-270.82	227.99	822.49	798.85	23.64	34.797		
3,300.00	3,217.94	3,177.00	3,155.81	15.61	12.03	-154.82	-282.09	234.14	853.15	828.72	24.43	34.920		
3,400.00	3,314.52	3,272.18	3,250.12	16.15	12.42	-154.80	-293.35	240.30	883.81	858.59	25.23	35.036		
3,500.00	3,411.10	3,367.37	3,344.44	16.70	12.81	-154.78	-304.62	246.45	914.48	888.46	26.02	35.143		
3,600.00	3,507.68	3,462.55	3,438.75	17.25	13.20	-154.76	-315.89	252.61	945.14	918.32	26.82	35.244		
3,700.00	3,604.26	3,557.73	3,533.06	17.80	13.59	-154.74	-327.16	258.77	975.81	948.19	27.61	35.338		
3,800.00	3,700.84	3,652.91	3,627.37	18.35	13.99	-154.73	-338.42	264.92	1,006.47	978.06	28.41	35.427		
3,900.00	3,797.42	3,748.09	3,721.68	18.90	14.38	-154.71	-349.69	271.08	1,037.13	1,007.93	29.21	35.510		
4,000.00	3,894.00	3,843.28	3,816.00	19.45	14.77	-154.70	-360.96	277.23	1,067.80	1,037.79	30.00	35.589		
4,100.00	3,990.58	3,938.46	3,910.31	20.00	15.16	-154.68	-372.22	283.39	1,098.46	1,067.66	30.80	35.663		
4,200.00	4,087.16	4,033.64	4,004.62	20.55	15.55	-154.67	-383.49	289.54	1,129.13	1,097.53	31.60	35.733		
4,300.00	4,183.75	4,128.82	4,098.93	21.10	15.94	-154.66	-394.76	295.70	1,159.79	1,127.39	32.40	35.799		
4,400.00	4,280.33	4,224.00	4,193.25	21.65	16.34	-154.65	-406.02	301.85	1,190.46	1,157.26	33.20	35.862		
4,500.00	4,376.91	4,319.19	4,287.56	22.20	16.73	-154.64	-417.29	308.01	1,221.12	1,187.13	33.99	35.922		
4,600.00	4,473.49	4,414.37	4,381.87	22.75	17.12	-154.62	-428.56	314.16	1,251.79	1,216.99	34.79	35.979		
4,700.00	4,570.07	4,509.55	4,476.18	23.30	17.51	-154.61	-439.82	320.32	1,282.45	1,246.86	35.59	36.033		
4,800.00	4,666.65	4,604.73	4,570.50	23.85	17.90	-154.61	-451.09	326.48	1,313.12	1,276.72	36.39	36.084		
4,900.00	4,763.23	4,699.92	4,664.81	24.40	18.30	-154.60	-462.36	332.63	1,343.78	1,306.59	37.19	36.133		
5,000.00	4,859.81	4,795.10	4,759.12	24.96	18.69	-154.59	-473.63	338.79	1,374.44	1,336.46	37.99	36.180		

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 4C-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 4C-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 #3	<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				
5,100.00	4,956.39	4,890.28	4,853.43	25.51	19.08	-154.58	-484.89	344.94	1,405.11	1,366.32	38.79	36.225				
5,200.00	5,052.97	4,985.46	4,947.74	26.06	19.47	-154.57	-496.16	351.10	1,435.77	1,396.19	39.59	36.268				
5,300.00	5,149.55	5,080.64	5,042.06	26.61	19.87	-154.56	-507.43	357.25	1,466.44	1,426.05	40.39	36.309				
5,400.00	5,246.13	5,184.95	5,145.43	27.16	20.30	-154.56	-519.62	363.91	1,497.03	1,455.77	41.26	36.282				

# Cathedral Energy Services

## Anticollision Report

<b>Company:</b>	Crestone Peak Resources	<b>Local Co-ordinate Reference:</b>	Well SULLIVAN 4C-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 4C-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 #3	<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							
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	90.10	-0.16	89.80	89.80				
100.00	100.00	100.00	100.00	0.14	0.14	90.10	-0.16	89.80	89.80	89.52	0.28	325.317	
200.00	200.00	200.00	200.00	0.50	0.50	90.10	-0.16	89.80	89.80	88.80	0.99	90.431 CC, ES	
300.00	300.00	297.75	297.73	0.85	0.84	90.83	-1.32	91.00	91.04	89.32	1.71	53.159	
400.00	400.00	395.27	395.12	1.21	1.18	92.89	-4.77	94.59	94.84	92.39	2.45	38.695	
500.00	499.98	492.24	491.73	1.56	1.53	-154.23	-10.48	100.54	102.98	99.79	3.20	32.209	
600.00	599.84	588.18	586.99	1.91	1.89	-151.69	-18.35	108.74	117.09	113.14	3.95	29.645	
700.00	699.45	683.80	681.53	2.26	2.27	-149.60	-28.28	119.08	136.93	132.24	4.68	29.232 SF	
800.00	798.70	780.97	777.49	2.64	2.67	-148.42	-38.87	130.12	160.41	155.03	5.38	29.796	
900.00	897.47	877.42	872.74	3.03	3.08	-148.03	-49.39	141.08	186.79	180.70	6.09	30.665	
1,000.00	995.62	973.04	967.16	3.44	3.48	-148.14	-59.82	151.94	216.03	209.21	6.81	31.712	
1,100.00	1,093.06	1,067.70	1,060.64	3.89	3.88	-148.56	-70.15	162.69	248.11	240.56	7.54	32.892	
1,151.35	1,142.76	1,115.90	1,108.24	4.13	4.08	-148.85	-75.40	168.17	265.69	257.76	7.93	33.523	
1,200.00	1,189.75	1,161.43	1,153.20	4.37	4.28	-149.30	-80.37	173.34	282.71	274.43	8.28	34.127	
1,300.00	1,286.33	1,255.02	1,245.62	4.86	4.67	-150.07	-90.58	183.98	317.75	308.73	9.02	35.219	
1,400.00	1,382.91	1,348.60	1,338.04	5.37	5.07	-150.70	-100.78	194.61	352.82	343.05	9.77	36.119	
1,500.00	1,479.49	1,442.19	1,430.45	5.88	5.48	-151.21	-110.99	205.24	387.93	377.41	10.52	36.873	
1,600.00	1,576.07	1,535.77	1,522.87	6.41	5.88	-151.63	-121.20	215.87	423.05	411.78	11.28	37.511	
1,700.00	1,672.65	1,629.36	1,615.29	6.93	6.28	-151.99	-131.41	226.51	458.20	446.16	12.04	38.058	
1,800.00	1,769.23	1,722.94	1,707.71	7.46	6.68	-152.30	-141.61	237.14	493.36	480.55	12.80	38.531	
1,900.00	1,865.82	1,816.53	1,800.12	8.00	7.08	-152.57	-151.82	247.77	528.52	514.95	13.57	38.945	
2,000.00	1,962.40	1,910.11	1,892.54	8.53	7.48	-152.80	-162.03	258.40	563.70	549.36	14.34	39.309	
2,100.00	2,058.98	2,003.70	1,984.96	9.07	7.89	-153.01	-172.23	269.04	598.89	583.77	15.11	39.631	
2,200.00	2,155.56	2,097.28	2,077.37	9.61	8.29	-153.19	-182.44	279.67	634.08	618.19	15.88	39.919	
2,300.00	2,252.14	2,190.87	2,169.79	10.15	8.69	-153.36	-192.65	290.30	669.27	652.62	16.66	40.177	
2,400.00	2,348.72	2,284.45	2,262.21	10.69	9.10	-153.50	-202.86	300.93	704.47	687.04	17.43	40.410	
2,500.00	2,445.30	2,378.04	2,354.63	11.24	9.50	-153.64	-213.06	311.57	739.68	721.47	18.21	40.621	
2,600.00	2,541.88	2,471.62	2,447.04	11.78	9.90	-153.76	-223.27	322.20	774.89	755.90	18.99	40.813	
2,700.00	2,638.46	2,565.21	2,539.46	12.32	10.31	-153.87	-233.48	332.83	810.10	790.33	19.76	40.988	
2,800.00	2,735.04	2,658.79	2,631.88	12.87	10.71	-153.97	-243.68	343.46	845.31	824.77	20.54	41.150	
2,900.00	2,831.62	2,752.38	2,724.29	13.42	11.12	-154.07	-253.89	354.09	880.52	859.20	21.32	41.298	
3,000.00	2,928.20	2,845.97	2,816.71	13.96	11.52	-154.15	-264.10	364.73	915.74	893.64	22.10	41.435	
3,100.00	3,024.78	2,939.55	2,909.13	14.51	11.92	-154.23	-274.31	375.36	950.96	928.08	22.88	41.562	
3,200.00	3,121.36	3,033.14	3,001.55	15.06	12.33	-154.31	-284.51	385.99	986.18	962.52	23.66	41.679	
3,300.00	3,217.94	3,126.72	3,093.96	15.61	12.73	-154.38	-294.72	396.62	1,021.40	996.96	24.44	41.789	
3,400.00	3,314.52	3,220.31	3,186.38	16.15	13.14	-154.44	-304.93	407.26	1,056.62	1,031.40	25.22	41.892	
3,500.00	3,411.10	3,313.89	3,278.80	16.70	13.54	-154.50	-315.13	417.89	1,091.84	1,065.84	26.00	41.987	
3,600.00	3,507.68	3,407.48	3,371.22	17.25	13.94	-154.56	-325.34	428.52	1,127.07	1,100.28	26.79	42.077	
3,700.00	3,604.26	3,501.06	3,463.63	17.80	14.35	-154.61	-335.55	439.15	1,162.29	1,134.73	27.57	42.161	
3,800.00	3,700.84	3,594.65	3,556.05	18.35	14.75	-154.66	-345.76	449.79	1,197.52	1,169.17	28.35	42.241	
3,900.00	3,797.42	3,688.23	3,648.47	18.90	15.16	-154.71	-355.96	460.42	1,232.75	1,203.62	29.13	42.315	
4,000.00	3,894.00	3,781.82	3,740.88	19.45	15.56	-154.75	-366.17	471.05	1,267.98	1,238.06	29.92	42.386	
4,100.00	3,990.58	3,875.40	3,833.30	20.00	15.97	-154.80	-376.38	481.68	1,303.20	1,272.51	30.70	42.452	
4,200.00	4,087.16	3,968.99	3,925.72	20.55	16.37	-154.84	-386.58	492.32	1,338.43	1,306.95	31.48	42.516	
4,300.00	4,183.75	4,062.57	4,018.14	21.10	16.78	-154.87	-396.79	502.95	1,373.66	1,341.40	32.26	42.575	
4,400.00	4,280.33	4,156.16	4,110.55	21.65	17.18	-154.91	-407.00	513.58	1,408.89	1,375.84	33.05	42.632	
4,500.00	4,376.91	4,249.74	4,202.97	22.20	17.58	-154.94	-417.21	524.21	1,444.12	1,410.29	33.83	42.686	
4,600.00	4,473.49	4,343.33	4,295.39	22.75	17.99	-154.98	-427.41	534.85	1,479.35	1,444.74	34.61	42.738	

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 4C-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 4C-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 #3	<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		
1,151.35	1,142.76	1,507.00	1,473.84	4.13	5.66	18.10	-130.08	-1,541.29	1,496.64	1,488.98	7.66	195.496		
1,200.00	1,189.75	1,544.37	1,509.80	4.37	5.84	18.01	-134.54	-1,532.11	1,473.65	1,465.73	7.91	186.209		
1,300.00	1,286.33	1,617.88	1,580.76	4.86	6.20	17.89	-142.11	-1,514.54	1,426.94	1,418.50	8.44	169.050		
1,400.00	1,382.91	1,682.00	1,642.86	5.37	6.50	17.77	-148.88	-1,500.05	1,381.46	1,372.49	8.97	154.004		
1,500.00	1,479.49	1,755.84	1,714.44	5.88	6.84	17.58	-157.88	-1,484.37	1,337.29	1,327.72	9.57	139.798		
1,600.00	1,576.07	1,873.25	1,827.78	6.41	7.45	17.09	-175.17	-1,459.07	1,292.97	1,282.65	10.31	125.374		
1,700.00	1,672.65	1,967.76	1,918.60	6.93	7.94	16.64	-189.64	-1,437.31	1,247.34	1,236.34	11.00	113.403		
1,800.00	1,769.23	2,060.94	2,008.32	7.46	8.41	16.22	-202.63	-1,415.71	1,201.57	1,189.91	11.66	103.057		
1,900.00	1,865.82	2,153.69	2,097.77	8.00	8.88	15.89	-213.27	-1,393.67	1,155.15	1,142.85	12.31	93.867		
2,000.00	1,962.40	2,240.18	2,181.03	8.53	9.32	15.47	-224.82	-1,373.33	1,109.12	1,096.14	12.98	85.450		
2,100.00	2,058.98	2,331.97	2,269.31	9.07	9.80	14.99	-236.95	-1,351.29	1,062.68	1,049.03	13.66	77.815		
2,200.00	2,155.56	2,417.54	2,351.80	9.61	10.22	14.55	-247.42	-1,331.05	1,016.56	1,002.24	14.32	71.007		
2,300.00	2,252.14	2,508.39	2,439.54	10.15	10.67	14.14	-257.12	-1,309.62	970.42	955.45	14.97	64.835		
2,400.00	2,348.72	2,595.84	2,523.97	10.69	11.11	13.70	-266.51	-1,288.84	924.16	908.53	15.63	59.133		
2,500.00	2,445.30	2,676.61	2,602.03	11.24	11.50	13.25	-275.22	-1,270.02	878.39	862.07	16.32	53.829		
2,600.00	2,541.88	2,760.82	2,683.34	11.78	11.93	12.60	-286.25	-1,251.11	833.65	816.60	17.06	48.877		
2,700.00	2,638.46	2,855.12	2,774.15	12.32	12.41	11.71	-299.43	-1,229.38	788.61	770.81	17.81	44.288		
2,800.00	2,735.04	2,943.25	2,859.09	12.87	12.86	10.83	-311.08	-1,208.97	743.52	724.95	18.57	40.039		
2,900.00	2,831.62	3,030.56	2,943.27	13.42	13.29	9.86	-322.66	-1,188.90	698.76	679.41	19.35	36.117		
3,000.00	2,928.20	3,121.89	3,031.55	13.96	13.74	8.82	-333.48	-1,168.13	654.19	634.07	20.12	32.516		
3,100.00	3,024.78	3,213.68	3,120.02	14.51	14.21	7.55	-344.96	-1,146.55	609.22	588.30	20.92	29.123		
3,200.00	3,121.36	3,297.44	3,200.94	15.06	14.62	6.33	-354.43	-1,127.07	564.53	542.75	21.78	25.924		
3,300.00	3,217.94	3,388.34	3,288.76	15.61	15.06	4.68	-365.83	-1,106.61	521.03	498.38	22.65	23.005		
3,400.00	3,314.52	3,487.49	3,384.55	16.15	15.56	2.80	-375.72	-1,082.99	476.15	452.70	23.46	20.300		
3,500.00	3,411.10	3,579.94	3,473.51	16.70	16.05	0.63	-384.74	-1,059.54	430.29	405.91	24.38	17.646		
3,600.00	3,507.68	3,669.70	3,559.63	17.25	16.53	-2.10	-393.89	-1,035.95	384.36	358.92	25.45	15.105		
3,700.00	3,604.26	3,745.45	3,632.47	17.80	16.90	-4.92	-401.67	-1,016.68	340.07	313.26	26.81	12.683		
3,800.00	3,700.84	3,824.25	3,708.72	18.35	17.28	-8.60	-411.49	-999.40	300.57	272.21	28.36	10.598		
3,900.00	3,797.42	3,909.87	3,791.74	18.90	17.65	-13.62	-423.33	-982.16	264.97	234.92	30.05	8.817		
4,000.00	3,894.00	4,000.29	3,880.19	19.45	17.99	-19.46	-433.43	-966.37	232.55	200.79	31.77	7.321		
4,100.00	3,990.58	4,091.85	3,970.39	20.00	18.29	-26.03	-440.98	-952.59	202.88	169.35	33.53	6.051		
4,200.00	4,087.16	4,183.80	4,061.33	20.55	18.55	-33.82	-447.38	-940.61	176.91	141.54	35.37	5.002		
4,300.00	4,183.75	4,276.48	4,153.30	21.10	18.78	-43.04	-452.89	-930.61	155.49	118.37	37.11	4.189		
4,400.00	4,280.33	4,370.20	4,246.55	21.65	18.98	-53.70	-457.98	-922.77	139.75	101.28	38.47	3.633		
4,500.00	4,376.91	4,465.85	4,341.89	22.20	19.16	-65.73	-462.69	-916.61	130.02	90.97	39.06	3.329		
4,600.00	4,473.49	4,563.36	4,439.16	22.75	19.32	-78.88	-466.46	-911.04	126.10	87.55	38.55	3.271 ES, SF		
4,625.13	4,497.76	4,587.95	4,463.71	22.89	19.36	-82.19	-467.14	-909.88	125.94	87.68	38.25	3.292 CC		
4,700.00	4,570.07	4,661.26	4,536.95	23.30	19.45	-91.79	-468.63	-907.02	127.30	90.25	37.05	3.436		
4,800.00	4,666.65	4,758.03	4,633.67	23.85	19.57	-103.60	-469.96	-904.04	133.68	98.61	35.07	3.812		
4,900.00	4,763.23	4,854.98	4,730.58	24.40	19.68	-114.03	-470.77	-901.52	144.73	111.46	33.27	4.350		
5,000.00	4,859.81	4,951.50	4,827.07	24.96	19.78	-122.99	-470.81	-899.12	159.45	127.33	32.12	4.964		
5,100.00	4,956.39	5,047.10	4,922.63	25.51	19.89	-130.51	-470.25	-896.36	177.49	145.79	31.71	5.598		
5,200.00	5,052.97	5,144.72	5,020.20	26.06	19.98	-136.84	-469.31	-893.55	197.96	166.07	31.89	6.208		
5,300.00	5,149.55	5,244.93	5,120.41	26.61	20.05	-141.82	-468.82	-892.61	218.64	186.22	32.43	6.742		
5,400.00	5,246.13	5,342.42	5,217.90	27.16	20.12	-145.68	-468.54	-893.06	239.30	206.24	33.06	7.238		
5,500.00	5,342.71	5,439.17	5,314.64	27.71	20.18	-149.00	-467.83	-893.50	260.77	227.04	33.73	7.731		
5,600.00	5,439.29	5,536.00	5,411.47	28.26	20.25	-151.88	-466.80	-893.94	282.92	248.50	34.42	8.220		
5,700.00	5,535.87	5,631.87	5,507.33	28.82	20.32	-154.35	-465.65	-894.41	305.61	270.52	35.09	8.709		
5,800.00	5,632.45	5,724.40	5,599.85	29.37	20.42	-156.32	-465.08	-894.11	329.59	293.87	35.72	9.226		
5,900.00	5,729.03	5,819.96	5,695.40	29.92	20.51	-157.96	-465.26	-892.83	354.91	318.55	36.37	9.760		
6,000.00	5,825.61	5,922.44	5,797.88	30.47	20.58	-159.58	-464.79	-892.50	379.50	342.42	37.07	10.236		
6,100.00	5,922.19	6,022.92	5,898.35	31.02	20.63	-161.11	-463.41	-893.61	402.95	365.21	37.74	10.676		

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 4C-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 4C-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 #3	<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		
6,200.00	6,018.77	6,122.25	5,997.64	31.57	20.68	-162.52	-461.63	-895.39	426.00	387.62	38.39	11.098		
6,300.00	6,115.35	6,219.98	6,095.32	32.13	20.72	-163.81	-459.52	-897.58	448.86	409.86	39.00	11.510		
6,400.00	6,211.93	6,317.48	6,192.76	32.68	20.76	-165.02	-457.04	-899.92	471.78	432.18	39.60	11.914		
6,500.00	6,308.51	6,415.14	6,290.36	33.23	20.80	-166.14	-454.41	-902.43	494.74	454.54	40.19	12.309		
6,600.00	6,405.09	6,512.21	6,387.35	33.78	20.84	-167.15	-451.80	-905.05	517.73	476.95	40.77	12.698		
6,700.00	6,501.68	6,607.68	6,482.76	34.33	20.88	-168.07	-449.17	-907.48	541.01	499.69	41.33	13.091		
6,800.00	6,598.26	6,702.88	6,577.90	34.88	20.93	-168.92	-446.46	-909.66	564.69	522.82	41.88	13.485		
6,900.00	6,694.84	6,797.78	6,672.74	35.44	20.99	-169.69	-443.75	-911.53	588.79	546.37	42.42	13.881		
6,939.68	6,733.16	6,835.37	6,710.30	35.66	21.01	-169.98	-442.68	-912.19	598.46	555.83	42.63	14.040		
6,950.00	6,743.13	6,845.07	6,720.00	35.71	21.02	-173.24	-442.40	-912.35	600.98	558.30	42.68	14.081		
7,000.00	6,791.54	6,892.18	6,767.09	35.98	21.05	-170.34	-441.09	-913.05	613.00	570.08	42.92	14.283		
7,050.00	6,839.91	6,939.31	6,814.20	36.23	21.09	-154.53	-439.82	-913.64	624.67	581.56	43.11	14.489		
7,100.00	6,888.03	6,986.22	6,861.09	36.47	21.12	-141.14	-438.61	-914.10	635.97	592.70	43.27	14.698		
7,150.00	6,935.65	7,033.42	6,908.27	36.68	21.16	-130.82	-437.42	-914.47	646.92	603.52	43.40	14.906		
7,200.00	6,982.55	7,080.56	6,955.40	36.88	21.20	-123.24	-436.26	-914.82	657.52	614.02	43.51	15.113		
7,250.00	7,028.48	7,126.82	7,001.64	37.06	21.23	-117.81	-435.14	-915.14	667.90	624.32	43.59	15.324		
7,300.00	7,073.24	7,171.95	7,046.76	37.22	21.27	-113.96	-434.07	-915.45	678.23	634.58	43.65	15.540		
7,350.00	7,116.60	7,215.83	7,090.62	37.37	21.31	-111.27	-433.05	-915.74	688.68	644.99	43.69	15.763		
7,400.00	7,158.35	7,258.14	7,132.93	37.50	21.34	-109.41	-432.10	-916.02	699.49	655.76	43.73	15.996		
7,450.00	7,198.29	7,298.67	7,173.44	37.62	21.37	-108.14	-431.23	-916.28	710.86	667.10	43.77	16.243		
7,500.00	7,236.22	7,337.20	7,211.96	37.72	21.41	-107.28	-430.43	-916.52	723.04	679.24	43.81	16.505		
7,550.00	7,271.95	7,372.56	7,247.32	37.80	21.44	-106.61	-429.73	-916.73	736.27	692.42	43.85	16.789		
7,600.00	7,305.33	7,404.50	7,279.25	37.88	21.48	-106.01	-429.18	-916.85	750.83	706.91	43.92	17.097		
7,650.00	7,336.17	7,433.88	7,308.63	37.94	21.51	-105.41	-428.76	-916.89	766.89	722.89	44.00	17.429		
7,700.00	7,364.33	7,460.56	7,335.31	37.99	21.54	-104.74	-428.44	-916.87	784.60	740.48	44.12	17.785		
7,750.00	7,389.68	7,484.45	7,359.19	38.04	21.57	-103.93	-428.20	-916.80	804.03	759.77	44.26	18.164		
7,800.00	7,412.08	7,505.44	7,380.19	38.07	21.59	-102.91	-428.04	-916.70	825.25	780.80	44.45	18.567		
7,850.00	7,431.44	7,523.48	7,398.22	38.10	21.61	-101.63	-427.92	-916.59	848.23	803.57	44.66	18.992		
7,900.00	7,447.66	7,538.98	7,413.73	38.13	21.63	-100.11	-427.85	-916.48	872.93	828.02	44.91	19.437		
7,950.00	7,460.65	7,551.77	7,426.51	38.15	21.64	-98.29	-427.80	-916.39	899.25	854.06	45.19	19.901		
8,000.00	7,470.36	7,561.33	7,436.07	38.18	21.65	-96.13	-427.76	-916.31	927.05	881.57	45.48	20.385		
8,050.00	7,476.73	7,567.63	7,442.38	38.20	21.66	-93.64	-427.74	-916.26	956.17	910.39	45.78	20.886		
8,100.00	7,479.74	7,570.67	7,445.42	38.23	21.67	-90.84	-427.73	-916.24	986.44	940.35	46.09	21.403		
8,119.55	7,480.00	7,570.98	7,445.72	38.24	21.67	-89.66	-427.73	-916.23	998.54	952.33	46.21	21.609		
8,200.00	7,480.00	7,571.19	7,445.93	38.31	21.67	-89.67	-427.73	-916.23	1,050.49	1,003.78	46.71	22.491		
8,300.00	7,480.00	7,571.45	7,446.20	38.45	21.67	-89.69	-427.73	-916.23	1,119.77	1,072.46	47.31	23.669		
8,400.00	7,480.00	7,571.72	7,446.46	38.65	21.67	-89.71	-427.73	-916.23	1,193.42	1,145.54	47.87	24.930		
8,500.00	7,480.00	7,571.98	7,446.72	38.92	21.67	-89.73	-427.73	-916.23	1,270.67	1,222.29	48.38	26.263		
8,600.00	7,480.00	7,572.24	7,446.98	39.25	21.67	-89.75	-427.72	-916.22	1,350.91	1,302.07	48.84	27.659		
8,700.00	7,480.00	7,572.49	7,447.24	39.67	21.67	-89.77	-427.72	-916.22	1,433.64	1,384.39	49.25	29.110		

# Cathedral Energy Services

## Anticollision Report

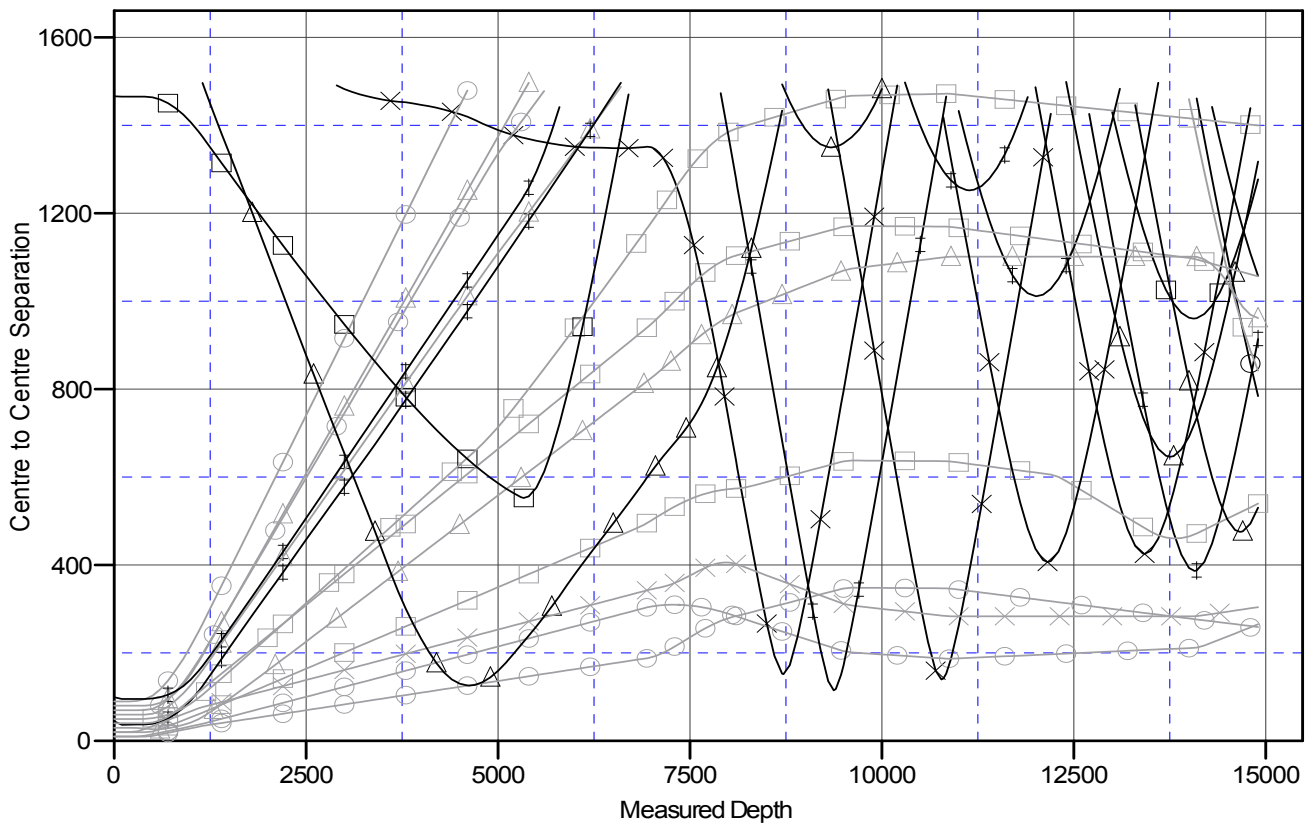
**Company:** Crestone Peak Resources  
**Project:** DJ BASIN  
**Reference Site:** S26-T2N-R68W  
**Site Error:** 0.00usft  
**Reference Well:** SULLIVAN 4C-26H-P268  
**Well Error:** 0.00usft  
**Reference Wellbore:** OH  
**Reference Design:** PLAN #3

**Local Co-ordinate Reference:** Well SULLIVAN 4C-26H-P268  
**TVD Reference:** 23' KB @ 4987.00usft  
**MD Reference:** 23' KB @ 4987.00usft  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Output errors are at** 2.00 sigma  
**Database:** USA EDM 5000 Multi Users DB  
**Offset TVD Reference:** 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 4C-26H-P268  
 Coordinate System is US State Plane 1983, Colorado Northern Zone  
 Grid Convergence at Surface is: 0.35°

### Ladder Plot



### LEGEND

IN4I-26H-P268, OH, PLAN #2 V0	✱ Sullivan 4-6-26, CPR WELL, SURVEYS V0	▣ SULLIVAN4E-26H-P268, OH, PLAN#2 V0
os23-54, EXTRACTION, SURVEYS V0	✱ Sullivan 44-26, CPR WELL, GYRO V0	○ SULLIVAN4J-26H-P268, OH, PLAN#2 V0
4-4-23, CPR WELL, SURVEYS V0	▣ SULLIVAN4H-26H-P268, OH, PLAN#2 V0	✱ GrantBros31-26, CPR WELL, GYRO V0
os32-26, CPR, GYRO V0	✱ Godding Gulch 21-26, CPR WELL, SURVEYS V0	✱ Meredith 1, KPK WELL, NO SURVEYS V0
os3-23, CPR WELL, SURVEYS V0	▣ Bybee 5, Wellbore #1, PLAN#1 V0	▣ SULLIVAN4G-26H-P268, OH, PLAN#2 V0
others34-23C, EXTRACTION, GYRO V0	○ SULLIVAN4D-26H-P268, OH, PLAN#2 V0	▲ Sullivan 1, CPR, NO SURVEYS V0
os23-4AE, EXTRACTION, SURVEYS V0	○ SULLIVAN4L-26H-P268, OH, PLAN#2 V0	▲ GrantBrothers33-23C, EXTRACTION, NO:
IN4B-26H-P268, OH, PLAN#3 V0	✱ SULLIVAN4A-26H-P268, OH, PLAN#3 V0	✱ GrantBrothers2-26, CPR, NO SURVEYS V
os23-2AE, EXTRACTION, SURVEYS V0	▲ SULLIVAN4F-26H-P268, OH, PLAN#2 V0	▣ Johnson 1, KPK, NO SURVEYS V0

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