



CRESTONE PEAK
RESOURCES

Project: DJ BASIN
Site: S25-T1N-R66W (SAM)
Well: SAM 3O-25H-M166
Wellbore: OH
Design: PLAN #1

SECTION DETAILS

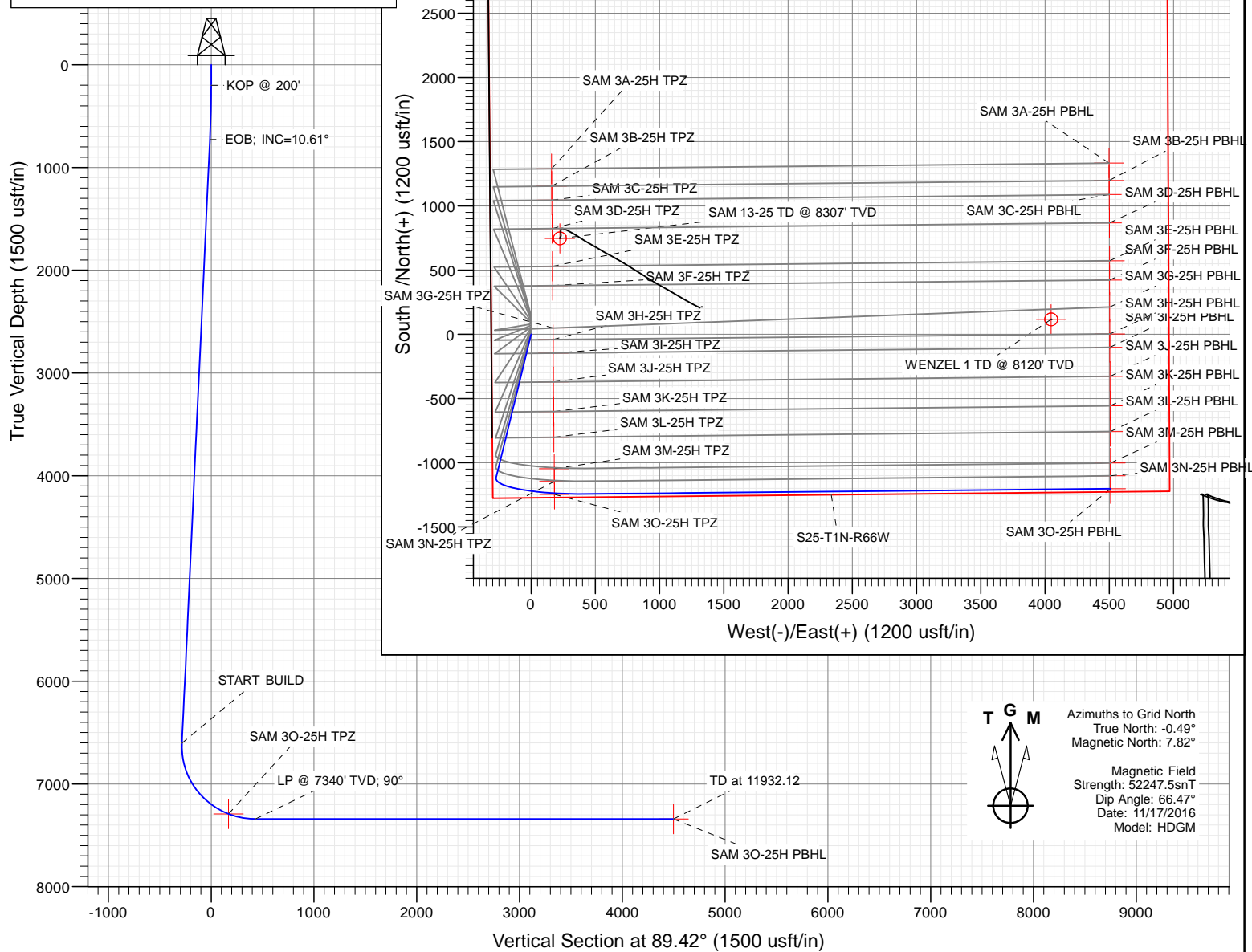
| Sec | MD | Inc | Azi | TVD | +N/-S | +E/-W | Dleg | TFace | Vsect | Target |
|-----|----------|-------|--------|---------|----------|---------|------|---------|---------|-----------------|
| 1 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 2 | 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 3 | 730.58 | 10.61 | 193.73 | 727.55 | -47.59 | -11.63 | 2.00 | 193.73 | -12.11 | |
| 4 | 6708.50 | 10.61 | 193.73 | 6603.24 | -1116.97 | -272.90 | 0.00 | 0.00 | -284.20 | |
| 5 | 7866.12 | 90.00 | 89.42 | 7340.00 | -1243.44 | 443.87 | 8.00 | -104.08 | 431.27 | |
| 6 | 11932.12 | 90.00 | 89.42 | 7340.00 | -1202.11 | 4509.66 | 0.00 | 0.00 | 4497.27 | SAM 3O-25H PBHL |

FORMATION TOP DETAILS

No formation data is available

PLAN #1
SAM 3O-25H-M166
16XXX LR
23 KB @ 5100.00usft
Ground Level @ 5086.00
North American Datum 1983
Well SAM 3O-25H-M166, Grid North

| Name | Type | Target | No Target (Freehand) | Azimuth | Origin | Type | N/S | E/W | From | TVD |
|-----------------|------|--------|----------------------|---------|--------|------|-----|-----|------|---------|
| SAM 3O-25H TPZ | | | | 89.42 | | | | | 0.00 | 7290.95 |
| SAM 3O-25H PBHL | | | | | | | | | | 7340.00 |



WELL DETAILS: SAM 3O-25H-M166

| | | | | | | |
|-------|-------|------------|---------------|------------|-----------|-------------|
| +N/-S | +E/-W | Northing | Ground Level: | 5086.00 | Latitude | Longitude |
| 0.00 | 0.00 | 1250516.51 | Easting | 3214576.79 | 40.018510 | -104.733857 |

CATHEDRAL



Cathedral Energy Services

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|----------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Company: | Crestone Peak Resources | TVD Reference: | 23' KB @ 5109.00usft |
| Project: | DJ BASIN | MD Reference: | 23' KB @ 5109.00usft |
| Site: | S25-T1N-R66W (SAM) | North Reference: | Grid |
| Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OH | | |
| Design: | PLAN #1 | | |

| | | | |
|--------------------|---------------------------|----------------------|----------------|
| Project | DJ BASIN | | |
| Map System: | US State Plane 1983 | System Datum: | Mean Sea Level |
| Geo Datum: | North American Datum 1983 | | |
| Map Zone: | Colorado Northern Zone | | |

| Site | | S25-T1N-R66W (SAM) | | | |
|-----------------------|-----------|--------------------|-------------------|-------------------|-------------|
| Site Position: | | Northing: | 1,250,656.77 usft | Latitude: | 40.018895 |
| From: | Lat/Long | Easting: | 3,214,576.98 usft | Longitude: | -104.733852 |
| Position Uncertainty: | 0.00 usft | Slot Radius: | 13-3/16 " | Grid Convergence: | 0.50 ° |

| | | | | | | |
|----------------------|-----------------|-----------|---------------------|-------------------|---------------|---------------|
| Well | SAM 3O-25H-M166 | | | | | |
| Well Position | +N/-S | 0.00 usft | Northing: | 1,250,516.51 usft | Latitude: | 40.018510 |
| | +E/-W | 0.00 usft | Easting: | 3,214,576.79 usft | Longitude: | -104.733857 |
| Position Uncertainty | | 0.00 usft | Wellhead Elevation: | 0.00 usft | Ground Level: | 5,086.00 usft |

| | | | | | |
|------------------|-------------------|--------------------|--------------------|------------------|-----------------------|
| Wellbore | OH | | | | |
| Magnetics | Model Name | Sample Date | Declination | Dip Angle | Field Strength |
| | | | (°) | (°) | (nT) |
| | HDGM | 11/17/2016 | 8.32 | 66.47 | 52,248 |

| | | | | | |
|--------------------------|-------------------------|--------------|----------------------|------------------|--|
| Design | PLAN #1 | | | | |
| Audit Notes: | | | | | |
| Version: | Phase: | PLAN | Tie On Depth: | 0.00 | |
| Vertical Section: | Depth From (TVD) | +N/-S | +E/-W | Direction | |
| | (usft) | (usft) | (usft) | (°) | |
| | 0.00 | 0.00 | 0.00 | 89.42 | |

| | | | | | | | | | | |
|-----------------------|--------------------|----------------|-----------------------|--------------|--------------|--------------------|-------------------|------------------|------------|-----------------|
| Plan Sections | | | | | | | | | | |
| Measured Depth | Inclination | Azimuth | Vertical Depth | +N/-S | +E/-W | Dogleg Rate | Build Rate | Turn Rate | TFO | Target |
| (usft) | (°) | (°) | (usft) | (usft) | (usft) | (°/100usft) | (°/100usft) | (°/100usft) | (°) | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 730.58 | 10.61 | 193.73 | 727.55 | -47.59 | -11.63 | 2.00 | 2.00 | 0.00 | 193.73 | |
| 6,708.50 | 10.61 | 193.73 | 6,603.24 | -1,116.97 | -272.90 | 0.00 | 0.00 | 0.00 | 0.00 | |
| 7,866.12 | 90.00 | 89.42 | 7,340.00 | -1,243.44 | 443.87 | 8.00 | 6.86 | -9.01 | -104.08 | |
| 11,932.12 | 90.00 | 89.42 | 7,340.00 | -1,202.11 | 4,509.66 | 0.00 | 0.00 | 0.00 | 0.00 | SAM 3O-25H PBHL |

Cathedral Energy Services

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|----------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Company: | Crestone Peak Resources | TVD Reference: | 23' KB @ 5109.00usft |
| Project: | DJ BASIN | MD Reference: | 23' KB @ 5109.00usft |
| Site: | S25-T1N-R66W (SAM) | North Reference: | Grid |
| Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OH | | |
| Design: | PLAN #1 | | |

| 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 | KOP @ 200' |
| 300.00 | 2.00 | 193.73 | 299.98 | -1.70 | -0.41 | -0.43 | 2.00 | 2.00 | |
| 400.00 | 4.00 | 193.73 | 399.84 | -6.78 | -1.66 | -1.72 | 2.00 | 2.00 | |
| 500.00 | 6.00 | 193.73 | 499.45 | -15.25 | -3.72 | -3.88 | 2.00 | 2.00 | |
| 600.00 | 8.00 | 193.73 | 598.70 | -27.08 | -6.62 | -6.89 | 2.00 | 2.00 | |
| 700.00 | 10.00 | 193.73 | 697.47 | -42.28 | -10.33 | -10.76 | 2.00 | 2.00 | |
| 730.58 | 10.61 | 193.73 | 727.55 | -47.59 | -11.63 | -12.11 | 2.00 | 2.00 | EOB; INC=10.61° |
| 800.00 | 10.61 | 193.73 | 795.78 | -60.01 | -14.66 | -15.27 | 0.00 | 0.00 | |
| 900.00 | 10.61 | 193.73 | 894.07 | -77.90 | -19.03 | -19.82 | 0.00 | 0.00 | |
| 1,000.00 | 10.61 | 193.73 | 992.36 | -95.79 | -23.40 | -24.37 | 0.00 | 0.00 | |
| 1,100.00 | 10.61 | 193.73 | 1,090.65 | -113.68 | -27.77 | -28.92 | 0.00 | 0.00 | |
| 1,200.00 | 10.61 | 193.73 | 1,188.94 | -131.57 | -32.14 | -33.48 | 0.00 | 0.00 | |
| 1,300.00 | 10.61 | 193.73 | 1,287.23 | -149.46 | -36.52 | -38.03 | 0.00 | 0.00 | |
| 1,400.00 | 10.61 | 193.73 | 1,385.52 | -167.34 | -40.89 | -42.58 | 0.00 | 0.00 | |
| 1,500.00 | 10.61 | 193.73 | 1,483.81 | -185.23 | -45.26 | -47.13 | 0.00 | 0.00 | |
| 1,600.00 | 10.61 | 193.73 | 1,582.10 | -203.12 | -49.63 | -51.68 | 0.00 | 0.00 | |
| 1,700.00 | 10.61 | 193.73 | 1,680.39 | -221.01 | -54.00 | -56.23 | 0.00 | 0.00 | |
| 1,800.00 | 10.61 | 193.73 | 1,778.68 | -238.90 | -58.37 | -60.78 | 0.00 | 0.00 | |
| 1,900.00 | 10.61 | 193.73 | 1,876.97 | -256.79 | -62.74 | -65.34 | 0.00 | 0.00 | |
| 2,000.00 | 10.61 | 193.73 | 1,975.26 | -274.68 | -67.11 | -69.89 | 0.00 | 0.00 | |
| 2,100.00 | 10.61 | 193.73 | 2,073.55 | -292.57 | -71.48 | -74.44 | 0.00 | 0.00 | |
| 2,200.00 | 10.61 | 193.73 | 2,171.84 | -310.45 | -75.85 | -78.99 | 0.00 | 0.00 | |
| 2,300.00 | 10.61 | 193.73 | 2,270.13 | -328.34 | -80.22 | -83.54 | 0.00 | 0.00 | |
| 2,400.00 | 10.61 | 193.73 | 2,368.42 | -346.23 | -84.59 | -88.09 | 0.00 | 0.00 | |
| 2,500.00 | 10.61 | 193.73 | 2,466.71 | -364.12 | -88.96 | -92.64 | 0.00 | 0.00 | |
| 2,600.00 | 10.61 | 193.73 | 2,565.00 | -382.01 | -93.33 | -97.20 | 0.00 | 0.00 | |
| 2,700.00 | 10.61 | 193.73 | 2,663.29 | -399.90 | -97.70 | -101.75 | 0.00 | 0.00 | |
| 2,800.00 | 10.61 | 193.73 | 2,761.58 | -417.79 | -102.08 | -106.30 | 0.00 | 0.00 | |
| 2,900.00 | 10.61 | 193.73 | 2,859.87 | -435.68 | -106.45 | -110.85 | 0.00 | 0.00 | |
| 3,000.00 | 10.61 | 193.73 | 2,958.16 | -453.57 | -110.82 | -115.40 | 0.00 | 0.00 | |
| 3,100.00 | 10.61 | 193.73 | 3,056.45 | -471.45 | -115.19 | -119.95 | 0.00 | 0.00 | |
| 3,200.00 | 10.61 | 193.73 | 3,154.74 | -489.34 | -119.56 | -124.51 | 0.00 | 0.00 | |
| 3,300.00 | 10.61 | 193.73 | 3,253.03 | -507.23 | -123.93 | -129.06 | 0.00 | 0.00 | |
| 3,400.00 | 10.61 | 193.73 | 3,351.32 | -525.12 | -128.30 | -133.61 | 0.00 | 0.00 | |
| 3,500.00 | 10.61 | 193.73 | 3,449.61 | -543.01 | -132.67 | -138.16 | 0.00 | 0.00 | |
| 3,600.00 | 10.61 | 193.73 | 3,547.90 | -560.90 | -137.04 | -142.71 | 0.00 | 0.00 | |
| 3,700.00 | 10.61 | 193.73 | 3,646.19 | -578.79 | -141.41 | -147.26 | 0.00 | 0.00 | |
| 3,800.00 | 10.61 | 193.73 | 3,744.48 | -596.68 | -145.78 | -151.81 | 0.00 | 0.00 | |
| 3,900.00 | 10.61 | 193.73 | 3,842.77 | -614.56 | -150.15 | -156.37 | 0.00 | 0.00 | |
| 4,000.00 | 10.61 | 193.73 | 3,941.06 | -632.45 | -154.52 | -160.92 | 0.00 | 0.00 | |
| 4,100.00 | 10.61 | 193.73 | 4,039.35 | -650.34 | -158.89 | -165.47 | 0.00 | 0.00 | |
| 4,200.00 | 10.61 | 193.73 | 4,137.64 | -668.23 | -163.26 | -170.02 | 0.00 | 0.00 | |
| 4,300.00 | 10.61 | 193.73 | 4,235.93 | -686.12 | -167.64 | -174.57 | 0.00 | 0.00 | |
| 4,400.00 | 10.61 | 193.73 | 4,334.22 | -704.01 | -172.01 | -179.12 | 0.00 | 0.00 | |
| 4,500.00 | 10.61 | 193.73 | 4,432.51 | -721.90 | -176.38 | -183.67 | 0.00 | 0.00 | |
| 4,600.00 | 10.61 | 193.73 | 4,530.80 | -739.79 | -180.75 | -188.23 | 0.00 | 0.00 | |
| 4,700.00 | 10.61 | 193.73 | 4,629.09 | -757.67 | -185.12 | -192.78 | 0.00 | 0.00 | |
| 4,800.00 | 10.61 | 193.73 | 4,727.38 | -775.56 | -189.49 | -197.33 | 0.00 | 0.00 | |
| 4,900.00 | 10.61 | 193.73 | 4,825.67 | -793.45 | -193.86 | -201.88 | 0.00 | 0.00 | |
| 5,000.00 | 10.61 | 193.73 | 4,923.96 | -811.34 | -198.23 | -206.43 | 0.00 | 0.00 | |

Cathedral Energy Services

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|----------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Company: | Crestone Peak Resources | TVD Reference: | 23' KB @ 5109.00usft |
| Project: | DJ BASIN | MD Reference: | 23' KB @ 5109.00usft |
| Site: | S25-T1N-R66W (SAM) | North Reference: | Grid |
| Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OH | | |
| Design: | PLAN #1 | | |

Planned Survey

| Measured Depth (usft) | Inclination (°) | Azimuth (°) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Vertical Section (usft) | Dogleg Rate (°/100usft) | Build Rate (°/100u) | Comments / Formations |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|---------------------|-----------------------|
| 5,100.00 | 10.61 | 193.73 | 5,022.25 | -829.23 | -202.60 | -210.98 | 0.00 | 0.00 | |
| 5,200.00 | 10.61 | 193.73 | 5,120.54 | -847.12 | -206.97 | -215.54 | 0.00 | 0.00 | |
| 5,300.00 | 10.61 | 193.73 | 5,218.83 | -865.01 | -211.34 | -220.09 | 0.00 | 0.00 | |
| 5,400.00 | 10.61 | 193.73 | 5,317.12 | -882.90 | -215.71 | -224.64 | 0.00 | 0.00 | |
| 5,500.00 | 10.61 | 193.73 | 5,415.41 | -900.78 | -220.08 | -229.19 | 0.00 | 0.00 | |
| 5,600.00 | 10.61 | 193.73 | 5,513.70 | -918.67 | -224.45 | -233.74 | 0.00 | 0.00 | |
| 5,700.00 | 10.61 | 193.73 | 5,611.99 | -936.56 | -228.82 | -238.29 | 0.00 | 0.00 | |
| 5,800.00 | 10.61 | 193.73 | 5,710.28 | -954.45 | -233.19 | -242.84 | 0.00 | 0.00 | |
| 5,900.00 | 10.61 | 193.73 | 5,808.57 | -972.34 | -237.57 | -247.40 | 0.00 | 0.00 | |
| 6,000.00 | 10.61 | 193.73 | 5,906.86 | -990.23 | -241.94 | -251.95 | 0.00 | 0.00 | |
| 6,100.00 | 10.61 | 193.73 | 6,005.15 | -1,008.12 | -246.31 | -256.50 | 0.00 | 0.00 | |
| 6,200.00 | 10.61 | 193.73 | 6,103.44 | -1,026.01 | -250.68 | -261.05 | 0.00 | 0.00 | |
| 6,300.00 | 10.61 | 193.73 | 6,201.72 | -1,043.89 | -255.05 | -265.60 | 0.00 | 0.00 | |
| 6,400.00 | 10.61 | 193.73 | 6,300.01 | -1,061.78 | -259.42 | -270.15 | 0.00 | 0.00 | |
| 6,500.00 | 10.61 | 193.73 | 6,398.30 | -1,079.67 | -263.79 | -274.71 | 0.00 | 0.00 | |
| 6,600.00 | 10.61 | 193.73 | 6,496.59 | -1,097.56 | -268.16 | -279.26 | 0.00 | 0.00 | |
| 6,700.00 | 10.61 | 193.73 | 6,594.88 | -1,115.45 | -272.53 | -283.81 | 0.00 | 0.00 | |
| 6,708.50 | 10.61 | 193.73 | 6,603.24 | -1,116.97 | -272.90 | -284.20 | 0.00 | 0.00 | START BUILD |
| 6,800.00 | 11.31 | 154.65 | 6,693.19 | -1,133.28 | -271.06 | -282.52 | 8.00 | 0.76 | |
| 6,900.00 | 16.30 | 127.79 | 6,790.37 | -1,150.77 | -255.75 | -267.38 | 8.00 | 4.99 | |
| 7,000.00 | 23.02 | 114.71 | 6,884.53 | -1,167.57 | -226.85 | -238.65 | 8.00 | 6.72 | |
| 7,100.00 | 30.35 | 107.48 | 6,973.84 | -1,183.36 | -184.91 | -196.88 | 8.00 | 7.33 | |
| 7,200.00 | 37.93 | 102.89 | 7,056.56 | -1,197.83 | -130.77 | -142.89 | 8.00 | 7.58 | |
| 7,300.00 | 45.63 | 99.65 | 7,131.08 | -1,210.69 | -65.46 | -77.72 | 8.00 | 7.70 | |
| 7,400.00 | 53.41 | 97.16 | 7,195.95 | -1,221.70 | 9.73 | -2.64 | 8.00 | 7.78 | |
| 7,500.00 | 61.23 | 95.14 | 7,249.91 | -1,230.65 | 93.35 | 80.89 | 8.00 | 7.82 | |
| 7,600.00 | 69.07 | 93.40 | 7,291.91 | -1,237.36 | 183.76 | 171.23 | 8.00 | 7.84 | |
| 7,700.00 | 76.93 | 91.83 | 7,321.13 | -1,241.69 | 279.22 | 266.63 | 8.00 | 7.86 | |
| 7,800.00 | 84.80 | 90.37 | 7,337.00 | -1,243.57 | 377.85 | 365.24 | 8.00 | 7.87 | |
| 7,866.12 | 90.00 | 89.42 | 7,340.00 | -1,243.44 | 443.87 | 431.27 | 8.00 | 7.87 | LP @ 7340' TVD; 90° |
| 7,900.00 | 90.00 | 89.42 | 7,340.00 | -1,243.10 | 477.76 | 465.15 | 0.00 | 0.00 | |
| 8,000.00 | 90.00 | 89.42 | 7,340.00 | -1,242.08 | 577.75 | 565.15 | 0.00 | 0.00 | |
| 8,100.00 | 90.00 | 89.42 | 7,340.00 | -1,241.06 | 677.75 | 665.15 | 0.00 | 0.00 | |
| 8,200.00 | 90.00 | 89.42 | 7,340.00 | -1,240.05 | 777.74 | 765.15 | 0.00 | 0.00 | |
| 8,300.00 | 90.00 | 89.42 | 7,340.00 | -1,239.03 | 877.74 | 865.15 | 0.00 | 0.00 | |
| 8,400.00 | 90.00 | 89.42 | 7,340.00 | -1,238.02 | 977.73 | 965.15 | 0.00 | 0.00 | |
| 8,500.00 | 90.00 | 89.42 | 7,340.00 | -1,237.00 | 1,077.72 | 1,065.15 | 0.00 | 0.00 | |
| 8,600.00 | 90.00 | 89.42 | 7,340.00 | -1,235.98 | 1,177.72 | 1,165.15 | 0.00 | 0.00 | |
| 8,700.00 | 90.00 | 89.42 | 7,340.00 | -1,234.97 | 1,277.71 | 1,265.15 | 0.00 | 0.00 | |
| 8,800.00 | 90.00 | 89.42 | 7,340.00 | -1,233.95 | 1,377.71 | 1,365.15 | 0.00 | 0.00 | |
| 8,900.00 | 90.00 | 89.42 | 7,340.00 | -1,232.93 | 1,477.70 | 1,465.15 | 0.00 | 0.00 | |
| 9,000.00 | 90.00 | 89.42 | 7,340.00 | -1,231.92 | 1,577.70 | 1,565.15 | 0.00 | 0.00 | |
| 9,100.00 | 90.00 | 89.42 | 7,340.00 | -1,230.90 | 1,677.69 | 1,665.15 | 0.00 | 0.00 | |
| 9,200.00 | 90.00 | 89.42 | 7,340.00 | -1,229.88 | 1,777.69 | 1,765.15 | 0.00 | 0.00 | |
| 9,300.00 | 90.00 | 89.42 | 7,340.00 | -1,228.87 | 1,877.68 | 1,865.15 | 0.00 | 0.00 | |
| 9,400.00 | 90.00 | 89.42 | 7,340.00 | -1,227.85 | 1,977.68 | 1,965.15 | 0.00 | 0.00 | |
| 9,500.00 | 90.00 | 89.42 | 7,340.00 | -1,226.83 | 2,077.67 | 2,065.15 | 0.00 | 0.00 | |
| 9,600.00 | 90.00 | 89.42 | 7,340.00 | -1,225.82 | 2,177.67 | 2,165.15 | 0.00 | 0.00 | |
| 9,700.00 | 90.00 | 89.42 | 7,340.00 | -1,224.80 | 2,277.66 | 2,265.15 | 0.00 | 0.00 | |
| 9,800.00 | 90.00 | 89.42 | 7,340.00 | -1,223.79 | 2,377.66 | 2,365.15 | 0.00 | 0.00 | |
| 9,900.00 | 90.00 | 89.42 | 7,340.00 | -1,222.77 | 2,477.65 | 2,465.15 | 0.00 | 0.00 | |
| 10,000.00 | 90.00 | 89.42 | 7,340.00 | -1,221.75 | 2,577.65 | 2,565.15 | 0.00 | 0.00 | |

Cathedral Energy Services

Planning Report

| | | | |
|------------------|-----------------------------|-------------------------------------|----------------------|
| Database: | USA EDM 5000 Multi Users DB | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Company: | Crestone Peak Resources | TVD Reference: | 23' KB @ 5109.00usft |
| Project: | DJ BASIN | MD Reference: | 23' KB @ 5109.00usft |
| Site: | S25-T1N-R66W (SAM) | North Reference: | Grid |
| Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Wellbore: | OH | | |
| Design: | PLAN #1 | | |

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 |
|-----------------------|-----------------|-------------|-----------------------|--------------|--------------|-------------------------|-------------------------|---------------------|-----------------------|
| 10,100.00 | 90.00 | 89.42 | 7,340.00 | -1,220.74 | 2,677.64 | 2,665.15 | 0.00 | 0.00 | |
| 10,200.00 | 90.00 | 89.42 | 7,340.00 | -1,219.72 | 2,777.64 | 2,765.15 | 0.00 | 0.00 | |
| 10,300.00 | 90.00 | 89.42 | 7,340.00 | -1,218.70 | 2,877.63 | 2,865.15 | 0.00 | 0.00 | |
| 10,400.00 | 90.00 | 89.42 | 7,340.00 | -1,217.69 | 2,977.63 | 2,965.15 | 0.00 | 0.00 | |
| 10,500.00 | 90.00 | 89.42 | 7,340.00 | -1,216.67 | 3,077.62 | 3,065.15 | 0.00 | 0.00 | |
| 10,600.00 | 90.00 | 89.42 | 7,340.00 | -1,215.65 | 3,177.62 | 3,165.15 | 0.00 | 0.00 | |
| 10,700.00 | 90.00 | 89.42 | 7,340.00 | -1,214.64 | 3,277.61 | 3,265.15 | 0.00 | 0.00 | |
| 10,800.00 | 90.00 | 89.42 | 7,340.00 | -1,213.62 | 3,377.61 | 3,365.15 | 0.00 | 0.00 | |
| 10,900.00 | 90.00 | 89.42 | 7,340.00 | -1,212.60 | 3,477.60 | 3,465.15 | 0.00 | 0.00 | |
| 11,000.00 | 90.00 | 89.42 | 7,340.00 | -1,211.59 | 3,577.60 | 3,565.15 | 0.00 | 0.00 | |
| 11,100.00 | 90.00 | 89.42 | 7,340.00 | -1,210.57 | 3,677.59 | 3,665.15 | 0.00 | 0.00 | |
| 11,200.00 | 90.00 | 89.42 | 7,340.00 | -1,209.56 | 3,777.59 | 3,765.15 | 0.00 | 0.00 | |
| 11,300.00 | 90.00 | 89.42 | 7,340.00 | -1,208.54 | 3,877.58 | 3,865.15 | 0.00 | 0.00 | |
| 11,400.00 | 90.00 | 89.42 | 7,340.00 | -1,207.52 | 3,977.57 | 3,965.15 | 0.00 | 0.00 | |
| 11,500.00 | 90.00 | 89.42 | 7,340.00 | -1,206.51 | 4,077.57 | 4,065.15 | 0.00 | 0.00 | |
| 11,600.00 | 90.00 | 89.42 | 7,340.00 | -1,205.49 | 4,177.56 | 4,165.15 | 0.00 | 0.00 | |
| 11,700.00 | 90.00 | 89.42 | 7,340.00 | -1,204.47 | 4,277.56 | 4,265.15 | 0.00 | 0.00 | |
| 11,800.00 | 90.00 | 89.42 | 7,340.00 | -1,203.46 | 4,377.55 | 4,365.15 | 0.00 | 0.00 | |
| 11,900.00 | 90.00 | 89.42 | 7,340.00 | -1,202.44 | 4,477.55 | 4,465.15 | 0.00 | 0.00 | |
| 11,932.12 | 90.00 | 89.42 | 7,340.00 | -1,202.11 | 4,509.66 | 4,497.27 | 0.00 | 0.00 | TD at 11932.12 |

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 |
|-----------------------------------------------------------------------------------------------------------------------------|---------------|--------------|------------|--------------|--------------|-----------------|----------------|-----------|-------------|
| SAM 3O-25H PBHL - plan hits target center - Point | 0.00 | 0.00 | 7,340.00 | -1,202.11 | 4,509.66 | 1,249,314.39 | 3,219,086.45 | 40.015102 | -104.717794 |
| SAM 3O-25H TPZ - plan misses target center by 46.67usft at 7612.14usft MD (7296.16 TVD, -1238.01 N, 195.12 E) - Point | 0.00 | 0.00 | 7,340.00 | -1,246.11 | 181.35 | 1,249,270.40 | 3,214,758.14 | 40.015085 | -104.733248 |

Plan Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates | | Comment |
|-----------------------|-----------------------|-------------------|--------------|---------------------|
| | | +N/-S (usft) | +E/-W (usft) | |
| 200.00 | 200.00 | 0.00 | 0.00 | KOP @ 200' |
| 730.58 | 727.55 | -47.59 | -11.63 | EOB; INC=10.61° |
| 6,708.50 | 6,603.24 | -1,116.97 | -272.90 | START BUILD |
| 7,866.12 | 7,340.00 | -1,243.44 | 443.87 | LP @ 7340' TVD; 90° |
| 11,932.12 | 7,340.00 | -1,202.11 | 4,509.66 | TD at 11932.12 |

Crestone Peak Resources

DJ BASIN

S25-T1N-R66W (SAM)

SAM 3O-25H-M166

OH

PLAN #1

Anticollision Report

18 November, 2016

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| | | | |
|-------------------------------------|---------------------------------------------------------------------|-----------------------|---------------------|
| Reference | PLAN #1 | | |
| 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 | | |

| | | | | |
|----------------------------|------------------|--------------------------|------------------|--------------------|
| Survey Tool Program | Date | 11/18/2016 | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 0.00 | 11,932.12 | PLAN #1 (OH) | MWD+HDGM | OWSG MWD + HDGM |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | 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) | | |
| S25-T1N-R66W (SAM) | | | | | | |
| Bare Spaces 11-36 (EXISTING) - CPR WELL - NO SURV | | | | | | Out of range |
| Beierle 1 (EXISTING) - CPR WELL - NO SURVEYS | | | | | | Out of range |
| Beierle 1-A (EXISTING) - CPR WELL - NO SURVEYS | | | | | | Out of range |
| Beierle 2 (EXISTING) - CPR WELL - SURVEYS | | | | | | Out of range |
| Beierle KE 26-361HN - GWOG WELL - GWOG WELL | 7,315.84 | 12,555.47 | 582.32 | 515.35 | 8.696 | CC |
| Beierle KE 26-361HN - GWOG WELL - GWOG WELL | 7,350.00 | 12,555.47 | 583.82 | 514.98 | 8.481 | ES |
| Beierle KE 26-361HN - GWOG WELL - GWOG WELL | 7,550.00 | 12,555.47 | 648.31 | 566.71 | 7.945 | SF |
| Gilmore 1-30 (EXISTING) - CPR WELL - NO SURVEYS | | | | | | Out of range |
| Lehl 1 (EXISTING) - CPR WELL - NO SURVEYS | | | | | | Out of range |
| Lochbuie 1 (EXISTING) - CPR WELL - NO SURVEYS | | | | | | Out of range |
| Lochbuie 21-31 (EXISTING) - CPR WELL - GYRO | | | | | | Out of range |
| Lochbuie 2A-31H-D165 (EXISTING) - CPR WELL - SUR | 11,932.12 | 7,231.18 | 767.37 | 705.30 | 12.363 | CC, ES, SF |
| Lochbuie 2B-31H-D165 (EXISTING) - CPR WELL - SUR | 11,932.12 | 7,275.49 | 1,070.16 | 1,020.39 | 21.502 | CC, ES, SF |
| Lochbuie 2C-31H-D165 (EXISTING) - CPR WELL - SUR | 11,932.12 | 7,158.00 | 1,439.50 | 1,389.32 | 28.687 | CC, ES, SF |
| Lochbuie 2D-31H-D165 (EXISTING) - CPR WELL - SUR | | | | | | Out of range |
| Lochbuie 2E-31H-D165 (EXISTING) - CPR WELL - SUR | 11,932.12 | 7,221.00 | 800.69 | 740.70 | 13.348 | CC, ES, SF |
| Lochbuie 2F-31H-D165 (PLAN) - CPR WELL - PLAN ON | | | | | | Out of range |
| Lochbuie 2G-31H-D165 (EXISTING) - CPR WELL - SUR | | | | | | Out of range |
| Lochbuie 2H-31H-D165 (EXISTING) - CPR WELL - SUR | | | | | | Out of range |
| Lutz 1-A (EXISTING) - CPR WELL - NO SURVEYS | | | | | | Out of range |
| Sam 1 (EXISTING) - CPR WELL - NO SURVEYS | 200.00 | 161.00 | 1,343.06 | 1,342.38 | 1,994.323 | CC, ES |
| Sam 1 (EXISTING) - CPR WELL - NO SURVEYS | 1,100.00 | 500.00 | 1,498.00 | 1,492.61 | 277.807 | SF |
| Sam 13-25 (EXISTING) - CPR WELL - SURVEYS | 200.00 | 183.00 | 1,329.29 | 1,328.59 | 1,899.605 | CC, ES |
| Sam 13-25 (EXISTING) - CPR WELL - SURVEYS | 4,100.00 | 4,170.78 | 1,488.07 | 1,456.14 | 46.608 | SF |
| SAM 3A-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 140.25 | 139.26 | 141.246 | CC, ES |
| SAM 3A-25H-M166 - OH - PLAN #1 | 730.58 | 691.66 | 231.78 | 226.80 | 46.544 | SF |
| SAM 3B-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 130.04 | 129.05 | 130.964 | CC, ES |
| SAM 3B-25H-M166 - OH - PLAN #1 | 730.58 | 700.00 | 206.48 | 201.57 | 42.048 | SF |
| SAM 3C-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 120.22 | 119.22 | 121.067 | CC, ES |
| SAM 3C-25H-M166 - OH - PLAN #1 | 730.58 | 709.40 | 184.78 | 179.94 | 38.173 | SF |
| SAM 3D-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 110.02 | 109.03 | 110.800 | CC, ES |
| SAM 3D-25H-M166 - OH - PLAN #1 | 730.58 | 716.44 | 165.79 | 160.98 | 34.518 | SF |
| SAM 3E-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 100.19 | 99.19 | 100.896 | CC, ES |
| SAM 3E-25H-M166 - OH - PLAN #1 | 730.58 | 722.53 | 150.39 | 145.60 | 31.427 | SF |
| SAM 3F-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 89.98 | 88.99 | 90.617 | CC, ES |
| SAM 3F-25H-M166 - OH - PLAN #1 | 1,100.00 | 1,086.88 | 206.38 | 198.96 | 27.822 | SF |
| SAM 3G-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 80.15 | 79.16 | 80.717 | CC, ES |
| SAM 3G-25H-M166 - OH - PLAN #1 | 11,932.12 | 11,778.90 | 1,414.08 | 1,114.97 | 4.728 | SF |
| SAM 3H-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 69.95 | 68.96 | 70.445 | CC, ES |
| SAM 3H-25H-M166 - OH - PLAN #1 | 11,932.12 | 12,063.38 | 1,228.68 | 932.24 | 4.145 | SF |
| SAM 3I-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 60.12 | 59.12 | 60.541 | CC, ES |
| SAM 3I-25H-M166 - OH - PLAN #1 | 11,932.12 | 11,900.11 | 1,102.33 | 802.75 | 3.680 | SF |
| SAM 3J-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 50.27 | 49.28 | 50.629 | CC, ES |
| SAM 3J-25H-M166 - OH - PLAN #1 | 11,932.12 | 11,840.24 | 874.98 | 574.41 | 2.911 | SF |
| SAM 3K-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 40.08 | 39.09 | 40.362 | CC, ES |
| SAM 3K-25H-M166 - OH - PLAN #1 | 11,932.12 | 11,932.89 | 648.91 | 349.41 | 2.167 | SF |
| SAM 3L-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 30.23 | 29.24 | 30.446 | CC, ES |
| SAM 3L-25H-M166 - OH - PLAN #1 | 11,932.12 | 11,884.20 | 445.14 | 144.06 | 1.478 | Level 3, SF |
| SAM 3M-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 20.04 | 19.05 | 20.183 | CC |
| SAM 3M-25H-M166 - OH - PLAN #1 | 11,932.12 | 11,973.93 | 211.88 | -75.37 | 0.738 | Level 1, ES, SF |
| SAM 3N-25H-M166 - OH - PLAN #1 | 200.00 | 200.00 | 10.21 | 9.21 | 10.280 | CC, ES |
| SAM 3N-25H-M166 - OH - PLAN #1 | 11,932.12 | 12,155.29 | 260.07 | 119.74 | 1.853 | SF |
| State 7-36 CG (EXISTING) - CPR WELL - NO SURVEYS | | | | | | Out of range |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|----------------------------------------------|---------------------------------|------------------------------|---------------------------------|----------|-------------------|--------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| S25-T1N-R66W (SAM) | | | | | | |
| Templin 1 (EXISTING) - CPR WELL - NO SURVEYS | | | | | | Out of range |
| Wenzel 1 (EXISTING) - CPR WELL - NO SURVEYS | 11,483.06 | 7,261.00 | 1,323.05 | 1,178.36 | 9.144 | CC |
| Wenzel 1 (EXISTING) - CPR WELL - NO SURVEYS | 11,500.00 | 7,261.00 | 1,323.16 | 1,178.04 | 9.118 | ES |
| Wenzel 1 (EXISTING) - CPR WELL - NO SURVEYS | 11,600.00 | 7,261.00 | 1,328.21 | 1,180.97 | 9.021 | SF |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - Beierle KE 26-361HN - GWOG WELL - GWOG WELL | | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|--------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|---------|
| Survey Program: 16-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 | | |
| 6,100.00 | 6,005.15 | 12,555.47 | 7,499.06 | 26.64 | 91.41 | 166.95 | -805.60 | -304.32 | 1,484.93 | 1,436.99 | 47.94 | 30.975 | | |
| 6,200.00 | 6,103.44 | 12,555.47 | 7,499.06 | 27.09 | 91.41 | 166.95 | -805.60 | -304.32 | 1,390.25 | 1,341.82 | 48.43 | 28.706 | | |
| 6,300.00 | 6,201.72 | 12,555.47 | 7,499.06 | 27.54 | 91.41 | 166.95 | -805.60 | -304.32 | 1,296.38 | 1,247.39 | 48.99 | 26.462 | | |
| 6,400.00 | 6,300.01 | 12,555.47 | 7,499.06 | 28.00 | 91.41 | 166.95 | -805.60 | -304.32 | 1,203.48 | 1,153.86 | 49.63 | 24.250 | | |
| 6,500.00 | 6,398.30 | 12,555.47 | 7,499.06 | 28.45 | 91.41 | 166.95 | -805.60 | -304.32 | 1,111.83 | 1,061.46 | 50.36 | 22.076 | | |
| 6,600.00 | 6,496.59 | 12,555.47 | 7,499.06 | 28.90 | 91.41 | 166.95 | -805.60 | -304.32 | 1,021.73 | 970.33 | 51.41 | 19.876 | | |
| 6,708.50 | 6,603.24 | 12,555.47 | 7,499.06 | 29.40 | 91.41 | 166.95 | -805.60 | -304.32 | 926.29 | 873.30 | 52.98 | 17.483 | | |
| 6,750.00 | 6,644.06 | 12,555.47 | 7,499.06 | 29.58 | 91.41 | 179.33 | -805.60 | -304.32 | 890.58 | 836.93 | 53.65 | 16.598 | | |
| 6,800.00 | 6,693.19 | 12,555.47 | 7,499.06 | 29.79 | 91.41 | -166.46 | -805.60 | -304.32 | 848.41 | 793.92 | 54.50 | 15.569 | | |
| 6,850.00 | 6,742.04 | 12,555.47 | 7,499.06 | 29.99 | 91.41 | -156.49 | -805.60 | -304.32 | 807.51 | 752.16 | 55.35 | 14.589 | | |
| 6,900.00 | 6,790.37 | 12,555.47 | 7,499.06 | 30.17 | 91.41 | -150.64 | -805.60 | -304.32 | 768.31 | 712.10 | 56.21 | 13.669 | | |
| 6,950.00 | 6,837.94 | 12,555.47 | 7,499.06 | 30.34 | 91.41 | -147.44 | -805.60 | -304.32 | 731.28 | 674.22 | 57.06 | 12.816 | | |
| 7,000.00 | 6,884.53 | 12,555.47 | 7,499.06 | 30.50 | 91.41 | -145.72 | -805.60 | -304.32 | 696.96 | 639.04 | 57.91 | 12.034 | | |
| 7,050.00 | 6,929.90 | 12,555.47 | 7,499.06 | 30.65 | 91.41 | -144.77 | -805.60 | -304.32 | 665.95 | 607.16 | 58.79 | 11.327 | | |
| 7,100.00 | 6,973.84 | 12,555.47 | 7,499.06 | 30.79 | 91.41 | -144.18 | -805.60 | -304.32 | 638.89 | 579.15 | 59.74 | 10.694 | | |
| 7,150.00 | 7,016.13 | 12,555.47 | 7,499.06 | 30.91 | 91.41 | -143.71 | -805.60 | -304.32 | 616.45 | 555.60 | 60.85 | 10.131 | | |
| 7,200.00 | 7,056.56 | 12,555.47 | 7,499.06 | 31.02 | 91.41 | -143.22 | -805.60 | -304.32 | 599.25 | 537.04 | 62.22 | 9.632 | | |
| 7,250.00 | 7,094.94 | 12,555.47 | 7,499.06 | 31.13 | 91.41 | -142.63 | -805.60 | -304.32 | 587.85 | 523.89 | 63.96 | 9.190 | | |
| 7,300.00 | 7,131.08 | 12,555.47 | 7,499.06 | 31.22 | 91.41 | -141.88 | -805.60 | -304.32 | 582.64 | 516.47 | 66.17 | 8.805 | | |
| 7,315.84 | 7,142.03 | 12,555.47 | 7,499.06 | 31.25 | 91.41 | -141.60 | -805.60 | -304.32 | 582.32 | 515.35 | 66.97 | 8.696 CC | | |
| 7,350.00 | 7,164.81 | 12,555.47 | 7,499.06 | 31.31 | 91.41 | -140.92 | -805.60 | -304.32 | 583.82 | 514.98 | 68.84 | 8.481 ES | | |
| 7,400.00 | 7,195.95 | 12,555.47 | 7,499.06 | 31.39 | 91.41 | -139.71 | -805.60 | -304.32 | 591.33 | 519.46 | 71.87 | 8.228 | | |
| 7,450.00 | 7,224.37 | 12,555.47 | 7,499.06 | 31.46 | 91.41 | -138.20 | -805.60 | -304.32 | 604.91 | 529.79 | 75.12 | 8.053 | | |
| 7,500.00 | 7,249.91 | 12,555.47 | 7,499.06 | 31.53 | 91.41 | -136.34 | -805.60 | -304.32 | 624.10 | 545.69 | 78.40 | 7.960 | | |
| 7,550.00 | 7,272.46 | 12,555.47 | 7,499.06 | 31.61 | 91.41 | -134.09 | -805.60 | -304.32 | 648.31 | 566.71 | 81.59 | 7.945 SF | | |
| 7,600.00 | 7,291.91 | 12,555.47 | 7,499.06 | 31.69 | 91.41 | -131.38 | -805.60 | -304.32 | 676.89 | 592.30 | 84.59 | 8.002 | | |
| 7,650.00 | 7,308.16 | 12,555.47 | 7,499.06 | 31.81 | 91.41 | -128.16 | -805.60 | -304.32 | 709.19 | 621.84 | 87.35 | 8.119 | | |
| 7,700.00 | 7,321.13 | 12,555.47 | 7,499.06 | 31.99 | 91.41 | -124.34 | -805.60 | -304.32 | 744.57 | 654.72 | 89.84 | 8.287 | | |
| 7,750.00 | 7,330.76 | 12,555.47 | 7,499.06 | 32.29 | 91.41 | -119.87 | -805.60 | -304.32 | 782.45 | 690.37 | 92.09 | 8.497 | | |
| 7,800.00 | 7,337.00 | 12,555.47 | 7,499.06 | 32.75 | 91.41 | -114.72 | -805.60 | -304.32 | 822.33 | 728.24 | 94.09 | 8.739 | | |
| 7,850.00 | 7,339.82 | 12,555.47 | 7,499.06 | 33.38 | 91.41 | -108.88 | -805.60 | -304.32 | 863.74 | 767.86 | 95.88 | 9.008 | | |
| 7,866.12 | 7,340.00 | 12,555.47 | 7,499.06 | 33.62 | 91.41 | -106.87 | -805.60 | -304.32 | 877.35 | 780.93 | 96.42 | 9.099 | | |
| 7,900.00 | 7,340.00 | 12,555.47 | 7,499.06 | 34.14 | 91.41 | -106.87 | -805.60 | -304.32 | 906.25 | 808.77 | 97.47 | 9.297 | | |
| 8,000.00 | 7,340.00 | 12,555.47 | 7,499.06 | 35.92 | 91.41 | -106.87 | -805.60 | -304.32 | 993.38 | 893.24 | 100.14 | 9.920 | | |
| 8,100.00 | 7,340.00 | 12,555.47 | 7,499.06 | 37.94 | 91.41 | -106.87 | -805.60 | -304.32 | 1,082.74 | 980.47 | 102.27 | 10.587 | | |
| 8,200.00 | 7,340.00 | 12,555.47 | 7,499.06 | 40.14 | 91.41 | -106.87 | -805.60 | -304.32 | 1,173.81 | 1,069.83 | 103.99 | 11.288 | | |
| 8,300.00 | 7,340.00 | 12,555.47 | 7,499.06 | 42.47 | 91.41 | -106.87 | -805.60 | -304.32 | 1,266.23 | 1,160.84 | 105.39 | 12.015 | | |
| 8,400.00 | 7,340.00 | 12,555.47 | 7,499.06 | 44.91 | 91.41 | -106.87 | -805.60 | -304.32 | 1,359.73 | 1,253.17 | 106.56 | 12.761 | | |
| 8,500.00 | 7,340.00 | 12,555.47 | 7,499.06 | 47.45 | 91.41 | -106.87 | -805.60 | -304.32 | 1,454.09 | 1,346.56 | 107.53 | 13.522 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - Lochbuie 2A-31H-D165 (EXISTING) - CPR WELL - SURVEYS | | | | | | | | | | | | | Offset Site Error: 0.00 usft |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|
| Survey Program: 164-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 |
| 11,200.00 | 7,340.00 | 7,239.45 | 7,107.73 | 127.86 | 21.44 | 52.61 | -1,405.82 | 5,231.79 | 1,476.22 | 1,426.57 | 49.66 | 29.729 | |
| 11,300.00 | 7,340.00 | 7,238.45 | 7,106.99 | 130.99 | 21.44 | 52.40 | -1,405.14 | 5,231.80 | 1,377.97 | 1,327.70 | 50.27 | 27.412 | |
| 11,400.00 | 7,340.00 | 7,237.41 | 7,106.23 | 134.12 | 21.44 | 52.17 | -1,404.43 | 5,231.81 | 1,279.99 | 1,228.93 | 51.06 | 25.067 | |
| 11,500.00 | 7,340.00 | 7,236.33 | 7,105.44 | 137.26 | 21.44 | 51.94 | -1,403.70 | 5,231.82 | 1,182.35 | 1,130.25 | 52.10 | 22.695 | |
| 11,600.00 | 7,340.00 | 7,235.22 | 7,104.62 | 140.40 | 21.44 | 51.70 | -1,402.95 | 5,231.84 | 1,085.13 | 1,031.68 | 53.45 | 20.302 | |
| 11,700.00 | 7,340.00 | 7,234.06 | 7,103.76 | 143.54 | 21.44 | 51.45 | -1,402.16 | 5,231.85 | 988.46 | 933.22 | 55.24 | 17.895 | |
| 11,800.00 | 7,340.00 | 7,232.85 | 7,102.87 | 146.68 | 21.44 | 51.19 | -1,401.35 | 5,231.86 | 892.53 | 834.91 | 57.62 | 15.491 | |
| 11,900.00 | 7,340.00 | 7,231.60 | 7,101.94 | 149.83 | 21.44 | 50.92 | -1,400.51 | 5,231.88 | 797.59 | 736.77 | 60.82 | 13.114 | |
| 11,932.12 | 7,340.00 | 7,231.18 | 7,101.64 | 150.84 | 21.44 | 50.83 | -1,400.23 | 5,231.89 | 767.37 | 705.30 | 62.07 | 12.363 CC, ES, SF | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design | | | | | | | | | | | | S25-T1N-R66W (SAM) - Lochbuie 2B-31H-D165 (EXISTING) - CPR WELL - SURVEYS | | Offset Site Error: | | 0.00 usft | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|---------------------------------------------------------------------------|---------|--------------------|--|--------------------|--|-----------|--|
| Survey Program: | | | | | | | | | | | | 133-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 | | | | | | |
| 11,500.00 | 7,340.00 | 7,287.00 | 7,243.07 | 137.26 | 18.06 | 79.64 | -1,327.75 | 5,572.22 | 1,499.77 | 1,451.54 | 48.23 | 31.097 | | | | | | | |
| 11,600.00 | 7,340.00 | 7,287.00 | 7,243.07 | 140.40 | 18.06 | 79.64 | -1,327.75 | 5,572.22 | 1,400.23 | 1,351.77 | 48.46 | 28.896 | | | | | | | |
| 11,700.00 | 7,340.00 | 7,280.50 | 7,237.50 | 143.54 | 18.06 | 77.09 | -1,324.41 | 5,572.39 | 1,300.73 | 1,252.03 | 48.70 | 26.709 | | | | | | | |
| 11,800.00 | 7,340.00 | 7,278.38 | 7,235.67 | 146.68 | 18.06 | 76.24 | -1,323.33 | 5,572.45 | 1,201.33 | 1,152.26 | 49.07 | 24.482 | | | | | | | |
| 11,900.00 | 7,340.00 | 7,276.20 | 7,233.79 | 149.83 | 18.06 | 75.35 | -1,322.24 | 5,572.51 | 1,102.03 | 1,052.45 | 49.57 | 22.230 | | | | | | | |
| 11,932.12 | 7,340.00 | 7,275.49 | 7,233.17 | 150.84 | 18.06 | 75.06 | -1,321.88 | 5,572.53 | 1,070.16 | 1,020.39 | 49.77 | 21.502 CC, ES, SF | | | | | | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| | | | | | | | | | | | | | | |
|------------------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|---------------------------|-----------|
| Offset Design S25-T1N-R66W (SAM) - Lochbuie 2C-31H-D165 (EXISTING) - CPR WELL - SURVEYS | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
| Survey Program: 165-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 | |
| 11,900.00 | 7,340.00 | 7,158.00 | 7,086.66 | 149.83 | 15.30 | 48.19 | -1,390.47 | 5,925.22 | 1,471.05 | 1,421.12 | 49.93 | 29.464 | | |
| 11,932.12 | 7,340.00 | 7,158.00 | 7,086.66 | 150.84 | 15.30 | 48.19 | -1,390.47 | 5,925.22 | 1,439.50 | 1,389.32 | 50.18 | 28.687 | CC, ES, SF | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - Lochbuie 2E-31H-D165 (EXISTING) - CPR WELL - SURVEYS | | | | | | | | | | | | | Offset Site Error: 0.00 usft |
|-----------------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|
| Survey Program: 164-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 |
| 11,300.00 | 7,340.00 | 7,231.15 | 7,101.62 | 130.99 | 21.45 | 53.98 | -1,399.86 | 5,271.10 | 1,414.50 | 1,364.55 | 49.95 | 28.318 | |
| 11,400.00 | 7,340.00 | 7,229.98 | 7,100.75 | 134.12 | 21.45 | 53.72 | -1,399.07 | 5,271.11 | 1,316.25 | 1,265.61 | 50.64 | 25.993 | |
| 11,500.00 | 7,340.00 | 7,228.77 | 7,099.85 | 137.26 | 21.45 | 53.45 | -1,398.25 | 5,271.13 | 1,218.28 | 1,166.74 | 51.53 | 23.640 | |
| 11,600.00 | 7,340.00 | 7,227.50 | 7,098.91 | 140.40 | 21.45 | 53.16 | -1,397.41 | 5,271.15 | 1,120.66 | 1,067.96 | 52.71 | 21.263 | |
| 11,700.00 | 7,340.00 | 7,221.00 | 7,094.06 | 143.54 | 21.46 | 51.70 | -1,393.07 | 5,271.25 | 1,023.53 | 969.54 | 53.99 | 18.958 | |
| 11,800.00 | 7,340.00 | 7,221.00 | 7,094.06 | 146.68 | 21.46 | 51.70 | -1,393.07 | 5,271.25 | 926.97 | 870.90 | 56.06 | 16.534 | |
| 11,900.00 | 7,340.00 | 7,221.00 | 7,094.06 | 149.83 | 21.46 | 51.70 | -1,393.07 | 5,271.25 | 831.22 | 772.34 | 58.88 | 14.118 | |
| 11,932.12 | 7,340.00 | 7,221.00 | 7,094.06 | 150.84 | 21.46 | 51.70 | -1,393.07 | 5,271.25 | 800.69 | 740.70 | 59.98 | 13.348 CC, ES, SF | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - Sam 1 (EXISTING) - CPR WELL - NO SURVEYS | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-----------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|--------------------|-----------|
| Survey Program: 500-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 | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 80.86 | 213.44 | 1,325.99 | 1,343.62 | | | | | |
| 100.00 | 100.00 | 61.00 | 61.00 | 0.14 | 0.07 | 80.86 | 213.44 | 1,325.99 | 1,343.06 | 1,342.85 | 0.21 | 6,549.662 | | |
| 200.00 | 200.00 | 161.00 | 161.00 | 0.50 | 0.18 | 80.86 | 213.44 | 1,325.99 | 1,343.06 | 1,342.38 | 0.67 | 1,994.323 CC, ES | | |
| 300.00 | 299.98 | 260.98 | 260.98 | 0.84 | 0.29 | -112.93 | 213.44 | 1,325.99 | 1,343.73 | 1,342.61 | 1.13 | 1,191.960 | | |
| 400.00 | 399.84 | 360.84 | 360.84 | 1.19 | 0.40 | -113.10 | 213.44 | 1,325.99 | 1,345.78 | 1,344.20 | 1.58 | 849.894 | | |
| 500.00 | 499.45 | 460.45 | 460.45 | 1.55 | 0.51 | -113.37 | 213.44 | 1,325.99 | 1,349.23 | 1,347.18 | 2.06 | 656.546 | | |
| 600.00 | 598.70 | 500.00 | 500.00 | 1.93 | 0.55 | -113.43 | 213.44 | 1,325.99 | 1,355.45 | 1,352.94 | 2.51 | 540.097 | | |
| 700.00 | 697.47 | 500.00 | 500.00 | 2.33 | 0.55 | -113.16 | 213.44 | 1,325.99 | 1,369.76 | 1,366.71 | 3.05 | 448.503 | | |
| 730.58 | 727.55 | 500.00 | 500.00 | 2.46 | 0.55 | -113.05 | 213.44 | 1,325.99 | 1,375.83 | 1,372.59 | 3.24 | 424.789 | | |
| 800.00 | 795.78 | 500.00 | 500.00 | 2.75 | 0.55 | -113.05 | 213.44 | 1,325.99 | 1,392.14 | 1,388.48 | 3.66 | 380.206 | | |
| 900.00 | 894.07 | 500.00 | 500.00 | 3.18 | 0.55 | -113.05 | 213.44 | 1,325.99 | 1,421.28 | 1,417.01 | 4.27 | 332.971 | | |
| 1,000.00 | 992.36 | 500.00 | 500.00 | 3.62 | 0.55 | -113.05 | 213.44 | 1,325.99 | 1,456.71 | 1,451.86 | 4.85 | 300.338 | | |
| 1,100.00 | 1,090.65 | 500.00 | 500.00 | 4.06 | 0.55 | -113.05 | 213.44 | 1,325.99 | 1,498.00 | 1,492.61 | 5.39 | 277.807 SF | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - Sam 13-25 (EXISTING) - CPR WELL - SURVEYS | | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|---------|
| Survey Program: 1386-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 | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 81.07 | 206.41 | 1,313.16 | 1,329.40 | | | | | |
| 100.00 | 100.00 | 83.00 | 83.00 | 0.14 | 0.09 | 81.07 | 206.41 | 1,313.16 | 1,329.29 | 1,329.06 | 0.23 | 5,774.165 | | |
| 200.00 | 200.00 | 183.00 | 183.00 | 0.50 | 0.20 | 81.07 | 206.41 | 1,313.16 | 1,329.29 | 1,328.59 | 0.70 | 1,899.605 | CC, ES | |
| 300.00 | 299.98 | 282.98 | 282.98 | 0.84 | 0.31 | -112.72 | 206.41 | 1,313.16 | 1,329.96 | 1,328.81 | 1.15 | 1,151.648 | | |
| 400.00 | 399.84 | 382.84 | 382.84 | 1.19 | 0.43 | -112.89 | 206.41 | 1,313.16 | 1,331.99 | 1,330.38 | 1.61 | 826.227 | | |
| 500.00 | 499.45 | 482.45 | 482.45 | 1.55 | 0.54 | -113.17 | 206.41 | 1,313.16 | 1,335.41 | 1,333.33 | 2.08 | 640.518 | | |
| 600.00 | 598.70 | 581.70 | 581.70 | 1.93 | 0.65 | -113.56 | 206.41 | 1,313.16 | 1,340.28 | 1,337.70 | 2.57 | 520.907 | | |
| 700.00 | 697.47 | 680.47 | 680.47 | 2.33 | 0.76 | -114.04 | 206.41 | 1,313.16 | 1,346.66 | 1,343.58 | 3.08 | 437.462 | | |
| 730.58 | 727.55 | 710.55 | 710.55 | 2.46 | 0.79 | -114.21 | 206.41 | 1,313.16 | 1,348.92 | 1,345.68 | 3.24 | 416.657 | | |
| 800.00 | 795.78 | 778.78 | 778.78 | 2.75 | 0.87 | -114.70 | 206.41 | 1,313.16 | 1,354.29 | 1,350.69 | 3.60 | 376.213 | | |
| 900.00 | 894.07 | 877.07 | 877.07 | 3.18 | 0.97 | -115.39 | 206.41 | 1,313.16 | 1,362.20 | 1,358.07 | 4.13 | 330.107 | | |
| 1,000.00 | 992.36 | 975.36 | 975.36 | 3.62 | 1.08 | -116.08 | 206.41 | 1,313.16 | 1,370.30 | 1,365.65 | 4.66 | 294.240 | | |
| 1,100.00 | 1,090.65 | 1,073.65 | 1,073.65 | 4.06 | 1.19 | -116.76 | 206.41 | 1,313.16 | 1,378.61 | 1,373.42 | 5.19 | 265.636 | | |
| 1,200.00 | 1,188.94 | 1,171.94 | 1,171.94 | 4.50 | 1.30 | -117.43 | 206.41 | 1,313.16 | 1,387.11 | 1,381.39 | 5.72 | 242.345 | | |
| 1,300.00 | 1,287.23 | 1,270.23 | 1,270.23 | 4.95 | 1.41 | -118.09 | 206.41 | 1,313.16 | 1,395.81 | 1,389.55 | 6.26 | 223.044 | | |
| 1,400.00 | 1,385.52 | 1,368.52 | 1,368.52 | 5.39 | 1.52 | -118.74 | 206.41 | 1,313.16 | 1,404.69 | 1,397.89 | 6.79 | 206.808 | | |
| 1,500.00 | 1,483.81 | 1,457.71 | 1,457.71 | 5.84 | 1.70 | -119.33 | 206.51 | 1,313.38 | 1,414.01 | 1,406.62 | 7.39 | 191.348 | | |
| 1,600.00 | 1,582.10 | 1,596.61 | 1,596.59 | 6.29 | 1.99 | -120.29 | 207.82 | 1,312.43 | 1,423.05 | 1,414.92 | 8.13 | 175.023 | | |
| 1,700.00 | 1,680.39 | 1,761.41 | 1,761.02 | 6.74 | 2.35 | -121.63 | 212.50 | 1,302.89 | 1,427.80 | 1,418.85 | 8.95 | 159.519 | | |
| 1,800.00 | 1,778.68 | 1,938.67 | 1,936.63 | 7.19 | 2.80 | -123.36 | 221.92 | 1,281.09 | 1,427.27 | 1,417.44 | 9.83 | 145.151 | | |
| 1,900.00 | 1,876.97 | 2,074.70 | 2,069.99 | 7.64 | 3.24 | -124.97 | 234.31 | 1,257.38 | 1,424.07 | 1,413.42 | 10.66 | 133.648 | | |
| 2,000.00 | 1,975.26 | 2,204.49 | 2,195.69 | 8.09 | 3.76 | -126.75 | 250.45 | 1,229.43 | 1,418.85 | 1,407.31 | 11.54 | 122.984 | | |
| 2,100.00 | 2,073.55 | 2,332.83 | 2,318.51 | 8.54 | 4.37 | -128.71 | 269.58 | 1,197.49 | 1,412.41 | 1,399.92 | 12.50 | 113.015 | | |
| 2,200.00 | 2,171.84 | 2,453.89 | 2,433.18 | 8.99 | 5.03 | -130.66 | 288.40 | 1,163.58 | 1,404.38 | 1,390.87 | 13.51 | 103.959 | | |
| 2,300.00 | 2,270.13 | 2,535.81 | 2,510.47 | 9.44 | 5.49 | -132.04 | 301.92 | 1,140.03 | 1,397.31 | 1,382.94 | 14.36 | 97.288 | | |
| 2,400.00 | 2,368.42 | 2,625.30 | 2,595.07 | 9.89 | 5.96 | -133.53 | 316.46 | 1,114.74 | 1,391.73 | 1,376.48 | 15.25 | 91.278 | | |
| 2,500.00 | 2,466.71 | 2,709.00 | 2,674.30 | 10.34 | 6.41 | -134.93 | 329.92 | 1,091.37 | 1,387.56 | 1,371.44 | 16.12 | 86.098 | | |
| 2,600.00 | 2,565.00 | 2,791.63 | 2,752.79 | 10.79 | 6.85 | -136.29 | 342.91 | 1,069.02 | 1,385.10 | 1,368.12 | 16.98 | 81.563 | | |
| 2,700.00 | 2,663.29 | 2,897.64 | 2,853.50 | 11.25 | 7.45 | -138.03 | 359.50 | 1,040.40 | 1,383.80 | 1,365.80 | 18.00 | 76.878 | | |
| 2,800.00 | 2,761.58 | 2,994.78 | 2,945.49 | 11.70 | 8.02 | -139.65 | 374.77 | 1,013.20 | 1,382.88 | 1,363.88 | 19.00 | 72.790 | | |
| 2,829.42 | 2,790.50 | 3,019.30 | 2,968.74 | 11.83 | 8.16 | -140.06 | 378.55 | 1,006.35 | 1,382.80 | 1,363.53 | 19.27 | 71.759 | | |
| 2,900.00 | 2,859.87 | 3,077.84 | 3,024.14 | 12.15 | 8.51 | -141.04 | 387.94 | 989.98 | 1,383.24 | 1,363.32 | 19.92 | 69.436 | | |
| 3,000.00 | 2,958.16 | 3,172.19 | 3,113.19 | 12.60 | 9.11 | -142.66 | 403.88 | 963.16 | 1,385.00 | 1,364.05 | 20.96 | 66.083 | | |
| 3,100.00 | 3,056.45 | 3,261.91 | 3,197.48 | 13.05 | 9.72 | -144.24 | 419.85 | 936.92 | 1,387.92 | 1,365.92 | 22.00 | 63.088 | | |
| 3,200.00 | 3,154.74 | 3,342.39 | 3,272.92 | 13.51 | 10.24 | -145.68 | 434.84 | 913.21 | 1,392.48 | 1,369.51 | 22.97 | 60.624 | | |
| 3,300.00 | 3,253.03 | 3,440.59 | 3,365.15 | 13.96 | 10.86 | -147.40 | 452.98 | 884.78 | 1,398.63 | 1,374.59 | 24.04 | 58.182 | | |
| 3,400.00 | 3,351.32 | 3,525.93 | 3,445.44 | 14.41 | 11.40 | -148.87 | 468.11 | 860.13 | 1,405.65 | 1,380.64 | 25.01 | 56.199 | | |
| 3,500.00 | 3,449.61 | 3,617.76 | 3,531.85 | 14.86 | 11.98 | -150.43 | 484.72 | 833.87 | 1,414.31 | 1,388.28 | 26.03 | 54.329 | | |
| 3,600.00 | 3,547.90 | 3,711.54 | 3,620.20 | 15.32 | 12.56 | -152.00 | 501.18 | 807.07 | 1,423.85 | 1,396.80 | 27.05 | 52.639 | | |
| 3,700.00 | 3,646.19 | 3,794.77 | 3,698.77 | 15.77 | 13.08 | -153.36 | 515.53 | 783.69 | 1,434.64 | 1,406.66 | 27.98 | 51.275 | | |
| 3,800.00 | 3,744.48 | 3,881.34 | 3,780.52 | 16.22 | 13.61 | -154.75 | 530.96 | 759.72 | 1,447.17 | 1,418.25 | 28.93 | 50.029 | | |
| 3,900.00 | 3,842.77 | 3,983.92 | 3,877.64 | 16.67 | 14.24 | -156.35 | 548.47 | 731.71 | 1,460.49 | 1,430.51 | 29.98 | 48.713 | | |
| 4,000.00 | 3,941.06 | 4,088.24 | 3,976.46 | 17.13 | 14.88 | -157.93 | 565.31 | 702.86 | 1,473.93 | 1,442.89 | 31.04 | 47.487 | | |
| 4,100.00 | 4,039.35 | 4,170.78 | 4,054.68 | 17.58 | 15.39 | -159.16 | 578.34 | 679.95 | 1,488.07 | 1,456.14 | 31.93 | 46.608 | SF | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3A-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|---------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: 0.00 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | 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 | 0.08 | 140.25 | 0.19 | 140.25 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.08 | 140.25 | 0.19 | 140.25 | 139.98 | 0.28 | 508.119 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.08 | 140.25 | 0.19 | 140.25 | 139.26 | 0.99 | 141.246 | CC, ES | |
| 300.00 | 299.98 | 295.37 | 295.35 | 0.84 | 0.84 | 166.33 | 141.79 | -0.21 | 143.56 | 141.84 | 1.72 | 83.309 | | |
| 400.00 | 399.84 | 390.13 | 389.99 | 1.19 | 1.19 | 166.28 | 146.36 | -1.39 | 153.45 | 150.97 | 2.49 | 61.722 | | |
| 500.00 | 499.45 | 483.66 | 483.20 | 1.55 | 1.53 | 166.20 | 153.84 | -3.32 | 169.86 | 166.61 | 3.25 | 52.217 | | |
| 600.00 | 598.70 | 575.41 | 574.34 | 1.93 | 1.87 | 166.09 | 164.03 | -5.96 | 192.66 | 188.65 | 4.01 | 48.046 | | |
| 700.00 | 697.47 | 664.84 | 662.81 | 2.33 | 2.21 | 165.97 | 176.69 | -9.23 | 221.69 | 216.94 | 4.75 | 46.667 | | |
| 730.58 | 727.55 | 691.66 | 689.25 | 2.46 | 2.32 | 165.93 | 181.00 | -10.34 | 231.78 | 226.80 | 4.98 | 46.544 | SF | |
| 800.00 | 795.78 | 751.77 | 748.37 | 2.75 | 2.57 | 165.92 | 191.54 | -13.07 | 255.99 | 250.52 | 5.47 | 46.811 | | |
| 900.00 | 894.07 | 838.44 | 833.18 | 3.18 | 2.94 | 165.79 | 208.79 | -17.53 | 293.09 | 286.94 | 6.14 | 47.726 | | |
| 1,000.00 | 992.36 | 930.96 | 923.54 | 3.62 | 3.34 | 165.64 | 228.01 | -22.50 | 331.03 | 324.24 | 6.79 | 48.774 | | |
| 1,100.00 | 1,090.65 | 1,023.48 | 1,013.91 | 4.06 | 3.75 | 165.52 | 247.23 | -27.46 | 368.97 | 361.53 | 7.45 | 49.537 | | |
| 1,200.00 | 1,188.94 | 1,115.99 | 1,104.27 | 4.50 | 4.17 | 165.42 | 266.45 | -32.43 | 406.92 | 398.80 | 8.12 | 50.111 | | |
| 1,300.00 | 1,287.23 | 1,208.51 | 1,194.64 | 4.95 | 4.59 | 165.34 | 285.67 | -37.40 | 444.87 | 436.07 | 8.80 | 50.548 | | |
| 1,400.00 | 1,385.52 | 1,301.03 | 1,285.00 | 5.39 | 5.01 | 165.28 | 304.89 | -42.37 | 482.81 | 473.33 | 9.49 | 50.887 | | |
| 1,500.00 | 1,483.81 | 1,393.55 | 1,375.36 | 5.84 | 5.44 | 165.22 | 324.11 | -47.34 | 520.76 | 510.58 | 10.18 | 51.154 | | |
| 1,600.00 | 1,582.10 | 1,486.07 | 1,465.73 | 6.29 | 5.86 | 165.17 | 343.33 | -52.31 | 558.71 | 547.83 | 10.88 | 51.366 | | |
| 1,700.00 | 1,680.39 | 1,578.59 | 1,556.09 | 6.74 | 6.29 | 165.13 | 362.55 | -57.28 | 596.66 | 585.08 | 11.58 | 51.537 | | |
| 1,800.00 | 1,778.68 | 1,671.11 | 1,646.46 | 7.19 | 6.72 | 165.09 | 381.77 | -62.24 | 634.61 | 622.33 | 12.28 | 51.676 | | |
| 1,900.00 | 1,876.97 | 1,763.63 | 1,736.82 | 7.64 | 7.15 | 165.06 | 400.99 | -67.21 | 672.56 | 659.57 | 12.99 | 51.791 | | |
| 2,000.00 | 1,975.26 | 1,856.15 | 1,827.18 | 8.09 | 7.57 | 165.03 | 420.21 | -72.18 | 710.50 | 696.81 | 13.69 | 51.886 | | |
| 2,100.00 | 2,073.55 | 1,948.66 | 1,917.55 | 8.54 | 8.00 | 165.00 | 439.43 | -77.15 | 748.45 | 734.05 | 14.40 | 51.965 | | |
| 2,200.00 | 2,171.84 | 2,041.18 | 2,007.91 | 8.99 | 8.43 | 164.97 | 458.65 | -82.12 | 786.40 | 771.29 | 15.11 | 52.031 | | |
| 2,300.00 | 2,270.13 | 2,133.70 | 2,098.28 | 9.44 | 8.86 | 164.95 | 477.87 | -87.09 | 824.35 | 808.53 | 15.83 | 52.087 | | |
| 2,400.00 | 2,368.42 | 2,226.22 | 2,188.64 | 9.89 | 9.30 | 164.93 | 497.09 | -92.06 | 862.30 | 845.76 | 16.54 | 52.135 | | |
| 2,500.00 | 2,466.71 | 2,318.74 | 2,279.00 | 10.34 | 9.73 | 164.91 | 516.31 | -97.02 | 900.25 | 883.00 | 17.25 | 52.176 | | |
| 2,600.00 | 2,565.00 | 2,411.26 | 2,369.37 | 10.79 | 10.16 | 164.90 | 535.53 | -101.99 | 938.20 | 920.23 | 17.97 | 52.211 | | |
| 2,700.00 | 2,663.29 | 2,503.78 | 2,459.73 | 11.25 | 10.59 | 164.88 | 554.75 | -106.96 | 976.15 | 957.47 | 18.69 | 52.241 | | |
| 2,800.00 | 2,761.58 | 2,596.30 | 2,550.10 | 11.70 | 11.02 | 164.87 | 573.97 | -111.93 | 1,014.10 | 994.70 | 19.40 | 52.268 | | |
| 2,900.00 | 2,859.87 | 2,688.82 | 2,640.46 | 12.15 | 11.45 | 164.85 | 593.19 | -116.90 | 1,052.05 | 1,031.93 | 20.12 | 52.290 | | |
| 3,000.00 | 2,958.16 | 2,781.34 | 2,730.82 | 12.60 | 11.89 | 164.84 | 612.41 | -121.87 | 1,090.00 | 1,069.16 | 20.84 | 52.310 | | |
| 3,100.00 | 3,056.45 | 2,873.85 | 2,821.19 | 13.05 | 12.32 | 164.83 | 631.63 | -126.83 | 1,127.95 | 1,106.40 | 21.56 | 52.327 | | |
| 3,200.00 | 3,154.74 | 2,966.37 | 2,911.55 | 13.51 | 12.75 | 164.82 | 650.85 | -131.80 | 1,165.90 | 1,143.63 | 22.27 | 52.342 | | |
| 3,300.00 | 3,253.03 | 3,058.89 | 3,001.92 | 13.96 | 13.18 | 164.81 | 670.07 | -136.77 | 1,203.85 | 1,180.86 | 22.99 | 52.355 | | |
| 3,400.00 | 3,351.32 | 3,151.41 | 3,092.28 | 14.41 | 13.62 | 164.80 | 689.29 | -141.74 | 1,241.80 | 1,218.09 | 23.71 | 52.367 | | |
| 3,500.00 | 3,449.61 | 3,243.93 | 3,182.64 | 14.86 | 14.05 | 164.79 | 708.51 | -146.71 | 1,279.75 | 1,255.32 | 24.43 | 52.377 | | |
| 3,600.00 | 3,547.90 | 3,336.45 | 3,273.01 | 15.32 | 14.48 | 164.78 | 727.73 | -151.68 | 1,317.70 | 1,292.55 | 25.15 | 52.386 | | |
| 3,700.00 | 3,646.19 | 3,428.97 | 3,363.37 | 15.77 | 14.91 | 164.77 | 746.95 | -156.65 | 1,355.65 | 1,329.78 | 25.87 | 52.393 | | |
| 3,800.00 | 3,744.48 | 3,521.49 | 3,453.74 | 16.22 | 15.35 | 164.76 | 766.17 | -161.61 | 1,393.60 | 1,367.01 | 26.60 | 52.400 | | |
| 3,900.00 | 3,842.77 | 3,614.01 | 3,544.10 | 16.67 | 15.78 | 164.76 | 785.39 | -166.58 | 1,431.55 | 1,404.24 | 27.32 | 52.406 | | |
| 4,000.00 | 3,941.06 | 3,706.52 | 3,634.46 | 17.13 | 16.21 | 164.75 | 804.61 | -171.55 | 1,469.50 | 1,441.47 | 28.04 | 52.411 | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3B-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|---------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: 0.00 usft | |
| Reference | | | | Offset | | Semi Major Axis | | | | Distance | | | | 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 | 0.00 | 130.04 | 0.00 | 130.04 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.00 | 130.04 | 0.00 | 130.04 | 129.77 | 0.28 | 471.128 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.00 | 130.04 | 0.00 | 130.04 | 129.05 | 0.99 | 130.964 | CC, ES | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 166.44 | 130.04 | 0.00 | 131.74 | 130.04 | 1.70 | 77.630 | | |
| 400.00 | 399.84 | 395.44 | 395.42 | 1.19 | 1.20 | 166.71 | 131.57 | -0.44 | 138.42 | 136.00 | 2.42 | 57.195 | | |
| 500.00 | 499.45 | 489.97 | 489.83 | 1.55 | 1.54 | 166.86 | 136.09 | -1.75 | 151.66 | 148.48 | 3.17 | 47.801 | | |
| 600.00 | 598.70 | 583.00 | 582.54 | 1.93 | 1.88 | 166.90 | 143.46 | -3.88 | 171.33 | 167.40 | 3.93 | 43.644 | | |
| 700.00 | 697.47 | 673.97 | 672.91 | 2.33 | 2.22 | 166.84 | 153.46 | -6.76 | 197.31 | 192.64 | 4.67 | 42.266 | | |
| 730.58 | 727.55 | 700.00 | 698.70 | 2.46 | 2.31 | 166.80 | 156.83 | -7.74 | 206.48 | 201.57 | 4.91 | 42.048 | SF | |
| 800.00 | 795.78 | 762.64 | 760.63 | 2.75 | 2.56 | 166.77 | 165.85 | -10.34 | 228.63 | 223.24 | 5.39 | 42.406 | | |
| 900.00 | 894.07 | 849.47 | 846.10 | 3.18 | 2.90 | 166.58 | 180.51 | -14.57 | 262.87 | 256.78 | 6.08 | 43.201 | | |
| 1,000.00 | 992.36 | 939.25 | 934.06 | 3.62 | 3.28 | 166.30 | 197.82 | -19.57 | 299.36 | 292.62 | 6.74 | 44.390 | | |
| 1,100.00 | 1,090.65 | 1,032.24 | 1,025.12 | 4.06 | 3.67 | 166.05 | 215.97 | -24.81 | 336.11 | 328.70 | 7.41 | 45.333 | | |
| 1,200.00 | 1,188.94 | 1,125.24 | 1,116.17 | 4.50 | 4.07 | 165.85 | 234.12 | -30.05 | 372.86 | 364.77 | 8.09 | 46.088 | | |
| 1,300.00 | 1,287.23 | 1,218.23 | 1,207.23 | 4.95 | 4.48 | 165.69 | 252.27 | -35.29 | 409.62 | 400.84 | 8.77 | 46.684 | | |
| 1,400.00 | 1,385.52 | 1,311.23 | 1,298.28 | 5.39 | 4.89 | 165.55 | 270.42 | -40.53 | 446.37 | 436.91 | 9.46 | 47.163 | | |
| 1,500.00 | 1,483.81 | 1,404.22 | 1,389.34 | 5.84 | 5.31 | 165.44 | 288.57 | -45.77 | 483.13 | 472.97 | 10.16 | 47.553 | | |
| 1,600.00 | 1,582.10 | 1,497.22 | 1,480.40 | 6.29 | 5.72 | 165.34 | 306.72 | -51.01 | 519.89 | 509.03 | 10.86 | 47.876 | | |
| 1,700.00 | 1,680.39 | 1,590.21 | 1,571.45 | 6.74 | 6.14 | 165.26 | 324.87 | -56.25 | 556.65 | 545.09 | 11.56 | 48.145 | | |
| 1,800.00 | 1,778.68 | 1,683.21 | 1,662.51 | 7.19 | 6.56 | 165.18 | 343.02 | -61.49 | 593.41 | 581.14 | 12.27 | 48.373 | | |
| 1,900.00 | 1,876.97 | 1,776.20 | 1,753.56 | 7.64 | 6.97 | 165.12 | 361.17 | -66.73 | 630.17 | 617.20 | 12.98 | 48.567 | | |
| 2,000.00 | 1,975.26 | 1,869.20 | 1,844.62 | 8.09 | 7.39 | 165.06 | 379.32 | -71.97 | 666.94 | 653.25 | 13.69 | 48.734 | | |
| 2,100.00 | 2,073.55 | 1,962.19 | 1,935.68 | 8.54 | 7.82 | 165.00 | 397.47 | -77.21 | 703.70 | 689.30 | 14.40 | 48.879 | | |
| 2,200.00 | 2,171.84 | 2,055.19 | 2,026.73 | 8.99 | 8.24 | 164.96 | 415.62 | -82.45 | 740.47 | 725.36 | 15.11 | 49.005 | | |
| 2,300.00 | 2,270.13 | 2,148.18 | 2,117.79 | 9.44 | 8.66 | 164.91 | 433.77 | -87.69 | 777.23 | 761.41 | 15.82 | 49.117 | | |
| 2,400.00 | 2,368.42 | 2,241.18 | 2,208.84 | 9.89 | 9.08 | 164.87 | 451.92 | -92.93 | 813.99 | 797.46 | 16.54 | 49.215 | | |
| 2,500.00 | 2,466.71 | 2,334.17 | 2,299.90 | 10.34 | 9.50 | 164.84 | 470.07 | -98.17 | 850.76 | 833.50 | 17.26 | 49.303 | | |
| 2,600.00 | 2,565.00 | 2,427.17 | 2,390.96 | 10.79 | 9.93 | 164.81 | 488.22 | -103.41 | 887.53 | 869.55 | 17.97 | 49.382 | | |
| 2,700.00 | 2,663.29 | 2,520.16 | 2,482.01 | 11.25 | 10.35 | 164.78 | 506.38 | -108.65 | 924.29 | 905.60 | 18.69 | 49.452 | | |
| 2,800.00 | 2,761.58 | 2,613.16 | 2,573.07 | 11.70 | 10.77 | 164.75 | 524.53 | -113.89 | 961.06 | 941.65 | 19.41 | 49.516 | | |
| 2,900.00 | 2,859.87 | 2,706.15 | 2,664.12 | 12.15 | 11.20 | 164.72 | 542.68 | -119.13 | 997.82 | 977.70 | 20.13 | 49.574 | | |
| 3,000.00 | 2,958.16 | 2,799.15 | 2,755.18 | 12.60 | 11.62 | 164.70 | 560.83 | -124.37 | 1,034.59 | 1,013.74 | 20.85 | 49.626 | | |
| 3,100.00 | 3,056.45 | 2,892.14 | 2,846.24 | 13.05 | 12.05 | 164.68 | 578.98 | -129.61 | 1,071.36 | 1,049.79 | 21.57 | 49.674 | | |
| 3,200.00 | 3,154.74 | 2,985.14 | 2,937.29 | 13.51 | 12.47 | 164.65 | 597.13 | -134.85 | 1,108.12 | 1,085.83 | 22.29 | 49.718 | | |
| 3,300.00 | 3,253.03 | 3,078.14 | 3,028.35 | 13.96 | 12.90 | 164.63 | 615.28 | -140.09 | 1,144.89 | 1,121.88 | 23.01 | 49.758 | | |
| 3,400.00 | 3,351.32 | 3,171.13 | 3,119.40 | 14.41 | 13.32 | 164.62 | 633.43 | -145.33 | 1,181.66 | 1,157.93 | 23.73 | 49.795 | | |
| 3,500.00 | 3,449.61 | 3,264.13 | 3,210.46 | 14.86 | 13.74 | 164.60 | 651.58 | -150.57 | 1,218.42 | 1,193.97 | 24.45 | 49.829 | | |
| 3,600.00 | 3,547.90 | 3,357.12 | 3,301.51 | 15.32 | 14.17 | 164.58 | 669.73 | -155.81 | 1,255.19 | 1,230.02 | 25.17 | 49.860 | | |
| 3,700.00 | 3,646.19 | 3,450.12 | 3,392.57 | 15.77 | 14.59 | 164.57 | 687.88 | -161.05 | 1,291.96 | 1,266.06 | 25.90 | 49.890 | | |
| 3,800.00 | 3,744.48 | 3,543.11 | 3,483.63 | 16.22 | 15.02 | 164.55 | 706.03 | -166.29 | 1,328.72 | 1,302.10 | 26.62 | 49.917 | | |
| 3,900.00 | 3,842.77 | 3,636.11 | 3,574.68 | 16.67 | 15.45 | 164.54 | 724.18 | -171.53 | 1,365.49 | 1,338.15 | 27.34 | 49.942 | | |
| 4,000.00 | 3,941.06 | 3,729.10 | 3,665.74 | 17.13 | 15.87 | 164.53 | 742.33 | -176.77 | 1,402.26 | 1,374.19 | 28.06 | 49.966 | | |
| 4,100.00 | 4,039.35 | 3,822.10 | 3,756.79 | 17.58 | 16.30 | 164.51 | 760.48 | -182.01 | 1,439.03 | 1,410.24 | 28.79 | 49.988 | | |
| 4,200.00 | 4,137.64 | 3,915.09 | 3,847.85 | 18.03 | 16.72 | 164.50 | 778.63 | -187.25 | 1,475.79 | 1,446.28 | 29.51 | 50.009 | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 30-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | 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 | 0.04 | 120.22 | 0.08 | 120.22 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.04 | 120.22 | 0.08 | 120.22 | 119.94 | 0.28 | 435.528 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.04 | 120.22 | 0.08 | 120.22 | 119.22 | 0.99 | 121.067 CC, ES | | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 166.50 | 120.22 | 0.08 | 121.91 | 120.22 | 1.70 | 71.839 | | |
| 400.00 | 399.84 | 399.84 | 399.84 | 1.19 | 1.21 | 167.02 | 120.22 | 0.08 | 127.01 | 124.60 | 2.40 | 52.817 | | |
| 500.00 | 499.45 | 495.17 | 495.15 | 1.55 | 1.56 | 167.55 | 121.72 | -0.40 | 137.07 | 133.95 | 3.13 | 43.808 | | |
| 600.00 | 598.70 | 589.28 | 589.14 | 1.93 | 1.90 | 167.84 | 126.17 | -1.82 | 153.63 | 149.76 | 3.87 | 39.690 | | |
| 700.00 | 697.47 | 681.60 | 681.15 | 2.33 | 2.23 | 167.92 | 133.39 | -4.13 | 176.53 | 171.92 | 4.61 | 38.294 | | |
| 730.58 | 727.55 | 709.40 | 708.80 | 2.46 | 2.33 | 167.91 | 136.12 | -5.00 | 184.78 | 179.94 | 4.84 | 38.173 SF | | |
| 800.00 | 795.78 | 771.86 | 770.81 | 2.75 | 2.56 | 167.89 | 143.17 | -7.25 | 204.85 | 199.51 | 5.34 | 38.395 | | |
| 900.00 | 894.07 | 860.42 | 858.44 | 3.18 | 2.90 | 167.65 | 155.38 | -11.15 | 236.12 | 230.09 | 6.03 | 39.129 | | |
| 1,000.00 | 992.36 | 947.87 | 944.54 | 3.62 | 3.24 | 167.28 | 169.96 | -15.81 | 270.12 | 263.40 | 6.72 | 40.204 | | |
| 1,100.00 | 1,090.65 | 1,041.48 | 1,036.49 | 4.06 | 3.62 | 166.89 | 186.66 | -21.15 | 305.25 | 297.86 | 7.39 | 41.319 | | |
| 1,200.00 | 1,188.94 | 1,135.09 | 1,128.44 | 4.50 | 4.01 | 166.57 | 203.36 | -26.48 | 340.39 | 332.32 | 8.07 | 42.182 | | |
| 1,300.00 | 1,287.23 | 1,228.70 | 1,220.39 | 4.95 | 4.40 | 166.32 | 220.06 | -31.82 | 375.54 | 366.78 | 8.76 | 42.878 | | |
| 1,400.00 | 1,385.52 | 1,322.30 | 1,312.35 | 5.39 | 4.80 | 166.11 | 236.76 | -37.16 | 410.69 | 401.24 | 9.45 | 43.447 | | |
| 1,500.00 | 1,483.81 | 1,415.91 | 1,404.30 | 5.84 | 5.20 | 165.93 | 253.46 | -42.49 | 445.85 | 435.70 | 10.15 | 43.919 | | |
| 1,600.00 | 1,582.10 | 1,509.52 | 1,496.25 | 6.29 | 5.60 | 165.78 | 270.16 | -47.83 | 481.01 | 470.15 | 10.85 | 44.314 | | |
| 1,700.00 | 1,680.39 | 1,603.13 | 1,588.20 | 6.74 | 6.01 | 165.65 | 286.86 | -53.16 | 516.17 | 504.61 | 11.56 | 44.650 | | |
| 1,800.00 | 1,778.68 | 1,696.74 | 1,680.15 | 7.19 | 6.41 | 165.54 | 303.56 | -58.50 | 551.33 | 539.07 | 12.27 | 44.938 | | |
| 1,900.00 | 1,876.97 | 1,790.34 | 1,772.10 | 7.64 | 6.82 | 165.44 | 320.26 | -63.84 | 586.50 | 573.52 | 12.98 | 45.187 | | |
| 2,000.00 | 1,975.26 | 1,883.95 | 1,864.06 | 8.09 | 7.23 | 165.35 | 336.96 | -69.17 | 621.67 | 607.98 | 13.69 | 45.405 | | |
| 2,100.00 | 2,073.55 | 1,977.56 | 1,956.01 | 8.54 | 7.64 | 165.27 | 353.66 | -74.51 | 656.84 | 642.43 | 14.41 | 45.596 | | |
| 2,200.00 | 2,171.84 | 2,071.17 | 2,047.96 | 8.99 | 8.05 | 165.20 | 370.36 | -79.84 | 692.01 | 676.89 | 15.12 | 45.765 | | |
| 2,300.00 | 2,270.13 | 2,164.78 | 2,139.91 | 9.44 | 8.46 | 165.14 | 387.06 | -85.18 | 727.18 | 711.34 | 15.84 | 45.916 | | |
| 2,400.00 | 2,368.42 | 2,258.39 | 2,231.86 | 9.89 | 8.87 | 165.08 | 403.76 | -90.52 | 762.35 | 745.79 | 16.55 | 46.051 | | |
| 2,500.00 | 2,466.71 | 2,351.99 | 2,323.81 | 10.34 | 9.28 | 165.03 | 420.46 | -95.85 | 797.52 | 780.25 | 17.27 | 46.172 | | |
| 2,600.00 | 2,565.00 | 2,445.60 | 2,415.77 | 10.79 | 9.69 | 164.98 | 437.16 | -101.19 | 832.69 | 814.70 | 17.99 | 46.282 | | |
| 2,700.00 | 2,663.29 | 2,539.21 | 2,507.72 | 11.25 | 10.11 | 164.93 | 453.86 | -106.52 | 867.86 | 849.15 | 18.71 | 46.382 | | |
| 2,800.00 | 2,761.58 | 2,632.82 | 2,599.67 | 11.70 | 10.52 | 164.89 | 470.56 | -111.86 | 903.04 | 883.61 | 19.43 | 46.473 | | |
| 2,900.00 | 2,859.87 | 2,726.43 | 2,691.62 | 12.15 | 10.93 | 164.85 | 487.26 | -117.20 | 938.21 | 918.06 | 20.15 | 46.556 | | |
| 3,000.00 | 2,958.16 | 2,820.03 | 2,783.57 | 12.60 | 11.34 | 164.82 | 503.96 | -122.53 | 973.39 | 952.51 | 20.87 | 46.632 | | |
| 3,100.00 | 3,056.45 | 2,913.64 | 2,875.52 | 13.05 | 11.76 | 164.78 | 520.66 | -127.87 | 1,008.56 | 986.96 | 21.60 | 46.702 | | |
| 3,200.00 | 3,154.74 | 3,007.25 | 2,967.48 | 13.51 | 12.17 | 164.75 | 537.36 | -133.20 | 1,043.73 | 1,021.42 | 22.32 | 46.767 | | |
| 3,300.00 | 3,253.03 | 3,100.86 | 3,059.43 | 13.96 | 12.58 | 164.72 | 554.06 | -138.54 | 1,078.91 | 1,055.87 | 23.04 | 46.828 | | |
| 3,400.00 | 3,351.32 | 3,194.47 | 3,151.38 | 14.41 | 13.00 | 164.70 | 570.77 | -143.88 | 1,114.08 | 1,090.32 | 23.76 | 46.883 | | |
| 3,500.00 | 3,449.61 | 3,288.07 | 3,243.33 | 14.86 | 13.41 | 164.67 | 587.47 | -149.21 | 1,149.26 | 1,124.77 | 24.49 | 46.935 | | |
| 3,600.00 | 3,547.90 | 3,381.68 | 3,335.28 | 15.32 | 13.83 | 164.65 | 604.17 | -154.55 | 1,184.43 | 1,159.23 | 25.21 | 46.984 | | |
| 3,700.00 | 3,646.19 | 3,475.29 | 3,427.23 | 15.77 | 14.24 | 164.63 | 620.87 | -159.89 | 1,219.61 | 1,193.68 | 25.93 | 47.029 | | |
| 3,800.00 | 3,744.48 | 3,568.90 | 3,519.19 | 16.22 | 14.66 | 164.61 | 637.57 | -165.22 | 1,254.79 | 1,228.13 | 26.66 | 47.072 | | |
| 3,900.00 | 3,842.77 | 3,662.51 | 3,611.14 | 16.67 | 15.07 | 164.59 | 654.27 | -170.56 | 1,289.96 | 1,262.58 | 27.38 | 47.111 | | |
| 4,000.00 | 3,941.06 | 3,756.12 | 3,703.09 | 17.13 | 15.49 | 164.57 | 670.97 | -175.89 | 1,325.14 | 1,297.03 | 28.11 | 47.149 | | |
| 4,100.00 | 4,039.35 | 3,849.72 | 3,795.04 | 17.58 | 15.90 | 164.55 | 687.67 | -181.23 | 1,360.31 | 1,331.48 | 28.83 | 47.184 | | |
| 4,200.00 | 4,137.64 | 3,943.33 | 3,886.99 | 18.03 | 16.32 | 164.53 | 704.37 | -186.57 | 1,395.49 | 1,365.94 | 29.55 | 47.217 | | |
| 4,300.00 | 4,235.93 | 4,036.94 | 3,978.94 | 18.48 | 16.73 | 164.51 | 721.07 | -191.90 | 1,430.67 | 1,400.39 | 30.28 | 47.249 | | |
| 4,400.00 | 4,334.22 | 4,130.55 | 4,070.90 | 18.94 | 17.14 | 164.50 | 737.77 | -197.24 | 1,465.84 | 1,434.84 | 31.00 | 47.278 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3D-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | 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 | 0.09 | 110.02 | 0.17 | 110.02 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.09 | 110.02 | 0.17 | 110.02 | 109.74 | 0.28 | 398.592 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.09 | 110.02 | 0.17 | 110.02 | 109.03 | 0.99 | 110.800 CC, ES | | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 166.56 | 110.02 | 0.17 | 111.72 | 110.02 | 1.70 | 65.832 | | |
| 400.00 | 399.84 | 399.84 | 399.84 | 1.19 | 1.21 | 167.14 | 110.02 | 0.17 | 116.81 | 114.41 | 2.40 | 48.579 | | |
| 500.00 | 499.45 | 499.45 | 499.45 | 1.55 | 1.57 | 167.99 | 110.02 | 0.17 | 125.33 | 122.21 | 3.12 | 40.158 | | |
| 600.00 | 598.70 | 594.57 | 594.55 | 1.93 | 1.91 | 168.68 | 111.46 | -0.42 | 138.75 | 134.91 | 3.84 | 36.105 | | |
| 700.00 | 697.47 | 688.19 | 688.06 | 2.33 | 2.25 | 168.95 | 115.74 | -2.18 | 158.50 | 153.93 | 4.57 | 34.655 | | |
| 730.58 | 727.55 | 716.44 | 716.24 | 2.46 | 2.35 | 168.96 | 117.58 | -2.94 | 165.79 | 160.98 | 4.80 | 34.518 SF | | |
| 800.00 | 795.78 | 780.02 | 779.58 | 2.75 | 2.58 | 168.92 | 122.67 | -5.03 | 183.65 | 178.35 | 5.30 | 34.667 | | |
| 900.00 | 894.07 | 870.35 | 869.32 | 3.18 | 2.91 | 168.59 | 132.13 | -8.92 | 211.73 | 205.73 | 6.00 | 35.285 | | |
| 1,000.00 | 992.36 | 961.32 | 959.36 | 3.62 | 3.25 | 168.05 | 144.14 | -13.86 | 242.38 | 235.69 | 6.69 | 36.223 | | |
| 1,100.00 | 1,090.65 | 1,056.28 | 1,053.25 | 4.06 | 3.62 | 167.55 | 157.27 | -19.26 | 273.65 | 266.28 | 7.38 | 37.099 | | |
| 1,200.00 | 1,188.94 | 1,151.24 | 1,147.14 | 4.50 | 3.99 | 167.15 | 170.40 | -24.66 | 304.94 | 296.87 | 8.07 | 37.765 | | |
| 1,300.00 | 1,287.23 | 1,246.20 | 1,241.04 | 4.95 | 4.36 | 166.83 | 183.54 | -30.06 | 336.24 | 327.47 | 8.78 | 38.313 | | |
| 1,400.00 | 1,385.52 | 1,341.16 | 1,334.93 | 5.39 | 4.74 | 166.56 | 196.67 | -35.46 | 367.55 | 358.07 | 9.48 | 38.764 | | |
| 1,500.00 | 1,483.81 | 1,436.12 | 1,428.82 | 5.84 | 5.12 | 166.34 | 209.80 | -40.86 | 398.86 | 388.67 | 10.19 | 39.139 | | |
| 1,600.00 | 1,582.10 | 1,531.08 | 1,522.71 | 6.29 | 5.51 | 166.14 | 222.93 | -46.26 | 430.18 | 419.28 | 10.90 | 39.456 | | |
| 1,700.00 | 1,680.39 | 1,626.04 | 1,616.61 | 6.74 | 5.89 | 165.98 | 236.06 | -51.66 | 461.51 | 449.89 | 11.62 | 39.727 | | |
| 1,800.00 | 1,778.68 | 1,721.00 | 1,710.50 | 7.19 | 6.27 | 165.83 | 249.19 | -57.06 | 492.83 | 480.50 | 12.33 | 39.960 | | |
| 1,900.00 | 1,876.97 | 1,815.96 | 1,804.39 | 7.64 | 6.66 | 165.70 | 262.32 | -62.46 | 524.16 | 511.11 | 13.05 | 40.164 | | |
| 2,000.00 | 1,975.26 | 1,910.92 | 1,898.28 | 8.09 | 7.05 | 165.59 | 275.45 | -67.86 | 555.49 | 541.72 | 13.77 | 40.342 | | |
| 2,100.00 | 2,073.55 | 2,005.88 | 1,992.18 | 8.54 | 7.44 | 165.49 | 288.58 | -73.26 | 586.82 | 572.33 | 14.49 | 40.500 | | |
| 2,200.00 | 2,171.84 | 2,100.84 | 2,086.07 | 8.99 | 7.82 | 165.40 | 301.71 | -78.66 | 618.15 | 602.94 | 15.21 | 40.640 | | |
| 2,300.00 | 2,270.13 | 2,195.80 | 2,179.96 | 9.44 | 8.21 | 165.31 | 314.84 | -84.06 | 649.49 | 633.56 | 15.93 | 40.766 | | |
| 2,400.00 | 2,368.42 | 2,290.76 | 2,273.85 | 9.89 | 8.60 | 165.24 | 327.98 | -89.46 | 680.83 | 664.17 | 16.65 | 40.879 | | |
| 2,500.00 | 2,466.71 | 2,385.72 | 2,367.75 | 10.34 | 8.99 | 165.17 | 341.11 | -94.86 | 712.16 | 694.78 | 17.38 | 40.981 | | |
| 2,600.00 | 2,565.00 | 2,480.68 | 2,461.64 | 10.79 | 9.38 | 165.11 | 354.24 | -100.26 | 743.50 | 725.40 | 18.10 | 41.073 | | |
| 2,700.00 | 2,663.29 | 2,575.64 | 2,555.53 | 11.25 | 9.77 | 165.05 | 367.37 | -105.66 | 774.84 | 756.01 | 18.83 | 41.158 | | |
| 2,800.00 | 2,761.58 | 2,670.60 | 2,649.42 | 11.70 | 10.16 | 165.00 | 380.50 | -111.06 | 806.18 | 786.63 | 19.55 | 41.235 | | |
| 2,900.00 | 2,859.87 | 2,765.56 | 2,743.32 | 12.15 | 10.55 | 164.95 | 393.63 | -116.46 | 837.52 | 817.24 | 20.28 | 41.306 | | |
| 3,000.00 | 2,958.16 | 2,860.52 | 2,837.21 | 12.60 | 10.94 | 164.90 | 406.76 | -121.86 | 868.86 | 847.86 | 21.00 | 41.372 | | |
| 3,100.00 | 3,056.45 | 2,955.48 | 2,931.10 | 13.05 | 11.34 | 164.86 | 419.89 | -127.26 | 900.20 | 878.47 | 21.73 | 41.432 | | |
| 3,200.00 | 3,154.74 | 3,050.44 | 3,024.99 | 13.51 | 11.73 | 164.82 | 433.02 | -132.66 | 931.54 | 909.09 | 22.45 | 41.488 | | |
| 3,300.00 | 3,253.03 | 3,145.40 | 3,118.89 | 13.96 | 12.12 | 164.78 | 446.15 | -138.05 | 962.88 | 939.70 | 23.18 | 41.540 | | |
| 3,400.00 | 3,351.32 | 3,240.36 | 3,212.78 | 14.41 | 12.51 | 164.75 | 459.29 | -143.45 | 994.22 | 970.32 | 23.91 | 41.589 | | |
| 3,500.00 | 3,449.61 | 3,335.32 | 3,306.67 | 14.86 | 12.90 | 164.72 | 472.42 | -148.85 | 1,025.56 | 1,000.93 | 24.63 | 41.634 | | |
| 3,600.00 | 3,547.90 | 3,430.28 | 3,400.56 | 15.32 | 13.29 | 164.69 | 485.55 | -154.25 | 1,056.91 | 1,031.55 | 25.36 | 41.677 | | |
| 3,700.00 | 3,646.19 | 3,525.24 | 3,494.46 | 15.77 | 13.69 | 164.66 | 498.68 | -159.65 | 1,088.25 | 1,062.16 | 26.09 | 41.716 | | |
| 3,800.00 | 3,744.48 | 3,620.20 | 3,588.35 | 16.22 | 14.08 | 164.63 | 511.81 | -165.05 | 1,119.59 | 1,092.78 | 26.81 | 41.754 | | |
| 3,900.00 | 3,842.77 | 3,715.16 | 3,682.24 | 16.67 | 14.47 | 164.60 | 524.94 | -170.45 | 1,150.93 | 1,123.39 | 27.54 | 41.789 | | |
| 4,000.00 | 3,941.06 | 3,810.12 | 3,776.13 | 17.13 | 14.86 | 164.58 | 538.07 | -175.85 | 1,182.28 | 1,154.01 | 28.27 | 41.822 | | |
| 4,100.00 | 4,039.35 | 3,905.08 | 3,870.03 | 17.58 | 15.26 | 164.56 | 551.20 | -181.25 | 1,213.62 | 1,184.62 | 29.00 | 41.853 | | |
| 4,200.00 | 4,137.64 | 4,000.04 | 3,963.92 | 18.03 | 15.65 | 164.53 | 564.33 | -186.65 | 1,244.97 | 1,215.24 | 29.73 | 41.883 | | |
| 4,300.00 | 4,235.93 | 4,095.00 | 4,057.81 | 18.48 | 16.04 | 164.51 | 577.46 | -192.05 | 1,276.31 | 1,245.86 | 30.45 | 41.911 | | |
| 4,400.00 | 4,334.22 | 4,189.96 | 4,151.70 | 18.94 | 16.43 | 164.49 | 590.59 | -197.45 | 1,307.65 | 1,276.47 | 31.18 | 41.937 | | |
| 4,500.00 | 4,432.51 | 4,284.92 | 4,245.60 | 19.39 | 16.83 | 164.47 | 603.73 | -202.85 | 1,339.00 | 1,307.09 | 31.91 | 41.962 | | |
| 4,600.00 | 4,530.80 | 4,379.88 | 4,339.49 | 19.84 | 17.22 | 164.46 | 616.86 | -208.25 | 1,370.34 | 1,337.70 | 32.64 | 41.986 | | |
| 4,700.00 | 4,629.09 | 4,474.84 | 4,433.38 | 20.30 | 17.61 | 164.44 | 629.99 | -213.65 | 1,401.69 | 1,368.32 | 33.37 | 42.009 | | |
| 4,800.00 | 4,727.38 | 4,569.80 | 4,527.27 | 20.75 | 18.00 | 164.42 | 643.12 | -219.05 | 1,433.03 | 1,398.93 | 34.10 | 42.030 | | |
| 4,900.00 | 4,825.67 | 4,664.76 | 4,621.17 | 21.20 | 18.40 | 164.41 | 656.25 | -224.45 | 1,464.37 | 1,429.55 | 34.82 | 42.051 | | |
| 5,000.00 | 4,923.96 | 4,759.72 | 4,715.06 | 21.66 | 18.79 | 164.39 | 669.38 | -229.85 | 1,495.72 | 1,460.17 | 35.55 | 42.070 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3E-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | 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 | 0.15 | 100.19 | 0.25 | 100.19 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.15 | 100.19 | 0.25 | 100.19 | 99.91 | 0.28 | 362.962 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.15 | 100.19 | 0.25 | 100.19 | 99.19 | 0.99 | 100.896 CC, ES | | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 166.64 | 100.19 | 0.25 | 101.88 | 100.19 | 1.70 | 60.037 | | |
| 400.00 | 399.84 | 399.84 | 399.84 | 1.19 | 1.21 | 167.26 | 100.19 | 0.25 | 106.98 | 104.58 | 2.40 | 44.490 | | |
| 500.00 | 499.45 | 499.45 | 499.45 | 1.55 | 1.57 | 168.18 | 100.19 | 0.25 | 115.50 | 112.38 | 3.12 | 37.009 | | |
| 600.00 | 598.70 | 598.70 | 598.70 | 1.93 | 1.93 | 169.26 | 100.19 | 0.25 | 127.45 | 123.61 | 3.84 | 33.181 | | |
| 700.00 | 697.47 | 693.77 | 693.75 | 2.33 | 2.27 | 169.94 | 101.45 | -0.61 | 144.11 | 139.55 | 4.56 | 31.607 | | |
| 730.58 | 727.55 | 722.53 | 722.50 | 2.46 | 2.37 | 170.01 | 102.35 | -1.22 | 150.39 | 145.60 | 4.79 | 31.427 SF | | |
| 800.00 | 795.78 | 787.39 | 787.26 | 2.75 | 2.60 | 169.98 | 105.25 | -3.19 | 165.88 | 160.60 | 5.28 | 31.434 | | |
| 900.00 | 894.07 | 879.82 | 879.38 | 3.18 | 2.94 | 169.45 | 111.47 | -7.43 | 190.29 | 184.31 | 5.98 | 31.818 | | |
| 1,000.00 | 992.36 | 976.04 | 975.11 | 3.62 | 3.29 | 168.73 | 119.41 | -12.84 | 216.14 | 209.46 | 6.68 | 32.342 | | |
| 1,100.00 | 1,090.65 | 1,072.60 | 1,071.20 | 4.06 | 3.64 | 168.16 | 127.38 | -18.27 | 242.02 | 234.63 | 7.39 | 32.748 | | |
| 1,200.00 | 1,188.94 | 1,169.17 | 1,167.28 | 4.50 | 4.00 | 167.70 | 135.35 | -23.70 | 267.92 | 259.82 | 8.10 | 33.062 | | |
| 1,300.00 | 1,287.23 | 1,265.74 | 1,263.37 | 4.95 | 4.36 | 167.32 | 143.32 | -29.13 | 293.84 | 285.02 | 8.82 | 33.314 | | |
| 1,400.00 | 1,385.52 | 1,362.31 | 1,359.45 | 5.39 | 4.72 | 167.00 | 151.29 | -34.56 | 319.76 | 310.22 | 9.54 | 33.521 | | |
| 1,500.00 | 1,483.81 | 1,458.88 | 1,455.54 | 5.84 | 5.09 | 166.73 | 159.26 | -39.99 | 345.69 | 335.43 | 10.26 | 33.692 | | |
| 1,600.00 | 1,582.10 | 1,555.44 | 1,551.62 | 6.29 | 5.45 | 166.50 | 167.23 | -45.42 | 371.62 | 360.64 | 10.98 | 33.836 | | |
| 1,700.00 | 1,680.39 | 1,652.01 | 1,647.71 | 6.74 | 5.82 | 166.29 | 175.20 | -50.85 | 397.57 | 385.86 | 11.71 | 33.958 | | |
| 1,800.00 | 1,778.68 | 1,748.58 | 1,743.79 | 7.19 | 6.18 | 166.12 | 183.17 | -56.28 | 423.51 | 411.08 | 12.43 | 34.063 | | |
| 1,900.00 | 1,876.97 | 1,845.15 | 1,839.88 | 7.64 | 6.55 | 165.96 | 191.14 | -61.71 | 449.46 | 436.30 | 13.16 | 34.154 | | |
| 2,000.00 | 1,975.26 | 1,941.71 | 1,935.96 | 8.09 | 6.91 | 165.82 | 199.11 | -67.14 | 475.41 | 461.52 | 13.89 | 34.234 | | |
| 2,100.00 | 2,073.55 | 2,038.28 | 2,032.05 | 8.54 | 7.28 | 165.69 | 207.08 | -72.56 | 501.36 | 486.75 | 14.62 | 34.305 | | |
| 2,200.00 | 2,171.84 | 2,134.85 | 2,128.13 | 8.99 | 7.65 | 165.58 | 215.05 | -77.99 | 527.32 | 511.98 | 15.34 | 34.367 | | |
| 2,300.00 | 2,270.13 | 2,231.42 | 2,224.22 | 9.44 | 8.02 | 165.48 | 223.02 | -83.42 | 553.28 | 537.20 | 16.07 | 34.423 | | |
| 2,400.00 | 2,368.42 | 2,327.99 | 2,320.30 | 9.89 | 8.39 | 165.39 | 230.99 | -88.85 | 579.24 | 562.43 | 16.80 | 34.473 | | |
| 2,500.00 | 2,466.71 | 2,424.55 | 2,416.39 | 10.34 | 8.75 | 165.30 | 238.96 | -94.28 | 605.20 | 587.66 | 17.53 | 34.519 | | |
| 2,600.00 | 2,565.00 | 2,521.12 | 2,512.47 | 10.79 | 9.12 | 165.22 | 246.93 | -99.71 | 631.16 | 612.90 | 18.26 | 34.560 | | |
| 2,700.00 | 2,663.29 | 2,617.69 | 2,608.56 | 11.25 | 9.49 | 165.15 | 254.90 | -105.14 | 657.12 | 638.13 | 18.99 | 34.597 | | |
| 2,800.00 | 2,761.58 | 2,714.26 | 2,704.64 | 11.70 | 9.86 | 165.08 | 262.87 | -110.57 | 683.08 | 663.36 | 19.72 | 34.631 | | |
| 2,900.00 | 2,859.87 | 2,810.82 | 2,800.73 | 12.15 | 10.23 | 165.02 | 270.84 | -116.00 | 709.05 | 688.59 | 20.46 | 34.662 | | |
| 3,000.00 | 2,958.16 | 2,907.39 | 2,896.81 | 12.60 | 10.60 | 164.96 | 278.81 | -121.43 | 735.01 | 713.83 | 21.19 | 34.691 | | |
| 3,100.00 | 3,056.45 | 3,003.96 | 2,992.90 | 13.05 | 10.97 | 164.91 | 286.78 | -126.86 | 760.98 | 739.06 | 21.92 | 34.718 | | |
| 3,200.00 | 3,154.74 | 3,100.53 | 3,088.98 | 13.51 | 11.34 | 164.86 | 294.75 | -132.29 | 786.95 | 764.29 | 22.65 | 34.743 | | |
| 3,300.00 | 3,253.03 | 3,197.10 | 3,185.07 | 13.96 | 11.71 | 164.81 | 302.72 | -137.72 | 812.91 | 789.53 | 23.38 | 34.766 | | |
| 3,400.00 | 3,351.32 | 3,293.66 | 3,281.15 | 14.41 | 12.08 | 164.77 | 310.69 | -143.15 | 838.88 | 814.76 | 24.11 | 34.787 | | |
| 3,500.00 | 3,449.61 | 3,390.23 | 3,377.24 | 14.86 | 12.45 | 164.73 | 318.66 | -148.58 | 864.85 | 840.00 | 24.85 | 34.807 | | |
| 3,600.00 | 3,547.90 | 3,486.80 | 3,473.32 | 15.32 | 12.82 | 164.69 | 326.63 | -154.01 | 890.81 | 865.24 | 25.58 | 34.825 | | |
| 3,700.00 | 3,646.19 | 3,583.37 | 3,569.41 | 15.77 | 13.18 | 164.65 | 334.60 | -159.44 | 916.78 | 890.47 | 26.31 | 34.843 | | |
| 3,800.00 | 3,744.48 | 3,679.93 | 3,665.49 | 16.22 | 13.55 | 164.62 | 342.57 | -164.87 | 942.75 | 915.71 | 27.04 | 34.859 | | |
| 3,900.00 | 3,842.77 | 3,776.50 | 3,761.58 | 16.67 | 13.92 | 164.59 | 350.54 | -170.30 | 968.72 | 940.94 | 27.78 | 34.874 | | |
| 4,000.00 | 3,941.06 | 3,873.07 | 3,857.66 | 17.13 | 14.29 | 164.56 | 358.51 | -175.73 | 994.69 | 966.18 | 28.51 | 34.889 | | |
| 4,100.00 | 4,039.35 | 3,969.64 | 3,953.75 | 17.58 | 14.66 | 164.53 | 366.48 | -181.16 | 1,020.66 | 991.42 | 29.24 | 34.902 | | |
| 4,200.00 | 4,137.64 | 4,066.21 | 4,049.83 | 18.03 | 15.03 | 164.50 | 374.45 | -186.59 | 1,046.63 | 1,016.65 | 29.98 | 34.915 | | |
| 4,300.00 | 4,235.93 | 4,162.77 | 4,145.92 | 18.48 | 15.40 | 164.47 | 382.42 | -192.02 | 1,072.60 | 1,041.89 | 30.71 | 34.927 | | |
| 4,400.00 | 4,334.22 | 4,259.34 | 4,242.00 | 18.94 | 15.77 | 164.45 | 390.39 | -197.45 | 1,098.57 | 1,067.13 | 31.44 | 34.939 | | |
| 4,500.00 | 4,432.51 | 4,355.91 | 4,338.09 | 19.39 | 16.14 | 164.42 | 398.36 | -202.88 | 1,124.54 | 1,092.36 | 32.18 | 34.950 | | |
| 4,600.00 | 4,530.80 | 4,452.48 | 4,434.17 | 19.84 | 16.51 | 164.40 | 406.33 | -208.31 | 1,150.51 | 1,117.60 | 32.91 | 34.960 | | |
| 4,700.00 | 4,629.09 | 4,549.04 | 4,530.26 | 20.30 | 16.88 | 164.38 | 414.30 | -213.74 | 1,176.48 | 1,142.84 | 33.64 | 34.970 | | |
| 4,800.00 | 4,727.38 | 4,645.61 | 4,626.34 | 20.75 | 17.25 | 164.36 | 422.27 | -219.17 | 1,202.45 | 1,168.08 | 34.38 | 34.979 | | |
| 4,900.00 | 4,825.67 | 4,742.18 | 4,722.43 | 21.20 | 17.62 | 164.34 | 430.24 | -224.59 | 1,228.42 | 1,193.31 | 35.11 | 34.988 | | |
| 5,000.00 | 4,923.96 | 4,838.75 | 4,818.51 | 21.66 | 17.99 | 164.32 | 438.21 | -230.02 | 1,254.39 | 1,218.55 | 35.84 | 34.997 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3E-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|---------------------------|-----------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | 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 | 5,022.25 | 4,935.32 | 4,914.60 | 22.11 | 18.37 | 164.30 | 446.18 | -235.45 | 1,280.36 | 1,243.79 | 36.58 | 35.005 | | |
| 5,200.00 | 5,120.54 | 5,031.88 | 5,010.68 | 22.56 | 18.74 | 164.28 | 454.15 | -240.88 | 1,306.34 | 1,269.03 | 37.31 | 35.012 | | |
| 5,300.00 | 5,218.83 | 5,128.45 | 5,106.77 | 23.01 | 19.11 | 164.26 | 462.12 | -246.31 | 1,332.31 | 1,294.26 | 38.04 | 35.020 | | |
| 5,400.00 | 5,317.12 | 5,225.02 | 5,202.85 | 23.47 | 19.48 | 164.25 | 470.09 | -251.74 | 1,358.28 | 1,319.50 | 38.78 | 35.027 | | |
| 5,500.00 | 5,415.41 | 5,321.59 | 5,298.94 | 23.92 | 19.85 | 164.23 | 478.06 | -257.17 | 1,384.25 | 1,344.74 | 39.51 | 35.034 | | |
| 5,600.00 | 5,513.70 | 5,418.15 | 5,395.02 | 24.37 | 20.22 | 164.22 | 486.03 | -262.60 | 1,410.22 | 1,369.98 | 40.25 | 35.040 | | |
| 5,700.00 | 5,611.99 | 5,514.72 | 5,491.11 | 24.83 | 20.59 | 164.20 | 494.00 | -268.03 | 1,436.19 | 1,395.21 | 40.98 | 35.046 | | |
| 5,800.00 | 5,710.28 | 5,611.29 | 5,587.19 | 25.28 | 20.96 | 164.19 | 501.97 | -273.46 | 1,462.17 | 1,420.45 | 41.71 | 35.052 | | |
| 5,900.00 | 5,808.57 | 5,707.86 | 5,683.28 | 25.73 | 21.33 | 164.17 | 509.94 | -278.89 | 1,488.14 | 1,445.69 | 42.45 | 35.058 | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3F-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | 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) | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 89.98 | 0.06 | 89.98 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.04 | 89.98 | 0.06 | 89.98 | 89.70 | 0.28 | 325.986 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.04 | 89.98 | 0.06 | 89.98 | 88.99 | 0.99 | 90.617 CC, ES | | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 166.56 | 89.98 | 0.06 | 91.68 | 89.98 | 1.70 | 54.022 | | |
| 400.00 | 399.84 | 399.84 | 399.84 | 1.19 | 1.21 | 167.26 | 89.98 | 0.06 | 96.77 | 94.37 | 2.40 | 40.245 | | |
| 500.00 | 499.45 | 499.45 | 499.45 | 1.55 | 1.57 | 168.27 | 89.98 | 0.06 | 105.29 | 102.17 | 3.12 | 33.739 | | |
| 600.00 | 598.70 | 598.70 | 598.70 | 1.93 | 1.93 | 169.44 | 89.98 | 0.06 | 117.25 | 113.41 | 3.84 | 30.525 | | |
| 700.00 | 697.47 | 697.47 | 697.47 | 2.33 | 2.28 | 170.62 | 89.98 | 0.06 | 132.67 | 128.10 | 4.56 | 29.068 | | |
| 730.58 | 727.55 | 727.55 | 727.55 | 2.46 | 2.39 | 170.98 | 89.98 | 0.06 | 138.07 | 133.28 | 4.79 | 28.824 | | |
| 800.00 | 795.78 | 795.78 | 795.78 | 2.75 | 2.63 | 171.74 | 89.98 | 0.06 | 150.71 | 145.43 | 5.29 | 28.511 | | |
| 900.00 | 894.07 | 894.07 | 894.07 | 3.18 | 2.98 | 172.63 | 89.98 | 0.06 | 168.96 | 162.96 | 6.00 | 28.157 | | |
| 1,000.00 | 992.36 | 992.36 | 992.36 | 3.62 | 3.34 | 173.36 | 89.98 | 0.06 | 187.25 | 180.53 | 6.72 | 27.871 | | |
| 1,100.00 | 1,090.65 | 1,086.88 | 1,086.87 | 4.06 | 3.67 | 173.63 | 90.91 | -0.87 | 206.38 | 198.96 | 7.42 | 27.822 SF | | |
| 1,200.00 | 1,188.94 | 1,180.33 | 1,180.21 | 4.50 | 4.01 | 173.23 | 93.97 | -3.97 | 227.46 | 219.34 | 8.11 | 28.040 | | |
| 1,300.00 | 1,287.23 | 1,274.44 | 1,274.03 | 4.95 | 4.34 | 172.35 | 99.09 | -9.15 | 250.40 | 241.59 | 8.81 | 28.421 | | |
| 1,400.00 | 1,385.52 | 1,371.57 | 1,370.82 | 5.39 | 4.69 | 171.47 | 104.88 | -15.00 | 273.84 | 264.32 | 9.53 | 28.744 | | |
| 1,500.00 | 1,483.81 | 1,468.71 | 1,467.61 | 5.84 | 5.04 | 170.74 | 110.66 | -20.85 | 297.34 | 287.09 | 10.25 | 29.018 | | |
| 1,600.00 | 1,582.10 | 1,565.84 | 1,564.39 | 6.29 | 5.40 | 170.11 | 116.44 | -26.70 | 320.88 | 309.91 | 10.97 | 29.252 | | |
| 1,700.00 | 1,680.39 | 1,662.98 | 1,661.18 | 6.74 | 5.75 | 169.56 | 122.23 | -32.55 | 344.44 | 332.75 | 11.69 | 29.456 | | |
| 1,800.00 | 1,778.68 | 1,760.11 | 1,757.96 | 7.19 | 6.11 | 169.09 | 128.01 | -38.40 | 368.04 | 355.62 | 12.42 | 29.633 | | |
| 1,900.00 | 1,876.97 | 1,857.25 | 1,854.75 | 7.64 | 6.47 | 168.67 | 133.80 | -44.25 | 391.65 | 378.50 | 13.15 | 29.790 | | |
| 2,000.00 | 1,975.26 | 1,954.38 | 1,951.54 | 8.09 | 6.83 | 168.30 | 139.58 | -50.10 | 415.28 | 401.41 | 13.88 | 29.929 | | |
| 2,100.00 | 2,073.55 | 2,051.52 | 2,048.32 | 8.54 | 7.19 | 167.98 | 145.36 | -55.95 | 438.93 | 424.32 | 14.61 | 30.052 | | |
| 2,200.00 | 2,171.84 | 2,148.65 | 2,145.11 | 8.99 | 7.55 | 167.68 | 151.15 | -61.80 | 462.59 | 447.25 | 15.34 | 30.164 | | |
| 2,300.00 | 2,270.13 | 2,245.79 | 2,241.89 | 9.44 | 7.91 | 167.41 | 156.93 | -67.65 | 486.26 | 470.19 | 16.07 | 30.264 | | |
| 2,400.00 | 2,368.42 | 2,342.92 | 2,338.68 | 9.89 | 8.27 | 167.17 | 162.71 | -73.50 | 509.93 | 493.14 | 16.80 | 30.355 | | |
| 2,500.00 | 2,466.71 | 2,440.06 | 2,435.47 | 10.34 | 8.63 | 166.95 | 168.50 | -79.35 | 533.62 | 516.09 | 17.53 | 30.438 | | |
| 2,600.00 | 2,565.00 | 2,537.19 | 2,532.25 | 10.79 | 8.99 | 166.75 | 174.28 | -85.20 | 557.31 | 539.05 | 18.26 | 30.514 | | |
| 2,700.00 | 2,663.29 | 2,634.33 | 2,629.04 | 11.25 | 9.36 | 166.56 | 180.06 | -91.04 | 581.01 | 562.01 | 19.00 | 30.583 | | |
| 2,800.00 | 2,761.58 | 2,731.46 | 2,725.82 | 11.70 | 9.72 | 166.39 | 185.85 | -96.89 | 604.72 | 584.98 | 19.73 | 30.648 | | |
| 2,900.00 | 2,859.87 | 2,828.60 | 2,822.61 | 12.15 | 10.08 | 166.23 | 191.63 | -102.74 | 628.42 | 607.96 | 20.47 | 30.707 | | |
| 3,000.00 | 2,958.16 | 2,925.73 | 2,919.39 | 12.60 | 10.44 | 166.09 | 197.41 | -108.59 | 652.14 | 630.94 | 21.20 | 30.762 | | |
| 3,100.00 | 3,056.45 | 3,022.87 | 3,016.18 | 13.05 | 10.81 | 165.95 | 203.20 | -114.44 | 675.85 | 653.92 | 21.93 | 30.812 | | |
| 3,200.00 | 3,154.74 | 3,120.00 | 3,112.97 | 13.51 | 11.17 | 165.82 | 208.98 | -120.29 | 699.57 | 676.90 | 22.67 | 30.860 | | |
| 3,300.00 | 3,253.03 | 3,217.14 | 3,209.75 | 13.96 | 11.54 | 165.70 | 214.77 | -126.14 | 723.30 | 699.89 | 23.40 | 30.904 | | |
| 3,400.00 | 3,351.32 | 3,314.27 | 3,306.54 | 14.41 | 11.90 | 165.59 | 220.55 | -131.99 | 747.02 | 722.88 | 24.14 | 30.946 | | |
| 3,500.00 | 3,449.61 | 3,411.40 | 3,403.32 | 14.86 | 12.26 | 165.49 | 226.33 | -137.84 | 770.75 | 745.87 | 24.88 | 30.984 | | |
| 3,600.00 | 3,547.90 | 3,508.54 | 3,500.11 | 15.32 | 12.63 | 165.39 | 232.12 | -143.69 | 794.48 | 768.87 | 25.61 | 31.021 | | |
| 3,700.00 | 3,646.19 | 3,605.67 | 3,596.90 | 15.77 | 12.99 | 165.30 | 237.90 | -149.54 | 818.21 | 791.87 | 26.35 | 31.055 | | |
| 3,800.00 | 3,744.48 | 3,702.81 | 3,693.68 | 16.22 | 13.36 | 165.21 | 243.68 | -155.39 | 841.95 | 814.86 | 27.08 | 31.088 | | |
| 3,900.00 | 3,842.77 | 3,799.94 | 3,790.47 | 16.67 | 13.72 | 165.13 | 249.47 | -161.24 | 865.68 | 837.86 | 27.82 | 31.118 | | |
| 4,000.00 | 3,941.06 | 3,897.08 | 3,887.25 | 17.13 | 14.09 | 165.05 | 255.25 | -167.09 | 889.42 | 860.87 | 28.56 | 31.147 | | |
| 4,100.00 | 4,039.35 | 3,994.21 | 3,984.04 | 17.58 | 14.45 | 164.98 | 261.03 | -172.94 | 913.16 | 883.87 | 29.29 | 31.174 | | |
| 4,200.00 | 4,137.64 | 4,091.35 | 4,080.83 | 18.03 | 14.81 | 164.91 | 266.82 | -178.78 | 936.90 | 906.87 | 30.03 | 31.200 | | |
| 4,300.00 | 4,235.93 | 4,188.48 | 4,177.61 | 18.48 | 15.18 | 164.84 | 272.60 | -184.63 | 960.64 | 929.88 | 30.77 | 31.225 | | |
| 4,400.00 | 4,334.22 | 4,285.62 | 4,274.40 | 18.94 | 15.54 | 164.78 | 278.39 | -190.48 | 984.39 | 952.88 | 31.50 | 31.248 | | |
| 4,500.00 | 4,432.51 | 4,382.75 | 4,371.18 | 19.39 | 15.91 | 164.71 | 284.17 | -196.33 | 1,008.13 | 975.89 | 32.24 | 31.271 | | |
| 4,600.00 | 4,530.80 | 4,479.89 | 4,467.97 | 19.84 | 16.27 | 164.66 | 289.95 | -202.18 | 1,031.88 | 998.90 | 32.98 | 31.292 | | |
| 4,700.00 | 4,629.09 | 4,577.02 | 4,564.75 | 20.30 | 16.64 | 164.60 | 295.74 | -208.03 | 1,055.62 | 1,021.91 | 33.71 | 31.312 | | |
| 4,800.00 | 4,727.38 | 4,674.16 | 4,661.54 | 20.75 | 17.00 | 164.55 | 301.52 | -213.88 | 1,079.37 | 1,044.92 | 34.45 | 31.332 | | |
| 4,900.00 | 4,825.67 | 4,771.29 | 4,758.33 | 21.20 | 17.37 | 164.50 | 307.30 | -219.73 | 1,103.12 | 1,067.93 | 35.19 | 31.350 | | |
| 5,000.00 | 4,923.96 | 4,868.43 | 4,855.11 | 21.66 | 17.74 | 164.45 | 313.09 | -225.58 | 1,126.86 | 1,090.94 | 35.92 | 31.368 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3F-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|--|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: 0.00 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | 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 | 5,022.25 | 4,965.56 | 4,951.90 | 22.11 | 18.10 | 164.40 | 318.87 | -231.43 | 1,150.61 | 1,113.95 | 36.66 | 31.385 | | |
| 5,200.00 | 5,120.54 | 5,062.70 | 5,048.68 | 22.56 | 18.47 | 164.36 | 324.65 | -237.28 | 1,174.36 | 1,136.97 | 37.40 | 31.401 | | |
| 5,300.00 | 5,218.83 | 5,159.83 | 5,145.47 | 23.01 | 18.83 | 164.32 | 330.44 | -243.13 | 1,198.11 | 1,159.98 | 38.14 | 31.416 | | |
| 5,400.00 | 5,317.12 | 5,256.97 | 5,242.26 | 23.47 | 19.20 | 164.28 | 336.22 | -248.98 | 1,221.87 | 1,182.99 | 38.87 | 31.431 | | |
| 5,500.00 | 5,415.41 | 5,354.10 | 5,339.04 | 23.92 | 19.56 | 164.24 | 342.00 | -254.83 | 1,245.62 | 1,206.01 | 39.61 | 31.446 | | |
| 5,600.00 | 5,513.70 | 5,451.24 | 5,435.83 | 24.37 | 19.93 | 164.20 | 347.79 | -260.68 | 1,269.37 | 1,229.02 | 40.35 | 31.459 | | |
| 5,700.00 | 5,611.99 | 5,548.37 | 5,532.61 | 24.83 | 20.29 | 164.16 | 353.57 | -266.52 | 1,293.12 | 1,252.04 | 41.09 | 31.473 | | |
| 5,800.00 | 5,710.28 | 5,645.51 | 5,629.40 | 25.28 | 20.66 | 164.13 | 359.36 | -272.37 | 1,316.88 | 1,275.05 | 41.83 | 31.485 | | |
| 5,900.00 | 5,808.57 | 5,742.64 | 5,726.19 | 25.73 | 21.02 | 164.09 | 365.14 | -278.22 | 1,340.63 | 1,298.07 | 42.56 | 31.498 | | |
| 6,000.00 | 5,906.86 | 5,874.52 | 5,857.72 | 26.19 | 21.51 | 164.10 | 371.75 | -284.91 | 1,363.55 | 1,320.00 | 43.54 | 31.314 | | |
| 6,100.00 | 6,005.15 | 6,022.00 | 6,005.15 | 26.64 | 22.03 | 164.31 | 374.24 | -287.43 | 1,382.97 | 1,338.40 | 44.57 | 31.031 | | |
| 6,200.00 | 6,103.44 | 6,120.29 | 6,103.44 | 27.09 | 22.37 | 164.51 | 374.24 | -287.43 | 1,400.73 | 1,355.44 | 45.28 | 30.932 | | |
| 6,300.00 | 6,201.72 | 6,218.58 | 6,201.72 | 27.54 | 22.71 | 164.71 | 374.24 | -287.43 | 1,418.50 | 1,372.50 | 46.00 | 30.837 | | |
| 6,400.00 | 6,300.01 | 6,316.87 | 6,300.01 | 28.00 | 23.05 | 164.91 | 374.24 | -287.43 | 1,436.30 | 1,389.58 | 46.72 | 30.744 | | |
| 6,500.00 | 6,398.30 | 6,415.16 | 6,398.30 | 28.45 | 23.39 | 165.10 | 374.24 | -287.43 | 1,454.10 | 1,406.67 | 47.44 | 30.654 | | |
| 6,600.00 | 6,496.59 | 6,513.45 | 6,496.59 | 28.90 | 23.73 | 165.28 | 374.24 | -287.43 | 1,471.93 | 1,423.77 | 48.15 | 30.568 | | |
| 6,708.50 | 6,603.24 | 6,620.10 | 6,603.24 | 29.40 | 24.09 | 165.47 | 374.24 | -287.43 | 1,491.28 | 1,442.35 | 48.93 | 30.477 | | |
| 6,750.00 | 6,644.06 | 6,660.92 | 6,644.06 | 29.58 | 24.23 | -175.91 | 374.24 | -287.43 | 1,498.69 | 1,449.46 | 49.23 | 30.444 | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3G-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | 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 | 0.11 | 80.15 | 0.15 | 80.15 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.11 | 80.15 | 0.15 | 80.15 | 79.87 | 0.28 | 290.370 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.11 | 80.15 | 0.15 | 80.15 | 79.16 | 0.99 | 80.717 CC, ES | | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 166.66 | 80.15 | 0.15 | 81.85 | 80.15 | 1.70 | 48.230 | | |
| 400.00 | 399.84 | 399.84 | 399.84 | 1.19 | 1.21 | 167.43 | 80.15 | 0.15 | 86.95 | 84.54 | 2.40 | 36.158 | | |
| 500.00 | 499.45 | 499.45 | 499.45 | 1.55 | 1.57 | 168.53 | 80.15 | 0.15 | 95.47 | 92.35 | 3.12 | 30.592 | | |
| 600.00 | 598.70 | 598.70 | 598.70 | 1.93 | 1.93 | 169.78 | 80.15 | 0.15 | 107.45 | 103.60 | 3.84 | 27.972 | | |
| 700.00 | 697.47 | 697.47 | 697.47 | 2.33 | 2.28 | 171.03 | 80.15 | 0.15 | 122.88 | 118.31 | 4.56 | 26.923 | | |
| 730.58 | 727.55 | 727.55 | 727.55 | 2.46 | 2.39 | 171.39 | 80.15 | 0.15 | 128.28 | 123.49 | 4.79 | 26.782 | | |
| 800.00 | 795.78 | 795.78 | 795.78 | 2.75 | 2.63 | 172.17 | 80.15 | 0.15 | 140.94 | 135.66 | 5.29 | 26.664 | | |
| 900.00 | 894.07 | 895.49 | 895.47 | 3.18 | 2.98 | 172.52 | 79.90 | -1.42 | 158.79 | 152.79 | 6.00 | 26.472 | | |
| 1,000.00 | 992.36 | 994.69 | 994.56 | 3.62 | 3.32 | 171.86 | 79.20 | -5.90 | 175.87 | 169.17 | 6.71 | 26.217 | | |
| 1,100.00 | 1,090.65 | 1,093.21 | 1,092.96 | 4.06 | 3.66 | 171.22 | 78.44 | -10.70 | 192.89 | 185.47 | 7.42 | 25.991 | | |
| 1,200.00 | 1,188.94 | 1,191.73 | 1,191.36 | 4.50 | 4.01 | 170.68 | 77.69 | -15.51 | 209.93 | 201.79 | 8.14 | 25.792 | | |
| 1,300.00 | 1,287.23 | 1,290.25 | 1,289.76 | 4.95 | 4.36 | 170.22 | 76.93 | -20.31 | 226.98 | 218.12 | 8.86 | 25.616 | | |
| 1,400.00 | 1,385.52 | 1,388.77 | 1,388.16 | 5.39 | 4.71 | 169.83 | 76.17 | -25.11 | 244.04 | 234.46 | 9.59 | 25.460 | | |
| 1,500.00 | 1,483.81 | 1,487.29 | 1,486.56 | 5.84 | 5.06 | 169.48 | 75.42 | -29.92 | 261.12 | 250.81 | 10.31 | 25.321 | | |
| 1,600.00 | 1,582.10 | 1,585.81 | 1,584.96 | 6.29 | 5.41 | 169.18 | 74.66 | -34.72 | 278.20 | 267.16 | 11.04 | 25.196 | | |
| 1,700.00 | 1,680.39 | 1,684.33 | 1,683.36 | 6.74 | 5.77 | 168.92 | 73.91 | -39.53 | 295.29 | 283.52 | 11.77 | 25.084 | | |
| 1,800.00 | 1,778.68 | 1,782.85 | 1,781.77 | 7.19 | 6.12 | 168.68 | 73.15 | -44.33 | 312.38 | 299.88 | 12.50 | 24.984 | | |
| 1,900.00 | 1,876.97 | 1,881.37 | 1,880.17 | 7.64 | 6.48 | 168.47 | 72.40 | -49.13 | 329.48 | 316.24 | 13.24 | 24.892 | | |
| 2,000.00 | 1,975.26 | 1,979.89 | 1,978.57 | 8.09 | 6.83 | 168.27 | 71.64 | -53.94 | 346.58 | 332.61 | 13.97 | 24.809 | | |
| 2,100.00 | 2,073.55 | 2,078.41 | 2,076.97 | 8.54 | 7.19 | 168.10 | 70.88 | -58.74 | 363.69 | 348.98 | 14.70 | 24.733 | | |
| 2,200.00 | 2,171.84 | 2,176.93 | 2,175.37 | 8.99 | 7.55 | 167.94 | 70.13 | -63.55 | 380.80 | 365.36 | 15.44 | 24.663 | | |
| 2,300.00 | 2,270.13 | 2,275.45 | 2,273.77 | 9.44 | 7.90 | 167.80 | 69.37 | -68.35 | 397.91 | 381.73 | 16.18 | 24.599 | | |
| 2,400.00 | 2,368.42 | 2,373.97 | 2,372.17 | 9.89 | 8.26 | 167.67 | 68.62 | -73.15 | 415.02 | 398.11 | 16.91 | 24.540 | | |
| 2,500.00 | 2,466.71 | 2,472.49 | 2,470.57 | 10.34 | 8.62 | 167.54 | 67.86 | -77.96 | 432.14 | 414.49 | 17.65 | 24.485 | | |
| 2,600.00 | 2,565.00 | 2,571.01 | 2,568.97 | 10.79 | 8.98 | 167.43 | 67.11 | -82.76 | 449.26 | 430.87 | 18.39 | 24.435 | | |
| 2,700.00 | 2,663.29 | 2,669.53 | 2,667.37 | 11.25 | 9.34 | 167.33 | 66.35 | -87.57 | 466.38 | 447.25 | 19.12 | 24.387 | | |
| 2,800.00 | 2,761.58 | 2,768.05 | 2,765.77 | 11.70 | 9.69 | 167.23 | 65.59 | -92.37 | 483.50 | 463.64 | 19.86 | 24.343 | | |
| 2,900.00 | 2,859.87 | 2,866.57 | 2,864.17 | 12.15 | 10.05 | 167.14 | 64.84 | -97.18 | 500.62 | 480.02 | 20.60 | 24.302 | | |
| 3,000.00 | 2,958.16 | 2,965.09 | 2,962.57 | 12.60 | 10.41 | 167.05 | 64.08 | -101.98 | 517.74 | 496.40 | 21.34 | 24.264 | | |
| 3,100.00 | 3,056.45 | 3,063.61 | 3,060.97 | 13.05 | 10.77 | 166.98 | 63.33 | -106.78 | 534.87 | 512.79 | 22.08 | 24.228 | | |
| 3,200.00 | 3,154.74 | 3,162.13 | 3,159.37 | 13.51 | 11.13 | 166.90 | 62.57 | -111.59 | 551.99 | 529.17 | 22.82 | 24.194 | | |
| 3,300.00 | 3,253.03 | 3,260.65 | 3,257.77 | 13.96 | 11.49 | 166.83 | 61.81 | -116.39 | 569.12 | 545.56 | 23.55 | 24.162 | | |
| 3,400.00 | 3,351.32 | 3,359.17 | 3,356.17 | 14.41 | 11.85 | 166.77 | 61.06 | -121.20 | 586.24 | 561.95 | 24.29 | 24.131 | | |
| 3,500.00 | 3,449.61 | 3,457.69 | 3,454.57 | 14.86 | 12.21 | 166.70 | 60.30 | -126.00 | 603.37 | 578.34 | 25.03 | 24.103 | | |
| 3,600.00 | 3,547.90 | 3,556.21 | 3,552.97 | 15.32 | 12.57 | 166.65 | 59.55 | -130.80 | 620.50 | 594.72 | 25.77 | 24.076 | | |
| 3,700.00 | 3,646.19 | 3,654.74 | 3,651.37 | 15.77 | 12.93 | 166.59 | 58.79 | -135.61 | 637.63 | 611.11 | 26.51 | 24.050 | | |
| 3,800.00 | 3,744.48 | 3,753.26 | 3,749.77 | 16.22 | 13.29 | 166.54 | 58.04 | -140.41 | 654.75 | 627.50 | 27.25 | 24.026 | | |
| 3,900.00 | 3,842.77 | 3,851.78 | 3,848.17 | 16.67 | 13.65 | 166.49 | 57.28 | -145.22 | 671.88 | 643.89 | 27.99 | 24.003 | | |
| 4,000.00 | 3,941.06 | 3,950.30 | 3,946.57 | 17.13 | 14.01 | 166.44 | 56.52 | -150.02 | 689.01 | 660.28 | 28.73 | 23.981 | | |
| 4,100.00 | 4,039.35 | 4,048.82 | 4,044.97 | 17.58 | 14.37 | 166.40 | 55.77 | -154.83 | 706.14 | 676.67 | 29.47 | 23.960 | | |
| 4,200.00 | 4,137.64 | 4,147.34 | 4,143.37 | 18.03 | 14.73 | 166.35 | 55.01 | -159.63 | 723.27 | 693.06 | 30.21 | 23.940 | | |
| 4,300.00 | 4,235.93 | 4,245.86 | 4,241.77 | 18.48 | 15.09 | 166.31 | 54.26 | -164.43 | 740.41 | 709.45 | 30.95 | 23.921 | | |
| 4,400.00 | 4,334.22 | 4,344.38 | 4,340.17 | 18.94 | 15.45 | 166.27 | 53.50 | -169.24 | 757.54 | 725.84 | 31.69 | 23.902 | | |
| 4,500.00 | 4,432.51 | 4,442.90 | 4,438.57 | 19.39 | 15.81 | 166.24 | 52.75 | -174.04 | 774.67 | 742.24 | 32.43 | 23.885 | | |
| 4,600.00 | 4,530.80 | 4,541.42 | 4,536.97 | 19.84 | 16.17 | 166.20 | 51.99 | -178.85 | 791.80 | 758.63 | 33.17 | 23.868 | | |
| 4,700.00 | 4,629.09 | 4,639.94 | 4,635.37 | 20.30 | 16.53 | 166.17 | 51.23 | -183.65 | 808.93 | 775.02 | 33.91 | 23.852 | | |
| 4,800.00 | 4,727.38 | 4,738.46 | 4,733.77 | 20.75 | 16.89 | 166.13 | 50.48 | -188.45 | 826.07 | 791.41 | 34.66 | 23.837 | | |
| 4,900.00 | 4,825.67 | 4,836.98 | 4,832.17 | 21.20 | 17.25 | 166.10 | 49.72 | -193.26 | 843.20 | 807.80 | 35.40 | 23.822 | | |
| 5,000.00 | 4,923.96 | 4,935.50 | 4,930.57 | 21.66 | 17.61 | 166.07 | 48.97 | -198.06 | 860.33 | 824.20 | 36.14 | 23.808 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3G-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|--|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: 0.00 usft | |
| Reference | | | | Offset | | Semi Major Axis | | | Distance | | | | 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 | 5,022.25 | 5,034.02 | 5,028.97 | 22.11 | 17.97 | 166.04 | 48.21 | -202.87 | 877.47 | 840.59 | 36.88 | 23.794 | | |
| 5,200.00 | 5,120.54 | 5,132.54 | 5,127.37 | 22.56 | 18.33 | 166.01 | 47.45 | -207.67 | 894.60 | 856.98 | 37.62 | 23.781 | | |
| 5,300.00 | 5,218.83 | 5,231.06 | 5,225.77 | 23.01 | 18.69 | 165.99 | 46.70 | -212.47 | 911.73 | 873.37 | 38.36 | 23.768 | | |
| 5,400.00 | 5,317.12 | 5,329.58 | 5,324.17 | 23.47 | 19.05 | 165.96 | 45.94 | -217.28 | 928.87 | 889.77 | 39.10 | 23.756 | | |
| 5,500.00 | 5,415.41 | 5,428.10 | 5,422.57 | 23.92 | 19.41 | 165.94 | 45.19 | -222.08 | 946.00 | 906.16 | 39.84 | 23.744 | | |
| 5,600.00 | 5,513.70 | 5,526.62 | 5,520.97 | 24.37 | 19.77 | 165.91 | 44.43 | -226.89 | 963.14 | 922.55 | 40.58 | 23.733 | | |
| 5,700.00 | 5,611.99 | 5,625.14 | 5,619.37 | 24.83 | 20.13 | 165.89 | 43.68 | -231.69 | 980.27 | 938.95 | 41.32 | 23.722 | | |
| 5,800.00 | 5,710.28 | 5,723.66 | 5,717.78 | 25.28 | 20.49 | 165.87 | 42.92 | -236.50 | 997.40 | 955.34 | 42.06 | 23.711 | | |
| 5,900.00 | 5,808.57 | 5,822.18 | 5,816.18 | 25.73 | 20.85 | 165.85 | 42.16 | -241.30 | 1,014.54 | 971.73 | 42.81 | 23.701 | | |
| 6,000.00 | 5,906.86 | 5,920.70 | 5,914.58 | 26.19 | 21.21 | 165.83 | 41.41 | -246.10 | 1,031.67 | 988.13 | 43.55 | 23.691 | | |
| 6,100.00 | 6,005.15 | 6,019.22 | 6,012.98 | 26.64 | 21.57 | 165.81 | 40.65 | -250.91 | 1,048.81 | 1,004.52 | 44.29 | 23.681 | | |
| 6,200.00 | 6,103.44 | 6,117.74 | 6,111.38 | 27.09 | 21.93 | 165.79 | 39.90 | -255.71 | 1,065.94 | 1,020.91 | 45.03 | 23.672 | | |
| 6,300.00 | 6,201.72 | 6,216.26 | 6,209.78 | 27.54 | 22.29 | 165.77 | 39.14 | -260.52 | 1,083.08 | 1,037.31 | 45.77 | 23.663 | | |
| 6,400.00 | 6,300.01 | 6,314.78 | 6,308.18 | 28.00 | 22.65 | 165.75 | 38.39 | -265.32 | 1,100.21 | 1,053.70 | 46.51 | 23.654 | | |
| 6,500.00 | 6,398.30 | 6,413.31 | 6,406.58 | 28.45 | 23.01 | 165.73 | 37.63 | -270.12 | 1,117.35 | 1,070.10 | 47.25 | 23.646 | | |
| 6,600.00 | 6,496.59 | 6,511.83 | 6,504.98 | 28.90 | 23.37 | 165.71 | 36.87 | -274.93 | 1,134.49 | 1,086.49 | 48.00 | 23.637 | | |
| 6,708.50 | 6,603.24 | 6,617.60 | 6,610.64 | 29.40 | 23.75 | 165.71 | 36.07 | -279.75 | 1,153.09 | 1,104.30 | 48.79 | 23.635 | | |
| 6,750.00 | 6,644.06 | 6,656.43 | 6,649.46 | 29.58 | 23.88 | -175.67 | 35.86 | -279.40 | 1,160.28 | 1,111.21 | 49.06 | 23.649 | | |
| 6,800.00 | 6,693.19 | 6,703.13 | 6,696.04 | 29.79 | 24.03 | -154.48 | 35.71 | -276.20 | 1,169.01 | 1,119.63 | 49.37 | 23.677 | | |
| 6,850.00 | 6,742.04 | 6,750.00 | 6,742.48 | 29.99 | 24.17 | -138.24 | 35.68 | -269.95 | 1,177.78 | 1,128.11 | 49.67 | 23.711 | | |
| 6,900.00 | 6,790.37 | 6,796.35 | 6,787.91 | 30.17 | 24.31 | -126.88 | 35.76 | -260.79 | 1,186.54 | 1,136.59 | 49.95 | 23.754 | | |
| 6,950.00 | 6,837.94 | 6,842.91 | 6,832.86 | 30.34 | 24.44 | -118.91 | 35.95 | -248.66 | 1,195.25 | 1,145.03 | 50.22 | 23.800 | | |
| 7,000.00 | 6,884.53 | 6,889.47 | 6,876.92 | 30.50 | 24.57 | -113.12 | 36.27 | -233.63 | 1,203.88 | 1,153.40 | 50.48 | 23.848 | | |
| 7,050.00 | 6,929.90 | 6,936.06 | 6,919.93 | 30.65 | 24.70 | -108.76 | 36.69 | -215.77 | 1,212.37 | 1,161.63 | 50.74 | 23.894 | | |
| 7,100.00 | 6,973.84 | 6,982.68 | 6,961.72 | 30.79 | 24.83 | -105.35 | 37.23 | -195.13 | 1,220.69 | 1,169.69 | 51.00 | 23.936 | | |
| 7,150.00 | 7,016.13 | 7,029.38 | 7,002.15 | 30.91 | 24.97 | -102.60 | 37.87 | -171.78 | 1,228.79 | 1,177.53 | 51.26 | 23.970 | | |
| 7,200.00 | 7,056.56 | 7,076.16 | 7,041.03 | 31.02 | 25.12 | -100.35 | 38.63 | -145.79 | 1,236.64 | 1,185.09 | 51.55 | 23.988 | | |
| 7,250.00 | 7,094.94 | 7,123.05 | 7,078.22 | 31.13 | 25.28 | -98.47 | 39.49 | -117.27 | 1,244.21 | 1,192.34 | 51.87 | 23.987 | | |
| 7,300.00 | 7,131.08 | 7,170.06 | 7,113.55 | 31.22 | 25.46 | -96.88 | 40.46 | -86.28 | 1,251.45 | 1,199.21 | 52.24 | 23.958 | | |
| 7,350.00 | 7,164.81 | 7,217.21 | 7,146.87 | 31.31 | 25.67 | -95.53 | 41.52 | -52.94 | 1,258.32 | 1,205.66 | 52.66 | 23.895 | | |
| 7,400.00 | 7,195.95 | 7,264.52 | 7,178.02 | 31.39 | 25.92 | -94.37 | 42.69 | -17.37 | 1,264.81 | 1,211.65 | 53.16 | 23.790 | | |
| 7,450.00 | 7,224.37 | 7,312.00 | 7,206.86 | 31.46 | 26.21 | -93.38 | 43.95 | 20.32 | 1,270.87 | 1,217.11 | 53.76 | 23.639 | | |
| 7,500.00 | 7,249.91 | 7,359.67 | 7,233.22 | 31.53 | 26.55 | -92.55 | 45.29 | 59.99 | 1,276.49 | 1,222.02 | 54.47 | 23.435 | | |
| 7,550.00 | 7,272.46 | 7,407.52 | 7,256.98 | 31.61 | 26.95 | -91.84 | 46.72 | 101.50 | 1,281.62 | 1,226.33 | 55.30 | 23.176 | | |
| 7,600.00 | 7,291.91 | 7,455.58 | 7,278.00 | 31.69 | 27.42 | -91.26 | 48.23 | 144.68 | 1,286.26 | 1,230.00 | 56.26 | 22.862 | | |
| 7,650.00 | 7,308.16 | 7,503.85 | 7,296.14 | 31.81 | 27.95 | -90.79 | 49.82 | 189.37 | 1,290.37 | 1,233.01 | 57.37 | 22.494 | | |
| 7,700.00 | 7,321.13 | 7,552.32 | 7,311.30 | 31.99 | 28.56 | -90.43 | 51.47 | 235.38 | 1,293.94 | 1,235.33 | 58.61 | 22.077 | | |
| 7,750.00 | 7,330.76 | 7,601.02 | 7,323.34 | 32.29 | 29.23 | -90.17 | 53.18 | 282.52 | 1,296.95 | 1,236.96 | 60.00 | 21.617 | | |
| 7,800.00 | 7,337.00 | 7,650.00 | 7,332.20 | 32.75 | 29.97 | -90.01 | 54.95 | 330.65 | 1,299.39 | 1,237.88 | 61.51 | 21.124 | | |
| 7,850.00 | 7,339.82 | 7,699.05 | 7,337.75 | 33.38 | 30.77 | -89.95 | 56.76 | 379.34 | 1,301.24 | 1,238.10 | 63.14 | 20.608 | | |
| 7,866.12 | 7,340.00 | 7,714.93 | 7,338.84 | 33.62 | 31.04 | -89.95 | 57.35 | 395.17 | 1,301.71 | 1,238.01 | 63.70 | 20.436 | | |
| 7,900.00 | 7,340.00 | 7,748.40 | 7,339.96 | 34.14 | 31.62 | -90.00 | 58.61 | 428.60 | 1,302.64 | 1,237.76 | 64.88 | 20.079 | | |
| 8,000.00 | 7,340.00 | 7,848.28 | 7,340.00 | 35.92 | 33.52 | -90.00 | 62.39 | 528.41 | 1,305.40 | 1,236.73 | 68.67 | 19.009 | | |
| 8,100.00 | 7,340.00 | 7,948.24 | 7,340.00 | 37.94 | 35.58 | -90.00 | 66.17 | 628.30 | 1,308.17 | 1,235.35 | 72.81 | 17.967 | | |
| 8,200.00 | 7,340.00 | 8,048.21 | 7,340.00 | 40.14 | 37.80 | -90.00 | 69.94 | 728.19 | 1,310.93 | 1,233.67 | 77.26 | 16.968 | | |
| 8,300.00 | 7,340.00 | 8,148.17 | 7,340.00 | 42.47 | 40.15 | -90.00 | 73.72 | 828.08 | 1,313.69 | 1,231.73 | 81.97 | 16.027 | | |
| 8,400.00 | 7,340.00 | 8,248.13 | 7,340.00 | 44.91 | 42.61 | -90.00 | 77.50 | 927.97 | 1,316.46 | 1,229.57 | 86.89 | 15.151 | | |
| 8,500.00 | 7,340.00 | 8,348.09 | 7,340.00 | 47.45 | 45.17 | -90.00 | 81.28 | 1,027.86 | 1,319.22 | 1,227.22 | 92.00 | 14.340 | | |
| 8,600.00 | 7,340.00 | 8,448.05 | 7,340.00 | 50.06 | 47.80 | -90.00 | 85.06 | 1,127.75 | 1,321.98 | 1,224.73 | 97.26 | 13.593 | | |
| 8,700.00 | 7,340.00 | 8,548.01 | 7,340.00 | 52.74 | 50.49 | -90.00 | 88.84 | 1,227.64 | 1,324.75 | 1,222.10 | 102.64 | 12.906 | | |
| 8,800.00 | 7,340.00 | 8,647.98 | 7,340.00 | 55.48 | 53.24 | -90.00 | 92.61 | 1,327.53 | 1,327.51 | 1,219.37 | 108.14 | 12.275 | | |
| 8,900.00 | 7,340.00 | 8,747.94 | 7,340.00 | 58.26 | 56.04 | -90.00 | 96.39 | 1,427.42 | 1,330.28 | 1,216.54 | 113.74 | 11.696 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3G-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | 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 | | |
| 9,000.00 | 7,340.00 | 8,847.90 | 7,340.00 | 61.09 | 58.88 | -90.00 | 100.17 | 1,527.31 | 1,333.04 | 1,213.63 | 119.41 | 11.163 | | |
| 9,100.00 | 7,340.00 | 8,947.86 | 7,340.00 | 63.95 | 61.76 | -90.00 | 103.95 | 1,627.20 | 1,335.80 | 1,210.65 | 125.16 | 10.673 | | |
| 9,200.00 | 7,340.00 | 9,047.82 | 7,340.00 | 66.84 | 64.66 | -90.00 | 107.73 | 1,727.09 | 1,338.57 | 1,207.61 | 130.96 | 10.221 | | |
| 9,300.00 | 7,340.00 | 9,147.79 | 7,340.00 | 69.76 | 67.59 | -90.00 | 111.50 | 1,826.99 | 1,341.33 | 1,204.51 | 136.82 | 9.804 | | |
| 9,400.00 | 7,340.00 | 9,247.75 | 7,340.00 | 72.70 | 70.54 | -90.00 | 115.28 | 1,926.88 | 1,344.09 | 1,201.37 | 142.72 | 9.417 | | |
| 9,500.00 | 7,340.00 | 9,347.71 | 7,340.00 | 75.67 | 73.52 | -90.00 | 119.06 | 2,026.77 | 1,346.86 | 1,198.19 | 148.67 | 9.059 | | |
| 9,600.00 | 7,340.00 | 9,447.67 | 7,340.00 | 78.65 | 76.51 | -90.00 | 122.84 | 2,126.66 | 1,349.62 | 1,194.97 | 154.65 | 8.727 | | |
| 9,700.00 | 7,340.00 | 9,547.63 | 7,340.00 | 81.65 | 79.51 | -90.00 | 126.62 | 2,226.55 | 1,352.39 | 1,191.72 | 160.67 | 8.417 | | |
| 9,800.00 | 7,340.00 | 9,647.59 | 7,340.00 | 84.67 | 82.53 | -90.00 | 130.40 | 2,326.44 | 1,355.15 | 1,188.44 | 166.71 | 8.129 | | |
| 9,900.00 | 7,340.00 | 9,747.56 | 7,340.00 | 87.70 | 85.57 | -90.00 | 134.17 | 2,426.33 | 1,357.91 | 1,185.13 | 172.78 | 7.859 | | |
| 10,000.00 | 7,340.00 | 9,847.52 | 7,340.00 | 90.74 | 88.61 | -90.00 | 137.95 | 2,526.22 | 1,360.68 | 1,181.81 | 178.87 | 7.607 | | |
| 10,100.00 | 7,340.00 | 9,947.48 | 7,340.00 | 93.79 | 91.67 | -90.00 | 141.73 | 2,626.11 | 1,363.44 | 1,178.46 | 184.98 | 7.371 | | |
| 10,200.00 | 7,340.00 | 10,047.44 | 7,340.00 | 96.85 | 94.73 | -90.00 | 145.51 | 2,726.00 | 1,366.21 | 1,175.09 | 191.11 | 7.149 | | |
| 10,300.00 | 7,340.00 | 10,147.40 | 7,340.00 | 99.92 | 97.80 | -90.00 | 149.29 | 2,825.89 | 1,368.97 | 1,171.71 | 197.26 | 6.940 | | |
| 10,400.00 | 7,340.00 | 10,247.37 | 7,340.00 | 103.00 | 100.88 | -90.00 | 153.07 | 2,925.78 | 1,371.73 | 1,168.31 | 203.43 | 6.743 | | |
| 10,500.00 | 7,340.00 | 10,347.33 | 7,340.00 | 106.09 | 103.97 | -90.00 | 156.84 | 3,025.67 | 1,374.50 | 1,164.89 | 209.60 | 6.558 | | |
| 10,600.00 | 7,340.00 | 10,447.29 | 7,340.00 | 109.18 | 107.06 | -90.00 | 160.62 | 3,125.56 | 1,377.26 | 1,161.46 | 215.80 | 6.382 | | |
| 10,700.00 | 7,340.00 | 10,547.25 | 7,340.00 | 112.28 | 110.16 | -90.00 | 164.40 | 3,225.45 | 1,380.02 | 1,158.03 | 222.00 | 6.216 | | |
| 10,800.00 | 7,340.00 | 10,647.21 | 7,340.00 | 115.39 | 113.27 | -90.00 | 168.18 | 3,325.34 | 1,382.79 | 1,154.58 | 228.21 | 6.059 | | |
| 10,900.00 | 7,340.00 | 10,747.17 | 7,340.00 | 118.50 | 116.38 | -90.00 | 171.96 | 3,425.23 | 1,385.55 | 1,151.12 | 234.44 | 5.910 | | |
| 11,000.00 | 7,340.00 | 10,847.14 | 7,340.00 | 121.61 | 119.49 | -90.00 | 175.74 | 3,525.12 | 1,388.32 | 1,147.65 | 240.67 | 5.769 | | |
| 11,100.00 | 7,340.00 | 10,947.10 | 7,340.00 | 124.74 | 122.61 | -90.00 | 179.51 | 3,625.01 | 1,391.08 | 1,144.17 | 246.91 | 5.634 | | |
| 11,200.00 | 7,340.00 | 11,047.06 | 7,340.00 | 127.86 | 125.73 | -90.00 | 183.29 | 3,724.90 | 1,393.84 | 1,140.68 | 253.16 | 5.506 | | |
| 11,300.00 | 7,340.00 | 11,147.02 | 7,340.00 | 130.99 | 128.86 | -90.00 | 187.07 | 3,824.79 | 1,396.61 | 1,137.19 | 259.42 | 5.384 | | |
| 11,400.00 | 7,340.00 | 11,246.98 | 7,340.00 | 134.12 | 131.98 | -90.00 | 190.85 | 3,924.68 | 1,399.37 | 1,133.69 | 265.68 | 5.267 | | |
| 11,500.00 | 7,340.00 | 11,346.95 | 7,340.00 | 137.26 | 135.12 | -90.00 | 194.63 | 4,024.57 | 1,402.13 | 1,130.19 | 271.95 | 5.156 | | |
| 11,600.00 | 7,340.00 | 11,446.91 | 7,340.00 | 140.40 | 138.25 | -90.00 | 198.40 | 4,124.46 | 1,404.90 | 1,126.67 | 278.22 | 5.050 | | |
| 11,700.00 | 7,340.00 | 11,546.87 | 7,340.00 | 143.54 | 141.39 | -90.00 | 202.18 | 4,224.35 | 1,407.66 | 1,123.16 | 284.51 | 4.948 | | |
| 11,800.00 | 7,340.00 | 11,646.83 | 7,340.00 | 146.68 | 144.53 | -90.00 | 205.96 | 4,324.24 | 1,410.43 | 1,119.63 | 290.79 | 4.850 | | |
| 11,900.00 | 7,340.00 | 11,746.79 | 7,340.00 | 149.83 | 147.67 | -90.00 | 209.74 | 4,424.13 | 1,413.19 | 1,116.11 | 297.08 | 4.757 | | |
| 11,932.12 | 7,340.00 | 11,778.90 | 7,340.00 | 150.84 | 148.68 | -90.00 | 210.95 | 4,456.22 | 1,414.08 | 1,114.97 | 299.10 | 4.728 SF | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3H-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | 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 | 0.19 | 69.95 | 0.24 | 69.95 | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.19 | 69.95 | 0.24 | 69.95 | 69.67 | 0.28 | 253.420 | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.19 | 69.95 | 0.24 | 69.95 | 68.96 | 0.99 | 70.445 CC, ES | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 166.78 | 69.95 | 0.24 | 71.65 | 69.95 | 1.70 | 42.220 | |
| 400.00 | 399.84 | 399.84 | 399.84 | 1.19 | 1.21 | 167.65 | 69.95 | 0.24 | 76.75 | 74.35 | 2.40 | 31.918 | |
| 500.00 | 499.45 | 499.45 | 499.45 | 1.55 | 1.57 | 168.87 | 69.95 | 0.24 | 85.29 | 82.17 | 3.12 | 27.328 | |
| 600.00 | 598.70 | 598.70 | 598.70 | 1.93 | 1.93 | 170.22 | 69.95 | 0.24 | 97.27 | 93.43 | 3.84 | 25.325 | |
| 700.00 | 697.47 | 697.47 | 697.47 | 2.33 | 2.28 | 171.52 | 69.95 | 0.24 | 112.72 | 108.16 | 4.56 | 24.700 | |
| 730.58 | 727.55 | 727.55 | 727.55 | 2.46 | 2.39 | 171.90 | 69.95 | 0.24 | 118.14 | 113.35 | 4.79 | 24.665 | |
| 800.00 | 795.78 | 795.78 | 795.78 | 2.75 | 2.63 | 172.69 | 69.95 | 0.24 | 130.81 | 125.53 | 5.29 | 24.749 | |
| 900.00 | 894.07 | 894.07 | 894.07 | 3.18 | 2.98 | 173.59 | 69.95 | 0.24 | 149.10 | 143.10 | 6.00 | 24.849 | |
| 1,000.00 | 992.36 | 995.13 | 995.12 | 3.62 | 3.34 | 173.83 | 69.35 | -1.23 | 166.65 | 159.93 | 6.72 | 24.792 | |
| 1,100.00 | 1,090.65 | 1,096.32 | 1,096.17 | 4.06 | 3.68 | 173.07 | 67.43 | -5.94 | 182.51 | 175.06 | 7.44 | 24.523 | |
| 1,200.00 | 1,188.94 | 1,195.09 | 1,194.75 | 4.50 | 4.02 | 172.14 | 65.12 | -11.63 | 197.84 | 189.68 | 8.16 | 24.258 | |
| 1,300.00 | 1,287.23 | 1,293.86 | 1,293.33 | 4.95 | 4.37 | 171.34 | 62.80 | -17.31 | 213.21 | 204.33 | 8.87 | 24.025 | |
| 1,400.00 | 1,385.52 | 1,392.63 | 1,391.91 | 5.39 | 4.71 | 170.65 | 60.48 | -23.00 | 228.62 | 219.02 | 9.60 | 23.821 | |
| 1,500.00 | 1,483.81 | 1,491.41 | 1,490.49 | 5.84 | 5.07 | 170.05 | 58.16 | -28.69 | 244.05 | 233.73 | 10.32 | 23.640 | |
| 1,600.00 | 1,582.10 | 1,590.18 | 1,589.07 | 6.29 | 5.42 | 169.52 | 55.85 | -34.37 | 259.51 | 248.46 | 11.05 | 23.478 | |
| 1,700.00 | 1,680.39 | 1,688.95 | 1,687.65 | 6.74 | 5.77 | 169.05 | 53.53 | -40.06 | 274.99 | 263.20 | 11.78 | 23.334 | |
| 1,800.00 | 1,778.68 | 1,787.72 | 1,786.23 | 7.19 | 6.13 | 168.63 | 51.21 | -45.75 | 290.48 | 277.96 | 12.52 | 23.204 | |
| 1,900.00 | 1,876.97 | 1,886.49 | 1,884.81 | 7.64 | 6.49 | 168.25 | 48.89 | -51.43 | 305.99 | 292.74 | 13.25 | 23.086 | |
| 2,000.00 | 1,975.26 | 1,985.26 | 1,983.39 | 8.09 | 6.84 | 167.91 | 46.57 | -57.12 | 321.51 | 307.52 | 13.99 | 22.980 | |
| 2,100.00 | 2,073.55 | 2,084.03 | 2,081.97 | 8.54 | 7.20 | 167.60 | 44.26 | -62.81 | 337.04 | 322.31 | 14.73 | 22.883 | |
| 2,200.00 | 2,171.84 | 2,182.80 | 2,180.55 | 8.99 | 7.56 | 167.31 | 41.94 | -68.49 | 352.58 | 337.11 | 15.47 | 22.794 | |
| 2,300.00 | 2,270.13 | 2,281.57 | 2,279.13 | 9.44 | 7.92 | 167.05 | 39.62 | -74.18 | 368.12 | 351.92 | 16.21 | 22.712 | |
| 2,400.00 | 2,368.42 | 2,380.35 | 2,377.71 | 9.89 | 8.28 | 166.82 | 37.30 | -79.87 | 383.68 | 366.73 | 16.95 | 22.637 | |
| 2,500.00 | 2,466.71 | 2,479.12 | 2,476.29 | 10.34 | 8.65 | 166.60 | 34.99 | -85.55 | 399.24 | 381.55 | 17.69 | 22.568 | |
| 2,600.00 | 2,565.00 | 2,577.89 | 2,574.87 | 10.79 | 9.01 | 166.39 | 32.67 | -91.24 | 414.80 | 396.37 | 18.43 | 22.503 | |
| 2,700.00 | 2,663.29 | 2,676.66 | 2,673.45 | 11.25 | 9.37 | 166.21 | 30.35 | -96.93 | 430.37 | 411.19 | 19.18 | 22.443 | |
| 2,800.00 | 2,761.58 | 2,775.43 | 2,772.03 | 11.70 | 9.73 | 166.03 | 28.03 | -102.61 | 445.94 | 426.02 | 19.92 | 22.388 | |
| 2,900.00 | 2,859.87 | 2,874.20 | 2,870.61 | 12.15 | 10.09 | 165.87 | 25.72 | -108.30 | 461.52 | 440.86 | 20.66 | 22.336 | |
| 3,000.00 | 2,958.16 | 2,972.97 | 2,969.19 | 12.60 | 10.46 | 165.72 | 23.40 | -113.99 | 477.10 | 455.69 | 21.41 | 22.287 | |
| 3,100.00 | 3,056.45 | 3,071.74 | 3,067.77 | 13.05 | 10.82 | 165.57 | 21.08 | -119.67 | 492.69 | 470.53 | 22.15 | 22.242 | |
| 3,200.00 | 3,154.74 | 3,170.51 | 3,166.35 | 13.51 | 11.18 | 165.44 | 18.76 | -125.36 | 508.27 | 485.38 | 22.90 | 22.199 | |
| 3,300.00 | 3,253.03 | 3,269.29 | 3,264.93 | 13.96 | 11.55 | 165.31 | 16.45 | -131.05 | 523.86 | 500.22 | 23.64 | 22.158 | |
| 3,400.00 | 3,351.32 | 3,368.06 | 3,363.51 | 14.41 | 11.91 | 165.19 | 14.13 | -136.73 | 539.45 | 515.06 | 24.39 | 22.120 | |
| 3,500.00 | 3,449.61 | 3,466.83 | 3,462.09 | 14.86 | 12.28 | 165.08 | 11.81 | -142.42 | 555.05 | 529.91 | 25.13 | 22.085 | |
| 3,600.00 | 3,547.90 | 3,565.60 | 3,560.67 | 15.32 | 12.64 | 164.97 | 9.49 | -148.11 | 570.64 | 544.76 | 25.88 | 22.051 | |
| 3,700.00 | 3,646.19 | 3,664.37 | 3,659.25 | 15.77 | 13.00 | 164.87 | 7.18 | -153.80 | 586.24 | 559.61 | 26.62 | 22.019 | |
| 3,800.00 | 3,744.48 | 3,763.14 | 3,757.83 | 16.22 | 13.37 | 164.78 | 4.86 | -159.48 | 601.84 | 574.47 | 27.37 | 21.988 | |
| 3,900.00 | 3,842.77 | 3,861.91 | 3,856.41 | 16.67 | 13.73 | 164.69 | 2.54 | -165.17 | 617.44 | 589.32 | 28.12 | 21.959 | |
| 4,000.00 | 3,941.06 | 3,960.68 | 3,954.99 | 17.13 | 14.10 | 164.60 | 0.22 | -170.86 | 633.04 | 604.17 | 28.86 | 21.932 | |
| 4,100.00 | 4,039.35 | 4,059.45 | 4,053.57 | 17.58 | 14.46 | 164.52 | -2.10 | -176.54 | 648.64 | 619.03 | 29.61 | 21.905 | |
| 4,200.00 | 4,137.64 | 4,158.22 | 4,152.15 | 18.03 | 14.83 | 164.44 | -4.41 | -182.23 | 664.25 | 633.89 | 30.36 | 21.880 | |
| 4,300.00 | 4,235.93 | 4,257.00 | 4,250.73 | 18.48 | 15.19 | 164.37 | -6.73 | -187.92 | 679.85 | 648.75 | 31.11 | 21.856 | |
| 4,400.00 | 4,334.22 | 4,355.77 | 4,349.31 | 18.94 | 15.56 | 164.30 | -9.05 | -193.60 | 695.46 | 663.61 | 31.85 | 21.834 | |
| 4,500.00 | 4,432.51 | 4,454.54 | 4,447.89 | 19.39 | 15.92 | 164.23 | -11.37 | -199.29 | 711.07 | 678.47 | 32.60 | 21.812 | |
| 4,600.00 | 4,530.80 | 4,553.31 | 4,546.47 | 19.84 | 16.29 | 164.16 | -13.68 | -204.98 | 726.68 | 693.33 | 33.35 | 21.791 | |
| 4,700.00 | 4,629.09 | 4,652.08 | 4,645.05 | 20.30 | 16.65 | 164.10 | -16.00 | -210.66 | 742.28 | 708.19 | 34.10 | 21.771 | |
| 4,800.00 | 4,727.38 | 4,750.85 | 4,743.63 | 20.75 | 17.02 | 164.04 | -18.32 | -216.35 | 757.89 | 723.05 | 34.84 | 21.752 | |
| 4,900.00 | 4,825.67 | 4,849.62 | 4,842.21 | 21.20 | 17.38 | 163.98 | -20.64 | -222.04 | 773.51 | 737.92 | 35.59 | 21.733 | |
| 5,000.00 | 4,923.96 | 4,948.39 | 4,940.79 | 21.66 | 17.75 | 163.93 | -22.95 | -227.72 | 789.12 | 752.78 | 36.34 | 21.716 | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3H-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|---------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: 0.00 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | 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 | 5,022.25 | 5,047.16 | 5,039.37 | 22.11 | 18.11 | 163.88 | -25.27 | -233.41 | 804.73 | 767.64 | 37.09 | 21.699 | | |
| 5,200.00 | 5,120.54 | 5,145.94 | 5,137.95 | 22.56 | 18.48 | 163.83 | -27.59 | -239.10 | 820.34 | 782.51 | 37.83 | 21.682 | | |
| 5,300.00 | 5,218.83 | 5,244.71 | 5,236.53 | 23.01 | 18.84 | 163.78 | -29.91 | -244.78 | 835.96 | 797.37 | 38.58 | 21.667 | | |
| 5,400.00 | 5,317.12 | 5,343.48 | 5,335.11 | 23.47 | 19.21 | 163.73 | -32.22 | -250.47 | 851.57 | 812.24 | 39.33 | 21.651 | | |
| 5,500.00 | 5,415.41 | 5,442.25 | 5,433.69 | 23.92 | 19.58 | 163.68 | -34.54 | -256.16 | 867.19 | 827.11 | 40.08 | 21.637 | | |
| 5,600.00 | 5,513.70 | 5,541.02 | 5,532.27 | 24.37 | 19.94 | 163.64 | -36.86 | -261.84 | 882.80 | 841.97 | 40.83 | 21.623 | | |
| 5,700.00 | 5,611.99 | 5,639.79 | 5,630.85 | 24.83 | 20.31 | 163.60 | -39.18 | -267.53 | 898.42 | 856.84 | 41.58 | 21.609 | | |
| 5,800.00 | 5,710.28 | 5,738.56 | 5,729.43 | 25.28 | 20.67 | 163.56 | -41.50 | -273.22 | 914.03 | 871.71 | 42.32 | 21.596 | | |
| 5,900.00 | 5,808.57 | 5,836.73 | 5,827.41 | 25.73 | 21.04 | 163.52 | -43.80 | -278.87 | 929.65 | 886.58 | 43.07 | 21.585 | | |
| 6,000.00 | 5,906.86 | 5,925.61 | 5,916.19 | 26.19 | 21.36 | 163.57 | -45.30 | -282.55 | 945.85 | 902.12 | 43.73 | 21.627 | | |
| 6,100.00 | 6,005.15 | 6,014.57 | 6,005.15 | 26.64 | 21.66 | 163.78 | -45.76 | -283.68 | 963.08 | 918.71 | 44.38 | 21.702 | | |
| 6,200.00 | 6,103.44 | 6,112.86 | 6,103.44 | 27.09 | 21.99 | 164.08 | -45.76 | -283.68 | 980.80 | 935.73 | 45.07 | 21.760 | | |
| 6,300.00 | 6,201.72 | 6,211.15 | 6,201.72 | 27.54 | 22.32 | 164.37 | -45.76 | -283.68 | 998.55 | 952.77 | 45.77 | 21.816 | | |
| 6,400.00 | 6,300.01 | 6,309.44 | 6,300.01 | 28.00 | 22.65 | 164.65 | -45.76 | -283.68 | 1,016.31 | 969.84 | 46.47 | 21.870 | | |
| 6,500.00 | 6,398.30 | 6,407.73 | 6,398.30 | 28.45 | 22.98 | 164.92 | -45.76 | -283.68 | 1,034.10 | 986.93 | 47.17 | 21.923 | | |
| 6,600.00 | 6,496.59 | 6,506.02 | 6,496.59 | 28.90 | 23.31 | 165.18 | -45.76 | -283.68 | 1,051.92 | 1,004.04 | 47.87 | 21.974 | | |
| 6,708.50 | 6,603.24 | 6,612.67 | 6,603.24 | 29.40 | 23.67 | 165.46 | -45.76 | -283.68 | 1,071.26 | 1,022.63 | 48.63 | 22.028 | | |
| 6,750.00 | 6,644.06 | 6,653.49 | 6,644.06 | 29.58 | 23.80 | -175.92 | -45.76 | -283.68 | 1,078.68 | 1,029.75 | 48.92 | 22.049 | | |
| 6,800.00 | 6,693.19 | 6,702.62 | 6,693.19 | 29.79 | 23.97 | -154.89 | -45.76 | -283.68 | 1,087.60 | 1,038.32 | 49.27 | 22.073 | | |
| 6,850.00 | 6,742.04 | 6,751.47 | 6,742.04 | 29.99 | 24.14 | -138.98 | -45.76 | -283.68 | 1,096.49 | 1,046.87 | 49.62 | 22.099 | | |
| 6,900.00 | 6,790.37 | 6,799.79 | 6,790.37 | 30.17 | 24.30 | -128.10 | -45.76 | -283.68 | 1,105.36 | 1,055.40 | 49.96 | 22.126 | | |
| 6,950.00 | 6,837.94 | 6,847.37 | 6,837.94 | 30.34 | 24.46 | -120.75 | -45.76 | -283.68 | 1,114.26 | 1,063.97 | 50.29 | 22.155 | | |
| 7,000.00 | 6,884.53 | 6,895.35 | 6,885.92 | 30.50 | 24.62 | -115.71 | -45.76 | -283.34 | 1,123.24 | 1,072.60 | 50.63 | 22.184 | | |
| 7,050.00 | 6,929.90 | 6,945.65 | 6,936.10 | 30.65 | 24.78 | -112.12 | -45.72 | -280.03 | 1,132.23 | 1,081.26 | 50.98 | 22.211 | | |
| 7,100.00 | 6,973.84 | 6,997.26 | 6,987.22 | 30.79 | 24.94 | -109.46 | -45.65 | -272.97 | 1,141.19 | 1,089.87 | 51.32 | 22.237 | | |
| 7,150.00 | 7,016.13 | 7,050.31 | 7,039.08 | 30.91 | 25.09 | -107.46 | -45.54 | -261.90 | 1,150.05 | 1,098.39 | 51.66 | 22.261 | | |
| 7,200.00 | 7,056.56 | 7,104.89 | 7,091.44 | 31.02 | 25.25 | -105.93 | -45.38 | -246.55 | 1,158.77 | 1,106.76 | 52.01 | 22.279 | | |
| 7,250.00 | 7,094.94 | 7,161.10 | 7,143.99 | 31.13 | 25.41 | -104.74 | -45.18 | -226.61 | 1,167.28 | 1,114.91 | 52.37 | 22.290 | | |
| 7,300.00 | 7,131.08 | 7,219.05 | 7,196.34 | 31.22 | 25.57 | -103.83 | -44.93 | -201.81 | 1,175.52 | 1,122.78 | 52.74 | 22.288 | | |
| 7,350.00 | 7,164.81 | 7,278.82 | 7,248.06 | 31.31 | 25.74 | -103.12 | -44.62 | -171.88 | 1,183.43 | 1,130.28 | 53.14 | 22.268 | | |
| 7,400.00 | 7,195.95 | 7,340.48 | 7,298.60 | 31.39 | 25.93 | -102.57 | -44.27 | -136.60 | 1,190.93 | 1,137.34 | 53.59 | 22.223 | | |
| 7,450.00 | 7,224.37 | 7,404.06 | 7,347.35 | 31.46 | 26.16 | -102.16 | -43.85 | -95.81 | 1,197.95 | 1,143.85 | 54.10 | 22.143 | | |
| 7,500.00 | 7,249.91 | 7,469.59 | 7,393.60 | 31.53 | 26.45 | -101.86 | -43.38 | -49.43 | 1,204.43 | 1,149.71 | 54.71 | 22.014 | | |
| 7,550.00 | 7,272.46 | 7,537.01 | 7,436.56 | 31.61 | 26.82 | -101.64 | -42.85 | 2.51 | 1,210.27 | 1,154.83 | 55.45 | 21.828 | | |
| 7,600.00 | 7,291.91 | 7,606.26 | 7,475.39 | 31.69 | 27.29 | -101.48 | -42.27 | 59.80 | 1,215.43 | 1,159.08 | 56.35 | 21.571 | | |
| 7,650.00 | 7,308.16 | 7,677.18 | 7,509.24 | 31.81 | 27.91 | -101.38 | -41.64 | 122.09 | 1,219.81 | 1,162.36 | 57.45 | 21.231 | | |
| 7,700.00 | 7,321.13 | 7,749.57 | 7,537.27 | 31.99 | 28.67 | -101.32 | -40.96 | 188.80 | 1,223.38 | 1,164.60 | 58.78 | 20.813 | | |
| 7,750.00 | 7,330.76 | 7,823.18 | 7,558.71 | 32.29 | 29.62 | -101.28 | -40.24 | 259.18 | 1,226.06 | 1,165.69 | 60.37 | 20.309 | | |
| 7,800.00 | 7,337.00 | 7,897.68 | 7,572.95 | 32.75 | 30.71 | -101.27 | -39.50 | 332.26 | 1,227.82 | 1,165.63 | 62.19 | 19.743 | | |
| 7,850.00 | 7,339.82 | 7,972.71 | 7,579.55 | 33.38 | 31.95 | -101.26 | -38.74 | 406.97 | 1,228.63 | 1,164.38 | 64.24 | 19.125 | | |
| 7,866.12 | 7,340.00 | 7,996.95 | 7,580.00 | 33.62 | 32.36 | -101.26 | -38.49 | 431.20 | 1,228.68 | 1,163.74 | 64.94 | 18.921 | | |
| 7,900.00 | 7,340.00 | 8,031.26 | 7,580.00 | 34.14 | 33.00 | -101.26 | -38.15 | 465.51 | 1,228.68 | 1,162.53 | 66.16 | 18.572 | | |
| 8,000.00 | 7,340.00 | 8,131.26 | 7,580.00 | 35.92 | 34.94 | -101.26 | -37.13 | 565.50 | 1,228.68 | 1,158.76 | 69.92 | 17.572 | | |
| 8,100.00 | 7,340.00 | 8,231.26 | 7,580.00 | 37.94 | 37.05 | -101.26 | -36.11 | 665.50 | 1,228.68 | 1,154.65 | 74.03 | 16.596 | | |
| 8,200.00 | 7,340.00 | 8,331.26 | 7,580.00 | 40.14 | 39.31 | -101.26 | -35.10 | 765.49 | 1,228.68 | 1,150.25 | 78.44 | 15.665 | | |
| 8,300.00 | 7,340.00 | 8,431.26 | 7,580.00 | 42.47 | 41.69 | -101.26 | -34.08 | 865.49 | 1,228.68 | 1,145.60 | 83.08 | 14.789 | | |
| 8,400.00 | 7,340.00 | 8,531.26 | 7,580.00 | 44.91 | 44.18 | -101.26 | -33.06 | 965.48 | 1,228.68 | 1,140.75 | 87.93 | 13.973 | | |
| 8,500.00 | 7,340.00 | 8,631.26 | 7,580.00 | 47.45 | 46.75 | -101.26 | -32.05 | 1,065.48 | 1,228.68 | 1,135.73 | 92.96 | 13.218 | | |
| 8,600.00 | 7,340.00 | 8,731.26 | 7,580.00 | 50.06 | 49.40 | -101.26 | -31.03 | 1,165.47 | 1,228.68 | 1,130.55 | 98.13 | 12.521 | | |
| 8,700.00 | 7,340.00 | 8,831.26 | 7,580.00 | 52.74 | 52.12 | -101.26 | -30.01 | 1,265.47 | 1,228.68 | 1,125.26 | 103.42 | 11.880 | | |
| 8,800.00 | 7,340.00 | 8,931.26 | 7,580.00 | 55.48 | 54.88 | -101.26 | -29.00 | 1,365.46 | 1,228.68 | 1,119.86 | 108.83 | 11.290 | | |
| 8,900.00 | 7,340.00 | 9,031.26 | 7,580.00 | 58.26 | 57.69 | -101.26 | -27.98 | 1,465.46 | 1,228.68 | 1,114.36 | 114.32 | 10.748 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3H-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | 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 | | |
| 9,000.00 | 7,340.00 | 9,131.26 | 7,580.00 | 61.09 | 60.55 | -101.26 | -26.97 | 1,565.45 | 1,228.68 | 1,108.79 | 119.89 | 10.248 | | |
| 9,100.00 | 7,340.00 | 9,231.26 | 7,580.00 | 63.95 | 63.43 | -101.26 | -25.95 | 1,665.45 | 1,228.68 | 1,103.15 | 125.53 | 9.788 | | |
| 9,200.00 | 7,340.00 | 9,331.26 | 7,580.00 | 66.84 | 66.34 | -101.26 | -24.93 | 1,765.44 | 1,228.68 | 1,097.45 | 131.23 | 9.362 | | |
| 9,300.00 | 7,340.00 | 9,431.26 | 7,580.00 | 69.76 | 69.28 | -101.26 | -23.92 | 1,865.44 | 1,228.68 | 1,091.69 | 136.99 | 8.969 | | |
| 9,400.00 | 7,340.00 | 9,531.26 | 7,580.00 | 72.70 | 72.25 | -101.26 | -22.90 | 1,965.43 | 1,228.68 | 1,085.90 | 142.79 | 8.605 | | |
| 9,500.00 | 7,340.00 | 9,631.26 | 7,580.00 | 75.67 | 75.23 | -101.26 | -21.88 | 2,065.43 | 1,228.68 | 1,080.06 | 148.62 | 8.267 | | |
| 9,600.00 | 7,340.00 | 9,731.26 | 7,580.00 | 78.65 | 78.23 | -101.26 | -20.87 | 2,165.42 | 1,228.68 | 1,074.18 | 154.50 | 7.953 | | |
| 9,700.00 | 7,340.00 | 9,831.26 | 7,580.00 | 81.65 | 81.25 | -101.26 | -19.85 | 2,265.42 | 1,228.68 | 1,068.28 | 160.41 | 7.660 | | |
| 9,800.00 | 7,340.00 | 9,931.26 | 7,580.00 | 84.67 | 84.28 | -101.26 | -18.83 | 2,365.41 | 1,228.68 | 1,062.34 | 166.34 | 7.387 | | |
| 9,900.00 | 7,340.00 | 10,031.26 | 7,580.00 | 87.70 | 87.32 | -101.26 | -17.82 | 2,465.40 | 1,228.68 | 1,056.38 | 172.30 | 7.131 | | |
| 10,000.00 | 7,340.00 | 10,131.26 | 7,580.00 | 90.74 | 90.38 | -101.26 | -16.80 | 2,565.40 | 1,228.68 | 1,050.40 | 178.28 | 6.892 | | |
| 10,100.00 | 7,340.00 | 10,231.26 | 7,580.00 | 93.79 | 93.44 | -101.26 | -15.79 | 2,665.39 | 1,228.68 | 1,044.39 | 184.29 | 6.667 | | |
| 10,200.00 | 7,340.00 | 10,331.26 | 7,580.00 | 96.85 | 96.51 | -101.26 | -14.77 | 2,765.39 | 1,228.68 | 1,038.37 | 190.31 | 6.456 | | |
| 10,300.00 | 7,340.00 | 10,431.26 | 7,580.00 | 99.92 | 99.60 | -101.26 | -13.75 | 2,865.38 | 1,228.68 | 1,032.33 | 196.35 | 6.258 | | |
| 10,400.00 | 7,340.00 | 10,531.26 | 7,580.00 | 103.00 | 102.69 | -101.26 | -12.74 | 2,965.38 | 1,228.68 | 1,026.27 | 202.41 | 6.070 | | |
| 10,500.00 | 7,340.00 | 10,631.26 | 7,580.00 | 106.09 | 105.78 | -101.26 | -11.72 | 3,065.37 | 1,228.68 | 1,020.20 | 208.48 | 5.894 | | |
| 10,600.00 | 7,340.00 | 10,731.26 | 7,580.00 | 109.18 | 108.89 | -101.26 | -10.70 | 3,165.37 | 1,228.68 | 1,014.12 | 214.56 | 5.727 | | |
| 10,700.00 | 7,340.00 | 10,831.26 | 7,580.00 | 112.28 | 111.99 | -101.26 | -9.69 | 3,265.36 | 1,228.68 | 1,008.03 | 220.65 | 5.568 | | |
| 10,800.00 | 7,340.00 | 10,931.26 | 7,580.00 | 115.39 | 115.11 | -101.26 | -8.67 | 3,365.36 | 1,228.68 | 1,001.92 | 226.76 | 5.418 | | |
| 10,900.00 | 7,340.00 | 11,031.26 | 7,580.00 | 118.50 | 118.23 | -101.26 | -7.65 | 3,465.35 | 1,228.68 | 995.80 | 232.88 | 5.276 | | |
| 11,000.00 | 7,340.00 | 11,131.26 | 7,580.00 | 121.61 | 121.35 | -101.26 | -6.64 | 3,565.35 | 1,228.68 | 989.68 | 239.00 | 5.141 | | |
| 11,100.00 | 7,340.00 | 11,231.26 | 7,580.00 | 124.74 | 124.48 | -101.26 | -5.62 | 3,665.34 | 1,228.68 | 983.55 | 245.13 | 5.012 | | |
| 11,200.00 | 7,340.00 | 11,331.26 | 7,580.00 | 127.86 | 127.61 | -101.26 | -4.60 | 3,765.34 | 1,228.68 | 977.40 | 251.28 | 4.890 | | |
| 11,300.00 | 7,340.00 | 11,431.26 | 7,580.00 | 130.99 | 130.75 | -101.26 | -3.59 | 3,865.33 | 1,228.68 | 971.25 | 257.43 | 4.773 | | |
| 11,400.00 | 7,340.00 | 11,531.26 | 7,580.00 | 134.12 | 133.89 | -101.26 | -2.57 | 3,965.33 | 1,228.68 | 965.10 | 263.58 | 4.661 | | |
| 11,500.00 | 7,340.00 | 11,631.26 | 7,580.00 | 137.26 | 137.03 | -101.26 | -1.56 | 4,065.32 | 1,228.68 | 958.94 | 269.74 | 4.555 | | |
| 11,600.00 | 7,340.00 | 11,731.26 | 7,580.00 | 140.40 | 140.17 | -101.26 | -0.54 | 4,165.32 | 1,228.68 | 952.77 | 275.91 | 4.453 | | |
| 11,700.00 | 7,340.00 | 11,831.26 | 7,580.00 | 143.54 | 143.32 | -101.26 | 0.48 | 4,265.31 | 1,228.68 | 946.59 | 282.09 | 4.356 | | |
| 11,800.00 | 7,340.00 | 11,931.26 | 7,580.00 | 146.68 | 146.47 | -101.26 | 1.49 | 4,365.31 | 1,228.68 | 940.41 | 288.27 | 4.262 | | |
| 11,900.00 | 7,340.00 | 12,031.26 | 7,580.00 | 149.83 | 149.62 | -101.26 | 2.51 | 4,465.30 | 1,228.68 | 934.23 | 294.45 | 4.173 | | |
| 11,932.12 | 7,340.00 | 12,063.38 | 7,580.00 | 150.84 | 150.63 | -101.26 | 2.84 | 4,497.42 | 1,228.68 | 932.24 | 296.44 | 4.145 SF | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3I-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | 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 | 0.31 | 60.11 | 0.32 | 60.12 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.31 | 60.11 | 0.32 | 60.12 | 59.84 | 0.28 | 217.791 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.31 | 60.11 | 0.32 | 60.12 | 59.12 | 0.99 | 60.541 CC, ES | | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 166.94 | 60.11 | 0.32 | 61.81 | 60.12 | 1.70 | 36.425 | | |
| 400.00 | 399.84 | 399.84 | 399.84 | 1.19 | 1.21 | 167.93 | 60.11 | 0.32 | 66.92 | 64.52 | 2.40 | 27.830 | | |
| 500.00 | 499.45 | 499.45 | 499.45 | 1.55 | 1.57 | 169.29 | 60.11 | 0.32 | 75.47 | 72.35 | 3.12 | 24.182 | | |
| 600.00 | 598.70 | 598.70 | 598.70 | 1.93 | 1.93 | 170.73 | 60.11 | 0.32 | 87.47 | 83.63 | 3.84 | 22.773 | | |
| 700.00 | 697.47 | 697.47 | 697.47 | 2.33 | 2.28 | 172.09 | 60.11 | 0.32 | 102.95 | 98.38 | 4.56 | 22.558 | | |
| 730.58 | 727.55 | 727.55 | 727.55 | 2.46 | 2.39 | 172.47 | 60.11 | 0.32 | 108.37 | 103.58 | 4.79 | 22.626 | | |
| 800.00 | 795.78 | 795.78 | 795.78 | 2.75 | 2.63 | 173.27 | 60.11 | 0.32 | 121.06 | 115.77 | 5.29 | 22.904 | | |
| 900.00 | 894.07 | 897.36 | 897.35 | 3.18 | 2.98 | 173.68 | 59.13 | -1.01 | 138.25 | 132.24 | 6.00 | 23.024 | | |
| 1,000.00 | 992.36 | 999.87 | 999.71 | 3.62 | 3.33 | 173.03 | 55.96 | -5.27 | 153.00 | 146.27 | 6.73 | 22.731 | | |
| 1,100.00 | 1,090.65 | 1,101.10 | 1,100.58 | 4.06 | 3.68 | 171.67 | 50.90 | -12.08 | 165.62 | 158.16 | 7.46 | 22.204 | | |
| 1,200.00 | 1,188.94 | 1,200.26 | 1,199.35 | 4.50 | 4.03 | 170.39 | 45.62 | -19.19 | 177.96 | 169.78 | 8.18 | 21.758 | | |
| 1,300.00 | 1,287.23 | 1,299.42 | 1,298.11 | 4.95 | 4.38 | 169.29 | 40.34 | -26.29 | 190.38 | 181.47 | 8.91 | 21.375 | | |
| 1,400.00 | 1,385.52 | 1,398.59 | 1,396.88 | 5.39 | 4.74 | 168.32 | 35.06 | -33.39 | 202.86 | 193.22 | 9.64 | 21.045 | | |
| 1,500.00 | 1,483.81 | 1,497.75 | 1,495.65 | 5.84 | 5.10 | 167.46 | 29.78 | -40.50 | 215.39 | 205.02 | 10.38 | 20.757 | | |
| 1,600.00 | 1,582.10 | 1,596.91 | 1,594.41 | 6.29 | 5.47 | 166.69 | 24.50 | -47.60 | 227.97 | 216.85 | 11.12 | 20.505 | | |
| 1,700.00 | 1,680.39 | 1,696.08 | 1,693.18 | 6.74 | 5.83 | 166.01 | 19.22 | -54.70 | 240.58 | 228.71 | 11.86 | 20.282 | | |
| 1,800.00 | 1,778.68 | 1,795.24 | 1,791.95 | 7.19 | 6.20 | 165.39 | 13.94 | -61.81 | 253.22 | 240.61 | 12.61 | 20.083 | | |
| 1,900.00 | 1,876.97 | 1,894.40 | 1,890.72 | 7.64 | 6.57 | 164.83 | 8.67 | -68.91 | 265.88 | 252.52 | 13.36 | 19.905 | | |
| 2,000.00 | 1,975.26 | 1,993.57 | 1,989.48 | 8.09 | 6.94 | 164.33 | 3.39 | -76.01 | 278.57 | 264.46 | 14.11 | 19.745 | | |
| 2,100.00 | 2,073.55 | 2,092.73 | 2,088.25 | 8.54 | 7.31 | 163.86 | -1.89 | -83.12 | 291.28 | 276.42 | 14.86 | 19.600 | | |
| 2,200.00 | 2,171.84 | 2,191.89 | 2,187.02 | 8.99 | 7.68 | 163.44 | -7.17 | -90.22 | 304.00 | 288.39 | 15.62 | 19.468 | | |
| 2,300.00 | 2,270.13 | 2,291.05 | 2,285.79 | 9.44 | 8.06 | 163.05 | -12.45 | -97.32 | 316.74 | 300.37 | 16.37 | 19.348 | | |
| 2,400.00 | 2,368.42 | 2,390.22 | 2,384.55 | 9.89 | 8.43 | 162.69 | -17.73 | -104.42 | 329.50 | 312.37 | 17.13 | 19.238 | | |
| 2,500.00 | 2,466.71 | 2,489.38 | 2,483.32 | 10.34 | 8.81 | 162.36 | -23.01 | -111.53 | 342.26 | 324.38 | 17.88 | 19.137 | | |
| 2,600.00 | 2,565.00 | 2,588.54 | 2,582.09 | 10.79 | 9.18 | 162.05 | -28.28 | -118.63 | 355.04 | 336.40 | 18.64 | 19.044 | | |
| 2,700.00 | 2,663.29 | 2,687.71 | 2,680.85 | 11.25 | 9.56 | 161.76 | -33.56 | -125.73 | 367.83 | 348.42 | 19.40 | 18.958 | | |
| 2,800.00 | 2,761.58 | 2,786.87 | 2,779.62 | 11.70 | 9.93 | 161.49 | -38.84 | -132.84 | 380.62 | 360.46 | 20.16 | 18.878 | | |
| 2,900.00 | 2,859.87 | 2,886.03 | 2,878.39 | 12.15 | 10.31 | 161.24 | -44.12 | -139.94 | 393.42 | 372.50 | 20.92 | 18.804 | | |
| 3,000.00 | 2,958.16 | 2,985.19 | 2,977.16 | 12.60 | 10.69 | 161.01 | -49.40 | -147.04 | 406.23 | 384.55 | 21.68 | 18.734 | | |
| 3,100.00 | 3,056.45 | 3,084.36 | 3,075.92 | 13.05 | 11.06 | 160.79 | -54.68 | -154.15 | 419.05 | 396.60 | 22.45 | 18.669 | | |
| 3,200.00 | 3,154.74 | 3,183.52 | 3,174.69 | 13.51 | 11.44 | 160.58 | -59.96 | -161.25 | 431.87 | 408.66 | 23.21 | 18.609 | | |
| 3,300.00 | 3,253.03 | 3,282.68 | 3,273.46 | 13.96 | 11.82 | 160.38 | -65.24 | -168.35 | 444.69 | 420.72 | 23.97 | 18.552 | | |
| 3,400.00 | 3,351.32 | 3,381.85 | 3,372.23 | 14.41 | 12.19 | 160.20 | -70.51 | -175.46 | 457.52 | 432.79 | 24.73 | 18.498 | | |
| 3,500.00 | 3,449.61 | 3,481.01 | 3,470.99 | 14.86 | 12.57 | 160.02 | -75.79 | -182.56 | 470.36 | 444.86 | 25.50 | 18.448 | | |
| 3,600.00 | 3,547.90 | 3,580.17 | 3,569.76 | 15.32 | 12.95 | 159.86 | -81.07 | -189.66 | 483.20 | 456.94 | 26.26 | 18.400 | | |
| 3,700.00 | 3,646.19 | 3,679.34 | 3,668.53 | 15.77 | 13.33 | 159.70 | -86.35 | -196.76 | 496.04 | 469.02 | 27.02 | 18.355 | | |
| 3,800.00 | 3,744.48 | 3,778.50 | 3,767.29 | 16.22 | 13.71 | 159.55 | -91.63 | -203.87 | 508.89 | 481.10 | 27.79 | 18.313 | | |
| 3,900.00 | 3,842.77 | 3,877.66 | 3,866.06 | 16.67 | 14.08 | 159.41 | -96.91 | -210.97 | 521.74 | 493.18 | 28.55 | 18.272 | | |
| 4,000.00 | 3,941.06 | 3,976.82 | 3,964.83 | 17.13 | 14.46 | 159.28 | -102.19 | -218.07 | 534.59 | 505.27 | 29.32 | 18.234 | | |
| 4,100.00 | 4,039.35 | 4,075.99 | 4,063.60 | 17.58 | 14.84 | 159.15 | -107.46 | -225.18 | 547.45 | 517.36 | 30.08 | 18.198 | | |
| 4,200.00 | 4,137.64 | 4,175.15 | 4,162.36 | 18.03 | 15.22 | 159.03 | -112.74 | -232.28 | 560.30 | 529.46 | 30.85 | 18.163 | | |
| 4,300.00 | 4,235.93 | 4,274.31 | 4,261.13 | 18.48 | 15.60 | 158.91 | -118.02 | -239.38 | 573.16 | 541.55 | 31.61 | 18.130 | | |
| 4,400.00 | 4,334.22 | 4,373.48 | 4,359.90 | 18.94 | 15.98 | 158.80 | -123.30 | -246.49 | 586.03 | 553.65 | 32.38 | 18.099 | | |
| 4,500.00 | 4,432.51 | 4,472.64 | 4,458.67 | 19.39 | 16.36 | 158.69 | -128.58 | -253.59 | 598.89 | 565.75 | 33.15 | 18.069 | | |
| 4,600.00 | 4,530.80 | 4,571.80 | 4,557.43 | 19.84 | 16.74 | 158.59 | -133.86 | -260.69 | 611.76 | 577.85 | 33.91 | 18.040 | | |
| 4,700.00 | 4,629.09 | 4,670.97 | 4,656.20 | 20.30 | 17.11 | 158.49 | -139.14 | -267.80 | 624.63 | 589.95 | 34.68 | 18.013 | | |
| 4,800.00 | 4,727.38 | 4,769.09 | 4,753.93 | 20.75 | 17.49 | 158.40 | -144.35 | -274.81 | 637.51 | 602.07 | 35.44 | 17.990 | | |
| 4,900.00 | 4,825.67 | 4,858.39 | 4,843.01 | 21.20 | 17.82 | 158.45 | -148.10 | -279.85 | 651.29 | 615.17 | 36.12 | 18.033 | | |
| 5,000.00 | 4,923.96 | 4,947.19 | 4,931.74 | 21.66 | 18.14 | 158.71 | -150.18 | -282.66 | 666.57 | 629.81 | 36.76 | 18.131 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3I-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | 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 | 5,022.25 | 5,037.71 | 5,022.25 | 22.11 | 18.45 | 159.16 | -150.67 | -283.31 | 683.35 | 645.95 | 37.40 | 18.272 | |
| 5,200.00 | 5,120.54 | 5,136.00 | 5,120.54 | 22.56 | 18.77 | 159.70 | -150.67 | -283.31 | 700.62 | 662.55 | 38.08 | 18.400 | |
| 5,300.00 | 5,218.83 | 5,234.29 | 5,218.83 | 23.01 | 19.09 | 160.20 | -150.67 | -283.31 | 717.96 | 679.20 | 38.76 | 18.524 | |
| 5,400.00 | 5,317.12 | 5,332.58 | 5,317.12 | 23.47 | 19.41 | 160.69 | -150.67 | -283.31 | 735.34 | 695.90 | 39.44 | 18.644 | |
| 5,500.00 | 5,415.41 | 5,430.87 | 5,415.41 | 23.92 | 19.73 | 161.15 | -150.67 | -283.31 | 752.78 | 712.65 | 40.13 | 18.760 | |
| 5,600.00 | 5,513.70 | 5,529.16 | 5,513.70 | 24.37 | 20.05 | 161.59 | -150.67 | -283.31 | 770.26 | 729.45 | 40.81 | 18.872 | |
| 5,700.00 | 5,611.99 | 5,627.44 | 5,611.99 | 24.83 | 20.37 | 162.02 | -150.67 | -283.31 | 787.78 | 746.28 | 41.50 | 18.982 | |
| 5,800.00 | 5,710.28 | 5,725.73 | 5,710.28 | 25.28 | 20.70 | 162.42 | -150.67 | -283.31 | 805.35 | 763.15 | 42.19 | 19.087 | |
| 5,900.00 | 5,808.57 | 5,824.02 | 5,808.57 | 25.73 | 21.02 | 162.81 | -150.67 | -283.31 | 822.95 | 780.06 | 42.88 | 19.190 | |
| 6,000.00 | 5,906.86 | 5,922.31 | 5,906.86 | 26.19 | 21.35 | 163.18 | -150.67 | -283.31 | 840.58 | 797.00 | 43.58 | 19.289 | |
| 6,100.00 | 6,005.15 | 6,020.60 | 6,005.15 | 26.64 | 21.67 | 163.53 | -150.67 | -283.31 | 858.25 | 813.98 | 44.27 | 19.386 | |
| 6,200.00 | 6,103.44 | 6,118.89 | 6,103.44 | 27.09 | 22.00 | 163.87 | -150.67 | -283.31 | 875.95 | 830.98 | 44.97 | 19.480 | |
| 6,300.00 | 6,201.72 | 6,217.18 | 6,201.72 | 27.54 | 22.33 | 164.20 | -150.67 | -283.31 | 893.68 | 848.01 | 45.66 | 19.571 | |
| 6,400.00 | 6,300.01 | 6,315.47 | 6,300.01 | 28.00 | 22.66 | 164.52 | -150.67 | -283.31 | 911.43 | 865.07 | 46.36 | 19.659 | |
| 6,500.00 | 6,398.30 | 6,413.76 | 6,398.30 | 28.45 | 22.98 | 164.82 | -150.67 | -283.31 | 929.21 | 882.15 | 47.06 | 19.745 | |
| 6,600.00 | 6,496.59 | 6,512.05 | 6,496.59 | 28.90 | 23.31 | 165.11 | -150.67 | -283.31 | 947.02 | 899.26 | 47.76 | 19.828 | |
| 6,708.50 | 6,603.24 | 6,618.70 | 6,603.24 | 29.40 | 23.67 | 165.41 | -150.67 | -283.31 | 966.36 | 917.84 | 48.52 | 19.916 | |
| 6,750.00 | 6,644.06 | 6,659.52 | 6,644.06 | 29.58 | 23.81 | -175.96 | -150.67 | -283.31 | 973.77 | 924.96 | 48.81 | 19.949 | |
| 6,800.00 | 6,693.19 | 6,708.65 | 6,693.19 | 29.79 | 23.98 | -154.94 | -150.67 | -283.31 | 982.69 | 933.53 | 49.16 | 19.988 | |
| 6,850.00 | 6,742.04 | 6,757.98 | 6,742.04 | 29.99 | 24.14 | -138.97 | -150.65 | -281.65 | 991.58 | 942.07 | 49.51 | 20.030 | |
| 6,900.00 | 6,790.37 | 6,807.61 | 6,791.84 | 30.17 | 24.29 | -127.86 | -150.60 | -276.57 | 1,000.39 | 950.56 | 49.83 | 20.075 | |
| 6,950.00 | 6,837.94 | 6,857.57 | 6,841.05 | 30.34 | 24.44 | -120.15 | -150.51 | -268.01 | 1,009.08 | 958.93 | 50.15 | 20.122 | |
| 7,000.00 | 6,884.53 | 6,907.86 | 6,889.87 | 30.50 | 24.59 | -114.61 | -150.39 | -255.95 | 1,017.61 | 967.16 | 50.45 | 20.170 | |
| 7,050.00 | 6,929.90 | 6,958.52 | 6,938.06 | 30.65 | 24.73 | -110.48 | -150.23 | -240.37 | 1,025.94 | 975.19 | 50.75 | 20.215 | |
| 7,100.00 | 6,973.84 | 7,009.54 | 6,985.37 | 30.79 | 24.87 | -107.30 | -150.04 | -221.28 | 1,034.03 | 982.98 | 51.05 | 20.256 | |
| 7,150.00 | 7,016.13 | 7,060.95 | 7,031.53 | 30.91 | 25.01 | -104.78 | -149.81 | -198.69 | 1,041.83 | 990.48 | 51.35 | 20.289 | |
| 7,200.00 | 7,056.56 | 7,112.74 | 7,076.27 | 31.02 | 25.15 | -102.73 | -149.54 | -172.64 | 1,049.31 | 997.64 | 51.67 | 20.309 | |
| 7,250.00 | 7,094.94 | 7,164.92 | 7,119.34 | 31.13 | 25.30 | -101.04 | -149.24 | -143.19 | 1,056.42 | 1,004.41 | 52.01 | 20.312 | |
| 7,300.00 | 7,131.08 | 7,217.49 | 7,160.44 | 31.22 | 25.47 | -99.63 | -148.91 | -110.44 | 1,063.14 | 1,010.74 | 52.40 | 20.289 | |
| 7,350.00 | 7,164.81 | 7,270.44 | 7,199.29 | 31.31 | 25.67 | -98.45 | -148.54 | -74.49 | 1,069.42 | 1,016.57 | 52.85 | 20.235 | |
| 7,400.00 | 7,195.95 | 7,323.76 | 7,235.63 | 31.39 | 25.91 | -97.44 | -148.15 | -35.48 | 1,075.24 | 1,021.86 | 53.38 | 20.143 | |
| 7,450.00 | 7,224.37 | 7,377.44 | 7,269.18 | 31.46 | 26.21 | -96.59 | -147.72 | 6.40 | 1,080.56 | 1,026.55 | 54.01 | 20.006 | |
| 7,500.00 | 7,249.91 | 7,431.45 | 7,299.68 | 31.53 | 26.58 | -95.88 | -147.27 | 50.97 | 1,085.35 | 1,030.59 | 54.76 | 19.819 | |
| 7,550.00 | 7,272.46 | 7,485.78 | 7,326.88 | 31.61 | 27.03 | -95.28 | -146.79 | 97.98 | 1,089.59 | 1,033.94 | 55.65 | 19.578 | |
| 7,600.00 | 7,291.91 | 7,540.38 | 7,350.55 | 31.69 | 27.57 | -94.78 | -146.29 | 147.17 | 1,093.25 | 1,036.56 | 56.69 | 19.284 | |
| 7,650.00 | 7,308.16 | 7,595.23 | 7,370.48 | 31.81 | 28.19 | -94.38 | -145.77 | 198.25 | 1,096.32 | 1,038.42 | 57.89 | 18.937 | |
| 7,700.00 | 7,321.13 | 7,650.29 | 7,386.50 | 31.99 | 28.90 | -94.08 | -145.24 | 250.90 | 1,098.77 | 1,039.51 | 59.25 | 18.543 | |
| 7,750.00 | 7,330.76 | 7,705.50 | 7,398.46 | 32.29 | 29.71 | -93.85 | -144.69 | 304.79 | 1,100.59 | 1,039.81 | 60.78 | 18.108 | |
| 7,800.00 | 7,337.00 | 7,760.83 | 7,406.24 | 32.75 | 30.59 | -93.71 | -144.13 | 359.55 | 1,101.77 | 1,039.32 | 62.44 | 17.644 | |
| 7,850.00 | 7,339.82 | 7,816.23 | 7,409.77 | 33.38 | 31.54 | -93.64 | -143.57 | 414.82 | 1,102.30 | 1,038.07 | 64.23 | 17.161 | |
| 7,866.12 | 7,340.00 | 7,834.09 | 7,410.00 | 33.62 | 31.86 | -93.64 | -143.39 | 432.68 | 1,102.34 | 1,037.51 | 64.83 | 17.004 | |
| 7,900.00 | 7,340.00 | 7,867.99 | 7,410.00 | 34.14 | 32.49 | -93.64 | -143.04 | 466.58 | 1,102.33 | 1,036.27 | 66.06 | 16.686 | |
| 8,000.00 | 7,340.00 | 7,967.99 | 7,410.00 | 35.92 | 34.48 | -93.64 | -142.03 | 566.57 | 1,102.33 | 1,032.39 | 69.95 | 15.760 | |
| 8,100.00 | 7,340.00 | 8,067.99 | 7,410.00 | 37.94 | 36.62 | -93.64 | -141.01 | 666.57 | 1,102.33 | 1,028.17 | 74.17 | 14.862 | |
| 8,200.00 | 7,340.00 | 8,167.99 | 7,410.00 | 40.14 | 38.91 | -93.64 | -140.00 | 766.56 | 1,102.33 | 1,023.65 | 78.69 | 14.009 | |
| 8,300.00 | 7,340.00 | 8,267.99 | 7,410.00 | 42.47 | 41.33 | -93.64 | -138.98 | 866.56 | 1,102.33 | 1,018.88 | 83.45 | 13.209 | |
| 8,400.00 | 7,340.00 | 8,367.99 | 7,410.00 | 44.91 | 43.84 | -93.64 | -137.96 | 966.55 | 1,102.33 | 1,013.91 | 88.42 | 12.467 | |
| 8,500.00 | 7,340.00 | 8,467.99 | 7,410.00 | 47.45 | 46.44 | -93.64 | -136.95 | 1,066.55 | 1,102.33 | 1,008.77 | 93.57 | 11.781 | |
| 8,600.00 | 7,340.00 | 8,567.99 | 7,410.00 | 50.06 | 49.12 | -93.64 | -135.93 | 1,166.54 | 1,102.33 | 1,003.48 | 98.86 | 11.151 | |
| 8,700.00 | 7,340.00 | 8,667.99 | 7,410.00 | 52.74 | 51.85 | -93.64 | -134.91 | 1,266.53 | 1,102.33 | 998.06 | 104.27 | 10.572 | |
| 8,800.00 | 7,340.00 | 8,767.99 | 7,410.00 | 55.48 | 54.64 | -93.64 | -133.90 | 1,366.53 | 1,102.33 | 992.54 | 109.80 | 10.040 | |
| 8,900.00 | 7,340.00 | 8,867.99 | 7,410.00 | 58.26 | 57.46 | -93.64 | -132.88 | 1,466.52 | 1,102.33 | 986.92 | 115.41 | 9.552 | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3I-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | 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 | | |
| 9,000.00 | 7,340.00 | 8,967.99 | 7,410.00 | 61.09 | 60.33 | -93.64 | -131.87 | 1,566.52 | 1,102.33 | 981.23 | 121.10 | 9.103 | | |
| 9,100.00 | 7,340.00 | 9,067.99 | 7,410.00 | 63.95 | 63.23 | -93.64 | -130.85 | 1,666.51 | 1,102.33 | 975.47 | 126.86 | 8.690 | | |
| 9,200.00 | 7,340.00 | 9,167.99 | 7,410.00 | 66.84 | 66.16 | -93.64 | -129.83 | 1,766.51 | 1,102.33 | 969.66 | 132.68 | 8.309 | | |
| 9,300.00 | 7,340.00 | 9,267.99 | 7,410.00 | 69.76 | 69.11 | -93.64 | -128.82 | 1,866.50 | 1,102.33 | 963.79 | 138.54 | 7.957 | | |
| 9,400.00 | 7,340.00 | 9,367.99 | 7,410.00 | 72.70 | 72.09 | -93.64 | -127.80 | 1,966.50 | 1,102.33 | 957.87 | 144.46 | 7.631 | | |
| 9,500.00 | 7,340.00 | 9,467.99 | 7,410.00 | 75.67 | 75.08 | -93.64 | -126.78 | 2,066.49 | 1,102.33 | 951.92 | 150.41 | 7.329 | | |
| 9,600.00 | 7,340.00 | 9,567.99 | 7,410.00 | 78.65 | 78.09 | -93.64 | -125.77 | 2,166.49 | 1,102.33 | 945.93 | 156.40 | 7.048 | | |
| 9,700.00 | 7,340.00 | 9,667.99 | 7,410.00 | 81.65 | 81.12 | -93.64 | -124.75 | 2,266.48 | 1,102.33 | 939.91 | 162.42 | 6.787 | | |
| 9,800.00 | 7,340.00 | 9,767.99 | 7,410.00 | 84.67 | 84.15 | -93.64 | -123.74 | 2,366.48 | 1,102.33 | 933.86 | 168.47 | 6.543 | | |
| 9,900.00 | 7,340.00 | 9,867.99 | 7,410.00 | 87.70 | 87.20 | -93.64 | -122.72 | 2,466.47 | 1,102.33 | 927.79 | 174.54 | 6.316 | | |
| 10,000.00 | 7,340.00 | 9,967.99 | 7,410.00 | 90.74 | 90.27 | -93.64 | -121.70 | 2,566.47 | 1,102.33 | 921.69 | 180.64 | 6.102 | | |
| 10,100.00 | 7,340.00 | 10,067.99 | 7,410.00 | 93.79 | 93.34 | -93.64 | -120.69 | 2,666.46 | 1,102.33 | 915.58 | 186.76 | 5.903 | | |
| 10,200.00 | 7,340.00 | 10,167.99 | 7,410.00 | 96.85 | 96.42 | -93.64 | -119.67 | 2,766.46 | 1,102.33 | 909.44 | 192.89 | 5.715 | | |
| 10,300.00 | 7,340.00 | 10,267.99 | 7,410.00 | 99.92 | 99.51 | -93.64 | -118.65 | 2,866.45 | 1,102.33 | 903.29 | 199.04 | 5.538 | | |
| 10,400.00 | 7,340.00 | 10,367.99 | 7,410.00 | 103.00 | 102.60 | -93.64 | -117.64 | 2,966.45 | 1,102.33 | 897.12 | 205.21 | 5.372 | | |
| 10,500.00 | 7,340.00 | 10,467.99 | 7,410.00 | 106.09 | 105.70 | -93.64 | -116.62 | 3,066.44 | 1,102.33 | 890.94 | 211.39 | 5.215 | | |
| 10,600.00 | 7,340.00 | 10,567.99 | 7,410.00 | 109.18 | 108.81 | -93.64 | -115.61 | 3,166.44 | 1,102.33 | 884.75 | 217.58 | 5.066 | | |
| 10,700.00 | 7,340.00 | 10,667.99 | 7,410.00 | 112.28 | 111.93 | -93.64 | -114.59 | 3,266.43 | 1,102.33 | 878.54 | 223.79 | 4.926 | | |
| 10,800.00 | 7,340.00 | 10,767.99 | 7,410.00 | 115.39 | 115.04 | -93.64 | -113.57 | 3,366.43 | 1,102.33 | 872.33 | 230.00 | 4.793 | | |
| 10,900.00 | 7,340.00 | 10,867.99 | 7,410.00 | 118.50 | 118.17 | -93.64 | -112.56 | 3,466.42 | 1,102.33 | 866.10 | 236.23 | 4.666 | | |
| 11,000.00 | 7,340.00 | 10,967.99 | 7,410.00 | 121.61 | 121.29 | -93.64 | -111.54 | 3,566.42 | 1,102.33 | 859.87 | 242.46 | 4.546 | | |
| 11,100.00 | 7,340.00 | 11,067.99 | 7,410.00 | 124.74 | 124.43 | -93.64 | -110.52 | 3,666.41 | 1,102.33 | 853.62 | 248.71 | 4.432 | | |
| 11,200.00 | 7,340.00 | 11,167.99 | 7,410.00 | 127.86 | 127.56 | -93.64 | -109.51 | 3,766.41 | 1,102.33 | 847.37 | 254.96 | 4.324 | | |
| 11,300.00 | 7,340.00 | 11,267.99 | 7,410.00 | 130.99 | 130.70 | -93.64 | -108.49 | 3,866.40 | 1,102.33 | 841.11 | 261.21 | 4.220 | | |
| 11,400.00 | 7,340.00 | 11,367.99 | 7,410.00 | 134.12 | 133.84 | -93.64 | -107.48 | 3,966.40 | 1,102.33 | 834.85 | 267.48 | 4.121 | | |
| 11,500.00 | 7,340.00 | 11,467.99 | 7,410.00 | 137.26 | 136.99 | -93.64 | -106.46 | 4,066.39 | 1,102.33 | 828.58 | 273.75 | 4.027 | | |
| 11,600.00 | 7,340.00 | 11,567.99 | 7,410.00 | 140.40 | 140.14 | -93.64 | -105.44 | 4,166.39 | 1,102.33 | 822.30 | 280.03 | 3.937 | | |
| 11,700.00 | 7,340.00 | 11,667.99 | 7,410.00 | 143.54 | 143.29 | -93.64 | -104.43 | 4,266.38 | 1,102.33 | 816.02 | 286.31 | 3.850 | | |
| 11,800.00 | 7,340.00 | 11,767.99 | 7,410.00 | 146.68 | 146.44 | -93.64 | -103.41 | 4,366.37 | 1,102.33 | 809.73 | 292.60 | 3.767 | | |
| 11,900.00 | 7,340.00 | 11,867.99 | 7,410.00 | 149.83 | 148.69 | -93.64 | -102.40 | 4,466.37 | 1,102.33 | 804.34 | 297.98 | 3.699 | | |
| 11,932.12 | 7,340.00 | 11,900.11 | 7,410.00 | 150.84 | 149.27 | -93.64 | -102.07 | 4,498.49 | 1,102.33 | 802.75 | 299.58 | 3.680 SF | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3J-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | 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 | 0.14 | 50.27 | 0.13 | 50.27 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.14 | 50.27 | 0.13 | 50.27 | 50.00 | 0.28 | 182.133 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.14 | 50.27 | 0.13 | 50.27 | 49.28 | 0.99 | 50.629 CC, ES | | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 166.86 | 50.27 | 0.13 | 51.97 | 50.27 | 1.70 | 30.625 | | |
| 400.00 | 399.84 | 399.84 | 399.84 | 1.19 | 1.21 | 168.03 | 50.27 | 0.13 | 57.08 | 54.68 | 2.40 | 23.737 | | |
| 500.00 | 499.45 | 499.45 | 499.45 | 1.55 | 1.57 | 169.58 | 50.27 | 0.13 | 65.63 | 62.51 | 3.12 | 21.030 | | |
| 600.00 | 598.70 | 598.70 | 598.70 | 1.93 | 1.93 | 171.17 | 50.27 | 0.13 | 77.65 | 73.81 | 3.84 | 20.216 | | |
| 700.00 | 697.47 | 697.47 | 697.47 | 2.33 | 2.28 | 172.60 | 50.27 | 0.13 | 93.14 | 88.58 | 4.56 | 20.410 | | |
| 730.58 | 727.55 | 728.42 | 728.42 | 2.46 | 2.39 | 172.97 | 50.16 | 0.05 | 98.45 | 93.66 | 4.79 | 20.561 | | |
| 800.00 | 795.78 | 799.22 | 799.20 | 2.75 | 2.63 | 173.44 | 48.84 | -0.82 | 109.78 | 104.49 | 5.29 | 20.756 | | |
| 900.00 | 894.07 | 902.04 | 901.87 | 3.18 | 2.97 | 173.34 | 44.33 | -3.80 | 123.42 | 117.40 | 6.02 | 20.508 | | |
| 1,000.00 | 992.36 | 1,005.03 | 1,004.46 | 3.62 | 3.33 | 172.56 | 36.76 | -8.79 | 133.90 | 127.14 | 6.76 | 19.804 | | |
| 1,100.00 | 1,090.65 | 1,104.57 | 1,103.49 | 4.06 | 3.68 | 171.66 | 28.34 | -14.36 | 143.23 | 135.75 | 7.48 | 19.159 | | |
| 1,200.00 | 1,188.94 | 1,204.11 | 1,202.52 | 4.50 | 4.03 | 170.88 | 19.92 | -19.92 | 152.58 | 144.38 | 8.20 | 18.614 | | |
| 1,300.00 | 1,287.23 | 1,303.66 | 1,301.54 | 4.95 | 4.40 | 170.19 | 11.49 | -25.48 | 161.96 | 153.03 | 8.92 | 18.148 | | |
| 1,400.00 | 1,385.52 | 1,403.20 | 1,400.57 | 5.39 | 4.76 | 169.57 | 3.07 | -31.04 | 171.36 | 161.70 | 9.66 | 17.745 | | |
| 1,500.00 | 1,483.81 | 1,502.74 | 1,499.60 | 5.84 | 5.14 | 169.02 | -5.36 | -36.60 | 180.78 | 170.38 | 10.39 | 17.395 | | |
| 1,600.00 | 1,582.10 | 1,602.28 | 1,598.63 | 6.29 | 5.51 | 168.52 | -13.78 | -42.16 | 190.21 | 179.08 | 11.13 | 17.087 | | |
| 1,700.00 | 1,680.39 | 1,701.82 | 1,697.66 | 6.74 | 5.88 | 168.07 | -22.20 | -47.72 | 199.66 | 187.78 | 11.87 | 16.815 | | |
| 1,800.00 | 1,778.68 | 1,801.36 | 1,796.68 | 7.19 | 6.26 | 167.66 | -30.63 | -53.29 | 209.11 | 196.50 | 12.62 | 16.573 | | |
| 1,900.00 | 1,876.97 | 1,900.90 | 1,895.71 | 7.64 | 6.64 | 167.28 | -39.05 | -58.85 | 218.58 | 205.22 | 13.36 | 16.357 | | |
| 2,000.00 | 1,975.26 | 2,000.44 | 1,994.74 | 8.09 | 7.02 | 166.94 | -47.47 | -64.41 | 228.05 | 213.94 | 14.11 | 16.162 | | |
| 2,100.00 | 2,073.55 | 2,099.99 | 2,093.77 | 8.54 | 7.40 | 166.62 | -55.90 | -69.97 | 237.54 | 222.68 | 14.86 | 15.985 | | |
| 2,200.00 | 2,171.84 | 2,199.53 | 2,192.80 | 8.99 | 7.78 | 166.33 | -64.32 | -75.53 | 247.03 | 231.42 | 15.61 | 15.825 | | |
| 2,300.00 | 2,270.13 | 2,299.07 | 2,291.82 | 9.44 | 8.16 | 166.06 | -72.74 | -81.09 | 256.52 | 240.16 | 16.36 | 15.679 | | |
| 2,400.00 | 2,368.42 | 2,398.61 | 2,390.85 | 9.89 | 8.55 | 165.81 | -81.17 | -86.65 | 266.02 | 248.91 | 17.11 | 15.545 | | |
| 2,500.00 | 2,466.71 | 2,498.15 | 2,489.88 | 10.34 | 8.93 | 165.58 | -89.59 | -92.22 | 275.53 | 257.66 | 17.87 | 15.422 | | |
| 2,600.00 | 2,565.00 | 2,597.69 | 2,588.91 | 10.79 | 9.31 | 165.36 | -98.01 | -97.78 | 285.04 | 266.42 | 18.62 | 15.308 | | |
| 2,700.00 | 2,663.29 | 2,697.23 | 2,687.94 | 11.25 | 9.70 | 165.15 | -106.44 | -103.34 | 294.55 | 275.17 | 19.37 | 15.203 | | |
| 2,800.00 | 2,761.58 | 2,796.77 | 2,786.97 | 11.70 | 10.08 | 164.96 | -114.86 | -108.90 | 304.07 | 283.94 | 20.13 | 15.105 | | |
| 2,900.00 | 2,859.87 | 2,896.31 | 2,885.99 | 12.15 | 10.47 | 164.78 | -123.28 | -114.46 | 313.59 | 292.70 | 20.89 | 15.015 | | |
| 3,000.00 | 2,958.16 | 2,995.86 | 2,985.02 | 12.60 | 10.85 | 164.61 | -131.71 | -120.02 | 323.11 | 301.47 | 21.64 | 14.930 | | |
| 3,100.00 | 3,056.45 | 3,095.40 | 3,084.05 | 13.05 | 11.24 | 164.46 | -140.13 | -125.58 | 332.63 | 310.24 | 22.40 | 14.851 | | |
| 3,200.00 | 3,154.74 | 3,194.94 | 3,183.08 | 13.51 | 11.63 | 164.30 | -148.55 | -131.14 | 342.16 | 319.01 | 23.15 | 14.777 | | |
| 3,300.00 | 3,253.03 | 3,294.48 | 3,282.11 | 13.96 | 12.01 | 164.16 | -156.98 | -136.71 | 351.69 | 327.78 | 23.91 | 14.708 | | |
| 3,400.00 | 3,351.32 | 3,394.02 | 3,381.13 | 14.41 | 12.40 | 164.03 | -165.40 | -142.27 | 361.22 | 336.55 | 24.67 | 14.642 | | |
| 3,500.00 | 3,449.61 | 3,493.56 | 3,480.16 | 14.86 | 12.78 | 163.90 | -173.82 | -147.83 | 370.76 | 345.33 | 25.43 | 14.581 | | |
| 3,600.00 | 3,547.90 | 3,593.10 | 3,579.19 | 15.32 | 13.17 | 163.78 | -182.25 | -153.39 | 380.29 | 354.11 | 26.19 | 14.523 | | |
| 3,700.00 | 3,646.19 | 3,692.64 | 3,678.22 | 15.77 | 13.56 | 163.66 | -190.67 | -158.95 | 389.83 | 362.89 | 26.94 | 14.468 | | |
| 3,800.00 | 3,744.48 | 3,792.18 | 3,777.25 | 16.22 | 13.95 | 163.55 | -199.09 | -164.51 | 399.37 | 371.66 | 27.70 | 14.416 | | |
| 3,900.00 | 3,842.77 | 3,891.73 | 3,876.27 | 16.67 | 14.33 | 163.45 | -207.52 | -170.07 | 408.91 | 380.45 | 28.46 | 14.367 | | |
| 4,000.00 | 3,941.06 | 3,991.27 | 3,975.30 | 17.13 | 14.72 | 163.35 | -215.94 | -175.64 | 418.45 | 389.23 | 29.22 | 14.320 | | |
| 4,100.00 | 4,039.35 | 4,090.81 | 4,074.33 | 17.58 | 15.11 | 163.25 | -224.36 | -181.20 | 427.99 | 398.01 | 29.98 | 14.275 | | |
| 4,200.00 | 4,137.64 | 4,190.35 | 4,173.36 | 18.03 | 15.49 | 163.16 | -232.79 | -186.76 | 437.54 | 406.80 | 30.74 | 14.233 | | |
| 4,300.00 | 4,235.93 | 4,289.89 | 4,272.39 | 18.48 | 15.88 | 163.07 | -241.21 | -192.32 | 447.08 | 415.58 | 31.50 | 14.193 | | |
| 4,400.00 | 4,334.22 | 4,389.43 | 4,371.41 | 18.94 | 16.27 | 162.99 | -249.63 | -197.88 | 456.63 | 424.37 | 32.26 | 14.154 | | |
| 4,500.00 | 4,432.51 | 4,488.97 | 4,470.44 | 19.39 | 16.66 | 162.91 | -258.06 | -203.44 | 466.17 | 433.15 | 33.02 | 14.118 | | |
| 4,600.00 | 4,530.80 | 4,588.51 | 4,569.47 | 19.84 | 17.05 | 162.83 | -266.48 | -209.00 | 475.72 | 441.94 | 33.78 | 14.082 | | |
| 4,700.00 | 4,629.09 | 4,688.06 | 4,668.50 | 20.30 | 17.43 | 162.76 | -274.91 | -214.57 | 485.27 | 450.73 | 34.54 | 14.049 | | |
| 4,800.00 | 4,727.38 | 4,787.60 | 4,767.53 | 20.75 | 17.82 | 162.69 | -283.33 | -220.13 | 494.82 | 459.52 | 35.30 | 14.017 | | |
| 4,900.00 | 4,825.67 | 4,887.14 | 4,866.55 | 21.20 | 18.21 | 162.62 | -291.75 | -225.69 | 504.37 | 468.31 | 36.06 | 13.986 | | |
| 5,000.00 | 4,923.96 | 4,986.68 | 4,965.58 | 21.66 | 18.60 | 162.55 | -300.18 | -231.25 | 513.92 | 477.10 | 36.82 | 13.956 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3J-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | 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 | 5,022.25 | 5,086.22 | 5,064.61 | 22.11 | 18.98 | 162.49 | -308.60 | -236.81 | 523.47 | 485.89 | 37.58 | 13.928 | |
| 5,200.00 | 5,120.54 | 5,185.76 | 5,163.64 | 22.56 | 19.37 | 162.43 | -317.02 | -242.37 | 533.02 | 494.68 | 38.35 | 13.901 | |
| 5,300.00 | 5,218.83 | 5,285.30 | 5,262.67 | 23.01 | 19.76 | 162.37 | -325.45 | -247.93 | 542.57 | 503.47 | 39.11 | 13.874 | |
| 5,400.00 | 5,317.12 | 5,384.84 | 5,361.70 | 23.47 | 20.15 | 162.31 | -333.87 | -253.50 | 552.13 | 512.26 | 39.87 | 13.849 | |
| 5,500.00 | 5,415.41 | 5,484.38 | 5,460.72 | 23.92 | 20.54 | 162.25 | -342.29 | -259.06 | 561.68 | 521.05 | 40.63 | 13.825 | |
| 5,600.00 | 5,513.70 | 5,583.93 | 5,559.75 | 24.37 | 20.93 | 162.20 | -350.72 | -264.62 | 571.24 | 529.85 | 41.39 | 13.801 | |
| 5,700.00 | 5,611.99 | 5,683.47 | 5,658.78 | 24.83 | 21.31 | 162.15 | -359.14 | -270.18 | 580.79 | 538.64 | 42.15 | 13.779 | |
| 5,800.00 | 5,710.28 | 5,776.18 | 5,751.04 | 25.28 | 21.67 | 162.12 | -366.73 | -275.19 | 590.63 | 547.76 | 42.86 | 13.779 | |
| 5,900.00 | 5,808.57 | 5,861.36 | 5,836.00 | 25.73 | 21.99 | 162.23 | -371.86 | -278.58 | 602.51 | 559.01 | 43.49 | 13.853 | |
| 6,000.00 | 5,906.86 | 5,945.96 | 5,920.52 | 26.19 | 22.30 | 162.47 | -374.86 | -280.56 | 616.73 | 572.65 | 44.08 | 13.991 | |
| 6,100.00 | 6,005.15 | 6,030.60 | 6,005.15 | 26.64 | 22.58 | 162.84 | -375.78 | -281.16 | 633.30 | 588.67 | 44.63 | 14.191 | |
| 6,200.00 | 6,103.44 | 6,128.89 | 6,103.44 | 27.09 | 22.89 | 163.32 | -375.78 | -281.16 | 650.94 | 605.65 | 45.30 | 14.370 | |
| 6,300.00 | 6,201.72 | 6,227.18 | 6,201.72 | 27.54 | 23.19 | 163.77 | -375.78 | -281.16 | 668.63 | 622.66 | 45.97 | 14.545 | |
| 6,400.00 | 6,300.01 | 6,325.47 | 6,300.01 | 28.00 | 23.50 | 164.20 | -375.78 | -281.16 | 686.35 | 639.71 | 46.64 | 14.715 | |
| 6,500.00 | 6,398.30 | 6,423.76 | 6,398.30 | 28.45 | 23.81 | 164.61 | -375.78 | -281.16 | 704.11 | 656.79 | 47.32 | 14.880 | |
| 6,600.00 | 6,496.59 | 6,522.04 | 6,496.59 | 28.90 | 24.11 | 164.99 | -375.78 | -281.16 | 721.90 | 673.90 | 48.00 | 15.040 | |
| 6,708.50 | 6,603.24 | 6,628.69 | 6,603.24 | 29.40 | 24.45 | 165.39 | -375.78 | -281.16 | 741.24 | 692.50 | 48.74 | 15.209 | |
| 6,750.00 | 6,644.06 | 6,669.51 | 6,644.05 | 29.58 | 24.58 | -175.94 | -375.77 | -280.88 | 748.65 | 699.63 | 49.02 | 15.272 | |
| 6,800.00 | 6,693.19 | 6,718.66 | 6,693.10 | 29.79 | 24.73 | -154.73 | -375.74 | -277.80 | 757.57 | 708.22 | 49.35 | 15.352 | |
| 6,850.00 | 6,742.04 | 6,767.77 | 6,741.78 | 29.99 | 24.87 | -138.47 | -375.68 | -271.38 | 766.44 | 716.78 | 49.66 | 15.434 | |
| 6,900.00 | 6,790.37 | 6,816.87 | 6,789.90 | 30.17 | 25.01 | -127.08 | -375.58 | -261.64 | 775.21 | 725.26 | 49.95 | 15.519 | |
| 6,950.00 | 6,837.94 | 6,865.97 | 6,837.22 | 30.34 | 25.15 | -119.10 | -375.45 | -248.63 | 783.85 | 733.62 | 50.23 | 15.605 | |
| 7,000.00 | 6,884.53 | 6,915.07 | 6,883.56 | 30.50 | 25.27 | -113.30 | -375.28 | -232.40 | 792.31 | 741.81 | 50.50 | 15.689 | |
| 7,050.00 | 6,929.90 | 6,964.20 | 6,928.69 | 30.65 | 25.39 | -108.93 | -375.08 | -213.03 | 800.55 | 749.78 | 50.76 | 15.770 | |
| 7,100.00 | 6,973.84 | 7,013.36 | 6,972.42 | 30.79 | 25.50 | -105.51 | -374.86 | -190.59 | 808.52 | 757.50 | 51.03 | 15.845 | |
| 7,150.00 | 7,016.13 | 7,062.56 | 7,014.55 | 30.91 | 25.61 | -102.76 | -374.60 | -165.18 | 816.20 | 764.90 | 51.30 | 15.910 | |
| 7,200.00 | 7,056.56 | 7,111.83 | 7,054.88 | 31.02 | 25.72 | -100.50 | -374.31 | -136.91 | 823.54 | 771.94 | 51.60 | 15.961 | |
| 7,250.00 | 7,094.94 | 7,161.15 | 7,093.22 | 31.13 | 25.82 | -98.62 | -374.00 | -105.89 | 830.51 | 778.58 | 51.92 | 15.994 | |
| 7,300.00 | 7,131.08 | 7,210.55 | 7,129.38 | 31.22 | 25.92 | -97.02 | -373.65 | -72.26 | 837.07 | 784.76 | 52.30 | 16.004 | |
| 7,350.00 | 7,164.81 | 7,260.01 | 7,163.18 | 31.31 | 26.05 | -95.67 | -373.29 | -36.16 | 843.19 | 790.44 | 52.75 | 15.984 | |
| 7,400.00 | 7,195.95 | 7,309.55 | 7,194.45 | 31.39 | 26.21 | -94.51 | -372.90 | 2.24 | 848.84 | 795.56 | 53.28 | 15.931 | |
| 7,450.00 | 7,224.37 | 7,359.16 | 7,223.04 | 31.46 | 26.44 | -93.52 | -372.48 | 42.77 | 854.00 | 800.08 | 53.92 | 15.839 | |
| 7,500.00 | 7,249.91 | 7,408.84 | 7,248.79 | 31.53 | 26.76 | -92.67 | -372.05 | 85.25 | 858.64 | 803.96 | 54.67 | 15.705 | |
| 7,550.00 | 7,272.46 | 7,458.59 | 7,271.56 | 31.61 | 27.18 | -91.96 | -371.60 | 129.47 | 862.73 | 807.17 | 55.56 | 15.528 | |
| 7,600.00 | 7,291.91 | 7,508.41 | 7,291.22 | 31.69 | 27.69 | -91.38 | -371.14 | 175.23 | 866.26 | 809.67 | 56.58 | 15.309 | |
| 7,650.00 | 7,308.16 | 7,558.28 | 7,307.68 | 31.81 | 28.28 | -90.90 | -370.66 | 222.29 | 869.21 | 811.45 | 57.76 | 15.049 | |
| 7,700.00 | 7,321.13 | 7,608.19 | 7,320.83 | 31.99 | 28.95 | -90.53 | -370.17 | 270.43 | 871.56 | 812.49 | 59.07 | 14.754 | |
| 7,750.00 | 7,330.76 | 7,658.15 | 7,330.61 | 32.29 | 29.69 | -90.26 | -369.67 | 319.40 | 873.31 | 812.78 | 60.53 | 14.428 | |
| 7,800.00 | 7,337.00 | 7,708.13 | 7,336.95 | 32.75 | 30.49 | -90.08 | -369.17 | 368.97 | 874.44 | 812.33 | 62.11 | 14.078 | |
| 7,850.00 | 7,339.82 | 7,758.12 | 7,339.82 | 33.38 | 31.35 | -90.00 | -368.66 | 418.87 | 874.96 | 811.15 | 63.80 | 13.713 | |
| 7,866.12 | 7,340.00 | 7,774.24 | 7,340.00 | 33.62 | 31.64 | -90.00 | -368.50 | 434.98 | 874.99 | 810.62 | 64.37 | 13.593 | |
| 7,900.00 | 7,340.00 | 7,808.12 | 7,340.00 | 34.14 | 32.27 | -90.00 | -368.15 | 468.86 | 874.99 | 809.39 | 65.60 | 13.338 | |
| 8,000.00 | 7,340.00 | 7,908.12 | 7,340.00 | 35.92 | 34.24 | -90.00 | -367.14 | 568.86 | 874.99 | 805.50 | 69.49 | 12.592 | |
| 8,100.00 | 7,340.00 | 8,008.12 | 7,340.00 | 37.94 | 36.39 | -90.00 | -366.12 | 668.85 | 874.99 | 801.26 | 73.73 | 11.868 | |
| 8,200.00 | 7,340.00 | 8,108.12 | 7,340.00 | 40.14 | 38.69 | -90.00 | -365.11 | 768.85 | 874.99 | 796.72 | 78.26 | 11.180 | |
| 8,300.00 | 7,340.00 | 8,208.12 | 7,340.00 | 42.47 | 41.11 | -90.00 | -364.09 | 868.84 | 874.99 | 791.94 | 83.05 | 10.536 | |
| 8,400.00 | 7,340.00 | 8,308.12 | 7,340.00 | 44.91 | 43.63 | -90.00 | -363.07 | 968.84 | 874.99 | 786.95 | 88.04 | 9.939 | |
| 8,500.00 | 7,340.00 | 8,408.12 | 7,340.00 | 47.45 | 46.23 | -90.00 | -362.06 | 1,068.83 | 874.99 | 781.78 | 93.20 | 9.388 | |
| 8,600.00 | 7,340.00 | 8,508.12 | 7,340.00 | 50.06 | 48.91 | -90.00 | -361.04 | 1,168.83 | 874.99 | 776.47 | 98.52 | 8.882 | |
| 8,700.00 | 7,340.00 | 8,608.12 | 7,340.00 | 52.74 | 51.65 | -90.00 | -360.02 | 1,268.82 | 874.99 | 771.04 | 103.95 | 8.417 | |
| 8,800.00 | 7,340.00 | 8,708.12 | 7,340.00 | 55.48 | 54.44 | -90.00 | -359.01 | 1,368.82 | 874.99 | 765.49 | 109.49 | 7.991 | |
| 8,900.00 | 7,340.00 | 8,808.12 | 7,340.00 | 58.26 | 57.27 | -90.00 | -357.99 | 1,468.81 | 874.99 | 759.86 | 115.13 | 7.600 | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3J-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | 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 | | |
| 9,000.00 | 7,340.00 | 8,908.12 | 7,340.00 | 61.09 | 60.14 | -90.00 | -356.98 | 1,568.81 | 874.99 | 754.15 | 120.84 | 7.241 | | |
| 9,100.00 | 7,340.00 | 9,008.12 | 7,340.00 | 63.95 | 63.04 | -90.00 | -355.96 | 1,668.80 | 874.99 | 748.37 | 126.61 | 6.911 | | |
| 9,200.00 | 7,340.00 | 9,108.12 | 7,340.00 | 66.84 | 65.97 | -90.00 | -354.94 | 1,768.80 | 874.99 | 742.54 | 132.45 | 6.606 | | |
| 9,300.00 | 7,340.00 | 9,208.12 | 7,340.00 | 69.76 | 68.92 | -90.00 | -353.93 | 1,868.79 | 874.99 | 736.65 | 138.34 | 6.325 | | |
| 9,400.00 | 7,340.00 | 9,308.12 | 7,340.00 | 72.70 | 71.90 | -90.00 | -352.91 | 1,968.79 | 874.99 | 730.72 | 144.27 | 6.065 | | |
| 9,500.00 | 7,340.00 | 9,408.12 | 7,340.00 | 75.67 | 74.90 | -90.00 | -351.89 | 2,068.78 | 874.99 | 724.75 | 150.24 | 5.824 | | |
| 9,600.00 | 7,340.00 | 9,508.12 | 7,340.00 | 78.65 | 77.91 | -90.00 | -350.88 | 2,168.78 | 874.99 | 718.74 | 156.25 | 5.600 | | |
| 9,700.00 | 7,340.00 | 9,608.12 | 7,340.00 | 81.65 | 80.94 | -90.00 | -349.86 | 2,268.77 | 874.99 | 712.70 | 162.28 | 5.392 | | |
| 9,800.00 | 7,340.00 | 9,708.12 | 7,340.00 | 84.67 | 83.98 | -90.00 | -348.85 | 2,368.77 | 874.99 | 706.64 | 168.35 | 5.197 | | |
| 9,900.00 | 7,340.00 | 9,808.12 | 7,340.00 | 87.70 | 87.03 | -90.00 | -347.83 | 2,468.76 | 874.99 | 700.55 | 174.44 | 5.016 | | |
| 10,000.00 | 7,340.00 | 9,908.12 | 7,340.00 | 90.74 | 90.09 | -90.00 | -346.81 | 2,568.76 | 874.98 | 694.43 | 180.55 | 4.846 | | |
| 10,100.00 | 7,340.00 | 10,008.12 | 7,340.00 | 93.79 | 93.16 | -90.00 | -345.80 | 2,668.75 | 874.98 | 688.30 | 186.68 | 4.687 | | |
| 10,200.00 | 7,340.00 | 10,108.12 | 7,340.00 | 96.85 | 96.24 | -90.00 | -344.78 | 2,768.74 | 874.98 | 682.15 | 192.83 | 4.538 | | |
| 10,300.00 | 7,340.00 | 10,208.12 | 7,340.00 | 99.92 | 99.33 | -90.00 | -343.76 | 2,868.74 | 874.98 | 675.98 | 199.00 | 4.397 | | |
| 10,400.00 | 7,340.00 | 10,308.12 | 7,340.00 | 103.00 | 102.43 | -90.00 | -342.75 | 2,968.73 | 874.98 | 669.80 | 205.18 | 4.264 | | |
| 10,500.00 | 7,340.00 | 10,408.12 | 7,340.00 | 106.09 | 105.53 | -90.00 | -341.73 | 3,068.73 | 874.98 | 663.60 | 211.38 | 4.139 | | |
| 10,600.00 | 7,340.00 | 10,508.12 | 7,340.00 | 109.18 | 108.64 | -90.00 | -340.72 | 3,168.72 | 874.98 | 657.40 | 217.59 | 4.021 | | |
| 10,700.00 | 7,340.00 | 10,608.12 | 7,340.00 | 112.28 | 111.76 | -90.00 | -339.70 | 3,268.72 | 874.98 | 651.17 | 223.81 | 3.910 | | |
| 10,800.00 | 7,340.00 | 10,708.12 | 7,340.00 | 115.39 | 114.88 | -90.00 | -338.68 | 3,368.71 | 874.98 | 644.94 | 230.04 | 3.804 | | |
| 10,900.00 | 7,340.00 | 10,808.12 | 7,340.00 | 118.50 | 118.00 | -90.00 | -337.67 | 3,468.71 | 874.98 | 638.70 | 236.28 | 3.703 | | |
| 11,000.00 | 7,340.00 | 10,908.12 | 7,340.00 | 121.61 | 121.13 | -90.00 | -336.65 | 3,568.70 | 874.98 | 632.45 | 242.53 | 3.608 | | |
| 11,100.00 | 7,340.00 | 11,008.12 | 7,340.00 | 124.74 | 124.26 | -90.00 | -335.63 | 3,668.70 | 874.98 | 626.20 | 248.79 | 3.517 | | |
| 11,200.00 | 7,340.00 | 11,108.12 | 7,340.00 | 127.86 | 127.40 | -90.00 | -334.62 | 3,768.69 | 874.98 | 619.93 | 255.05 | 3.431 | | |
| 11,300.00 | 7,340.00 | 11,208.12 | 7,340.00 | 130.99 | 130.54 | -90.00 | -333.60 | 3,868.69 | 874.98 | 613.66 | 261.33 | 3.348 | | |
| 11,400.00 | 7,340.00 | 11,308.12 | 7,340.00 | 134.12 | 133.68 | -90.00 | -332.59 | 3,968.68 | 874.98 | 607.38 | 267.60 | 3.270 | | |
| 11,500.00 | 7,340.00 | 11,408.12 | 7,340.00 | 137.26 | 136.82 | -90.00 | -331.57 | 4,068.68 | 874.98 | 601.09 | 273.89 | 3.195 | | |
| 11,600.00 | 7,340.00 | 11,508.12 | 7,340.00 | 140.40 | 139.97 | -90.00 | -330.55 | 4,168.67 | 874.98 | 594.80 | 280.18 | 3.123 | | |
| 11,700.00 | 7,340.00 | 11,608.12 | 7,340.00 | 143.54 | 143.12 | -90.00 | -329.54 | 4,268.67 | 874.98 | 588.50 | 286.48 | 3.054 | | |
| 11,800.00 | 7,340.00 | 11,708.12 | 7,340.00 | 146.68 | 146.28 | -90.00 | -328.52 | 4,368.66 | 874.98 | 582.20 | 292.78 | 2.989 | | |
| 11,900.00 | 7,340.00 | 11,808.12 | 7,340.00 | 149.83 | 149.32 | -90.00 | -327.50 | 4,468.66 | 874.98 | 576.00 | 298.98 | 2.927 | | |
| 11,932.12 | 7,340.00 | 11,840.24 | 7,340.00 | 150.84 | 149.91 | -90.00 | -327.18 | 4,500.77 | 874.98 | 574.41 | 300.57 | 2.911 SF | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3K-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | 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 | 0.31 | 40.08 | 0.21 | 40.08 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.31 | 40.08 | 0.21 | 40.08 | 39.80 | 0.28 | 145.199 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.31 | 40.08 | 0.21 | 40.08 | 39.09 | 0.99 | 40.362 CC, ES | | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 167.12 | 40.08 | 0.21 | 41.78 | 40.08 | 1.70 | 24.618 | | |
| 400.00 | 399.84 | 399.84 | 399.84 | 1.19 | 1.21 | 168.53 | 40.08 | 0.21 | 46.89 | 44.49 | 2.40 | 19.501 | | |
| 500.00 | 499.45 | 499.45 | 499.45 | 1.55 | 1.57 | 170.29 | 40.08 | 0.21 | 55.46 | 52.34 | 3.12 | 17.772 | | |
| 600.00 | 598.70 | 598.70 | 598.70 | 1.93 | 1.93 | 172.00 | 40.08 | 0.21 | 67.51 | 63.67 | 3.84 | 17.576 | | |
| 700.00 | 697.47 | 700.22 | 700.20 | 2.33 | 2.27 | 173.16 | 38.47 | -0.48 | 81.39 | 76.83 | 4.57 | 17.829 | | |
| 730.58 | 727.55 | 731.37 | 731.32 | 2.46 | 2.38 | 173.36 | 37.31 | -0.98 | 85.65 | 80.86 | 4.79 | 17.871 | | |
| 800.00 | 795.78 | 802.37 | 802.20 | 2.75 | 2.62 | 173.58 | 33.52 | -2.62 | 94.52 | 89.22 | 5.30 | 17.828 | | |
| 900.00 | 894.07 | 905.32 | 904.74 | 3.18 | 2.97 | 173.36 | 25.16 | -6.24 | 104.40 | 98.34 | 6.05 | 17.243 | | |
| 1,000.00 | 992.36 | 1,008.52 | 1,007.14 | 3.62 | 3.34 | 172.64 | 13.40 | -11.32 | 110.84 | 104.03 | 6.82 | 16.260 | | |
| 1,100.00 | 1,090.65 | 1,108.39 | 1,106.03 | 4.06 | 3.71 | 171.80 | 0.62 | -16.85 | 115.85 | 108.32 | 7.53 | 15.382 | | |
| 1,200.00 | 1,188.94 | 1,208.25 | 1,204.92 | 4.50 | 4.09 | 171.02 | -12.15 | -22.37 | 120.88 | 112.62 | 8.26 | 14.640 | | |
| 1,300.00 | 1,287.23 | 1,308.11 | 1,303.80 | 4.95 | 4.47 | 170.31 | -24.92 | -27.89 | 125.93 | 116.94 | 8.99 | 14.010 | | |
| 1,400.00 | 1,385.52 | 1,407.97 | 1,402.69 | 5.39 | 4.86 | 169.65 | -37.70 | -33.41 | 130.99 | 121.27 | 9.73 | 13.470 | | |
| 1,500.00 | 1,483.81 | 1,507.83 | 1,501.57 | 5.84 | 5.26 | 169.04 | -50.47 | -38.94 | 136.08 | 125.61 | 10.47 | 13.001 | | |
| 1,600.00 | 1,582.10 | 1,607.69 | 1,600.46 | 6.29 | 5.66 | 168.47 | -63.24 | -44.46 | 141.17 | 129.96 | 11.21 | 12.591 | | |
| 1,700.00 | 1,680.39 | 1,707.55 | 1,699.35 | 6.74 | 6.06 | 167.94 | -76.02 | -49.98 | 146.28 | 134.32 | 11.96 | 12.230 | | |
| 1,800.00 | 1,778.68 | 1,807.41 | 1,798.23 | 7.19 | 6.46 | 167.45 | -88.79 | -55.51 | 151.41 | 138.69 | 12.71 | 11.910 | | |
| 1,900.00 | 1,876.97 | 1,907.27 | 1,897.12 | 7.64 | 6.86 | 167.00 | -101.56 | -61.03 | 156.54 | 143.07 | 13.47 | 11.624 | | |
| 2,000.00 | 1,975.26 | 2,007.13 | 1,996.01 | 8.09 | 7.27 | 166.57 | -114.33 | -66.55 | 161.68 | 147.46 | 14.22 | 11.368 | | |
| 2,100.00 | 2,073.55 | 2,106.99 | 2,094.89 | 8.54 | 7.67 | 166.16 | -127.11 | -72.07 | 166.83 | 151.85 | 14.98 | 11.136 | | |
| 2,200.00 | 2,171.84 | 2,206.85 | 2,193.78 | 8.99 | 8.08 | 165.78 | -139.88 | -77.60 | 171.99 | 156.25 | 15.74 | 10.926 | | |
| 2,300.00 | 2,270.13 | 2,306.71 | 2,292.66 | 9.44 | 8.49 | 165.43 | -152.65 | -83.12 | 177.15 | 160.65 | 16.50 | 10.735 | | |
| 2,400.00 | 2,368.42 | 2,406.57 | 2,391.55 | 9.89 | 8.90 | 165.09 | -165.43 | -88.64 | 182.32 | 165.06 | 17.26 | 10.561 | | |
| 2,500.00 | 2,466.71 | 2,506.43 | 2,490.44 | 10.34 | 9.31 | 164.77 | -178.20 | -94.17 | 187.50 | 169.47 | 18.03 | 10.401 | | |
| 2,600.00 | 2,565.00 | 2,606.29 | 2,589.32 | 10.79 | 9.72 | 164.47 | -190.97 | -99.69 | 192.68 | 173.89 | 18.79 | 10.253 | | |
| 2,700.00 | 2,663.29 | 2,706.16 | 2,688.21 | 11.25 | 10.13 | 164.19 | -203.75 | -105.21 | 197.87 | 178.31 | 19.56 | 10.117 | | |
| 2,800.00 | 2,761.58 | 2,806.02 | 2,787.10 | 11.70 | 10.54 | 163.92 | -216.52 | -110.73 | 203.06 | 182.74 | 20.33 | 9.990 | | |
| 2,900.00 | 2,859.87 | 2,905.88 | 2,885.98 | 12.15 | 10.95 | 163.66 | -229.29 | -116.26 | 208.26 | 187.17 | 21.09 | 9.873 | | |
| 3,000.00 | 2,958.16 | 3,005.74 | 2,984.87 | 12.60 | 11.36 | 163.41 | -242.07 | -121.78 | 213.46 | 191.60 | 21.86 | 9.764 | | |
| 3,100.00 | 3,056.45 | 3,105.60 | 3,083.75 | 13.05 | 11.78 | 163.18 | -254.84 | -127.30 | 218.66 | 196.03 | 22.63 | 9.662 | | |
| 3,200.00 | 3,154.74 | 3,205.46 | 3,182.64 | 13.51 | 12.19 | 162.96 | -267.61 | -132.83 | 223.87 | 200.47 | 23.40 | 9.567 | | |
| 3,300.00 | 3,253.03 | 3,305.32 | 3,281.53 | 13.96 | 12.60 | 162.75 | -280.39 | -138.35 | 229.08 | 204.91 | 24.17 | 9.478 | | |
| 3,400.00 | 3,351.32 | 3,405.18 | 3,380.41 | 14.41 | 13.01 | 162.55 | -293.16 | -143.87 | 234.30 | 209.35 | 24.94 | 9.394 | | |
| 3,500.00 | 3,449.61 | 3,505.04 | 3,479.30 | 14.86 | 13.43 | 162.35 | -305.93 | -149.40 | 239.51 | 213.80 | 25.71 | 9.315 | | |
| 3,600.00 | 3,547.90 | 3,604.90 | 3,578.19 | 15.32 | 13.84 | 162.17 | -318.71 | -154.92 | 244.73 | 218.25 | 26.49 | 9.240 | | |
| 3,700.00 | 3,646.19 | 3,704.76 | 3,677.07 | 15.77 | 14.25 | 161.99 | -331.48 | -160.44 | 249.95 | 222.70 | 27.26 | 9.170 | | |
| 3,800.00 | 3,744.48 | 3,804.62 | 3,775.96 | 16.22 | 14.67 | 161.82 | -344.25 | -165.96 | 255.18 | 227.15 | 28.03 | 9.103 | | |
| 3,900.00 | 3,842.77 | 3,904.48 | 3,874.84 | 16.67 | 15.08 | 161.65 | -357.03 | -171.49 | 260.40 | 231.60 | 28.80 | 9.040 | | |
| 4,000.00 | 3,941.06 | 4,004.34 | 3,973.73 | 17.13 | 15.49 | 161.50 | -369.80 | -177.01 | 265.63 | 236.05 | 29.58 | 8.981 | | |
| 4,100.00 | 4,039.35 | 4,104.20 | 4,072.62 | 17.58 | 15.91 | 161.35 | -382.57 | -182.53 | 270.86 | 240.51 | 30.35 | 8.924 | | |
| 4,200.00 | 4,137.64 | 4,204.06 | 4,171.50 | 18.03 | 16.32 | 161.20 | -395.34 | -188.06 | 276.09 | 244.97 | 31.13 | 8.870 | | |
| 4,300.00 | 4,235.93 | 4,303.93 | 4,270.39 | 18.48 | 16.74 | 161.06 | -408.12 | -193.58 | 281.33 | 249.43 | 31.90 | 8.819 | | |
| 4,400.00 | 4,334.22 | 4,403.79 | 4,369.28 | 18.94 | 17.15 | 160.93 | -420.89 | -199.10 | 286.56 | 253.89 | 32.68 | 8.770 | | |
| 4,500.00 | 4,432.51 | 4,503.65 | 4,468.16 | 19.39 | 17.56 | 160.80 | -433.66 | -204.62 | 291.80 | 258.35 | 33.45 | 8.723 | | |
| 4,600.00 | 4,530.80 | 4,603.51 | 4,567.05 | 19.84 | 17.98 | 160.67 | -446.44 | -210.15 | 297.04 | 262.81 | 34.23 | 8.679 | | |
| 4,700.00 | 4,629.09 | 4,703.37 | 4,665.93 | 20.30 | 18.39 | 160.55 | -459.21 | -215.67 | 302.28 | 267.28 | 35.00 | 8.636 | | |
| 4,800.00 | 4,727.38 | 4,803.23 | 4,764.82 | 20.75 | 18.81 | 160.43 | -471.98 | -221.19 | 307.52 | 271.74 | 35.78 | 8.595 | | |
| 4,900.00 | 4,825.67 | 4,903.09 | 4,863.71 | 21.20 | 19.22 | 160.32 | -484.76 | -226.72 | 312.76 | 276.21 | 36.55 | 8.556 | | |
| 5,000.00 | 4,923.96 | 5,002.95 | 4,962.59 | 21.66 | 19.64 | 160.21 | -497.53 | -232.24 | 318.00 | 280.67 | 37.33 | 8.519 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3K-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|---------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: 0.00 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | 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 | 5,022.25 | 5,102.81 | 5,061.48 | 22.11 | 20.05 | 160.10 | -510.30 | -237.76 | 323.25 | 285.14 | 38.11 | 8.483 | | |
| 5,200.00 | 5,120.54 | 5,202.67 | 5,160.37 | 22.56 | 20.47 | 160.00 | -523.08 | -243.28 | 328.49 | 289.61 | 38.88 | 8.448 | | |
| 5,300.00 | 5,218.83 | 5,302.53 | 5,259.25 | 23.01 | 20.88 | 159.90 | -535.85 | -248.81 | 333.74 | 294.08 | 39.66 | 8.415 | | |
| 5,400.00 | 5,317.12 | 5,402.39 | 5,358.14 | 23.47 | 21.30 | 159.81 | -548.62 | -254.33 | 338.99 | 298.55 | 40.44 | 8.383 | | |
| 5,500.00 | 5,415.41 | 5,502.25 | 5,457.02 | 23.92 | 21.71 | 159.71 | -561.40 | -259.85 | 344.24 | 303.02 | 41.22 | 8.352 | | |
| 5,600.00 | 5,513.70 | 5,602.11 | 5,555.91 | 24.37 | 22.13 | 159.62 | -574.17 | -265.38 | 349.49 | 307.49 | 41.99 | 8.322 | | |
| 5,700.00 | 5,611.99 | 5,696.69 | 5,649.62 | 24.83 | 22.52 | 159.57 | -585.88 | -270.44 | 355.14 | 312.41 | 42.73 | 8.311 | | |
| 5,800.00 | 5,710.28 | 5,786.58 | 5,739.00 | 25.28 | 22.87 | 159.73 | -594.69 | -274.25 | 363.24 | 319.84 | 43.40 | 8.370 | | |
| 5,900.00 | 5,808.57 | 5,875.97 | 5,828.12 | 25.73 | 23.20 | 160.10 | -600.89 | -276.93 | 374.05 | 330.04 | 44.00 | 8.501 | | |
| 6,000.00 | 5,906.86 | 5,964.67 | 5,916.73 | 26.19 | 23.51 | 160.64 | -604.51 | -278.50 | 387.57 | 343.03 | 44.55 | 8.700 | | |
| 6,100.00 | 6,005.15 | 6,053.09 | 6,005.15 | 26.64 | 23.80 | 161.33 | -605.62 | -278.98 | 403.82 | 358.78 | 45.04 | 8.966 | | |
| 6,200.00 | 6,103.44 | 6,151.38 | 6,103.44 | 27.09 | 24.08 | 162.13 | -605.62 | -278.98 | 421.34 | 375.67 | 45.67 | 9.226 | | |
| 6,300.00 | 6,201.72 | 6,249.67 | 6,201.72 | 27.54 | 24.37 | 162.87 | -605.62 | -278.98 | 438.93 | 392.62 | 46.31 | 9.479 | | |
| 6,400.00 | 6,300.01 | 6,347.96 | 6,300.01 | 28.00 | 24.66 | 163.55 | -605.62 | -278.98 | 456.58 | 409.63 | 46.95 | 9.724 | | |
| 6,500.00 | 6,398.30 | 6,446.25 | 6,398.30 | 28.45 | 24.95 | 164.18 | -605.62 | -278.98 | 474.29 | 426.69 | 47.60 | 9.964 | | |
| 6,600.00 | 6,496.59 | 6,544.54 | 6,496.59 | 28.90 | 25.24 | 164.76 | -605.62 | -278.98 | 492.06 | 443.80 | 48.26 | 10.196 | | |
| 6,708.50 | 6,603.24 | 6,651.19 | 6,603.24 | 29.40 | 25.56 | 165.35 | -605.62 | -278.98 | 511.38 | 462.41 | 48.97 | 10.442 | | |
| 6,750.00 | 6,644.06 | 6,692.01 | 6,644.06 | 29.58 | 25.68 | -175.98 | -605.62 | -278.98 | 518.79 | 469.54 | 49.25 | 10.533 | | |
| 6,800.00 | 6,693.19 | 6,741.14 | 6,693.19 | 29.79 | 25.83 | -155.09 | -605.62 | -278.98 | 527.72 | 478.11 | 49.61 | 10.638 | | |
| 6,850.00 | 6,742.04 | 6,790.49 | 6,742.50 | 29.99 | 25.97 | -139.32 | -605.61 | -277.32 | 536.62 | 486.66 | 49.96 | 10.740 | | |
| 6,900.00 | 6,790.37 | 6,840.14 | 6,791.88 | 30.17 | 26.12 | -128.41 | -605.55 | -272.23 | 545.47 | 495.16 | 50.31 | 10.842 | | |
| 6,950.00 | 6,837.94 | 6,890.12 | 6,841.11 | 30.34 | 26.25 | -120.89 | -605.47 | -263.66 | 554.21 | 503.56 | 50.64 | 10.943 | | |
| 7,000.00 | 6,884.53 | 6,940.44 | 6,889.95 | 30.50 | 26.39 | -115.54 | -605.34 | -251.59 | 562.80 | 511.83 | 50.97 | 11.042 | | |
| 7,050.00 | 6,929.90 | 6,991.11 | 6,938.16 | 30.65 | 26.51 | -111.59 | -605.19 | -236.00 | 571.20 | 519.92 | 51.28 | 11.138 | | |
| 7,100.00 | 6,973.84 | 7,042.16 | 6,985.48 | 30.79 | 26.63 | -108.57 | -604.99 | -216.90 | 579.37 | 527.78 | 51.59 | 11.230 | | |
| 7,150.00 | 7,016.13 | 7,093.58 | 7,031.65 | 30.91 | 26.74 | -106.21 | -604.76 | -194.29 | 587.26 | 535.36 | 51.90 | 11.315 | | |
| 7,200.00 | 7,056.56 | 7,145.39 | 7,076.41 | 31.02 | 26.85 | -104.31 | -604.50 | -168.22 | 594.84 | 542.62 | 52.22 | 11.390 | | |
| 7,250.00 | 7,094.94 | 7,197.59 | 7,119.48 | 31.13 | 26.94 | -102.76 | -604.20 | -138.75 | 602.06 | 549.50 | 52.57 | 11.453 | | |
| 7,300.00 | 7,131.08 | 7,250.18 | 7,160.59 | 31.22 | 27.03 | -101.48 | -603.86 | -105.97 | 608.89 | 555.95 | 52.95 | 11.500 | | |
| 7,350.00 | 7,164.81 | 7,303.15 | 7,199.45 | 31.31 | 27.11 | -100.41 | -603.50 | -70.00 | 615.29 | 561.91 | 53.38 | 11.526 | | |
| 7,400.00 | 7,195.95 | 7,356.49 | 7,235.79 | 31.39 | 27.18 | -99.52 | -603.10 | -30.97 | 621.22 | 567.32 | 53.89 | 11.526 | | |
| 7,450.00 | 7,224.37 | 7,410.18 | 7,269.33 | 31.46 | 27.26 | -98.76 | -602.68 | 10.94 | 626.65 | 572.14 | 54.50 | 11.497 | | |
| 7,500.00 | 7,249.91 | 7,464.21 | 7,299.82 | 31.53 | 27.34 | -98.13 | -602.22 | 55.53 | 631.54 | 576.31 | 55.23 | 11.435 | | |
| 7,550.00 | 7,272.46 | 7,518.55 | 7,327.01 | 31.61 | 27.49 | -97.61 | -601.74 | 102.56 | 635.87 | 579.78 | 56.09 | 11.336 | | |
| 7,600.00 | 7,291.91 | 7,573.17 | 7,350.66 | 31.69 | 27.82 | -97.18 | -601.24 | 151.77 | 639.62 | 582.52 | 57.10 | 11.201 | | |
| 7,650.00 | 7,308.16 | 7,628.03 | 7,370.58 | 31.81 | 28.37 | -96.84 | -600.73 | 202.87 | 642.76 | 584.48 | 58.28 | 11.029 | | |
| 7,700.00 | 7,321.13 | 7,683.09 | 7,386.58 | 31.99 | 29.04 | -96.57 | -600.19 | 255.53 | 645.26 | 585.65 | 59.61 | 10.824 | | |
| 7,750.00 | 7,330.76 | 7,738.31 | 7,398.51 | 32.29 | 29.82 | -96.38 | -599.64 | 309.43 | 647.13 | 586.02 | 61.11 | 10.590 | | |
| 7,800.00 | 7,337.00 | 7,793.64 | 7,406.27 | 32.75 | 30.68 | -96.25 | -599.09 | 364.20 | 648.34 | 585.59 | 62.75 | 10.332 | | |
| 7,850.00 | 7,339.82 | 7,849.04 | 7,409.78 | 33.38 | 31.62 | -96.20 | -598.52 | 419.47 | 648.89 | 584.36 | 64.52 | 10.057 | | |
| 7,866.12 | 7,340.00 | 7,866.89 | 7,410.00 | 33.62 | 31.94 | -96.19 | -598.34 | 437.32 | 648.92 | 583.80 | 65.12 | 9.966 | | |
| 7,900.00 | 7,340.00 | 7,900.77 | 7,410.00 | 34.14 | 32.55 | -96.19 | -598.00 | 471.20 | 648.92 | 582.59 | 66.33 | 9.784 | | |
| 8,000.00 | 7,340.00 | 8,000.77 | 7,410.00 | 35.92 | 34.51 | -96.19 | -596.98 | 571.19 | 648.92 | 578.76 | 70.16 | 9.249 | | |
| 8,100.00 | 7,340.00 | 8,100.77 | 7,410.00 | 37.94 | 36.65 | -96.19 | -595.97 | 671.19 | 648.92 | 574.58 | 74.34 | 8.729 | | |
| 8,200.00 | 7,340.00 | 8,200.77 | 7,410.00 | 40.14 | 38.93 | -96.19 | -594.95 | 771.18 | 648.92 | 570.10 | 78.82 | 8.233 | | |
| 8,300.00 | 7,340.00 | 8,300.77 | 7,410.00 | 42.47 | 41.33 | -96.19 | -593.93 | 871.18 | 648.92 | 565.37 | 83.55 | 7.767 | | |
| 8,400.00 | 7,340.00 | 8,400.77 | 7,410.00 | 44.91 | 43.84 | -96.19 | -592.92 | 971.17 | 648.92 | 560.44 | 88.48 | 7.334 | | |
| 8,500.00 | 7,340.00 | 8,500.77 | 7,410.00 | 47.45 | 46.43 | -96.19 | -591.90 | 1,071.17 | 648.92 | 555.33 | 93.59 | 6.934 | | |
| 8,600.00 | 7,340.00 | 8,600.77 | 7,410.00 | 50.06 | 49.09 | -96.19 | -590.88 | 1,171.16 | 648.92 | 550.08 | 98.84 | 6.565 | | |
| 8,700.00 | 7,340.00 | 8,700.77 | 7,410.00 | 52.74 | 51.82 | -96.19 | -589.87 | 1,271.16 | 648.92 | 544.70 | 104.22 | 6.226 | | |
| 8,800.00 | 7,340.00 | 8,800.77 | 7,410.00 | 55.48 | 54.59 | -96.19 | -588.85 | 1,371.15 | 648.92 | 539.21 | 109.71 | 5.915 | | |
| 8,900.00 | 7,340.00 | 8,900.77 | 7,410.00 | 58.26 | 57.42 | -96.19 | -587.84 | 1,471.15 | 648.92 | 533.63 | 115.29 | 5.629 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3K-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | 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 | | |
| 9,000.00 | 7,340.00 | 9,000.77 | 7,410.00 | 61.09 | 60.28 | -96.19 | -586.82 | 1,571.14 | 648.92 | 527.97 | 120.94 | 5.365 | | |
| 9,100.00 | 7,340.00 | 9,100.77 | 7,410.00 | 63.95 | 63.17 | -96.19 | -585.80 | 1,671.14 | 648.92 | 522.25 | 126.67 | 5.123 | | |
| 9,200.00 | 7,340.00 | 9,200.77 | 7,410.00 | 66.84 | 66.09 | -96.19 | -584.79 | 1,771.13 | 648.92 | 516.46 | 132.46 | 4.899 | | |
| 9,300.00 | 7,340.00 | 9,300.77 | 7,410.00 | 69.76 | 69.04 | -96.19 | -583.77 | 1,871.13 | 648.92 | 510.62 | 138.29 | 4.692 | | |
| 9,400.00 | 7,340.00 | 9,400.77 | 7,410.00 | 72.70 | 72.01 | -96.19 | -582.75 | 1,971.12 | 648.92 | 504.74 | 144.18 | 4.501 | | |
| 9,500.00 | 7,340.00 | 9,500.77 | 7,410.00 | 75.67 | 75.00 | -96.19 | -581.74 | 2,071.12 | 648.92 | 498.82 | 150.10 | 4.323 | | |
| 9,600.00 | 7,340.00 | 9,600.77 | 7,410.00 | 78.65 | 78.00 | -96.19 | -580.72 | 2,171.11 | 648.92 | 492.86 | 156.06 | 4.158 | | |
| 9,700.00 | 7,340.00 | 9,700.77 | 7,410.00 | 81.65 | 81.03 | -96.19 | -579.71 | 2,271.11 | 648.92 | 486.87 | 162.05 | 4.004 | | |
| 9,800.00 | 7,340.00 | 9,800.77 | 7,410.00 | 84.67 | 84.06 | -96.19 | -578.69 | 2,371.10 | 648.92 | 480.85 | 168.07 | 3.861 | | |
| 9,900.00 | 7,340.00 | 9,900.77 | 7,410.00 | 87.70 | 87.11 | -96.19 | -577.67 | 2,471.10 | 648.92 | 474.80 | 174.11 | 3.727 | | |
| 10,000.00 | 7,340.00 | 10,000.77 | 7,410.00 | 90.74 | 90.17 | -96.19 | -576.66 | 2,571.09 | 648.92 | 468.74 | 180.18 | 3.601 | | |
| 10,100.00 | 7,340.00 | 10,100.77 | 7,410.00 | 93.79 | 93.24 | -96.19 | -575.64 | 2,671.09 | 648.92 | 462.65 | 186.27 | 3.484 | | |
| 10,200.00 | 7,340.00 | 10,200.77 | 7,410.00 | 96.85 | 96.31 | -96.19 | -574.62 | 2,771.08 | 648.92 | 456.54 | 192.37 | 3.373 | | |
| 10,300.00 | 7,340.00 | 10,300.77 | 7,410.00 | 99.92 | 99.40 | -96.19 | -573.61 | 2,871.08 | 648.92 | 450.42 | 198.50 | 3.269 | | |
| 10,400.00 | 7,340.00 | 10,400.77 | 7,410.00 | 103.00 | 102.49 | -96.19 | -572.59 | 2,971.07 | 648.92 | 444.28 | 204.64 | 3.171 | | |
| 10,500.00 | 7,340.00 | 10,500.77 | 7,410.00 | 106.09 | 105.59 | -96.19 | -571.58 | 3,071.07 | 648.91 | 438.12 | 210.79 | 3.078 | | |
| 10,600.00 | 7,340.00 | 10,600.77 | 7,410.00 | 109.18 | 108.70 | -96.19 | -570.56 | 3,171.06 | 648.91 | 431.96 | 216.96 | 2.991 | | |
| 10,700.00 | 7,340.00 | 10,700.77 | 7,410.00 | 112.28 | 111.81 | -96.19 | -569.54 | 3,271.05 | 648.91 | 425.78 | 223.13 | 2.908 | | |
| 10,800.00 | 7,340.00 | 10,800.77 | 7,410.00 | 115.39 | 114.92 | -96.19 | -568.53 | 3,371.05 | 648.91 | 419.59 | 229.32 | 2.830 | | |
| 10,900.00 | 7,340.00 | 10,900.77 | 7,410.00 | 118.50 | 118.05 | -96.19 | -567.51 | 3,471.04 | 648.91 | 413.39 | 235.52 | 2.755 | | |
| 11,000.00 | 7,340.00 | 11,000.77 | 7,410.00 | 121.61 | 121.17 | -96.19 | -566.49 | 3,571.04 | 648.91 | 407.18 | 241.73 | 2.684 | | |
| 11,100.00 | 7,340.00 | 11,100.77 | 7,410.00 | 124.74 | 124.30 | -96.19 | -565.48 | 3,671.03 | 648.91 | 400.97 | 247.95 | 2.617 | | |
| 11,200.00 | 7,340.00 | 11,200.77 | 7,410.00 | 127.86 | 127.44 | -96.19 | -564.46 | 3,771.03 | 648.91 | 394.74 | 254.17 | 2.553 | | |
| 11,300.00 | 7,340.00 | 11,300.77 | 7,410.00 | 130.99 | 130.57 | -96.19 | -563.45 | 3,871.02 | 648.91 | 388.51 | 260.40 | 2.492 | | |
| 11,400.00 | 7,340.00 | 11,400.77 | 7,410.00 | 134.12 | 133.71 | -96.19 | -562.43 | 3,971.02 | 648.91 | 382.27 | 266.64 | 2.434 | | |
| 11,500.00 | 7,340.00 | 11,500.77 | 7,410.00 | 137.26 | 136.86 | -96.19 | -561.41 | 4,071.01 | 648.91 | 376.03 | 272.89 | 2.378 | | |
| 11,600.00 | 7,340.00 | 11,600.77 | 7,410.00 | 140.40 | 140.00 | -96.19 | -560.40 | 4,171.01 | 648.91 | 369.77 | 279.14 | 2.325 | | |
| 11,700.00 | 7,340.00 | 11,700.77 | 7,410.00 | 143.54 | 143.15 | -96.19 | -559.38 | 4,271.00 | 648.91 | 363.52 | 285.40 | 2.274 | | |
| 11,800.00 | 7,340.00 | 11,800.77 | 7,410.00 | 146.68 | 146.30 | -96.19 | -558.36 | 4,371.00 | 648.91 | 357.25 | 291.66 | 2.225 | | |
| 11,900.00 | 7,340.00 | 11,900.77 | 7,410.00 | 149.83 | 149.45 | -96.19 | -557.35 | 4,470.99 | 648.91 | 351.00 | 297.91 | 2.178 | | |
| 11,932.12 | 7,340.00 | 11,932.89 | 7,410.00 | 150.84 | 150.03 | -96.19 | -557.02 | 4,503.11 | 648.91 | 349.41 | 299.50 | 2.167 SF | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3L-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|------------------------------|---------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | Offset Well Error: 0.00 usft | |
| Reference | | Offset | | Semi Major Axis | | Distance | | | | | | | 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 | 0.04 | 30.23 | 0.02 | 30.23 | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.04 | 30.23 | 0.02 | 30.23 | 29.96 | 0.28 | 109.526 | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.04 | 30.23 | 0.02 | 30.23 | 29.24 | 0.99 | 30.446 | CC, ES |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 167.04 | 30.23 | 0.02 | 31.93 | 30.23 | 1.70 | 18.815 | |
| 400.00 | 399.84 | 399.84 | 399.84 | 1.19 | 1.21 | 168.84 | 30.23 | 0.02 | 37.05 | 34.64 | 2.40 | 15.407 | |
| 500.00 | 499.45 | 499.45 | 499.45 | 1.55 | 1.57 | 170.93 | 30.23 | 0.02 | 45.63 | 42.51 | 3.12 | 14.621 | |
| 600.00 | 598.70 | 600.65 | 600.62 | 1.93 | 1.92 | 172.47 | 28.55 | -0.54 | 56.00 | 52.16 | 3.84 | 14.575 | |
| 700.00 | 697.47 | 702.23 | 702.06 | 2.33 | 2.26 | 173.28 | 23.46 | -2.23 | 66.40 | 61.81 | 4.58 | 14.490 | |
| 730.58 | 727.55 | 733.36 | 733.10 | 2.46 | 2.37 | 173.43 | 21.22 | -2.97 | 69.57 | 64.76 | 4.82 | 14.444 | |
| 800.00 | 795.78 | 804.26 | 803.69 | 2.75 | 2.61 | 173.59 | 14.91 | -5.06 | 75.95 | 70.60 | 5.34 | 14.215 | |
| 900.00 | 894.07 | 906.85 | 905.48 | 3.18 | 2.98 | 173.37 | 2.86 | -9.06 | 82.17 | 76.05 | 6.11 | 13.441 | |
| 1,000.00 | 992.36 | 1,008.31 | 1,005.71 | 3.62 | 3.37 | 172.76 | -12.08 | -14.01 | 85.29 | 78.43 | 6.86 | 12.435 | |
| 1,100.00 | 1,090.65 | 1,108.27 | 1,104.39 | 4.06 | 3.76 | 172.13 | -27.25 | -19.05 | 87.95 | 80.37 | 7.58 | 11.609 | |
| 1,200.00 | 1,188.94 | 1,208.23 | 1,203.06 | 4.50 | 4.16 | 171.54 | -42.42 | -24.08 | 90.62 | 82.31 | 8.30 | 10.914 | |
| 1,300.00 | 1,287.23 | 1,308.19 | 1,301.74 | 4.95 | 4.56 | 170.99 | -57.59 | -29.11 | 93.30 | 84.26 | 9.04 | 10.325 | |
| 1,400.00 | 1,385.52 | 1,408.15 | 1,400.41 | 5.39 | 4.97 | 170.46 | -72.76 | -34.14 | 95.98 | 86.21 | 9.78 | 9.819 | |
| 1,500.00 | 1,483.81 | 1,508.11 | 1,499.08 | 5.84 | 5.39 | 169.97 | -87.93 | -39.17 | 98.68 | 88.16 | 10.52 | 9.381 | |
| 1,600.00 | 1,582.10 | 1,608.07 | 1,597.76 | 6.29 | 5.80 | 169.50 | -103.11 | -44.20 | 101.38 | 90.11 | 11.27 | 8.999 | |
| 1,700.00 | 1,680.39 | 1,708.03 | 1,696.43 | 6.74 | 6.22 | 169.05 | -118.28 | -49.24 | 104.09 | 92.07 | 12.02 | 8.662 | |
| 1,800.00 | 1,778.68 | 1,807.99 | 1,795.11 | 7.19 | 6.64 | 168.63 | -133.45 | -54.27 | 106.80 | 94.03 | 12.77 | 8.364 | |
| 1,900.00 | 1,876.97 | 1,907.95 | 1,893.78 | 7.64 | 7.06 | 168.23 | -148.62 | -59.30 | 109.52 | 96.00 | 13.52 | 8.098 | |
| 2,000.00 | 1,975.26 | 2,007.91 | 1,992.45 | 8.09 | 7.49 | 167.85 | -163.79 | -64.33 | 112.25 | 97.96 | 14.28 | 7.859 | |
| 2,100.00 | 2,073.55 | 2,107.87 | 2,091.13 | 8.54 | 7.91 | 167.48 | -178.96 | -69.36 | 114.98 | 99.93 | 15.04 | 7.644 | |
| 2,200.00 | 2,171.84 | 2,207.83 | 2,189.80 | 8.99 | 8.34 | 167.14 | -194.13 | -74.39 | 117.71 | 101.91 | 15.80 | 7.448 | |
| 2,300.00 | 2,270.13 | 2,307.79 | 2,288.48 | 9.44 | 8.76 | 166.81 | -209.30 | -79.43 | 120.45 | 103.88 | 16.57 | 7.271 | |
| 2,400.00 | 2,368.42 | 2,407.75 | 2,387.15 | 9.89 | 9.19 | 166.49 | -224.47 | -84.46 | 123.19 | 105.86 | 17.33 | 7.108 | |
| 2,500.00 | 2,466.71 | 2,507.71 | 2,485.82 | 10.34 | 9.61 | 166.19 | -239.65 | -89.49 | 125.94 | 107.84 | 18.10 | 6.960 | |
| 2,600.00 | 2,565.00 | 2,607.67 | 2,584.50 | 10.79 | 10.04 | 165.90 | -254.82 | -94.52 | 128.68 | 109.82 | 18.86 | 6.822 | |
| 2,700.00 | 2,663.29 | 2,707.63 | 2,683.17 | 11.25 | 10.47 | 165.62 | -269.99 | -99.55 | 131.44 | 111.81 | 19.63 | 6.696 | |
| 2,800.00 | 2,761.58 | 2,807.59 | 2,781.84 | 11.70 | 10.90 | 165.35 | -285.16 | -104.58 | 134.19 | 113.79 | 20.40 | 6.579 | |
| 2,900.00 | 2,859.87 | 2,907.55 | 2,880.52 | 12.15 | 11.33 | 165.10 | -300.33 | -109.62 | 136.95 | 115.78 | 21.17 | 6.470 | |
| 3,000.00 | 2,958.16 | 3,007.51 | 2,979.19 | 12.60 | 11.75 | 164.85 | -315.50 | -114.65 | 139.71 | 117.77 | 21.94 | 6.368 | |
| 3,100.00 | 3,056.45 | 3,107.47 | 3,077.87 | 13.05 | 12.18 | 164.62 | -330.67 | -119.68 | 142.47 | 119.76 | 22.71 | 6.274 | |
| 3,200.00 | 3,154.74 | 3,207.43 | 3,176.54 | 13.51 | 12.61 | 164.39 | -345.84 | -124.71 | 145.24 | 121.76 | 23.48 | 6.185 | |
| 3,300.00 | 3,253.03 | 3,307.39 | 3,275.21 | 13.96 | 13.04 | 164.17 | -361.01 | -129.74 | 148.00 | 123.75 | 24.25 | 6.103 | |
| 3,400.00 | 3,351.32 | 3,407.35 | 3,373.89 | 14.41 | 13.47 | 163.96 | -376.19 | -134.77 | 150.77 | 125.75 | 25.03 | 6.025 | |
| 3,500.00 | 3,449.61 | 3,507.31 | 3,472.56 | 14.86 | 13.90 | 163.76 | -391.36 | -139.81 | 153.54 | 127.75 | 25.80 | 5.951 | |
| 3,600.00 | 3,547.90 | 3,607.27 | 3,571.24 | 15.32 | 14.33 | 163.56 | -406.53 | -144.84 | 156.32 | 129.74 | 26.57 | 5.882 | |
| 3,700.00 | 3,646.19 | 3,707.23 | 3,669.91 | 15.77 | 14.76 | 163.37 | -421.70 | -149.87 | 159.09 | 131.74 | 27.35 | 5.817 | |
| 3,800.00 | 3,744.48 | 3,807.19 | 3,768.58 | 16.22 | 15.19 | 163.19 | -436.87 | -154.90 | 161.87 | 133.75 | 28.12 | 5.756 | |
| 3,900.00 | 3,842.77 | 3,907.15 | 3,867.26 | 16.67 | 15.62 | 163.02 | -452.04 | -159.93 | 164.65 | 135.75 | 28.90 | 5.697 | |
| 4,000.00 | 3,941.06 | 4,007.11 | 3,965.93 | 17.13 | 16.05 | 162.85 | -467.21 | -164.97 | 167.43 | 137.75 | 29.68 | 5.642 | |
| 4,100.00 | 4,039.35 | 4,107.07 | 4,064.61 | 17.58 | 16.48 | 162.68 | -482.38 | -170.00 | 170.21 | 139.76 | 30.45 | 5.589 | |
| 4,200.00 | 4,137.64 | 4,207.03 | 4,163.28 | 18.03 | 16.91 | 162.52 | -497.56 | -175.03 | 172.99 | 141.76 | 31.23 | 5.539 | |
| 4,300.00 | 4,235.93 | 4,306.99 | 4,261.95 | 18.48 | 17.34 | 162.37 | -512.73 | -180.06 | 175.77 | 143.77 | 32.01 | 5.492 | |
| 4,400.00 | 4,334.22 | 4,406.95 | 4,360.63 | 18.94 | 17.78 | 162.22 | -527.90 | -185.09 | 178.56 | 145.77 | 32.79 | 5.446 | |
| 4,500.00 | 4,432.51 | 4,506.91 | 4,459.30 | 19.39 | 18.21 | 162.07 | -543.07 | -190.12 | 181.35 | 147.78 | 33.56 | 5.403 | |
| 4,600.00 | 4,530.80 | 4,606.87 | 4,557.98 | 19.84 | 18.64 | 161.93 | -558.24 | -195.16 | 184.13 | 149.79 | 34.34 | 5.362 | |
| 4,700.00 | 4,629.09 | 4,706.83 | 4,656.65 | 20.30 | 19.07 | 161.80 | -573.41 | -200.19 | 186.92 | 151.80 | 35.12 | 5.322 | |
| 4,800.00 | 4,727.38 | 4,806.79 | 4,755.32 | 20.75 | 19.50 | 161.66 | -588.58 | -205.22 | 189.71 | 153.81 | 35.90 | 5.284 | |
| 4,900.00 | 4,825.67 | 4,906.75 | 4,854.00 | 21.20 | 19.93 | 161.53 | -603.75 | -210.25 | 192.50 | 155.82 | 36.68 | 5.248 | |
| 5,000.00 | 4,923.96 | 5,006.72 | 4,952.67 | 21.66 | 20.36 | 161.41 | -618.92 | -215.28 | 195.29 | 157.83 | 37.46 | 5.214 | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3L-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|--|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: 0.00 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | 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 | 5,022.25 | 5,106.68 | 5,051.35 | 22.11 | 20.79 | 161.29 | -634.10 | -220.31 | 198.09 | 159.85 | 38.24 | 5.180 | | |
| 5,200.00 | 5,120.54 | 5,206.64 | 5,150.02 | 22.56 | 21.23 | 161.17 | -649.27 | -225.35 | 200.88 | 161.86 | 39.02 | 5.148 | | |
| 5,300.00 | 5,218.83 | 5,306.60 | 5,248.69 | 23.01 | 21.66 | 161.06 | -664.44 | -230.38 | 203.67 | 163.87 | 39.80 | 5.117 | | |
| 5,400.00 | 5,317.12 | 5,406.56 | 5,347.37 | 23.47 | 22.09 | 160.94 | -679.61 | -235.41 | 206.47 | 165.89 | 40.58 | 5.088 | | |
| 5,500.00 | 5,415.41 | 5,506.52 | 5,446.04 | 23.92 | 22.52 | 160.84 | -694.78 | -240.44 | 209.26 | 167.90 | 41.36 | 5.059 | | |
| 5,600.00 | 5,513.70 | 5,606.48 | 5,544.72 | 24.37 | 22.95 | 160.73 | -709.95 | -245.47 | 212.06 | 169.92 | 42.14 | 5.032 | | |
| 5,700.00 | 5,611.99 | 5,706.44 | 5,643.39 | 24.83 | 23.38 | 160.63 | -725.12 | -250.50 | 214.86 | 171.93 | 42.92 | 5.006 | | |
| 5,800.00 | 5,710.28 | 5,806.40 | 5,742.06 | 25.28 | 23.81 | 160.53 | -740.29 | -255.54 | 217.65 | 173.95 | 43.70 | 4.980 | | |
| 5,900.00 | 5,808.57 | 5,906.36 | 5,840.74 | 25.73 | 24.25 | 160.43 | -755.46 | -260.57 | 220.45 | 175.97 | 44.49 | 4.955 | | |
| 6,000.00 | 5,906.86 | 6,006.32 | 5,939.41 | 26.19 | 24.68 | 160.33 | -770.64 | -265.60 | 223.25 | 177.98 | 45.27 | 4.932 | | |
| 6,100.00 | 6,005.15 | 6,100.00 | 6,032.11 | 26.64 | 25.07 | 160.40 | -783.49 | -269.86 | 227.46 | 181.47 | 45.99 | 4.946 | | |
| 6,200.00 | 6,103.44 | 6,192.60 | 6,124.11 | 27.09 | 25.44 | 160.76 | -793.37 | -273.14 | 234.63 | 188.00 | 46.63 | 5.031 | | |
| 6,300.00 | 6,201.72 | 6,284.96 | 6,216.17 | 27.54 | 25.78 | 161.38 | -800.40 | -275.47 | 244.77 | 197.57 | 47.20 | 5.186 | | |
| 6,400.00 | 6,300.01 | 6,376.60 | 6,307.71 | 28.00 | 26.10 | 162.20 | -804.60 | -276.86 | 257.89 | 210.19 | 47.70 | 5.407 | | |
| 6,500.00 | 6,398.30 | 6,468.91 | 6,400.00 | 28.45 | 26.38 | 163.18 | -806.01 | -277.33 | 274.00 | 225.84 | 48.16 | 5.689 | | |
| 6,600.00 | 6,496.59 | 6,565.51 | 6,496.59 | 28.90 | 26.65 | 164.21 | -806.01 | -277.33 | 291.70 | 242.98 | 48.72 | 5.987 | | |
| 6,708.50 | 6,603.24 | 6,672.15 | 6,603.24 | 29.40 | 26.95 | 165.21 | -806.01 | -277.33 | 310.99 | 261.60 | 49.39 | 6.297 | | |
| 6,750.00 | 6,644.06 | 6,712.98 | 6,644.07 | 29.58 | 27.06 | -176.02 | -806.01 | -277.04 | 318.40 | 268.74 | 49.66 | 6.412 | | |
| 6,800.00 | 6,693.19 | 6,762.17 | 6,693.15 | 29.79 | 27.20 | -154.73 | -805.97 | -273.97 | 327.32 | 277.35 | 49.97 | 6.550 | | |
| 6,850.00 | 6,742.04 | 6,811.32 | 6,741.87 | 29.99 | 27.33 | -138.41 | -805.91 | -267.53 | 336.19 | 285.92 | 50.27 | 6.687 | | |
| 6,900.00 | 6,790.37 | 6,860.45 | 6,790.01 | 30.17 | 27.46 | -126.98 | -805.81 | -257.78 | 344.97 | 294.41 | 50.56 | 6.824 | | |
| 6,950.00 | 6,837.94 | 6,909.58 | 6,837.37 | 30.34 | 27.58 | -118.97 | -805.67 | -244.75 | 353.61 | 302.78 | 50.82 | 6.958 | | |
| 7,000.00 | 6,884.53 | 6,958.72 | 6,883.73 | 30.50 | 27.69 | -113.15 | -805.51 | -228.50 | 362.07 | 310.99 | 51.08 | 7.088 | | |
| 7,050.00 | 6,929.90 | 7,007.87 | 6,928.89 | 30.65 | 27.79 | -108.76 | -805.31 | -209.10 | 370.31 | 318.97 | 51.33 | 7.214 | | |
| 7,100.00 | 6,973.84 | 7,057.07 | 6,972.64 | 30.79 | 27.89 | -105.34 | -805.08 | -186.64 | 378.28 | 326.70 | 51.59 | 7.333 | | |
| 7,150.00 | 7,016.13 | 7,106.30 | 7,014.78 | 30.91 | 27.98 | -102.60 | -804.82 | -161.20 | 385.96 | 334.12 | 51.85 | 7.444 | | |
| 7,200.00 | 7,056.56 | 7,155.59 | 7,055.12 | 31.02 | 28.06 | -100.35 | -804.53 | -132.89 | 393.31 | 341.17 | 52.13 | 7.545 | | |
| 7,250.00 | 7,094.94 | 7,204.94 | 7,093.47 | 31.13 | 28.13 | -98.48 | -804.21 | -101.84 | 400.27 | 347.83 | 52.45 | 7.632 | | |
| 7,300.00 | 7,131.08 | 7,254.36 | 7,129.63 | 31.22 | 28.20 | -96.90 | -803.86 | -68.18 | 406.84 | 354.02 | 52.81 | 7.703 | | |
| 7,350.00 | 7,164.81 | 7,303.85 | 7,163.43 | 31.31 | 28.25 | -95.56 | -803.49 | -32.04 | 412.96 | 359.71 | 53.25 | 7.755 | | |
| 7,400.00 | 7,195.95 | 7,353.41 | 7,194.70 | 31.39 | 28.30 | -94.42 | -803.10 | 6.39 | 418.62 | 364.85 | 53.77 | 7.786 | | |
| 7,450.00 | 7,224.37 | 7,403.04 | 7,223.27 | 31.46 | 28.34 | -93.45 | -802.68 | 46.96 | 423.78 | 369.39 | 54.39 | 7.792 | | |
| 7,500.00 | 7,249.91 | 7,452.74 | 7,249.00 | 31.53 | 28.38 | -92.62 | -802.25 | 89.47 | 428.42 | 373.30 | 55.12 | 7.772 | | |
| 7,550.00 | 7,272.46 | 7,502.51 | 7,271.75 | 31.61 | 28.41 | -91.93 | -801.80 | 133.72 | 432.52 | 376.52 | 55.99 | 7.724 | | |
| 7,600.00 | 7,291.91 | 7,552.34 | 7,291.39 | 31.69 | 28.45 | -91.35 | -801.33 | 179.50 | 436.05 | 379.05 | 57.00 | 7.650 | | |
| 7,650.00 | 7,308.16 | 7,602.22 | 7,307.82 | 31.81 | 28.71 | -90.89 | -800.84 | 226.58 | 439.00 | 380.85 | 58.16 | 7.548 | | |
| 7,700.00 | 7,321.13 | 7,652.14 | 7,320.95 | 31.99 | 29.33 | -90.52 | -800.35 | 274.74 | 441.36 | 381.90 | 59.46 | 7.423 | | |
| 7,750.00 | 7,330.76 | 7,702.10 | 7,330.69 | 32.29 | 30.06 | -90.26 | -799.85 | 323.72 | 443.11 | 382.22 | 60.90 | 7.276 | | |
| 7,800.00 | 7,337.00 | 7,752.09 | 7,337.00 | 32.75 | 30.85 | -90.09 | -799.34 | 373.30 | 444.25 | 381.79 | 62.46 | 7.112 | | |
| 7,850.00 | 7,339.82 | 7,802.09 | 7,339.83 | 33.38 | 31.70 | -90.01 | -798.83 | 423.20 | 444.77 | 380.63 | 64.14 | 6.934 | | |
| 7,866.12 | 7,340.00 | 7,818.20 | 7,340.00 | 33.62 | 31.99 | -90.00 | -798.66 | 439.32 | 444.80 | 380.10 | 64.70 | 6.875 | | |
| 7,900.00 | 7,340.00 | 7,852.09 | 7,340.00 | 34.14 | 32.62 | -90.00 | -798.32 | 473.20 | 444.80 | 378.87 | 65.93 | 6.746 | | |
| 8,000.00 | 7,340.00 | 7,952.09 | 7,340.00 | 35.92 | 34.59 | -90.00 | -797.29 | 573.19 | 444.81 | 375.02 | 69.80 | 6.373 | | |
| 8,100.00 | 7,340.00 | 8,052.09 | 7,340.00 | 37.94 | 36.71 | -90.00 | -796.27 | 673.19 | 444.82 | 370.81 | 74.01 | 6.011 | | |
| 8,200.00 | 7,340.00 | 8,152.09 | 7,340.00 | 40.14 | 38.99 | -90.00 | -795.24 | 773.18 | 444.83 | 366.31 | 78.51 | 5.666 | | |
| 8,300.00 | 7,340.00 | 8,252.09 | 7,340.00 | 42.47 | 41.38 | -90.00 | -794.22 | 873.18 | 444.84 | 361.56 | 83.27 | 5.342 | | |
| 8,400.00 | 7,340.00 | 8,352.09 | 7,340.00 | 44.91 | 43.88 | -90.00 | -793.19 | 973.17 | 444.85 | 356.60 | 88.24 | 5.041 | | |
| 8,500.00 | 7,340.00 | 8,452.09 | 7,340.00 | 47.45 | 46.47 | -90.00 | -792.17 | 1,073.17 | 444.85 | 351.47 | 93.39 | 4.764 | | |
| 8,600.00 | 7,340.00 | 8,552.09 | 7,340.00 | 50.06 | 49.13 | -90.00 | -791.14 | 1,173.16 | 444.86 | 346.18 | 98.68 | 4.508 | | |
| 8,700.00 | 7,340.00 | 8,652.09 | 7,340.00 | 52.74 | 51.85 | -90.00 | -790.12 | 1,273.16 | 444.87 | 340.77 | 104.10 | 4.273 | | |
| 8,800.00 | 7,340.00 | 8,752.09 | 7,340.00 | 55.48 | 54.62 | -90.00 | -789.09 | 1,373.15 | 444.88 | 335.25 | 109.63 | 4.058 | | |
| 8,900.00 | 7,340.00 | 8,852.09 | 7,340.00 | 58.26 | 57.44 | -90.00 | -788.07 | 1,473.15 | 444.89 | 329.64 | 115.25 | 3.860 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3L-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | | 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 | | |
| 9,000.00 | 7,340.00 | 8,952.09 | 7,340.00 | 61.09 | 60.30 | -90.00 | -787.04 | 1,573.14 | 444.90 | 323.95 | 120.94 | 3.679 | | |
| 9,100.00 | 7,340.00 | 9,052.09 | 7,340.00 | 63.95 | 63.19 | -90.00 | -786.02 | 1,673.13 | 444.90 | 318.19 | 126.71 | 3.511 | | |
| 9,200.00 | 7,340.00 | 9,152.09 | 7,340.00 | 66.84 | 66.10 | -90.00 | -784.99 | 1,773.13 | 444.91 | 312.38 | 132.54 | 3.357 | | |
| 9,300.00 | 7,340.00 | 9,252.09 | 7,340.00 | 69.76 | 69.05 | -90.00 | -783.97 | 1,873.12 | 444.92 | 306.51 | 138.41 | 3.214 | | |
| 9,400.00 | 7,340.00 | 9,352.09 | 7,340.00 | 72.70 | 72.02 | -90.00 | -782.94 | 1,973.12 | 444.93 | 300.59 | 144.34 | 3.083 | | |
| 9,500.00 | 7,340.00 | 9,452.09 | 7,340.00 | 75.67 | 75.00 | -90.00 | -781.92 | 2,073.11 | 444.94 | 294.64 | 150.30 | 2.960 | | |
| 9,600.00 | 7,340.00 | 9,552.09 | 7,340.00 | 78.65 | 78.01 | -90.00 | -780.90 | 2,173.11 | 444.95 | 288.65 | 156.30 | 2.847 | | |
| 9,700.00 | 7,340.00 | 9,652.09 | 7,340.00 | 81.65 | 81.03 | -90.00 | -779.87 | 2,273.10 | 444.95 | 282.62 | 162.33 | 2.741 | | |
| 9,800.00 | 7,340.00 | 9,752.09 | 7,340.00 | 84.67 | 84.06 | -90.00 | -778.85 | 2,373.10 | 444.96 | 276.57 | 168.39 | 2.642 | | |
| 9,900.00 | 7,340.00 | 9,852.09 | 7,340.00 | 87.70 | 87.10 | -90.00 | -777.82 | 2,473.09 | 444.97 | 270.50 | 174.47 | 2.550 | | |
| 10,000.00 | 7,340.00 | 9,952.09 | 7,340.00 | 90.74 | 90.16 | -90.00 | -776.80 | 2,573.09 | 444.98 | 264.40 | 180.58 | 2.464 | | |
| 10,100.00 | 7,340.00 | 10,052.09 | 7,340.00 | 93.79 | 93.23 | -90.00 | -775.77 | 2,673.08 | 444.99 | 258.28 | 186.71 | 2.383 | | |
| 10,200.00 | 7,340.00 | 10,152.09 | 7,340.00 | 96.85 | 96.30 | -90.00 | -774.75 | 2,773.08 | 445.00 | 252.14 | 192.85 | 2.307 | | |
| 10,300.00 | 7,340.00 | 10,252.09 | 7,340.00 | 99.92 | 99.39 | -90.00 | -773.72 | 2,873.07 | 445.00 | 245.99 | 199.02 | 2.236 | | |
| 10,400.00 | 7,340.00 | 10,352.09 | 7,340.00 | 103.00 | 102.48 | -90.00 | -772.70 | 2,973.07 | 445.01 | 239.82 | 205.19 | 2.169 | | |
| 10,500.00 | 7,340.00 | 10,452.09 | 7,340.00 | 106.09 | 105.58 | -90.00 | -771.67 | 3,073.06 | 445.02 | 233.63 | 211.39 | 2.105 | | |
| 10,600.00 | 7,340.00 | 10,552.09 | 7,340.00 | 109.18 | 108.68 | -90.00 | -770.65 | 3,173.06 | 445.03 | 227.44 | 217.59 | 2.045 | | |
| 10,700.00 | 7,340.00 | 10,652.09 | 7,340.00 | 112.28 | 111.79 | -90.00 | -769.62 | 3,273.05 | 445.04 | 221.23 | 223.81 | 1.988 | | |
| 10,800.00 | 7,340.00 | 10,752.09 | 7,340.00 | 115.39 | 114.91 | -90.00 | -768.60 | 3,373.05 | 445.05 | 215.01 | 230.04 | 1.935 | | |
| 10,900.00 | 7,340.00 | 10,852.09 | 7,340.00 | 118.50 | 118.03 | -90.00 | -767.57 | 3,473.04 | 445.05 | 208.78 | 236.27 | 1.884 | | |
| 11,000.00 | 7,340.00 | 10,952.09 | 7,340.00 | 121.61 | 121.15 | -90.00 | -766.55 | 3,573.03 | 445.06 | 202.54 | 242.52 | 1.835 | | |
| 11,100.00 | 7,340.00 | 11,052.09 | 7,340.00 | 124.74 | 124.28 | -90.00 | -765.52 | 3,673.03 | 445.07 | 196.30 | 248.77 | 1.789 | | |
| 11,200.00 | 7,340.00 | 11,152.09 | 7,340.00 | 127.86 | 127.41 | -90.00 | -764.50 | 3,773.02 | 445.08 | 190.04 | 255.04 | 1.745 | | |
| 11,300.00 | 7,340.00 | 11,252.09 | 7,340.00 | 130.99 | 130.55 | -90.00 | -763.47 | 3,873.02 | 445.09 | 183.78 | 261.31 | 1.703 | | |
| 11,400.00 | 7,340.00 | 11,352.09 | 7,340.00 | 134.12 | 133.69 | -90.00 | -762.45 | 3,973.01 | 445.10 | 177.51 | 267.58 | 1.663 | | |
| 11,500.00 | 7,340.00 | 11,452.09 | 7,340.00 | 137.26 | 136.83 | -90.00 | -761.42 | 4,073.01 | 445.10 | 171.24 | 273.87 | 1.625 | | |
| 11,600.00 | 7,340.00 | 11,552.09 | 7,340.00 | 140.40 | 139.98 | -90.00 | -760.40 | 4,173.00 | 445.11 | 164.96 | 280.16 | 1.589 | | |
| 11,700.00 | 7,340.00 | 11,652.09 | 7,340.00 | 143.54 | 143.13 | -90.00 | -759.38 | 4,273.00 | 445.12 | 158.67 | 286.45 | 1.554 | | |
| 11,800.00 | 7,340.00 | 11,752.09 | 7,340.00 | 146.68 | 146.28 | -90.00 | -758.35 | 4,372.99 | 445.13 | 152.38 | 292.75 | 1.521 | | |
| 11,900.00 | 7,340.00 | 11,852.09 | 7,340.00 | 149.83 | 149.43 | -90.00 | -757.33 | 4,472.99 | 445.14 | 146.08 | 299.06 | 1.488 Level 3 | | |
| 11,932.12 | 7,340.00 | 11,884.20 | 7,340.00 | 150.84 | 150.44 | -90.00 | -757.00 | 4,505.10 | 445.14 | 144.06 | 301.08 | 1.478 Level 3, SF | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3M-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|------------------------------|------------------------|------------------------------|---------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | Offset Well Error: 0.00 usft | | | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | 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 | 0.31 | 20.04 | 0.11 | 20.04 | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.31 | 20.04 | 0.11 | 20.04 | 19.77 | 0.28 | 72.607 | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.31 | 20.04 | 0.11 | 20.04 | 19.05 | 0.99 | 20.183 CC | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 167.64 | 20.04 | 0.11 | 21.74 | 20.05 | 1.70 | 12.812 | |
| 400.00 | 399.84 | 399.84 | 399.84 | 1.19 | 1.21 | 170.01 | 20.04 | 0.11 | 26.88 | 24.47 | 2.40 | 11.177 | |
| 500.00 | 499.45 | 500.64 | 500.62 | 1.55 | 1.56 | 171.94 | 18.34 | -0.38 | 33.77 | 30.65 | 3.12 | 10.809 | |
| 600.00 | 598.70 | 601.69 | 601.53 | 1.93 | 1.90 | 173.01 | 13.22 | -1.86 | 40.68 | 36.81 | 3.87 | 10.518 | |
| 700.00 | 697.47 | 702.99 | 702.43 | 2.33 | 2.26 | 173.58 | 4.66 | -4.32 | 47.58 | 42.95 | 4.63 | 10.267 | |
| 730.58 | 727.55 | 734.02 | 733.26 | 2.46 | 2.37 | 173.69 | 1.35 | -5.28 | 49.68 | 44.81 | 4.87 | 10.193 | |
| 800.00 | 795.78 | 804.59 | 803.25 | 2.75 | 2.63 | 173.77 | -7.37 | -7.79 | 53.61 | 48.20 | 5.41 | 9.905 | |
| 900.00 | 894.07 | 905.73 | 903.15 | 3.18 | 3.02 | 173.45 | -22.50 | -12.14 | 56.56 | 50.40 | 6.17 | 9.175 | |
| 1,000.00 | 992.36 | 1,005.70 | 1,001.79 | 3.62 | 3.41 | 173.05 | -38.09 | -16.63 | 58.86 | 51.98 | 6.88 | 8.559 | |
| 1,100.00 | 1,090.65 | 1,105.67 | 1,100.44 | 4.06 | 3.82 | 172.69 | -53.68 | -21.12 | 61.15 | 53.55 | 7.60 | 8.047 | |
| 1,200.00 | 1,188.94 | 1,205.64 | 1,199.09 | 4.50 | 4.23 | 172.36 | -69.28 | -25.61 | 63.45 | 55.12 | 8.33 | 7.618 | |
| 1,300.00 | 1,287.23 | 1,305.62 | 1,297.73 | 4.95 | 4.65 | 172.04 | -84.87 | -30.10 | 65.75 | 56.68 | 9.06 | 7.253 | |
| 1,400.00 | 1,385.52 | 1,405.59 | 1,396.38 | 5.39 | 5.07 | 171.75 | -100.47 | -34.59 | 68.05 | 58.24 | 9.80 | 6.941 | |
| 1,500.00 | 1,483.81 | 1,505.56 | 1,495.03 | 5.84 | 5.49 | 171.48 | -116.06 | -39.08 | 70.35 | 59.80 | 10.55 | 6.670 | |
| 1,600.00 | 1,582.10 | 1,605.54 | 1,593.68 | 6.29 | 5.91 | 171.22 | -131.65 | -43.57 | 72.65 | 61.36 | 11.29 | 6.433 | |
| 1,700.00 | 1,680.39 | 1,705.51 | 1,692.32 | 6.74 | 6.34 | 170.99 | -147.25 | -48.06 | 74.96 | 62.91 | 12.04 | 6.224 | |
| 1,800.00 | 1,778.68 | 1,805.48 | 1,790.97 | 7.19 | 6.76 | 170.76 | -162.84 | -52.55 | 77.26 | 64.47 | 12.79 | 6.039 | |
| 1,900.00 | 1,876.97 | 1,905.46 | 1,889.62 | 7.64 | 7.19 | 170.55 | -178.44 | -57.04 | 79.57 | 66.02 | 13.55 | 5.874 | |
| 2,000.00 | 1,975.26 | 2,005.43 | 1,988.26 | 8.09 | 7.62 | 170.35 | -194.03 | -61.53 | 81.88 | 67.58 | 14.30 | 5.726 | |
| 2,100.00 | 2,073.55 | 2,105.40 | 2,086.91 | 8.54 | 8.05 | 170.16 | -209.62 | -66.02 | 84.19 | 69.13 | 15.05 | 5.592 | |
| 2,200.00 | 2,171.84 | 2,205.37 | 2,185.56 | 8.99 | 8.48 | 169.98 | -225.22 | -70.51 | 86.50 | 70.69 | 15.81 | 5.471 | |
| 2,300.00 | 2,270.13 | 2,305.35 | 2,284.21 | 9.44 | 8.90 | 169.81 | -240.81 | -75.00 | 88.81 | 72.24 | 16.57 | 5.360 | |
| 2,400.00 | 2,368.42 | 2,405.32 | 2,382.85 | 9.89 | 9.33 | 169.65 | -256.41 | -79.49 | 91.12 | 73.79 | 17.33 | 5.259 | |
| 2,500.00 | 2,466.71 | 2,505.29 | 2,481.50 | 10.34 | 9.77 | 169.50 | -272.00 | -83.98 | 93.43 | 75.35 | 18.09 | 5.166 | |
| 2,600.00 | 2,565.00 | 2,605.27 | 2,580.15 | 10.79 | 10.20 | 169.35 | -287.59 | -88.48 | 95.75 | 76.90 | 18.85 | 5.081 | |
| 2,700.00 | 2,663.29 | 2,705.24 | 2,678.79 | 11.25 | 10.63 | 169.21 | -303.19 | -92.97 | 98.06 | 78.45 | 19.61 | 5.002 | |
| 2,800.00 | 2,761.58 | 2,805.21 | 2,777.44 | 11.70 | 11.06 | 169.08 | -318.78 | -97.46 | 100.37 | 80.01 | 20.37 | 4.928 | |
| 2,900.00 | 2,859.87 | 2,905.18 | 2,876.09 | 12.15 | 11.49 | 168.95 | -334.38 | -101.95 | 102.69 | 81.56 | 21.13 | 4.860 | |
| 3,000.00 | 2,958.16 | 3,005.16 | 2,974.74 | 12.60 | 11.92 | 168.83 | -349.97 | -106.44 | 105.00 | 83.11 | 21.89 | 4.797 | |
| 3,100.00 | 3,056.45 | 3,105.13 | 3,073.38 | 13.05 | 12.35 | 168.72 | -365.56 | -110.93 | 107.32 | 84.67 | 22.65 | 4.738 | |
| 3,200.00 | 3,154.74 | 3,205.10 | 3,172.03 | 13.51 | 12.79 | 168.61 | -381.16 | -115.42 | 109.64 | 86.22 | 23.42 | 4.682 | |
| 3,300.00 | 3,253.03 | 3,305.08 | 3,270.68 | 13.96 | 13.22 | 168.50 | -396.75 | -119.91 | 111.95 | 87.77 | 24.18 | 4.630 | |
| 3,400.00 | 3,351.32 | 3,405.05 | 3,369.32 | 14.41 | 13.65 | 168.40 | -412.35 | -124.40 | 114.27 | 89.33 | 24.94 | 4.581 | |
| 3,500.00 | 3,449.61 | 3,505.02 | 3,467.97 | 14.86 | 14.08 | 168.30 | -427.94 | -128.89 | 116.59 | 90.88 | 25.71 | 4.535 | |
| 3,600.00 | 3,547.90 | 3,605.00 | 3,566.62 | 15.32 | 14.52 | 168.21 | -443.53 | -133.38 | 118.90 | 92.43 | 26.47 | 4.492 | |
| 3,700.00 | 3,646.19 | 3,704.97 | 3,665.27 | 15.77 | 14.95 | 168.12 | -459.13 | -137.87 | 121.22 | 93.99 | 27.23 | 4.451 | |
| 3,800.00 | 3,744.48 | 3,804.94 | 3,763.91 | 16.22 | 15.38 | 168.03 | -474.72 | -142.36 | 123.54 | 95.54 | 28.00 | 4.412 | |
| 3,900.00 | 3,842.77 | 3,904.91 | 3,862.56 | 16.67 | 15.82 | 167.94 | -490.32 | -146.85 | 125.86 | 97.09 | 28.76 | 4.376 | |
| 4,000.00 | 3,941.06 | 4,004.89 | 3,961.21 | 17.13 | 16.25 | 167.86 | -505.91 | -151.34 | 128.18 | 98.65 | 29.53 | 4.341 | |
| 4,100.00 | 4,039.35 | 4,104.86 | 4,059.85 | 17.58 | 16.68 | 167.79 | -521.50 | -155.83 | 130.49 | 100.20 | 30.29 | 4.308 | |
| 4,200.00 | 4,137.64 | 4,204.83 | 4,158.50 | 18.03 | 17.11 | 167.71 | -537.10 | -160.32 | 132.81 | 101.75 | 31.06 | 4.276 | |
| 4,300.00 | 4,235.93 | 4,304.81 | 4,257.15 | 18.48 | 17.55 | 167.64 | -552.69 | -164.81 | 135.13 | 103.31 | 31.83 | 4.246 | |
| 4,400.00 | 4,334.22 | 4,404.78 | 4,355.80 | 18.94 | 17.98 | 167.57 | -568.29 | -169.30 | 137.45 | 104.86 | 32.59 | 4.217 | |
| 4,500.00 | 4,432.51 | 4,504.75 | 4,454.44 | 19.39 | 18.41 | 167.50 | -583.88 | -173.79 | 139.77 | 106.42 | 33.36 | 4.190 | |
| 4,600.00 | 4,530.80 | 4,604.72 | 4,553.09 | 19.84 | 18.85 | 167.43 | -599.47 | -178.28 | 142.09 | 107.97 | 34.12 | 4.164 | |
| 4,700.00 | 4,629.09 | 4,704.70 | 4,651.74 | 20.30 | 19.28 | 167.37 | -615.07 | -182.77 | 144.41 | 109.52 | 34.89 | 4.139 | |
| 4,800.00 | 4,727.38 | 4,804.67 | 4,750.38 | 20.75 | 19.72 | 167.31 | -630.66 | -187.26 | 146.73 | 111.08 | 35.66 | 4.115 | |
| 4,900.00 | 4,825.67 | 4,904.64 | 4,849.03 | 21.20 | 20.15 | 167.25 | -646.26 | -191.75 | 149.05 | 112.63 | 36.42 | 4.092 | |
| 5,000.00 | 4,923.96 | 5,004.62 | 4,947.68 | 21.66 | 20.58 | 167.19 | -661.85 | -196.24 | 151.37 | 114.18 | 37.19 | 4.070 | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3M-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | 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 | 5,022.25 | 5,104.59 | 5,046.33 | 22.11 | 21.02 | 167.14 | -677.44 | -200.73 | 153.69 | 115.74 | 37.96 | 4.049 | |
| 5,200.00 | 5,120.54 | 5,204.56 | 5,144.97 | 22.56 | 21.45 | 167.08 | -693.04 | -205.22 | 156.01 | 117.29 | 38.72 | 4.029 | |
| 5,300.00 | 5,218.83 | 5,304.54 | 5,243.62 | 23.01 | 21.88 | 167.03 | -708.63 | -209.71 | 158.34 | 118.85 | 39.49 | 4.010 | |
| 5,400.00 | 5,317.12 | 5,404.51 | 5,342.27 | 23.47 | 22.32 | 166.98 | -724.23 | -214.20 | 160.66 | 120.40 | 40.26 | 3.991 | |
| 5,500.00 | 5,415.41 | 5,504.48 | 5,440.91 | 23.92 | 22.75 | 166.93 | -739.82 | -218.69 | 162.98 | 121.95 | 41.02 | 3.973 | |
| 5,600.00 | 5,513.70 | 5,604.45 | 5,539.56 | 24.37 | 23.18 | 166.88 | -755.41 | -223.18 | 165.30 | 123.51 | 41.79 | 3.955 | |
| 5,700.00 | 5,611.99 | 5,704.43 | 5,638.21 | 24.83 | 23.62 | 166.83 | -771.01 | -227.67 | 167.62 | 125.06 | 42.56 | 3.939 | |
| 5,800.00 | 5,710.28 | 5,804.40 | 5,736.86 | 25.28 | 24.05 | 166.79 | -786.60 | -232.16 | 169.94 | 126.62 | 43.33 | 3.922 | |
| 5,900.00 | 5,808.57 | 5,904.37 | 5,835.50 | 25.73 | 24.49 | 166.74 | -802.20 | -236.65 | 172.26 | 128.17 | 44.09 | 3.907 | |
| 6,000.00 | 5,906.86 | 6,004.35 | 5,934.15 | 26.19 | 24.92 | 166.70 | -817.79 | -241.14 | 174.59 | 129.73 | 44.86 | 3.892 | |
| 6,100.00 | 6,005.15 | 6,104.32 | 6,032.80 | 26.64 | 25.35 | 166.66 | -833.38 | -245.63 | 176.91 | 131.28 | 45.63 | 3.877 | |
| 6,200.00 | 6,103.44 | 6,204.29 | 6,131.44 | 27.09 | 25.79 | 166.62 | -848.98 | -250.12 | 179.23 | 132.83 | 46.40 | 3.863 | |
| 6,300.00 | 6,201.72 | 6,304.27 | 6,230.09 | 27.54 | 26.22 | 166.58 | -864.57 | -254.61 | 181.55 | 134.39 | 47.16 | 3.849 | |
| 6,400.00 | 6,300.01 | 6,404.24 | 6,328.74 | 28.00 | 26.66 | 166.54 | -880.17 | -259.10 | 183.87 | 135.94 | 47.93 | 3.836 | |
| 6,500.00 | 6,398.30 | 6,504.21 | 6,427.39 | 28.45 | 27.09 | 166.50 | -895.76 | -263.59 | 186.20 | 137.50 | 48.70 | 3.823 | |
| 6,600.00 | 6,496.59 | 6,604.18 | 6,526.03 | 28.90 | 27.52 | 166.46 | -911.35 | -268.08 | 188.52 | 139.05 | 49.47 | 3.811 | |
| 6,708.50 | 6,603.24 | 6,712.66 | 6,633.07 | 29.40 | 27.99 | 166.42 | -928.27 | -272.96 | 191.04 | 140.74 | 50.30 | 3.798 | |
| 6,750.00 | 6,644.06 | 6,754.12 | 6,673.98 | 29.88 | 28.17 | -175.89 | -934.74 | -274.80 | 192.00 | 141.36 | 50.64 | 3.791 | |
| 6,800.00 | 6,693.19 | 6,804.08 | 6,723.32 | 29.79 | 28.38 | -156.14 | -942.52 | -275.00 | 193.17 | 142.11 | 51.06 | 3.783 | |
| 6,850.00 | 6,742.04 | 6,854.23 | 6,772.75 | 29.99 | 28.58 | -141.33 | -950.28 | -271.69 | 194.37 | 142.91 | 51.46 | 3.777 | |
| 6,900.00 | 6,790.37 | 6,904.57 | 6,822.01 | 30.17 | 28.77 | -131.36 | -957.97 | -264.87 | 195.59 | 143.76 | 51.83 | 3.774 | |
| 6,950.00 | 6,837.94 | 6,955.09 | 6,870.86 | 30.34 | 28.94 | -124.75 | -965.57 | -254.51 | 196.82 | 144.64 | 52.18 | 3.772 | |
| 7,000.00 | 6,884.53 | 7,005.80 | 6,919.05 | 30.50 | 29.10 | -120.29 | -973.02 | -240.63 | 198.07 | 145.56 | 52.51 | 3.772 | |
| 7,050.00 | 6,929.90 | 7,056.70 | 6,966.33 | 30.65 | 29.25 | -117.20 | -980.30 | -223.27 | 199.31 | 146.50 | 52.81 | 3.774 | |
| 7,100.00 | 6,973.84 | 7,107.78 | 7,012.44 | 30.79 | 29.39 | -115.01 | -987.35 | -202.48 | 200.54 | 147.45 | 53.09 | 3.777 | |
| 7,150.00 | 7,016.13 | 7,159.04 | 7,057.12 | 30.91 | 29.52 | -113.44 | -994.15 | -178.33 | 201.75 | 148.39 | 53.36 | 3.781 | |
| 7,200.00 | 7,056.56 | 7,210.47 | 7,100.14 | 31.02 | 29.63 | -112.29 | -1,000.65 | -150.90 | 202.93 | 149.31 | 53.62 | 3.784 | |
| 7,250.00 | 7,094.94 | 7,262.07 | 7,141.23 | 31.13 | 29.74 | -111.45 | -1,006.82 | -120.33 | 204.08 | 150.18 | 53.90 | 3.786 | |
| 7,300.00 | 7,131.08 | 7,313.84 | 7,180.17 | 31.22 | 29.83 | -110.83 | -1,012.61 | -86.73 | 205.17 | 150.98 | 54.19 | 3.786 | |
| 7,350.00 | 7,164.81 | 7,365.76 | 7,216.71 | 31.31 | 29.92 | -110.38 | -1,018.00 | -50.26 | 206.21 | 151.68 | 54.53 | 3.782 | |
| 7,400.00 | 7,195.95 | 7,417.82 | 7,250.65 | 31.39 | 30.00 | -110.05 | -1,022.95 | -11.10 | 207.19 | 152.25 | 54.93 | 3.772 | |
| 7,450.00 | 7,224.37 | 7,470.02 | 7,281.76 | 31.46 | 30.06 | -109.81 | -1,027.43 | 30.55 | 208.09 | 152.67 | 55.42 | 3.755 | |
| 7,500.00 | 7,249.91 | 7,522.34 | 7,309.87 | 31.53 | 30.13 | -109.63 | -1,031.42 | 74.49 | 208.91 | 152.90 | 56.01 | 3.730 | |
| 7,550.00 | 7,272.46 | 7,574.77 | 7,334.78 | 31.61 | 30.20 | -109.51 | -1,034.88 | 120.48 | 209.64 | 152.90 | 56.74 | 3.695 | |
| 7,600.00 | 7,291.91 | 7,627.30 | 7,356.34 | 31.69 | 30.28 | -109.42 | -1,037.79 | 168.28 | 210.28 | 152.67 | 57.61 | 3.650 | |
| 7,650.00 | 7,308.16 | 7,679.91 | 7,374.41 | 31.81 | 30.42 | -109.37 | -1,040.14 | 217.62 | 210.82 | 152.19 | 58.63 | 3.596 | |
| 7,700.00 | 7,321.13 | 7,732.59 | 7,388.88 | 31.99 | 30.69 | -109.33 | -1,041.90 | 268.24 | 211.25 | 151.43 | 59.82 | 3.532 | |
| 7,750.00 | 7,330.76 | 7,785.33 | 7,399.64 | 32.29 | 31.21 | -109.31 | -1,043.07 | 319.84 | 211.57 | 150.41 | 61.16 | 3.459 | |
| 7,800.00 | 7,337.00 | 7,838.10 | 7,406.63 | 32.75 | 31.92 | -109.29 | -1,043.64 | 372.13 | 211.78 | 149.12 | 62.66 | 3.380 | |
| 7,850.00 | 7,339.82 | 7,890.90 | 7,409.80 | 33.38 | 32.75 | -109.29 | -1,043.61 | 424.82 | 211.88 | 147.57 | 64.31 | 3.295 | |
| 7,866.12 | 7,340.00 | 7,907.92 | 7,410.00 | 33.62 | 33.03 | -109.29 | -1,043.47 | 441.84 | 211.88 | 147.02 | 64.86 | 3.267 | |
| 7,900.00 | 7,340.00 | 7,941.81 | 7,410.00 | 34.14 | 33.63 | -109.29 | -1,043.12 | 475.72 | 211.88 | 145.86 | 66.02 | 3.209 | |
| 8,000.00 | 7,340.00 | 8,041.81 | 7,410.00 | 35.92 | 35.53 | -109.29 | -1,042.11 | 575.72 | 211.88 | 142.26 | 69.62 | 3.043 | |
| 8,100.00 | 7,340.00 | 8,141.81 | 7,410.00 | 37.94 | 37.61 | -109.29 | -1,041.09 | 675.71 | 211.88 | 138.33 | 73.55 | 2.881 | |
| 8,200.00 | 7,340.00 | 8,241.81 | 7,410.00 | 40.14 | 39.84 | -109.29 | -1,040.07 | 775.71 | 211.88 | 134.13 | 77.76 | 2.725 | |
| 8,300.00 | 7,340.00 | 8,341.81 | 7,410.00 | 42.47 | 42.20 | -109.29 | -1,039.06 | 875.70 | 211.88 | 129.69 | 82.19 | 2.578 | |
| 8,400.00 | 7,340.00 | 8,441.81 | 7,410.00 | 44.91 | 44.66 | -109.29 | -1,038.04 | 975.70 | 211.88 | 125.05 | 86.83 | 2.440 | |
| 8,500.00 | 7,340.00 | 8,541.81 | 7,410.00 | 47.45 | 47.21 | -109.29 | -1,037.02 | 1,075.69 | 211.88 | 120.25 | 91.63 | 2.312 | |
| 8,600.00 | 7,340.00 | 8,641.81 | 7,410.00 | 50.06 | 49.84 | -109.29 | -1,036.01 | 1,175.69 | 211.88 | 115.30 | 96.58 | 2.194 | |
| 8,700.00 | 7,340.00 | 8,741.81 | 7,410.00 | 52.74 | 52.53 | -109.29 | -1,034.99 | 1,275.68 | 211.88 | 110.23 | 101.65 | 2.084 | |
| 8,800.00 | 7,340.00 | 8,841.81 | 7,410.00 | 55.48 | 55.28 | -109.29 | -1,033.97 | 1,375.68 | 211.88 | 105.06 | 106.82 | 1.984 | |
| 8,900.00 | 7,340.00 | 8,941.81 | 7,410.00 | 58.26 | 58.07 | -109.29 | -1,032.96 | 1,475.67 | 211.88 | 99.80 | 112.09 | 1.890 | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3M-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|---------|------------------------|-----------------------|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | 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 |
| 9,000.00 | 7,340.00 | 9,041.81 | 7,410.00 | 61.09 | 60.91 | -109.29 | -1,031.94 | 1,575.67 | 211.88 | 94.45 | | 117.43 | 1.804 |
| 9,100.00 | 7,340.00 | 9,141.81 | 7,410.00 | 63.95 | 63.78 | -109.29 | -1,030.92 | 1,675.66 | 211.88 | 89.04 | | 122.84 | 1.725 |
| 9,200.00 | 7,340.00 | 9,241.81 | 7,410.00 | 66.84 | 66.68 | -109.29 | -1,029.91 | 1,775.66 | 211.88 | 83.58 | | 128.31 | 1.651 |
| 9,300.00 | 7,340.00 | 9,341.81 | 7,410.00 | 69.76 | 69.60 | -109.29 | -1,028.89 | 1,875.65 | 211.88 | 78.05 | | 133.83 | 1.583 |
| 9,400.00 | 7,340.00 | 9,441.81 | 7,410.00 | 72.70 | 72.55 | -109.29 | -1,027.88 | 1,975.65 | 211.88 | 72.49 | | 139.40 | 1.520 |
| 9,500.00 | 7,340.00 | 9,541.81 | 7,410.00 | 75.67 | 75.52 | -109.29 | -1,026.86 | 2,075.64 | 211.88 | 66.88 | | 145.00 | 1.461 Level 3 |
| 9,600.00 | 7,340.00 | 9,641.81 | 7,410.00 | 78.65 | 78.51 | -109.29 | -1,025.84 | 2,175.64 | 211.88 | 61.24 | | 150.65 | 1.406 Level 3 |
| 9,700.00 | 7,340.00 | 9,741.81 | 7,410.00 | 81.65 | 81.52 | -109.29 | -1,024.83 | 2,275.63 | 211.88 | 55.56 | | 156.32 | 1.355 Level 3 |
| 9,800.00 | 7,340.00 | 9,841.81 | 7,410.00 | 84.67 | 84.54 | -109.29 | -1,023.81 | 2,375.62 | 211.88 | 49.86 | | 162.03 | 1.308 Level 3 |
| 9,900.00 | 7,340.00 | 9,941.81 | 7,410.00 | 87.70 | 87.57 | -109.29 | -1,022.79 | 2,475.62 | 211.88 | 44.13 | | 167.76 | 1.263 Level 3 |
| 10,000.00 | 7,340.00 | 10,041.81 | 7,410.00 | 90.74 | 90.62 | -109.29 | -1,021.78 | 2,575.61 | 211.88 | 38.37 | | 173.51 | 1.221 Level 2 |
| 10,100.00 | 7,340.00 | 10,141.81 | 7,410.00 | 93.79 | 93.67 | -109.29 | -1,020.76 | 2,675.61 | 211.88 | 32.60 | | 179.28 | 1.182 Level 2 |
| 10,200.00 | 7,340.00 | 10,241.81 | 7,410.00 | 96.85 | 96.74 | -109.29 | -1,019.74 | 2,775.60 | 211.88 | 26.80 | | 185.08 | 1.145 Level 2 |
| 10,300.00 | 7,340.00 | 10,341.81 | 7,410.00 | 99.92 | 99.81 | -109.29 | -1,018.73 | 2,875.60 | 211.88 | 20.99 | | 190.89 | 1.110 Level 2 |
| 10,400.00 | 7,340.00 | 10,441.81 | 7,410.00 | 103.00 | 102.90 | -109.29 | -1,017.71 | 2,975.59 | 211.88 | 15.17 | | 196.72 | 1.077 Level 2 |
| 10,500.00 | 7,340.00 | 10,541.81 | 7,410.00 | 106.09 | 105.99 | -109.29 | -1,016.69 | 3,075.59 | 211.88 | 9.33 | | 202.56 | 1.046 Level 2 |
| 10,600.00 | 7,340.00 | 10,641.81 | 7,410.00 | 109.18 | 109.08 | -109.29 | -1,015.68 | 3,175.58 | 211.88 | 3.47 | | 208.41 | 1.017 Level 2 |
| 10,700.00 | 7,340.00 | 10,741.81 | 7,410.00 | 112.28 | 112.19 | -109.29 | -1,014.66 | 3,275.58 | 211.88 | -2.39 | | 214.28 | 0.989 Level 1 |
| 10,800.00 | 7,340.00 | 10,841.81 | 7,410.00 | 115.39 | 115.30 | -109.29 | -1,013.65 | 3,375.57 | 211.88 | -8.27 | | 220.15 | 0.962 Level 1 |
| 10,900.00 | 7,340.00 | 10,941.81 | 7,410.00 | 118.50 | 118.41 | -109.29 | -1,012.63 | 3,475.57 | 211.88 | -14.16 | | 226.04 | 0.937 Level 1 |
| 11,000.00 | 7,340.00 | 11,041.81 | 7,410.00 | 121.61 | 121.53 | -109.29 | -1,011.61 | 3,575.56 | 211.88 | -20.06 | | 231.94 | 0.914 Level 1 |
| 11,100.00 | 7,340.00 | 11,141.81 | 7,410.00 | 124.74 | 124.65 | -109.29 | -1,010.60 | 3,675.56 | 211.88 | -25.96 | | 237.84 | 0.891 Level 1 |
| 11,200.00 | 7,340.00 | 11,241.81 | 7,410.00 | 127.86 | 127.78 | -109.29 | -1,009.58 | 3,775.55 | 211.88 | -31.88 | | 243.76 | 0.869 Level 1 |
| 11,300.00 | 7,340.00 | 11,341.81 | 7,410.00 | 130.99 | 130.91 | -109.29 | -1,008.56 | 3,875.55 | 211.88 | -37.80 | | 249.68 | 0.849 Level 1 |
| 11,400.00 | 7,340.00 | 11,441.81 | 7,410.00 | 134.12 | 134.04 | -109.29 | -1,007.55 | 3,975.54 | 211.88 | -43.73 | | 255.61 | 0.829 Level 1 |
| 11,500.00 | 7,340.00 | 11,541.81 | 7,410.00 | 137.26 | 137.18 | -109.29 | -1,006.53 | 4,075.54 | 211.88 | -49.66 | | 261.54 | 0.810 Level 1 |
| 11,600.00 | 7,340.00 | 11,641.81 | 7,410.00 | 140.40 | 140.32 | -109.29 | -1,005.51 | 4,175.53 | 211.88 | -55.60 | | 267.49 | 0.792 Level 1 |
| 11,700.00 | 7,340.00 | 11,741.81 | 7,410.00 | 143.54 | 143.46 | -109.29 | -1,004.50 | 4,275.53 | 211.88 | -61.55 | | 273.43 | 0.775 Level 1 |
| 11,800.00 | 7,340.00 | 11,841.81 | 7,410.00 | 146.68 | 146.61 | -109.29 | -1,003.48 | 4,375.52 | 211.88 | -67.50 | | 279.39 | 0.758 Level 1 |
| 11,900.00 | 7,340.00 | 11,941.81 | 7,410.00 | 149.83 | 149.76 | -109.29 | -1,002.47 | 4,475.52 | 211.88 | -73.46 | | 285.34 | 0.743 Level 1 |
| 11,932.12 | 7,340.00 | 11,973.93 | 7,410.00 | 150.84 | 150.77 | -109.29 | -1,002.14 | 4,507.63 | 211.88 | -75.37 | | 287.26 | 0.738 Level 1, ES, SF |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3N-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|-------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|------------------------------|--|
| Survey Program: 0-MWD+HDGM | | | | | | | | | | | | | Offset Well Error: 0.00 usft | |
| Reference | | Offset | | Semi Major Axis | | | Distance | | | | | | 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 | 1.08 | 10.21 | 0.19 | 10.21 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 1.08 | 10.21 | 0.19 | 10.21 | 9.93 | 0.28 | 36.981 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 1.08 | 10.21 | 0.19 | 10.21 | 9.21 | 0.99 | 10.280 | CC, ES | |
| 300.00 | 299.98 | 299.98 | 299.98 | 0.84 | 0.85 | 169.18 | 10.21 | 0.19 | 11.92 | 10.22 | 1.70 | 7.022 | | |
| 400.00 | 399.84 | 400.39 | 400.37 | 1.19 | 1.20 | 171.50 | 8.51 | -0.26 | 15.36 | 12.94 | 2.42 | 6.357 | | |
| 500.00 | 499.45 | 500.92 | 500.76 | 1.55 | 1.55 | 172.77 | 3.40 | -1.61 | 18.81 | 15.64 | 3.17 | 5.940 | | |
| 600.00 | 598.70 | 601.58 | 601.02 | 1.93 | 1.90 | 173.46 | -5.13 | -3.86 | 22.25 | 18.31 | 3.94 | 5.649 | | |
| 700.00 | 697.47 | 702.35 | 701.03 | 2.33 | 2.27 | 173.82 | -17.07 | -7.01 | 25.68 | 20.96 | 4.72 | 5.438 | | |
| 730.58 | 727.55 | 733.19 | 731.54 | 2.46 | 2.40 | 173.89 | -21.40 | -8.16 | 26.72 | 21.76 | 4.97 | 5.382 | | |
| 800.00 | 795.78 | 803.08 | 800.51 | 2.75 | 2.67 | 173.81 | -32.33 | -11.04 | 28.31 | 22.82 | 5.49 | 5.152 | | |
| 900.00 | 894.07 | 903.07 | 899.07 | 3.18 | 3.08 | 173.54 | -48.60 | -15.34 | 29.95 | 23.75 | 6.20 | 4.832 | | |
| 1,000.00 | 992.36 | 1,003.05 | 997.63 | 3.62 | 3.49 | 173.31 | -64.87 | -19.64 | 31.59 | 24.68 | 6.92 | 4.568 | | |
| 1,100.00 | 1,090.65 | 1,103.04 | 1,096.19 | 4.06 | 3.91 | 173.10 | -81.14 | -23.93 | 33.23 | 25.59 | 7.64 | 4.349 | | |
| 1,200.00 | 1,188.94 | 1,203.03 | 1,194.75 | 4.50 | 4.34 | 172.91 | -97.40 | -28.23 | 34.87 | 26.50 | 8.37 | 4.165 | | |
| 1,300.00 | 1,287.23 | 1,303.01 | 1,293.31 | 4.95 | 4.77 | 172.73 | -113.67 | -32.53 | 36.51 | 27.40 | 9.11 | 4.008 | | |
| 1,400.00 | 1,385.52 | 1,403.00 | 1,391.87 | 5.39 | 5.19 | 172.57 | -129.94 | -36.83 | 38.16 | 28.31 | 9.85 | 3.873 | | |
| 1,500.00 | 1,483.81 | 1,502.99 | 1,490.44 | 5.84 | 5.63 | 172.42 | -146.21 | -41.12 | 39.80 | 29.20 | 10.60 | 3.756 | | |
| 1,600.00 | 1,582.10 | 1,602.97 | 1,589.00 | 6.29 | 6.06 | 172.29 | -162.47 | -45.42 | 41.44 | 30.10 | 11.34 | 3.653 | | |
| 1,700.00 | 1,680.39 | 1,702.96 | 1,687.56 | 6.74 | 6.49 | 172.17 | -178.74 | -49.72 | 43.08 | 30.99 | 12.09 | 3.563 | | |
| 1,800.00 | 1,778.68 | 1,802.95 | 1,786.12 | 7.19 | 6.92 | 172.05 | -195.01 | -54.01 | 44.73 | 31.88 | 12.84 | 3.483 | | |
| 1,900.00 | 1,876.97 | 1,902.93 | 1,884.68 | 7.64 | 7.36 | 171.94 | -211.28 | -58.31 | 46.37 | 32.78 | 13.60 | 3.411 | | |
| 2,000.00 | 1,975.26 | 2,002.92 | 1,983.24 | 8.09 | 7.79 | 171.84 | -227.54 | -62.61 | 48.01 | 33.66 | 14.35 | 3.346 | | |
| 2,100.00 | 2,073.55 | 2,102.91 | 2,081.80 | 8.54 | 8.23 | 171.75 | -243.81 | -66.90 | 49.66 | 34.55 | 15.10 | 3.288 | | |
| 2,200.00 | 2,171.84 | 2,202.89 | 2,180.36 | 8.99 | 8.67 | 171.66 | -260.08 | -71.20 | 51.30 | 35.44 | 15.86 | 3.235 | | |
| 2,300.00 | 2,270.13 | 2,302.88 | 2,278.92 | 9.44 | 9.10 | 171.58 | -276.35 | -75.50 | 52.95 | 36.33 | 16.62 | 3.186 | | |
| 2,400.00 | 2,368.42 | 2,402.87 | 2,377.48 | 9.89 | 9.54 | 171.50 | -292.61 | -79.79 | 54.59 | 37.22 | 17.37 | 3.142 | | |
| 2,500.00 | 2,466.71 | 2,502.85 | 2,476.04 | 10.34 | 9.97 | 171.43 | -308.88 | -84.09 | 56.23 | 38.10 | 18.13 | 3.102 | | |
| 2,600.00 | 2,565.00 | 2,602.84 | 2,574.60 | 10.79 | 10.41 | 171.36 | -325.15 | -88.39 | 57.88 | 38.99 | 18.89 | 3.064 | | |
| 2,700.00 | 2,663.29 | 2,702.82 | 2,673.16 | 11.25 | 10.85 | 171.30 | -341.42 | -92.68 | 59.52 | 39.87 | 19.65 | 3.029 | | |
| 2,800.00 | 2,761.58 | 2,802.81 | 2,771.72 | 11.70 | 11.29 | 171.24 | -357.68 | -96.98 | 61.16 | 40.76 | 20.41 | 2.997 | | |
| 2,900.00 | 2,859.87 | 2,902.80 | 2,870.28 | 12.15 | 11.72 | 171.18 | -373.95 | -101.28 | 62.81 | 41.64 | 21.17 | 2.967 | | |
| 3,000.00 | 2,958.16 | 3,002.78 | 2,968.84 | 12.60 | 12.16 | 171.13 | -390.22 | -105.57 | 64.45 | 42.53 | 21.93 | 2.940 | | |
| 3,100.00 | 3,056.45 | 3,102.77 | 3,067.41 | 13.05 | 12.60 | 171.07 | -406.49 | -109.87 | 66.10 | 43.41 | 22.69 | 2.914 | | |
| 3,200.00 | 3,154.74 | 3,202.76 | 3,165.97 | 13.51 | 13.04 | 171.02 | -422.75 | -114.17 | 67.74 | 44.30 | 23.45 | 2.889 | | |
| 3,300.00 | 3,253.03 | 3,302.74 | 3,264.53 | 13.96 | 13.48 | 170.98 | -439.02 | -118.46 | 69.39 | 45.18 | 24.21 | 2.866 | | |
| 3,400.00 | 3,351.32 | 3,402.73 | 3,363.09 | 14.41 | 13.91 | 170.93 | -455.29 | -122.76 | 71.03 | 46.06 | 24.97 | 2.845 | | |
| 3,500.00 | 3,449.61 | 3,502.72 | 3,461.65 | 14.86 | 14.35 | 170.89 | -471.56 | -127.06 | 72.68 | 46.95 | 25.73 | 2.825 | | |
| 3,600.00 | 3,547.90 | 3,602.70 | 3,560.21 | 15.32 | 14.79 | 170.85 | -487.83 | -131.35 | 74.32 | 47.83 | 26.49 | 2.806 | | |
| 3,700.00 | 3,646.19 | 3,702.69 | 3,658.77 | 15.77 | 15.23 | 170.81 | -504.09 | -135.65 | 75.96 | 48.71 | 27.25 | 2.788 | | |
| 3,800.00 | 3,744.48 | 3,802.68 | 3,757.33 | 16.22 | 15.67 | 170.77 | -520.36 | -139.95 | 77.61 | 49.60 | 28.01 | 2.770 | | |
| 3,900.00 | 3,842.77 | 3,902.66 | 3,855.89 | 16.67 | 16.11 | 170.73 | -536.63 | -144.25 | 79.25 | 50.48 | 28.77 | 2.754 | | |
| 4,000.00 | 3,941.06 | 4,002.65 | 3,954.45 | 17.13 | 16.54 | 170.70 | -552.90 | -148.54 | 80.90 | 51.36 | 29.54 | 2.739 | | |
| 4,100.00 | 4,039.35 | 4,102.64 | 4,053.01 | 17.58 | 16.98 | 170.67 | -569.16 | -152.84 | 82.54 | 52.24 | 30.30 | 2.724 | | |
| 4,200.00 | 4,137.64 | 4,202.62 | 4,151.57 | 18.03 | 17.42 | 170.63 | -585.43 | -157.14 | 84.19 | 53.13 | 31.06 | 2.710 | | |
| 4,300.00 | 4,235.93 | 4,302.61 | 4,250.13 | 18.48 | 17.86 | 170.60 | -601.70 | -161.43 | 85.83 | 54.01 | 31.82 | 2.697 | | |
| 4,400.00 | 4,334.22 | 4,402.59 | 4,348.69 | 18.94 | 18.30 | 170.57 | -617.97 | -165.73 | 87.48 | 54.89 | 32.59 | 2.685 | | |
| 4,500.00 | 4,432.51 | 4,502.58 | 4,447.25 | 19.39 | 18.74 | 170.55 | -634.23 | -170.03 | 89.12 | 55.77 | 33.35 | 2.672 | | |
| 4,600.00 | 4,530.80 | 4,602.57 | 4,545.81 | 19.84 | 19.18 | 170.52 | -650.50 | -174.32 | 90.77 | 56.66 | 34.11 | 2.661 | | |
| 4,700.00 | 4,629.09 | 4,702.55 | 4,644.38 | 20.30 | 19.61 | 170.49 | -666.77 | -178.62 | 92.41 | 57.54 | 34.87 | 2.650 | | |
| 4,800.00 | 4,727.38 | 4,802.54 | 4,742.94 | 20.75 | 20.05 | 170.47 | -683.04 | -182.92 | 94.06 | 58.42 | 35.64 | 2.639 | | |
| 4,900.00 | 4,825.67 | 4,902.53 | 4,841.50 | 21.20 | 20.49 | 170.44 | -699.30 | -187.21 | 95.70 | 59.30 | 36.40 | 2.629 | | |
| 5,000.00 | 4,923.96 | 5,002.51 | 4,940.06 | 21.66 | 20.93 | 170.42 | -715.57 | -191.51 | 97.35 | 60.18 | 37.16 | 2.620 | | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 30-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 30-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3N-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | 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 | 5,022.25 | 5,102.50 | 5,038.62 | 22.11 | 21.37 | 170.39 | -731.84 | -195.81 | 98.99 | 61.07 | 37.93 | 2.610 | |
| 5,200.00 | 5,120.54 | 5,202.49 | 5,137.18 | 22.56 | 21.81 | 170.37 | -748.11 | -200.10 | 100.64 | 61.95 | 38.69 | 2.601 | |
| 5,300.00 | 5,218.83 | 5,302.47 | 5,235.74 | 23.01 | 22.25 | 170.35 | -764.37 | -204.40 | 102.28 | 62.83 | 39.45 | 2.593 | |
| 5,400.00 | 5,317.12 | 5,402.46 | 5,334.30 | 23.47 | 22.69 | 170.33 | -780.64 | -208.70 | 103.93 | 63.71 | 40.21 | 2.584 | |
| 5,500.00 | 5,415.41 | 5,502.45 | 5,432.86 | 23.92 | 23.13 | 170.31 | -796.91 | -212.99 | 105.57 | 64.59 | 40.98 | 2.576 | |
| 5,600.00 | 5,513.70 | 5,602.43 | 5,531.42 | 24.37 | 23.57 | 170.29 | -813.18 | -217.29 | 107.22 | 65.47 | 41.74 | 2.569 | |
| 5,700.00 | 5,611.99 | 5,702.42 | 5,629.98 | 24.83 | 24.00 | 170.27 | -829.44 | -221.59 | 108.86 | 66.36 | 42.50 | 2.561 | |
| 5,800.00 | 5,710.28 | 5,802.41 | 5,728.54 | 25.28 | 24.44 | 170.25 | -845.71 | -225.88 | 110.51 | 67.24 | 43.27 | 2.554 | |
| 5,900.00 | 5,808.57 | 5,902.39 | 5,827.10 | 25.73 | 24.88 | 170.23 | -861.98 | -230.18 | 112.15 | 68.12 | 44.03 | 2.547 | |
| 6,000.00 | 5,906.86 | 6,002.38 | 5,925.66 | 26.19 | 25.32 | 170.22 | -878.25 | -234.48 | 113.80 | 69.00 | 44.79 | 2.540 | |
| 6,100.00 | 6,005.15 | 6,102.36 | 6,024.22 | 26.64 | 25.76 | 170.20 | -894.51 | -238.77 | 115.44 | 69.88 | 45.56 | 2.534 | |
| 6,200.00 | 6,103.44 | 6,202.35 | 6,122.78 | 27.09 | 26.20 | 170.18 | -910.78 | -243.07 | 117.09 | 70.76 | 46.32 | 2.528 | |
| 6,300.00 | 6,201.72 | 6,302.34 | 6,221.35 | 27.54 | 26.64 | 170.17 | -927.05 | -247.37 | 118.73 | 71.65 | 47.09 | 2.522 | |
| 6,400.00 | 6,300.01 | 6,402.32 | 6,319.91 | 28.00 | 27.08 | 170.15 | -943.32 | -251.67 | 120.38 | 72.53 | 47.85 | 2.516 | |
| 6,500.00 | 6,398.30 | 6,502.31 | 6,418.47 | 28.45 | 27.52 | 170.14 | -959.58 | -255.96 | 122.02 | 73.41 | 48.61 | 2.510 | |
| 6,600.00 | 6,496.59 | 6,602.30 | 6,517.03 | 28.90 | 27.96 | 170.12 | -975.85 | -260.26 | 123.67 | 74.29 | 49.38 | 2.505 | |
| 6,708.50 | 6,603.24 | 6,710.79 | 6,623.97 | 29.40 | 28.43 | 170.11 | -993.50 | -264.92 | 125.45 | 75.25 | 50.20 | 2.499 | |
| 6,750.00 | 6,644.06 | 6,752.25 | 6,664.85 | 29.88 | 28.61 | -172.41 | -1,000.25 | -266.70 | 126.05 | 75.50 | 50.55 | 2.494 | |
| 6,800.00 | 6,693.19 | 6,802.03 | 6,713.91 | 29.79 | 28.83 | -154.02 | -1,008.35 | -268.84 | 126.66 | 75.62 | 51.04 | 2.482 | |
| 6,850.00 | 6,742.04 | 6,851.36 | 6,762.54 | 29.99 | 29.05 | -142.03 | -1,016.37 | -270.96 | 127.51 | 75.85 | 51.66 | 2.468 | |
| 6,900.00 | 6,790.37 | 6,900.01 | 6,810.49 | 30.17 | 29.26 | -136.20 | -1,024.29 | -273.05 | 129.24 | 76.78 | 52.45 | 2.464 | |
| 6,950.00 | 6,837.94 | 6,948.45 | 6,858.25 | 30.34 | 29.48 | -134.76 | -1,032.17 | -274.94 | 132.63 | 79.17 | 53.46 | 2.481 | |
| 7,000.00 | 6,884.53 | 6,998.71 | 6,907.83 | 30.50 | 29.69 | -135.53 | -1,040.32 | -274.16 | 137.75 | 83.23 | 54.52 | 2.527 | |
| 7,050.00 | 6,929.90 | 7,050.16 | 6,958.40 | 30.65 | 29.89 | -137.25 | -1,048.60 | -269.72 | 144.29 | 88.85 | 55.44 | 2.603 | |
| 7,100.00 | 6,973.84 | 7,102.87 | 7,009.76 | 30.79 | 30.08 | -139.40 | -1,056.97 | -261.37 | 152.02 | 95.92 | 56.11 | 2.710 | |
| 7,150.00 | 7,016.13 | 7,156.92 | 7,061.65 | 30.91 | 30.27 | -141.66 | -1,065.38 | -248.86 | 160.67 | 104.24 | 56.43 | 2.847 | |
| 7,200.00 | 7,056.56 | 7,212.38 | 7,113.78 | 31.02 | 30.44 | -143.88 | -1,073.79 | -231.94 | 169.98 | 113.61 | 56.37 | 3.016 | |
| 7,250.00 | 7,094.94 | 7,269.32 | 7,165.80 | 31.13 | 30.60 | -145.97 | -1,082.13 | -210.37 | 179.71 | 123.82 | 55.88 | 3.216 | |
| 7,300.00 | 7,131.08 | 7,327.80 | 7,217.29 | 31.22 | 30.75 | -147.88 | -1,090.33 | -183.93 | 189.61 | 134.64 | 54.98 | 3.449 | |
| 7,350.00 | 7,164.81 | 7,387.86 | 7,267.79 | 31.31 | 30.90 | -149.60 | -1,098.32 | -152.45 | 199.48 | 145.83 | 53.65 | 3.718 | |
| 7,400.00 | 7,195.95 | 7,449.53 | 7,316.75 | 31.39 | 31.03 | -151.13 | -1,106.01 | -115.79 | 209.12 | 157.19 | 51.94 | 4.026 | |
| 7,450.00 | 7,224.37 | 7,512.80 | 7,363.57 | 31.46 | 31.14 | -152.47 | -1,113.29 | -73.89 | 218.35 | 168.47 | 49.88 | 4.378 | |
| 7,500.00 | 7,249.91 | 7,577.66 | 7,407.59 | 31.53 | 31.25 | -153.64 | -1,120.05 | -26.77 | 226.99 | 179.45 | 47.54 | 4.775 | |
| 7,550.00 | 7,272.46 | 7,644.05 | 7,448.11 | 31.61 | 31.34 | -154.63 | -1,126.18 | 25.43 | 234.88 | 189.87 | 45.01 | 5.218 | |
| 7,600.00 | 7,291.91 | 7,711.86 | 7,484.41 | 31.69 | 31.43 | -155.46 | -1,131.57 | 82.43 | 241.89 | 199.46 | 42.44 | 5.700 | |
| 7,650.00 | 7,308.16 | 7,780.97 | 7,515.76 | 31.81 | 31.52 | -156.14 | -1,136.10 | 143.82 | 247.89 | 207.91 | 39.98 | 6.200 | |
| 7,700.00 | 7,321.13 | 7,851.20 | 7,541.49 | 31.99 | 31.66 | -156.67 | -1,139.67 | 209.04 | 252.77 | 214.90 | 37.87 | 6.674 | |
| 7,750.00 | 7,330.76 | 7,922.33 | 7,561.01 | 32.29 | 31.93 | -157.06 | -1,142.19 | 277.36 | 256.44 | 220.06 | 36.38 | 7.049 | |
| 7,800.00 | 7,337.00 | 7,994.10 | 7,573.84 | 32.75 | 32.53 | -157.30 | -1,143.57 | 347.93 | 258.82 | 223.09 | 35.73 | 7.244 | |
| 7,850.00 | 7,339.82 | 8,066.26 | 7,579.65 | 33.38 | 33.49 | -157.41 | -1,143.79 | 419.82 | 259.88 | 223.77 | 36.11 | 7.198 | |
| 7,866.12 | 7,340.00 | 8,089.29 | 7,580.00 | 33.62 | 33.85 | -157.41 | -1,143.61 | 442.85 | 259.94 | 223.48 | 36.45 | 7.131 | |
| 7,900.00 | 7,340.00 | 8,123.17 | 7,580.00 | 34.14 | 34.41 | -157.41 | -1,143.27 | 476.73 | 259.94 | 222.92 | 37.02 | 7.021 | |
| 8,000.00 | 7,340.00 | 8,223.17 | 7,580.00 | 35.92 | 36.24 | -157.41 | -1,142.24 | 576.73 | 259.94 | 221.16 | 38.78 | 6.703 | |
| 8,100.00 | 7,340.00 | 8,323.17 | 7,580.00 | 37.94 | 38.27 | -157.41 | -1,141.22 | 676.72 | 259.94 | 219.28 | 40.66 | 6.393 | |
| 8,200.00 | 7,340.00 | 8,423.17 | 7,580.00 | 40.14 | 40.45 | -157.41 | -1,140.19 | 776.72 | 259.95 | 217.30 | 42.65 | 6.095 | |
| 8,300.00 | 7,340.00 | 8,523.17 | 7,580.00 | 42.47 | 42.78 | -157.41 | -1,139.17 | 876.71 | 259.95 | 215.22 | 44.73 | 5.811 | |
| 8,400.00 | 7,340.00 | 8,623.17 | 7,580.00 | 44.91 | 45.21 | -157.40 | -1,138.14 | 976.71 | 259.95 | 213.06 | 46.90 | 5.543 | |
| 8,500.00 | 7,340.00 | 8,723.17 | 7,580.00 | 47.45 | 47.73 | -157.40 | -1,137.12 | 1,076.70 | 259.96 | 210.83 | 49.13 | 5.291 | |
| 8,600.00 | 7,340.00 | 8,823.17 | 7,580.00 | 50.06 | 50.33 | -157.40 | -1,136.09 | 1,176.70 | 259.96 | 208.53 | 51.43 | 5.055 | |
| 8,700.00 | 7,340.00 | 8,923.17 | 7,580.00 | 52.74 | 53.00 | -157.40 | -1,135.07 | 1,276.69 | 259.96 | 206.19 | 53.78 | 4.834 | |
| 8,800.00 | 7,340.00 | 9,023.17 | 7,580.00 | 55.48 | 55.72 | -157.40 | -1,134.04 | 1,376.69 | 259.97 | 203.79 | 56.17 | 4.628 | |
| 8,900.00 | 7,340.00 | 9,123.17 | 7,580.00 | 58.26 | 58.49 | -157.40 | -1,133.02 | 1,476.68 | 259.97 | 201.36 | 58.61 | 4.436 | |

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

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - SAM 3N-25H-M166 - OH - PLAN #1 | | | | | | | | | | | | | 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 | | |
| 9,000.00 | 7,340.00 | 9,223.17 | 7,580.00 | 61.09 | 61.31 | -157.39 | -1,131.99 | 1,576.67 | 259.97 | 198.89 | 61.08 | 4.256 | | |
| 9,100.00 | 7,340.00 | 9,323.17 | 7,580.00 | 63.95 | 64.16 | -157.39 | -1,130.97 | 1,676.67 | 259.98 | 196.38 | 63.59 | 4.088 | | |
| 9,200.00 | 7,340.00 | 9,423.17 | 7,580.00 | 66.84 | 67.04 | -157.39 | -1,129.94 | 1,776.66 | 259.98 | 193.85 | 66.13 | 3.932 | | |
| 9,300.00 | 7,340.00 | 9,523.17 | 7,580.00 | 69.76 | 69.95 | -157.39 | -1,128.92 | 1,876.66 | 259.98 | 191.30 | 68.69 | 3.785 | | |
| 9,400.00 | 7,340.00 | 9,623.17 | 7,580.00 | 72.70 | 72.89 | -157.39 | -1,127.89 | 1,976.65 | 259.99 | 188.72 | 71.27 | 3.648 | | |
| 9,500.00 | 7,340.00 | 9,723.17 | 7,580.00 | 75.67 | 75.85 | -157.39 | -1,126.87 | 2,076.65 | 259.99 | 186.12 | 73.87 | 3.519 | | |
| 9,600.00 | 7,340.00 | 9,823.17 | 7,580.00 | 78.65 | 78.83 | -157.38 | -1,125.84 | 2,176.64 | 259.99 | 183.50 | 76.49 | 3.399 | | |
| 9,700.00 | 7,340.00 | 9,923.17 | 7,580.00 | 81.65 | 81.82 | -157.38 | -1,124.82 | 2,276.64 | 260.00 | 180.86 | 79.13 | 3.286 | | |
| 9,800.00 | 7,340.00 | 10,023.17 | 7,580.00 | 84.67 | 84.83 | -157.38 | -1,123.79 | 2,376.63 | 260.00 | 178.22 | 81.78 | 3.179 | | |
| 9,900.00 | 7,340.00 | 10,123.17 | 7,580.00 | 87.70 | 87.85 | -157.38 | -1,122.77 | 2,476.63 | 260.00 | 175.55 | 84.45 | 3.079 | | |
| 10,000.00 | 7,340.00 | 10,223.17 | 7,580.00 | 90.74 | 90.89 | -157.38 | -1,121.75 | 2,576.62 | 260.00 | 172.88 | 87.13 | 2.984 | | |
| 10,100.00 | 7,340.00 | 10,323.17 | 7,580.00 | 93.79 | 93.94 | -157.38 | -1,120.72 | 2,676.62 | 260.01 | 170.19 | 89.82 | 2.895 | | |
| 10,200.00 | 7,340.00 | 10,423.17 | 7,580.00 | 96.85 | 96.99 | -157.37 | -1,119.70 | 2,776.61 | 260.01 | 167.49 | 92.52 | 2.810 | | |
| 10,300.00 | 7,340.00 | 10,523.17 | 7,580.00 | 99.92 | 100.06 | -157.37 | -1,118.67 | 2,876.61 | 260.01 | 164.79 | 95.23 | 2.730 | | |
| 10,400.00 | 7,340.00 | 10,623.17 | 7,580.00 | 103.00 | 103.14 | -157.37 | -1,117.65 | 2,976.60 | 260.02 | 162.07 | 97.95 | 2.655 | | |
| 10,500.00 | 7,340.00 | 10,723.17 | 7,580.00 | 106.09 | 106.22 | -157.37 | -1,116.62 | 3,076.60 | 260.02 | 159.35 | 100.67 | 2.583 | | |
| 10,600.00 | 7,340.00 | 10,823.17 | 7,580.00 | 109.18 | 109.31 | -157.37 | -1,115.60 | 3,176.59 | 260.02 | 156.62 | 103.41 | 2.515 | | |
| 10,700.00 | 7,340.00 | 10,923.17 | 7,580.00 | 112.28 | 112.41 | -157.37 | -1,114.57 | 3,276.59 | 260.03 | 153.88 | 106.15 | 2.450 | | |
| 10,800.00 | 7,340.00 | 11,023.17 | 7,580.00 | 115.39 | 115.51 | -157.36 | -1,113.55 | 3,376.58 | 260.03 | 151.14 | 108.89 | 2.388 | | |
| 10,900.00 | 7,340.00 | 11,123.17 | 7,580.00 | 118.50 | 118.62 | -157.36 | -1,112.52 | 3,476.58 | 260.03 | 148.39 | 111.65 | 2.329 | | |
| 11,000.00 | 7,340.00 | 11,223.17 | 7,580.00 | 121.61 | 121.73 | -157.36 | -1,111.50 | 3,576.57 | 260.04 | 145.63 | 114.40 | 2.273 | | |
| 11,100.00 | 7,340.00 | 11,323.17 | 7,580.00 | 124.74 | 124.85 | -157.36 | -1,110.47 | 3,676.56 | 260.04 | 142.87 | 117.17 | 2.219 | | |
| 11,200.00 | 7,340.00 | 11,423.17 | 7,580.00 | 127.86 | 127.97 | -157.36 | -1,109.45 | 3,776.56 | 260.04 | 140.11 | 119.94 | 2.168 | | |
| 11,300.00 | 7,340.00 | 11,523.17 | 7,580.00 | 130.99 | 131.10 | -157.36 | -1,108.42 | 3,876.55 | 260.05 | 137.34 | 122.71 | 2.119 | | |
| 11,400.00 | 7,340.00 | 11,623.17 | 7,580.00 | 134.12 | 134.23 | -157.35 | -1,107.40 | 3,976.55 | 260.05 | 134.56 | 125.49 | 2.072 | | |
| 11,500.00 | 7,340.00 | 11,723.17 | 7,580.00 | 137.26 | 137.36 | -157.35 | -1,106.37 | 4,076.54 | 260.05 | 131.79 | 128.27 | 2.027 | | |
| 11,600.00 | 7,340.00 | 11,823.17 | 7,580.00 | 140.40 | 140.50 | -157.35 | -1,105.35 | 4,176.54 | 260.06 | 129.00 | 131.05 | 1.984 | | |
| 11,700.00 | 7,340.00 | 11,923.17 | 7,580.00 | 143.54 | 143.64 | -157.35 | -1,104.32 | 4,276.53 | 260.06 | 126.22 | 133.84 | 1.943 | | |
| 11,800.00 | 7,340.00 | 12,023.17 | 7,580.00 | 146.68 | 146.78 | -157.35 | -1,103.30 | 4,376.53 | 260.06 | 123.43 | 136.63 | 1.903 | | |
| 11,900.00 | 7,340.00 | 12,123.17 | 7,580.00 | 149.83 | 149.92 | -157.35 | -1,102.27 | 4,476.52 | 260.07 | 120.64 | 139.43 | 1.865 | | |
| 11,932.12 | 7,340.00 | 12,155.29 | 7,580.00 | 150.84 | 150.94 | -157.34 | -1,101.94 | 4,508.64 | 260.07 | 119.74 | 140.32 | 1.853 SF | | |

Cathedral Energy Services

Anticollision Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well SAM 3O-25H-M166 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 5109.00usft |
| Reference Site: | S25-T1N-R66W (SAM) | MD Reference: | 23' KB @ 5109.00usft |
| Site Error: | 0.00usft | North Reference: | Grid |
| Reference Well: | SAM 3O-25H-M166 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #1 | Offset TVD Reference: | Offset Datum |

| Offset Design S25-T1N-R66W (SAM) - Wenzel 1 (EXISTING) - CPR WELL - NO SURVEYS | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--------------------------------------------------------------------------------|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-------------------------------------|--------------|------------------------|-------------------------|------------------------|-------------------|--------------------|-----------|
| Survey Program: 8120-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 | |
| 10,800.00 | 7,340.00 | 7,261.00 | 7,261.00 | 115.39 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,488.97 | 1,374.39 | 114.58 | 12.995 | | |
| 10,900.00 | 7,340.00 | 7,261.00 | 7,261.00 | 118.50 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,445.83 | 1,325.97 | 119.86 | 12.062 | | |
| 11,000.00 | 7,340.00 | 7,261.00 | 7,261.00 | 121.61 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,408.48 | 1,283.44 | 125.04 | 11.264 | | |
| 11,100.00 | 7,340.00 | 7,261.00 | 7,261.00 | 124.74 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,377.39 | 1,247.40 | 129.99 | 10.596 | | |
| 11,200.00 | 7,340.00 | 7,261.00 | 7,261.00 | 127.86 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,352.99 | 1,218.40 | 134.60 | 10.052 | | |
| 11,300.00 | 7,340.00 | 7,261.00 | 7,261.00 | 130.99 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,335.65 | 1,196.93 | 138.73 | 9.628 | | |
| 11,400.00 | 7,340.00 | 7,261.00 | 7,261.00 | 134.12 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,325.66 | 1,183.39 | 142.27 | 9.318 | | |
| 11,483.06 | 7,340.00 | 7,261.00 | 7,261.00 | 136.73 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,323.05 | 1,178.36 | 144.69 | 9.144 CC | | |
| 11,500.00 | 7,340.00 | 7,261.00 | 7,261.00 | 137.26 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,323.16 | 1,178.04 | 145.12 | 9.118 ES | | |
| 11,600.00 | 7,340.00 | 7,261.00 | 7,261.00 | 140.40 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,328.21 | 1,180.97 | 147.24 | 9.021 SF | | |
| 11,700.00 | 7,340.00 | 7,261.00 | 7,261.00 | 143.54 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,340.72 | 1,192.13 | 148.59 | 9.023 | | |
| 11,800.00 | 7,340.00 | 7,261.00 | 7,261.00 | 146.68 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,360.48 | 1,211.28 | 149.20 | 9.118 | | |
| 11,900.00 | 7,340.00 | 7,261.00 | 7,261.00 | 149.83 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,387.19 | 1,238.07 | 149.12 | 9.302 | | |
| 11,932.12 | 7,340.00 | 7,261.00 | 7,261.00 | 150.84 | 8.15 | -90.00 | 116.30 | 4,047.18 | 1,397.18 | 1,248.22 | 148.96 | 9.380 | | |

Cathedral Energy Services

Anticollision Report

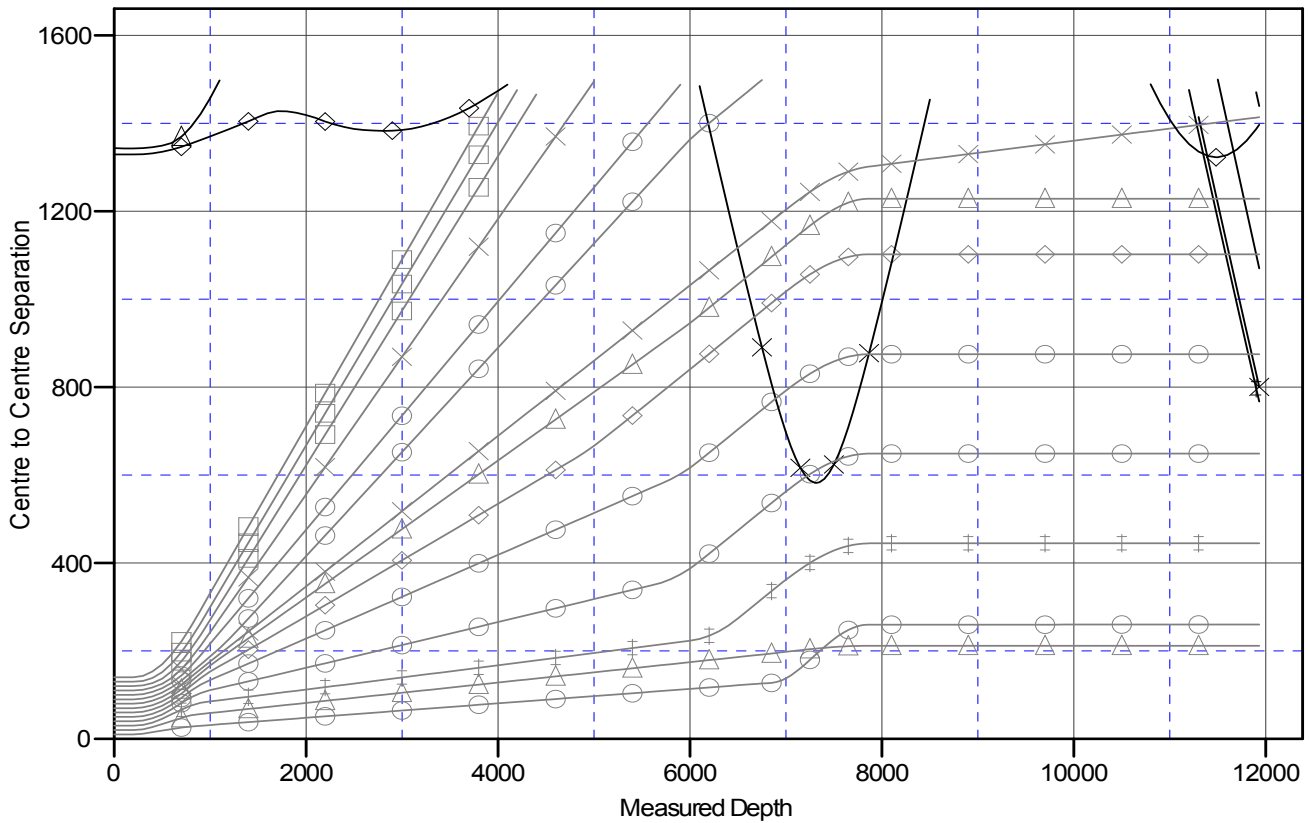
Company: Crestone Peak Resources
Project: DJ BASIN
Reference Site: S25-T1N-R66W (SAM)
Site Error: 0.00usft
Reference Well: SAM 3O-25H-M166
Well Error: 0.00usft
Reference Wellbore: OH
Reference Design: PLAN #1

Local Co-ordinate Reference: Well SAM 3O-25H-M166
TVD Reference: 23' KB @ 5109.00usft
MD Reference: 23' KB @ 5109.00usft
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 @ 5109.00usft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000 °

Coordinates are relative to: SAM 3O-25H-M166
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.50°

Ladder Plot



LEGEND

| | | |
|---------------------------------------|-------------------------------|-------------------------------------|
| HN, GWOG WELL, GWOG WELL V0 | SAM3B-25H-M166, OH, PLAN#1 V0 | SAM3J-25H-M166, OH, PLAN#1 V0 |
| D165 (EXISTING), CPR WELL, SURVEYS V0 | SAM3C-25H-M166, OH, PLAN#1 V0 | SAM3K-25H-M166, OH, PLAN#1 V0 |
| D165 (EXISTING), CPR WELL, SURVEYS V0 | SAM3D-25H-M166, OH, PLAN#1 V0 | SAM3L-25H-M166, OH, PLAN#1 V0 |
| D165 (EXISTING), CPR WELL, SURVEYS V0 | SAM3E-25H-M166, OH, PLAN#1 V0 | SAM3M-25H-M166, OH, PLAN#1 V0 |
| D165 (EXISTING), CPR WELL, SURVEYS V0 | SAM3F-25H-M166, OH, PLAN#1 V0 | SAM3N-25H-M166, OH, PLAN#1 V0 |
| i), CPR WELL, NO SURVEYS V0 | SAM3G-25H-M166, OH, PLAN#1 V0 | Wenzel 1 (EXISTING), CPR WELL, NO S |
| TING), CPR WELL, SURVEYS V0 | SAM3H-25H-M166, OH, PLAN#1 V0 | |
| 36 OH, PLAN#1 V0 | SAM3I-25H-M166, OH, PLAN#1 V0 | |