

Crestone Peak Resources

DJ BASIN

BIGHORN

BIGHORN 4R-17H-P267

OH

PLAN #2

Anticollision Summary Report

12 April, 2018

Cathedral Energy Services

Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4R-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4R-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #2 | Offset TVD Reference: | Offset Datum |

| | | | |
|-------------------------------------|---|-----------------------|---------------------|
| Reference | PLAN #2 | | |
| Filter type: | NO GLOBAL FILTER: Using user defined selection & filtering criteria | | |
| Interpolation Method: | MD Interval 100.00usft | Error Model: | ISCWSA |
| Depth Range: | Unlimited | Scan Method: | Closest Approach 3D |
| Results Limited by: | Maximum center-center distance of 2,237.05 usft | Error Surface: | Pedal Curve |
| Warning Levels Evaluated at: | 2.00 Sigma | Casing Method: | Not applied |

| | | | | |
|----------------------------|------------------|--------------------------|------------------|---------------------|
| Survey Tool Program | Date | 4/12/2018 | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 0.00 | 2,000.00 | PLAN #2 (OH) | VESSI_GYROFLEX | VESSI Gyroflex Gyro |
| 2,001.00 | 15,273.24 | PLAN #2 (OH) | MWD+HDGM | OWSG MWD + HDGM |

| Summary | | | | | | |
|-------------------------------------|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|---------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| BIGHORN | | | | | | |
| BIGHORN 4A-17H-P267 - OH - PLAN #2 | 300.00 | 301.00 | 170.00 | 169.17 | 203.775 | CC, ES |
| BIGHORN 4A-17H-P267 - OH - PLAN #2 | 4,800.00 | 4,018.20 | 2,187.18 | 2,148.72 | 56.875 | SF |
| BIGHORN 4AA-17H-P267 - OH - PLAN #1 | 200.00 | 199.00 | 199.92 | 199.44 | 415.025 | CC, ES |
| BIGHORN 4AA-17H-P267 - OH - PLAN #1 | 4,200.00 | 3,373.73 | 2,178.26 | 2,151.46 | 81.282 | SF |
| BIGHORN 4AB-17H-P267 - OH - PLAN #2 | 300.00 | 299.00 | 190.14 | 189.31 | 228.866 | CC, ES |
| BIGHORN 4AB-17H-P267 - OH - PLAN #2 | 4,400.00 | 3,511.64 | 2,209.38 | 2,177.90 | 70.187 | SF |
| BIGHORN 4AC-17H-P267 - OH - PLAN #1 | 300.00 | 301.00 | 180.07 | 179.24 | 215.843 | CC, ES |
| BIGHORN 4AC-17H-P267 - OH - PLAN #1 | 4,600.00 | 3,740.93 | 2,205.13 | 2,170.28 | 63.265 | SF |
| BIGHORN 4B-17H-P267 - OH - PLAN #2 | 300.00 | 301.00 | 159.94 | 159.10 | 191.710 | CC, ES |
| BIGHORN 4B-17H-P267 - OH - PLAN #2 | 5,100.00 | 4,352.07 | 2,186.94 | 2,144.14 | 51.096 | SF |
| BIGHORN 4C-17H-P267 - OH - PLAN #1 | 200.00 | 199.00 | 150.15 | 149.67 | 311.704 | CC, ES |
| BIGHORN 4C-17H-P267 - OH - PLAN #1 | 5,000.00 | 4,240.98 | 2,235.95 | 2,200.14 | 62.443 | SF |
| BIGHORN 4D-17H-P267 - OH - PLAN #2 | 300.00 | 301.00 | 140.09 | 139.25 | 167.915 | CC, ES |
| BIGHORN 4D-17H-P267 - OH - PLAN #2 | 5,400.00 | 4,722.07 | 2,223.78 | 2,175.21 | 45.777 | SF |
| BIGHORN 4E-17H-P267 - OH - PLAN #1 | 264.22 | 263.23 | 130.02 | 129.31 | 184.092 | CC |
| BIGHORN 4E-17H-P267 - OH - PLAN #1 | 300.00 | 298.97 | 130.02 | 129.19 | 156.414 | ES |
| BIGHORN 4E-17H-P267 - OH - PLAN #1 | 5,400.00 | 4,803.68 | 2,209.84 | 2,164.52 | 48.765 | SF |
| BIGHORN 4F-17H-P267 - OH - PLAN #1 | 300.00 | 301.00 | 119.95 | 119.12 | 143.784 | CC, ES |
| BIGHORN 4F-17H-P267 - OH - PLAN #1 | 5,900.00 | 5,289.07 | 2,208.61 | 2,153.47 | 40.053 | SF |
| BIGHORN 4G-17H-P267 - OH - PLAN #2 | 300.00 | 301.00 | 110.17 | 109.33 | 132.052 | CC, ES |
| BIGHORN 4G-17H-P267 - OH - PLAN #2 | 6,200.00 | 5,637.89 | 2,222.95 | 2,161.72 | 36.309 | SF |
| BIGHORN 4H-17H-P267 - OH - PLAN #1 | 253.74 | 252.75 | 100.10 | 99.43 | 149.486 | CC |
| BIGHORN 4H-17H-P267 - OH - PLAN #1 | 300.00 | 298.95 | 100.12 | 99.28 | 120.437 | ES |
| BIGHORN 4H-17H-P267 - OH - PLAN #1 | 6,300.00 | 5,813.08 | 2,232.92 | 2,176.00 | 39.232 | SF |
| BIGHORN 4I-17H-P267 - OH - PLAN #1 | 300.00 | 299.00 | 90.04 | 89.20 | 108.375 | CC, ES |
| BIGHORN 4I-17H-P267 - OH - PLAN #1 | 6,600.00 | 6,205.68 | 2,095.53 | 2,034.85 | 34.533 | SF |
| BIGHORN 4J-17H-P267 - OH - PLAN #3 | 300.00 | 301.00 | 79.97 | 79.14 | 95.856 | CC, ES |
| BIGHORN 4J-17H-P267 - OH - PLAN #3 | 15,273.25 | 15,620.25 | 2,231.15 | 1,884.33 | 6.433 | SF |
| BIGHORN 4K-17H-P267 - OH - PLAN #2 | 300.00 | 301.00 | 69.90 | 69.07 | 83.791 | CC, ES |
| BIGHORN 4K-17H-P267 - OH - PLAN #2 | 15,273.25 | 15,384.24 | 1,976.12 | 1,530.87 | 4.438 | SF |
| BIGHORN 4L-17H-P267 - OH - PLAN #2 | 300.00 | 300.00 | 60.12 | 59.28 | 72.210 | CC, ES |
| BIGHORN 4L-17H-P267 - OH - PLAN #2 | 15,273.25 | 15,325.72 | 1,647.06 | 1,207.00 | 3.743 | SF |
| BIGHORN 4M-17H-P267 - OH - PLAN #1 | 200.00 | 200.00 | 50.05 | 49.57 | 103.526 | CC |
| BIGHORN 4M-17H-P267 - OH - PLAN #1 | 300.00 | 299.70 | 50.33 | 49.49 | 60.422 | ES |
| BIGHORN 4M-17H-P267 - OH - PLAN #1 | 15,273.25 | 15,603.15 | 1,531.09 | 1,085.86 | 3.439 | SF |
| BIGHORN 4N-17H-P267 - OH - PLAN #2 | 300.00 | 300.00 | 39.98 | 39.15 | 48.029 | CC, ES |

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

Cathedral Energy Services

Anticollision Summary Report

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|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4R-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4R-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #2 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|------------------------------------|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|-----------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| BIGHORN | | | | | | |
| BIGHORN 4N-17H-P267 - OH - PLAN #2 | 15,273.25 | 15,405.24 | 1,033.45 | 584.11 | 2.300 | SF |
| BIGHORN 4O-17H-P267 - OH - PLAN #2 | 300.00 | 300.00 | 29.92 | 29.09 | 35.938 | CC, ES |
| BIGHORN 4O-17H-P267 - OH - PLAN #2 | 15,273.25 | 15,250.98 | 929.27 | 481.13 | 2.074 | SF |
| BIGHORN 4P-17H-P267 - OH - PLAN #2 | 204.76 | 204.76 | 20.13 | 19.63 | 40.261 | CC |
| BIGHORN 4P-17H-P267 - OH - PLAN #2 | 15,273.25 | 15,390.61 | 382.57 | -61.08 | 0.862 | Level 1, ES, SF |
| BIGHORN 4Q-17H-P267 - OH - PLAN #2 | 300.00 | 300.00 | 10.07 | 9.23 | 12.091 | CC |
| BIGHORN 4Q-17H-P267 - OH - PLAN #2 | 15,100.00 | 15,293.69 | 314.00 | -1.87 | 0.994 | Level 1, ES, SF |
| BIGHORN 4S-17H-P267 - OH - PLAN #3 | 200.00 | 200.00 | 10.07 | 9.58 | 20.820 | CC |
| BIGHORN 4S-17H-P267 - OH - PLAN #3 | 15,273.25 | 15,360.33 | 330.77 | -11.80 | 0.966 | Level 1, ES, SF |

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| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4R-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #2 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|---|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|--------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| S17-T2N-R67W (OFFSETS) | | | | | | |
| ABBEY STATE V16-77HN - KMG WELL - SURVEYS | 10,875.58 | 10,639.90 | 1,745.26 | 1,576.70 | 10.354 | CC |
| ABBEY STATE V16-77HN - KMG WELL - SURVEYS | 12,100.00 | 11,812.00 | 1,755.34 | 1,533.31 | 7.906 | ES |
| ABBEY STATE V16-77HN - KMG WELL - SURVEYS | 12,200.00 | 11,812.00 | 1,761.20 | 1,537.45 | 7.871 | SF |
| ALFRED D SATER UNIT 2 - KMG WELL - GYRO | | | | | | Out of range |
| ALVIN STATE 1 - PDC WELL - GYRO | 8,077.86 | 7,301.56 | 882.56 | 831.39 | 17.246 | CC, ES |
| ALVIN STATE 1 - PDC WELL - GYRO | 8,200.00 | 7,300.88 | 890.98 | 838.39 | 16.944 | SF |
| ASPEN STATE V16-75HN - KMG WELL - SURVEYS | | | | | | Out of range |
| CHENG 3-8A - KMG WELL - SURVEYS | | | | | | Out of range |
| CIRBO 4-6-5 - CPR WELL - SURVEYS | | | | | | Out of range |
| CIRBO 6-4-5 - CPR WELL - SURVEYS | | | | | | Out of range |
| DECHANT 2-16 - KMG WELL - GYRO | 10,909.40 | 7,344.53 | 1,947.10 | 1,827.82 | 16.323 | CC |
| DECHANT 2-16 - KMG WELL - GYRO | 11,000.00 | 7,343.08 | 1,949.21 | 1,827.62 | 16.031 | ES |
| DECHANT 2-16 - KMG WELL - GYRO | 11,300.00 | 7,338.30 | 1,985.88 | 1,858.33 | 15.569 | SF |
| DECHANT 6 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| DECHANT 7 - KPK WELL - NO SURVEYS | 300.00 | 290.00 | 1,647.63 | 1,646.36 | 1,298.276 | CC, ES |
| DECHANT 7 - KPK WELL - NO SURVEYS | 5,300.00 | 5,087.00 | 2,179.35 | 2,143.44 | 60.696 | SF |
| DECHANT 8 - GERRITY WELL - NO SURVEYS | | | | | | Out of range |
| DECHANT STATE 1 - KPK WELL - SURVEYS | 10,295.03 | 7,031.91 | 1,135.24 | 1,031.78 | 10.973 | CC |
| DECHANT STATE 1 - KPK WELL - SURVEYS | 10,300.00 | 7,030.76 | 1,135.25 | 1,031.69 | 10.963 | ES |
| DECHANT STATE 1 - KPK WELL - SURVEYS | 10,400.00 | 7,007.19 | 1,139.81 | 1,034.61 | 10.834 | SF |
| DECHANT STATE GAS U 9 - KMG WELL - GYRO | 8,270.99 | 7,376.55 | 1,212.26 | 1,157.53 | 22.151 | CC |
| DECHANT STATE GAS U 9 - KMG WELL - GYRO | 8,300.00 | 7,377.12 | 1,212.60 | 1,157.41 | 21.971 | ES |
| DECHANT STATE GAS U 9 - KMG WELL - GYRO | 8,600.00 | 7,382.97 | 1,256.09 | 1,196.65 | 21.131 | SF |
| DECHANT STATE V 16-11JI - KMG WELL - GYRO | | | | | | Out of range |
| DECHANT STATE V 16-12JI - KMG WELL - GYRO | 9,419.85 | 7,249.53 | 757.54 | 677.06 | 9.414 | CC, ES |
| DECHANT STATE V 16-12JI - KMG WELL - GYRO | 9,500.00 | 7,248.33 | 761.76 | 679.74 | 9.287 | SF |
| DECHANT STATE V 16-14JI - KMG WELL - GYRO | | | | | | Out of range |
| DECHANT STATE V 16-4JI - KMG WELL - GYRO | 12,144.40 | 7,277.17 | 1,031.35 | 879.13 | 6.775 | CC, ES |
| DECHANT STATE V 16-4JI - KMG WELL - GYRO | 12,200.00 | 7,276.18 | 1,032.85 | 879.27 | 6.725 | SF |
| DECHANT STATE V 16-5JI - KMG WELL - GYRO | 10,493.90 | 7,282.57 | 737.81 | 629.64 | 6.820 | CC |
| DECHANT STATE V 16-5JI - KMG WELL - GYRO | 10,500.00 | 7,282.43 | 737.84 | 629.50 | 6.811 | ES |
| DECHANT STATE V 16-5JI - KMG WELL - GYRO | 10,600.00 | 7,280.13 | 745.40 | 635.38 | 6.775 | SF |
| DECHANT V 16-3JI - KMG WELL - GYRO | | | | | | Out of range |
| DECHANT-STATE 2 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| DECHANT-STATE 3 - KPK WELL - NO SURVEYS | 4,202.58 | 4,129.37 | 1,283.55 | 1,254.21 | 43.737 | CC |
| DECHANT-STATE 3 - KPK WELL - NO SURVEYS | 4,500.00 | 4,420.41 | 1,285.02 | 1,252.72 | 39.792 | ES |
| DECHANT-STATE 3 - KPK WELL - NO SURVEYS | 5,300.00 | 5,100.00 | 1,307.39 | 1,267.79 | 33.014 | SF |
| DECHANT-STATE 4 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| DECHANT-STATE 5 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| DIER 1 - CPR WELL - GYRO | 14,635.55 | 7,235.99 | 408.25 | 188.25 | 1.856 | CC, ES, SF |
| DIER 13-8 - CPR WELL - SURVEYS | | | | | | Out of range |
| DIER 14-8 - CPR WELL - SURVEYS | | | | | | Out of range |
| DIER 23-8 - CPR WELL - SURVEYS | | | | | | Out of range |
| DIER 24-8 - CPR WELL - SURVEYS | | | | | | Out of range |
| DIER 33-8 - CPR WELL - GYRO | 14,628.08 | 7,225.77 | 1,770.85 | 1,550.98 | 8.054 | CC |
| DIER 33-8 - CPR WELL - GYRO | 14,700.00 | 7,227.34 | 1,772.31 | 1,550.69 | 7.997 | ES |
| DIER 33-8 - CPR WELL - GYRO | 14,800.00 | 7,229.52 | 1,779.17 | 1,555.68 | 7.961 | SF |
| DIER 34-8 - CPR WELL - GYRO | 13,203.24 | 7,208.43 | 2,033.96 | 1,853.05 | 11.243 | CC |
| DIER 34-8 - CPR WELL - GYRO | 13,300.00 | 7,210.09 | 2,036.26 | 1,852.94 | 11.108 | ES |
| DIER 34-8 - CPR WELL - GYRO | 13,500.00 | 7,213.54 | 2,055.49 | 1,868.43 | 10.988 | SF |
| DIER 44-8 - CPR WELL - GYRO | 13,053.82 | 7,270.12 | 300.33 | 123.45 | 1.698 | CC, ES, SF |
| DIER 4-4-8 - CPR WELL - SURVEYS | | | | | | Out of range |
| DIER 4-8 - CPR WELL - GYRO | | | | | | Out of range |

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

Cathedral Energy Services

Anticollision Summary Report

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| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4R-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4R-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #2 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|--|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|-----------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| S17-T2N-R67W (OFFSETS) | | | | | | |
| DIER 8-4-8 - CPR WELL - SURVEYS | 15,190.25 | 7,346.58 | 197.84 | -42.86 | 0.822 | Level 1, CC, SF |
| DIER 8-4-8 - CPR WELL - SURVEYS | 15,200.00 | 7,346.78 | 198.08 | -42.89 | 0.822 | Level 1, ES |
| DIER 8-6-8 - CPR WELL - SURVEYS | 13,899.09 | 7,379.18 | 213.71 | 5.70 | 1.027 | Level 2, CC |
| DIER 8-6-8 - CPR WELL - SURVEYS | 13,900.00 | 7,379.18 | 213.72 | 5.70 | 1.027 | Level 2, ES, SF |
| DIER J1A - CPR WELL - GYRO | 13,763.11 | 7,254.02 | 1,139.23 | 942.87 | 5.802 | CC |
| DIER J1A - CPR WELL - GYRO | 13,800.00 | 7,253.55 | 1,139.83 | 942.59 | 5.779 | ES |
| DIER J1A - CPR WELL - GYRO | 13,900.00 | 7,252.31 | 1,147.42 | 948.78 | 5.776 | SF |
| ELKHORN CO B 3 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| ELKHORN CO UNIT 2 - KMG WELL - GYRO | 6,828.34 | 6,737.97 | 2,066.02 | 2,027.62 | 53.803 | CC, ES |
| ELKHORN CO UNIT 2 - KMG WELL - GYRO | 6,900.00 | 6,798.22 | 2,067.50 | 2,029.02 | 53.730 | SF |
| ELKHORN CO-B 6 - KPK WELL - NO SURVEYS | 5,485.86 | 5,200.00 | 1,314.68 | 1,278.10 | 35.945 | CC, ES |
| ELKHORN CO-B 6 - KPK WELL - NO SURVEYS | 5,600.00 | 5,200.00 | 1,319.62 | 1,282.79 | 35.823 | SF |
| ELKHORN CO-B 7 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| ELKHORN COMPANY B 2 - KMG WELL - GYRO | 6,720.62 | 6,615.99 | 2,040.15 | 2,009.86 | 67.346 | CC, ES |
| ELKHORN COMPANY B 2 - KMG WELL - GYRO | 6,900.00 | 6,782.68 | 2,059.61 | 2,028.70 | 66.631 | SF |
| FIRESTONE 20-29D - KMG WELL - SURVEYS | | | | | | Out of range |
| FIRESTONE V 20-04D - KMG WELL - SURVEYS | | | | | | Out of range |
| FIRESTONE V 20-08D - KMG WELL - SURVEYS | 6,692.26 | 6,706.83 | 1,652.03 | 1,614.11 | 43.573 | CC |
| FIRESTONE V 20-08D - KMG WELL - SURVEYS | 6,700.00 | 6,713.93 | 1,652.07 | 1,614.11 | 43.520 | ES |
| FIRESTONE V 20-08D - KMG WELL - SURVEYS | 6,800.00 | 6,809.46 | 1,660.32 | 1,621.87 | 43.173 | SF |
| FIRESTONE V 20-18D - KMG WELL - SURVEYS | | | | | | Out of range |
| FIRESTONE V 20-2 - KMG WELL - GYRO | 4,672.37 | 4,554.57 | 1,776.06 | 1,742.25 | 52.525 | CC |
| FIRESTONE V 20-2 - KMG WELL - GYRO | 5,000.00 | 4,876.15 | 1,777.86 | 1,740.73 | 47.884 | ES |
| FIRESTONE V 20-2 - KMG WELL - GYRO | 7,000.00 | 6,834.89 | 1,873.14 | 1,818.14 | 34.060 | SF |
| FIRESTONE V 20-3 - KMG WELL - GYRO | | | | | | Out of range |
| HOMESTEAD 22-4 - KMG WELL - SURVEYS | | | | | | Out of range |
| HOMESTEAD 29-4 - KMG WELL - SURVEYS | | | | | | Out of range |
| HOMESTEAD 31-4 - KMG WELL - SURVEYS | | | | | | Out of range |
| HOMESTEAD 4-4 - KMG WELL - GYRO | | | | | | Out of range |
| HSR-DODERO 6-4A - KMG WELL - GYRO | | | | | | Out of range |
| HSR-MCHALE 7-5A - KMG WELL - GYRO | | | | | | Out of range |
| HSR-RHOADES 8-5A - KMG WELL - GYRO | | | | | | Out of range |
| HSR-SATER 1-8A - KMG WELL - GYRO | 15,273.25 | 7,232.83 | 2,177.90 | 2,125.80 | 41.804 | CC, ES, SF |
| HSR-VOGL 3-5A - KMG WELL - GYRO | 15,273.25 | 2,285.60 | 2,207.83 | 2,179.40 | 77.651 | CC, ES, SF |
| MAHONEY 1 - KPK WELL - NO SURVEYS | 5,227.03 | 5,042.00 | 629.16 | 593.28 | 17.536 | CC, ES, SF |
| MAHONEY 2 - KPK WELL - NO SURVEYS | 5,564.15 | 5,100.00 | 1,996.45 | 1,961.80 | 57.609 | CC, ES |
| MAHONEY 2 - KPK WELL - NO SURVEYS | 5,800.00 | 5,100.00 | 2,010.34 | 1,975.12 | 57.083 | SF |
| MAHONEY-PERRIN 2 - KPK WELL - NO SURVEYS | 5,192.19 | 5,050.00 | 1,612.81 | 1,573.81 | 41.354 | CC |
| MAHONEY-PERRIN 2 - KPK WELL - NO SURVEYS | 5,200.00 | 5,050.00 | 1,612.83 | 1,573.78 | 41.303 | ES |
| MAHONEY-PERRIN 2 - KPK WELL - NO SURVEYS | 5,400.00 | 5,050.00 | 1,626.15 | 1,586.11 | 40.614 | SF |
| MCCLAY 5-4A - KMG WELL - GYRO | | | | | | Out of range |
| MCCOY 1 - CPR WELL - GYRO | | | | | | Out of range |
| MCCOY 13-5 - CPR WELL - GYRO | | | | | | Out of range |
| MCCOY 14-5 - CPR WELL - GYRO | | | | | | Out of range |
| MCCOY 23-5 - CPR WELL - GYRO | | | | | | Out of range |
| MCCOY 24-5 - CPR WELL - GYRO | | | | | | Out of range |
| MCCOY 2-4-5 - CPR WELL - SURVEYS | | | | | | Out of range |
| MCHALE 2-5 - KMG WELL - GYRO | | | | | | Out of range |
| MCHALE UNIT 1 - KMG WELL - GYRO | | | | | | Out of range |
| MCHALE-B 1 - AMOCO WELL - NO SURVEYS | | | | | | Out of range |
| MERLE L MCHALE UNIT 2 - KMG WELL - GYRO | | | | | | Out of range |
| MILLER 1 - EXTRACTION WELL - GYRO | 11,619.02 | 7,233.01 | 778.02 | 640.04 | 5.639 | CC, ES |
| MILLER 1 - EXTRACTION WELL - GYRO | 11,700.00 | 7,232.12 | 782.22 | 642.79 | 5.610 | SF |

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

Cathedral Energy Services

Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4R-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4R-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #2 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|--|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|--------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| S17-T2N-R67W (OFFSETS) | | | | | | |
| MILLER 11-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 1-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 12-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 13-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 14-17 - EXTRACTION WELL - NO SURVEYS | | | | | | Out of range |
| MILLER 21-17 - CPR WELL - GYRO | | | | | | Out of range |
| MILLER 2-17 - CPR WELL - GYRO | 11,008.91 | 7,264.48 | 804.29 | 682.54 | 6.606 | CC, ES |
| MILLER 2-17 - CPR WELL - GYRO | 11,100.00 | 7,262.91 | 809.43 | 685.99 | 6.557 | SF |
| MILLER 22-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 23-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 24-17 - CPR WELL - GYRO | | | | | | Out of range |
| MILLER 2-4-17 - CPR WELL - SURVEYS | | | | | | Out of range |
| MILLER 31-17C - EXTRACTION WELL - GYRO | 11,981.44 | 7,187.23 | 1,657.68 | 1,510.01 | 11.225 | CC |
| MILLER 31-17C - EXTRACTION WELL - GYRO | 12,000.00 | 7,187.22 | 1,657.79 | 1,509.63 | 11.189 | ES |
| MILLER 31-17C - EXTRACTION WELL - GYRO | 12,200.00 | 7,187.18 | 1,672.03 | 1,519.73 | 10.979 | SF |
| MILLER 3-17J - CPR WELL - GYRO | 322.60 | 306.96 | 663.70 | 662.79 | 730.762 | CC, ES |
| MILLER 3-17J - CPR WELL - GYRO | 8,900.00 | 7,277.44 | 1,100.93 | 1,033.41 | 16.307 | SF |
| MILLER 32-17 - EXTRACTION WELL - GYRO | | | | | | Out of range |
| MILLER 33-17J - CPR WELL - SURVEYS | 300.00 | 290.00 | 815.83 | 815.10 | 1,111.844 | CC, ES |
| MILLER 33-17J - CPR WELL - SURVEYS | 9,900.00 | 7,481.88 | 1,942.11 | 1,837.14 | 18.501 | SF |
| MILLER 34-17J - CPR WELL - SURVEYS | 300.00 | 290.00 | 692.48 | 691.74 | 943.309 | CC |
| MILLER 34-17J - CPR WELL - SURVEYS | 400.00 | 389.98 | 692.76 | 691.74 | 680.250 | ES |
| MILLER 34-17J - CPR WELL - SURVEYS | 8,400.00 | 8,400.00 | 1,692.56 | 1,632.75 | 28.297 | SF |
| MILLER 41-17 - EXTRACTION WELL - GYRO | 11,957.40 | 5,057.00 | 2,215.78 | 2,164.71 | 43.389 | CC |
| MILLER 41-17 - EXTRACTION WELL - GYRO | 12,000.00 | 5,057.00 | 2,216.19 | 2,164.66 | 43.012 | ES |
| MILLER 41-17 - EXTRACTION WELL - GYRO | 12,200.00 | 5,057.00 | 2,229.02 | 2,175.51 | 41.656 | SF |
| MILLER 4-17J - CPR WELL - GYRO | | | | | | Out of range |
| MILLER 42-17 - EXTRACTION WELL - NO SURVEYS | | | | | | Out of range |
| MILLER 43-17 - EXTRACTION WELL - GYRO | 319.28 | 307.67 | 1,055.20 | 1,054.29 | 1,165.212 | CC, ES |
| MILLER 43-17 - EXTRACTION WELL - GYRO | 5,200.00 | 5,067.26 | 1,962.86 | 1,941.16 | 90.462 | SF |
| MILLER 43-17J - EXTRACTION WELL - GYRO | 9,343.40 | 7,282.98 | 576.43 | 497.67 | 7.318 | CC, ES |
| MILLER 43-17J - EXTRACTION WELL - GYRO | 9,400.00 | 7,283.07 | 579.21 | 499.26 | 7.245 | SF |
| MILLER 44-17J - CPR WELL - SURVEYS | 7,885.29 | 7,491.06 | 240.95 | 189.15 | 4.651 | CC |
| MILLER 44-17J - CPR WELL - SURVEYS | 7,900.00 | 7,489.79 | 241.46 | 188.94 | 4.598 | ES, SF |
| MILLER CJ 17-A - CPR WELL - SURVEYS | | | | | | Out of range |
| PACE 1 - GO PUMPING & CONS WELL - NO SURVEYS | 1,348.26 | 1,321.27 | 646.00 | 639.14 | 94.118 | CC |
| PACE 1 - GO PUMPING & CONS WELL - NO SURVEYS | 1,400.00 | 1,371.90 | 646.09 | 638.95 | 90.471 | ES |
| PACE 1 - GO PUMPING & CONS WELL - NO SURVEYS | 5,200.00 | 5,090.39 | 1,023.20 | 988.51 | 29.498 | SF |
| PACE 2 - TEXAS TEA WELL - NO SURVEYS | 300.00 | 275.00 | 1,363.85 | 1,362.64 | 1,129.958 | CC, ES |
| PACE 2 - TEXAS TEA WELL - NO SURVEYS | 5,100.00 | 4,980.54 | 2,226.62 | 2,195.83 | 72.324 | SF |
| PACE 3 - DENVER EAST MACHINERY WELL - NO SUR | 1,738.53 | 1,706.17 | 195.42 | 186.45 | 21.792 | CC, ES |
| PACE 3 - DENVER EAST MACHINERY WELL - NO SUR | 2,400.00 | 2,353.45 | 238.24 | 225.83 | 19.203 | SF |
| PERRIN GU 1 - KMG WELL - GYRO | 6,635.33 | 6,504.39 | 989.97 | 950.61 | 25.157 | CC, ES |
| PERRIN GU 1 - KMG WELL - GYRO | 6,700.00 | 6,570.04 | 992.11 | 952.33 | 24.942 | SF |
| PERRIN GU 2-20 - KMG WELL - GYRO | | | | | | Out of range |
| PERRIN V 20-5D - KMG WELL - GYRO | | | | | | Out of range |
| PERRIN V 20-7DI - KMG WELL - GYRO | | | | | | Out of range |
| PERRIN-MAHONEY 1 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| PROMINENCE 4-8 - KMG WELL - GYRO | | | | | | Out of range |
| RHOADES 1-5A - KMG WELL - GYRO | | | | | | Out of range |
| ROBERT E BALDWIN 2 - KMG WELL - GYRO | | | | | | Out of range |
| RUCA 20-1HZ - KMG - PLAN ONLY | 2,827.98 | 2,841.87 | 1,223.38 | 1,200.42 | 53.291 | CC |
| RUCA 20-1HZ - KMG - PLAN ONLY | 2,900.00 | 2,902.62 | 1,224.24 | 1,200.39 | 51.338 | ES |

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

Cathedral Energy Services

Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4R-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4R-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #2 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|---|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|---------------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| S17-T2N-R67W (OFFSETS) | | | | | | |
| RUCA 20-1HZ - KMG - PLAN ONLY | 3,800.00 | 3,608.92 | 1,371.19 | 1,338.09 | 41.431 | SF |
| RUCA 20-2HZ - KMG - PLAN ONLY | 3,014.32 | 3,054.37 | 1,126.48 | 1,101.52 | 45.130 | CC, ES |
| RUCA 20-2HZ - KMG - PLAN ONLY | 8,800.00 | 7,450.00 | 2,203.78 | 2,113.31 | 24.359 | SF |
| RUCA 20-3HZ - KMG - PLAN ONLY | 3,160.93 | 3,219.14 | 1,047.61 | 1,021.21 | 39.691 | CC |
| RUCA 20-3HZ - KMG - PLAN ONLY | 3,200.00 | 3,250.24 | 1,047.87 | 1,021.02 | 39.015 | ES |
| RUCA 20-3HZ - KMG - PLAN ONLY | 8,600.00 | 7,350.00 | 1,966.54 | 1,882.08 | 23.283 | SF |
| RUCA 20-4HZ - KMG - PLAN ONLY | 3,271.94 | 3,352.01 | 936.39 | 908.61 | 33.713 | CC |
| RUCA 20-4HZ - KMG - PLAN ONLY | 3,300.00 | 3,374.83 | 936.53 | 908.43 | 33.324 | ES |
| RUCA 20-4HZ - KMG - PLAN ONLY | 8,300.00 | 7,350.00 | 1,634.85 | 1,557.72 | 21.196 | SF |
| RUCA 20-5HZ - KMG - PLAN ONLY | 3,420.48 | 3,518.88 | 806.95 | 777.70 | 27.589 | CC, ES |
| RUCA 20-5HZ - KMG - PLAN ONLY | 8,200.00 | 7,419.29 | 1,347.86 | 1,273.05 | 18.016 | SF |
| RUCA 20-6HZ - KMG - PLAN ONLY | 3,686.93 | 3,784.35 | 696.53 | 665.34 | 22.330 | CC |
| RUCA 20-6HZ - KMG - PLAN ONLY | 3,700.00 | 3,804.80 | 696.57 | 665.16 | 22.178 | ES |
| RUCA 20-6HZ - KMG - PLAN ONLY | 8,000.00 | 7,428.59 | 1,142.32 | 1,071.97 | 16.238 | SF |
| RUCA 20-7HZ - KMG - PLAN ONLY | 3,870.50 | 3,981.34 | 398.81 | 365.84 | 12.098 | CC |
| RUCA 20-7HZ - KMG - PLAN ONLY | 3,900.00 | 4,006.44 | 399.11 | 365.83 | 11.992 | ES |
| RUCA 20-7HZ - KMG - PLAN ONLY | 7,600.00 | 7,513.05 | 666.71 | 603.66 | 10.575 | SF |
| RUCA 20-8HZ - KMG - PLAN ONLY | 3,910.91 | 4,036.39 | 154.17 | 120.69 | 4.606 | CC, ES, SF |
| RUCA 20-9HZ - KMG - PLAN ONLY | 3,985.13 | 4,101.78 | 35.77 | 1.79 | 1.053 | Level 2, CC, ES, SF |
| SATER 21-8 - KMG WELL - SURVEYS | | | | | | Out of range |
| SATER 24-8 - KMG WELL - SURVEYS | 15,273.25 | 7,356.00 | 1,037.23 | 795.32 | 4.288 | CC, ES, SF |
| SATER 24C-5HZ - KMG WELL - SURVEYS | 15,264.13 | 7,349.33 | 724.68 | 483.40 | 3.004 | CC |
| SATER 24C-5HZ - KMG WELL - SURVEYS | 15,273.25 | 7,353.47 | 724.73 | 483.22 | 3.001 | ES, SF |
| SATER 24N-5HZ - KMG WELL - SURVEYS | 15,273.25 | 7,299.99 | 1,343.53 | 1,103.01 | 5.586 | CC, ES, SF |
| SATER 25C-5HZ - KMG WELL - SURVEYS | 15,211.78 | 7,102.00 | 2,138.05 | 1,898.55 | 8.927 | CC |
| SATER 25C-5HZ - KMG WELL - SURVEYS | 15,273.25 | 7,111.34 | 2,138.89 | 1,897.81 | 8.872 | ES, SF |
| SATER 2-8 - KMG WELL - SURVEYS | | | | | | Out of range |
| SATER 28-8 - KMG WELL - SURVEYS | | | | | | Out of range |
| SATER 40N-5HZ - KMG WELL - SURVEYS | 15,273.25 | 7,309.50 | 293.46 | 67.15 | 1.297 | Level 3, CC, ES, SF |
| SATER 7-8 - KMG WELL - SURVEYS | 15,273.25 | 7,320.28 | 1,889.74 | 1,656.66 | 8.108 | CC, ES, SF |
| SATER 8-8 - KMG WELL - SURVEYS | 15,273.25 | 7,616.36 | 764.90 | 618.20 | 5.214 | CC, ES, SF |
| SATER ALFRED D UNIT 1 (P&A) - KMG WELL - GYRO | 15,273.25 | 7,174.01 | 1,623.89 | 1,435.83 | 8.635 | CC, ES, SF |
| SCOTT 1C-32HZ - KMG WELL - SURVEYS | | | | | | Out of range |
| SCOTT 26N-32HZ - KMG WELL - SURVEYS | | | | | | Out of range |
| SCOTT 27N-32HZ - KMG WELL - SURVEYS | | | | | | Out of range |
| SCOTT 28C-32HZ - KMG WELL - SURVEYS | | | | | | Out of range |
| SHELEY 1 - CPR WELL - GYRO | | | | | | Out of range |
| SHELEY 14-4 - CPR WELL - GYRO | | | | | | Out of range |
| SHELEY 24-4 - MACHII-ROSS WELL - GYRO | | | | | | Out of range |
| SHELEY 3A-4H - CPR WELL - SURVEYS | | | | | | Out of range |
| SHELEY 3B-4H - CPR WELL - SURVEYS | | | | | | Out of range |
| SHELEY 4-6-4 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 11-9 - CPR WELL - GYRO | 15,273.25 | 7,256.53 | 2,204.10 | 2,086.38 | 18.724 | CC, ES, SF |
| SPRAGUE 13-9 - CPR WELL - GYRO | 14,644.97 | 7,304.08 | 1,123.33 | 902.96 | 5.098 | CC, ES |
| SPRAGUE 13-9 - CPR WELL - GYRO | 14,700.00 | 7,304.62 | 1,124.67 | 902.99 | 5.073 | SF |
| SPRAGUE 14-9 - CPR WELL - GYRO | 13,303.98 | 7,332.19 | 1,038.68 | 855.01 | 5.655 | CC, ES |
| SPRAGUE 14-9 - CPR WELL - GYRO | 13,400.00 | 7,331.18 | 1,043.11 | 857.45 | 5.619 | SF |
| SPRAGUE 24-9 - CPR WELL - GYRO | | | | | | Out of range |
| SPRAGUE 2-4-9 - CPR WELL - SURVEYS | 15,207.74 | 7,404.53 | 1,702.53 | 1,461.22 | 7.056 | CC |
| SPRAGUE 2-4-9 - CPR WELL - SURVEYS | 15,273.25 | 7,406.80 | 1,703.79 | 1,460.63 | 7.007 | ES, SF |
| SPRAGUE 2-8-9 - CPR WELL - SURVEYS | 12,721.32 | 7,417.92 | 1,639.56 | 1,466.90 | 9.496 | CC |
| SPRAGUE 2-8-9 - CPR WELL - SURVEYS | 12,800.00 | 7,417.55 | 1,641.45 | 1,466.60 | 9.388 | ES |
| SPRAGUE 2-8-9 - CPR WELL - SURVEYS | 13,000.00 | 7,416.62 | 1,663.08 | 1,484.15 | 9.295 | SF |

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

Cathedral Energy Services

Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4R-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4R-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #2 | Offset TVD Reference: | Offset Datum |

Summary

| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
|--|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|--------------|
| Offset Well - Wellbore - Design | | | | | | |
| S17-T2N-R67W (OFFSETS) | | | | | | |
| SPRAGUE 3A-9H-N267 - CPR WELL - SURVEYS | 13,211.80 | 7,668.43 | 813.48 | 625.11 | 4.318 | CC |
| SPRAGUE 3A-9H-N267 - CPR WELL - SURVEYS | 15,273.25 | 9,721.55 | 842.04 | 572.11 | 3.119 | ES, SF |
| SPRAGUE 3AA-9H-N267 - CPR WELL - SURVEYS | 13,310.04 | 7,915.12 | 642.27 | 456.58 | 3.459 | CC |
| SPRAGUE 3AA-9H-N267 - CPR WELL - SURVEYS | 15,273.25 | 9,883.74 | 658.24 | 401.14 | 2.560 | ES, SF |
| SPRAGUE 3B-9H-N267 - CPR WELL - SURVEYS | 14,500.18 | 9,060.07 | 1,059.71 | 827.78 | 4.569 | CC |
| SPRAGUE 3B-9H-N267 - CPR WELL - SURVEYS | 15,273.25 | 9,863.71 | 1,064.72 | 799.25 | 4.011 | ES, SF |
| SPRAGUE 3C-9H-N267 - CPR WELL - SURVEYS | 15,273.25 | 9,592.67 | 1,328.97 | 1,058.24 | 4.909 | CC, ES, SF |
| SPRAGUE 3D-9H-N267 - CPR WELL - SURVEYS | 13,367.66 | 7,647.12 | 1,590.42 | 1,401.08 | 8.400 | CC |
| SPRAGUE 3D-9H-N267 - CPR WELL - SURVEYS | 15,273.25 | 9,589.71 | 1,594.81 | 1,328.33 | 5.985 | ES, SF |
| SPRAGUE 3E-9H-N267 - CPR WELL - SURVEYS | 13,366.02 | 7,784.00 | 2,073.66 | 1,884.14 | 10.941 | CC |
| SPRAGUE 3E-9H-N267 - CPR WELL - SURVEYS | 13,400.00 | 7,784.00 | 2,073.94 | 1,883.49 | 10.890 | ES |
| SPRAGUE 3E-9H-N267 - CPR WELL - SURVEYS | 13,700.00 | 7,784.00 | 2,100.39 | 1,903.85 | 10.687 | SF |
| SPRAGUE 3E-9HX1-N267 - CPR WELL - SURVEYS | 15,273.25 | 9,683.95 | 2,174.93 | 1,906.17 | 8.093 | CC, ES, SF |
| SPRAGUE 3F-9H-N267 - CPR WELL - SURVEYS | 12,861.54 | 7,443.43 | 2,214.55 | 2,039.41 | 12.645 | CC |
| SPRAGUE 3F-9H-N267 - CPR WELL - SURVEYS | 13,900.00 | 13,900.00 | 2,226.42 | 1,953.78 | 8.166 | SF |
| SPRAGUE 3F-9H-N267 - CPR WELL - SURVEYS | 15,273.25 | 9,933.58 | 2,219.48 | 1,952.64 | 8.318 | ES |
| SPRAGUE 3G-9H-N267 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 3H-9H-N267 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 3I-9H-N267 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 3J-9H-N267 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 4-6-9 - CPR WELL - SURVEYS | | | | | | Out of range |
| SPRAGUE 4-8-9 - CPR WELL - SURVEYS | | | | | | Out of range |
| STANLEY #2 - GERRITY WELL - NO SURVEYS | 4,139.05 | 4,101.20 | 1,192.87 | 1,164.03 | 41.370 | CC |
| STANLEY #2 - GERRITY WELL - NO SURVEYS | 4,400.00 | 4,356.55 | 1,194.08 | 1,162.66 | 38.009 | ES |
| STANLEY #2 - GERRITY WELL - NO SURVEYS | 5,300.00 | 5,175.00 | 1,218.20 | 1,178.33 | 30.557 | SF |
| STANLEY 3 - GERRITY WELL - NO SURVEYS | | | | | | Out of range |
| TEETS PERRIN 1 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| TEETS-PERRIN 2 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| TEETS-PERRIN 3 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| TEETS-PERRIN 4 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| TEETS-PERRIN 5 - KPK WELL - NO SURVEYS | | | | | | Out of range |
| TOWNSEND 33-5 - CPR WELL - GYRO | | | | | | Out of range |
| TOWNSEND 34-5 - CPR WELL - GYRO | | | | | | Out of range |
| TOWNSEND 43-5 - CPR WELL - GYRO | | | | | | Out of range |
| TOWNSEND 44-5 - CPR WELL - GYRO | | | | | | Out of range |
| VOGL 21-5 - KMG WELL - SURVEYS | | | | | | Out of range |
| VOGL 21-5X - KMG WELL - SURVEYS | | | | | | Out of range |
| VOGL 5-5 - KMG WELL - GYRO | | | | | | Out of range |
| VOGL 5-8A - KMG WELL - GYRO | | | | | | Out of range |
| VOGL 6-5A - KMG WELL - GYRO | | | | | | Out of range |
| VOGL GEIST 2A-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL GEIST 2B-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL GEIST 2C-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL GEIST 2D-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL GEIST 2E-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL GEIST 2F-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2A-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2B-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2C-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2D-5H-E267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2E-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2F-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |
| VOGL MCCOY 2G-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |

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

Cathedral Energy Services

Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4R-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4R-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #2 | Offset TVD Reference: | Offset Datum |

| Summary | | | | | | |
|--|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|--------------|
| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
| Offset Well - Wellbore - Design | | | | | | |
| S17-T2N-R67W (OFFSETS) | | | | | | |
| VOGL MCCOY 2H-5H-F267 - CPR WELL - SURVEYS | | | | | | Out of range |

Cathedral Energy Services

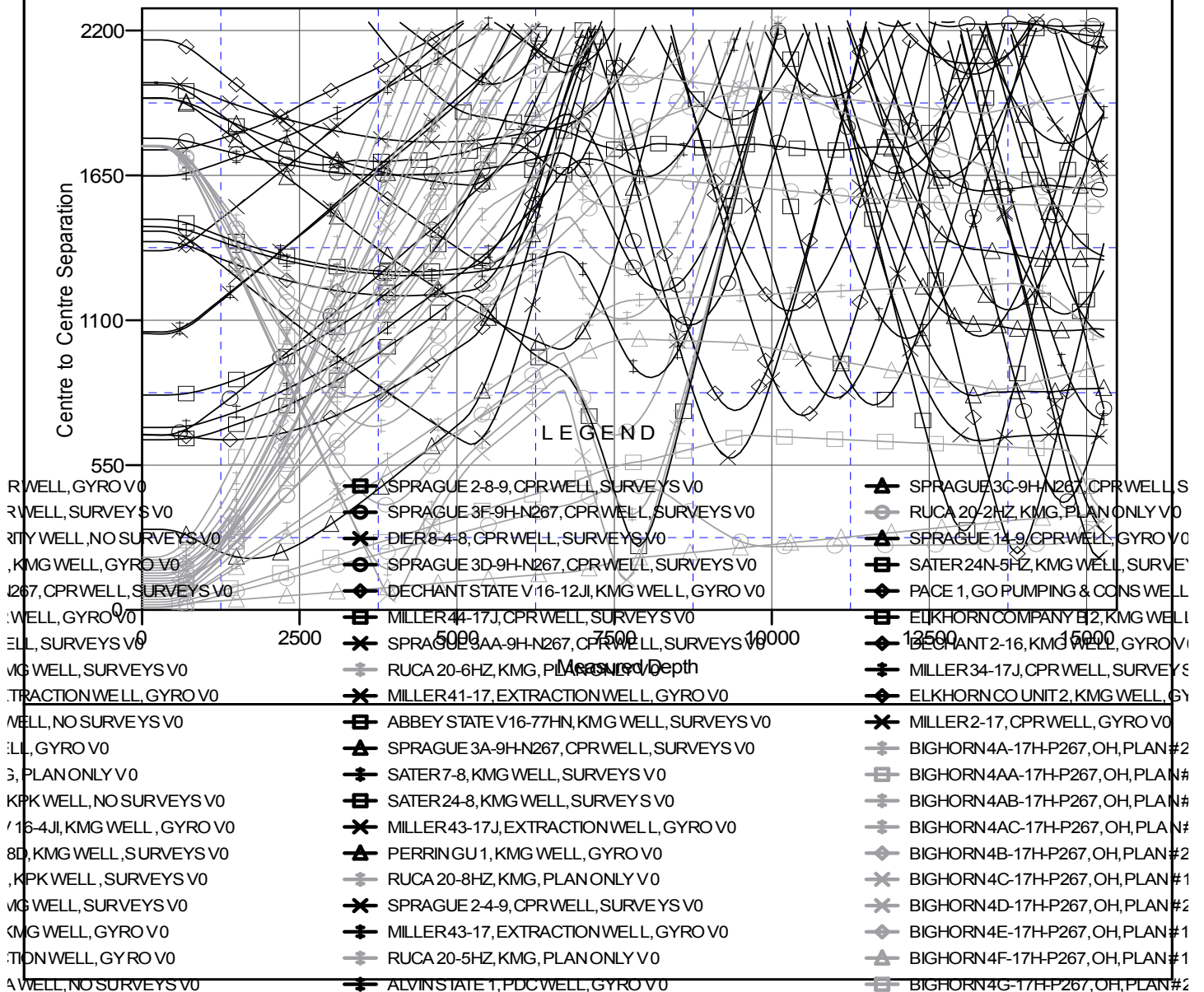
Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4R-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4R-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #2 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to 23' KB @ 4983.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: BIGHORN 4R-17H-P267
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.38°

Ladder Plot



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

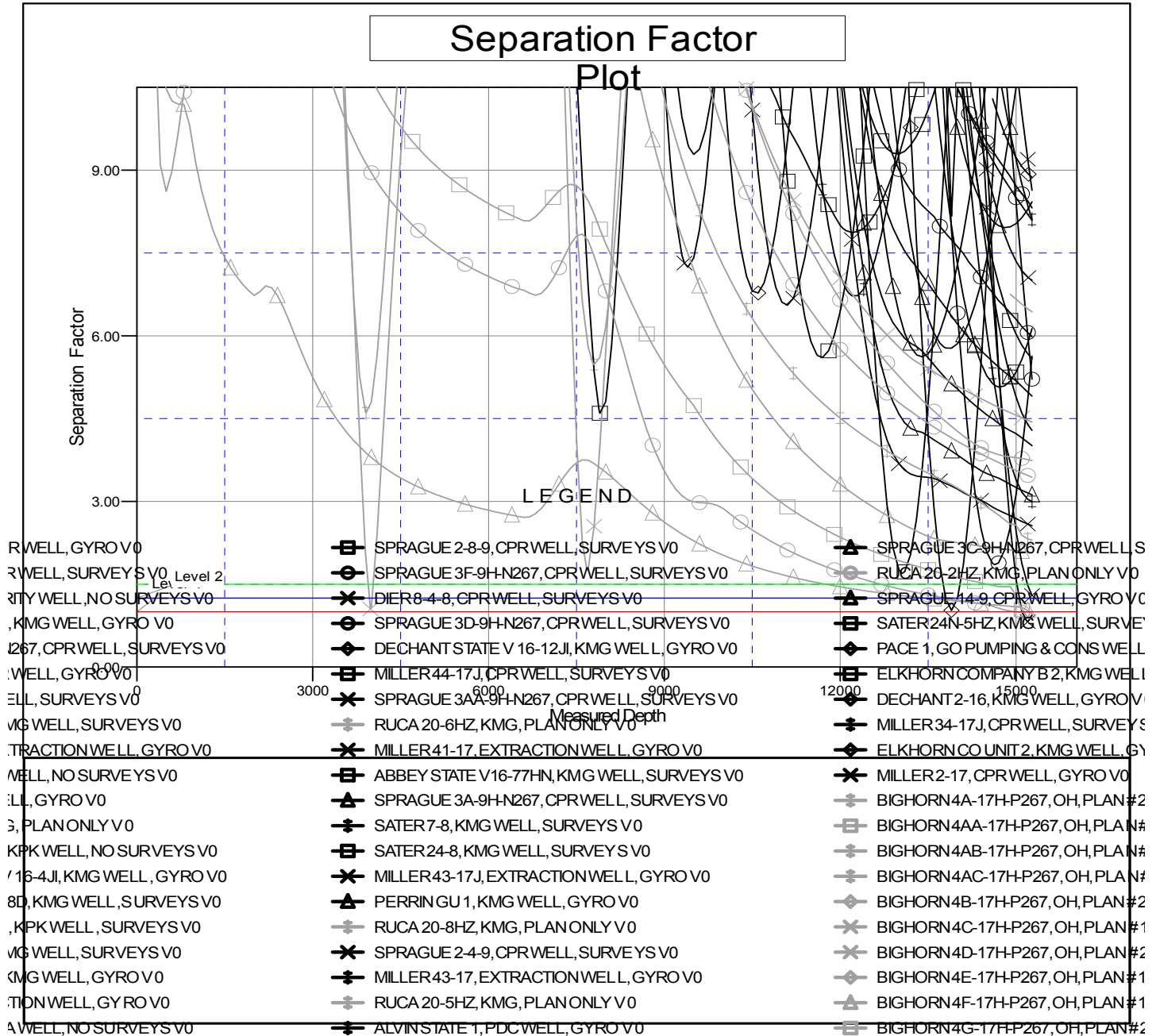
Cathedral Energy Services

Anticollision Summary Report

| | | | |
|---------------------------|-------------------------|-------------------------------------|-----------------------------|
| Company: | Crestone Peak Resources | Local Co-ordinate Reference: | Well BIGHORN 4R-17H-P267 |
| Project: | DJ BASIN | TVD Reference: | 23' KB @ 4983.00usft |
| Reference Site: | BIGHORN | MD Reference: | 23' KB @ 4983.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | BIGHORN 4R-17H-P267 | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | OH | Database: | USA EDM 5000 Multi Users DB |
| Reference Design: | PLAN #2 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to 23' KB @ 4983.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -105.500000

Coordinates are relative to: BIGHORN 4R-17H-P267
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.38°



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