



BISON IV OPERATING

LARIMER COUNTY, COLORADO (NAD 83)

SEC. 11 T5N R68W 6th P.M.

CE 5-68 11-10-7H

ORIGINAL WELLBORE

PROPOSAL #1

Anticollision Report

19 July, 2024



| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| | | | |
|-------------------------------------|---|-----------------------|---------------------|
| Reference | PROPOSAL #1 | | |
| Filter type: | NO GLOBAL FILTER: Using user defined selection & filtering criteria | | |
| Interpolation Method: | MD + Stations Interval 100.00usft | Error Model: | ISCWSA |
| Depth Range: | Unlimited | Scan Method: | Closest Approach 3D |
| Results Limited by: | Maximum centre distance of 3,280.83usft | Error Surface: | Pedal Curve |
| Warning Levels Evaluated at: | 2.00 Sigma | Casing Method: | Not applied |

| | | | | |
|----------------------------|------------------|---------------------------------|------------------|---------------------|
| Survey Tool Program | Date | 2024-07-19 | | |
| From (usft) | To (usft) | Survey (Wellbore) | Tool Name | Description |
| 0.00 | 15,455.54 | PROPOSAL #1 (ORIGINAL WELLBORE) | OWSG (Rev2) MWD | OWSG MWD - Standard |

| Site Name | Reference Measured Depth (usft) | Offset Measured Depth (usft) | Distance Between Centres (usft) | Distance Between Ellipses (usft) | Separation Factor | Warning |
|---|---------------------------------|------------------------------|---------------------------------|----------------------------------|-------------------|--------------|
| Summary | | | | | | |
| SEC. 11 T5N R68W 6th P.M. | | | | | | |
| ABDN DD ENCORE 18-12 - Wellbore #1 - Wellbore #1 | 6,608.92 | 6,663.87 | 1,841.45 | 1,783.39 | 31.716 | CC |
| ABDN DD ENCORE 18-12 - Wellbore #1 - Wellbore #1 | 6,764.28 | 6,816.05 | 1,841.97 | 1,782.36 | 30.901 | ES |
| ABDN DD ENCORE 18-12 - Wellbore #1 - Wellbore #1 | 6,900.00 | 6,940.03 | 1,859.09 | 1,798.20 | 30.534 | SF |
| ABDN DD ENCORE 4-12 - Wellbore #1 - Wellbore #1 | 6,843.83 | 7,014.87 | 1,295.37 | 1,237.60 | 22.425 | CC |
| ABDN DD ENCORE 4-12 - Wellbore #1 - Wellbore #1 | 6,850.00 | 7,021.21 | 1,295.40 | 1,237.59 | 22.407 | ES |
| ABDN DD ENCORE 4-12 - Wellbore #1 - Wellbore #1 | 6,950.00 | 7,112.04 | 1,305.09 | 1,246.56 | 22.295 | SF |
| ABDN DD ENCORE 5-12 - Wellbore #1 - Wellbore #1 | 5,608.76 | 6,081.31 | 1,314.15 | 1,250.26 | 20.567 | CC |
| ABDN DD ENCORE 5-12 - Wellbore #1 - Wellbore #1 | 5,700.00 | 6,152.25 | 1,315.08 | 1,250.09 | 20.234 | ES |
| ABDN DD ENCORE 5-12 - Wellbore #1 - Wellbore #1 | 6,764.28 | 7,078.28 | 1,415.82 | 1,340.96 | 18.914 | SF |
| ABDN DD MIRACLE 12-12 - Wellbore #1 - Wellbore #1 | 4,819.73 | 5,530.49 | 2,143.93 | 2,089.88 | 39.664 | CC |
| ABDN DD MIRACLE 12-12 - Wellbore #1 - Wellbore #1 | 4,900.00 | 5,584.00 | 2,144.64 | 2,089.55 | 38.926 | ES |
| ABDN DD MIRACLE 12-12 - Wellbore #1 - Wellbore #1 | 6,400.00 | 6,696.52 | 2,341.21 | 2,271.52 | 33.596 | SF |
| ABDN DD MIRACLE 13-12 - Wellbore #1 - Wellbore #1 | 3,208.63 | 3,956.72 | 2,741.65 | 2,700.91 | 67.288 | CC |
| ABDN DD MIRACLE 13-12 - Wellbore #1 - Wellbore #1 | 3,240.86 | 3,975.54 | 2,741.87 | 2,700.76 | 66.697 | ES |
| ABDN DD MIRACLE 13-12 - Wellbore #1 - Wellbore #1 | 5,800.00 | 5,920.43 | 3,256.16 | 3,186.74 | 46.905 | SF |
| ABDN VERT DONNAMITE 1 - Wellbore #1 - Design #1 | | | | | | Out of range |
| ABDN VERT KNESS 1 - Wellbore #1 - Design #1 | 8,463.60 | 7,159.00 | 1,651.09 | 1,463.20 | 8.788 | CC |
| ABDN VERT KNESS 1 - Wellbore #1 - Design #1 | 8,500.00 | 7,159.00 | 1,651.49 | 1,462.58 | 8.742 | ES |
| ABDN VERT KNESS 1 - Wellbore #1 - Design #1 | 8,800.00 | 7,159.00 | 1,685.01 | 1,487.89 | 8.548 | SF |
| ABDN VERT MCWHINNEY-VANDERWATER1 - Wellbor | | | | | | Out of range |
| ABDN VERT MEAN 1 - Wellbore #1 - Design #1 | | | | | | Out of range |
| ABDN VERT NASTY 1 - Wellbore #1 - Design #1 | | | | | | Out of range |
| ABDN VERT RAUSLER 1 - Wellbore #1 - Design #1 | | | | | | Out of range |
| CE 5-68 11-10-10H - ORIGINAL WELLBORE - PROPOS | 300.00 | 300.00 | 79.04 | 77.32 | 45.933 | CC |
| CE 5-68 11-10-10H - ORIGINAL WELLBORE - PROPOS | 400.00 | 399.19 | 79.54 | 77.12 | 32.774 | ES |
| CE 5-68 11-10-10H - ORIGINAL WELLBORE - PROPOS | 15,455.54 | 15,859.82 | 1,314.72 | 849.45 | 2.826 | SF |
| CE 5-68 11-10-11H - ORIGINAL WELLBORE - PROPOS | 1,348.41 | 1,350.02 | 45.56 | 36.38 | 4.962 | CC |
| CE 5-68 11-10-11H - ORIGINAL WELLBORE - PROPOS | 1,400.00 | 1,401.44 | 45.75 | 36.19 | 4.788 | ES |
| CE 5-68 11-10-11H - ORIGINAL WELLBORE - PROPOS | 15,455.54 | 15,537.17 | 1,754.69 | 1,298.65 | 3.848 | SF |
| CE 5-68 11-10-12H - ORIGINAL WELLBORE - PROPOS | 994.74 | 996.00 | 42.39 | 35.74 | 6.369 | CC |
| CE 5-68 11-10-12H - ORIGINAL WELLBORE - PROPOS | 1,000.00 | 1,001.21 | 42.40 | 35.71 | 6.334 | ES |
| CE 5-68 11-10-12H - ORIGINAL WELLBORE - PROPOS | 15,455.54 | 15,554.02 | 2,190.81 | 1,731.67 | 4.771 | SF |
| CE 5-68 11-10-13H - ORIGINAL WELLBORE - PROPOS | 787.49 | 787.97 | 34.74 | 29.57 | 6.722 | CC |
| CE 5-68 11-10-13H - ORIGINAL WELLBORE - PROPOS | 800.00 | 800.42 | 34.76 | 29.51 | 6.613 | ES |
| CE 5-68 11-10-13H - ORIGINAL WELLBORE - PROPOS | 15,455.54 | 15,703.98 | 2,626.20 | 2,167.00 | 5.719 | SF |
| CE 5-68 11-10-14H - ORIGINAL WELLBORE - PROPOS | 400.00 | 400.00 | 31.48 | 29.05 | 12.916 | CC |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | 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 |
| SEC. 11 T5N R68W 6th P.M. | | | | | | |
| CE 5-68 11-10-14H - ORIGINAL WELLBORE - PROPOS | 500.00 | 499.77 | 31.83 | 28.69 | 10.144 | ES |
| CE 5-68 11-10-14H - ORIGINAL WELLBORE - PROPOS | 15,455.54 | 16,318.36 | 3,064.98 | 2,597.11 | 6.551 | SF |
| CE 5-68 11-10-15H - ORIGINAL WELLBORE - PROPOS | 300.00 | 300.00 | 31.48 | 29.76 | 18.297 | CC, ES |
| CE 5-68 11-10-15H - ORIGINAL WELLBORE - PROPOS | 600.00 | 597.18 | 41.92 | 38.10 | 10.965 | SF |
| CE 5-68 11-10-5H - ORIGINAL WELLBORE - PROPOS | 2,200.00 | 2,200.00 | 32.79 | 17.44 | 2.137 | CC, ES |
| CE 5-68 11-10-5H - ORIGINAL WELLBORE - PROPOS | 15,455.54 | 15,837.79 | 884.57 | 433.69 | 1.962 | SF |
| CE 5-68 11-10-6H - ORIGINAL WELLBORE - PROPOS | 2,300.00 | 2,300.00 | 14.57 | -1.49 | 0.907 | Level 3, CC, ES, SF |
| CE 5-68 11-10-8H - ORIGINAL WELLBORE - PROPOS | 5,755.12 | 5,688.98 | 45.45 | -2.47 | 0.948 | Level 3, CC, ES, SF |
| CE 5-68 11-10-9H - ORIGINAL WELLBORE - PROPOS | 400.00 | 400.00 | 92.64 | 90.20 | 38.005 | CC, ES |
| CE 5-68 11-10-9H - ORIGINAL WELLBORE - PROPOS | 15,455.54 | 15,460.27 | 878.46 | 422.12 | 1.925 | SF |
| CE 5-68 11-3-1H - ORIGINAL WELLBORE - PROPOSAL | 1,203.34 | 1,203.34 | 94.73 | 86.53 | 11.556 | CC |
| CE 5-68 11-3-1H - ORIGINAL WELLBORE - PROPOSAL | 1,300.00 | 1,298.44 | 95.14 | 86.25 | 10.709 | ES |
| CE 5-68 11-3-1H - ORIGINAL WELLBORE - PROPOSAL | 15,455.54 | 17,395.63 | 2,629.46 | 2,159.93 | 5.600 | SF |
| CE 5-68 11-3-2H - ORIGINAL WELLBORE - PROPOSAL | 1,303.34 | 1,303.34 | 80.15 | 71.23 | 8.991 | CC |
| CE 5-68 11-3-2H - ORIGINAL WELLBORE - PROPOSAL | 1,400.00 | 1,398.68 | 80.56 | 70.96 | 8.390 | ES |
| CE 5-68 11-3-2H - ORIGINAL WELLBORE - PROPOSAL | 15,455.54 | 17,011.19 | 2,192.35 | 1,721.97 | 4.661 | SF |
| CE 5-68 11-3-3H - ORIGINAL WELLBORE - PROPOSAL | 2,000.00 | 2,000.00 | 61.93 | 48.03 | 4.453 | CC, ES |
| CE 5-68 11-3-3H - ORIGINAL WELLBORE - PROPOSAL | 15,455.54 | 16,978.51 | 1,753.02 | 1,282.77 | 3.728 | SF |
| CE 5-68 11-3-4H - ORIGINAL WELLBORE - PROPOSAL | 2,100.00 | 2,100.00 | 47.36 | 32.73 | 3.238 | CC, ES |
| CE 5-68 11-3-4H - ORIGINAL WELLBORE - PROPOSAL | 15,455.54 | 16,598.86 | 1,329.26 | 861.82 | 2.844 | SF |
| EXIST HZ ENCORE 1C-12HZ - Wellbore #1 - Wellbore # | 7,656.63 | 7,602.17 | 554.97 | 483.65 | 7.781 | CC |
| EXIST HZ ENCORE 1C-12HZ - Wellbore #1 - Wellbore # | 7,667.38 | 7,593.56 | 555.05 | 483.55 | 7.763 | ES |
| EXIST HZ ENCORE 1C-12HZ - Wellbore #1 - Wellbore # | 7,800.00 | 7,493.58 | 562.26 | 488.66 | 7.639 | SF |
| EXIST HZ ENCORE 26N-12HZ - Wellbore #1 - Wellbore | 7,567.74 | 7,575.34 | 892.92 | 822.20 | 12.626 | CC, ES |
| EXIST HZ ENCORE 26N-12HZ - Wellbore #1 - Wellbore | 7,900.00 | 7,326.00 | 923.25 | 848.52 | 12.354 | SF |
| EXIST HZ ENCORE 40N-12HZ - Wellbore #1 - Wellbore | 5,097.63 | 5,226.33 | 52.46 | 2.17 | 1.043 | Level 3, CC |
| EXIST HZ ENCORE 40N-12HZ - Wellbore #1 - Wellbore | 5,100.00 | 5,228.36 | 52.47 | 2.08 | 1.041 | Level 3, ES, SF |
| EXIST HZ ENCORE 41N-12HZ - Wellbore #1 - Wellbore | 7,139.82 | 7,751.50 | 32.08 | -35.23 | 0.477 | Level 3, CC, ES, SF |
| EXIST HZ ENCORE 8C-12HZ - Wellbore #1 - Wellbore # | 4,924.86 | 5,060.89 | 511.68 | 460.52 | 10.001 | CC, ES, SF |
| EXIST HZ MIRACLE 13C-12HZ - Wellbore #1 - Wellbore | | | | | | Out of range |
| EXIST HZ MIRACLE 33N-12HZ - Wellbore #1 - Wellbore | | | | | | Out of range |
| EXIST HZ MIRACLE 40C-11HZ - ORIGINAL WELLBORE | | | | | | Out of range |
| EXIST HZ MIRACLE 40C-11HZ - SIDETRACK - SIDETR | 6,945.43 | 13,628.00 | 1,625.74 | 1,431.16 | 8.355 | CC |
| EXIST HZ MIRACLE 40C-11HZ - SIDETRACK - SIDETR | 7,000.00 | 13,628.00 | 1,626.69 | 1,430.58 | 8.295 | ES |
| EXIST HZ MIRACLE 40C-11HZ - SIDETRACK - SIDETR | 7,100.00 | 13,628.00 | 1,633.29 | 1,435.15 | 8.243 | SF |
| EXIST HZ MIRACLE 40N-11HZ - Wellbore #1 - Wellbore | 6,717.10 | 13,558.00 | 1,938.69 | 1,745.40 | 10.030 | CC |
| EXIST HZ MIRACLE 40N-11HZ - Wellbore #1 - Wellbore | 6,764.28 | 13,558.00 | 1,939.26 | 1,744.67 | 9.965 | ES |
| EXIST HZ MIRACLE 40N-11HZ - Wellbore #1 - Wellbore | 7,000.00 | 13,558.00 | 1,958.62 | 1,759.21 | 9.822 | SF |
| EXIST HZ MIRACLE 9C-11HZ - Wellbore #1 - Wellbore # | 6,696.50 | 13,682.00 | 2,515.95 | 2,322.64 | 13.015 | CC |
| EXIST HZ MIRACLE 9C-11HZ - Wellbore #1 - Wellbore # | 6,764.28 | 13,682.00 | 2,516.87 | 2,322.01 | 12.916 | ES |
| EXIST HZ MIRACLE 9C-11HZ - Wellbore #1 - Wellbore # | 7,100.00 | 13,682.00 | 2,546.09 | 2,345.71 | 12.706 | SF |
| EXIST HZ PROWANT 18-1HZ - Wellbore #1 - Wellbore # | | | | | | Out of range |
| EXIST VERT JEFFERS 2-1 - Wellbore #1 - Design #1 | 9,925.79 | 7,185.00 | 3,002.76 | 2,779.02 | 13.421 | CC |
| EXIST VERT JEFFERS 2-1 - Wellbore #1 - Design #1 | 10,000.00 | 7,185.00 | 3,003.67 | 2,777.74 | 13.294 | ES |
| EXIST VERT JEFFERS 2-1 - Wellbore #1 - Design #1 | 10,800.00 | 7,185.00 | 3,127.43 | 2,881.00 | 12.691 | SF |
| EXIST VERT JEFFERS 2-2 - Wellbore #1 - Design #1 | 10,997.77 | 7,152.00 | 1,656.44 | 1,405.46 | 6.600 | CC |
| EXIST VERT JEFFERS 2-2 - Wellbore #1 - Design #1 | 11,100.00 | 7,152.00 | 1,659.59 | 1,405.30 | 6.526 | ES |
| EXIST VERT JEFFERS 2-2 - Wellbore #1 - Design #1 | 11,300.00 | 7,152.00 | 1,683.79 | 1,424.18 | 6.486 | SF |
| EXIST VERT WICKED 1 - Wellbore #1 - Wellbore #1 | 15,455.54 | 7,009.86 | 2,645.06 | 2,443.47 | 13.121 | CC, ES, SF |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN DD ENCORE 18-12 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 700.00 | 700.00 | 1,691.00 | 1,652.78 | 2.29 | 8.05 | 59.35 | 1,599.56 | 2,699.44 | 3,280.68 | 3,272.10 | 8.58 | 382.192 | | |
| 800.00 | 800.00 | 1,780.00 | 1,737.82 | 2.65 | 8.60 | 59.43 | 1,582.50 | 2,679.49 | 3,251.60 | 3,242.32 | 9.28 | 350.288 | | |
| 900.00 | 900.00 | 1,837.96 | 1,793.36 | 3.01 | 8.95 | 59.49 | 1,571.46 | 2,667.16 | 3,223.39 | 3,213.53 | 9.87 | 326.749 | | |
| 1,000.00 | 1,000.00 | 1,988.27 | 1,937.15 | 3.37 | 9.87 | 59.63 | 1,543.14 | 2,633.76 | 3,194.62 | 3,183.81 | 10.81 | 295.584 | | |
| 1,100.00 | 1,100.00 | 2,066.88 | 2,012.30 | 3.73 | 10.36 | 59.68 | 1,529.65 | 2,615.10 | 3,165.44 | 3,153.96 | 11.48 | 275.836 | | |
| 1,200.00 | 1,200.00 | 2,206.01 | 2,145.27 | 4.09 | 11.23 | 59.75 | 1,505.73 | 2,581.88 | 3,136.30 | 3,123.93 | 12.37 | 253.501 | | |
| 1,300.00 | 1,300.00 | 2,287.22 | 2,222.61 | 4.45 | 11.74 | 59.80 | 1,490.98 | 2,561.98 | 3,105.99 | 3,092.94 | 13.06 | 237.914 | | |
| 1,400.00 | 1,400.00 | 2,441.69 | 2,369.68 | 4.80 | 12.74 | 59.87 | 1,464.34 | 2,522.94 | 3,075.64 | 3,061.63 | 14.01 | 219.600 | | |
| 1,500.00 | 1,500.00 | 2,553.73 | 2,475.79 | 5.16 | 13.48 | 59.88 | 1,445.86 | 2,492.09 | 3,043.52 | 3,028.72 | 14.80 | 205.642 | | |
| 1,600.00 | 1,600.00 | 2,612.22 | 2,531.20 | 5.52 | 13.86 | 59.88 | 1,436.32 | 2,476.02 | 3,011.67 | 2,996.27 | 15.41 | 195.495 | | |
| 1,700.00 | 1,700.00 | 2,676.00 | 2,592.10 | 5.88 | 14.27 | 59.89 | 1,426.58 | 2,459.74 | 2,981.65 | 2,965.62 | 16.03 | 186.007 | | |
| 1,800.00 | 1,800.00 | 2,731.27 | 2,645.05 | 6.24 | 14.61 | 59.91 | 1,417.81 | 2,446.56 | 2,952.69 | 2,936.07 | 16.63 | 177.592 | | |
| 1,900.00 | 1,900.00 | 2,857.69 | 2,765.79 | 6.60 | 15.41 | 60.03 | 1,394.01 | 2,417.62 | 2,923.43 | 2,905.95 | 17.48 | 167.265 | | |
| 2,000.00 | 2,000.00 | 2,946.00 | 2,849.89 | 6.95 | 15.98 | 60.12 | 1,376.97 | 2,396.78 | 2,893.34 | 2,875.14 | 18.20 | 158.980 | | |
| 2,100.00 | 2,100.00 | 3,034.00 | 2,933.96 | 7.31 | 16.53 | 60.18 | 1,361.60 | 2,375.80 | 2,863.95 | 2,845.04 | 18.92 | 151.404 | | |
| 2,200.00 | 2,200.00 | 3,156.40 | 3,050.84 | 7.67 | 17.31 | 60.26 | 1,340.63 | 2,346.15 | 2,834.46 | 2,814.71 | 19.75 | 143.533 | | |
| 2,300.00 | 2,300.00 | 3,211.00 | 3,102.86 | 8.03 | 17.66 | 60.30 | 1,330.52 | 2,332.99 | 2,804.59 | 2,784.24 | 20.36 | 137.770 | | |
| 2,400.00 | 2,400.00 | 3,300.00 | 3,188.06 | 8.39 | 18.21 | 60.38 | 1,314.94 | 2,312.52 | 2,775.93 | 2,754.85 | 21.08 | 131.691 | | |
| 2,500.00 | 2,499.98 | 3,423.07 | 3,305.93 | 8.75 | 18.98 | 60.45 | 1,293.98 | 2,284.05 | 2,746.69 | 2,724.78 | 21.91 | 125.349 | | |
| 2,600.00 | 2,599.84 | 3,517.23 | 3,395.72 | 9.11 | 19.58 | 61.24 | 1,276.22 | 2,261.93 | 2,714.48 | 2,691.82 | 22.66 | 119.805 | | |
| 2,700.00 | 2,699.45 | 3,584.82 | 3,460.29 | 9.46 | 20.00 | 62.07 | 1,263.33 | 2,246.66 | 2,681.39 | 2,658.07 | 23.32 | 114.989 | | |
| 2,800.00 | 2,798.70 | 3,656.00 | 3,528.54 | 9.82 | 20.44 | 62.97 | 1,250.42 | 2,231.11 | 2,647.85 | 2,623.86 | 23.99 | 110.365 | | |
| 2,900.00 | 2,897.47 | 3,848.65 | 3,712.07 | 10.18 | 21.69 | 64.50 | 1,216.32 | 2,183.57 | 2,610.21 | 2,585.17 | 25.04 | 104.229 | | |
| 3,000.00 | 2,995.62 | 3,938.03 | 3,796.84 | 10.55 | 22.28 | 65.76 | 1,200.01 | 2,160.45 | 2,570.68 | 2,544.89 | 25.79 | 99.688 | | |
| 3,100.00 | 3,093.06 | 4,007.00 | 3,862.32 | 10.94 | 22.74 | 67.01 | 1,187.29 | 2,142.89 | 2,530.32 | 2,503.83 | 26.49 | 95.533 | | |
| 3,200.00 | 3,189.64 | 4,050.43 | 3,903.72 | 11.34 | 23.01 | 68.14 | 1,179.48 | 2,132.32 | 2,490.10 | 2,462.98 | 27.13 | 91.798 | | |
| 3,240.86 | 3,228.84 | 4,066.81 | 3,919.39 | 11.50 | 23.11 | 68.60 | 1,176.65 | 2,128.53 | 2,473.90 | 2,446.51 | 27.39 | 90.325 | | |
| 3,300.00 | 3,285.45 | 4,096.00 | 3,947.43 | 11.75 | 23.30 | 68.85 | 1,171.77 | 2,122.01 | 2,450.90 | 2,423.11 | 27.79 | 88.193 | | |
| 3,400.00 | 3,381.17 | 4,272.20 | 4,116.01 | 12.19 | 24.40 | 70.33 | 1,142.79 | 2,079.81 | 2,411.38 | 2,382.55 | 28.83 | 83.633 | | |
| 3,500.00 | 3,476.90 | 4,352.50 | 4,192.39 | 12.63 | 24.93 | 71.02 | 1,129.42 | 2,058.94 | 2,370.30 | 2,340.67 | 29.63 | 79.989 | | |
| 3,600.00 | 3,572.62 | 4,468.43 | 4,302.44 | 13.09 | 25.70 | 72.08 | 1,108.89 | 2,028.83 | 2,329.21 | 2,298.67 | 30.55 | 76.254 | | |
| 3,700.00 | 3,668.34 | 4,544.00 | 4,374.05 | 13.56 | 26.20 | 72.81 | 1,094.87 | 2,009.20 | 2,288.24 | 2,256.86 | 31.39 | 72.908 | | |
| 3,800.00 | 3,764.07 | 4,604.64 | 4,431.70 | 14.04 | 26.60 | 73.39 | 1,084.42 | 1,993.58 | 2,248.37 | 2,216.16 | 32.20 | 69.817 | | |
| 3,900.00 | 3,859.79 | 4,663.79 | 4,488.17 | 14.52 | 26.98 | 73.96 | 1,074.99 | 1,978.66 | 2,209.89 | 2,176.85 | 33.03 | 66.896 | | |
| 4,000.00 | 3,955.51 | 4,722.00 | 4,543.97 | 15.02 | 27.34 | 74.52 | 1,066.19 | 1,964.64 | 2,173.05 | 2,139.18 | 33.88 | 64.142 | | |
| 4,100.00 | 4,051.24 | 4,779.72 | 4,599.52 | 15.52 | 27.68 | 75.08 | 1,057.81 | 1,951.41 | 2,137.89 | 2,103.15 | 34.74 | 61.548 | | |
| 4,200.00 | 4,146.96 | 4,838.19 | 4,656.00 | 16.03 | 28.02 | 75.67 | 1,049.58 | 1,938.69 | 2,104.40 | 2,068.79 | 35.61 | 59.098 | | |
| 4,300.00 | 4,242.68 | 4,898.00 | 4,713.99 | 16.54 | 28.36 | 76.27 | 1,041.51 | 1,926.51 | 2,072.74 | 2,036.24 | 36.50 | 56.789 | | |
| 4,400.00 | 4,338.41 | 4,943.81 | 4,758.60 | 17.06 | 28.60 | 76.74 | 1,035.62 | 1,917.91 | 2,043.18 | 2,005.82 | 37.36 | 54.689 | | |
| 4,500.00 | 4,434.13 | 4,987.00 | 4,800.83 | 17.59 | 28.82 | 77.19 | 1,030.36 | 1,910.53 | 2,016.00 | 1,977.78 | 38.22 | 52.750 | | |
| 4,600.00 | 4,529.85 | 5,037.76 | 4,850.68 | 18.11 | 29.06 | 77.71 | 1,024.77 | 1,902.80 | 1,991.33 | 1,952.24 | 39.09 | 50.937 | | |
| 4,700.00 | 4,625.58 | 5,076.00 | 4,888.40 | 18.65 | 29.24 | 78.10 | 1,021.09 | 1,897.69 | 1,969.34 | 1,929.41 | 39.93 | 49.324 | | |
| 4,800.00 | 4,721.30 | 5,141.89 | 4,953.60 | 19.18 | 29.51 | 78.77 | 1,015.50 | 1,890.05 | 1,949.66 | 1,908.82 | 40.84 | 47.734 | | |
| 4,900.00 | 4,817.02 | 5,204.66 | 5,015.89 | 19.72 | 29.75 | 79.40 | 1,010.79 | 1,883.87 | 1,932.21 | 1,890.46 | 41.75 | 46.281 | | |
| 5,000.00 | 4,912.74 | 5,252.00 | 5,062.94 | 20.27 | 29.93 | 79.87 | 1,007.57 | 1,879.69 | 1,916.76 | 1,874.16 | 42.59 | 45.003 | | |
| 5,100.00 | 5,008.47 | 5,338.00 | 5,148.60 | 20.81 | 30.22 | 80.72 | 1,002.78 | 1,873.83 | 1,903.59 | 1,860.01 | 43.58 | 43.683 | | |
| 5,200.00 | 5,104.19 | 5,384.44 | 5,194.95 | 21.36 | 30.36 | 81.16 | 1,000.92 | 1,871.56 | 1,892.62 | 1,848.23 | 44.39 | 42.638 | | |
| 5,300.00 | 5,199.91 | 5,450.34 | 5,260.77 | 21.91 | 30.55 | 81.78 | 999.22 | 1,868.91 | 1,883.62 | 1,838.35 | 45.26 | 41.614 | | |
| 5,400.00 | 5,295.64 | 5,515.00 | 5,325.40 | 22.46 | 30.72 | 82.37 | 998.15 | 1,867.48 | 1,876.83 | 1,830.71 | 46.12 | 40.694 | | |
| 5,500.00 | 5,391.36 | 5,588.93 | 5,399.33 | 23.02 | 30.90 | 83.04 | 997.24 | 1,866.84 | 1,871.86 | 1,824.85 | 47.01 | 39.819 | | |
| 5,600.00 | 5,487.08 | 5,672.28 | 5,482.67 | 23.58 | 31.09 | 83.80 | 996.28 | 1,866.65 | 1,868.03 | 1,820.09 | 47.94 | 38.968 | | |
| 5,700.00 | 5,582.81 | 5,797.43 | 5,607.81 | 24.13 | 31.38 | 84.94 | 995.34 | 1,866.02 | 1,864.51 | 1,815.46 | 49.05 | 38.009 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN DD ENCORE 18-12 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,800.00 | 5,678.53 | 5,899.43 | 5,709.80 | 24.70 | 31.65 | 85.85 | 994.99 | 1,864.27 | 1,860.27 | 1,810.20 | 50.07 | 37.154 | | |
| 5,900.00 | 5,774.25 | 5,998.57 | 5,808.91 | 25.26 | 31.90 | 86.74 | 994.52 | 1,862.27 | 1,856.19 | 1,805.11 | 51.07 | 36.343 | | |
| 6,000.00 | 5,869.98 | 6,094.21 | 5,904.53 | 25.82 | 32.15 | 87.61 | 994.09 | 1,860.19 | 1,852.41 | 1,800.35 | 52.07 | 35.578 | | |
| 6,100.00 | 5,965.70 | 6,187.65 | 5,997.95 | 26.39 | 32.40 | 88.46 | 993.53 | 1,858.30 | 1,849.24 | 1,796.18 | 53.05 | 34.857 | | |
| 6,200.00 | 6,061.42 | 6,279.12 | 6,089.40 | 26.95 | 32.65 | 89.29 | 992.96 | 1,856.52 | 1,846.61 | 1,792.58 | 54.03 | 34.178 | | |
| 6,300.00 | 6,157.15 | 6,374.65 | 6,184.91 | 27.52 | 32.90 | 90.17 | 992.38 | 1,854.90 | 1,844.69 | 1,789.66 | 55.02 | 33.525 | | |
| 6,400.00 | 6,252.87 | 6,473.52 | 6,283.77 | 28.09 | 33.16 | 91.07 | 991.89 | 1,853.04 | 1,843.05 | 1,787.02 | 56.03 | 32.893 | | |
| 6,500.00 | 6,348.59 | 6,565.31 | 6,375.54 | 28.66 | 33.41 | 91.92 | 991.36 | 1,851.29 | 1,841.89 | 1,784.88 | 57.01 | 32.310 | | |
| 6,600.00 | 6,444.32 | 6,655.79 | 6,466.00 | 29.23 | 33.66 | 92.75 | 990.91 | 1,849.83 | 1,841.45 | 1,783.48 | 57.97 | 31.764 | | |
| 6,608.92 | 6,452.86 | 6,663.87 | 6,474.08 | 29.28 | 33.68 | 92.82 | 990.86 | 1,849.71 | 1,841.45 | 1,783.39 | 58.06 | 31.716 | CC | |
| 6,700.00 | 6,540.04 | 6,751.12 | 6,561.32 | 29.80 | 33.91 | 93.62 | 990.34 | 1,848.44 | 1,841.65 | 1,782.69 | 58.96 | 31.236 | | |
| 6,764.28 | 6,601.58 | 6,816.05 | 6,626.25 | 30.17 | 34.09 | 94.22 | 989.96 | 1,847.43 | 1,841.97 | 1,782.36 | 59.61 | 30.901 | ES | |
| 6,800.00 | 6,635.75 | 6,849.00 | 6,659.19 | 30.37 | 34.18 | 106.22 | 989.74 | 1,846.86 | 1,843.28 | 1,783.33 | 59.95 | 30.745 | | |
| 6,850.00 | 6,683.35 | 6,896.18 | 6,706.36 | 30.66 | 34.31 | 121.47 | 989.41 | 1,846.07 | 1,848.95 | 1,788.51 | 60.43 | 30.594 | | |
| 6,900.00 | 6,730.36 | 6,940.03 | 6,750.20 | 30.94 | 34.43 | 133.74 | 989.11 | 1,845.41 | 1,859.09 | 1,798.20 | 60.89 | 30.534 | SF | |
| 6,950.00 | 6,776.41 | 6,986.22 | 6,796.39 | 31.21 | 34.56 | 143.15 | 988.79 | 1,844.76 | 1,873.55 | 1,812.22 | 61.33 | 30.549 | | |
| 7,000.00 | 6,821.15 | 7,032.14 | 6,842.31 | 31.47 | 34.68 | 150.32 | 988.48 | 1,844.10 | 1,892.18 | 1,830.42 | 61.75 | 30.641 | | |
| 7,050.00 | 6,864.24 | 7,088.89 | 6,899.04 | 31.73 | 34.84 | 156.01 | 988.00 | 1,843.06 | 1,914.63 | 1,852.43 | 62.20 | 30.780 | | |
| 7,100.00 | 6,905.35 | 7,131.75 | 6,941.89 | 31.97 | 34.96 | 160.51 | 987.56 | 1,842.03 | 1,940.68 | 1,878.11 | 62.57 | 31.016 | | |
| 7,150.00 | 6,944.18 | 7,162.10 | 6,972.22 | 32.21 | 35.05 | 164.21 | 987.35 | 1,841.42 | 1,970.47 | 1,907.62 | 62.86 | 31.349 | | |
| 7,200.00 | 6,980.42 | 7,190.33 | 7,000.46 | 32.45 | 35.13 | 167.45 | 987.26 | 1,840.99 | 2,003.79 | 1,940.68 | 63.10 | 31.754 | | |
| 7,250.00 | 7,013.80 | 7,219.22 | 7,029.34 | 32.68 | 35.21 | 170.47 | 987.26 | 1,840.67 | 2,040.31 | 1,976.98 | 63.33 | 32.218 | | |
| 7,300.00 | 7,044.06 | 7,248.41 | 7,058.54 | 32.91 | 35.29 | 173.47 | 987.25 | 1,840.39 | 2,079.64 | 2,016.11 | 63.53 | 32.735 | | |
| 7,350.00 | 7,070.98 | 7,274.39 | 7,084.52 | 33.15 | 35.35 | 176.67 | 987.23 | 1,840.15 | 2,121.47 | 2,057.77 | 63.69 | 33.309 | | |
| 7,400.00 | 7,094.36 | 7,296.96 | 7,107.08 | 33.39 | 35.42 | -179.62 | 987.20 | 1,839.95 | 2,165.45 | 2,101.63 | 63.81 | 33.933 | | |
| 7,450.00 | 7,114.00 | 7,315.90 | 7,126.02 | 33.65 | 35.47 | -174.87 | 987.16 | 1,839.79 | 2,211.24 | 2,147.34 | 63.90 | 34.604 | | |
| 7,500.00 | 7,129.76 | 7,331.15 | 7,141.27 | 33.93 | 35.51 | -168.09 | 987.12 | 1,839.67 | 2,258.51 | 2,194.56 | 63.95 | 35.316 | | |
| 7,550.00 | 7,141.53 | 7,342.61 | 7,152.73 | 34.22 | 35.54 | -157.15 | 987.08 | 1,839.58 | 2,306.87 | 2,242.91 | 63.97 | 36.063 | | |
| 7,600.00 | 7,149.21 | 7,350.20 | 7,160.32 | 34.55 | 35.56 | -137.53 | 987.05 | 1,839.53 | 2,355.98 | 2,292.03 | 63.95 | 36.841 | | |
| 7,650.00 | 7,152.75 | 7,353.88 | 7,164.00 | 34.90 | 35.57 | -105.16 | 987.03 | 1,839.50 | 2,405.45 | 2,341.55 | 63.90 | 37.641 | | |
| 7,667.38 | 7,153.00 | 7,354.24 | 7,164.35 | 35.04 | 35.57 | -92.78 | 987.03 | 1,839.50 | 2,422.67 | 2,358.79 | 63.88 | 37.924 | | |
| 7,700.00 | 7,153.00 | 7,354.46 | 7,164.58 | 35.29 | 35.57 | -92.82 | 987.03 | 1,839.49 | 2,454.98 | 2,391.14 | 63.84 | 38.456 | | |
| 7,800.00 | 7,153.00 | 7,355.16 | 7,165.28 | 36.22 | 35.57 | -92.94 | 987.03 | 1,839.49 | 2,554.07 | 2,490.36 | 63.71 | 40.088 | | |
| 7,900.00 | 7,153.00 | 7,355.85 | 7,165.97 | 37.35 | 35.58 | -93.06 | 987.02 | 1,839.48 | 2,653.23 | 2,589.63 | 63.60 | 41.719 | | |
| 8,000.00 | 7,153.00 | 7,356.54 | 7,166.66 | 38.67 | 35.58 | -93.17 | 987.02 | 1,839.48 | 2,752.45 | 2,688.95 | 63.49 | 43.350 | | |
| 8,100.00 | 7,153.00 | 7,357.23 | 7,167.35 | 40.16 | 35.58 | -93.29 | 987.02 | 1,839.47 | 2,851.72 | 2,788.32 | 63.40 | 44.979 | | |
| 8,200.00 | 7,153.00 | 7,357.91 | 7,168.03 | 41.81 | 35.58 | -93.41 | 987.02 | 1,839.47 | 2,951.04 | 2,887.73 | 63.32 | 46.608 | | |
| 8,300.00 | 7,153.00 | 7,358.60 | 7,168.71 | 43.59 | 35.58 | -93.52 | 987.01 | 1,839.46 | 3,050.41 | 2,987.17 | 63.24 | 48.236 | | |
| 8,400.00 | 7,153.00 | 7,359.27 | 7,169.39 | 45.47 | 35.58 | -93.64 | 987.01 | 1,839.46 | 3,149.82 | 3,086.65 | 63.17 | 49.862 | | |
| 8,500.00 | 7,153.00 | 7,359.95 | 7,170.07 | 47.45 | 35.59 | -93.75 | 987.01 | 1,839.45 | 3,249.26 | 3,186.15 | 63.11 | 51.488 | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN DD ENCORE 4-12 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 1,000.00 | 1,000.00 | 2,191.43 | 2,119.43 | 3.37 | 11.64 | 54.17 | 1,785.20 | 2,472.24 | 3,249.77 | 3,237.22 | 12.55 | 258.989 | | |
| 1,100.00 | 1,100.00 | 2,262.59 | 2,185.30 | 3.73 | 12.19 | 53.93 | 1,781.17 | 2,445.62 | 3,215.62 | 3,202.35 | 13.27 | 242.317 | | |
| 1,200.00 | 1,200.00 | 2,385.25 | 2,298.15 | 4.09 | 13.16 | 53.46 | 1,776.71 | 2,397.80 | 3,181.34 | 3,167.08 | 14.26 | 223.075 | | |
| 1,300.00 | 1,300.00 | 2,551.93 | 2,449.05 | 4.45 | 14.59 | 52.70 | 1,772.89 | 2,327.14 | 3,144.56 | 3,129.02 | 15.54 | 202.406 | | |
| 1,400.00 | 1,400.00 | 2,585.00 | 2,478.89 | 4.80 | 14.88 | 52.54 | 1,772.24 | 2,312.89 | 3,108.52 | 3,092.39 | 16.14 | 192.621 | | |
| 1,500.00 | 1,500.00 | 2,651.46 | 2,539.26 | 5.16 | 15.44 | 52.22 | 1,771.04 | 2,285.15 | 3,073.58 | 3,056.67 | 16.91 | 181.726 | | |
| 1,600.00 | 1,600.00 | 2,731.75 | 2,612.81 | 5.52 | 16.12 | 51.84 | 1,770.05 | 2,252.96 | 3,040.20 | 3,022.44 | 17.77 | 171.112 | | |
| 1,700.00 | 1,700.00 | 2,861.30 | 2,730.73 | 5.88 | 17.22 | 51.19 | 1,769.21 | 2,199.30 | 3,006.27 | 2,987.38 | 18.90 | 159.091 | | |
| 1,800.00 | 1,800.00 | 2,932.63 | 2,795.93 | 6.24 | 17.81 | 50.84 | 1,767.42 | 2,170.44 | 2,972.28 | 2,952.57 | 19.71 | 150.795 | | |
| 1,900.00 | 1,900.00 | 3,012.22 | 2,869.16 | 6.60 | 18.46 | 50.49 | 1,764.40 | 2,139.41 | 2,938.92 | 2,918.36 | 20.56 | 142.963 | | |
| 2,000.00 | 2,000.00 | 3,108.80 | 2,958.17 | 6.95 | 19.24 | 50.05 | 1,760.51 | 2,102.13 | 2,905.87 | 2,884.39 | 21.48 | 135.270 | | |
| 2,100.00 | 2,100.00 | 3,207.27 | 3,048.76 | 7.31 | 20.04 | 49.60 | 1,756.61 | 2,063.76 | 2,872.72 | 2,850.29 | 22.43 | 128.078 | | |
| 2,200.00 | 2,200.00 | 3,300.00 | 3,133.55 | 7.67 | 20.82 | 49.11 | 1,754.33 | 2,026.28 | 2,839.45 | 2,816.07 | 23.38 | 121.425 | | |
| 2,300.00 | 2,300.00 | 3,357.82 | 3,186.59 | 8.03 | 21.29 | 48.81 | 1,752.89 | 2,003.32 | 2,806.97 | 2,782.81 | 24.16 | 116.164 | | |
| 2,400.00 | 2,400.00 | 3,428.04 | 3,251.66 | 8.39 | 21.85 | 48.48 | 1,750.63 | 1,977.01 | 2,775.87 | 2,750.87 | 25.00 | 111.048 | | |
| 2,500.00 | 2,499.98 | 3,540.84 | 3,356.23 | 8.75 | 22.74 | 47.86 | 1,746.66 | 1,934.89 | 2,743.81 | 2,717.79 | 26.02 | 105.446 | | |
| 2,600.00 | 2,599.84 | 3,636.54 | 3,444.75 | 9.11 | 23.50 | 48.02 | 1,742.83 | 1,898.73 | 2,709.01 | 2,682.05 | 26.97 | 100.460 | | |
| 2,700.00 | 2,699.45 | 3,731.54 | 3,532.48 | 9.46 | 24.26 | 48.24 | 1,739.58 | 1,862.45 | 2,672.17 | 2,644.26 | 27.91 | 95.751 | | |
| 2,800.00 | 2,798.70 | 3,831.10 | 3,624.54 | 9.82 | 25.06 | 48.57 | 1,735.36 | 1,824.76 | 2,633.02 | 2,604.17 | 28.85 | 91.256 | | |
| 2,900.00 | 2,897.47 | 3,978.12 | 3,759.90 | 10.18 | 26.26 | 48.90 | 1,727.91 | 1,767.89 | 2,590.69 | 2,560.70 | 29.99 | 86.372 | | |
| 3,000.00 | 2,995.62 | 4,120.66 | 3,889.70 | 10.55 | 27.47 | 49.40 | 1,717.98 | 1,709.85 | 2,543.26 | 2,512.16 | 31.10 | 81.780 | | |
| 3,100.00 | 3,093.06 | 4,186.00 | 3,949.50 | 10.94 | 28.02 | 50.18 | 1,713.51 | 1,683.90 | 2,494.92 | 2,463.05 | 31.88 | 78.271 | | |
| 3,200.00 | 3,189.64 | 4,216.49 | 3,977.57 | 11.34 | 28.27 | 51.05 | 1,711.73 | 1,672.13 | 2,445.75 | 2,413.25 | 32.51 | 75.234 | | |
| 3,240.86 | 3,228.84 | 4,238.32 | 3,997.67 | 11.50 | 28.45 | 51.41 | 1,710.71 | 1,663.67 | 2,425.53 | 2,392.72 | 32.80 | 73.938 | | |
| 3,300.00 | 3,285.45 | 4,277.00 | 4,033.28 | 11.75 | 28.77 | 51.40 | 1,709.43 | 1,648.62 | 2,396.39 | 2,363.13 | 33.26 | 72.045 | | |
| 3,400.00 | 3,381.17 | 4,348.64 | 4,099.02 | 12.19 | 29.36 | 51.35 | 1,708.37 | 1,620.20 | 2,347.65 | 2,313.55 | 34.10 | 68.840 | | |
| 3,500.00 | 3,476.90 | 4,491.52 | 4,228.93 | 12.63 | 30.61 | 51.16 | 1,707.18 | 1,560.72 | 2,297.87 | 2,262.55 | 35.31 | 65.068 | | |
| 3,600.00 | 3,572.62 | 4,573.80 | 4,303.43 | 13.09 | 31.33 | 51.05 | 1,705.83 | 1,525.84 | 2,247.12 | 2,210.87 | 36.25 | 61.993 | | |
| 3,700.00 | 3,668.34 | 4,633.00 | 4,357.34 | 13.56 | 31.85 | 50.99 | 1,704.49 | 1,501.42 | 2,196.93 | 2,159.85 | 37.08 | 59.249 | | |
| 3,800.00 | 3,764.07 | 4,700.61 | 4,419.46 | 14.04 | 32.41 | 50.96 | 1,702.46 | 1,474.83 | 2,147.65 | 2,109.73 | 37.92 | 56.631 | | |
| 3,900.00 | 3,859.79 | 4,763.99 | 4,478.28 | 14.52 | 32.90 | 50.97 | 1,700.09 | 1,451.33 | 2,099.47 | 2,060.73 | 38.74 | 54.200 | | |
| 4,000.00 | 3,955.51 | 4,828.83 | 4,538.86 | 15.02 | 33.39 | 51.01 | 1,697.41 | 1,428.35 | 2,052.24 | 2,012.70 | 39.54 | 51.902 | | |
| 4,100.00 | 4,051.24 | 4,898.00 | 4,603.99 | 15.52 | 33.89 | 51.10 | 1,694.16 | 1,405.30 | 2,006.11 | 1,965.77 | 40.34 | 49.729 | | |
| 4,200.00 | 4,146.96 | 5,013.79 | 4,712.81 | 16.03 | 34.73 | 51.27 | 1,687.72 | 1,366.27 | 1,959.14 | 1,917.88 | 41.26 | 47.487 | | |
| 4,300.00 | 4,242.68 | 5,076.00 | 4,771.51 | 16.54 | 35.17 | 51.39 | 1,684.20 | 1,345.98 | 1,912.90 | 1,870.86 | 42.04 | 45.505 | | |
| 4,400.00 | 4,338.41 | 5,110.67 | 4,804.49 | 17.06 | 35.39 | 51.47 | 1,682.38 | 1,335.48 | 1,868.46 | 1,825.72 | 42.73 | 43.722 | | |
| 4,500.00 | 4,434.13 | 5,164.00 | 4,855.72 | 17.59 | 35.72 | 51.62 | 1,679.98 | 1,320.83 | 1,826.47 | 1,783.01 | 43.46 | 42.026 | | |
| 4,600.00 | 4,529.85 | 5,206.07 | 4,896.40 | 18.11 | 35.96 | 51.75 | 1,678.45 | 1,310.24 | 1,786.57 | 1,742.44 | 44.14 | 40.479 | | |
| 4,700.00 | 4,625.58 | 5,252.00 | 4,940.97 | 18.65 | 36.21 | 51.91 | 1,677.16 | 1,299.21 | 1,748.64 | 1,703.83 | 44.81 | 39.027 | | |
| 4,800.00 | 4,721.30 | 5,338.00 | 5,024.88 | 19.18 | 36.65 | 52.23 | 1,675.38 | 1,280.46 | 1,712.54 | 1,666.98 | 45.56 | 37.589 | | |
| 4,900.00 | 4,817.02 | 5,383.39 | 5,069.41 | 19.72 | 36.86 | 52.43 | 1,674.56 | 1,271.71 | 1,678.17 | 1,631.99 | 46.18 | 36.340 | | |
| 5,000.00 | 4,912.74 | 5,446.18 | 5,131.25 | 20.27 | 37.13 | 52.75 | 1,673.41 | 1,260.95 | 1,645.77 | 1,598.95 | 46.82 | 35.151 | | |
| 5,100.00 | 5,008.47 | 5,515.00 | 5,199.30 | 20.81 | 37.41 | 53.14 | 1,672.22 | 1,250.69 | 1,615.16 | 1,567.71 | 47.45 | 34.040 | | |
| 5,200.00 | 5,104.19 | 5,582.36 | 5,266.08 | 21.36 | 37.65 | 53.56 | 1,671.09 | 1,242.00 | 1,586.22 | 1,538.17 | 48.05 | 33.015 | | |
| 5,300.00 | 5,199.91 | 5,656.98 | 5,340.23 | 21.91 | 37.91 | 54.07 | 1,669.75 | 1,233.75 | 1,558.79 | 1,510.16 | 48.64 | 32.049 | | |
| 5,400.00 | 5,295.64 | 5,735.24 | 5,418.13 | 22.46 | 38.15 | 54.66 | 1,668.07 | 1,226.45 | 1,532.67 | 1,483.46 | 49.22 | 31.141 | | |
| 5,500.00 | 5,391.36 | 5,805.03 | 5,487.70 | 23.02 | 38.35 | 55.25 | 1,665.99 | 1,221.26 | 1,507.86 | 1,458.12 | 49.74 | 30.313 | | |
| 5,600.00 | 5,487.08 | 5,874.00 | 5,556.58 | 23.58 | 38.53 | 55.88 | 1,664.53 | 1,218.16 | 1,485.79 | 1,435.55 | 50.24 | 29.574 | | |
| 5,700.00 | 5,582.81 | 5,935.03 | 5,617.58 | 24.13 | 38.66 | 56.45 | 1,663.71 | 1,216.60 | 1,465.92 | 1,415.23 | 50.68 | 28.924 | | |
| 5,800.00 | 5,678.53 | 6,023.79 | 5,706.32 | 24.70 | 38.85 | 57.31 | 1,662.56 | 1,214.82 | 1,447.20 | 1,395.97 | 51.22 | 28.252 | | |
| 5,900.00 | 5,774.25 | 6,117.43 | 5,799.94 | 25.26 | 39.04 | 58.25 | 1,661.33 | 1,213.27 | 1,429.15 | 1,377.36 | 51.79 | 27.595 | | |
| 6,000.00 | 5,869.98 | 6,210.83 | 5,893.32 | 25.82 | 39.24 | 59.20 | 1,660.23 | 1,211.74 | 1,411.59 | 1,359.22 | 52.37 | 26.955 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN DD ENCORE 4-12 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|------------------|-----------------|--------------|--------------|--------------|------------------------|-------------------------|---------------------------|-------------------|----------------|--|---------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | | | |
| Reference | | | | Offset | | | Semi Major Axis | | Highside | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Reference (usft) | Offset (usft) | Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 6,100.00 | 5,965.70 | 6,305.76 | 5,988.23 | 26.39 | 39.44 | 60.18 | | 60.18 | 1,659.33 | 1,210.16 | 1,394.56 | 1,341.60 | 52.97 | 26.329 | | | |
| 6,200.00 | 6,061.42 | 6,380.43 | 6,062.90 | 26.95 | 39.59 | 60.98 | | 60.98 | 1,658.65 | 1,209.47 | 1,378.62 | 1,325.16 | 53.46 | 25.787 | | | |
| 6,300.00 | 6,157.15 | 6,471.25 | 6,153.71 | 27.52 | 39.75 | 61.97 | | 61.97 | 1,658.29 | 1,209.71 | 1,364.35 | 1,310.31 | 54.04 | 25.249 | | | |
| 6,400.00 | 6,252.87 | 6,572.53 | 6,254.99 | 28.09 | 39.93 | 63.10 | | 63.10 | 1,657.66 | 1,209.76 | 1,350.29 | 1,295.61 | 54.68 | 24.695 | | | |
| 6,500.00 | 6,348.59 | 6,672.45 | 6,354.90 | 28.66 | 40.13 | 64.25 | | 64.25 | 1,656.75 | 1,209.53 | 1,336.37 | 1,281.03 | 55.33 | 24.151 | | | |
| 6,600.00 | 6,444.32 | 6,773.78 | 6,456.22 | 29.23 | 40.34 | 65.42 | | 65.42 | 1,655.85 | 1,208.84 | 1,322.60 | 1,266.57 | 56.02 | 23.608 | | | |
| 6,700.00 | 6,540.04 | 6,871.83 | 6,554.27 | 29.80 | 40.55 | 66.57 | | 66.57 | 1,655.19 | 1,207.72 | 1,309.03 | 1,252.32 | 56.72 | 23.080 | | | |
| 6,764.28 | 6,601.58 | 6,933.09 | 6,615.53 | 30.17 | 40.69 | 67.29 | | 67.29 | 1,654.77 | 1,206.98 | 1,300.56 | 1,243.39 | 57.16 | 22.752 | | | |
| 6,800.00 | 6,635.75 | 6,969.63 | 6,652.06 | 30.37 | 40.77 | 67.97 | | 67.97 | 1,654.51 | 1,206.51 | 1,296.95 | 1,239.52 | 57.43 | 22.584 | | | |
| 6,843.83 | 6,677.51 | 7,014.87 | 6,697.29 | 30.62 | 40.87 | 68.33 | | 68.33 | 1,654.21 | 1,205.80 | 1,295.37 | 1,237.60 | 57.77 | 22.425 CC | | | |
| 6,850.00 | 6,683.35 | 7,021.21 | 6,703.63 | 30.66 | 40.88 | 68.50 | | 68.50 | 1,654.17 | 1,205.69 | 1,295.40 | 1,237.59 | 57.81 | 22.407 ES | | | |
| 6,900.00 | 6,730.36 | 7,067.40 | 6,749.81 | 30.94 | 40.99 | 69.44 | | 69.44 | 1,653.94 | 1,204.86 | 1,298.06 | 1,239.89 | 58.17 | 22.313 | | | |
| 6,950.00 | 6,776.41 | 7,112.04 | 6,794.45 | 31.21 | 41.10 | 70.44 | | 70.44 | 1,653.81 | 1,204.07 | 1,305.09 | 1,246.56 | 58.54 | 22.295 SF | | | |
| 7,000.00 | 6,821.15 | 7,155.19 | 6,837.59 | 31.47 | 41.20 | 71.44 | | 71.44 | 1,653.71 | 1,203.36 | 1,316.48 | 1,257.58 | 58.89 | 22.353 | | | |
| 7,050.00 | 6,864.24 | 7,196.67 | 6,879.07 | 31.73 | 41.29 | 72.44 | | 72.44 | 1,653.52 | 1,202.78 | 1,332.17 | 1,272.92 | 59.25 | 22.484 | | | |
| 7,100.00 | 6,905.35 | 7,236.73 | 6,919.12 | 31.97 | 41.38 | 73.44 | | 73.44 | 1,653.28 | 1,202.28 | 1,352.06 | 1,292.46 | 59.60 | 22.686 | | | |
| 7,150.00 | 6,944.18 | 7,274.67 | 6,957.06 | 32.21 | 41.47 | 74.44 | | 74.44 | 1,653.05 | 1,201.85 | 1,375.99 | 1,316.05 | 59.94 | 22.956 | | | |
| 7,200.00 | 6,980.42 | 7,309.24 | 6,991.62 | 32.45 | 41.55 | 75.44 | | 75.44 | 1,652.82 | 1,201.49 | 1,403.78 | 1,343.51 | 60.26 | 23.294 | | | |
| 7,250.00 | 7,013.80 | 7,340.13 | 7,022.52 | 32.68 | 41.61 | 76.44 | | 76.44 | 1,652.59 | 1,201.24 | 1,435.23 | 1,374.66 | 60.57 | 23.697 | | | |
| 7,300.00 | 7,044.06 | 7,368.03 | 7,050.41 | 32.91 | 41.68 | 77.44 | | 77.44 | 1,652.35 | 1,201.08 | 1,470.07 | 1,409.22 | 60.85 | 24.159 | | | |
| 7,350.00 | 7,070.98 | 7,393.34 | 7,075.72 | 33.15 | 41.73 | 78.44 | | 78.44 | 1,652.11 | 1,200.98 | 1,507.99 | 1,446.88 | 61.11 | 24.675 | | | |
| 7,400.00 | 7,094.36 | 7,416.27 | 7,098.65 | 33.39 | 41.78 | 79.44 | | 79.44 | 1,651.89 | 1,200.90 | 1,548.64 | 1,487.28 | 61.36 | 25.237 | | | |
| 7,450.00 | 7,114.00 | 7,435.55 | 7,117.93 | 33.65 | 41.82 | 80.44 | | 80.44 | 1,651.71 | 1,200.84 | 1,591.67 | 1,530.08 | 61.59 | 25.845 | | | |
| 7,500.00 | 7,129.76 | 7,451.05 | 7,133.43 | 33.93 | 41.85 | 81.44 | | 81.44 | 1,651.58 | 1,200.79 | 1,636.69 | 1,574.91 | 61.78 | 26.492 | | | |
| 7,550.00 | 7,141.53 | 7,462.64 | 7,145.02 | 34.22 | 41.88 | 82.44 | | 82.44 | 1,651.48 | 1,200.76 | 1,683.34 | 1,621.40 | 61.94 | 27.175 | | | |
| 7,600.00 | 7,149.21 | 7,470.25 | 7,152.63 | 34.55 | 41.89 | 83.44 | | 83.44 | 1,651.41 | 1,200.74 | 1,731.23 | 1,669.15 | 62.08 | 27.887 | | | |
| 7,650.00 | 7,152.75 | 7,473.00 | 7,155.38 | 34.90 | 41.90 | 84.44 | | 84.44 | 1,651.39 | 1,200.73 | 1,779.95 | 1,717.77 | 62.18 | 28.626 | | | |
| 7,667.38 | 7,153.00 | 7,474.12 | 7,156.49 | 35.04 | 41.90 | 85.44 | | 85.44 | 1,651.38 | 1,200.73 | 1,797.00 | 1,734.79 | 62.22 | 28.883 | | | |
| 7,700.00 | 7,153.00 | 7,474.20 | 7,156.58 | 35.29 | 41.90 | 86.44 | | 86.44 | 1,651.38 | 1,200.73 | 1,829.07 | 1,766.80 | 62.27 | 29.374 | | | |
| 7,800.00 | 7,153.00 | 7,474.46 | 7,156.84 | 36.22 | 41.90 | 87.44 | | 87.44 | 1,651.38 | 1,200.73 | 1,927.48 | 1,865.06 | 62.42 | 30.880 | | | |
| 7,900.00 | 7,153.00 | 7,474.73 | 7,157.10 | 37.35 | 41.90 | 88.44 | | 88.44 | 1,651.37 | 1,200.73 | 2,026.05 | 1,963.49 | 62.56 | 32.385 | | | |
| 8,000.00 | 7,153.00 | 7,474.99 | 7,157.37 | 38.67 | 41.90 | 89.44 | | 89.44 | 1,651.37 | 1,200.73 | 2,124.75 | 2,062.06 | 62.69 | 33.891 | | | |
| 8,100.00 | 7,153.00 | 7,475.25 | 7,157.63 | 40.16 | 41.90 | 90.44 | | 90.44 | 1,651.37 | 1,200.73 | 2,223.57 | 2,160.75 | 62.82 | 35.396 | | | |
| 8,200.00 | 7,153.00 | 7,475.51 | 7,157.89 | 41.81 | 41.90 | 91.44 | | 91.44 | 1,651.37 | 1,200.73 | 2,322.49 | 2,259.55 | 62.94 | 36.901 | | | |
| 8,300.00 | 7,153.00 | 7,475.77 | 7,158.15 | 43.59 | 41.90 | 92.44 | | 92.44 | 1,651.37 | 1,200.73 | 2,421.50 | 2,358.45 | 63.05 | 38.406 | | | |
| 8,400.00 | 7,153.00 | 7,476.03 | 7,158.41 | 45.47 | 41.91 | 93.44 | | 93.44 | 1,651.36 | 1,200.73 | 2,520.58 | 2,457.43 | 63.16 | 39.910 | | | |
| 8,500.00 | 7,153.00 | 7,476.29 | 7,158.67 | 47.45 | 41.91 | 94.44 | | 94.44 | 1,651.36 | 1,200.73 | 2,619.74 | 2,556.48 | 63.26 | 41.414 | | | |
| 8,600.00 | 7,153.00 | 7,476.55 | 7,158.93 | 49.51 | 41.91 | 95.44 | | 95.44 | 1,651.36 | 1,200.72 | 2,718.95 | 2,655.60 | 63.35 | 42.917 | | | |
| 8,700.00 | 7,153.00 | 7,476.81 | 7,159.19 | 51.64 | 41.91 | 96.44 | | 96.44 | 1,651.36 | 1,200.72 | 2,818.23 | 2,754.78 | 63.45 | 44.420 | | | |
| 8,800.00 | 7,153.00 | 7,477.07 | 7,159.45 | 53.82 | 41.91 | 97.44 | | 97.44 | 1,651.36 | 1,200.72 | 2,917.55 | 2,854.02 | 63.53 | 45.922 | | | |
| 8,900.00 | 7,153.00 | 7,477.33 | 7,159.71 | 56.06 | 41.91 | 98.44 | | 98.44 | 1,651.35 | 1,200.72 | 3,016.92 | 2,953.30 | 63.62 | 47.423 | | | |
| 9,000.00 | 7,153.00 | 7,477.59 | 7,159.97 | 58.34 | 41.91 | 99.44 | | 99.44 | 1,651.35 | 1,200.72 | 3,116.32 | 3,052.63 | 63.70 | 48.923 | | | |
| 9,100.00 | 7,153.00 | 7,477.85 | 7,160.23 | 60.66 | 41.91 | 100.44 | | 100.44 | 1,651.35 | 1,200.72 | 3,215.77 | 3,151.99 | 63.78 | 50.423 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN DD ENCORE 5-12 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 400.00 | 400.00 | 2,041.00 | 1,933.47 | 1.22 | 12.24 | 60.76 | 1,411.04 | 2,520.28 | 3,272.57 | 3,263.03 | 9.54 | 343.007 | | |
| 500.00 | 500.00 | 2,087.02 | 1,973.98 | 1.58 | 12.65 | 60.86 | 1,396.24 | 2,504.21 | 3,226.13 | 3,216.11 | 10.02 | 321.903 | | |
| 600.00 | 600.00 | 2,131.00 | 2,012.94 | 1.94 | 13.05 | 60.96 | 1,382.23 | 2,489.37 | 3,180.90 | 3,170.37 | 10.52 | 302.272 | | |
| 700.00 | 700.00 | 2,199.99 | 2,074.34 | 2.29 | 13.66 | 61.12 | 1,360.41 | 2,466.75 | 3,136.58 | 3,125.42 | 11.16 | 280.984 | | |
| 800.00 | 800.00 | 2,260.74 | 2,128.62 | 2.65 | 14.19 | 61.27 | 1,341.36 | 2,447.22 | 3,093.01 | 3,081.23 | 11.78 | 262.629 | | |
| 900.00 | 900.00 | 2,311.00 | 2,173.77 | 3.01 | 14.62 | 61.39 | 1,326.04 | 2,431.30 | 3,050.38 | 3,038.03 | 12.35 | 246.915 | | |
| 1,000.00 | 1,000.00 | 2,352.37 | 2,211.21 | 3.37 | 14.96 | 61.49 | 1,313.92 | 2,418.53 | 3,009.13 | 2,996.23 | 12.89 | 233.356 | | |
| 1,100.00 | 1,100.00 | 2,401.00 | 2,255.69 | 3.73 | 15.36 | 61.59 | 1,300.52 | 2,404.16 | 2,969.60 | 2,956.13 | 13.48 | 220.374 | | |
| 1,200.00 | 1,200.00 | 2,647.22 | 2,479.00 | 4.09 | 17.43 | 62.00 | 1,235.57 | 2,323.53 | 2,928.15 | 2,913.27 | 14.88 | 196.725 | | |
| 1,300.00 | 1,300.00 | 2,717.18 | 2,541.68 | 4.45 | 18.04 | 62.10 | 1,216.98 | 2,298.64 | 2,884.26 | 2,868.71 | 15.56 | 185.372 | | |
| 1,400.00 | 1,400.00 | 2,761.00 | 2,581.22 | 4.80 | 18.42 | 62.18 | 1,205.13 | 2,283.93 | 2,841.80 | 2,825.66 | 16.13 | 176.130 | | |
| 1,500.00 | 1,500.00 | 2,845.50 | 2,657.77 | 5.16 | 19.14 | 62.35 | 1,182.29 | 2,256.39 | 2,800.21 | 2,783.33 | 16.88 | 165.885 | | |
| 1,600.00 | 1,600.00 | 2,985.85 | 2,784.49 | 5.52 | 20.35 | 62.57 | 1,145.96 | 2,208.25 | 2,757.62 | 2,739.78 | 17.84 | 154.580 | | |
| 1,700.00 | 1,700.00 | 3,056.79 | 2,848.38 | 5.88 | 20.96 | 62.68 | 1,127.80 | 2,183.33 | 2,714.61 | 2,696.08 | 18.53 | 146.512 | | |
| 1,800.00 | 1,800.00 | 3,117.00 | 2,903.02 | 6.24 | 21.47 | 62.76 | 1,113.29 | 2,162.61 | 2,672.83 | 2,653.65 | 19.18 | 139.372 | | |
| 1,900.00 | 1,900.00 | 3,180.27 | 2,960.72 | 6.60 | 22.00 | 62.85 | 1,098.30 | 2,141.41 | 2,632.05 | 2,612.21 | 19.84 | 132.670 | | |
| 2,000.00 | 2,000.00 | 3,310.36 | 3,079.11 | 6.95 | 23.08 | 63.07 | 1,066.01 | 2,098.23 | 2,591.19 | 2,570.44 | 20.75 | 124.879 | | |
| 2,100.00 | 2,100.00 | 3,383.00 | 3,145.13 | 7.31 | 23.69 | 63.20 | 1,047.65 | 2,074.15 | 2,549.99 | 2,528.53 | 21.46 | 118.831 | | |
| 2,200.00 | 2,200.00 | 3,444.59 | 3,201.23 | 7.67 | 24.21 | 63.34 | 1,031.59 | 2,054.44 | 2,509.46 | 2,487.33 | 22.14 | 113.361 | | |
| 2,300.00 | 2,300.00 | 3,526.32 | 3,275.80 | 8.03 | 24.88 | 63.55 | 1,009.49 | 2,029.32 | 2,469.65 | 2,446.75 | 22.90 | 107.866 | | |
| 2,400.00 | 2,400.00 | 3,677.19 | 3,412.87 | 8.39 | 26.14 | 63.91 | 969.77 | 1,980.42 | 2,428.70 | 2,404.80 | 23.89 | 101.641 | | |
| 2,500.00 | 2,499.98 | 3,741.68 | 3,471.36 | 8.75 | 26.69 | 64.32 | 953.17 | 1,958.93 | 2,386.60 | 2,362.00 | 24.60 | 97.020 | | |
| 2,600.00 | 2,599.84 | 3,879.41 | 3,596.21 | 9.11 | 27.87 | 65.72 | 917.74 | 1,912.83 | 2,343.27 | 2,317.72 | 25.55 | 91.720 | | |
| 2,700.00 | 2,699.45 | 3,985.55 | 3,691.45 | 9.46 | 28.80 | 67.20 | 889.60 | 1,875.34 | 2,296.52 | 2,270.12 | 26.41 | 86.972 | | |
| 2,800.00 | 2,798.70 | 4,104.34 | 3,797.57 | 9.82 | 29.87 | 69.01 | 856.56 | 1,833.42 | 2,248.29 | 2,220.97 | 27.32 | 82.295 | | |
| 2,900.00 | 2,897.47 | 4,164.61 | 3,851.33 | 10.18 | 30.41 | 70.58 | 839.30 | 1,812.33 | 2,198.99 | 2,170.91 | 28.09 | 78.287 | | |
| 3,000.00 | 2,995.62 | 4,221.37 | 3,902.11 | 10.55 | 30.92 | 72.21 | 822.85 | 1,793.03 | 2,149.74 | 2,120.87 | 28.88 | 74.448 | | |
| 3,100.00 | 3,093.06 | 4,278.62 | 3,953.61 | 10.94 | 31.42 | 73.94 | 806.28 | 1,774.34 | 2,101.05 | 2,071.35 | 29.70 | 70.742 | | |
| 3,200.00 | 3,189.64 | 4,384.55 | 4,048.55 | 11.34 | 32.35 | 76.46 | 774.41 | 1,739.79 | 2,051.66 | 2,020.93 | 30.73 | 66.759 | | |
| 3,240.86 | 3,228.84 | 4,409.85 | 4,071.19 | 11.50 | 32.57 | 77.28 | 766.74 | 1,731.52 | 2,031.44 | 2,000.32 | 31.11 | 65.291 | | |
| 3,300.00 | 3,285.45 | 4,453.00 | 4,109.91 | 11.75 | 32.95 | 77.94 | 753.88 | 1,717.48 | 2,002.50 | 1,970.80 | 31.70 | 63.171 | | |
| 3,400.00 | 3,381.17 | 4,554.76 | 4,201.11 | 12.19 | 33.85 | 79.52 | 724.22 | 1,683.43 | 1,953.79 | 1,920.98 | 32.80 | 59.562 | | |
| 3,500.00 | 3,476.90 | 4,646.37 | 4,283.05 | 12.63 | 34.68 | 80.95 | 698.87 | 1,651.27 | 1,905.05 | 1,871.15 | 33.91 | 56.186 | | |
| 3,600.00 | 3,572.62 | 4,736.35 | 4,362.85 | 13.09 | 35.50 | 82.49 | 671.86 | 1,619.69 | 1,856.49 | 1,821.40 | 35.08 | 52.918 | | |
| 3,700.00 | 3,668.34 | 4,806.00 | 4,424.38 | 13.56 | 36.14 | 83.77 | 649.77 | 1,595.68 | 1,808.98 | 1,772.69 | 36.29 | 49.854 | | |
| 3,800.00 | 3,764.07 | 4,903.55 | 4,510.24 | 14.04 | 37.06 | 85.66 | 618.18 | 1,561.82 | 1,762.31 | 1,724.67 | 37.64 | 46.816 | | |
| 3,900.00 | 3,859.79 | 4,984.86 | 4,581.87 | 14.52 | 37.82 | 87.26 | 593.22 | 1,532.56 | 1,716.32 | 1,677.32 | 38.99 | 44.015 | | |
| 4,000.00 | 3,955.51 | 5,103.50 | 4,686.13 | 15.02 | 38.95 | 89.61 | 559.54 | 1,487.06 | 1,670.06 | 1,629.62 | 40.44 | 41.302 | | |
| 4,100.00 | 4,051.24 | 5,160.00 | 4,735.76 | 15.52 | 39.50 | 90.74 | 544.44 | 1,464.67 | 1,624.61 | 1,582.79 | 41.82 | 38.846 | | |
| 4,200.00 | 4,146.96 | 5,218.62 | 4,787.71 | 16.03 | 40.03 | 91.93 | 529.66 | 1,441.89 | 1,581.39 | 1,538.14 | 43.25 | 36.566 | | |
| 4,300.00 | 4,242.68 | 5,247.00 | 4,813.13 | 16.54 | 40.30 | 92.50 | 522.86 | 1,431.27 | 1,541.31 | 1,496.63 | 44.68 | 34.496 | | |
| 4,400.00 | 4,338.41 | 5,295.14 | 4,856.85 | 17.06 | 40.69 | 93.48 | 511.89 | 1,414.37 | 1,504.59 | 1,458.44 | 46.16 | 32.598 | | |
| 4,500.00 | 4,434.13 | 5,337.00 | 4,895.55 | 17.59 | 41.03 | 94.32 | 502.96 | 1,401.16 | 1,472.00 | 1,424.36 | 47.64 | 30.896 | | |
| 4,600.00 | 4,529.85 | 5,382.78 | 4,938.30 | 18.11 | 41.36 | 95.25 | 493.46 | 1,387.83 | 1,443.10 | 1,393.96 | 49.14 | 29.365 | | |
| 4,700.00 | 4,625.58 | 5,442.89 | 4,994.72 | 18.65 | 41.79 | 96.50 | 480.84 | 1,371.38 | 1,417.43 | 1,366.73 | 50.70 | 27.957 | | |
| 4,800.00 | 4,721.30 | 5,514.00 | 5,061.75 | 19.18 | 42.29 | 97.99 | 466.31 | 1,352.58 | 1,394.30 | 1,342.00 | 52.31 | 26.657 | | |
| 4,900.00 | 4,817.02 | 5,572.27 | 5,117.05 | 19.72 | 42.67 | 99.20 | 455.14 | 1,338.01 | 1,374.11 | 1,320.25 | 53.85 | 25.516 | | |
| 5,000.00 | 4,912.74 | 5,637.35 | 5,179.36 | 20.27 | 43.07 | 100.53 | 443.67 | 1,323.15 | 1,357.31 | 1,301.91 | 55.40 | 24.501 | | |
| 5,100.00 | 5,008.47 | 5,693.00 | 5,232.84 | 20.81 | 43.41 | 101.66 | 434.31 | 1,310.94 | 1,343.20 | 1,286.32 | 56.88 | 23.615 | | |
| 5,200.00 | 5,104.19 | 5,763.90 | 5,301.45 | 21.36 | 43.79 | 103.07 | 423.42 | 1,296.83 | 1,332.17 | 1,273.81 | 58.36 | 22.826 | | |
| 5,300.00 | 5,199.91 | 5,834.40 | 5,370.27 | 21.91 | 44.15 | 104.42 | 413.99 | 1,284.77 | 1,324.63 | 1,264.85 | 59.78 | 22.159 | | |
| 5,400.00 | 5,295.64 | 5,919.20 | 5,453.36 | 22.46 | 44.54 | 105.99 | 403.79 | 1,271.24 | 1,319.31 | 1,258.11 | 61.20 | 21.558 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN DD ENCORE 5-12 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,500.00 | 5,391.36 | 6,000.57 | 5,533.38 | 23.02 | 44.90 | 107.44 | 395.72 | 1,258.89 | 1,315.55 | 1,253.01 | 62.54 | 21.036 | | |
| 5,600.00 | 5,487.08 | 6,074.67 | 5,606.53 | 23.58 | 45.20 | 108.70 | 389.35 | 1,248.91 | 1,314.16 | 1,250.37 | 63.79 | 20.601 | | |
| 5,608.76 | 5,495.47 | 6,081.31 | 5,613.09 | 23.62 | 45.23 | 108.82 | 388.82 | 1,248.07 | 1,314.15 | 1,250.26 | 63.90 | 20.567 | CC | |
| 5,700.00 | 5,582.81 | 6,152.25 | 5,683.34 | 24.13 | 45.49 | 109.99 | 383.41 | 1,239.73 | 1,315.08 | 1,250.09 | 64.99 | 20.234 | ES | |
| 5,800.00 | 5,678.53 | 6,237.26 | 5,767.73 | 24.70 | 45.78 | 111.32 | 378.31 | 1,230.94 | 1,317.84 | 1,251.68 | 66.16 | 19.920 | | |
| 5,900.00 | 5,774.25 | 6,324.41 | 5,854.43 | 25.26 | 46.06 | 112.61 | 374.49 | 1,222.95 | 1,322.01 | 1,254.75 | 67.26 | 19.656 | | |
| 6,000.00 | 5,869.98 | 6,404.00 | 5,933.75 | 25.82 | 46.28 | 113.72 | 372.09 | 1,216.86 | 1,327.81 | 1,259.54 | 68.27 | 19.448 | | |
| 6,100.00 | 5,965.70 | 6,484.77 | 6,014.36 | 26.39 | 46.49 | 114.79 | 370.44 | 1,211.99 | 1,335.39 | 1,266.16 | 69.23 | 19.288 | | |
| 6,200.00 | 6,061.42 | 6,566.08 | 6,095.58 | 26.95 | 46.68 | 115.81 | 369.38 | 1,208.33 | 1,344.64 | 1,274.50 | 70.14 | 19.170 | | |
| 6,300.00 | 6,157.15 | 6,656.28 | 6,185.72 | 27.52 | 46.87 | 116.88 | 368.86 | 1,205.38 | 1,355.22 | 1,284.18 | 71.04 | 19.077 | | |
| 6,400.00 | 6,252.87 | 6,743.20 | 6,272.62 | 28.09 | 47.05 | 117.88 | 368.60 | 1,203.09 | 1,366.76 | 1,294.87 | 71.89 | 19.011 | | |
| 6,500.00 | 6,348.59 | 6,833.47 | 6,362.86 | 28.66 | 47.23 | 118.89 | 368.37 | 1,201.32 | 1,379.37 | 1,306.63 | 72.73 | 18.965 | | |
| 6,600.00 | 6,444.32 | 6,930.12 | 6,459.50 | 29.23 | 47.42 | 119.94 | 368.32 | 1,199.72 | 1,392.62 | 1,319.05 | 73.57 | 18.929 | | |
| 6,700.00 | 6,540.04 | 7,020.10 | 6,549.47 | 29.80 | 47.59 | 120.89 | 368.57 | 1,198.54 | 1,406.47 | 1,332.11 | 74.36 | 18.915 | | |
| 6,764.28 | 6,601.58 | 7,078.28 | 6,607.65 | 30.17 | 47.70 | 121.49 | 368.71 | 1,198.01 | 1,415.82 | 1,340.96 | 74.85 | 18.914 | SF | |
| 6,800.00 | 6,635.75 | 7,113.00 | 6,642.37 | 30.37 | 47.77 | 123.85 | 368.77 | 1,197.74 | 1,422.07 | 1,346.94 | 75.13 | 18.928 | | |
| 6,850.00 | 6,683.35 | 7,157.17 | 6,686.54 | 30.66 | 47.85 | 149.64 | 368.82 | 1,197.46 | 1,434.00 | 1,358.53 | 75.47 | 19.000 | | |
| 6,900.00 | 6,730.36 | 7,203.49 | 6,732.85 | 30.94 | 47.94 | 162.61 | 368.89 | 1,197.21 | 1,449.47 | 1,373.68 | 75.79 | 19.125 | | |
| 6,950.00 | 6,776.41 | 7,253.36 | 6,782.73 | 31.21 | 48.03 | 172.82 | 368.98 | 1,196.88 | 1,468.25 | 1,392.17 | 76.09 | 19.297 | | |
| 7,000.00 | 6,821.15 | 7,300.79 | 6,830.15 | 31.47 | 48.12 | -179.11 | 369.08 | 1,196.44 | 1,490.12 | 1,413.77 | 76.35 | 19.518 | | |
| 7,050.00 | 6,864.24 | 7,342.13 | 6,871.49 | 31.73 | 48.20 | -172.48 | 369.18 | 1,196.07 | 1,515.02 | 1,438.47 | 76.55 | 19.791 | | |
| 7,100.00 | 6,905.35 | 7,381.00 | 6,910.36 | 31.97 | 48.27 | -166.77 | 369.28 | 1,195.79 | 1,542.81 | 1,466.10 | 76.71 | 20.111 | | |
| 7,150.00 | 6,944.18 | 7,418.03 | 6,947.39 | 32.21 | 48.35 | -161.58 | 369.36 | 1,195.57 | 1,573.31 | 1,496.47 | 76.84 | 20.475 | | |
| 7,200.00 | 6,980.42 | 7,452.04 | 6,981.40 | 32.45 | 48.41 | -156.61 | 369.40 | 1,195.42 | 1,606.31 | 1,529.38 | 76.93 | 20.880 | | |
| 7,250.00 | 7,013.80 | 7,484.04 | 7,013.40 | 32.68 | 48.47 | -151.63 | 369.41 | 1,195.30 | 1,641.59 | 1,564.61 | 76.98 | 21.324 | | |
| 7,300.00 | 7,044.06 | 7,514.01 | 7,043.37 | 32.91 | 48.52 | -146.44 | 369.47 | 1,195.25 | 1,678.89 | 1,601.89 | 77.00 | 21.803 | | |
| 7,350.00 | 7,070.98 | 7,540.58 | 7,069.94 | 33.15 | 48.57 | -140.84 | 369.58 | 1,195.24 | 1,717.97 | 1,640.98 | 76.99 | 22.315 | | |
| 7,400.00 | 7,094.36 | 7,563.54 | 7,092.90 | 33.39 | 48.61 | -134.64 | 369.72 | 1,195.27 | 1,758.58 | 1,681.64 | 76.94 | 22.857 | | |
| 7,450.00 | 7,114.00 | 7,582.61 | 7,111.97 | 33.65 | 48.64 | -127.68 | 369.87 | 1,195.32 | 1,800.46 | 1,723.60 | 76.86 | 23.426 | | |
| 7,500.00 | 7,129.76 | 7,597.82 | 7,127.18 | 33.93 | 48.67 | -119.90 | 370.00 | 1,195.37 | 1,843.33 | 1,766.59 | 76.75 | 24.018 | | |
| 7,550.00 | 7,141.53 | 7,609.07 | 7,138.43 | 34.22 | 48.69 | -111.36 | 370.11 | 1,195.41 | 1,886.92 | 1,810.30 | 76.61 | 24.629 | | |
| 7,600.00 | 7,149.21 | 7,616.30 | 7,145.66 | 34.55 | 48.70 | -102.31 | 370.18 | 1,195.45 | 1,930.92 | 1,854.46 | 76.46 | 25.254 | | |
| 7,650.00 | 7,152.75 | 7,619.49 | 7,148.85 | 34.90 | 48.70 | -93.17 | 370.21 | 1,195.46 | 1,975.02 | 1,898.73 | 76.29 | 25.889 | | |
| 7,667.38 | 7,153.00 | 7,619.65 | 7,149.01 | 35.04 | 48.70 | -90.06 | 370.21 | 1,195.46 | 1,990.32 | 1,914.10 | 76.22 | 26.112 | | |
| 7,700.00 | 7,153.00 | 7,619.49 | 7,148.85 | 35.29 | 48.70 | -90.05 | 370.21 | 1,195.46 | 2,019.06 | 1,942.96 | 76.10 | 26.530 | | |
| 7,800.00 | 7,153.00 | 7,619.01 | 7,148.36 | 36.22 | 48.70 | -90.02 | 370.21 | 1,195.46 | 2,107.88 | 2,032.11 | 75.77 | 27.821 | | |
| 7,900.00 | 7,153.00 | 7,618.53 | 7,147.89 | 37.35 | 48.70 | -89.99 | 370.20 | 1,195.46 | 2,197.66 | 2,122.19 | 75.46 | 29.122 | | |
| 8,000.00 | 7,153.00 | 7,618.06 | 7,147.42 | 38.67 | 48.70 | -89.96 | 370.20 | 1,195.46 | 2,288.28 | 2,213.09 | 75.19 | 30.433 | | |
| 8,100.00 | 7,153.00 | 7,617.59 | 7,146.95 | 40.16 | 48.70 | -89.94 | 370.19 | 1,195.45 | 2,379.66 | 2,304.71 | 74.95 | 31.751 | | |
| 8,200.00 | 7,153.00 | 7,617.13 | 7,146.48 | 41.81 | 48.70 | -89.91 | 370.19 | 1,195.45 | 2,471.70 | 2,396.98 | 74.73 | 33.077 | | |
| 8,300.00 | 7,153.00 | 7,616.67 | 7,146.03 | 43.59 | 48.70 | -89.88 | 370.18 | 1,195.45 | 2,564.34 | 2,489.81 | 74.53 | 34.408 | | |
| 8,400.00 | 7,153.00 | 7,616.22 | 7,145.57 | 45.47 | 48.70 | -89.85 | 370.18 | 1,195.45 | 2,657.52 | 2,583.17 | 74.35 | 35.745 | | |
| 8,500.00 | 7,153.00 | 7,615.77 | 7,145.12 | 47.45 | 48.70 | -89.83 | 370.17 | 1,195.45 | 2,751.17 | 2,676.98 | 74.18 | 37.086 | | |
| 8,600.00 | 7,153.00 | 7,615.32 | 7,144.68 | 49.51 | 48.70 | -89.80 | 370.17 | 1,195.44 | 2,845.25 | 2,771.22 | 74.04 | 38.431 | | |
| 8,700.00 | 7,153.00 | 7,614.88 | 7,144.24 | 51.64 | 48.69 | -89.77 | 370.16 | 1,195.44 | 2,939.73 | 2,865.83 | 73.90 | 39.780 | | |
| 8,800.00 | 7,153.00 | 7,614.45 | 7,143.81 | 53.82 | 48.69 | -89.75 | 370.16 | 1,195.44 | 3,034.56 | 2,960.78 | 73.78 | 41.131 | | |
| 8,900.00 | 7,153.00 | 7,614.02 | 7,143.37 | 56.06 | 48.69 | -89.72 | 370.15 | 1,195.44 | 3,129.71 | 3,056.04 | 73.67 | 42.485 | | |
| 9,000.00 | 7,153.00 | 7,613.59 | 7,142.95 | 58.34 | 48.69 | -89.69 | 370.15 | 1,195.44 | 3,225.15 | 3,151.59 | 73.56 | 43.841 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN DD MIRACLE 12-12 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 500.00 | 500.00 | 1,693.00 | 1,640.06 | 1.58 | 8.61 | 100.81 | -568.42 | 2,977.81 | 3,246.31 | 3,237.95 | 8.36 | 388.354 | | |
| 600.00 | 600.00 | 1,781.00 | 1,720.89 | 1.94 | 9.30 | 101.11 | -578.30 | 2,944.44 | 3,210.62 | 3,201.50 | 9.12 | 352.005 | | |
| 700.00 | 700.00 | 1,895.02 | 1,825.66 | 2.29 | 10.20 | 101.51 | -590.78 | 2,901.23 | 3,175.06 | 3,165.03 | 10.03 | 316.601 | | |
| 800.00 | 800.00 | 2,032.93 | 1,951.88 | 2.65 | 11.32 | 101.98 | -604.23 | 2,847.33 | 3,138.16 | 3,127.09 | 11.06 | 283.689 | | |
| 900.00 | 900.00 | 2,110.57 | 2,022.92 | 3.01 | 11.95 | 102.24 | -610.97 | 2,816.75 | 3,100.95 | 3,089.15 | 11.80 | 262.701 | | |
| 1,000.00 | 1,000.00 | 2,187.67 | 2,093.72 | 3.37 | 12.58 | 102.49 | -617.22 | 2,786.86 | 3,064.34 | 3,051.79 | 12.55 | 244.167 | | |
| 1,100.00 | 1,100.00 | 2,294.84 | 2,192.18 | 3.73 | 13.45 | 102.84 | -625.98 | 2,745.45 | 3,027.96 | 3,014.52 | 13.44 | 225.266 | | |
| 1,200.00 | 1,200.00 | 2,444.77 | 2,329.43 | 4.09 | 14.69 | 103.32 | -636.02 | 2,685.94 | 2,990.37 | 2,975.84 | 14.53 | 205.814 | | |
| 1,300.00 | 1,300.00 | 2,554.68 | 2,429.21 | 4.45 | 15.63 | 103.71 | -644.35 | 2,640.64 | 2,951.46 | 2,936.01 | 15.45 | 191.015 | | |
| 1,400.00 | 1,400.00 | 2,610.84 | 2,480.26 | 4.80 | 16.11 | 103.91 | -648.50 | 2,617.60 | 2,912.93 | 2,896.80 | 16.13 | 180.569 | | |
| 1,500.00 | 1,500.00 | 2,667.00 | 2,531.68 | 5.16 | 16.58 | 104.12 | -653.03 | 2,595.49 | 2,875.96 | 2,859.14 | 16.82 | 171.001 | | |
| 1,600.00 | 1,600.00 | 2,703.87 | 2,565.64 | 5.52 | 16.87 | 104.26 | -656.24 | 2,581.48 | 2,840.44 | 2,823.02 | 17.42 | 163.056 | | |
| 1,700.00 | 1,700.00 | 2,756.00 | 2,613.85 | 5.88 | 17.29 | 104.47 | -661.09 | 2,562.26 | 2,806.45 | 2,788.35 | 18.10 | 155.076 | | |
| 1,800.00 | 1,800.00 | 2,912.31 | 2,757.67 | 6.24 | 18.56 | 105.15 | -677.57 | 2,503.31 | 2,771.90 | 2,752.61 | 19.29 | 143.680 | | |
| 1,900.00 | 1,900.00 | 3,020.00 | 2,855.88 | 6.60 | 19.47 | 105.65 | -689.56 | 2,460.81 | 2,735.95 | 2,715.67 | 20.28 | 134.923 | | |
| 2,000.00 | 2,000.00 | 3,091.58 | 2,921.35 | 6.95 | 20.06 | 106.00 | -697.44 | 2,432.95 | 2,700.68 | 2,679.59 | 21.09 | 128.046 | | |
| 2,100.00 | 2,100.00 | 3,168.77 | 2,992.17 | 7.31 | 20.70 | 106.36 | -705.75 | 2,403.38 | 2,666.12 | 2,644.19 | 21.94 | 121.542 | | |
| 2,200.00 | 2,200.00 | 3,249.46 | 3,066.37 | 7.67 | 21.36 | 106.75 | -714.33 | 2,372.87 | 2,632.15 | 2,609.35 | 22.80 | 115.448 | | |
| 2,300.00 | 2,300.00 | 3,324.36 | 3,135.50 | 8.03 | 21.96 | 107.11 | -721.68 | 2,345.02 | 2,598.76 | 2,575.12 | 23.63 | 109.968 | | |
| 2,400.00 | 2,400.00 | 3,399.51 | 3,205.35 | 8.39 | 22.54 | 107.43 | -727.82 | 2,318.00 | 2,566.26 | 2,541.81 | 24.45 | 104.946 | | |
| 2,500.00 | 2,499.98 | 3,487.36 | 3,287.43 | 8.75 | 23.20 | 107.84 | -733.00 | 2,287.11 | 2,534.61 | 2,509.30 | 25.31 | 100.125 | | |
| 2,600.00 | 2,599.84 | 3,559.31 | 3,354.78 | 9.11 | 23.74 | 108.81 | -737.61 | 2,262.19 | 2,504.72 | 2,478.60 | 26.12 | 95.875 | | |
| 2,700.00 | 2,699.45 | 3,679.48 | 3,467.29 | 9.46 | 24.64 | 110.11 | -745.36 | 2,220.74 | 2,476.38 | 2,449.22 | 27.15 | 91.198 | | |
| 2,800.00 | 2,798.70 | 3,864.14 | 3,638.53 | 9.82 | 26.08 | 111.96 | -753.08 | 2,152.09 | 2,445.64 | 2,417.21 | 28.43 | 86.025 | | |
| 2,900.00 | 2,897.47 | 3,972.63 | 3,738.51 | 10.18 | 26.96 | 113.39 | -757.02 | 2,110.18 | 2,415.56 | 2,386.11 | 29.45 | 82.022 | | |
| 3,000.00 | 2,995.62 | 4,081.00 | 3,837.51 | 10.55 | 27.87 | 114.94 | -761.87 | 2,066.37 | 2,385.68 | 2,355.15 | 30.53 | 78.134 | | |
| 3,100.00 | 3,093.06 | 4,128.52 | 3,881.00 | 10.94 | 28.26 | 115.92 | -764.36 | 2,047.39 | 2,358.84 | 2,327.41 | 31.43 | 75.055 | | |
| 3,200.00 | 3,189.64 | 4,171.00 | 3,920.29 | 11.34 | 28.61 | 116.81 | -766.86 | 2,031.43 | 2,336.13 | 2,303.80 | 32.34 | 72.245 | | |
| 3,240.86 | 3,228.84 | 4,189.40 | 3,937.38 | 11.50 | 28.76 | 117.17 | -768.03 | 2,024.73 | 2,328.01 | 2,295.29 | 32.72 | 71.151 | | |
| 3,300.00 | 3,285.45 | 4,229.93 | 3,975.04 | 11.75 | 29.07 | 117.64 | -770.85 | 2,010.01 | 2,316.93 | 2,283.59 | 33.34 | 69.486 | | |
| 3,400.00 | 3,381.17 | 4,380.97 | 4,114.02 | 12.19 | 30.31 | 119.53 | -784.09 | 1,952.44 | 2,298.03 | 2,263.19 | 34.83 | 65.970 | | |
| 3,500.00 | 3,476.90 | 4,462.40 | 4,188.25 | 12.63 | 31.00 | 120.59 | -791.95 | 1,919.89 | 2,278.90 | 2,242.83 | 36.07 | 63.185 | | |
| 3,600.00 | 3,572.62 | 4,535.00 | 4,254.42 | 13.09 | 31.63 | 121.55 | -799.46 | 1,890.98 | 2,261.23 | 2,223.94 | 37.29 | 60.641 | | |
| 3,700.00 | 3,668.34 | 4,611.00 | 4,323.66 | 13.56 | 32.28 | 122.59 | -807.95 | 1,860.81 | 2,245.14 | 2,206.58 | 38.56 | 58.225 | | |
| 3,800.00 | 3,764.07 | 4,676.56 | 4,383.57 | 14.04 | 32.83 | 123.48 | -815.26 | 1,835.20 | 2,230.75 | 2,190.96 | 39.79 | 56.069 | | |
| 3,900.00 | 3,859.79 | 4,749.27 | 4,450.37 | 14.52 | 33.43 | 124.46 | -822.90 | 1,807.53 | 2,218.13 | 2,177.07 | 41.06 | 54.027 | | |
| 4,000.00 | 3,955.51 | 4,832.55 | 4,526.94 | 15.02 | 34.11 | 125.59 | -831.92 | 1,776.05 | 2,207.03 | 2,164.64 | 42.39 | 52.060 | | |
| 4,100.00 | 4,051.24 | 5,034.81 | 4,711.65 | 15.52 | 35.83 | 128.38 | -851.16 | 1,696.01 | 2,195.78 | 2,151.39 | 44.38 | 49.474 | | |
| 4,200.00 | 4,146.96 | 5,100.02 | 4,770.63 | 16.03 | 36.41 | 129.28 | -856.22 | 1,668.65 | 2,182.68 | 2,136.99 | 45.69 | 47.774 | | |
| 4,300.00 | 4,242.68 | 5,159.05 | 4,824.31 | 16.54 | 36.92 | 130.11 | -861.31 | 1,644.63 | 2,172.07 | 2,125.10 | 46.96 | 46.250 | | |
| 4,400.00 | 4,338.41 | 5,246.33 | 4,903.77 | 17.06 | 37.68 | 131.33 | -868.82 | 1,609.33 | 2,162.96 | 2,114.57 | 48.40 | 44.694 | | |
| 4,500.00 | 4,434.13 | 5,317.00 | 4,967.83 | 17.59 | 38.30 | 132.36 | -875.96 | 1,580.34 | 2,155.49 | 2,105.73 | 49.76 | 43.317 | | |
| 4,600.00 | 4,529.85 | 5,403.64 | 5,046.06 | 18.11 | 39.07 | 133.64 | -885.64 | 1,544.39 | 2,149.62 | 2,098.37 | 51.25 | 41.945 | | |
| 4,700.00 | 4,625.58 | 5,459.66 | 5,096.81 | 18.65 | 39.56 | 134.46 | -891.86 | 1,521.49 | 2,145.56 | 2,093.03 | 52.53 | 40.845 | | |
| 4,800.00 | 4,721.30 | 5,518.15 | 5,150.19 | 19.18 | 40.06 | 135.31 | -898.39 | 1,498.50 | 2,143.97 | 2,090.17 | 53.80 | 39.851 | | |
| 4,819.73 | 4,740.18 | 5,530.49 | 5,161.49 | 19.29 | 40.16 | 135.49 | -899.80 | 1,493.73 | 2,143.93 | 2,089.88 | 54.05 | 39.664 | CC | |
| 4,900.00 | 4,817.02 | 5,584.00 | 5,210.55 | 19.72 | 40.61 | 136.25 | -905.99 | 1,473.31 | 2,144.64 | 2,089.55 | 55.10 | 38.926 | ES | |
| 5,000.00 | 4,912.74 | 5,646.16 | 5,268.13 | 20.27 | 41.09 | 137.12 | -912.62 | 1,450.84 | 2,147.45 | 2,091.14 | 56.31 | 38.137 | | |
| 5,100.00 | 5,008.47 | 5,712.24 | 5,330.19 | 20.81 | 41.58 | 137.97 | -918.43 | 1,428.93 | 2,152.24 | 2,094.75 | 57.49 | 37.435 | | |
| 5,200.00 | 5,104.19 | 5,760.00 | 5,375.28 | 21.36 | 41.92 | 138.58 | -922.58 | 1,413.72 | 2,159.10 | 2,100.57 | 58.52 | 36.894 | | |
| 5,300.00 | 5,199.91 | 5,830.12 | 5,441.73 | 21.91 | 42.39 | 139.46 | -929.09 | 1,392.32 | 2,168.03 | 2,108.38 | 59.65 | 36.344 | | |
| 5,400.00 | 5,295.64 | 5,963.08 | 5,568.38 | 22.46 | 43.26 | 141.05 | -939.76 | 1,353.31 | 2,177.68 | 2,116.55 | 61.13 | 35.624 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN DD MIRACLE 12-12 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,500.00 | 5,391.36 | 6,025.00 | 5,627.81 | 23.02 | 43.64 | 141.74 | -943.45 | 1,336.33 | 2,187.96 | 2,125.83 | 62.14 | 35.212 | | |
| 5,600.00 | 5,487.08 | 6,100.37 | 5,700.41 | 23.58 | 44.09 | 142.56 | -948.11 | 1,316.61 | 2,199.92 | 2,136.74 | 63.18 | 34.818 | | |
| 5,700.00 | 5,582.81 | 6,174.67 | 5,772.16 | 24.13 | 44.51 | 143.36 | -952.81 | 1,297.93 | 2,213.31 | 2,149.12 | 64.19 | 34.481 | | |
| 5,800.00 | 5,678.53 | 6,263.09 | 5,858.29 | 24.70 | 44.97 | 144.21 | -956.98 | 1,278.40 | 2,227.88 | 2,162.67 | 65.21 | 34.167 | | |
| 5,900.00 | 5,774.25 | 6,336.57 | 5,930.44 | 25.26 | 45.30 | 144.85 | -958.86 | 1,264.63 | 2,243.23 | 2,177.15 | 66.08 | 33.948 | | |
| 6,000.00 | 5,869.98 | 6,402.29 | 5,995.36 | 25.82 | 45.57 | 145.36 | -960.03 | 1,254.50 | 2,260.17 | 2,193.31 | 66.86 | 33.804 | | |
| 6,100.00 | 5,965.70 | 6,467.00 | 6,059.54 | 26.39 | 45.80 | 145.81 | -960.92 | 1,246.28 | 2,278.60 | 2,211.01 | 67.59 | 33.711 | | |
| 6,200.00 | 6,061.42 | 6,540.36 | 6,132.50 | 26.95 | 46.04 | 146.29 | -961.76 | 1,238.73 | 2,298.39 | 2,230.08 | 68.31 | 33.647 | | |
| 6,300.00 | 6,157.15 | 6,616.34 | 6,208.22 | 27.52 | 46.26 | 146.74 | -962.50 | 1,232.51 | 2,319.35 | 2,250.34 | 69.01 | 33.611 | | |
| 6,400.00 | 6,252.87 | 6,696.52 | 6,288.23 | 28.09 | 46.47 | 147.17 | -963.13 | 1,227.32 | 2,341.21 | 2,271.52 | 69.69 | 33.596 SF | | |
| 6,500.00 | 6,348.59 | 6,780.17 | 6,371.78 | 28.66 | 46.67 | 147.59 | -963.52 | 1,223.25 | 2,363.80 | 2,293.44 | 70.36 | 33.597 | | |
| 6,600.00 | 6,444.32 | 6,866.00 | 6,457.55 | 29.23 | 46.87 | 147.99 | -963.76 | 1,220.07 | 2,386.96 | 2,315.94 | 71.02 | 33.610 | | |
| 6,700.00 | 6,540.04 | 6,941.24 | 6,532.76 | 29.80 | 47.03 | 148.32 | -964.08 | 1,218.04 | 2,410.85 | 2,339.24 | 71.62 | 33.662 | | |
| 6,764.28 | 6,601.58 | 6,998.00 | 6,589.51 | 30.17 | 47.15 | 148.56 | -964.56 | 1,216.93 | 2,426.71 | 2,354.68 | 72.03 | 33.689 | | |
| 6,800.00 | 6,635.75 | 7,019.37 | 6,610.88 | 30.37 | 47.20 | 161.17 | -964.78 | 1,216.59 | 2,436.18 | 2,363.97 | 72.21 | 33.736 | | |
| 6,850.00 | 6,683.35 | 7,062.44 | 6,653.94 | 30.66 | 47.28 | 177.40 | -965.25 | 1,215.98 | 2,451.31 | 2,378.82 | 72.49 | 33.815 | | |
| 6,900.00 | 6,730.36 | 7,104.97 | 6,696.46 | 30.94 | 47.37 | -169.21 | -965.75 | 1,215.48 | 2,468.47 | 2,395.72 | 72.74 | 33.934 | | |
| 6,950.00 | 6,776.41 | 7,147.30 | 6,738.78 | 31.21 | 47.45 | -158.62 | -966.27 | 1,215.07 | 2,487.51 | 2,414.55 | 72.97 | 34.091 | | |
| 7,000.00 | 6,821.15 | 7,189.65 | 6,781.13 | 31.47 | 47.53 | -150.18 | -966.83 | 1,214.70 | 2,508.30 | 2,435.14 | 73.16 | 34.284 | | |
| 7,050.00 | 6,864.24 | 7,230.44 | 6,821.91 | 31.73 | 47.61 | -143.25 | -967.39 | 1,214.39 | 2,530.69 | 2,457.36 | 73.33 | 34.512 | | |
| 7,100.00 | 6,905.35 | 7,269.84 | 6,861.31 | 31.97 | 47.68 | -137.36 | -967.94 | 1,214.13 | 2,554.55 | 2,481.09 | 73.46 | 34.774 | | |
| 7,150.00 | 6,944.18 | 7,309.28 | 6,900.75 | 32.21 | 47.75 | -132.18 | -968.35 | 1,214.13 | 2,579.75 | 2,506.18 | 73.57 | 35.066 | | |
| 7,200.00 | 6,980.42 | 7,345.65 | 6,937.12 | 32.45 | 47.81 | -127.47 | -968.52 | 1,214.46 | 2,606.14 | 2,532.50 | 73.64 | 35.388 | | |
| 7,250.00 | 7,013.80 | 7,378.62 | 6,970.08 | 32.68 | 47.86 | -123.04 | -968.50 | 1,215.02 | 2,633.63 | 2,559.94 | 73.69 | 35.738 | | |
| 7,300.00 | 7,044.06 | 7,407.54 | 6,999.00 | 32.91 | 47.91 | -118.77 | -968.35 | 1,215.73 | 2,662.09 | 2,588.38 | 73.71 | 36.116 | | |
| 7,350.00 | 7,070.98 | 7,432.20 | 7,023.64 | 33.15 | 47.94 | -114.58 | -968.16 | 1,216.45 | 2,691.40 | 2,617.70 | 73.70 | 36.519 | | |
| 7,400.00 | 7,094.36 | 7,453.10 | 7,044.53 | 33.39 | 47.97 | -110.43 | -967.96 | 1,217.14 | 2,721.41 | 2,647.74 | 73.67 | 36.940 | | |
| 7,450.00 | 7,114.00 | 7,470.15 | 7,061.57 | 33.65 | 47.99 | -106.30 | -967.76 | 1,217.76 | 2,751.97 | 2,678.34 | 73.63 | 37.375 | | |
| 7,500.00 | 7,129.76 | 7,483.28 | 7,074.68 | 33.93 | 48.01 | -102.18 | -967.59 | 1,218.27 | 2,782.90 | 2,709.32 | 73.58 | 37.821 | | |
| 7,550.00 | 7,141.53 | 7,492.45 | 7,083.84 | 34.22 | 48.02 | -98.11 | -967.47 | 1,218.64 | 2,814.02 | 2,740.49 | 73.52 | 38.274 | | |
| 7,600.00 | 7,149.21 | 7,497.67 | 7,089.06 | 34.55 | 48.03 | -94.12 | -967.39 | 1,218.85 | 2,845.12 | 2,771.66 | 73.46 | 38.729 | | |
| 7,650.00 | 7,152.75 | 7,498.99 | 7,090.38 | 34.90 | 48.03 | -90.25 | -967.38 | 1,218.91 | 2,876.00 | 2,802.60 | 73.40 | 39.184 | | |
| 7,667.38 | 7,153.00 | 7,498.55 | 7,089.94 | 35.04 | 48.03 | -88.95 | -967.38 | 1,218.89 | 2,886.64 | 2,813.27 | 73.37 | 39.342 | | |
| 7,700.00 | 7,153.00 | 7,497.30 | 7,088.69 | 35.29 | 48.03 | -88.91 | -967.40 | 1,218.84 | 2,906.67 | 2,833.34 | 73.34 | 39.635 | | |
| 7,800.00 | 7,153.00 | 7,493.53 | 7,084.93 | 36.22 | 48.02 | -88.82 | -967.45 | 1,218.68 | 2,969.47 | 2,896.20 | 73.27 | 40.526 | | |
| 7,900.00 | 7,153.00 | 7,489.88 | 7,081.28 | 37.35 | 48.02 | -88.73 | -967.50 | 1,218.53 | 3,034.26 | 2,960.98 | 73.28 | 41.408 | | |
| 8,000.00 | 7,153.00 | 7,486.32 | 7,077.73 | 38.67 | 48.01 | -88.64 | -967.55 | 1,218.39 | 3,100.92 | 3,027.58 | 73.34 | 42.282 | | |
| 8,100.00 | 7,153.00 | 7,482.87 | 7,074.28 | 40.16 | 48.01 | -88.55 | -967.60 | 1,218.25 | 3,169.32 | 3,095.88 | 73.45 | 43.152 | | |
| 8,200.00 | 7,153.00 | 7,479.52 | 7,070.93 | 41.81 | 48.00 | -88.47 | -967.64 | 1,218.12 | 3,239.37 | 3,165.78 | 73.59 | 44.019 | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN DD MIRACLE 13-12 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|----------|------------------------|--------------|------------------------|-------------------------|--------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside | Offset Wellbore Centre | | Distance | | Minimum Separation | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 600.00 | 600.00 | 1,786.80 | 1,693.69 | 1.94 | 10.69 | 104.75 | -785.37 | 2,982.81 | 3,280.05 | 3,268.88 | 11.17 | 293.677 | | |
| 700.00 | 700.00 | 1,865.00 | 1,762.68 | 2.29 | 11.41 | 105.26 | -805.18 | 2,951.78 | 3,246.20 | 3,234.11 | 12.09 | 268.397 | | |
| 800.00 | 800.00 | 1,941.70 | 1,830.29 | 2.65 | 12.12 | 105.77 | -825.09 | 2,921.51 | 3,212.99 | 3,199.96 | 13.03 | 246.506 | | |
| 900.00 | 900.00 | 2,003.39 | 1,884.78 | 3.01 | 12.70 | 106.19 | -841.30 | 2,897.57 | 3,180.77 | 3,166.89 | 13.88 | 229.114 | | |
| 1,000.00 | 1,000.00 | 2,060.85 | 1,935.50 | 3.37 | 13.23 | 106.60 | -857.06 | 2,875.65 | 3,149.72 | 3,135.01 | 14.71 | 214.054 | | |
| 1,100.00 | 1,100.00 | 2,129.00 | 1,996.00 | 3.73 | 13.85 | 107.08 | -875.78 | 2,850.46 | 3,120.07 | 3,104.43 | 15.64 | 199.550 | | |
| 1,200.00 | 1,200.00 | 2,165.57 | 2,028.63 | 4.09 | 14.17 | 107.34 | -885.80 | 2,837.36 | 3,091.74 | 3,075.41 | 16.33 | 189.364 | | |
| 1,300.00 | 1,300.00 | 2,218.00 | 2,075.61 | 4.45 | 14.64 | 107.71 | -900.29 | 2,819.14 | 3,065.00 | 3,047.86 | 17.14 | 178.818 | | |
| 1,400.00 | 1,400.00 | 2,293.99 | 2,143.73 | 4.80 | 15.31 | 108.26 | -921.80 | 2,793.22 | 3,039.44 | 3,021.30 | 18.14 | 167.569 | | |
| 1,500.00 | 1,500.00 | 2,357.22 | 2,200.29 | 5.16 | 15.86 | 108.74 | -940.33 | 2,771.86 | 3,014.82 | 2,995.76 | 19.06 | 158.215 | | |
| 1,600.00 | 1,600.00 | 2,422.53 | 2,258.72 | 5.52 | 16.44 | 109.24 | -959.99 | 2,750.31 | 2,991.51 | 2,971.51 | 20.00 | 149.586 | | |
| 1,700.00 | 1,700.00 | 2,514.01 | 2,340.41 | 5.88 | 17.25 | 109.97 | -988.28 | 2,720.37 | 2,969.16 | 2,948.00 | 21.16 | 140.309 | | |
| 1,800.00 | 1,800.00 | 2,652.57 | 2,463.37 | 6.24 | 18.50 | 111.10 | -1,031.48 | 2,673.36 | 2,946.27 | 2,923.55 | 22.72 | 129.650 | | |
| 1,900.00 | 1,900.00 | 2,710.93 | 2,515.11 | 6.60 | 19.03 | 111.58 | -1,049.59 | 2,653.35 | 2,923.67 | 2,900.02 | 23.65 | 123.608 | | |
| 2,000.00 | 2,000.00 | 2,766.86 | 2,565.11 | 6.95 | 19.53 | 112.04 | -1,066.65 | 2,634.98 | 2,902.68 | 2,878.12 | 24.56 | 118.187 | | |
| 2,100.00 | 2,100.00 | 2,838.00 | 2,628.87 | 7.31 | 20.15 | 112.62 | -1,088.61 | 2,612.31 | 2,883.17 | 2,857.59 | 25.59 | 112.685 | | |
| 2,200.00 | 2,200.00 | 2,946.89 | 2,725.98 | 7.67 | 21.11 | 113.55 | -1,123.09 | 2,577.12 | 2,864.12 | 2,837.17 | 26.94 | 106.309 | | |
| 2,300.00 | 2,300.00 | 3,023.80 | 2,794.04 | 8.03 | 21.81 | 114.23 | -1,148.41 | 2,551.81 | 2,845.50 | 2,817.44 | 28.06 | 101.414 | | |
| 2,400.00 | 2,400.00 | 3,120.83 | 2,879.71 | 8.39 | 22.70 | 115.11 | -1,180.76 | 2,519.75 | 2,827.55 | 2,798.19 | 29.36 | 96.301 | | |
| 2,500.00 | 2,499.98 | 3,250.87 | 2,994.61 | 8.75 | 23.90 | 116.05 | -1,223.43 | 2,476.31 | 2,810.69 | 2,779.74 | 30.95 | 90.807 | | |
| 2,600.00 | 2,599.84 | 3,355.04 | 3,086.66 | 9.11 | 24.86 | 117.37 | -1,256.20 | 2,440.16 | 2,794.37 | 2,762.04 | 32.33 | 86.428 | | |
| 2,700.00 | 2,699.45 | 3,478.14 | 3,195.66 | 9.46 | 26.00 | 118.91 | -1,293.88 | 2,397.14 | 2,780.12 | 2,746.24 | 33.87 | 82.075 | | |
| 2,800.00 | 2,798.70 | 3,582.90 | 3,288.83 | 9.82 | 26.95 | 120.27 | -1,324.40 | 2,360.23 | 2,767.71 | 2,732.46 | 35.25 | 78.508 | | |
| 2,900.00 | 2,897.47 | 3,699.35 | 3,392.13 | 10.18 | 28.03 | 121.79 | -1,357.40 | 2,317.80 | 2,756.74 | 2,719.99 | 36.75 | 75.016 | | |
| 3,000.00 | 2,995.62 | 3,767.28 | 3,452.26 | 10.55 | 28.66 | 122.75 | -1,376.73 | 2,292.80 | 2,748.58 | 2,710.71 | 37.88 | 72.568 | | |
| 3,100.00 | 3,093.06 | 3,871.88 | 3,544.36 | 10.94 | 29.66 | 124.17 | -1,407.74 | 2,254.10 | 2,744.00 | 2,704.66 | 39.34 | 69.747 | | |
| 3,200.00 | 3,189.64 | 3,951.65 | 3,613.50 | 11.34 | 30.44 | 125.29 | -1,432.38 | 2,222.88 | 2,741.67 | 2,701.02 | 40.65 | 67.450 | | |
| 3,208.63 | 3,197.93 | 3,956.72 | 3,617.89 | 11.37 | 30.49 | 125.36 | -1,433.97 | 2,220.90 | 2,741.65 | 2,700.91 | 40.75 | 67.288 | CC | |
| 3,240.86 | 3,228.84 | 3,975.54 | 3,634.18 | 11.50 | 30.68 | 125.62 | -1,439.88 | 2,213.55 | 2,741.87 | 2,700.76 | 41.11 | 66.697 | ES | |
| 3,300.00 | 3,285.45 | 4,011.23 | 3,665.06 | 11.75 | 31.04 | 126.13 | -1,451.18 | 2,199.68 | 2,743.01 | 2,701.22 | 41.79 | 65.637 | | |
| 3,400.00 | 3,381.17 | 4,076.00 | 3,721.13 | 12.19 | 31.68 | 127.05 | -1,471.83 | 2,174.68 | 2,746.53 | 2,703.54 | 42.98 | 63.899 | | |
| 3,500.00 | 3,476.90 | 4,131.63 | 3,769.39 | 12.63 | 32.23 | 127.83 | -1,489.63 | 2,153.49 | 2,752.06 | 2,707.98 | 44.08 | 62.433 | | |
| 3,600.00 | 3,572.62 | 4,187.12 | 3,817.70 | 13.09 | 32.77 | 128.61 | -1,507.35 | 2,132.73 | 2,759.66 | 2,714.49 | 45.16 | 61.107 | | |
| 3,700.00 | 3,668.34 | 4,252.00 | 3,874.69 | 13.56 | 33.39 | 129.50 | -1,527.77 | 2,109.40 | 2,769.46 | 2,723.16 | 46.31 | 59.805 | | |
| 3,800.00 | 3,764.07 | 4,313.22 | 3,928.83 | 14.04 | 33.96 | 130.32 | -1,546.70 | 2,087.99 | 2,781.11 | 2,733.72 | 47.39 | 58.684 | | |
| 3,900.00 | 3,859.79 | 4,386.15 | 3,993.39 | 14.52 | 34.64 | 131.30 | -1,569.11 | 2,062.52 | 2,794.24 | 2,745.66 | 48.57 | 57.525 | | |
| 4,000.00 | 3,955.51 | 4,491.34 | 4,085.67 | 15.02 | 35.64 | 132.72 | -1,602.19 | 2,024.41 | 2,808.43 | 2,758.37 | 50.06 | 56.097 | | |
| 4,100.00 | 4,051.24 | 4,599.19 | 4,180.40 | 15.52 | 36.66 | 134.16 | -1,634.84 | 1,984.52 | 2,823.02 | 2,771.45 | 51.56 | 54.749 | | |
| 4,200.00 | 4,146.96 | 4,748.68 | 4,312.45 | 16.03 | 38.07 | 136.11 | -1,676.91 | 1,928.47 | 2,837.52 | 2,784.12 | 53.39 | 53.142 | | |
| 4,300.00 | 4,242.68 | 4,886.68 | 4,435.32 | 16.54 | 39.34 | 137.85 | -1,712.10 | 1,876.47 | 2,852.07 | 2,797.00 | 55.07 | 51.788 | | |
| 4,400.00 | 4,338.41 | 4,944.07 | 4,485.88 | 17.06 | 39.89 | 138.58 | -1,727.09 | 1,853.82 | 2,867.33 | 2,811.25 | 56.08 | 51.133 | | |
| 4,500.00 | 4,434.13 | 5,007.81 | 4,541.81 | 17.59 | 40.50 | 139.40 | -1,744.32 | 1,828.58 | 2,884.39 | 2,827.26 | 57.12 | 50.493 | | |
| 4,600.00 | 4,529.85 | 5,067.30 | 4,593.76 | 18.11 | 41.08 | 140.17 | -1,760.87 | 1,804.80 | 2,903.11 | 2,845.00 | 58.12 | 49.952 | | |
| 4,700.00 | 4,625.58 | 5,116.74 | 4,637.03 | 18.65 | 41.56 | 140.80 | -1,774.87 | 1,785.39 | 2,923.79 | 2,864.79 | 59.00 | 49.560 | | |
| 4,800.00 | 4,721.30 | 5,165.64 | 4,680.00 | 19.18 | 42.03 | 141.42 | -1,788.86 | 1,766.71 | 2,946.44 | 2,886.61 | 59.83 | 49.244 | | |
| 4,900.00 | 4,817.02 | 5,224.00 | 4,731.63 | 19.72 | 42.58 | 142.14 | -1,805.65 | 1,745.29 | 2,971.07 | 2,910.34 | 60.73 | 48.922 | | |
| 5,000.00 | 4,912.74 | 5,252.23 | 4,756.70 | 20.27 | 42.84 | 142.48 | -1,813.90 | 1,735.29 | 2,997.66 | 2,936.35 | 61.31 | 48.897 | | |
| 5,100.00 | 5,008.47 | 5,286.95 | 4,787.56 | 20.81 | 43.15 | 142.90 | -1,824.37 | 1,723.29 | 3,026.45 | 2,964.54 | 61.91 | 48.885 | | |
| 5,200.00 | 5,104.19 | 5,425.05 | 4,911.46 | 21.36 | 44.38 | 144.49 | -1,864.67 | 1,677.58 | 3,056.46 | 2,993.00 | 63.46 | 48.161 | | |
| 5,300.00 | 5,199.91 | 5,491.00 | 4,970.68 | 21.91 | 44.96 | 145.24 | -1,883.49 | 1,655.47 | 3,086.68 | 3,022.36 | 64.32 | 47.991 | | |
| 5,400.00 | 5,295.64 | 5,537.13 | 5,011.78 | 22.46 | 45.38 | 145.77 | -1,897.23 | 1,639.66 | 3,118.37 | 3,053.39 | 64.98 | 47.988 | | |
| 5,500.00 | 5,391.36 | 5,599.88 | 5,067.34 | 23.02 | 45.95 | 146.49 | -1,916.43 | 1,617.72 | 3,151.45 | 3,085.66 | 65.79 | 47.902 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| | | | | | | | | | | | | | | | | | | | |
|---|------------------------------|------------------------------|------------------------------|-------------------------|----------------------|-------------------------|------------------------|---------------------|---------------------|---------------------|-------------------------------|--------------------------------|----------------------------------|--------------------------|--|-----------------------|--|----------------|--|
| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN DD MIRACLE 13-12 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | Offset Site Error: | 0.00 usft | | | | | | |
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | Offset Well Error: | 0.00 usft | | | | | | |
| Reference | | | | Offset | | | Semi Major Axis | | Highside | | Offset Wellbore Centre | | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Reference (usft) | Offset (usft) | Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | | | |
| 5,600.00 | 5,487.08 | 5,667.00 | 5,126.79 | 23.58 | 46.58 | 147.26 | | | -1,937.16 | 1,594.46 | 3,185.81 | 3,119.19 | 66.63 | 47.816 | | | | | |
| 5,700.00 | 5,582.81 | 5,752.73 | 5,202.67 | 24.13 | 47.37 | 148.22 | | | -1,963.66 | 1,564.63 | 3,221.12 | 3,153.49 | 67.64 | 47.625 | | | | | |
| 5,800.00 | 5,678.53 | 5,920.43 | 5,351.85 | 24.70 | 48.90 | 150.04 | | | -2,012.76 | 1,505.85 | 3,256.16 | 3,186.74 | 69.42 | 46.905 SF | | | | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN VERT KNESS 1 - Wellbore #1 - Design #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-INC | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 0.00 | 0.00 | 6.00 | 6.00 | 0.00 | 0.07 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | | | | | |
| 100.00 | 100.00 | 106.00 | 106.00 | 0.14 | 1.34 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,250.44 | 1.48 | 2,198.741 | | |
| 200.00 | 200.00 | 206.00 | 206.00 | 0.50 | 3.61 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,247.80 | 4.11 | 790.368 | | |
| 300.00 | 300.00 | 306.00 | 306.00 | 0.86 | 5.69 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,245.37 | 6.55 | 496.547 | | |
| 400.00 | 400.00 | 406.00 | 406.00 | 1.22 | 7.73 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,242.97 | 8.95 | 363.386 | | |
| 500.00 | 500.00 | 506.00 | 506.00 | 1.58 | 9.76 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,240.58 | 11.34 | 286.864 | | |
| 600.00 | 600.00 | 606.00 | 606.00 | 1.94 | 11.78 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,238.20 | 13.72 | 237.070 | | |
| 700.00 | 700.00 | 706.00 | 706.00 | 2.29 | 13.80 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,235.82 | 16.09 | 202.048 | | |
| 800.00 | 800.00 | 806.00 | 806.00 | 2.65 | 15.82 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,233.45 | 18.47 | 176.062 | | |
| 900.00 | 900.00 | 906.00 | 906.00 | 3.01 | 17.83 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,231.07 | 20.84 | 156.009 | | |
| 1,000.00 | 1,000.00 | 1,006.00 | 1,006.00 | 3.37 | 19.85 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,228.70 | 23.22 | 140.063 | | |
| 1,100.00 | 1,100.00 | 1,106.00 | 1,106.00 | 3.73 | 21.86 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,226.33 | 25.59 | 127.077 | | |
| 1,200.00 | 1,200.00 | 1,206.00 | 1,206.00 | 4.09 | 23.88 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,223.95 | 27.96 | 116.297 | | |
| 1,300.00 | 1,300.00 | 1,306.00 | 1,306.00 | 4.45 | 25.89 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,221.58 | 30.33 | 107.205 | | |
| 1,400.00 | 1,400.00 | 1,406.00 | 1,406.00 | 4.80 | 27.90 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,219.21 | 32.70 | 99.432 | | |
| 1,500.00 | 1,500.00 | 1,506.00 | 1,506.00 | 5.16 | 29.91 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,216.84 | 35.08 | 92.711 | | |
| 1,600.00 | 1,600.00 | 1,606.00 | 1,606.00 | 5.52 | 31.93 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,214.47 | 37.45 | 86.841 | | |
| 1,700.00 | 1,700.00 | 1,706.00 | 1,706.00 | 5.88 | 33.94 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,212.10 | 39.82 | 81.671 | | |
| 1,800.00 | 1,800.00 | 1,806.00 | 1,806.00 | 6.24 | 35.95 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,209.73 | 42.19 | 77.082 | | |
| 1,900.00 | 1,900.00 | 1,906.00 | 1,906.00 | 6.60 | 37.96 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,207.36 | 44.56 | 72.981 | | |
| 2,000.00 | 2,000.00 | 2,006.00 | 2,006.00 | 6.95 | 39.97 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,204.99 | 46.93 | 69.295 | | |
| 2,100.00 | 2,100.00 | 2,106.00 | 2,106.00 | 7.31 | 41.99 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,202.62 | 49.30 | 65.964 | | |
| 2,200.00 | 2,200.00 | 2,206.00 | 2,206.00 | 7.67 | 44.00 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,200.25 | 51.67 | 62.938 | | |
| 2,300.00 | 2,300.00 | 2,306.00 | 2,306.00 | 8.03 | 46.01 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,197.88 | 54.04 | 60.177 | | |
| 2,400.00 | 2,400.00 | 2,406.00 | 2,406.00 | 8.39 | 48.02 | -24.96 | 2,948.31 | -1,372.03 | 3,251.92 | 3,195.51 | 56.41 | 57.649 | | |
| 2,500.00 | 2,499.98 | 2,505.98 | 2,505.98 | 8.75 | 50.03 | -25.58 | 2,948.31 | -1,372.03 | 3,250.34 | 3,191.56 | 58.78 | 55.298 | | |
| 2,600.00 | 2,599.84 | 2,605.84 | 2,605.84 | 9.11 | 52.04 | -25.66 | 2,948.31 | -1,372.03 | 3,245.62 | 3,184.48 | 61.14 | 53.081 | | |
| 2,700.00 | 2,699.45 | 2,705.45 | 2,705.45 | 9.46 | 54.04 | -25.80 | 2,948.31 | -1,372.03 | 3,237.77 | 3,174.26 | 63.51 | 50.983 | | |
| 2,800.00 | 2,798.70 | 2,804.70 | 2,804.70 | 9.82 | 56.04 | -25.99 | 2,948.31 | -1,372.03 | 3,226.79 | 3,160.93 | 65.86 | 48.995 | | |
| 2,900.00 | 2,897.47 | 2,903.47 | 2,903.47 | 10.18 | 58.03 | -26.24 | 2,948.31 | -1,372.03 | 3,212.71 | 3,144.50 | 68.20 | 47.105 | | |
| 3,000.00 | 2,995.62 | 3,001.62 | 3,001.62 | 10.55 | 60.00 | -26.54 | 2,948.31 | -1,372.03 | 3,195.55 | 3,125.02 | 70.53 | 45.305 | | |
| 3,100.00 | 3,093.06 | 3,099.06 | 3,099.06 | 10.94 | 61.96 | -26.91 | 2,948.31 | -1,372.03 | 3,175.36 | 3,102.51 | 72.85 | 43.586 | | |
| 3,200.00 | 3,189.64 | 3,195.64 | 3,195.64 | 11.34 | 63.90 | -27.34 | 2,948.31 | -1,372.03 | 3,152.16 | 3,077.01 | 75.16 | 41.942 | | |
| 3,240.86 | 3,228.84 | 3,234.84 | 3,234.84 | 11.50 | 64.69 | -27.53 | 2,948.31 | -1,372.03 | 3,141.83 | 3,065.74 | 76.09 | 41.289 | | |
| 3,300.00 | 3,285.45 | 3,291.45 | 3,291.45 | 11.75 | 65.83 | -27.68 | 2,948.31 | -1,372.03 | 3,126.53 | 3,049.08 | 77.45 | 40.370 | | |
| 3,400.00 | 3,381.17 | 3,387.17 | 3,387.17 | 12.19 | 67.76 | -27.92 | 2,948.31 | -1,372.03 | 3,100.70 | 3,020.96 | 79.74 | 38.886 | | |
| 3,500.00 | 3,476.90 | 3,482.90 | 3,482.90 | 12.63 | 69.68 | -28.17 | 2,948.31 | -1,372.03 | 3,074.93 | 2,992.89 | 82.04 | 37.483 | | |
| 3,600.00 | 3,572.62 | 3,578.62 | 3,578.62 | 13.09 | 71.61 | -28.43 | 2,948.31 | -1,372.03 | 3,049.21 | 2,964.87 | 84.34 | 36.154 | | |
| 3,700.00 | 3,668.34 | 3,674.34 | 3,674.34 | 13.56 | 73.53 | -28.69 | 2,948.31 | -1,372.03 | 3,023.55 | 2,936.90 | 86.65 | 34.895 | | |
| 3,800.00 | 3,764.07 | 3,770.07 | 3,770.07 | 14.04 | 75.46 | -28.95 | 2,948.31 | -1,372.03 | 2,997.95 | 2,908.99 | 88.96 | 33.700 | | |
| 3,900.00 | 3,859.79 | 3,865.79 | 3,865.79 | 14.52 | 77.38 | -29.22 | 2,948.31 | -1,372.03 | 2,972.41 | 2,881.13 | 91.28 | 32.564 | | |
| 4,000.00 | 3,955.51 | 3,961.51 | 3,961.51 | 15.02 | 79.31 | -29.49 | 2,948.31 | -1,372.03 | 2,946.94 | 2,853.34 | 93.60 | 31.484 | | |
| 4,100.00 | 4,051.24 | 4,057.24 | 4,057.24 | 15.52 | 81.23 | -29.76 | 2,948.31 | -1,372.03 | 2,921.53 | 2,825.60 | 95.93 | 30.456 | | |
| 4,200.00 | 4,146.96 | 4,152.96 | 4,152.96 | 16.03 | 83.16 | -30.05 | 2,948.31 | -1,372.03 | 2,896.18 | 2,797.92 | 98.26 | 29.475 | | |
| 4,300.00 | 4,242.68 | 4,248.68 | 4,248.68 | 16.54 | 85.08 | -30.33 | 2,948.31 | -1,372.03 | 2,870.91 | 2,770.31 | 100.59 | 28.540 | | |
| 4,400.00 | 4,338.41 | 4,344.41 | 4,344.41 | 17.06 | 87.01 | -30.62 | 2,948.31 | -1,372.03 | 2,845.70 | 2,742.76 | 102.93 | 27.646 | | |
| 4,500.00 | 4,434.13 | 4,440.13 | 4,440.13 | 17.59 | 88.93 | -30.92 | 2,948.31 | -1,372.03 | 2,820.56 | 2,715.29 | 105.28 | 26.792 | | |
| 4,600.00 | 4,529.85 | 4,535.85 | 4,535.85 | 18.11 | 90.86 | -31.22 | 2,948.31 | -1,372.03 | 2,795.50 | 2,687.88 | 107.62 | 25.975 | | |
| 4,700.00 | 4,625.58 | 4,631.58 | 4,631.58 | 18.65 | 92.78 | -31.53 | 2,948.31 | -1,372.03 | 2,770.51 | 2,660.54 | 109.97 | 25.193 | | |
| 4,800.00 | 4,721.30 | 4,727.30 | 4,727.30 | 19.18 | 94.71 | -31.84 | 2,948.31 | -1,372.03 | 2,745.60 | 2,633.27 | 112.33 | 24.443 | | |
| 4,900.00 | 4,817.02 | 4,823.02 | 4,823.02 | 19.72 | 96.63 | -32.16 | 2,948.31 | -1,372.03 | 2,720.77 | 2,606.09 | 114.69 | 23.724 | | |
| 5,000.00 | 4,912.74 | 4,918.74 | 4,918.74 | 20.27 | 98.56 | -32.48 | 2,948.31 | -1,372.03 | 2,696.02 | 2,578.98 | 117.05 | 23.034 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN VERT KNESS 1 - Wellbore #1 - Design #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-INC | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,100.00 | 5,008.47 | 5,014.47 | 5,014.47 | 20.81 | 100.48 | -32.81 | 2,948.31 | -1,372.03 | 2,671.36 | 2,551.95 | 119.41 | 22.371 | | |
| 5,200.00 | 5,104.19 | 5,110.19 | 5,110.19 | 21.36 | 102.41 | -33.14 | 2,948.31 | -1,372.03 | 2,646.78 | 2,525.00 | 121.78 | 21.734 | | |
| 5,300.00 | 5,199.91 | 5,205.91 | 5,205.91 | 21.91 | 104.33 | -33.48 | 2,948.31 | -1,372.03 | 2,622.29 | 2,498.14 | 124.15 | 21.121 | | |
| 5,400.00 | 5,295.64 | 5,301.64 | 5,301.64 | 22.46 | 106.26 | -33.83 | 2,948.31 | -1,372.03 | 2,597.90 | 2,471.37 | 126.53 | 20.532 | | |
| 5,500.00 | 5,391.36 | 5,397.36 | 5,397.36 | 23.02 | 108.18 | -34.19 | 2,948.31 | -1,372.03 | 2,573.59 | 2,444.68 | 128.91 | 19.964 | | |
| 5,600.00 | 5,487.08 | 5,493.08 | 5,493.08 | 23.58 | 110.11 | -34.55 | 2,948.31 | -1,372.03 | 2,549.39 | 2,418.09 | 131.30 | 19.417 | | |
| 5,700.00 | 5,582.81 | 5,588.81 | 5,588.81 | 24.13 | 112.03 | -34.91 | 2,948.31 | -1,372.03 | 2,525.28 | 2,391.60 | 133.68 | 18.890 | | |
| 5,800.00 | 5,678.53 | 5,684.53 | 5,684.53 | 24.70 | 113.96 | -35.29 | 2,948.31 | -1,372.03 | 2,501.27 | 2,365.20 | 136.07 | 18.382 | | |
| 5,900.00 | 5,774.25 | 5,780.25 | 5,780.25 | 25.26 | 115.88 | -35.67 | 2,948.31 | -1,372.03 | 2,477.37 | 2,338.90 | 138.47 | 17.891 | | |
| 6,000.00 | 5,869.98 | 5,875.98 | 5,875.98 | 25.82 | 117.81 | -36.06 | 2,948.31 | -1,372.03 | 2,453.58 | 2,312.71 | 140.87 | 17.418 | | |
| 6,100.00 | 5,965.70 | 5,971.70 | 5,971.70 | 26.39 | 119.73 | -36.45 | 2,948.31 | -1,372.03 | 2,429.90 | 2,286.63 | 143.27 | 16.960 | | |
| 6,200.00 | 6,061.42 | 6,067.42 | 6,067.42 | 26.95 | 121.66 | -36.86 | 2,948.31 | -1,372.03 | 2,406.34 | 2,260.66 | 145.68 | 16.518 | | |
| 6,300.00 | 6,157.15 | 6,163.15 | 6,163.15 | 27.52 | 123.58 | -37.27 | 2,948.31 | -1,372.03 | 2,382.89 | 2,234.80 | 148.09 | 16.091 | | |
| 6,400.00 | 6,252.87 | 6,258.87 | 6,258.87 | 28.09 | 125.51 | -37.68 | 2,948.31 | -1,372.03 | 2,359.57 | 2,209.06 | 150.50 | 15.678 | | |
| 6,500.00 | 6,348.59 | 6,354.59 | 6,354.59 | 28.66 | 127.43 | -38.11 | 2,948.31 | -1,372.03 | 2,336.37 | 2,183.44 | 152.92 | 15.278 | | |
| 6,600.00 | 6,444.32 | 6,450.32 | 6,450.32 | 29.23 | 129.36 | -38.55 | 2,948.31 | -1,372.03 | 2,313.29 | 2,157.95 | 155.35 | 14.891 | | |
| 6,700.00 | 6,540.04 | 6,546.04 | 6,546.04 | 29.80 | 131.28 | -38.99 | 2,948.31 | -1,372.03 | 2,290.36 | 2,132.58 | 157.78 | 14.516 | | |
| 6,764.28 | 6,601.58 | 6,607.58 | 6,607.58 | 30.17 | 132.52 | -39.28 | 2,948.31 | -1,372.03 | 2,275.68 | 2,116.34 | 159.34 | 14.282 | | |
| 6,800.00 | 6,635.75 | 6,641.75 | 6,641.75 | 30.37 | 133.21 | -27.02 | 2,948.31 | -1,372.03 | 2,266.89 | 2,106.69 | 160.20 | 14.150 | | |
| 6,850.00 | 6,683.35 | 6,689.35 | 6,689.35 | 30.66 | 134.17 | -11.16 | 2,948.31 | -1,372.03 | 2,252.39 | 2,091.02 | 161.38 | 13.957 | | |
| 6,900.00 | 6,730.36 | 6,736.36 | 6,736.36 | 30.94 | 135.11 | 2.04 | 2,948.31 | -1,372.03 | 2,235.44 | 2,072.93 | 162.51 | 13.756 | | |
| 6,950.00 | 6,776.41 | 6,782.41 | 6,782.41 | 31.21 | 136.04 | 12.67 | 2,948.31 | -1,372.03 | 2,216.14 | 2,052.56 | 163.58 | 13.548 | | |
| 7,000.00 | 6,821.15 | 6,827.15 | 6,827.15 | 31.47 | 136.94 | 21.39 | 2,948.31 | -1,372.03 | 2,194.67 | 2,030.07 | 164.59 | 13.334 | | |
| 7,050.00 | 6,864.24 | 6,870.24 | 6,870.24 | 31.73 | 137.80 | 28.84 | 2,948.31 | -1,372.03 | 2,171.20 | 2,005.67 | 165.54 | 13.116 | | |
| 7,100.00 | 6,905.35 | 6,911.35 | 6,911.35 | 31.97 | 138.63 | 35.52 | 2,948.31 | -1,372.03 | 2,145.98 | 1,979.57 | 166.41 | 12.896 | | |
| 7,150.00 | 6,944.18 | 6,950.18 | 6,950.18 | 32.21 | 139.41 | 41.74 | 2,948.31 | -1,372.03 | 2,119.25 | 1,952.05 | 167.20 | 12.675 | | |
| 7,200.00 | 6,980.42 | 6,986.42 | 6,986.42 | 32.45 | 140.14 | 47.69 | 2,948.31 | -1,372.03 | 2,091.29 | 1,923.38 | 167.91 | 12.455 | | |
| 7,250.00 | 7,013.80 | 7,019.80 | 7,019.80 | 32.68 | 140.81 | 53.47 | 2,948.31 | -1,372.03 | 2,062.43 | 1,893.88 | 168.55 | 12.237 | | |
| 7,300.00 | 7,044.06 | 7,050.06 | 7,050.06 | 32.91 | 141.42 | 59.11 | 2,948.31 | -1,372.03 | 2,032.99 | 1,863.89 | 169.11 | 12.022 | | |
| 7,350.00 | 7,070.98 | 7,076.98 | 7,076.98 | 33.15 | 141.96 | 64.56 | 2,948.31 | -1,372.03 | 2,003.32 | 1,833.73 | 169.59 | 11.812 | | |
| 7,400.00 | 7,094.36 | 7,100.36 | 7,100.36 | 33.39 | 142.43 | 69.76 | 2,948.31 | -1,372.03 | 1,973.79 | 1,803.76 | 170.02 | 11.609 | | |
| 7,450.00 | 7,114.00 | 7,120.00 | 7,120.00 | 33.65 | 142.83 | 74.62 | 2,948.31 | -1,372.03 | 1,944.75 | 1,774.35 | 170.40 | 11.413 | | |
| 7,500.00 | 7,129.76 | 7,135.76 | 7,135.76 | 33.93 | 143.14 | 79.05 | 2,948.31 | -1,372.03 | 1,916.58 | 1,745.84 | 170.74 | 11.225 | | |
| 7,550.00 | 7,141.53 | 7,147.53 | 7,147.53 | 34.22 | 143.38 | 82.98 | 2,948.31 | -1,372.03 | 1,889.63 | 1,718.57 | 171.06 | 11.047 | | |
| 7,600.00 | 7,149.21 | 7,155.21 | 7,155.21 | 34.55 | 143.53 | 86.36 | 2,948.31 | -1,372.03 | 1,864.24 | 1,692.88 | 171.37 | 10.879 | | |
| 7,650.00 | 7,152.75 | 7,158.75 | 7,158.75 | 34.90 | 143.60 | 89.16 | 2,948.31 | -1,372.03 | 1,840.73 | 1,669.06 | 171.67 | 10.723 | | |
| 7,667.38 | 7,153.00 | 7,159.00 | 7,159.00 | 35.04 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,833.05 | 1,661.27 | 171.77 | 10.671 | | |
| 7,700.00 | 7,153.00 | 7,159.00 | 7,159.00 | 35.29 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,819.11 | 1,647.12 | 172.00 | 10.576 | | |
| 7,800.00 | 7,153.00 | 7,159.00 | 7,159.00 | 36.22 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,779.45 | 1,606.49 | 172.97 | 10.288 | | |
| 7,900.00 | 7,153.00 | 7,159.00 | 7,159.00 | 37.35 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,744.63 | 1,570.27 | 174.36 | 10.006 | | |
| 8,000.00 | 7,153.00 | 7,159.00 | 7,159.00 | 38.67 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,714.94 | 1,538.79 | 176.15 | 9.736 | | |
| 8,100.00 | 7,153.00 | 7,159.00 | 7,159.00 | 40.16 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,690.65 | 1,512.37 | 178.28 | 9.483 | | |
| 8,200.00 | 7,153.00 | 7,159.00 | 7,159.00 | 41.81 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,672.00 | 1,491.30 | 180.70 | 9.253 | | |
| 8,300.00 | 7,153.00 | 7,159.00 | 7,159.00 | 43.59 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,659.17 | 1,475.85 | 183.33 | 9.050 | | |
| 8,400.00 | 7,153.00 | 7,159.00 | 7,159.00 | 45.47 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,652.31 | 1,466.23 | 186.09 | 8.879 | | |
| 8,463.60 | 7,153.00 | 7,159.00 | 7,159.00 | 46.73 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,651.09 | 1,463.20 | 187.89 | 8.788 | CC | |
| 8,500.00 | 7,153.00 | 7,159.00 | 7,159.00 | 47.45 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,651.49 | 1,462.58 | 188.91 | 8.742 | ES | |
| 8,600.00 | 7,153.00 | 7,159.00 | 7,159.00 | 49.51 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,656.71 | 1,464.99 | 191.72 | 8.641 | | |
| 8,700.00 | 7,153.00 | 7,159.00 | 7,159.00 | 51.64 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,667.93 | 1,473.45 | 194.48 | 8.577 | | |
| 8,800.00 | 7,153.00 | 7,159.00 | 7,159.00 | 53.82 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,685.01 | 1,487.89 | 197.12 | 8.548 | SF | |
| 8,900.00 | 7,153.00 | 7,159.00 | 7,159.00 | 56.06 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,707.79 | 1,508.17 | 199.62 | 8.555 | | |
| 9,000.00 | 7,153.00 | 7,159.00 | 7,159.00 | 58.34 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,736.04 | 1,534.10 | 201.94 | 8.597 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - ABDN VERT KNESS 1 - Wellbore #1 - Design #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-INC | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 9,100.00 | 7,153.00 | 7,159.00 | 7,159.00 | 60.66 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,769.49 | 1,565.42 | 204.07 | 8.671 | | |
| 9,200.00 | 7,153.00 | 7,159.00 | 7,159.00 | 63.01 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,807.87 | 1,601.85 | 206.01 | 8.775 | | |
| 9,300.00 | 7,153.00 | 7,159.00 | 7,159.00 | 65.40 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,850.86 | 1,643.10 | 207.76 | 8.909 | | |
| 9,400.00 | 7,153.00 | 7,159.00 | 7,159.00 | 67.81 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,898.14 | 1,688.84 | 209.31 | 9.069 | | |
| 9,500.00 | 7,153.00 | 7,159.00 | 7,159.00 | 70.24 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 1,949.42 | 1,738.74 | 210.68 | 9.253 | | |
| 9,600.00 | 7,153.00 | 7,159.00 | 7,159.00 | 72.70 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,004.37 | 1,792.49 | 211.88 | 9.460 | | |
| 9,700.00 | 7,153.00 | 7,159.00 | 7,159.00 | 75.17 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,062.71 | 1,849.79 | 212.93 | 9.687 | | |
| 9,800.00 | 7,153.00 | 7,159.00 | 7,159.00 | 77.67 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,124.16 | 1,910.33 | 213.83 | 9.934 | | |
| 9,900.00 | 7,153.00 | 7,159.00 | 7,159.00 | 80.17 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,188.46 | 1,973.85 | 214.61 | 10.197 | | |
| 10,000.00 | 7,153.00 | 7,159.00 | 7,159.00 | 82.69 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,255.36 | 2,040.08 | 215.28 | 10.476 | | |
| 10,100.00 | 7,153.00 | 7,159.00 | 7,159.00 | 85.23 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,324.63 | 2,108.78 | 215.85 | 10.770 | | |
| 10,200.00 | 7,153.00 | 7,159.00 | 7,159.00 | 87.77 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,396.08 | 2,179.75 | 216.33 | 11.076 | | |
| 10,300.00 | 7,153.00 | 7,159.00 | 7,159.00 | 90.33 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,469.51 | 2,252.78 | 216.73 | 11.394 | | |
| 10,400.00 | 7,153.00 | 7,159.00 | 7,159.00 | 92.89 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,544.75 | 2,327.68 | 217.07 | 11.723 | | |
| 10,500.00 | 7,153.00 | 7,159.00 | 7,159.00 | 95.47 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,621.65 | 2,404.30 | 217.35 | 12.062 | | |
| 10,600.00 | 7,153.00 | 7,159.00 | 7,159.00 | 98.05 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,700.06 | 2,482.48 | 217.58 | 12.410 | | |
| 10,700.00 | 7,153.00 | 7,159.00 | 7,159.00 | 100.64 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,779.86 | 2,562.09 | 217.76 | 12.766 | | |
| 10,800.00 | 7,153.00 | 7,159.00 | 7,159.00 | 103.24 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,860.92 | 2,643.01 | 217.91 | 13.129 | | |
| 10,900.00 | 7,153.00 | 7,159.00 | 7,159.00 | 105.84 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 2,943.16 | 2,725.13 | 218.03 | 13.499 | | |
| 11,000.00 | 7,153.00 | 7,159.00 | 7,159.00 | 108.45 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 3,026.46 | 2,808.34 | 218.11 | 13.876 | | |
| 11,100.00 | 7,153.00 | 7,159.00 | 7,159.00 | 111.07 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 3,110.74 | 2,892.57 | 218.18 | 14.258 | | |
| 11,200.00 | 7,153.00 | 7,159.00 | 7,159.00 | 113.69 | 143.61 | 90.00 | 2,948.31 | -1,372.03 | 3,195.94 | 2,977.72 | 218.22 | 14.645 | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-10H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|------------------|---------------|--------------|--------------|------------------------|------------------------|-------------------------|---------------------------|-------------------|--|---------|--|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | | | |
| Reference | | | | Offset | | Semi Major Axis | | Highside | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Reference (usft) | Offset (usft) | Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 22.80 | 72.86 | 30.63 | 79.04 | 79.04 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.14 | 0.14 | 22.80 | 72.86 | 30.63 | 79.04 | 78.75 | 0.29 | 275.600 | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.50 | 0.50 | 22.80 | 72.86 | 30.63 | 79.04 | 78.03 | 1.00 | 78.743 | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 0.86 | 0.86 | 22.80 | 72.86 | 30.63 | 79.04 | 77.32 | 1.72 | 45.933 CC | | | |
| 400.00 | 400.00 | 399.19 | 399.17 | 1.22 | 1.21 | 1.22 | 1.21 | 23.99 | 72.67 | 32.34 | 79.54 | 77.12 | 2.43 | 32.774 ES | | | |
| 500.00 | 500.00 | 498.13 | 497.97 | 1.58 | 1.56 | 1.58 | 1.56 | 27.44 | 72.10 | 37.44 | 81.27 | 78.13 | 3.13 | 25.931 | | | |
| 600.00 | 600.00 | 597.04 | 596.52 | 1.94 | 1.92 | 1.94 | 1.92 | 32.72 | 71.18 | 45.73 | 84.68 | 80.82 | 3.85 | 21.985 | | | |
| 700.00 | 700.00 | 696.61 | 695.68 | 2.29 | 2.29 | 2.29 | 2.29 | 38.01 | 70.17 | 54.85 | 89.16 | 84.58 | 4.58 | 19.479 | | | |
| 800.00 | 800.00 | 796.19 | 794.83 | 2.65 | 2.67 | 2.65 | 2.67 | 42.77 | 69.15 | 63.96 | 94.34 | 89.03 | 5.30 | 17.786 | | | |
| 900.00 | 900.00 | 895.76 | 893.98 | 3.01 | 3.05 | 3.01 | 3.05 | 47.00 | 68.14 | 73.07 | 100.09 | 94.06 | 6.03 | 16.599 | | | |
| 1,000.00 | 1,000.00 | 995.34 | 993.13 | 3.37 | 3.43 | 3.37 | 3.43 | 50.76 | 67.12 | 82.18 | 106.33 | 99.58 | 6.75 | 15.743 | | | |
| 1,100.00 | 1,100.00 | 1,094.91 | 1,092.29 | 3.73 | 3.82 | 3.73 | 3.82 | 54.09 | 66.11 | 91.29 | 112.98 | 105.50 | 7.48 | 15.109 | | | |
| 1,200.00 | 1,200.00 | 1,194.49 | 1,191.44 | 4.09 | 4.20 | 4.09 | 4.20 | 57.04 | 65.10 | 100.40 | 119.97 | 111.77 | 8.20 | 14.630 | | | |
| 1,300.00 | 1,300.00 | 1,294.07 | 1,290.59 | 4.45 | 4.59 | 4.45 | 4.59 | 59.67 | 64.08 | 109.52 | 127.24 | 118.31 | 8.92 | 14.262 | | | |
| 1,400.00 | 1,400.00 | 1,393.64 | 1,389.74 | 4.80 | 4.97 | 4.80 | 4.97 | 62.00 | 63.07 | 118.63 | 134.74 | 125.10 | 9.64 | 13.975 | | | |
| 1,500.00 | 1,500.00 | 1,493.22 | 1,488.90 | 5.16 | 5.36 | 5.16 | 5.36 | 64.09 | 62.06 | 127.74 | 142.45 | 132.09 | 10.36 | 13.748 | | | |
| 1,600.00 | 1,600.00 | 1,592.79 | 1,588.05 | 5.52 | 5.75 | 5.52 | 5.75 | 65.96 | 61.04 | 136.85 | 150.32 | 139.24 | 11.08 | 13.566 | | | |
| 1,700.00 | 1,700.00 | 1,692.37 | 1,687.20 | 5.88 | 6.13 | 5.88 | 6.13 | 67.64 | 60.03 | 145.96 | 158.34 | 146.54 | 11.80 | 13.419 | | | |
| 1,800.00 | 1,800.00 | 1,791.94 | 1,786.35 | 6.24 | 6.52 | 6.24 | 6.52 | 69.17 | 59.01 | 155.08 | 166.49 | 153.97 | 12.52 | 13.299 | | | |
| 1,900.00 | 1,900.00 | 1,891.52 | 1,885.50 | 6.60 | 6.91 | 6.60 | 6.91 | 70.54 | 58.00 | 164.19 | 174.73 | 161.50 | 13.24 | 13.200 | | | |
| 2,000.00 | 2,000.00 | 1,991.09 | 1,984.66 | 6.95 | 7.30 | 6.95 | 7.30 | 71.80 | 56.99 | 173.30 | 183.07 | 169.12 | 13.96 | 13.118 | | | |
| 2,100.00 | 2,100.00 | 2,090.67 | 2,083.81 | 7.31 | 7.69 | 7.31 | 7.69 | 72.94 | 55.97 | 182.41 | 191.49 | 176.82 | 14.67 | 13.049 | | | |
| 2,200.00 | 2,200.00 | 2,190.24 | 2,182.96 | 7.67 | 8.07 | 7.67 | 8.07 | 73.99 | 54.96 | 191.52 | 199.98 | 184.59 | 15.39 | 12.991 | | | |
| 2,300.00 | 2,300.00 | 2,289.82 | 2,282.11 | 8.03 | 8.46 | 8.03 | 8.46 | 74.95 | 53.95 | 200.64 | 208.53 | 192.42 | 16.11 | 12.943 | | | |
| 2,400.00 | 2,400.00 | 2,389.39 | 2,381.27 | 8.39 | 8.85 | 8.39 | 8.85 | 75.84 | 52.93 | 209.75 | 217.13 | 200.30 | 16.83 | 12.901 | | | |
| 2,500.00 | 2,499.98 | 2,488.93 | 2,480.38 | 8.75 | 9.24 | 8.75 | 9.24 | 76.32 | 51.92 | 218.86 | 225.37 | 207.82 | 17.54 | 12.845 | | | |
| 2,600.00 | 2,599.84 | 2,588.32 | 2,579.35 | 9.11 | 9.63 | 9.11 | 9.63 | 77.17 | 50.91 | 227.95 | 232.98 | 214.72 | 18.25 | 12.764 | | | |
| 2,700.00 | 2,699.45 | 2,687.43 | 2,678.04 | 9.46 | 10.01 | 9.46 | 10.01 | 80.70 | 49.90 | 237.02 | 240.27 | 221.31 | 18.95 | 12.676 | | | |
| 2,800.00 | 2,798.70 | 2,786.14 | 2,776.33 | 9.82 | 10.40 | 9.82 | 10.40 | 83.85 | 48.89 | 246.05 | 247.67 | 228.02 | 19.65 | 12.601 | | | |
| 2,900.00 | 2,897.47 | 2,884.34 | 2,874.11 | 10.18 | 10.78 | 10.18 | 10.78 | 87.53 | 47.89 | 255.04 | 255.69 | 235.33 | 20.36 | 12.561 | | | |
| 3,000.00 | 2,995.62 | 2,981.91 | 2,971.27 | 10.55 | 11.16 | 10.55 | 11.16 | 91.65 | 46.90 | 263.97 | 264.90 | 243.83 | 21.07 | 12.575 | | | |
| 3,100.00 | 3,093.06 | 3,078.72 | 3,067.66 | 10.94 | 11.54 | 10.94 | 11.54 | 96.10 | 45.91 | 272.83 | 275.91 | 254.12 | 21.79 | 12.663 | | | |
| 3,200.00 | 3,189.64 | 3,174.66 | 3,163.20 | 11.34 | 11.91 | 11.34 | 11.91 | 100.75 | 44.94 | 281.60 | 289.32 | 266.79 | 22.53 | 12.842 | | | |
| 3,240.86 | 3,228.84 | 3,213.58 | 3,201.95 | 11.50 | 12.07 | 11.50 | 12.07 | 102.67 | 44.54 | 285.17 | 295.62 | 272.78 | 22.84 | 12.945 | | | |
| 3,300.00 | 3,285.45 | 3,269.79 | 3,257.93 | 11.75 | 12.29 | 11.75 | 12.29 | 105.56 | 43.97 | 290.31 | 305.51 | 282.23 | 23.29 | 13.119 | | | |
| 3,400.00 | 3,381.17 | 3,364.84 | 3,352.57 | 12.19 | 12.66 | 12.19 | 12.66 | 110.04 | 43.00 | 299.01 | 323.93 | 299.87 | 24.06 | 13.462 | | | |
| 3,500.00 | 3,476.90 | 3,459.89 | 3,447.22 | 12.63 | 13.03 | 12.63 | 13.03 | 114.05 | 42.03 | 307.71 | 344.18 | 319.33 | 24.84 | 13.853 | | | |
| 3,600.00 | 3,572.62 | 3,554.94 | 3,541.87 | 13.09 | 13.40 | 13.09 | 13.40 | 117.63 | 41.07 | 316.40 | 365.94 | 340.31 | 25.63 | 14.278 | | | |
| 3,700.00 | 3,668.34 | 3,649.99 | 3,636.51 | 13.56 | 13.77 | 13.56 | 13.77 | 120.81 | 40.10 | 325.10 | 388.97 | 362.55 | 26.42 | 14.723 | | | |
| 3,800.00 | 3,764.07 | 3,745.04 | 3,731.16 | 14.04 | 14.14 | 14.04 | 14.14 | 123.64 | 39.13 | 333.80 | 413.06 | 385.85 | 27.21 | 15.182 | | | |
| 3,900.00 | 3,859.79 | 3,840.09 | 3,825.80 | 14.52 | 14.51 | 14.52 | 14.51 | 126.16 | 38.16 | 342.50 | 438.03 | 410.03 | 27.99 | 15.647 | | | |
| 4,000.00 | 3,955.51 | 3,935.14 | 3,920.45 | 15.02 | 14.88 | 15.02 | 14.88 | 128.42 | 37.20 | 351.19 | 463.73 | 434.95 | 28.78 | 16.112 | | | |
| 4,100.00 | 4,051.24 | 4,030.19 | 4,015.10 | 15.52 | 15.26 | 15.52 | 15.26 | 130.45 | 36.23 | 359.89 | 490.06 | 460.49 | 29.57 | 16.575 | | | |
| 4,200.00 | 4,146.96 | 4,125.24 | 4,109.74 | 16.03 | 15.63 | 16.03 | 15.63 | 132.27 | 35.26 | 368.59 | 516.91 | 486.56 | 30.35 | 17.032 | | | |
| 4,300.00 | 4,242.68 | 4,220.29 | 4,204.39 | 16.54 | 16.00 | 16.54 | 16.00 | 133.92 | 34.29 | 377.29 | 544.22 | 513.09 | 31.13 | 17.481 | | | |
| 4,400.00 | 4,338.41 | 4,315.34 | 4,299.03 | 17.06 | 16.37 | 17.06 | 16.37 | 135.41 | 33.32 | 385.99 | 571.91 | 539.99 | 31.91 | 17.921 | | | |
| 4,500.00 | 4,434.13 | 4,410.39 | 4,393.68 | 17.59 | 16.74 | 17.59 | 16.74 | 136.76 | 32.36 | 394.68 | 599.93 | 567.23 | 32.69 | 18.350 | | | |
| 4,600.00 | 4,529.85 | 4,505.44 | 4,488.33 | 18.11 | 17.11 | 18.11 | 17.11 | 138.00 | 31.39 | 403.38 | 628.23 | 594.76 | 33.47 | 18.769 | | | |
| 4,700.00 | 4,625.58 | 4,600.49 | 4,582.97 | 18.65 | 17.48 | 18.65 | 17.48 | 139.13 | 30.42 | 412.08 | 656.79 | 622.54 | 34.25 | 19.177 | | | |
| 4,800.00 | 4,721.30 | 4,695.54 | 4,677.62 | 19.18 | 17.86 | 19.18 | 17.86 | 140.17 | 29.45 | 420.78 | 685.57 | 650.54 | 35.03 | 19.573 | | | |
| 4,900.00 | 4,817.02 | 4,790.59 | 4,772.27 | 19.72 | 18.23 | 19.72 | 18.23 | 141.12 | 28.49 | 429.47 | 714.54 | 678.73 | 35.80 | 19.957 | | | |
| 5,000.00 | 4,912.74 | 4,885.64 | 4,866.91 | 20.27 | 18.60 | 20.27 | 18.60 | 142.00 | 27.52 | 438.17 | 743.68 | 707.10 | 36.58 | 20.330 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-10H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,100.00 | 5,008.47 | 4,980.69 | 4,961.56 | 20.81 | 18.97 | 142.82 | 26.55 | 446.87 | 772.96 | 735.61 | 37.36 | 20.692 | | |
| 5,200.00 | 5,104.19 | 5,075.74 | 5,056.20 | 21.36 | 19.34 | 143.57 | 25.58 | 455.57 | 802.39 | 764.26 | 38.13 | 21.042 | | |
| 5,300.00 | 5,199.91 | 5,170.79 | 5,150.85 | 21.91 | 19.71 | 144.28 | 24.62 | 464.27 | 831.93 | 793.02 | 38.91 | 21.382 | | |
| 5,400.00 | 5,295.64 | 5,265.84 | 5,245.50 | 22.46 | 20.08 | 144.93 | 23.65 | 472.96 | 861.58 | 821.90 | 39.68 | 21.712 | | |
| 5,500.00 | 5,391.36 | 5,360.89 | 5,340.14 | 23.02 | 20.45 | 145.54 | 22.68 | 481.66 | 891.33 | 850.87 | 40.46 | 22.031 | | |
| 5,600.00 | 5,487.08 | 5,455.94 | 5,434.79 | 23.58 | 20.83 | 146.12 | 21.71 | 490.36 | 921.17 | 879.93 | 41.23 | 22.340 | | |
| 5,700.00 | 5,582.81 | 5,550.99 | 5,529.44 | 24.13 | 21.20 | 146.65 | 20.75 | 499.06 | 951.08 | 909.07 | 42.01 | 22.640 | | |
| 5,800.00 | 5,678.53 | 5,646.04 | 5,624.08 | 24.70 | 21.57 | 147.16 | 19.78 | 507.75 | 981.07 | 938.28 | 42.78 | 22.931 | | |
| 5,900.00 | 5,774.25 | 5,741.09 | 5,718.73 | 25.26 | 21.94 | 147.63 | 18.81 | 516.45 | 1,011.12 | 967.56 | 43.56 | 23.212 | | |
| 6,000.00 | 5,869.98 | 5,836.14 | 5,813.37 | 25.82 | 22.31 | 148.08 | 17.84 | 525.15 | 1,041.23 | 996.90 | 44.33 | 23.486 | | |
| 6,100.00 | 5,965.70 | 5,931.19 | 5,908.02 | 26.39 | 22.68 | 148.50 | 16.87 | 533.85 | 1,071.40 | 1,026.29 | 45.11 | 23.751 | | |
| 6,200.00 | 6,061.42 | 6,026.24 | 6,002.67 | 26.95 | 23.06 | 148.90 | 15.91 | 542.55 | 1,101.62 | 1,055.73 | 45.89 | 24.008 | | |
| 6,300.00 | 6,157.15 | 6,121.29 | 6,097.31 | 27.52 | 23.43 | 149.28 | 14.94 | 551.24 | 1,131.88 | 1,085.22 | 46.66 | 24.257 | | |
| 6,400.00 | 6,252.87 | 6,216.34 | 6,191.96 | 28.09 | 23.80 | 149.64 | 13.97 | 559.94 | 1,162.19 | 1,114.75 | 47.44 | 24.499 | | |
| 6,500.00 | 6,348.59 | 6,311.39 | 6,286.60 | 28.66 | 24.17 | 149.98 | 13.00 | 568.64 | 1,192.53 | 1,144.32 | 48.21 | 24.734 | | |
| 6,600.00 | 6,444.32 | 6,406.44 | 6,381.25 | 29.23 | 24.54 | 150.30 | 12.04 | 577.34 | 1,222.91 | 1,173.92 | 48.99 | 24.963 | | |
| 6,700.00 | 6,540.04 | 6,501.49 | 6,475.90 | 29.80 | 24.91 | 150.61 | 11.07 | 586.03 | 1,253.33 | 1,203.56 | 49.77 | 25.184 | | |
| 6,764.28 | 6,601.58 | 7,413.72 | 7,141.37 | 30.17 | 27.55 | 175.11 | -0.48 | 106.74 | 1,266.99 | 1,217.49 | 49.50 | 25.595 | | |
| 6,800.00 | 6,635.75 | 7,486.30 | 7,147.81 | 30.37 | 28.13 | -170.39 | -1.18 | 34.50 | 1,262.13 | 1,211.59 | 50.54 | 24.971 | | |
| 6,850.00 | 6,683.35 | 7,483.50 | 7,147.22 | 30.66 | 28.11 | -156.26 | -1.15 | 37.29 | 1,256.82 | 1,205.57 | 51.25 | 24.522 | | |
| 6,900.00 | 6,730.36 | 7,514.05 | 7,148.00 | 30.94 | 28.39 | -143.43 | -1.43 | 6.75 | 1,253.72 | 1,201.53 | 52.19 | 24.024 | | |
| 6,950.00 | 6,776.41 | 7,527.62 | 7,148.00 | 31.21 | 28.52 | -134.13 | -1.54 | -6.82 | 1,252.43 | 1,199.52 | 52.91 | 23.669 | | |
| 6,960.00 | 6,785.47 | 7,530.84 | 7,148.00 | 31.26 | 28.56 | -132.52 | -1.57 | -10.03 | 1,252.39 | 1,199.34 | 53.06 | 23.605 | | |
| 7,000.00 | 6,821.15 | 7,545.34 | 7,148.00 | 31.47 | 28.70 | -126.78 | -1.70 | -24.53 | 1,252.95 | 1,199.34 | 53.61 | 23.370 | | |
| 7,050.00 | 6,864.24 | 7,567.05 | 7,148.00 | 31.73 | 28.92 | -120.80 | -1.89 | -46.24 | 1,255.10 | 1,200.81 | 54.29 | 23.120 | | |
| 7,100.00 | 6,905.35 | 7,592.61 | 7,148.00 | 31.97 | 29.18 | -115.75 | -2.11 | -71.80 | 1,258.65 | 1,203.71 | 54.94 | 22.909 | | |
| 7,150.00 | 6,944.18 | 7,621.82 | 7,148.00 | 32.21 | 29.51 | -111.36 | -2.37 | -101.00 | 1,263.34 | 1,207.71 | 55.63 | 22.711 | | |
| 7,200.00 | 6,980.42 | 7,654.45 | 7,148.00 | 32.45 | 29.91 | -107.47 | -2.66 | -133.63 | 1,268.87 | 1,212.54 | 56.34 | 22.523 | | |
| 7,250.00 | 7,013.80 | 7,690.25 | 7,148.00 | 32.68 | 30.35 | -103.99 | -2.97 | -169.44 | 1,274.95 | 1,217.89 | 57.06 | 22.343 | | |
| 7,300.00 | 7,044.06 | 7,728.96 | 7,148.00 | 32.91 | 30.87 | -100.88 | -3.31 | -208.14 | 1,281.26 | 1,223.38 | 57.87 | 22.139 | | |
| 7,350.00 | 7,070.98 | 7,770.28 | 7,148.00 | 33.15 | 31.45 | -98.14 | -3.67 | -249.46 | 1,287.50 | 1,228.75 | 58.75 | 21.915 | | |
| 7,400.00 | 7,094.36 | 7,813.89 | 7,148.00 | 33.39 | 32.08 | -95.76 | -4.06 | -293.07 | 1,293.40 | 1,233.69 | 59.71 | 21.663 | | |
| 7,450.00 | 7,114.00 | 7,859.46 | 7,148.00 | 33.65 | 32.80 | -93.76 | -4.45 | -338.64 | 1,298.69 | 1,237.91 | 60.78 | 21.368 | | |
| 7,500.00 | 7,129.76 | 7,906.65 | 7,148.00 | 33.93 | 33.54 | -92.16 | -4.87 | -385.83 | 1,303.17 | 1,241.24 | 61.93 | 21.043 | | |
| 7,550.00 | 7,141.53 | 7,955.10 | 7,148.00 | 34.22 | 34.37 | -90.96 | -5.29 | -434.28 | 1,306.64 | 1,243.43 | 63.21 | 20.671 | | |
| 7,600.00 | 7,149.21 | 8,004.43 | 7,148.00 | 34.55 | 35.22 | -90.17 | -5.73 | -483.61 | 1,308.97 | 1,244.40 | 64.57 | 20.273 | | |
| 7,650.00 | 7,152.75 | 8,054.28 | 7,148.00 | 34.90 | 36.13 | -89.81 | -6.16 | -533.45 | 1,310.08 | 1,244.04 | 66.04 | 19.837 | | |
| 7,667.38 | 7,153.00 | 8,071.66 | 7,148.00 | 35.04 | 36.45 | -89.78 | -6.32 | -550.83 | 1,310.17 | 1,243.60 | 66.57 | 19.682 | | |
| 7,700.00 | 7,153.00 | 8,104.28 | 7,148.00 | 35.29 | 37.05 | -89.78 | -6.60 | -583.45 | 1,310.18 | 1,242.61 | 67.57 | 19.389 | | |
| 7,800.00 | 7,153.00 | 8,204.28 | 7,148.00 | 36.22 | 38.99 | -89.78 | -7.48 | -683.45 | 1,310.24 | 1,239.37 | 70.87 | 18.487 | | |
| 7,900.00 | 7,153.00 | 8,304.28 | 7,148.00 | 37.35 | 41.01 | -89.78 | -8.36 | -783.44 | 1,310.30 | 1,235.87 | 74.43 | 17.604 | | |
| 8,000.00 | 7,153.00 | 8,404.28 | 7,148.00 | 38.67 | 43.12 | -89.78 | -9.23 | -883.44 | 1,310.36 | 1,232.15 | 78.21 | 16.754 | | |
| 8,100.00 | 7,153.00 | 8,504.28 | 7,148.00 | 40.16 | 45.29 | -89.78 | -10.11 | -983.43 | 1,310.42 | 1,228.24 | 82.18 | 15.945 | | |
| 8,200.00 | 7,153.00 | 8,604.28 | 7,148.00 | 41.81 | 47.51 | -89.78 | -10.99 | -1,083.43 | 1,310.48 | 1,224.16 | 86.32 | 15.182 | | |
| 8,300.00 | 7,153.00 | 8,704.28 | 7,148.00 | 43.59 | 49.79 | -89.78 | -11.86 | -1,183.43 | 1,310.54 | 1,219.94 | 90.59 | 14.466 | | |
| 8,400.00 | 7,153.00 | 8,804.28 | 7,148.00 | 45.47 | 52.11 | -89.78 | -12.74 | -1,283.42 | 1,310.59 | 1,215.60 | 94.99 | 13.797 | | |
| 8,500.00 | 7,153.00 | 8,904.28 | 7,148.00 | 47.45 | 54.46 | -89.78 | -13.62 | -1,383.42 | 1,310.65 | 1,211.16 | 99.49 | 13.173 | | |
| 8,600.00 | 7,153.00 | 9,004.28 | 7,148.00 | 49.51 | 56.85 | -89.78 | -14.50 | -1,483.41 | 1,310.71 | 1,206.62 | 104.09 | 12.592 | | |
| 8,700.00 | 7,153.00 | 9,104.28 | 7,148.00 | 51.64 | 59.27 | -89.78 | -15.37 | -1,583.41 | 1,310.77 | 1,202.00 | 108.77 | 12.051 | | |
| 8,800.00 | 7,153.00 | 9,204.28 | 7,148.00 | 53.82 | 61.71 | -89.78 | -16.25 | -1,683.41 | 1,310.83 | 1,197.32 | 113.51 | 11.548 | | |
| 8,900.00 | 7,153.00 | 9,304.28 | 7,148.00 | 56.06 | 64.17 | -89.78 | -17.13 | -1,783.40 | 1,310.89 | 1,192.57 | 118.32 | 11.079 | | |
| 9,000.00 | 7,153.00 | 9,404.28 | 7,148.00 | 58.34 | 66.66 | -89.78 | -18.00 | -1,883.40 | 1,310.94 | 1,187.76 | 123.18 | 10.642 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-10H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|--|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | | |
| 9,100.00 | 7,153.00 | 9,504.28 | 7,148.00 | 60.66 | 69.16 | -89.78 | -18.88 | -1,983.39 | 1,311.00 | 1,182.91 | 128.09 | 10.235 | | | | |
| 9,200.00 | 7,153.00 | 9,604.28 | 7,148.00 | 63.01 | 71.68 | -89.78 | -19.76 | -2,083.39 | 1,311.06 | 1,178.02 | 133.04 | 9.855 | | | | |
| 9,300.00 | 7,153.00 | 9,704.28 | 7,148.00 | 65.40 | 74.21 | -89.78 | -20.63 | -2,183.39 | 1,311.12 | 1,173.09 | 138.03 | 9.499 | | | | |
| 9,400.00 | 7,153.00 | 9,804.28 | 7,148.00 | 67.81 | 76.76 | -89.78 | -21.51 | -2,283.38 | 1,311.18 | 1,168.13 | 143.05 | 9.166 | | | | |
| 9,500.00 | 7,153.00 | 9,904.28 | 7,148.00 | 70.24 | 79.32 | -89.78 | -22.39 | -2,383.38 | 1,311.24 | 1,163.13 | 148.10 | 8.853 | | | | |
| 9,600.00 | 7,153.00 | 10,004.28 | 7,148.00 | 72.70 | 81.89 | -89.78 | -23.27 | -2,483.38 | 1,311.30 | 1,158.11 | 153.18 | 8.560 | | | | |
| 9,700.00 | 7,153.00 | 10,104.28 | 7,148.00 | 75.17 | 84.46 | -89.78 | -24.14 | -2,583.37 | 1,311.35 | 1,153.06 | 158.29 | 8.285 | | | | |
| 9,800.00 | 7,153.00 | 10,204.28 | 7,148.00 | 77.67 | 87.05 | -89.78 | -25.02 | -2,683.37 | 1,311.41 | 1,148.00 | 163.42 | 8.025 | | | | |
| 9,900.00 | 7,153.00 | 10,304.28 | 7,148.00 | 80.17 | 89.64 | -89.78 | -25.90 | -2,783.36 | 1,311.47 | 1,142.91 | 168.56 | 7.780 | | | | |
| 10,000.00 | 7,153.00 | 10,404.28 | 7,148.00 | 82.69 | 92.25 | -89.78 | -26.77 | -2,883.36 | 1,311.53 | 1,137.80 | 173.73 | 7.549 | | | | |
| 10,100.00 | 7,153.00 | 10,504.28 | 7,148.00 | 85.23 | 94.86 | -89.78 | -27.65 | -2,983.36 | 1,311.59 | 1,132.68 | 178.91 | 7.331 | | | | |
| 10,200.00 | 7,153.00 | 10,604.28 | 7,148.00 | 87.77 | 97.47 | -89.78 | -28.53 | -3,083.35 | 1,311.65 | 1,127.54 | 184.11 | 7.124 | | | | |
| 10,300.00 | 7,153.00 | 10,704.28 | 7,148.00 | 90.33 | 100.09 | -89.78 | -29.41 | -3,183.35 | 1,311.70 | 1,122.39 | 189.32 | 6.929 | | | | |
| 10,400.00 | 7,153.00 | 10,804.28 | 7,148.00 | 92.89 | 102.72 | -89.78 | -30.28 | -3,283.34 | 1,311.76 | 1,117.22 | 194.54 | 6.743 | | | | |
| 10,500.00 | 7,153.00 | 10,904.28 | 7,148.00 | 95.47 | 105.35 | -89.78 | -31.16 | -3,383.34 | 1,311.82 | 1,112.04 | 199.78 | 6.566 | | | | |
| 10,600.00 | 7,153.00 | 11,004.28 | 7,148.00 | 98.05 | 107.98 | -89.78 | -32.04 | -3,483.34 | 1,311.88 | 1,106.86 | 205.02 | 6.399 | | | | |
| 10,700.00 | 7,153.00 | 11,104.28 | 7,148.00 | 100.64 | 110.62 | -89.78 | -32.91 | -3,583.33 | 1,311.94 | 1,101.66 | 210.28 | 6.239 | | | | |
| 10,800.00 | 7,153.00 | 11,204.28 | 7,148.00 | 103.24 | 113.26 | -89.78 | -33.79 | -3,683.33 | 1,312.00 | 1,096.45 | 215.55 | 6.087 | | | | |
| 10,900.00 | 7,153.00 | 11,304.28 | 7,148.00 | 105.84 | 115.91 | -89.78 | -34.67 | -3,783.33 | 1,312.05 | 1,091.23 | 220.82 | 5.942 | | | | |
| 11,000.00 | 7,153.00 | 11,404.28 | 7,148.00 | 108.45 | 118.56 | -89.78 | -35.54 | -3,883.32 | 1,312.11 | 1,086.01 | 226.10 | 5.803 | | | | |
| 11,100.00 | 7,153.00 | 11,504.28 | 7,148.00 | 111.07 | 121.21 | -89.78 | -36.42 | -3,983.32 | 1,312.17 | 1,080.78 | 231.39 | 5.671 | | | | |
| 11,200.00 | 7,153.00 | 11,604.28 | 7,148.00 | 113.69 | 123.87 | -89.78 | -37.30 | -4,083.31 | 1,312.23 | 1,075.54 | 236.69 | 5.544 | | | | |
| 11,300.00 | 7,153.00 | 11,704.28 | 7,148.00 | 116.31 | 126.53 | -89.78 | -38.18 | -4,183.31 | 1,312.29 | 1,070.29 | 241.99 | 5.423 | | | | |
| 11,400.00 | 7,153.00 | 11,804.28 | 7,148.00 | 118.94 | 129.19 | -89.78 | -39.05 | -4,283.31 | 1,312.35 | 1,065.04 | 247.30 | 5.307 | | | | |
| 11,500.00 | 7,153.00 | 11,904.28 | 7,148.00 | 121.57 | 131.86 | -89.78 | -39.93 | -4,383.30 | 1,312.41 | 1,059.79 | 252.62 | 5.195 | | | | |
| 11,600.00 | 7,153.00 | 12,004.28 | 7,148.00 | 124.21 | 134.52 | -89.78 | -40.81 | -4,483.30 | 1,312.46 | 1,054.52 | 257.94 | 5.088 | | | | |
| 11,700.00 | 7,153.00 | 12,104.28 | 7,148.00 | 126.85 | 137.19 | -89.78 | -41.68 | -4,583.29 | 1,312.52 | 1,049.26 | 263.27 | 4.986 | | | | |
| 11,800.00 | 7,153.00 | 12,204.28 | 7,148.00 | 129.49 | 139.86 | -89.78 | -42.56 | -4,683.29 | 1,312.58 | 1,043.98 | 268.60 | 4.887 | | | | |
| 11,900.00 | 7,153.00 | 12,304.28 | 7,148.00 | 132.14 | 142.53 | -89.78 | -43.44 | -4,783.29 | 1,312.64 | 1,038.71 | 273.93 | 4.792 | | | | |
| 12,000.00 | 7,153.00 | 12,404.28 | 7,148.00 | 134.79 | 145.21 | -89.78 | -44.32 | -4,883.28 | 1,312.70 | 1,033.43 | 279.27 | 4.700 | | | | |
| 12,100.00 | 7,153.00 | 12,504.28 | 7,148.00 | 137.44 | 147.89 | -89.78 | -45.19 | -4,983.28 | 1,312.76 | 1,028.14 | 284.62 | 4.612 | | | | |
| 12,200.00 | 7,153.00 | 12,604.28 | 7,148.00 | 140.10 | 150.56 | -89.78 | -46.07 | -5,083.28 | 1,312.81 | 1,022.85 | 289.96 | 4.528 | | | | |
| 12,300.00 | 7,153.00 | 12,704.28 | 7,148.00 | 142.76 | 153.24 | -89.78 | -46.95 | -5,183.27 | 1,312.87 | 1,017.56 | 295.31 | 4.446 | | | | |
| 12,400.00 | 7,153.00 | 12,804.28 | 7,148.00 | 145.42 | 155.92 | -89.78 | -47.82 | -5,283.27 | 1,312.93 | 1,012.26 | 300.67 | 4.367 | | | | |
| 12,500.00 | 7,153.00 | 12,904.28 | 7,148.00 | 148.08 | 158.61 | -89.78 | -48.70 | -5,383.26 | 1,312.99 | 1,006.97 | 306.02 | 4.290 | | | | |
| 12,600.00 | 7,153.00 | 13,004.28 | 7,148.00 | 150.75 | 161.29 | -89.78 | -49.58 | -5,483.26 | 1,313.05 | 1,001.66 | 311.38 | 4.217 | | | | |
| 12,700.00 | 7,153.00 | 13,104.28 | 7,148.00 | 153.41 | 163.97 | -89.78 | -50.45 | -5,583.26 | 1,313.11 | 996.36 | 316.75 | 4.146 | | | | |
| 12,800.00 | 7,153.00 | 13,204.28 | 7,148.00 | 156.08 | 166.66 | -89.78 | -51.33 | -5,683.25 | 1,313.16 | 991.05 | 322.11 | 4.077 | | | | |
| 12,900.00 | 7,153.00 | 13,304.28 | 7,148.00 | 158.75 | 169.35 | -89.78 | -52.21 | -5,783.25 | 1,313.22 | 985.74 | 327.48 | 4.010 | | | | |
| 13,000.00 | 7,153.00 | 13,404.28 | 7,148.00 | 161.42 | 172.04 | -89.78 | -53.09 | -5,883.24 | 1,313.28 | 980.43 | 332.85 | 3.946 | | | | |
| 13,100.00 | 7,153.00 | 13,504.28 | 7,148.00 | 164.10 | 174.72 | -89.78 | -53.96 | -5,983.24 | 1,313.34 | 975.12 | 338.22 | 3.883 | | | | |
| 13,200.00 | 7,153.00 | 13,604.28 | 7,148.00 | 166.77 | 177.41 | -89.78 | -54.84 | -6,083.24 | 1,313.40 | 969.80 | 343.60 | 3.822 | | | | |
| 13,300.00 | 7,153.00 | 13,704.28 | 7,148.00 | 169.45 | 180.11 | -89.78 | -55.72 | -6,183.23 | 1,313.46 | 964.48 | 348.98 | 3.764 | | | | |
| 13,400.00 | 7,153.00 | 13,804.28 | 7,148.00 | 172.13 | 182.80 | -89.78 | -56.59 | -6,283.23 | 1,313.52 | 959.16 | 354.36 | 3.707 | | | | |
| 13,500.00 | 7,153.00 | 13,904.28 | 7,148.00 | 174.81 | 185.49 | -89.78 | -57.47 | -6,383.22 | 1,313.57 | 953.84 | 359.74 | 3.651 | | | | |
| 13,600.00 | 7,153.00 | 14,004.28 | 7,148.00 | 177.49 | 188.18 | -89.78 | -58.35 | -6,483.22 | 1,313.63 | 948.51 | 365.12 | 3.598 | | | | |
| 13,700.00 | 7,153.00 | 14,104.28 | 7,148.00 | 180.17 | 190.88 | -89.78 | -59.23 | -6,583.22 | 1,313.69 | 943.18 | 370.51 | 3.546 | | | | |
| 13,800.00 | 7,153.00 | 14,204.28 | 7,148.00 | 182.86 | 193.57 | -89.78 | -60.10 | -6,683.21 | 1,313.75 | 937.86 | 375.89 | 3.495 | | | | |
| 13,900.00 | 7,153.00 | 14,304.28 | 7,148.00 | 185.54 | 196.27 | -89.78 | -60.98 | -6,783.21 | 1,313.81 | 932.53 | 381.28 | 3.446 | | | | |
| 14,000.00 | 7,153.00 | 14,404.28 | 7,148.00 | 188.23 | 198.97 | -89.78 | -61.86 | -6,883.21 | 1,313.87 | 927.20 | 386.67 | 3.398 | | | | |
| 14,100.00 | 7,153.00 | 14,504.28 | 7,148.00 | 190.91 | 201.66 | -89.78 | -62.73 | -6,983.20 | 1,313.92 | 921.86 | 392.06 | 3.351 | | | | |
| 14,200.00 | 7,153.00 | 14,604.28 | 7,148.00 | 193.60 | 204.36 | -89.78 | -63.61 | -7,083.20 | 1,313.98 | 916.53 | 397.45 | 3.306 | | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-10H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 14,300.00 | 7,153.00 | 14,704.28 | 7,148.00 | 196.29 | 207.06 | -89.78 | -64.49 | -7,183.19 | 1,314.04 | 911.19 | 402.85 | 3.262 | | | |
| 14,400.00 | 7,153.00 | 14,804.28 | 7,148.00 | 198.98 | 209.76 | -89.78 | -65.36 | -7,283.19 | 1,314.10 | 905.86 | 408.24 | 3.219 | | | |
| 14,500.00 | 7,153.00 | 14,904.28 | 7,148.00 | 201.67 | 212.46 | -89.78 | -66.24 | -7,383.19 | 1,314.16 | 900.52 | 413.64 | 3.177 | | | |
| 14,600.00 | 7,153.00 | 15,004.28 | 7,148.00 | 204.36 | 215.16 | -89.78 | -67.12 | -7,483.18 | 1,314.22 | 895.18 | 419.04 | 3.136 | | | |
| 14,700.00 | 7,153.00 | 15,104.28 | 7,148.00 | 207.05 | 217.86 | -89.78 | -68.00 | -7,583.18 | 1,314.28 | 889.84 | 424.44 | 3.097 | | | |
| 14,800.00 | 7,153.00 | 15,204.28 | 7,148.00 | 209.75 | 220.56 | -89.78 | -68.87 | -7,683.17 | 1,314.33 | 884.50 | 429.84 | 3.058 | | | |
| 14,900.00 | 7,153.00 | 15,304.28 | 7,148.00 | 212.44 | 223.27 | -89.78 | -69.75 | -7,783.17 | 1,314.39 | 879.15 | 435.24 | 3.020 | | | |
| 15,000.00 | 7,153.00 | 15,404.28 | 7,148.00 | 215.13 | 225.97 | -89.78 | -70.63 | -7,883.17 | 1,314.45 | 873.81 | 440.64 | 2.983 | | | |
| 15,100.00 | 7,153.00 | 15,504.28 | 7,148.00 | 217.83 | 228.67 | -89.78 | -71.50 | -7,983.16 | 1,314.51 | 868.46 | 446.04 | 2.947 | | | |
| 15,200.00 | 7,153.00 | 15,604.28 | 7,148.00 | 220.53 | 231.37 | -89.78 | -72.38 | -8,083.16 | 1,314.57 | 863.12 | 451.45 | 2.912 | | | |
| 15,300.00 | 7,153.00 | 15,704.28 | 7,148.00 | 223.22 | 234.08 | -89.78 | -73.26 | -8,183.16 | 1,314.63 | 857.77 | 456.85 | 2.878 | | | |
| 15,400.00 | 7,153.00 | 15,804.28 | 7,148.00 | 225.92 | 236.78 | -89.78 | -74.14 | -8,283.15 | 1,314.68 | 852.42 | 462.26 | 2.844 | | | |
| 15,455.54 | 7,153.00 | 15,859.82 | 7,148.00 | 227.42 | 238.28 | -89.78 | -74.62 | -8,338.69 | 1,314.72 | 849.45 | 465.26 | 2.826 SF | | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-11H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|--------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|--|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | Semi Major Axis | | Highside | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 29.27 | 54.64 | 30.63 | 62.64 | 62.36 | 0.29 | 218.439 | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 29.27 | 54.64 | 30.63 | 62.64 | 61.64 | 1.00 | 62.411 | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 29.27 | 54.64 | 30.63 | 62.64 | 60.92 | 1.72 | 36.407 | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 29.27 | 54.64 | 30.63 | 62.64 | 60.21 | 2.44 | 25.699 | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.22 | 1.22 | 29.27 | 54.64 | 30.63 | 62.64 | 59.49 | 3.15 | 19.858 | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.58 | 1.58 | 29.27 | 54.64 | 30.63 | 62.64 | 58.77 | 3.87 | 16.181 | | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.94 | 1.94 | 29.27 | 54.64 | 30.63 | 62.64 | 58.05 | 4.59 | 13.652 | | | |
| 700.00 | 700.00 | 700.00 | 700.00 | 2.29 | 2.29 | 29.27 | 54.64 | 30.63 | 62.64 | 57.33 | 5.29 | 11.608 | | | |
| 800.00 | 800.00 | 801.48 | 801.46 | 2.65 | 2.64 | 30.49 | 52.93 | 31.17 | 61.44 | 56.15 | 5.99 | 9.693 | | | |
| 900.00 | 900.00 | 902.71 | 902.54 | 3.01 | 2.98 | 34.43 | 47.80 | 32.77 | 58.01 | 52.03 | 6.68 | 8.001 | | | |
| 1,000.00 | 1,000.00 | 1,002.73 | 1,002.25 | 3.37 | 3.32 | 41.11 | 40.26 | 35.13 | 53.48 | 46.80 | 7.39 | 6.728 | | | |
| 1,100.00 | 1,100.00 | 1,102.41 | 1,101.61 | 3.73 | 3.67 | 49.01 | 32.61 | 37.53 | 49.74 | 42.35 | 8.11 | 5.807 | | | |
| 1,200.00 | 1,200.00 | 1,202.09 | 1,200.96 | 4.09 | 4.03 | 57.98 | 24.96 | 39.92 | 47.10 | 38.99 | 8.83 | 5.178 | | | |
| 1,300.00 | 1,300.00 | 1,301.76 | 1,300.31 | 4.45 | 4.39 | 67.75 | 17.32 | 42.32 | 45.73 | 36.89 | 9.55 | 4.788 ES | | | |
| 1,348.41 | 1,348.41 | 1,350.02 | 1,348.41 | 4.62 | 4.56 | 72.61 | 13.61 | 43.48 | 45.56 | 36.38 | 10.27 | 4.590 | | | |
| 1,400.00 | 1,400.00 | 1,401.44 | 1,399.67 | 4.80 | 4.75 | 77.80 | 9.67 | 44.71 | 45.75 | 36.19 | 10.99 | 4.535 | | | |
| 1,500.00 | 1,500.00 | 1,501.12 | 1,499.02 | 5.16 | 5.12 | 87.54 | 2.02 | 47.11 | 47.16 | 36.89 | 11.70 | 4.581 | | | |
| 1,600.00 | 1,600.00 | 1,600.79 | 1,598.37 | 5.52 | 5.49 | 96.48 | -5.62 | 49.50 | 49.85 | 38.86 | 12.41 | 4.692 | | | |
| 1,700.00 | 1,700.00 | 1,700.47 | 1,697.73 | 5.88 | 5.86 | 104.35 | -13.27 | 51.90 | 53.62 | 41.91 | 13.12 | 4.844 | | | |
| 1,800.00 | 1,800.00 | 1,800.14 | 1,797.08 | 6.24 | 6.24 | 111.07 | -20.92 | 54.29 | 58.26 | 45.84 | 13.83 | 5.019 | | | |
| 1,900.00 | 1,900.00 | 1,899.82 | 1,896.44 | 6.60 | 6.61 | 116.75 | -28.57 | 56.69 | 63.58 | 50.45 | 14.54 | 5.204 | | | |
| 2,000.00 | 2,000.00 | 1,999.50 | 1,995.79 | 6.95 | 6.99 | 121.51 | -36.21 | 59.08 | 69.42 | 55.59 | 15.25 | 5.392 | | | |
| 2,100.00 | 2,100.00 | 2,099.17 | 2,095.14 | 7.31 | 7.36 | 125.51 | -43.86 | 61.48 | 75.67 | 61.13 | 15.96 | 5.578 | | | |
| 2,200.00 | 2,200.00 | 2,198.85 | 2,194.50 | 7.67 | 7.74 | 128.88 | -51.51 | 63.87 | 82.24 | 66.98 | 16.67 | 5.760 | | | |
| 2,300.00 | 2,300.00 | 2,298.53 | 2,293.85 | 8.03 | 8.12 | 131.76 | -59.16 | 66.26 | 89.04 | 73.08 | 17.38 | 6.008 | | | |
| 2,400.00 | 2,400.00 | 2,398.20 | 2,393.20 | 8.39 | 8.50 | 134.21 | -66.80 | 68.66 | 96.04 | 79.36 | 18.08 | 6.396 | | | |
| 2,500.00 | 2,499.98 | 2,497.73 | 2,492.40 | 8.75 | 8.88 | 136.28 | -74.44 | 71.05 | 104.44 | 87.05 | 18.78 | 6.923 | | | |
| 2,600.00 | 2,599.84 | 2,596.86 | 2,591.22 | 9.11 | 9.26 | 139.65 | -82.04 | 73.43 | 115.68 | 97.59 | 19.48 | 7.583 | | | |
| 2,700.00 | 2,699.45 | 2,695.49 | 2,689.52 | 9.46 | 9.63 | 143.28 | -89.61 | 75.80 | 130.03 | 111.25 | 20.18 | 8.370 | | | |
| 2,800.00 | 2,798.70 | 2,793.48 | 2,787.20 | 9.82 | 10.01 | 146.88 | -97.13 | 78.16 | 147.72 | 128.24 | 20.87 | 9.275 | | | |
| 2,900.00 | 2,897.47 | 2,890.73 | 2,884.14 | 10.18 | 10.38 | 150.24 | -104.59 | 80.49 | 168.88 | 148.70 | 21.56 | 10.287 | | | |
| 3,000.00 | 2,995.62 | 2,987.11 | 2,980.21 | 10.55 | 10.75 | 153.26 | -111.98 | 82.81 | 193.56 | 172.69 | 22.24 | 11.395 | | | |
| 3,100.00 | 3,093.06 | 3,082.51 | 3,075.29 | 10.94 | 11.11 | 155.91 | -119.30 | 85.10 | 221.77 | 200.21 | 22.93 | 12.566 | | | |
| 3,200.00 | 3,189.64 | 3,176.80 | 3,169.28 | 11.34 | 11.47 | 158.21 | -126.54 | 87.37 | 253.49 | 231.24 | 23.61 | 13.694 | | | |
| 3,240.86 | 3,228.84 | 3,214.99 | 3,207.35 | 11.50 | 11.62 | 159.05 | -129.47 | 88.28 | 267.44 | 244.91 | 24.29 | 14.765 | | | |
| 3,300.00 | 3,285.45 | 3,270.11 | 3,262.29 | 11.75 | 11.83 | 160.29 | -133.70 | 89.61 | 288.11 | 265.18 | 24.98 | 15.782 | | | |
| 3,400.00 | 3,381.17 | 3,363.31 | 3,355.19 | 12.19 | 12.19 | 162.03 | -140.85 | 91.85 | 323.29 | 299.68 | 25.67 | 16.748 | | | |
| 3,500.00 | 3,476.90 | 3,456.51 | 3,448.09 | 12.63 | 12.54 | 163.43 | -148.00 | 94.09 | 358.68 | 334.39 | 26.36 | 17.665 | | | |
| 3,600.00 | 3,572.62 | 3,549.71 | 3,540.99 | 13.09 | 12.90 | 164.58 | -155.15 | 96.32 | 394.23 | 369.25 | 27.05 | 18.536 | | | |
| 3,700.00 | 3,668.34 | 3,642.91 | 3,633.89 | 13.56 | 13.26 | 165.54 | -162.30 | 98.56 | 429.89 | 404.22 | 27.75 | 19.365 | | | |
| 3,800.00 | 3,764.07 | 3,736.12 | 3,726.79 | 14.04 | 13.62 | 166.35 | -169.45 | 100.80 | 465.64 | 439.28 | 28.45 | 20.153 | | | |
| 3,900.00 | 3,859.79 | 3,829.32 | 3,819.68 | 14.52 | 13.97 | 167.05 | -176.60 | 103.04 | 501.46 | 474.41 | 29.14 | 20.904 | | | |
| 4,000.00 | 3,955.51 | 3,922.52 | 3,912.58 | 15.02 | 14.33 | 167.66 | -183.75 | 105.28 | 537.34 | 509.59 | 29.84 | 21.619 | | | |
| 4,100.00 | 4,051.24 | 4,015.72 | 4,005.48 | 15.52 | 14.69 | 168.19 | -190.90 | 107.52 | 573.27 | 544.82 | 30.55 | 22.302 | | | |
| 4,200.00 | 4,146.96 | 4,108.92 | 4,098.38 | 16.03 | 15.05 | 168.65 | -198.05 | 109.76 | 609.23 | 580.08 | 31.25 | 22.954 | | | |
| 4,300.00 | 4,242.68 | 4,202.12 | 4,191.28 | 16.54 | 15.41 | 169.07 | -205.20 | 112.00 | 645.22 | 615.38 | 31.95 | 23.571 | | | |
| 4,400.00 | 4,338.41 | 4,295.32 | 4,284.18 | 17.06 | 15.77 | 169.44 | -212.35 | 114.24 | 681.24 | 650.70 | 32.66 | 24.174 | | | |
| 4,500.00 | 4,434.13 | 4,388.52 | 4,377.08 | 17.59 | 16.12 | 169.77 | -219.50 | 116.48 | 717.29 | 686.04 | 33.37 | 24.741 | | | |
| 4,600.00 | 4,529.85 | 4,481.72 | 4,469.98 | 18.11 | 16.48 | 170.08 | -226.65 | 118.72 | 753.35 | 721.39 | 34.07 | 25.287 | | | |
| 4,700.00 | 4,625.58 | 4,574.93 | 4,562.88 | 18.65 | 16.84 | 170.35 | -233.80 | 120.95 | 789.43 | 756.77 | 34.74 | 25.841 | | | |
| 4,800.00 | 4,721.30 | 4,668.13 | 4,655.78 | 19.18 | 17.20 | 170.60 | -240.95 | 123.19 | 825.52 | 792.15 | 35.40 | 26.395 | | | |
| 4,900.00 | 4,817.02 | 4,761.33 | 4,748.68 | 19.72 | 17.56 | 170.83 | -248.10 | 125.43 | 861.62 | 827.55 | 36.07 | 26.949 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-11H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|--|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | | |
| 5,000.00 | 4,912.74 | 4,854.53 | 4,841.58 | 20.27 | 17.92 | 171.04 | -255.25 | 127.67 | 897.74 | 862.96 | 34.78 | 25.810 | | | | |
| 5,100.00 | 5,008.47 | 4,947.73 | 4,934.48 | 20.81 | 18.27 | 171.24 | -262.40 | 129.91 | 933.87 | 898.37 | 35.49 | 26.311 | | | | |
| 5,200.00 | 5,104.19 | 5,040.93 | 5,027.38 | 21.36 | 18.63 | 171.42 | -269.55 | 132.15 | 970.00 | 933.80 | 36.20 | 26.793 | | | | |
| 5,300.00 | 5,199.91 | 5,134.13 | 5,120.28 | 21.91 | 18.99 | 171.59 | -276.70 | 134.39 | 1,006.14 | 969.23 | 36.92 | 27.255 | | | | |
| 5,400.00 | 5,295.64 | 5,227.33 | 5,213.18 | 22.46 | 19.35 | 171.74 | -283.85 | 136.63 | 1,042.29 | 1,004.66 | 37.63 | 27.700 | | | | |
| 5,500.00 | 5,391.36 | 5,320.54 | 5,306.08 | 23.02 | 19.71 | 171.89 | -291.01 | 138.87 | 1,078.45 | 1,040.11 | 38.34 | 28.127 | | | | |
| 5,600.00 | 5,487.08 | 5,413.74 | 5,398.98 | 23.58 | 20.07 | 172.02 | -298.16 | 141.11 | 1,114.61 | 1,075.55 | 39.06 | 28.539 | | | | |
| 5,700.00 | 5,582.81 | 5,506.94 | 5,491.88 | 24.13 | 20.43 | 172.15 | -305.31 | 143.35 | 1,150.78 | 1,111.01 | 39.77 | 28.935 | | | | |
| 5,800.00 | 5,678.53 | 5,600.14 | 5,584.78 | 24.70 | 20.79 | 172.27 | -312.46 | 145.58 | 1,186.95 | 1,146.46 | 40.49 | 29.317 | | | | |
| 5,900.00 | 5,774.25 | 5,693.34 | 5,677.67 | 25.26 | 21.15 | 172.38 | -319.61 | 147.82 | 1,223.12 | 1,181.92 | 41.20 | 29.686 | | | | |
| 6,000.00 | 5,869.98 | 5,786.54 | 5,770.57 | 25.82 | 21.50 | 172.49 | -326.76 | 150.06 | 1,259.30 | 1,217.38 | 41.92 | 30.041 | | | | |
| 6,100.00 | 5,965.70 | 5,879.74 | 5,863.47 | 26.39 | 21.86 | 172.59 | -333.91 | 152.30 | 1,295.49 | 1,252.85 | 42.64 | 30.384 | | | | |
| 6,200.00 | 6,061.42 | 5,972.94 | 5,956.37 | 26.95 | 22.22 | 172.68 | -341.06 | 154.54 | 1,331.67 | 1,288.32 | 43.36 | 30.715 | | | | |
| 6,300.00 | 6,157.15 | 6,066.14 | 6,049.27 | 27.52 | 22.58 | 172.77 | -348.21 | 156.78 | 1,367.86 | 1,323.79 | 44.07 | 31.036 | | | | |
| 6,400.00 | 6,252.87 | 6,159.35 | 6,142.17 | 28.09 | 22.94 | 172.86 | -355.36 | 159.02 | 1,404.05 | 1,359.26 | 44.79 | 31.345 | | | | |
| 6,500.00 | 6,348.59 | 6,252.55 | 6,235.07 | 28.66 | 23.30 | 172.94 | -362.51 | 161.26 | 1,440.25 | 1,394.73 | 45.51 | 31.645 | | | | |
| 6,600.00 | 6,444.32 | 6,345.75 | 6,327.97 | 29.23 | 23.66 | 173.02 | -369.66 | 163.50 | 1,476.44 | 1,430.21 | 46.23 | 31.935 | | | | |
| 6,700.00 | 6,540.04 | 6,438.95 | 6,420.87 | 29.80 | 24.02 | 173.09 | -376.81 | 165.74 | 1,512.64 | 1,465.69 | 46.95 | 32.215 | | | | |
| 6,764.28 | 6,601.58 | 6,498.86 | 6,480.59 | 30.17 | 24.25 | 173.13 | -381.41 | 167.18 | 1,535.91 | 1,488.50 | 47.42 | 32.391 | | | | |
| 6,800.00 | 6,635.75 | 6,532.11 | 6,513.73 | 30.37 | 24.38 | -173.80 | -383.96 | 167.97 | 1,548.94 | 1,501.27 | 47.67 | 32.490 | | | | |
| 6,850.00 | 6,683.35 | 6,578.34 | 6,559.81 | 30.66 | 24.56 | -157.22 | -387.50 | 169.09 | 1,567.44 | 1,519.41 | 48.03 | 32.635 | | | | |
| 6,900.00 | 6,730.36 | 6,623.88 | 6,605.20 | 30.94 | 24.73 | -143.76 | -391.00 | 170.18 | 1,586.16 | 1,537.79 | 48.38 | 32.787 | | | | |
| 6,950.00 | 6,776.41 | 6,668.39 | 6,649.57 | 31.21 | 24.90 | -133.36 | -394.41 | 171.25 | 1,605.03 | 1,556.31 | 48.72 | 32.947 | | | | |
| 7,000.00 | 6,821.15 | 6,723.41 | 6,704.41 | 31.47 | 25.11 | -125.52 | -398.64 | 171.49 | 1,623.90 | 1,574.77 | 49.12 | 33.058 | | | | |
| 7,050.00 | 6,864.24 | 6,771.25 | 6,771.69 | 31.73 | 25.35 | -119.52 | -403.89 | 164.96 | 1,642.25 | 1,592.65 | 49.60 | 33.113 | | | | |
| 7,100.00 | 6,905.35 | 6,863.59 | 6,842.04 | 31.97 | 25.58 | -114.76 | -409.45 | 149.27 | 1,659.83 | 1,609.76 | 50.06 | 33.154 | | | | |
| 7,150.00 | 6,944.18 | 6,940.73 | 6,914.24 | 32.21 | 25.81 | -110.89 | -415.24 | 122.89 | 1,676.41 | 1,625.87 | 50.53 | 33.174 | | | | |
| 7,200.00 | 6,980.42 | 7,022.73 | 6,986.36 | 32.45 | 26.02 | -107.69 | -421.12 | 84.46 | 1,691.78 | 1,640.76 | 51.02 | 33.162 | | | | |
| 7,250.00 | 7,013.80 | 7,109.30 | 7,055.74 | 32.68 | 26.21 | -104.98 | -426.90 | 33.14 | 1,705.71 | 1,654.18 | 51.54 | 33.098 | | | | |
| 7,300.00 | 7,044.06 | 7,199.67 | 7,119.07 | 32.91 | 26.39 | -102.62 | -432.32 | -30.96 | 1,718.01 | 1,665.87 | 52.14 | 32.948 | | | | |
| 7,350.00 | 7,070.98 | 7,292.56 | 7,172.86 | 33.15 | 26.58 | -100.53 | -437.10 | -106.41 | 1,728.49 | 1,675.59 | 52.91 | 32.670 | | | | |
| 7,400.00 | 7,094.36 | 7,386.31 | 7,214.12 | 33.39 | 26.92 | -98.64 | -440.98 | -190.39 | 1,737.05 | 1,683.16 | 53.89 | 32.234 | | | | |
| 7,450.00 | 7,114.00 | 7,479.08 | 7,240.97 | 33.65 | 27.57 | -96.94 | -443.79 | -279.03 | 1,743.61 | 1,688.51 | 55.10 | 31.642 | | | | |
| 7,500.00 | 7,129.76 | 7,569.13 | 7,253.08 | 33.93 | 28.45 | -95.41 | -445.46 | -368.17 | 1,748.18 | 1,691.65 | 56.53 | 30.925 | | | | |
| 7,550.00 | 7,141.53 | 7,632.21 | 7,254.00 | 34.22 | 29.19 | -94.29 | -446.06 | -431.23 | 1,751.01 | 1,693.22 | 57.79 | 30.297 | | | | |
| 7,600.00 | 7,149.21 | 7,681.55 | 7,254.00 | 34.55 | 29.80 | -93.63 | -446.47 | -480.56 | 1,752.86 | 1,693.91 | 58.95 | 29.734 | | | | |
| 7,650.00 | 7,152.75 | 7,731.40 | 7,254.00 | 34.90 | 30.48 | -93.32 | -446.88 | -530.41 | 1,753.72 | 1,693.51 | 60.21 | 29.126 | | | | |
| 7,667.38 | 7,153.00 | 7,748.77 | 7,254.00 | 35.04 | 30.73 | -93.30 | -447.03 | -547.78 | 1,753.79 | 1,693.12 | 60.67 | 28.907 | | | | |
| 7,700.00 | 7,153.00 | 7,781.39 | 7,254.00 | 35.29 | 31.20 | -93.30 | -447.30 | -580.40 | 1,753.79 | 1,692.25 | 61.55 | 28.496 | | | | |
| 7,800.00 | 7,153.00 | 7,881.39 | 7,254.00 | 36.22 | 32.77 | -93.30 | -448.13 | -680.40 | 1,753.80 | 1,689.32 | 64.49 | 27.197 | | | | |
| 7,900.00 | 7,153.00 | 7,981.40 | 7,254.00 | 37.35 | 34.48 | -93.30 | -448.96 | -780.39 | 1,753.82 | 1,686.08 | 67.73 | 25.893 | | | | |
| 8,000.00 | 7,153.00 | 8,081.40 | 7,254.00 | 38.67 | 36.31 | -93.30 | -449.79 | -880.39 | 1,753.83 | 1,682.58 | 71.25 | 24.615 | | | | |
| 8,100.00 | 7,153.00 | 8,181.40 | 7,254.00 | 40.16 | 38.25 | -93.30 | -450.62 | -980.39 | 1,753.84 | 1,678.84 | 74.99 | 23.386 | | | | |
| 8,200.00 | 7,153.00 | 8,281.40 | 7,254.00 | 41.81 | 40.28 | -93.30 | -451.45 | -1,080.38 | 1,753.85 | 1,674.91 | 78.94 | 22.219 | | | | |
| 8,300.00 | 7,153.00 | 8,381.40 | 7,254.00 | 43.59 | 42.39 | -93.30 | -452.28 | -1,180.38 | 1,753.86 | 1,670.82 | 83.05 | 21.119 | | | | |
| 8,400.00 | 7,153.00 | 8,481.40 | 7,254.00 | 45.47 | 44.56 | -93.30 | -453.11 | -1,280.38 | 1,753.87 | 1,666.57 | 87.30 | 20.090 | | | | |
| 8,500.00 | 7,153.00 | 8,581.40 | 7,254.00 | 47.45 | 46.79 | -93.30 | -453.94 | -1,380.37 | 1,753.89 | 1,662.20 | 91.68 | 19.130 | | | | |
| 8,600.00 | 7,153.00 | 8,681.40 | 7,254.00 | 49.51 | 49.07 | -93.30 | -454.77 | -1,480.37 | 1,753.90 | 1,657.73 | 96.17 | 18.237 | | | | |
| 8,700.00 | 7,153.00 | 8,781.40 | 7,254.00 | 51.64 | 51.40 | -93.30 | -455.60 | -1,580.37 | 1,753.91 | 1,653.16 | 100.75 | 17.408 | | | | |
| 8,800.00 | 7,153.00 | 8,881.40 | 7,254.00 | 53.82 | 53.76 | -93.30 | -456.43 | -1,680.36 | 1,753.92 | 1,648.50 | 105.42 | 16.638 | | | | |
| 8,900.00 | 7,153.00 | 8,981.40 | 7,254.00 | 56.06 | 56.15 | -93.30 | -457.26 | -1,780.36 | 1,753.93 | 1,643.78 | 110.15 | 15.923 | | | | |
| 9,000.00 | 7,153.00 | 9,081.40 | 7,254.00 | 58.34 | 58.57 | -93.30 | -458.09 | -1,880.36 | 1,753.94 | 1,639.00 | 114.95 | 15.259 | | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-11H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|--|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | | |
| 9,100.00 | 7,153.00 | 9,181.40 | 7,254.00 | 60.66 | 61.02 | -93.30 | -458.92 | -1,980.35 | 1,753.96 | 1,634.16 | 119.80 | 14.641 | | | | |
| 9,200.00 | 7,153.00 | 9,281.40 | 7,254.00 | 63.01 | 63.49 | -93.30 | -459.75 | -2,080.35 | 1,753.97 | 1,629.27 | 124.70 | 14.066 | | | | |
| 9,300.00 | 7,153.00 | 9,381.40 | 7,254.00 | 65.40 | 65.98 | -93.30 | -460.58 | -2,180.35 | 1,753.98 | 1,624.34 | 129.64 | 13.530 | | | | |
| 9,400.00 | 7,153.00 | 9,481.40 | 7,254.00 | 67.81 | 68.49 | -93.30 | -461.41 | -2,280.34 | 1,753.99 | 1,619.37 | 134.62 | 13.029 | | | | |
| 9,500.00 | 7,153.00 | 9,581.40 | 7,254.00 | 70.24 | 71.01 | -93.30 | -462.24 | -2,380.34 | 1,754.00 | 1,614.37 | 139.63 | 12.561 | | | | |
| 9,600.00 | 7,153.00 | 9,681.40 | 7,254.00 | 72.70 | 73.55 | -93.30 | -463.07 | -2,480.34 | 1,754.01 | 1,609.33 | 144.68 | 12.123 | | | | |
| 9,700.00 | 7,153.00 | 9,781.40 | 7,254.00 | 75.17 | 76.10 | -93.30 | -463.90 | -2,580.33 | 1,754.03 | 1,604.27 | 149.75 | 11.713 | | | | |
| 9,800.00 | 7,153.00 | 9,881.40 | 7,254.00 | 77.67 | 78.66 | -93.30 | -464.74 | -2,680.33 | 1,754.04 | 1,599.19 | 154.85 | 11.327 | | | | |
| 9,900.00 | 7,153.00 | 9,981.40 | 7,254.00 | 80.17 | 81.23 | -93.30 | -465.57 | -2,780.33 | 1,754.05 | 1,594.08 | 159.97 | 10.965 | | | | |
| 10,000.00 | 7,153.00 | 10,081.40 | 7,254.00 | 82.69 | 83.81 | -93.30 | -466.40 | -2,880.32 | 1,754.06 | 1,588.95 | 165.11 | 10.624 | | | | |
| 10,100.00 | 7,153.00 | 10,181.40 | 7,254.00 | 85.23 | 86.40 | -93.30 | -467.23 | -2,980.32 | 1,754.07 | 1,583.81 | 170.27 | 10.302 | | | | |
| 10,200.00 | 7,153.00 | 10,281.40 | 7,254.00 | 87.77 | 89.00 | -93.30 | -468.06 | -3,080.32 | 1,754.08 | 1,578.64 | 175.44 | 9.998 | | | | |
| 10,300.00 | 7,153.00 | 10,381.40 | 7,254.00 | 90.33 | 91.60 | -93.30 | -468.89 | -3,180.31 | 1,754.10 | 1,573.47 | 180.63 | 9.711 | | | | |
| 10,400.00 | 7,153.00 | 10,481.40 | 7,254.00 | 92.89 | 94.22 | -93.30 | -469.72 | -3,280.31 | 1,754.11 | 1,568.27 | 185.83 | 9.439 | | | | |
| 10,500.00 | 7,153.00 | 10,581.40 | 7,254.00 | 95.47 | 96.83 | -93.30 | -470.55 | -3,380.31 | 1,754.12 | 1,563.07 | 191.05 | 9.181 | | | | |
| 10,600.00 | 7,153.00 | 10,681.40 | 7,254.00 | 98.05 | 99.46 | -93.30 | -471.38 | -3,480.30 | 1,754.13 | 1,557.85 | 196.28 | 8.937 | | | | |
| 10,700.00 | 7,153.00 | 10,781.40 | 7,254.00 | 100.64 | 102.09 | -93.30 | -472.21 | -3,580.30 | 1,754.14 | 1,552.62 | 201.52 | 8.705 | | | | |
| 10,800.00 | 7,153.00 | 10,881.40 | 7,254.00 | 103.24 | 104.72 | -93.30 | -473.04 | -3,680.29 | 1,754.15 | 1,547.38 | 206.77 | 8.484 | | | | |
| 10,900.00 | 7,153.00 | 10,981.40 | 7,254.00 | 105.84 | 107.36 | -93.30 | -473.87 | -3,780.29 | 1,754.17 | 1,542.14 | 212.03 | 8.273 | | | | |
| 11,000.00 | 7,153.00 | 11,081.40 | 7,254.00 | 108.45 | 110.00 | -93.30 | -474.70 | -3,880.29 | 1,754.18 | 1,536.88 | 217.30 | 8.073 | | | | |
| 11,100.00 | 7,153.00 | 11,181.40 | 7,254.00 | 111.07 | 112.64 | -93.30 | -475.53 | -3,980.28 | 1,754.19 | 1,531.61 | 222.57 | 7.881 | | | | |
| 11,200.00 | 7,153.00 | 11,281.40 | 7,254.00 | 113.69 | 115.29 | -93.30 | -476.36 | -4,080.28 | 1,754.20 | 1,526.34 | 227.86 | 7.699 | | | | |
| 11,300.00 | 7,153.00 | 11,381.40 | 7,254.00 | 116.31 | 117.94 | -93.30 | -477.19 | -4,180.28 | 1,754.21 | 1,521.06 | 233.15 | 7.524 | | | | |
| 11,400.00 | 7,153.00 | 11,481.40 | 7,254.00 | 118.94 | 120.60 | -93.30 | -478.02 | -4,280.27 | 1,754.22 | 1,515.78 | 238.45 | 7.357 | | | | |
| 11,500.00 | 7,153.00 | 11,581.40 | 7,254.00 | 121.57 | 123.26 | -93.30 | -478.85 | -4,380.27 | 1,754.24 | 1,510.49 | 243.75 | 7.197 | | | | |
| 11,600.00 | 7,153.00 | 11,681.40 | 7,254.00 | 124.21 | 125.92 | -93.30 | -479.68 | -4,480.27 | 1,754.25 | 1,505.19 | 249.06 | 7.044 | | | | |
| 11,700.00 | 7,153.00 | 11,781.40 | 7,254.00 | 126.85 | 128.58 | -93.30 | -480.51 | -4,580.26 | 1,754.26 | 1,499.89 | 254.37 | 6.896 | | | | |
| 11,800.00 | 7,153.00 | 11,881.40 | 7,254.00 | 129.49 | 131.25 | -93.30 | -481.34 | -4,680.26 | 1,754.27 | 1,494.58 | 259.69 | 6.755 | | | | |
| 11,900.00 | 7,153.00 | 11,981.40 | 7,254.00 | 132.14 | 133.92 | -93.30 | -482.17 | -4,780.26 | 1,754.28 | 1,489.27 | 265.02 | 6.620 | | | | |
| 12,000.00 | 7,153.00 | 12,081.40 | 7,254.00 | 134.79 | 136.59 | -93.30 | -483.00 | -4,880.25 | 1,754.29 | 1,483.95 | 270.35 | 6.489 | | | | |
| 12,100.00 | 7,153.00 | 12,181.40 | 7,254.00 | 137.44 | 139.26 | -93.30 | -483.83 | -4,980.25 | 1,754.31 | 1,478.63 | 275.68 | 6.364 | | | | |
| 12,200.00 | 7,153.00 | 12,281.40 | 7,254.00 | 140.10 | 141.93 | -93.30 | -484.66 | -5,080.25 | 1,754.32 | 1,473.30 | 281.02 | 6.243 | | | | |
| 12,300.00 | 7,153.00 | 12,381.40 | 7,254.00 | 142.76 | 144.61 | -93.30 | -485.49 | -5,180.24 | 1,754.33 | 1,467.97 | 286.36 | 6.126 | | | | |
| 12,400.00 | 7,153.00 | 12,481.40 | 7,254.00 | 145.42 | 147.29 | -93.30 | -486.32 | -5,280.24 | 1,754.34 | 1,462.64 | 291.70 | 6.014 | | | | |
| 12,500.00 | 7,153.00 | 12,581.40 | 7,254.00 | 148.08 | 149.97 | -93.30 | -487.15 | -5,380.24 | 1,754.35 | 1,457.31 | 297.05 | 5.906 | | | | |
| 12,600.00 | 7,153.00 | 12,681.40 | 7,254.00 | 150.75 | 152.65 | -93.30 | -487.98 | -5,480.23 | 1,754.36 | 1,451.97 | 302.40 | 5.802 | | | | |
| 12,700.00 | 7,153.00 | 12,781.40 | 7,254.00 | 153.41 | 155.33 | -93.30 | -488.81 | -5,580.23 | 1,754.38 | 1,446.62 | 307.75 | 5.701 | | | | |
| 12,800.00 | 7,153.00 | 12,881.40 | 7,254.00 | 156.08 | 158.01 | -93.30 | -489.64 | -5,680.23 | 1,754.39 | 1,441.28 | 313.11 | 5.603 | | | | |
| 12,900.00 | 7,153.00 | 12,981.40 | 7,254.00 | 158.75 | 160.70 | -93.30 | -490.48 | -5,780.22 | 1,754.40 | 1,435.93 | 318.47 | 5.509 | | | | |
| 13,000.00 | 7,153.00 | 13,081.40 | 7,254.00 | 161.42 | 163.38 | -93.30 | -491.31 | -5,880.22 | 1,754.41 | 1,430.58 | 323.83 | 5.418 | | | | |
| 13,100.00 | 7,153.00 | 13,181.40 | 7,254.00 | 164.10 | 166.07 | -93.30 | -492.14 | -5,980.22 | 1,754.42 | 1,425.23 | 329.19 | 5.329 | | | | |
| 13,200.00 | 7,153.00 | 13,281.40 | 7,254.00 | 166.77 | 168.76 | -93.30 | -492.97 | -6,080.21 | 1,754.43 | 1,419.88 | 334.56 | 5.244 | | | | |
| 13,300.00 | 7,153.00 | 13,381.40 | 7,254.00 | 169.45 | 171.45 | -93.30 | -493.80 | -6,180.21 | 1,754.45 | 1,414.52 | 339.93 | 5.161 | | | | |
| 13,400.00 | 7,153.00 | 13,481.40 | 7,254.00 | 172.13 | 174.14 | -93.30 | -494.63 | -6,280.21 | 1,754.46 | 1,409.16 | 345.30 | 5.081 | | | | |
| 13,500.00 | 7,153.00 | 13,581.40 | 7,254.00 | 174.81 | 176.83 | -93.30 | -495.46 | -6,380.20 | 1,754.47 | 1,403.80 | 350.67 | 5.003 | | | | |
| 13,600.00 | 7,153.00 | 13,681.40 | 7,254.00 | 177.49 | 179.52 | -93.30 | -496.29 | -6,480.20 | 1,754.48 | 1,398.44 | 356.05 | 4.928 | | | | |
| 13,700.00 | 7,153.00 | 13,781.40 | 7,254.00 | 180.17 | 182.21 | -93.30 | -497.12 | -6,580.20 | 1,754.49 | 1,393.07 | 361.42 | 4.854 | | | | |
| 13,800.00 | 7,153.00 | 13,881.40 | 7,254.00 | 182.86 | 184.91 | -93.30 | -497.95 | -6,680.19 | 1,754.51 | 1,387.70 | 366.80 | 4.783 | | | | |
| 13,900.00 | 7,153.00 | 13,981.40 | 7,254.00 | 185.54 | 187.60 | -93.30 | -498.78 | -6,780.19 | 1,754.52 | 1,382.34 | 372.18 | 4.714 | | | | |
| 14,000.00 | 7,153.00 | 14,081.40 | 7,254.00 | 188.23 | 190.30 | -93.30 | -499.61 | -6,880.18 | 1,754.53 | 1,376.97 | 377.56 | 4.647 | | | | |
| 14,100.00 | 7,153.00 | 14,181.40 | 7,254.00 | 190.91 | 193.00 | -93.30 | -500.44 | -6,980.18 | 1,754.54 | 1,371.59 | 382.95 | 4.582 | | | | |
| 14,200.00 | 7,153.00 | 14,281.40 | 7,254.00 | 193.60 | 195.69 | -93.30 | -501.27 | -7,080.18 | 1,754.55 | 1,366.22 | 388.33 | 4.518 | | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-11H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|------------------|-----------------|--------------|--------------|--------------|------------------------|-------------------------|---------------------------|-------------------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Highside | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Reference (usft) | Offset (usft) | Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | |
| 14,300.00 | 7,153.00 | 14,381.40 | 7,254.00 | 196.29 | 198.39 | -93.30 | | -93.30 | -502.10 | -7,180.17 | 1,754.56 | 1,360.85 | 393.72 | 4.456 | |
| 14,400.00 | 7,153.00 | 14,481.40 | 7,254.00 | 198.98 | 201.09 | -93.30 | | -93.30 | -502.93 | -7,280.17 | 1,754.58 | 1,355.47 | 399.10 | 4.396 | |
| 14,500.00 | 7,153.00 | 14,581.40 | 7,254.00 | 201.67 | 203.79 | -93.30 | | -93.30 | -503.76 | -7,380.17 | 1,754.59 | 1,350.10 | 404.49 | 4.338 | |
| 14,600.00 | 7,153.00 | 14,681.40 | 7,254.00 | 204.36 | 206.49 | -93.30 | | -93.30 | -504.59 | -7,480.16 | 1,754.60 | 1,344.72 | 409.88 | 4.281 | |
| 14,700.00 | 7,153.00 | 14,781.40 | 7,254.00 | 207.05 | 209.19 | -93.30 | | -93.30 | -505.42 | -7,580.16 | 1,754.61 | 1,339.34 | 415.27 | 4.225 | |
| 14,800.00 | 7,153.00 | 14,881.40 | 7,254.00 | 209.75 | 211.89 | -93.30 | | -93.30 | -506.25 | -7,680.16 | 1,754.62 | 1,333.96 | 420.66 | 4.171 | |
| 14,900.00 | 7,153.00 | 14,981.40 | 7,254.00 | 212.44 | 214.59 | -93.30 | | -93.30 | -507.08 | -7,780.15 | 1,754.63 | 1,328.58 | 426.06 | 4.118 | |
| 15,000.00 | 7,153.00 | 15,081.40 | 7,254.00 | 215.13 | 217.29 | -93.30 | | -93.30 | -507.91 | -7,880.15 | 1,754.65 | 1,323.19 | 431.45 | 4.067 | |
| 15,100.00 | 7,153.00 | 15,181.40 | 7,254.00 | 217.83 | 219.99 | -93.30 | | -93.30 | -508.74 | -7,980.15 | 1,754.66 | 1,317.81 | 436.85 | 4.017 | |
| 15,200.00 | 7,153.00 | 15,281.40 | 7,254.00 | 220.53 | 222.69 | -93.30 | | -93.30 | -509.57 | -8,080.14 | 1,754.67 | 1,312.42 | 442.24 | 3.968 | |
| 15,300.00 | 7,153.00 | 15,381.40 | 7,254.00 | 223.22 | 225.40 | -93.30 | | -93.30 | -510.40 | -8,180.14 | 1,754.68 | 1,307.04 | 447.64 | 3.920 | |
| 15,400.00 | 7,153.00 | 15,481.40 | 7,254.00 | 225.92 | 228.10 | -93.30 | | -93.30 | -511.23 | -8,280.14 | 1,754.69 | 1,301.65 | 453.04 | 3.873 | |
| 15,455.54 | 7,153.00 | 15,537.17 | 7,254.00 | 227.42 | 229.61 | -93.30 | | -93.30 | -511.69 | -8,335.91 | 1,754.69 | 1,298.65 | 456.05 | 3.848 SF | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-12H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|------------------|---------------|--------------|--------------|------------------------|------------------------|-------------------------|---------------------------|-------------------|--|---------|--|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | | | |
| Reference | | | | Offset | | Semi Major Axis | | Highside | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Reference (usft) | Offset (usft) | Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 37.39 | 40.07 | 30.63 | 50.44 | 50.44 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.14 | 0.14 | 37.39 | 40.07 | 30.63 | 50.44 | 50.15 | 0.29 | 175.878 | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.50 | 0.50 | 37.39 | 40.07 | 30.63 | 50.44 | 49.43 | 1.00 | 50.251 | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 0.86 | 0.86 | 37.39 | 40.07 | 30.63 | 50.44 | 48.72 | 1.72 | 29.313 | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.22 | 1.22 | 1.22 | 1.22 | 37.39 | 40.07 | 30.63 | 50.44 | 48.00 | 2.44 | 20.692 | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.58 | 1.58 | 1.58 | 1.58 | 37.39 | 40.07 | 30.63 | 50.44 | 47.28 | 3.15 | 15.989 | | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.94 | 1.94 | 1.94 | 1.94 | 37.39 | 40.07 | 30.63 | 50.44 | 46.57 | 3.87 | 13.028 | | | |
| 700.00 | 700.00 | 700.92 | 700.90 | 2.29 | 2.28 | 2.29 | 2.28 | 39.12 | 38.40 | 31.23 | 49.51 | 44.93 | 4.57 | 10.822 | | | |
| 800.00 | 800.00 | 801.59 | 801.43 | 2.65 | 2.62 | 2.65 | 2.62 | 44.68 | 33.40 | 33.03 | 47.00 | 41.73 | 5.27 | 8.921 | | | |
| 900.00 | 900.00 | 901.77 | 901.21 | 3.01 | 2.96 | 3.01 | 2.96 | 55.09 | 25.13 | 36.01 | 43.93 | 37.96 | 5.97 | 7.354 | | | |
| 994.74 | 994.74 | 996.00 | 994.74 | 3.35 | 3.31 | 3.35 | 3.31 | 70.20 | 14.36 | 39.89 | 42.39 | 35.74 | 6.66 | 6.369 CC | | | |
| 1,000.00 | 1,000.00 | 1,001.21 | 999.90 | 3.37 | 3.32 | 3.37 | 3.32 | 71.17 | 13.68 | 40.13 | 42.40 | 35.71 | 6.69 | 6.334 ES | | | |
| 1,100.00 | 1,100.00 | 1,100.00 | 1,097.56 | 3.73 | 3.70 | 3.73 | 3.70 | 90.46 | -0.36 | 45.19 | 45.26 | 37.84 | 7.42 | 6.102 | | | |
| 1,200.00 | 1,200.00 | 1,198.81 | 1,195.18 | 4.09 | 4.10 | 4.09 | 4.10 | 106.27 | -14.70 | 50.35 | 52.68 | 44.55 | 8.13 | 6.482 | | | |
| 1,300.00 | 1,300.00 | 1,297.61 | 1,292.80 | 4.45 | 4.50 | 4.45 | 4.50 | 117.61 | -29.04 | 55.52 | 63.07 | 54.24 | 8.83 | 7.144 | | | |
| 1,400.00 | 1,400.00 | 1,396.41 | 1,390.42 | 4.80 | 4.91 | 4.80 | 4.91 | 125.56 | -43.38 | 60.68 | 75.20 | 65.67 | 9.53 | 7.892 | | | |
| 1,500.00 | 1,500.00 | 1,495.22 | 1,488.04 | 5.16 | 5.32 | 5.16 | 5.32 | 131.24 | -57.72 | 65.84 | 88.37 | 78.14 | 10.23 | 8.636 | | | |
| 1,600.00 | 1,600.00 | 1,594.02 | 1,585.66 | 5.52 | 5.74 | 5.52 | 5.74 | 135.42 | -72.06 | 71.01 | 102.17 | 91.23 | 10.94 | 9.340 | | | |
| 1,700.00 | 1,700.00 | 1,692.82 | 1,683.28 | 5.88 | 6.16 | 5.88 | 6.16 | 138.60 | -86.39 | 76.17 | 116.38 | 104.74 | 11.65 | 9.992 | | | |
| 1,800.00 | 1,800.00 | 1,791.62 | 1,780.90 | 6.24 | 6.59 | 6.24 | 6.59 | 141.08 | -100.73 | 81.33 | 130.87 | 118.51 | 12.36 | 10.589 | | | |
| 1,900.00 | 1,900.00 | 1,890.43 | 1,878.52 | 6.60 | 7.01 | 6.60 | 7.01 | 143.07 | -115.07 | 86.50 | 145.55 | 132.48 | 13.07 | 11.135 | | | |
| 2,000.00 | 2,000.00 | 1,989.23 | 1,976.14 | 6.95 | 7.44 | 6.95 | 7.44 | 144.69 | -129.41 | 91.66 | 160.37 | 146.58 | 13.79 | 11.632 | | | |
| 2,100.00 | 2,100.00 | 2,088.03 | 2,073.76 | 7.31 | 7.87 | 7.31 | 7.87 | 146.04 | -143.75 | 96.82 | 175.29 | 160.79 | 14.50 | 12.087 | | | |
| 2,200.00 | 2,200.00 | 2,186.84 | 2,171.39 | 7.67 | 8.30 | 7.67 | 8.30 | 147.17 | -158.09 | 101.99 | 190.29 | 175.08 | 15.22 | 12.504 | | | |
| 2,300.00 | 2,300.00 | 2,285.64 | 2,269.01 | 8.03 | 8.74 | 8.03 | 8.74 | 148.14 | -172.43 | 107.15 | 205.36 | 189.42 | 15.94 | 12.886 | | | |
| 2,400.00 | 2,400.00 | 2,384.44 | 2,366.63 | 8.39 | 9.17 | 8.39 | 9.17 | 148.98 | -186.77 | 112.31 | 220.48 | 203.82 | 16.65 | 13.238 | | | |
| 2,500.00 | 2,499.98 | 2,482.98 | 2,463.98 | 8.75 | 9.60 | 8.75 | 9.60 | 149.15 | -201.06 | 117.46 | 237.11 | 219.74 | 17.37 | 13.649 | | | |
| 2,600.00 | 2,599.84 | 2,580.88 | 2,560.71 | 9.11 | 10.04 | 9.11 | 10.04 | 150.17 | -215.27 | 122.58 | 256.78 | 238.69 | 18.08 | 14.199 | | | |
| 2,700.00 | 2,699.45 | 2,678.04 | 2,656.71 | 9.46 | 10.46 | 9.46 | 10.46 | 151.34 | -229.37 | 127.66 | 279.53 | 260.74 | 18.79 | 14.876 | | | |
| 2,800.00 | 2,798.70 | 2,774.34 | 2,751.86 | 9.82 | 10.89 | 9.82 | 10.89 | 152.58 | -243.35 | 132.69 | 305.43 | 285.94 | 19.49 | 15.670 | | | |
| 2,900.00 | 2,897.47 | 2,869.66 | 2,846.04 | 10.18 | 11.31 | 10.18 | 11.31 | 153.84 | -257.18 | 137.67 | 334.51 | 314.32 | 20.19 | 16.569 | | | |
| 3,000.00 | 2,995.62 | 2,963.89 | 2,939.14 | 10.55 | 11.73 | 10.55 | 11.73 | 155.08 | -270.86 | 142.59 | 366.78 | 345.90 | 20.88 | 17.566 | | | |
| 3,100.00 | 3,093.06 | 3,056.90 | 3,031.04 | 10.94 | 12.14 | 10.94 | 12.14 | 156.26 | -284.36 | 147.46 | 402.27 | 380.70 | 21.57 | 18.652 | | | |
| 3,200.00 | 3,189.64 | 3,148.59 | 3,121.63 | 11.34 | 12.55 | 11.34 | 12.55 | 157.36 | -297.66 | 152.25 | 440.95 | 418.70 | 22.25 | 19.820 | | | |
| 3,240.86 | 3,228.84 | 3,185.65 | 3,158.24 | 11.50 | 12.71 | 11.50 | 12.71 | 157.79 | -303.04 | 154.18 | 457.66 | 435.14 | 22.53 | 20.317 | | | |
| 3,300.00 | 3,285.45 | 3,239.11 | 3,211.07 | 11.75 | 12.95 | 11.75 | 12.95 | 158.56 | -310.80 | 156.98 | 482.28 | 459.36 | 22.92 | 21.038 | | | |
| 3,400.00 | 3,381.17 | 3,329.51 | 3,300.38 | 12.19 | 13.35 | 12.19 | 13.35 | 159.70 | -323.92 | 161.70 | 524.05 | 500.45 | 23.60 | 22.206 | | | |
| 3,500.00 | 3,476.90 | 3,419.90 | 3,389.69 | 12.63 | 13.75 | 12.63 | 13.75 | 160.68 | -337.04 | 166.43 | 565.97 | 541.70 | 24.28 | 23.312 | | | |
| 3,600.00 | 3,572.62 | 3,510.30 | 3,479.00 | 13.09 | 14.15 | 13.09 | 14.15 | 161.52 | -350.15 | 171.15 | 608.01 | 583.05 | 24.96 | 24.360 | | | |
| 3,700.00 | 3,668.34 | 3,600.69 | 3,568.32 | 13.56 | 14.55 | 13.56 | 14.55 | 162.25 | -363.27 | 175.87 | 650.14 | 624.50 | 25.64 | 25.352 | | | |
| 3,800.00 | 3,764.07 | 3,691.09 | 3,657.63 | 14.04 | 14.96 | 14.04 | 14.96 | 162.90 | -376.39 | 180.60 | 692.35 | 666.02 | 26.33 | 26.294 | | | |
| 3,900.00 | 3,859.79 | 3,781.48 | 3,746.94 | 14.52 | 15.36 | 14.52 | 15.36 | 163.47 | -389.51 | 185.32 | 734.63 | 707.61 | 27.02 | 27.188 | | | |
| 4,000.00 | 3,955.51 | 3,871.88 | 3,836.26 | 15.02 | 15.76 | 15.02 | 15.76 | 163.98 | -402.63 | 190.05 | 776.95 | 749.24 | 27.71 | 28.038 | | | |
| 4,100.00 | 4,051.24 | 3,962.27 | 3,925.57 | 15.52 | 16.16 | 15.52 | 16.16 | 164.43 | -415.75 | 194.77 | 819.33 | 790.92 | 28.40 | 28.845 | | | |
| 4,200.00 | 4,146.96 | 4,052.67 | 4,014.88 | 16.03 | 16.57 | 16.03 | 16.57 | 164.85 | -428.86 | 199.49 | 861.74 | 832.64 | 29.10 | 29.614 | | | |
| 4,300.00 | 4,242.68 | 4,143.06 | 4,104.20 | 16.54 | 16.97 | 16.54 | 16.97 | 165.22 | -441.98 | 204.22 | 904.18 | 874.39 | 29.80 | 30.347 | | | |
| 4,400.00 | 4,338.41 | 4,233.46 | 4,193.51 | 17.06 | 17.37 | 17.06 | 17.37 | 165.56 | -455.10 | 208.94 | 946.66 | 916.16 | 30.49 | 31.045 | | | |
| 4,500.00 | 4,434.13 | 4,323.85 | 4,282.82 | 17.59 | 17.77 | 17.59 | 17.77 | 165.87 | -468.22 | 213.67 | 989.15 | 957.96 | 31.19 | 31.712 | | | |
| 4,600.00 | 4,529.85 | 4,414.25 | 4,372.14 | 18.11 | 18.18 | 18.11 | 18.18 | 166.16 | -481.34 | 218.39 | 1,031.67 | 999.78 | 31.89 | 32.349 | | | |
| 4,700.00 | 4,625.58 | 4,504.64 | 4,461.45 | 18.65 | 18.58 | 18.65 | 18.58 | 166.42 | -494.46 | 223.11 | 1,074.21 | 1,041.62 | 32.59 | 32.957 | | | |
| 4,800.00 | 4,721.30 | 4,595.04 | 4,550.76 | 19.18 | 18.98 | 19.18 | 18.98 | 166.66 | -507.58 | 227.84 | 1,116.77 | 1,083.47 | 33.30 | 33.540 | | | |
| 4,900.00 | 4,817.02 | 4,685.43 | 4,640.08 | 19.72 | 19.39 | 19.72 | 19.39 | 166.89 | -520.69 | 232.56 | 1,159.34 | 1,125.34 | 34.00 | 34.097 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-12H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,000.00 | 4,912.74 | 4,775.83 | 4,729.39 | 20.27 | 19.79 | 167.09 | -533.81 | 237.29 | 1,201.93 | 1,167.22 | 34.71 | 34.632 | | |
| 5,100.00 | 5,008.47 | 4,866.22 | 4,818.70 | 20.81 | 20.19 | 167.29 | -546.93 | 242.01 | 1,244.53 | 1,209.11 | 35.41 | 35.144 | | |
| 5,200.00 | 5,104.19 | 4,956.62 | 4,908.02 | 21.36 | 20.60 | 167.47 | -560.05 | 246.73 | 1,287.13 | 1,251.02 | 36.12 | 35.636 | | |
| 5,300.00 | 5,199.91 | 5,047.01 | 4,997.33 | 21.91 | 21.00 | 167.64 | -573.17 | 251.46 | 1,329.75 | 1,292.93 | 36.83 | 36.108 | | |
| 5,400.00 | 5,295.64 | 5,137.41 | 5,086.64 | 22.46 | 21.41 | 167.80 | -586.29 | 256.18 | 1,372.38 | 1,334.85 | 37.54 | 36.562 | | |
| 5,500.00 | 5,391.36 | 5,227.80 | 5,175.96 | 23.02 | 21.81 | 167.95 | -599.41 | 260.91 | 1,415.02 | 1,376.77 | 38.25 | 36.998 | | |
| 5,600.00 | 5,487.08 | 5,318.20 | 5,265.27 | 23.58 | 22.21 | 168.09 | -612.52 | 265.63 | 1,457.66 | 1,418.70 | 38.96 | 37.418 | | |
| 5,700.00 | 5,582.81 | 5,408.59 | 5,354.58 | 24.13 | 22.62 | 168.23 | -625.64 | 270.35 | 1,500.31 | 1,460.64 | 39.67 | 37.823 | | |
| 5,800.00 | 5,678.53 | 5,498.99 | 5,443.90 | 24.70 | 23.02 | 168.35 | -638.76 | 275.08 | 1,542.97 | 1,502.59 | 40.38 | 38.212 | | |
| 5,900.00 | 5,774.25 | 5,589.38 | 5,533.21 | 25.26 | 23.42 | 168.47 | -651.88 | 279.80 | 1,585.63 | 1,544.54 | 41.09 | 38.588 | | |
| 6,000.00 | 5,869.98 | 5,679.78 | 5,622.52 | 25.82 | 23.83 | 168.58 | -665.00 | 284.53 | 1,628.30 | 1,586.49 | 41.80 | 38.950 | | |
| 6,100.00 | 5,965.70 | 5,770.17 | 5,711.84 | 26.39 | 24.23 | 168.69 | -678.12 | 289.25 | 1,670.97 | 1,628.45 | 42.52 | 39.300 | | |
| 6,200.00 | 6,061.42 | 5,860.57 | 5,801.15 | 26.95 | 24.64 | 168.79 | -691.24 | 293.97 | 1,713.65 | 1,670.41 | 43.23 | 39.637 | | |
| 6,300.00 | 6,157.15 | 5,950.96 | 5,890.46 | 27.52 | 25.04 | 168.89 | -704.35 | 298.70 | 1,756.33 | 1,712.38 | 43.95 | 39.963 | | |
| 6,400.00 | 6,252.87 | 6,041.36 | 5,979.78 | 28.09 | 25.44 | 168.98 | -717.47 | 303.42 | 1,799.01 | 1,754.35 | 44.66 | 40.279 | | |
| 6,500.00 | 6,348.59 | 6,131.75 | 6,069.09 | 28.66 | 25.85 | 169.07 | -730.59 | 308.15 | 1,841.70 | 1,796.32 | 45.38 | 40.583 | | |
| 6,600.00 | 6,444.32 | 6,222.15 | 6,158.40 | 29.23 | 26.25 | 169.15 | -743.71 | 312.87 | 1,884.39 | 1,838.30 | 46.10 | 40.878 | | |
| 6,700.00 | 6,540.04 | 6,312.54 | 6,247.72 | 29.80 | 26.66 | 169.23 | -756.83 | 317.59 | 1,927.09 | 1,880.27 | 46.82 | 41.164 | | |
| 6,764.28 | 6,601.58 | 6,370.65 | 6,305.13 | 30.17 | 26.92 | 169.28 | -765.26 | 320.63 | 1,954.54 | 1,907.26 | 47.28 | 41.342 | | |
| 6,800.00 | 6,635.75 | 6,402.87 | 6,336.96 | 30.37 | 27.06 | -177.35 | -769.94 | 322.31 | 1,969.95 | 1,922.42 | 47.53 | 41.445 | | |
| 6,850.00 | 6,683.35 | 6,447.55 | 6,381.11 | 30.66 | 27.26 | -160.27 | -776.42 | 324.65 | 1,991.98 | 1,944.10 | 47.88 | 41.604 | | |
| 6,900.00 | 6,730.36 | 6,491.45 | 6,424.48 | 30.94 | 27.46 | -146.26 | -782.79 | 326.94 | 2,014.42 | 1,966.21 | 48.22 | 41.779 | | |
| 6,950.00 | 6,776.41 | 6,534.23 | 6,466.75 | 31.21 | 27.65 | -135.25 | -789.00 | 329.18 | 2,037.15 | 1,988.61 | 48.54 | 41.969 | | |
| 7,000.00 | 6,821.15 | 6,638.66 | 6,569.84 | 31.47 | 28.07 | -127.14 | -804.22 | 325.22 | 2,059.44 | 2,010.18 | 49.26 | 41.808 | | |
| 7,050.00 | 6,864.24 | 6,754.84 | 6,681.52 | 31.73 | 28.45 | -120.61 | -820.89 | 298.71 | 2,080.35 | 2,030.41 | 49.94 | 41.657 | | |
| 7,100.00 | 6,905.35 | 6,880.00 | 6,793.20 | 31.97 | 28.76 | -115.11 | -837.79 | 245.38 | 2,099.48 | 2,048.93 | 50.56 | 41.527 | | |
| 7,150.00 | 6,944.18 | 7,009.56 | 6,893.88 | 32.21 | 28.98 | -110.25 | -853.28 | 165.77 | 2,116.56 | 2,065.39 | 51.16 | 41.369 | | |
| 7,200.00 | 6,980.42 | 7,137.41 | 6,973.39 | 32.45 | 29.13 | -105.83 | -865.82 | 66.79 | 2,131.40 | 2,079.52 | 51.88 | 41.083 | | |
| 7,250.00 | 7,013.80 | 7,257.89 | 7,026.73 | 32.68 | 29.22 | -101.79 | -874.57 | -40.64 | 2,144.03 | 2,091.23 | 52.80 | 40.606 | | |
| 7,300.00 | 7,044.06 | 7,367.47 | 7,054.98 | 32.91 | 29.35 | -98.16 | -879.61 | -146.23 | 2,154.56 | 2,100.59 | 53.96 | 39.926 | | |
| 7,350.00 | 7,070.98 | 7,465.03 | 7,063.00 | 33.15 | 29.66 | -94.96 | -881.60 | -243.31 | 2,163.16 | 2,107.91 | 55.24 | 39.156 | | |
| 7,400.00 | 7,094.36 | 7,508.08 | 7,063.00 | 33.39 | 29.91 | -92.84 | -881.96 | -286.36 | 2,170.44 | 2,114.38 | 56.06 | 38.715 | | |
| 7,450.00 | 7,114.00 | 7,553.65 | 7,063.00 | 33.65 | 30.28 | -91.08 | -882.34 | -331.94 | 2,176.75 | 2,119.75 | 57.01 | 38.185 | | |
| 7,500.00 | 7,129.76 | 7,600.85 | 7,063.00 | 33.93 | 30.75 | -89.68 | -882.73 | -379.13 | 2,181.95 | 2,123.93 | 58.02 | 37.608 | | |
| 7,550.00 | 7,141.53 | 7,649.29 | 7,063.00 | 34.22 | 31.34 | -88.65 | -883.13 | -427.57 | 2,185.90 | 2,126.71 | 59.18 | 36.934 | | |
| 7,600.00 | 7,149.21 | 7,698.63 | 7,063.00 | 34.55 | 32.00 | -87.98 | -883.54 | -476.91 | 2,188.51 | 2,128.10 | 60.41 | 36.226 | | |
| 7,650.00 | 7,152.75 | 7,748.48 | 7,063.00 | 34.90 | 32.74 | -87.67 | -883.96 | -526.75 | 2,189.73 | 2,127.96 | 61.77 | 35.449 | | |
| 7,667.38 | 7,153.00 | 7,765.85 | 7,063.00 | 35.04 | 33.00 | -87.64 | -884.10 | -544.13 | 2,189.82 | 2,127.56 | 62.26 | 35.175 | | |
| 7,700.00 | 7,153.00 | 7,798.47 | 7,063.00 | 35.29 | 33.51 | -87.64 | -884.37 | -576.75 | 2,189.82 | 2,126.64 | 63.18 | 34.661 | | |
| 7,800.00 | 7,153.00 | 7,898.47 | 7,063.00 | 36.22 | 35.19 | -87.64 | -885.20 | -676.75 | 2,189.83 | 2,123.56 | 66.27 | 33.043 | | |
| 7,900.00 | 7,153.00 | 7,998.47 | 7,063.00 | 37.35 | 37.00 | -87.64 | -886.04 | -776.74 | 2,189.85 | 2,120.19 | 69.65 | 31.439 | | |
| 8,000.00 | 7,153.00 | 8,098.47 | 7,063.00 | 38.67 | 38.93 | -87.64 | -886.87 | -876.74 | 2,189.86 | 2,116.58 | 73.29 | 29.881 | | |
| 8,100.00 | 7,153.00 | 8,198.47 | 7,063.00 | 40.16 | 40.95 | -87.64 | -887.70 | -976.73 | 2,189.87 | 2,112.74 | 77.13 | 28.392 | | |
| 8,200.00 | 7,153.00 | 8,298.47 | 7,063.00 | 41.81 | 43.05 | -87.64 | -888.53 | -1,076.73 | 2,189.89 | 2,108.73 | 81.16 | 26.983 | | |
| 8,300.00 | 7,153.00 | 8,398.47 | 7,063.00 | 43.59 | 45.21 | -87.64 | -889.36 | -1,176.73 | 2,189.90 | 2,104.56 | 85.34 | 25.660 | | |
| 8,400.00 | 7,153.00 | 8,498.47 | 7,063.00 | 45.47 | 47.44 | -87.64 | -890.19 | -1,276.72 | 2,189.91 | 2,100.25 | 89.66 | 24.424 | | |
| 8,500.00 | 7,153.00 | 8,598.47 | 7,063.00 | 47.45 | 49.71 | -87.64 | -891.02 | -1,376.72 | 2,189.92 | 2,095.82 | 94.10 | 23.272 | | |
| 8,600.00 | 7,153.00 | 8,698.47 | 7,063.00 | 49.51 | 52.02 | -87.64 | -891.86 | -1,476.72 | 2,189.94 | 2,091.30 | 98.64 | 22.201 | | |
| 8,700.00 | 7,153.00 | 8,798.47 | 7,063.00 | 51.64 | 54.38 | -87.64 | -892.69 | -1,576.71 | 2,189.95 | 2,086.68 | 103.27 | 21.207 | | |
| 8,800.00 | 7,153.00 | 8,898.47 | 7,063.00 | 53.82 | 56.76 | -87.64 | -893.52 | -1,676.71 | 2,189.96 | 2,081.99 | 107.97 | 20.283 | | |
| 8,900.00 | 7,153.00 | 8,998.47 | 7,063.00 | 56.06 | 59.17 | -87.64 | -894.35 | -1,776.71 | 2,189.98 | 2,077.24 | 112.74 | 19.426 | | |
| 9,000.00 | 7,153.00 | 9,098.47 | 7,063.00 | 58.34 | 61.61 | -87.64 | -895.18 | -1,876.70 | 2,189.99 | 2,072.42 | 117.56 | 18.628 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-12H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 9,100.00 | 7,153.00 | 9,198.47 | 7,063.00 | 60.66 | 64.08 | -87.64 | -896.01 | -1,976.70 | 2,190.00 | 2,067.56 | 122.44 | 17.886 | | |
| 9,200.00 | 7,153.00 | 9,298.47 | 7,063.00 | 63.01 | 66.56 | -87.64 | -896.84 | -2,076.70 | 2,190.01 | 2,062.65 | 127.37 | 17.194 | | |
| 9,300.00 | 7,153.00 | 9,398.47 | 7,063.00 | 65.40 | 69.06 | -87.64 | -897.68 | -2,176.69 | 2,190.03 | 2,057.69 | 132.33 | 16.549 | | |
| 9,400.00 | 7,153.00 | 9,498.47 | 7,063.00 | 67.81 | 71.57 | -87.64 | -898.51 | -2,276.69 | 2,190.04 | 2,052.71 | 137.33 | 15.947 | | |
| 9,500.00 | 7,153.00 | 9,598.47 | 7,063.00 | 70.24 | 74.10 | -87.64 | -899.34 | -2,376.69 | 2,190.05 | 2,047.68 | 142.37 | 15.383 | | |
| 9,600.00 | 7,153.00 | 9,698.47 | 7,063.00 | 72.70 | 76.65 | -87.64 | -900.17 | -2,476.68 | 2,190.06 | 2,042.64 | 147.43 | 14.855 | | |
| 9,700.00 | 7,153.00 | 9,798.47 | 7,063.00 | 75.17 | 79.20 | -87.64 | -901.00 | -2,576.68 | 2,190.08 | 2,037.56 | 152.52 | 14.359 | | |
| 9,800.00 | 7,153.00 | 9,898.47 | 7,063.00 | 77.67 | 81.77 | -87.64 | -901.83 | -2,676.68 | 2,190.09 | 2,032.46 | 157.63 | 13.894 | | |
| 9,900.00 | 7,153.00 | 9,998.47 | 7,063.00 | 80.17 | 84.34 | -87.64 | -902.66 | -2,776.67 | 2,190.10 | 2,027.34 | 162.76 | 13.456 | | |
| 10,000.00 | 7,153.00 | 10,098.47 | 7,063.00 | 82.69 | 86.93 | -87.64 | -903.50 | -2,876.67 | 2,190.12 | 2,022.20 | 167.92 | 13.043 | | |
| 10,100.00 | 7,153.00 | 10,198.47 | 7,063.00 | 85.23 | 89.52 | -87.64 | -904.33 | -2,976.67 | 2,190.13 | 2,017.04 | 173.09 | 12.653 | | |
| 10,200.00 | 7,153.00 | 10,298.47 | 7,063.00 | 87.77 | 92.12 | -87.64 | -905.16 | -3,076.66 | 2,190.14 | 2,011.87 | 178.27 | 12.285 | | |
| 10,300.00 | 7,153.00 | 10,398.47 | 7,063.00 | 90.33 | 94.73 | -87.64 | -905.99 | -3,176.66 | 2,190.15 | 2,006.68 | 183.47 | 11.937 | | |
| 10,400.00 | 7,153.00 | 10,498.47 | 7,063.00 | 92.89 | 97.34 | -87.64 | -906.82 | -3,276.66 | 2,190.17 | 2,001.48 | 188.69 | 11.607 | | |
| 10,500.00 | 7,153.00 | 10,598.47 | 7,063.00 | 95.47 | 99.96 | -87.64 | -907.65 | -3,376.65 | 2,190.18 | 1,996.27 | 193.91 | 11.295 | | |
| 10,600.00 | 7,153.00 | 10,698.47 | 7,063.00 | 98.05 | 102.58 | -87.64 | -908.48 | -3,476.65 | 2,190.19 | 1,991.04 | 199.15 | 10.998 | | |
| 10,700.00 | 7,153.00 | 10,798.47 | 7,063.00 | 100.64 | 105.21 | -87.64 | -909.32 | -3,576.64 | 2,190.21 | 1,985.81 | 204.40 | 10.715 | | |
| 10,800.00 | 7,153.00 | 10,898.47 | 7,063.00 | 103.24 | 107.85 | -87.64 | -910.15 | -3,676.64 | 2,190.22 | 1,980.56 | 209.66 | 10.447 | | |
| 10,900.00 | 7,153.00 | 10,998.47 | 7,063.00 | 105.84 | 110.48 | -87.64 | -910.98 | -3,776.64 | 2,190.23 | 1,975.31 | 214.93 | 10.191 | | |
| 11,000.00 | 7,153.00 | 11,098.47 | 7,063.00 | 108.45 | 113.13 | -87.64 | -911.81 | -3,876.63 | 2,190.24 | 1,970.04 | 220.20 | 9.947 | | |
| 11,100.00 | 7,153.00 | 11,198.47 | 7,063.00 | 111.07 | 115.77 | -87.64 | -912.64 | -3,976.63 | 2,190.26 | 1,964.77 | 225.49 | 9.714 | | |
| 11,200.00 | 7,153.00 | 11,298.47 | 7,063.00 | 113.69 | 118.42 | -87.65 | -913.47 | -4,076.63 | 2,190.27 | 1,959.49 | 230.78 | 9.491 | | |
| 11,300.00 | 7,153.00 | 11,398.47 | 7,063.00 | 116.31 | 121.07 | -87.65 | -914.30 | -4,176.62 | 2,190.28 | 1,954.21 | 236.07 | 9.278 | | |
| 11,400.00 | 7,153.00 | 11,498.47 | 7,063.00 | 118.94 | 123.73 | -87.65 | -915.14 | -4,276.62 | 2,190.30 | 1,948.92 | 241.38 | 9.074 | | |
| 11,500.00 | 7,153.00 | 11,598.47 | 7,063.00 | 121.57 | 126.39 | -87.65 | -915.97 | -4,376.62 | 2,190.31 | 1,943.62 | 246.69 | 8.879 | | |
| 11,600.00 | 7,153.00 | 11,698.47 | 7,063.00 | 124.21 | 129.05 | -87.65 | -916.80 | -4,476.61 | 2,190.32 | 1,938.32 | 252.00 | 8.692 | | |
| 11,700.00 | 7,153.00 | 11,798.47 | 7,063.00 | 126.85 | 131.71 | -87.65 | -917.63 | -4,576.61 | 2,190.33 | 1,933.01 | 257.32 | 8.512 | | |
| 11,800.00 | 7,153.00 | 11,898.47 | 7,063.00 | 129.49 | 134.38 | -87.65 | -918.46 | -4,676.61 | 2,190.35 | 1,927.70 | 262.65 | 8.339 | | |
| 11,900.00 | 7,153.00 | 11,998.47 | 7,063.00 | 132.14 | 137.04 | -87.65 | -919.29 | -4,776.60 | 2,190.36 | 1,922.38 | 267.98 | 8.174 | | |
| 12,000.00 | 7,153.00 | 12,098.47 | 7,063.00 | 134.79 | 139.71 | -87.65 | -920.12 | -4,876.60 | 2,190.37 | 1,917.06 | 273.31 | 8.014 | | |
| 12,100.00 | 7,153.00 | 12,198.47 | 7,063.00 | 137.44 | 142.38 | -87.65 | -920.96 | -4,976.60 | 2,190.38 | 1,911.74 | 278.65 | 7.861 | | |
| 12,200.00 | 7,153.00 | 12,298.47 | 7,063.00 | 140.10 | 145.06 | -87.65 | -921.79 | -5,076.59 | 2,190.40 | 1,906.41 | 283.99 | 7.713 | | |
| 12,300.00 | 7,153.00 | 12,398.47 | 7,063.00 | 142.76 | 147.73 | -87.65 | -922.62 | -5,176.59 | 2,190.41 | 1,901.07 | 289.34 | 7.570 | | |
| 12,400.00 | 7,153.00 | 12,498.47 | 7,063.00 | 145.42 | 150.41 | -87.65 | -923.45 | -5,276.59 | 2,190.42 | 1,895.74 | 294.69 | 7.433 | | |
| 12,500.00 | 7,153.00 | 12,598.47 | 7,063.00 | 148.08 | 153.09 | -87.65 | -924.28 | -5,376.58 | 2,190.44 | 1,890.40 | 300.04 | 7.301 | | |
| 12,600.00 | 7,153.00 | 12,698.47 | 7,063.00 | 150.75 | 155.77 | -87.65 | -925.11 | -5,476.58 | 2,190.45 | 1,885.05 | 305.39 | 7.173 | | |
| 12,700.00 | 7,153.00 | 12,798.47 | 7,063.00 | 153.41 | 158.45 | -87.65 | -925.94 | -5,576.58 | 2,190.46 | 1,879.71 | 310.75 | 7.049 | | |
| 12,800.00 | 7,153.00 | 12,898.47 | 7,063.00 | 156.08 | 161.13 | -87.65 | -926.78 | -5,676.57 | 2,190.47 | 1,874.36 | 316.11 | 6.929 | | |
| 12,900.00 | 7,153.00 | 12,998.47 | 7,063.00 | 158.75 | 163.82 | -87.65 | -927.61 | -5,776.57 | 2,190.49 | 1,869.01 | 321.48 | 6.814 | | |
| 13,000.00 | 7,153.00 | 13,098.47 | 7,063.00 | 161.42 | 166.50 | -87.65 | -928.44 | -5,876.57 | 2,190.50 | 1,863.66 | 326.84 | 6.702 | | |
| 13,100.00 | 7,153.00 | 13,198.47 | 7,063.00 | 164.10 | 169.19 | -87.65 | -929.27 | -5,976.56 | 2,190.51 | 1,858.30 | 332.21 | 6.594 | | |
| 13,200.00 | 7,153.00 | 13,298.47 | 7,063.00 | 166.77 | 171.88 | -87.65 | -930.10 | -6,076.56 | 2,190.53 | 1,852.94 | 337.58 | 6.489 | | |
| 13,300.00 | 7,153.00 | 13,398.47 | 7,063.00 | 169.45 | 174.56 | -87.65 | -930.93 | -6,176.56 | 2,190.54 | 1,847.58 | 342.95 | 6.387 | | |
| 13,400.00 | 7,153.00 | 13,498.47 | 7,063.00 | 172.13 | 177.25 | -87.65 | -931.76 | -6,276.55 | 2,190.55 | 1,842.22 | 348.33 | 6.289 | | |
| 13,500.00 | 7,153.00 | 13,598.47 | 7,063.00 | 174.81 | 179.94 | -87.65 | -932.60 | -6,376.55 | 2,190.56 | 1,836.86 | 353.71 | 6.193 | | |
| 13,600.00 | 7,153.00 | 13,698.47 | 7,063.00 | 177.49 | 182.64 | -87.65 | -933.43 | -6,476.54 | 2,190.58 | 1,831.49 | 359.09 | 6.100 | | |
| 13,700.00 | 7,153.00 | 13,798.47 | 7,063.00 | 180.17 | 185.33 | -87.65 | -934.26 | -6,576.54 | 2,190.59 | 1,826.12 | 364.47 | 6.010 | | |
| 13,800.00 | 7,153.00 | 13,898.47 | 7,063.00 | 182.86 | 188.02 | -87.65 | -935.09 | -6,676.54 | 2,190.60 | 1,820.75 | 369.85 | 5.923 | | |
| 13,900.00 | 7,153.00 | 13,998.47 | 7,063.00 | 185.54 | 190.72 | -87.65 | -935.92 | -6,776.53 | 2,190.61 | 1,815.38 | 375.23 | 5.838 | | |
| 14,000.00 | 7,153.00 | 14,098.47 | 7,063.00 | 188.23 | 193.41 | -87.65 | -936.75 | -6,876.53 | 2,190.63 | 1,810.01 | 380.62 | 5.755 | | |
| 14,100.00 | 7,153.00 | 14,198.47 | 7,063.00 | 190.91 | 196.11 | -87.65 | -937.58 | -6,976.53 | 2,190.64 | 1,804.64 | 386.00 | 5.675 | | |
| 14,200.00 | 7,153.00 | 14,298.47 | 7,063.00 | 193.60 | 198.80 | -87.65 | -938.42 | -7,076.52 | 2,190.65 | 1,799.26 | 391.39 | 5.597 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-12H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 14,300.00 | 7,153.00 | 14,398.47 | 7,063.00 | 196.29 | 201.50 | -87.65 | -939.25 | -7,176.52 | 2,190.67 | 1,793.88 | 396.78 | 5.521 | | |
| 14,400.00 | 7,153.00 | 14,498.47 | 7,063.00 | 198.98 | 204.20 | -87.65 | -940.08 | -7,276.52 | 2,190.68 | 1,788.51 | 402.17 | 5.447 | | |
| 14,500.00 | 7,153.00 | 14,598.47 | 7,063.00 | 201.67 | 206.90 | -87.65 | -940.91 | -7,376.51 | 2,190.69 | 1,783.13 | 407.57 | 5.375 | | |
| 14,600.00 | 7,153.00 | 14,698.47 | 7,063.00 | 204.36 | 209.59 | -87.65 | -941.74 | -7,476.51 | 2,190.70 | 1,777.74 | 412.96 | 5.305 | | |
| 14,700.00 | 7,153.00 | 14,798.47 | 7,063.00 | 207.05 | 212.29 | -87.65 | -942.57 | -7,576.51 | 2,190.72 | 1,772.36 | 418.35 | 5.237 | | |
| 14,800.00 | 7,153.00 | 14,898.47 | 7,063.00 | 209.75 | 214.99 | -87.65 | -943.40 | -7,676.50 | 2,190.73 | 1,766.98 | 423.75 | 5.170 | | |
| 14,900.00 | 7,153.00 | 14,998.47 | 7,063.00 | 212.44 | 217.69 | -87.65 | -944.24 | -7,776.50 | 2,190.74 | 1,761.60 | 429.15 | 5.105 | | |
| 15,000.00 | 7,153.00 | 15,098.47 | 7,063.00 | 215.13 | 220.39 | -87.65 | -945.07 | -7,876.50 | 2,190.76 | 1,756.21 | 434.55 | 5.041 | | |
| 15,100.00 | 7,153.00 | 15,198.47 | 7,063.00 | 217.83 | 223.10 | -87.65 | -945.90 | -7,976.49 | 2,190.77 | 1,750.82 | 439.94 | 4.980 | | |
| 15,200.00 | 7,153.00 | 15,298.47 | 7,063.00 | 220.53 | 225.80 | -87.65 | -946.73 | -8,076.49 | 2,190.78 | 1,745.44 | 445.34 | 4.919 | | |
| 15,300.00 | 7,153.00 | 15,398.47 | 7,063.00 | 223.22 | 228.50 | -87.65 | -947.56 | -8,176.49 | 2,190.79 | 1,740.05 | 450.75 | 4.860 | | |
| 15,400.00 | 7,153.00 | 15,498.47 | 7,063.00 | 225.92 | 231.20 | -87.65 | -948.39 | -8,276.48 | 2,190.81 | 1,734.66 | 456.15 | 4.803 | | |
| 15,455.54 | 7,153.00 | 15,554.02 | 7,063.00 | 227.42 | 232.71 | -87.65 | -948.85 | -8,332.02 | 2,190.81 | 1,731.67 | 459.15 | 4.771 SF | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-13H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|---------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Separation Factor | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 54.49 | 21.86 | 30.63 | 37.63 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 54.49 | 21.86 | 30.63 | 37.63 | 37.34 | 0.29 | 131.212 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 54.49 | 21.86 | 30.63 | 37.63 | 36.62 | 1.00 | 37.489 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 54.49 | 21.86 | 30.63 | 37.63 | 35.91 | 1.72 | 21.869 | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.22 | 1.22 | 54.49 | 21.86 | 30.63 | 37.63 | 35.19 | 2.44 | 15.437 | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.58 | 1.58 | 54.49 | 21.86 | 30.63 | 37.63 | 34.47 | 3.15 | 11.928 | | |
| 600.00 | 600.00 | 600.47 | 600.45 | 1.94 | 1.92 | 57.01 | 20.14 | 31.02 | 36.99 | 33.13 | 3.86 | 9.592 | | |
| 700.00 | 700.00 | 700.69 | 700.52 | 2.29 | 2.26 | 65.01 | 15.01 | 32.20 | 35.53 | 30.98 | 4.55 | 7.809 | | |
| 787.49 | 787.49 | 787.97 | 787.49 | 2.61 | 2.56 | 77.09 | 7.76 | 33.86 | 34.74 | 29.57 | 5.17 | 6.722 | CC | |
| 800.00 | 800.00 | 800.42 | 799.87 | 2.65 | 2.60 | 79.19 | 6.52 | 34.15 | 34.76 | 29.51 | 5.26 | 6.613 | ES | |
| 900.00 | 900.00 | 899.42 | 898.13 | 3.01 | 2.97 | 98.09 | -5.24 | 36.84 | 37.26 | 31.29 | 5.97 | 6.239 | | |
| 1,000.00 | 1,000.00 | 997.48 | 994.98 | 3.37 | 3.35 | 116.58 | -20.14 | 40.26 | 45.29 | 38.62 | 6.67 | 6.787 | | |
| 1,100.00 | 1,100.00 | 1,094.37 | 1,090.11 | 3.73 | 3.76 | 130.61 | -38.03 | 44.36 | 59.26 | 51.90 | 7.35 | 8.060 | | |
| 1,200.00 | 1,200.00 | 1,191.90 | 1,185.47 | 4.09 | 4.19 | 139.85 | -58.01 | 48.94 | 77.27 | 69.23 | 8.04 | 9.610 | | |
| 1,300.00 | 1,300.00 | 1,289.66 | 1,281.03 | 4.45 | 4.64 | 145.56 | -78.07 | 53.54 | 96.55 | 87.81 | 8.74 | 11.048 | | |
| 1,400.00 | 1,400.00 | 1,387.42 | 1,376.60 | 4.80 | 5.10 | 149.36 | -98.13 | 58.13 | 116.44 | 106.99 | 9.45 | 12.327 | | |
| 1,500.00 | 1,500.00 | 1,485.18 | 1,472.17 | 5.16 | 5.56 | 152.04 | -118.20 | 62.73 | 136.68 | 126.52 | 10.16 | 13.457 | | |
| 1,600.00 | 1,600.00 | 1,582.94 | 1,567.74 | 5.52 | 6.03 | 154.03 | -138.26 | 67.33 | 157.13 | 146.26 | 10.87 | 14.456 | | |
| 1,700.00 | 1,700.00 | 1,680.70 | 1,663.30 | 5.88 | 6.51 | 155.57 | -158.32 | 71.93 | 177.72 | 166.14 | 11.59 | 15.340 | | |
| 1,800.00 | 1,800.00 | 1,778.45 | 1,758.87 | 6.24 | 6.98 | 156.78 | -178.38 | 76.53 | 198.41 | 186.11 | 12.30 | 16.127 | | |
| 1,900.00 | 1,900.00 | 1,876.21 | 1,854.44 | 6.60 | 7.47 | 157.76 | -198.44 | 81.13 | 219.17 | 206.15 | 13.02 | 16.830 | | |
| 2,000.00 | 2,000.00 | 1,973.97 | 1,950.01 | 6.95 | 7.95 | 158.58 | -218.50 | 85.73 | 239.98 | 226.24 | 13.74 | 17.462 | | |
| 2,100.00 | 2,100.00 | 2,071.73 | 2,045.57 | 7.31 | 8.44 | 159.26 | -238.56 | 90.32 | 260.83 | 246.37 | 14.47 | 18.031 | | |
| 2,200.00 | 2,200.00 | 2,169.49 | 2,141.14 | 7.67 | 8.92 | 159.85 | -258.63 | 94.92 | 281.71 | 266.52 | 15.19 | 18.548 | | |
| 2,300.00 | 2,300.00 | 2,267.25 | 2,236.71 | 8.03 | 9.41 | 160.35 | -278.69 | 99.52 | 302.62 | 286.70 | 15.91 | 19.018 | | |
| 2,400.00 | 2,400.00 | 2,365.01 | 2,332.28 | 8.39 | 9.90 | 160.79 | -298.75 | 104.12 | 323.54 | 306.90 | 16.64 | 19.448 | | |
| 2,500.00 | 2,499.98 | 2,462.39 | 2,427.48 | 8.75 | 10.39 | 160.51 | -318.73 | 108.70 | 346.08 | 328.72 | 17.36 | 19.935 | | |
| 2,600.00 | 2,599.84 | 2,558.94 | 2,521.86 | 9.11 | 10.88 | 160.94 | -338.55 | 113.24 | 371.85 | 353.77 | 18.08 | 20.567 | | |
| 2,700.00 | 2,699.45 | 2,654.53 | 2,615.31 | 9.46 | 11.36 | 161.44 | -358.16 | 117.74 | 400.84 | 382.05 | 18.79 | 21.330 | | |
| 2,800.00 | 2,798.70 | 2,749.06 | 2,707.73 | 9.82 | 11.83 | 161.97 | -377.56 | 122.19 | 433.03 | 413.53 | 19.50 | 22.209 | | |
| 2,900.00 | 2,897.47 | 2,842.41 | 2,798.98 | 10.18 | 12.31 | 162.52 | -396.72 | 126.58 | 468.42 | 448.22 | 20.20 | 23.194 | | |
| 3,000.00 | 2,995.62 | 2,934.46 | 2,888.97 | 10.55 | 12.77 | 163.07 | -415.61 | 130.91 | 506.97 | 486.09 | 20.89 | 24.274 | | |
| 3,100.00 | 3,093.06 | 3,025.11 | 2,977.58 | 10.94 | 13.23 | 163.59 | -434.21 | 135.17 | 548.67 | 527.10 | 21.57 | 25.439 | | |
| 3,200.00 | 3,189.64 | 3,114.23 | 3,064.71 | 11.34 | 13.68 | 164.10 | -452.50 | 139.36 | 593.47 | 571.23 | 22.24 | 26.682 | | |
| 3,240.86 | 3,228.84 | 3,150.18 | 3,099.86 | 11.50 | 13.86 | 164.29 | -459.88 | 141.05 | 612.66 | 590.14 | 22.52 | 27.209 | | |
| 3,300.00 | 3,285.45 | 3,202.02 | 3,150.54 | 11.75 | 14.12 | 164.73 | -470.52 | 143.49 | 640.81 | 617.91 | 22.91 | 27.972 | | |
| 3,400.00 | 3,381.17 | 3,289.68 | 3,236.23 | 12.19 | 14.57 | 165.38 | -488.50 | 147.62 | 688.48 | 664.91 | 23.57 | 29.207 | | |
| 3,500.00 | 3,476.90 | 3,377.33 | 3,321.92 | 12.63 | 15.01 | 165.95 | -506.49 | 151.74 | 736.21 | 711.97 | 24.24 | 30.372 | | |
| 3,600.00 | 3,572.62 | 3,464.99 | 3,407.61 | 13.09 | 15.46 | 166.45 | -524.48 | 155.86 | 783.98 | 759.07 | 24.91 | 31.473 | | |
| 3,700.00 | 3,668.34 | 3,552.65 | 3,493.30 | 13.56 | 15.90 | 166.89 | -542.47 | 159.99 | 831.80 | 806.22 | 25.58 | 32.515 | | |
| 3,800.00 | 3,764.07 | 3,640.30 | 3,578.99 | 14.04 | 16.35 | 167.29 | -560.46 | 164.11 | 879.65 | 853.39 | 26.26 | 33.501 | | |
| 3,900.00 | 3,859.79 | 3,727.96 | 3,664.68 | 14.52 | 16.79 | 167.64 | -578.45 | 168.23 | 927.53 | 900.60 | 26.94 | 34.436 | | |
| 4,000.00 | 3,955.51 | 3,815.61 | 3,750.37 | 15.02 | 17.24 | 167.96 | -596.43 | 172.36 | 975.44 | 947.82 | 27.61 | 35.323 | | |
| 4,100.00 | 4,051.24 | 3,903.27 | 3,836.06 | 15.52 | 17.69 | 168.25 | -614.42 | 176.48 | 1,023.36 | 995.07 | 28.30 | 36.166 | | |
| 4,200.00 | 4,146.96 | 3,990.92 | 3,921.75 | 16.03 | 18.13 | 168.51 | -632.41 | 180.60 | 1,071.31 | 1,042.33 | 28.98 | 36.967 | | |
| 4,300.00 | 4,242.68 | 4,078.58 | 4,007.44 | 16.54 | 18.58 | 168.75 | -650.40 | 184.73 | 1,119.27 | 1,089.60 | 29.66 | 37.730 | | |
| 4,400.00 | 4,338.41 | 4,166.23 | 4,093.13 | 17.06 | 19.02 | 168.98 | -668.39 | 188.85 | 1,167.24 | 1,136.89 | 30.35 | 38.457 | | |
| 4,500.00 | 4,434.13 | 4,253.89 | 4,178.82 | 17.59 | 19.47 | 169.18 | -686.37 | 192.97 | 1,215.23 | 1,184.19 | 31.04 | 39.151 | | |
| 4,600.00 | 4,529.85 | 4,341.54 | 4,264.51 | 18.11 | 19.92 | 169.37 | -704.36 | 197.10 | 1,263.23 | 1,231.50 | 31.73 | 39.843 | | |
| 4,700.00 | 4,625.58 | 4,429.20 | 4,350.20 | 18.65 | 20.36 | 169.54 | -722.35 | 201.22 | 1,311.23 | 1,278.81 | 32.42 | 40.445 | | |
| 4,800.00 | 4,721.30 | 4,516.85 | 4,435.89 | 19.18 | 20.81 | 169.70 | -740.34 | 205.34 | 1,359.25 | 1,326.14 | 33.11 | 41.050 | | |
| 4,900.00 | 4,817.02 | 4,604.51 | 4,521.58 | 19.72 | 21.26 | 169.86 | -758.33 | 209.46 | 1,407.27 | 1,373.47 | 33.81 | 41.629 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-13H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,000.00 | 4,912.74 | 4,692.16 | 4,607.27 | 20.27 | 21.70 | 170.00 | -776.31 | 213.59 | 1,455.30 | 1,420.80 | 34.50 | 42.183 | | |
| 5,100.00 | 5,008.47 | 4,779.82 | 4,692.96 | 20.81 | 22.15 | 170.13 | -794.30 | 217.71 | 1,503.34 | 1,468.15 | 35.20 | 42.714 | | |
| 5,200.00 | 5,104.19 | 4,867.47 | 4,778.65 | 21.36 | 22.60 | 170.25 | -812.29 | 221.83 | 1,551.39 | 1,515.49 | 35.89 | 43.224 | | |
| 5,300.00 | 5,199.91 | 4,955.13 | 4,864.34 | 21.91 | 23.04 | 170.37 | -830.28 | 225.96 | 1,599.43 | 1,562.84 | 36.59 | 43.713 | | |
| 5,400.00 | 5,295.64 | 5,042.78 | 4,950.03 | 22.46 | 23.49 | 170.48 | -848.27 | 230.08 | 1,647.49 | 1,610.20 | 37.29 | 44.183 | | |
| 5,500.00 | 5,391.36 | 5,130.44 | 5,035.72 | 23.02 | 23.94 | 170.58 | -866.25 | 234.20 | 1,695.54 | 1,657.56 | 37.99 | 44.635 | | |
| 5,600.00 | 5,487.08 | 5,218.09 | 5,121.41 | 23.58 | 24.39 | 170.68 | -884.24 | 238.33 | 1,743.61 | 1,704.92 | 38.69 | 45.069 | | |
| 5,700.00 | 5,582.81 | 5,305.75 | 5,207.11 | 24.13 | 24.83 | 170.77 | -902.23 | 242.45 | 1,791.67 | 1,752.28 | 39.39 | 45.487 | | |
| 5,800.00 | 5,678.53 | 5,393.40 | 5,292.80 | 24.70 | 25.28 | 170.86 | -920.22 | 246.57 | 1,839.74 | 1,799.65 | 40.09 | 45.890 | | |
| 5,900.00 | 5,774.25 | 5,481.06 | 5,378.49 | 25.26 | 25.73 | 170.95 | -938.21 | 250.70 | 1,887.81 | 1,847.02 | 40.79 | 46.278 | | |
| 6,000.00 | 5,869.98 | 5,568.71 | 5,464.18 | 25.82 | 26.17 | 171.02 | -956.19 | 254.82 | 1,935.89 | 1,894.39 | 41.50 | 46.652 | | |
| 6,100.00 | 5,965.70 | 5,656.37 | 5,549.87 | 26.39 | 26.62 | 171.10 | -974.18 | 258.94 | 1,983.97 | 1,941.77 | 42.20 | 47.013 | | |
| 6,200.00 | 6,061.42 | 5,744.02 | 5,635.56 | 26.95 | 27.07 | 171.17 | -992.17 | 263.07 | 2,032.05 | 1,989.14 | 42.91 | 47.361 | | |
| 6,300.00 | 6,157.15 | 5,831.68 | 5,721.25 | 27.52 | 27.52 | 171.24 | -1,010.16 | 267.19 | 2,080.13 | 2,036.52 | 43.61 | 47.697 | | |
| 6,400.00 | 6,252.87 | 5,919.33 | 5,806.94 | 28.09 | 27.96 | 171.31 | -1,028.15 | 271.31 | 2,128.21 | 2,083.90 | 44.32 | 48.022 | | |
| 6,500.00 | 6,348.59 | 6,006.99 | 5,892.63 | 28.66 | 28.41 | 171.37 | -1,046.13 | 275.44 | 2,176.30 | 2,131.28 | 45.02 | 48.336 | | |
| 6,600.00 | 6,444.32 | 6,094.64 | 5,978.32 | 29.23 | 28.86 | 171.43 | -1,064.12 | 279.56 | 2,224.39 | 2,178.66 | 45.73 | 48.640 | | |
| 6,700.00 | 6,540.04 | 6,182.30 | 6,064.01 | 29.80 | 29.31 | 171.49 | -1,082.11 | 283.68 | 2,272.48 | 2,226.04 | 46.44 | 48.934 | | |
| 6,764.28 | 6,601.58 | 6,238.65 | 6,119.09 | 30.17 | 29.59 | 171.52 | -1,093.67 | 286.33 | 2,303.39 | 2,256.50 | 46.90 | 49.118 | | |
| 6,800.00 | 6,635.75 | 6,269.89 | 6,149.64 | 30.37 | 29.75 | -174.84 | -1,100.09 | 287.80 | 2,320.69 | 2,273.54 | 47.15 | 49.222 | | |
| 6,850.00 | 6,683.35 | 6,313.24 | 6,192.02 | 30.66 | 29.98 | -157.39 | -1,108.98 | 289.84 | 2,345.20 | 2,297.71 | 47.49 | 49.381 | | |
| 6,900.00 | 6,730.36 | 6,355.85 | 6,233.67 | 30.94 | 30.19 | -143.01 | -1,117.73 | 291.85 | 2,369.91 | 2,322.09 | 47.83 | 49.554 | | |
| 6,950.00 | 6,776.41 | 6,397.39 | 6,274.28 | 31.21 | 30.41 | -131.65 | -1,126.25 | 293.80 | 2,394.69 | 2,346.54 | 48.15 | 49.738 | | |
| 7,000.00 | 6,821.15 | 6,437.54 | 6,313.53 | 31.47 | 30.61 | -122.69 | -1,134.49 | 295.69 | 2,419.41 | 2,370.95 | 48.45 | 49.933 | | |
| 7,050.00 | 6,864.24 | 6,476.01 | 6,351.13 | 31.73 | 30.81 | -115.50 | -1,142.38 | 297.50 | 2,443.95 | 2,395.21 | 48.75 | 50.137 | | |
| 7,100.00 | 6,905.35 | 6,512.48 | 6,386.80 | 31.97 | 30.99 | -109.60 | -1,149.87 | 299.22 | 2,468.24 | 2,419.21 | 49.03 | 50.346 | | |
| 7,150.00 | 6,944.18 | 6,546.70 | 6,420.25 | 32.21 | 31.17 | -104.63 | -1,156.89 | 300.83 | 2,492.18 | 2,442.88 | 49.29 | 50.566 | | |
| 7,200.00 | 6,980.42 | 6,578.40 | 6,451.23 | 32.45 | 31.33 | -100.38 | -1,163.40 | 302.32 | 2,515.70 | 2,466.14 | 49.56 | 50.765 | | |
| 7,250.00 | 7,013.80 | 6,607.33 | 6,479.52 | 32.68 | 31.48 | -96.68 | -1,169.33 | 303.68 | 2,538.74 | 2,488.92 | 49.81 | 50.966 | | |
| 7,300.00 | 7,044.06 | 6,633.28 | 6,504.89 | 32.91 | 31.61 | -93.41 | -1,174.66 | 304.90 | 2,561.23 | 2,511.16 | 50.07 | 51.155 | | |
| 7,350.00 | 7,070.98 | 6,656.05 | 6,527.15 | 33.15 | 31.73 | -90.48 | -1,179.33 | 305.97 | 2,583.11 | 2,532.79 | 50.33 | 51.325 | | |
| 7,400.00 | 7,094.36 | 6,675.47 | 6,546.13 | 33.39 | 31.83 | -87.84 | -1,183.32 | 306.88 | 2,604.33 | 2,553.73 | 50.60 | 51.473 | | |
| 7,450.00 | 7,114.00 | 7,703.58 | 7,168.00 | 33.65 | 34.58 | -93.46 | -1,319.40 | -328.27 | 2,613.79 | 2,555.99 | 57.80 | 45.223 | | |
| 7,500.00 | 7,129.76 | 7,750.78 | 7,168.00 | 33.93 | 34.77 | -92.18 | -1,319.79 | -375.46 | 2,618.28 | 2,559.43 | 58.85 | 44.494 | | |
| 7,550.00 | 7,141.53 | 7,799.23 | 7,168.00 | 34.22 | 35.03 | -91.24 | -1,320.19 | -423.90 | 2,621.70 | 2,561.75 | 59.95 | 43.729 | | |
| 7,600.00 | 7,149.21 | 7,848.56 | 7,168.00 | 34.55 | 35.35 | -90.63 | -1,320.61 | -473.24 | 2,623.96 | 2,562.76 | 61.20 | 42.875 | | |
| 7,650.00 | 7,152.75 | 7,898.41 | 7,168.00 | 34.90 | 35.76 | -90.35 | -1,321.02 | -523.08 | 2,625.01 | 2,562.52 | 62.49 | 42.004 | | |
| 7,667.38 | 7,153.00 | 7,915.78 | 7,168.00 | 35.04 | 35.92 | -90.33 | -1,321.17 | -540.46 | 2,625.09 | 2,562.11 | 62.98 | 41.684 | | |
| 7,700.00 | 7,153.00 | 7,948.41 | 7,168.00 | 35.29 | 36.24 | -90.33 | -1,321.44 | -573.08 | 2,625.09 | 2,561.19 | 63.90 | 41.080 | | |
| 7,800.00 | 7,153.00 | 8,048.41 | 7,168.00 | 36.22 | 37.45 | -90.33 | -1,322.27 | -673.07 | 2,625.11 | 2,558.18 | 66.93 | 39.223 | | |
| 7,900.00 | 7,153.00 | 8,148.41 | 7,168.00 | 37.35 | 38.91 | -90.33 | -1,323.10 | -773.07 | 2,625.12 | 2,554.87 | 70.25 | 37.369 | | |
| 8,000.00 | 7,153.00 | 8,248.41 | 7,168.00 | 38.67 | 40.58 | -90.33 | -1,323.94 | -873.07 | 2,625.14 | 2,551.32 | 73.82 | 35.561 | | |
| 8,100.00 | 7,153.00 | 8,348.41 | 7,168.00 | 40.16 | 42.39 | -90.33 | -1,324.77 | -973.06 | 2,625.15 | 2,547.54 | 77.61 | 33.824 | | |
| 8,200.00 | 7,153.00 | 8,448.41 | 7,168.00 | 41.81 | 44.33 | -90.33 | -1,325.60 | -1,073.06 | 2,625.17 | 2,543.57 | 81.59 | 32.174 | | |
| 8,300.00 | 7,153.00 | 8,548.41 | 7,168.00 | 43.59 | 46.36 | -90.33 | -1,326.43 | -1,173.06 | 2,625.18 | 2,539.45 | 85.73 | 30.620 | | |
| 8,400.00 | 7,153.00 | 8,648.41 | 7,168.00 | 45.47 | 48.47 | -90.33 | -1,327.27 | -1,273.05 | 2,625.19 | 2,535.18 | 90.02 | 29.164 | | |
| 8,500.00 | 7,153.00 | 8,748.41 | 7,168.00 | 47.45 | 50.65 | -90.33 | -1,328.10 | -1,373.05 | 2,625.21 | 2,530.79 | 94.42 | 27.804 | | |
| 8,600.00 | 7,153.00 | 8,848.41 | 7,168.00 | 49.51 | 52.88 | -90.33 | -1,328.93 | -1,473.05 | 2,625.22 | 2,526.30 | 98.92 | 26.538 | | |
| 8,700.00 | 7,153.00 | 8,948.41 | 7,168.00 | 51.64 | 55.16 | -90.33 | -1,329.77 | -1,573.04 | 2,625.24 | 2,521.72 | 103.52 | 25.360 | | |
| 8,800.00 | 7,153.00 | 9,048.41 | 7,168.00 | 53.82 | 57.48 | -90.33 | -1,330.60 | -1,673.04 | 2,625.25 | 2,517.06 | 108.20 | 24.264 | | |
| 8,900.00 | 7,153.00 | 9,148.41 | 7,168.00 | 56.06 | 59.83 | -90.33 | -1,331.43 | -1,773.04 | 2,625.26 | 2,512.32 | 112.94 | 23.245 | | |
| 9,000.00 | 7,153.00 | 9,248.41 | 7,168.00 | 58.34 | 62.22 | -90.33 | -1,332.26 | -1,873.03 | 2,625.28 | 2,507.53 | 117.75 | 22.296 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-13H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|--|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | | |
| 9,100.00 | 7,153.00 | 9,348.41 | 7,168.00 | 60.66 | 64.63 | -90.33 | -1,333.10 | -1,973.03 | 2,625.29 | 2,502.69 | 122.60 | 21.413 | | | | |
| 9,200.00 | 7,153.00 | 9,448.41 | 7,168.00 | 63.01 | 67.07 | -90.33 | -1,333.93 | -2,073.03 | 2,625.31 | 2,497.80 | 127.51 | 20.589 | | | | |
| 9,300.00 | 7,153.00 | 9,548.41 | 7,168.00 | 65.40 | 69.53 | -90.33 | -1,334.76 | -2,173.02 | 2,625.32 | 2,492.86 | 132.46 | 19.820 | | | | |
| 9,400.00 | 7,153.00 | 9,648.41 | 7,168.00 | 67.81 | 72.00 | -90.33 | -1,335.60 | -2,273.02 | 2,625.34 | 2,487.89 | 137.45 | 19.101 | | | | |
| 9,500.00 | 7,153.00 | 9,748.41 | 7,168.00 | 70.24 | 74.50 | -90.33 | -1,336.43 | -2,373.02 | 2,625.35 | 2,482.88 | 142.47 | 18.428 | | | | |
| 9,600.00 | 7,153.00 | 9,848.41 | 7,168.00 | 72.70 | 77.01 | -90.33 | -1,337.26 | -2,473.01 | 2,625.36 | 2,477.85 | 147.52 | 17.797 | | | | |
| 9,700.00 | 7,153.00 | 9,948.41 | 7,168.00 | 75.17 | 79.54 | -90.33 | -1,338.09 | -2,573.01 | 2,625.38 | 2,472.79 | 152.59 | 17.205 | | | | |
| 9,800.00 | 7,153.00 | 10,048.41 | 7,168.00 | 77.67 | 82.07 | -90.33 | -1,338.93 | -2,673.00 | 2,625.39 | 2,467.70 | 157.69 | 16.649 | | | | |
| 9,900.00 | 7,153.00 | 10,148.41 | 7,168.00 | 80.17 | 84.62 | -90.33 | -1,339.76 | -2,773.00 | 2,625.41 | 2,462.59 | 162.82 | 16.125 | | | | |
| 10,000.00 | 7,153.00 | 10,248.41 | 7,168.00 | 82.69 | 87.18 | -90.33 | -1,340.59 | -2,873.00 | 2,625.42 | 2,457.46 | 167.96 | 15.631 | | | | |
| 10,100.00 | 7,153.00 | 10,348.41 | 7,168.00 | 85.23 | 89.75 | -90.33 | -1,341.43 | -2,972.99 | 2,625.44 | 2,452.31 | 173.13 | 15.165 | | | | |
| 10,200.00 | 7,153.00 | 10,448.41 | 7,168.00 | 87.77 | 92.33 | -90.33 | -1,342.26 | -3,072.99 | 2,625.45 | 2,447.15 | 178.30 | 14.725 | | | | |
| 10,300.00 | 7,153.00 | 10,548.41 | 7,168.00 | 90.33 | 94.91 | -90.33 | -1,343.09 | -3,172.99 | 2,625.46 | 2,441.97 | 183.50 | 14.308 | | | | |
| 10,400.00 | 7,153.00 | 10,648.41 | 7,168.00 | 92.89 | 97.51 | -90.33 | -1,343.92 | -3,272.98 | 2,625.48 | 2,436.77 | 188.71 | 13.913 | | | | |
| 10,500.00 | 7,153.00 | 10,748.41 | 7,168.00 | 95.47 | 100.11 | -90.33 | -1,344.76 | -3,372.98 | 2,625.49 | 2,431.56 | 193.93 | 13.538 | | | | |
| 10,600.00 | 7,153.00 | 10,848.41 | 7,168.00 | 98.05 | 102.71 | -90.33 | -1,345.59 | -3,472.98 | 2,625.51 | 2,426.34 | 199.16 | 13.183 | | | | |
| 10,700.00 | 7,153.00 | 10,948.41 | 7,168.00 | 100.64 | 105.33 | -90.33 | -1,346.42 | -3,572.97 | 2,625.52 | 2,421.11 | 204.41 | 12.845 | | | | |
| 10,800.00 | 7,153.00 | 11,048.41 | 7,168.00 | 103.24 | 107.94 | -90.33 | -1,347.26 | -3,672.97 | 2,625.53 | 2,415.87 | 209.66 | 12.523 | | | | |
| 10,900.00 | 7,153.00 | 11,148.41 | 7,168.00 | 105.84 | 110.57 | -90.33 | -1,348.09 | -3,772.97 | 2,625.55 | 2,410.62 | 214.93 | 12.216 | | | | |
| 11,000.00 | 7,153.00 | 11,248.41 | 7,168.00 | 108.45 | 113.19 | -90.33 | -1,348.92 | -3,872.96 | 2,625.56 | 2,405.37 | 220.20 | 11.924 | | | | |
| 11,100.00 | 7,153.00 | 11,348.41 | 7,168.00 | 111.07 | 115.83 | -90.33 | -1,349.75 | -3,972.96 | 2,625.58 | 2,400.10 | 225.48 | 11.644 | | | | |
| 11,200.00 | 7,153.00 | 11,448.41 | 7,168.00 | 113.69 | 118.46 | -90.33 | -1,350.59 | -4,072.96 | 2,625.59 | 2,394.82 | 230.77 | 11.378 | | | | |
| 11,300.00 | 7,153.00 | 11,548.41 | 7,168.00 | 116.31 | 121.10 | -90.33 | -1,351.42 | -4,172.95 | 2,625.61 | 2,389.54 | 236.06 | 11.122 | | | | |
| 11,400.00 | 7,153.00 | 11,648.41 | 7,168.00 | 118.94 | 123.75 | -90.33 | -1,352.25 | -4,272.95 | 2,625.62 | 2,384.26 | 241.37 | 10.878 | | | | |
| 11,500.00 | 7,153.00 | 11,748.41 | 7,168.00 | 121.57 | 126.39 | -90.33 | -1,353.09 | -4,372.95 | 2,625.63 | 2,378.96 | 246.67 | 10.644 | | | | |
| 11,600.00 | 7,153.00 | 11,848.41 | 7,168.00 | 124.21 | 129.04 | -90.33 | -1,353.92 | -4,472.94 | 2,625.65 | 2,373.66 | 251.99 | 10.420 | | | | |
| 11,700.00 | 7,153.00 | 11,948.41 | 7,168.00 | 126.85 | 131.69 | -90.33 | -1,354.75 | -4,572.94 | 2,625.66 | 2,368.36 | 257.31 | 10.204 | | | | |
| 11,800.00 | 7,153.00 | 12,048.41 | 7,168.00 | 129.49 | 134.35 | -90.33 | -1,355.58 | -4,672.94 | 2,625.68 | 2,363.05 | 262.63 | 9.998 | | | | |
| 11,900.00 | 7,153.00 | 12,148.41 | 7,168.00 | 132.14 | 137.01 | -90.33 | -1,356.42 | -4,772.93 | 2,625.69 | 2,357.73 | 267.96 | 9.799 | | | | |
| 12,000.00 | 7,153.00 | 12,248.41 | 7,168.00 | 134.79 | 139.67 | -90.33 | -1,357.25 | -4,872.93 | 2,625.71 | 2,352.41 | 273.29 | 9.608 | | | | |
| 12,100.00 | 7,153.00 | 12,348.41 | 7,168.00 | 137.44 | 142.33 | -90.33 | -1,358.08 | -4,972.92 | 2,625.72 | 2,347.09 | 278.63 | 9.424 | | | | |
| 12,200.00 | 7,153.00 | 12,448.41 | 7,168.00 | 140.10 | 145.00 | -90.33 | -1,358.91 | -5,072.92 | 2,625.73 | 2,341.76 | 283.97 | 9.246 | | | | |
| 12,300.00 | 7,153.00 | 12,548.41 | 7,168.00 | 142.76 | 147.66 | -90.33 | -1,359.75 | -5,172.92 | 2,625.75 | 2,336.43 | 289.32 | 9.076 | | | | |
| 12,400.00 | 7,153.00 | 12,648.41 | 7,168.00 | 145.42 | 150.33 | -90.33 | -1,360.58 | -5,272.91 | 2,625.76 | 2,331.09 | 294.67 | 8.911 | | | | |
| 12,500.00 | 7,153.00 | 12,748.41 | 7,168.00 | 148.08 | 153.00 | -90.33 | -1,361.41 | -5,372.91 | 2,625.78 | 2,325.75 | 300.02 | 8.752 | | | | |
| 12,600.00 | 7,153.00 | 12,848.41 | 7,168.00 | 150.75 | 155.67 | -90.33 | -1,362.25 | -5,472.91 | 2,625.79 | 2,320.41 | 305.38 | 8.598 | | | | |
| 12,700.00 | 7,153.00 | 12,948.41 | 7,168.00 | 153.41 | 158.35 | -90.33 | -1,363.08 | -5,572.90 | 2,625.80 | 2,315.07 | 310.74 | 8.450 | | | | |
| 12,800.00 | 7,153.00 | 13,048.41 | 7,168.00 | 156.08 | 161.02 | -90.33 | -1,363.91 | -5,672.90 | 2,625.82 | 2,309.72 | 316.10 | 8.307 | | | | |
| 12,900.00 | 7,153.00 | 13,148.41 | 7,168.00 | 158.75 | 163.70 | -90.33 | -1,364.74 | -5,772.90 | 2,625.83 | 2,304.37 | 321.46 | 8.168 | | | | |
| 13,000.00 | 7,153.00 | 13,248.41 | 7,168.00 | 161.42 | 166.38 | -90.33 | -1,365.58 | -5,872.89 | 2,625.85 | 2,299.02 | 326.83 | 8.034 | | | | |
| 13,100.00 | 7,153.00 | 13,348.41 | 7,168.00 | 164.10 | 169.06 | -90.33 | -1,366.41 | -5,972.89 | 2,625.86 | 2,293.66 | 332.20 | 7.904 | | | | |
| 13,200.00 | 7,153.00 | 13,448.41 | 7,168.00 | 166.77 | 171.74 | -90.33 | -1,367.24 | -6,072.89 | 2,625.88 | 2,288.30 | 337.57 | 7.779 | | | | |
| 13,300.00 | 7,153.00 | 13,548.41 | 7,168.00 | 169.45 | 174.42 | -90.33 | -1,368.08 | -6,172.88 | 2,625.89 | 2,282.94 | 342.95 | 7.657 | | | | |
| 13,400.00 | 7,153.00 | 13,648.41 | 7,168.00 | 172.13 | 177.11 | -90.33 | -1,368.91 | -6,272.88 | 2,625.90 | 2,277.58 | 348.33 | 7.539 | | | | |
| 13,500.00 | 7,153.00 | 13,748.41 | 7,168.00 | 174.81 | 179.79 | -90.33 | -1,369.74 | -6,372.88 | 2,625.92 | 2,272.21 | 353.70 | 7.424 | | | | |
| 13,600.00 | 7,153.00 | 13,848.41 | 7,168.00 | 177.49 | 182.48 | -90.33 | -1,370.57 | -6,472.87 | 2,625.93 | 2,266.85 | 359.08 | 7.313 | | | | |
| 13,700.00 | 7,153.00 | 13,948.41 | 7,168.00 | 180.17 | 185.17 | -90.33 | -1,371.41 | -6,572.87 | 2,625.95 | 2,261.48 | 364.47 | 7.205 | | | | |
| 13,800.00 | 7,153.00 | 14,048.41 | 7,168.00 | 182.86 | 187.85 | -90.33 | -1,372.24 | -6,672.87 | 2,625.96 | 2,256.11 | 369.85 | 7.100 | | | | |
| 13,900.00 | 7,153.00 | 14,148.41 | 7,168.00 | 185.54 | 190.54 | -90.33 | -1,373.07 | -6,772.86 | 2,625.98 | 2,250.74 | 375.24 | 6.998 | | | | |
| 14,000.00 | 7,153.00 | 14,248.41 | 7,168.00 | 188.23 | 193.23 | -90.33 | -1,373.91 | -6,872.86 | 2,625.99 | 2,245.36 | 380.62 | 6.899 | | | | |
| 14,100.00 | 7,153.00 | 14,348.41 | 7,168.00 | 190.91 | 195.92 | -90.33 | -1,374.74 | -6,972.86 | 2,626.00 | 2,239.99 | 386.01 | 6.803 | | | | |
| 14,200.00 | 7,153.00 | 14,448.41 | 7,168.00 | 193.60 | 198.62 | -90.33 | -1,375.57 | -7,072.85 | 2,626.02 | 2,234.61 | 391.40 | 6.709 | | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-13H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Highside | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 14,300.00 | 7,153.00 | 14,548.41 | 7,168.00 | 196.29 | 201.31 | -90.33 | -1,376.40 | -7,172.85 | 2,626.03 | 2,229.24 | 396.80 | 6.618 | | | |
| 14,400.00 | 7,153.00 | 14,648.41 | 7,168.00 | 198.98 | 204.00 | -90.33 | -1,377.24 | -7,272.85 | 2,626.05 | 2,223.86 | 402.19 | 6.529 | | | |
| 14,500.00 | 7,153.00 | 14,748.41 | 7,168.00 | 201.67 | 206.70 | -90.33 | -1,378.07 | -7,372.84 | 2,626.06 | 2,218.48 | 407.59 | 6.443 | | | |
| 14,600.00 | 7,153.00 | 14,848.41 | 7,168.00 | 204.36 | 209.39 | -90.33 | -1,378.90 | -7,472.84 | 2,626.07 | 2,213.09 | 412.98 | 6.359 | | | |
| 14,700.00 | 7,153.00 | 14,948.41 | 7,168.00 | 207.05 | 212.09 | -90.33 | -1,379.74 | -7,572.83 | 2,626.09 | 2,207.71 | 418.38 | 6.277 | | | |
| 14,800.00 | 7,153.00 | 15,048.41 | 7,168.00 | 209.75 | 214.78 | -90.33 | -1,380.57 | -7,672.83 | 2,626.10 | 2,202.33 | 423.78 | 6.197 | | | |
| 14,900.00 | 7,153.00 | 15,148.41 | 7,168.00 | 212.44 | 217.48 | -90.33 | -1,381.40 | -7,772.83 | 2,626.12 | 2,196.94 | 429.18 | 6.119 | | | |
| 15,000.00 | 7,153.00 | 15,248.41 | 7,168.00 | 215.13 | 220.18 | -90.33 | -1,382.23 | -7,872.82 | 2,626.13 | 2,191.55 | 434.58 | 6.043 | | | |
| 15,100.00 | 7,153.00 | 15,348.41 | 7,168.00 | 217.83 | 222.87 | -90.33 | -1,383.07 | -7,972.82 | 2,626.15 | 2,186.17 | 439.98 | 5.969 | | | |
| 15,200.00 | 7,153.00 | 15,448.41 | 7,168.00 | 220.53 | 225.57 | -90.33 | -1,383.90 | -8,072.82 | 2,626.16 | 2,180.78 | 445.38 | 5.896 | | | |
| 15,300.00 | 7,153.00 | 15,548.41 | 7,168.00 | 223.22 | 228.27 | -90.33 | -1,384.73 | -8,172.81 | 2,626.17 | 2,175.39 | 450.79 | 5.826 | | | |
| 15,400.00 | 7,153.00 | 15,648.41 | 7,168.00 | 225.92 | 230.97 | -90.33 | -1,385.57 | -8,272.81 | 2,626.19 | 2,170.00 | 456.19 | 5.757 | | | |
| 15,455.54 | 7,153.00 | 15,703.98 | 7,168.00 | 227.42 | 232.47 | -90.33 | -1,386.03 | -8,328.39 | 2,626.20 | 2,167.00 | 459.19 | 5.719 SF | | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-14H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | | | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|----------------|--|---------|--|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | | | | |
| Reference | | | | Offset | | | Semi Major Axis | | Highside | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 76.62 | 7.29 | 30.63 | 31.48 | | | | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 76.62 | 7.29 | 30.63 | 31.48 | 31.20 | 0.29 | 109.785 | | | | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 76.62 | 7.29 | 30.63 | 31.48 | 30.48 | 1.00 | 31.367 | | | | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 76.62 | 7.29 | 30.63 | 31.48 | 29.76 | 1.72 | 18.298 | | | | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.22 | 1.22 | 76.62 | 7.29 | 30.63 | 31.48 | 29.05 | 2.44 | 12.916 CC | | | | | | |
| 500.00 | 500.00 | 499.77 | 499.75 | 1.58 | 1.56 | 79.70 | 5.69 | 31.32 | 31.83 | 28.69 | 3.14 | 10.144 ES | | | | | | |
| 600.00 | 600.00 | 599.30 | 599.14 | 1.94 | 1.90 | 88.42 | 0.92 | 33.37 | 33.39 | 29.56 | 3.83 | 8.712 | | | | | | |
| 700.00 | 700.00 | 698.35 | 697.81 | 2.29 | 2.25 | 100.74 | -6.97 | 36.76 | 37.48 | 32.94 | 4.54 | 8.261 | | | | | | |
| 800.00 | 800.00 | 796.69 | 795.43 | 2.65 | 2.62 | 113.36 | -17.91 | 41.46 | 45.39 | 40.15 | 5.24 | 8.660 | | | | | | |
| 900.00 | 900.00 | 894.10 | 891.65 | 3.01 | 3.00 | 123.82 | -31.76 | 47.42 | 57.68 | 51.74 | 5.94 | 9.715 | | | | | | |
| 1,000.00 | 1,000.00 | 990.37 | 986.20 | 3.37 | 3.42 | 131.57 | -48.40 | 54.57 | 74.24 | 67.62 | 6.62 | 11.214 | | | | | | |
| 1,100.00 | 1,100.00 | 1,085.30 | 1,078.79 | 3.73 | 3.85 | 137.11 | -67.66 | 62.85 | 94.75 | 87.46 | 7.29 | 12.995 | | | | | | |
| 1,200.00 | 1,200.00 | 1,178.73 | 1,169.17 | 4.09 | 4.32 | 141.07 | -89.35 | 72.17 | 118.92 | 110.98 | 7.95 | 14.965 | | | | | | |
| 1,300.00 | 1,300.00 | 1,272.71 | 1,259.39 | 4.45 | 4.82 | 143.98 | -113.56 | 82.58 | 146.17 | 137.54 | 8.62 | 16.949 | | | | | | |
| 1,400.00 | 1,400.00 | 1,368.58 | 1,351.30 | 4.80 | 5.35 | 146.04 | -138.60 | 93.34 | 174.06 | 164.72 | 9.33 | 18.649 | | | | | | |
| 1,500.00 | 1,500.00 | 1,464.46 | 1,443.22 | 5.16 | 5.89 | 147.54 | -163.65 | 104.11 | 202.10 | 192.05 | 10.05 | 20.114 | | | | | | |
| 1,600.00 | 1,600.00 | 1,560.33 | 1,535.13 | 5.52 | 6.44 | 148.67 | -188.69 | 114.88 | 230.24 | 219.47 | 10.77 | 21.387 | | | | | | |
| 1,700.00 | 1,700.00 | 1,656.20 | 1,627.05 | 5.88 | 6.99 | 149.55 | -213.74 | 125.64 | 258.44 | 246.95 | 11.49 | 22.500 | | | | | | |
| 1,800.00 | 1,800.00 | 1,752.07 | 1,718.96 | 6.24 | 7.55 | 150.26 | -238.78 | 136.41 | 286.69 | 274.48 | 12.21 | 23.481 | | | | | | |
| 1,900.00 | 1,900.00 | 1,847.95 | 1,810.88 | 6.60 | 8.11 | 150.85 | -263.82 | 147.17 | 314.97 | 302.04 | 12.93 | 24.352 | | | | | | |
| 2,000.00 | 2,000.00 | 1,943.82 | 1,902.79 | 6.95 | 8.68 | 151.33 | -288.87 | 157.94 | 343.28 | 329.62 | 13.66 | 25.128 | | | | | | |
| 2,100.00 | 2,100.00 | 2,039.69 | 1,994.71 | 7.31 | 9.25 | 151.75 | -313.91 | 168.70 | 371.60 | 357.21 | 14.39 | 25.825 | | | | | | |
| 2,200.00 | 2,200.00 | 2,135.56 | 2,086.62 | 7.67 | 9.82 | 152.10 | -338.96 | 179.47 | 399.94 | 384.83 | 15.12 | 26.454 | | | | | | |
| 2,300.00 | 2,300.00 | 2,231.44 | 2,178.54 | 8.03 | 10.40 | 152.41 | -364.00 | 190.24 | 428.30 | 412.45 | 15.85 | 27.024 | | | | | | |
| 2,400.00 | 2,400.00 | 2,327.31 | 2,270.45 | 8.39 | 10.97 | 152.68 | -389.04 | 201.00 | 456.66 | 440.08 | 16.58 | 27.542 | | | | | | |
| 2,500.00 | 2,499.98 | 2,422.71 | 2,361.92 | 8.75 | 11.54 | 152.12 | -413.97 | 211.71 | 486.51 | 469.20 | 17.31 | 28.104 | | | | | | |
| 2,600.00 | 2,599.84 | 2,517.08 | 2,452.40 | 9.11 | 12.11 | 152.28 | -438.62 | 222.31 | 519.31 | 501.28 | 18.04 | 28.794 | | | | | | |
| 2,700.00 | 2,699.45 | 2,610.32 | 2,541.78 | 9.46 | 12.68 | 152.53 | -462.97 | 232.78 | 555.06 | 536.31 | 18.75 | 29.600 | | | | | | |
| 2,800.00 | 2,798.70 | 2,702.30 | 2,629.97 | 9.82 | 13.23 | 152.84 | -487.00 | 243.11 | 593.74 | 574.28 | 19.46 | 30.511 | | | | | | |
| 2,900.00 | 2,897.47 | 2,792.92 | 2,716.85 | 10.18 | 13.78 | 153.19 | -510.67 | 253.29 | 635.36 | 615.20 | 20.16 | 31.516 | | | | | | |
| 3,000.00 | 2,995.62 | 2,882.07 | 2,802.32 | 10.55 | 14.32 | 153.56 | -533.96 | 263.30 | 679.88 | 659.03 | 20.85 | 32.606 | | | | | | |
| 3,100.00 | 3,093.06 | 2,969.63 | 2,886.26 | 10.94 | 14.85 | 153.92 | -556.83 | 273.13 | 727.29 | 705.75 | 21.53 | 33.773 | | | | | | |
| 3,200.00 | 3,189.64 | 3,055.50 | 2,968.59 | 11.34 | 15.37 | 154.28 | -579.27 | 282.77 | 777.56 | 755.35 | 22.21 | 35.009 | | | | | | |
| 3,240.86 | 3,228.84 | 3,090.08 | 3,001.74 | 11.50 | 15.58 | 154.42 | -588.30 | 286.66 | 798.91 | 776.43 | 22.49 | 35.529 | | | | | | |
| 3,300.00 | 3,285.45 | 3,139.90 | 3,049.51 | 11.75 | 15.88 | 154.92 | -601.31 | 292.25 | 830.19 | 807.31 | 22.88 | 36.285 | | | | | | |
| 3,400.00 | 3,381.17 | 3,224.15 | 3,130.28 | 12.19 | 16.39 | 155.69 | -623.32 | 301.71 | 883.16 | 859.62 | 23.55 | 37.507 | | | | | | |
| 3,500.00 | 3,476.90 | 3,308.40 | 3,211.05 | 12.63 | 16.91 | 156.37 | -645.33 | 311.17 | 936.24 | 912.02 | 24.22 | 38.659 | | | | | | |
| 3,600.00 | 3,572.62 | 3,392.65 | 3,291.82 | 13.09 | 17.42 | 156.98 | -667.34 | 320.63 | 989.40 | 964.51 | 24.89 | 39.747 | | | | | | |
| 3,700.00 | 3,668.34 | 3,476.90 | 3,372.59 | 13.56 | 17.93 | 157.53 | -689.34 | 330.09 | 1,042.64 | 1,017.07 | 25.57 | 40.774 | | | | | | |
| 3,800.00 | 3,764.07 | 3,561.15 | 3,453.37 | 14.04 | 18.44 | 158.02 | -711.35 | 339.55 | 1,095.94 | 1,069.69 | 26.25 | 41.747 | | | | | | |
| 3,900.00 | 3,859.79 | 3,645.40 | 3,534.14 | 14.52 | 18.96 | 158.47 | -733.36 | 349.01 | 1,149.29 | 1,122.36 | 26.94 | 42.668 | | | | | | |
| 4,000.00 | 3,955.51 | 3,729.65 | 3,614.91 | 15.02 | 19.47 | 158.88 | -755.37 | 358.47 | 1,202.69 | 1,175.07 | 27.62 | 43.541 | | | | | | |
| 4,100.00 | 4,051.24 | 3,813.90 | 3,695.68 | 15.52 | 19.98 | 159.25 | -777.38 | 367.94 | 1,256.13 | 1,227.82 | 28.31 | 44.370 | | | | | | |
| 4,200.00 | 4,146.96 | 3,898.14 | 3,776.45 | 16.03 | 20.50 | 159.60 | -799.38 | 377.40 | 1,309.60 | 1,280.60 | 29.00 | 45.158 | | | | | | |
| 4,300.00 | 4,242.68 | 3,982.39 | 3,857.22 | 16.54 | 21.01 | 159.91 | -821.39 | 386.86 | 1,363.11 | 1,333.42 | 29.69 | 45.908 | | | | | | |
| 4,400.00 | 4,338.41 | 4,066.64 | 3,938.00 | 17.06 | 21.52 | 160.21 | -843.40 | 396.32 | 1,416.64 | 1,386.26 | 30.39 | 46.621 | | | | | | |
| 4,500.00 | 4,434.13 | 4,150.89 | 4,018.77 | 17.59 | 22.04 | 160.48 | -865.41 | 405.78 | 1,470.20 | 1,439.12 | 31.08 | 47.301 | | | | | | |
| 4,600.00 | 4,529.85 | 4,235.14 | 4,099.54 | 18.11 | 22.55 | 160.73 | -887.41 | 415.24 | 1,523.78 | 1,492.00 | 31.78 | 47.950 | | | | | | |
| 4,700.00 | 4,625.58 | 4,319.39 | 4,180.31 | 18.65 | 23.06 | 160.97 | -909.42 | 424.70 | 1,577.38 | 1,544.90 | 32.48 | 48.569 | | | | | | |
| 4,800.00 | 4,721.30 | 4,403.64 | 4,261.08 | 19.18 | 23.58 | 161.19 | -931.43 | 434.16 | 1,631.00 | 1,597.82 | 33.18 | 49.161 | | | | | | |
| 4,900.00 | 4,817.02 | 4,487.89 | 4,341.85 | 19.72 | 24.09 | 161.40 | -953.44 | 443.62 | 1,684.63 | 1,650.75 | 33.88 | 49.727 | | | | | | |
| 5,000.00 | 4,912.74 | 4,572.14 | 4,422.63 | 20.27 | 24.61 | 161.59 | -975.45 | 453.08 | 1,738.28 | 1,703.70 | 34.58 | 50.268 | | | | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-14H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|----------------|--------|---------------------------|-------------------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | | |
| 5,100.00 | 5,008.47 | 4,656.39 | 4,503.40 | 20.81 | 25.12 | 161.77 | -997.45 | 462.54 | 1,791.94 | 1,756.66 | 35.28 | 50.787 | | | |
| 5,200.00 | 5,104.19 | 4,740.64 | 4,584.17 | 21.36 | 25.64 | 161.94 | -1,019.46 | 472.00 | 1,845.61 | 1,809.63 | 35.99 | 51.285 | | | |
| 5,300.00 | 5,199.91 | 4,824.88 | 4,664.94 | 21.91 | 26.15 | 162.10 | -1,041.47 | 481.46 | 1,899.30 | 1,862.61 | 36.69 | 51.762 | | | |
| 5,400.00 | 5,295.64 | 4,909.13 | 4,745.71 | 22.46 | 26.67 | 162.26 | -1,063.48 | 490.92 | 1,952.99 | 1,915.59 | 37.40 | 52.219 | | | |
| 5,500.00 | 5,391.36 | 4,993.38 | 4,826.48 | 23.02 | 27.18 | 162.40 | -1,085.48 | 500.38 | 2,006.70 | 1,968.59 | 38.11 | 52.659 | | | |
| 5,600.00 | 5,487.08 | 5,077.63 | 4,907.26 | 23.58 | 27.69 | 162.54 | -1,107.49 | 509.84 | 2,060.41 | 2,021.60 | 38.82 | 53.082 | | | |
| 5,700.00 | 5,582.81 | 5,161.88 | 4,988.03 | 24.13 | 28.21 | 162.67 | -1,129.50 | 519.30 | 2,114.13 | 2,074.61 | 39.52 | 53.489 | | | |
| 5,800.00 | 5,678.53 | 5,246.13 | 5,068.80 | 24.70 | 28.72 | 162.79 | -1,151.51 | 528.77 | 2,167.86 | 2,127.63 | 40.24 | 53.880 | | | |
| 5,900.00 | 5,774.25 | 5,330.38 | 5,149.57 | 25.26 | 29.24 | 162.91 | -1,173.52 | 538.23 | 2,221.60 | 2,180.65 | 40.95 | 54.257 | | | |
| 6,000.00 | 5,869.98 | 5,414.63 | 5,230.34 | 25.82 | 29.75 | 163.03 | -1,195.52 | 547.69 | 2,275.34 | 2,233.68 | 41.66 | 54.619 | | | |
| 6,100.00 | 5,965.70 | 5,498.88 | 5,311.11 | 26.39 | 30.27 | 163.13 | -1,217.53 | 557.15 | 2,329.09 | 2,286.72 | 42.37 | 54.969 | | | |
| 6,200.00 | 6,061.42 | 5,583.13 | 5,391.89 | 26.95 | 30.78 | 163.23 | -1,239.54 | 566.61 | 2,382.84 | 2,339.76 | 43.08 | 55.307 | | | |
| 6,300.00 | 6,157.15 | 5,667.37 | 5,472.66 | 27.52 | 31.30 | 163.33 | -1,261.55 | 576.07 | 2,436.60 | 2,392.80 | 43.80 | 55.632 | | | |
| 6,400.00 | 6,252.87 | 5,751.62 | 5,553.43 | 28.09 | 31.81 | 163.43 | -1,283.55 | 585.53 | 2,490.37 | 2,445.85 | 44.51 | 55.947 | | | |
| 6,500.00 | 6,348.59 | 5,835.87 | 5,634.20 | 28.66 | 32.33 | 163.52 | -1,305.56 | 594.99 | 2,544.13 | 2,498.91 | 45.23 | 56.250 | | | |
| 6,600.00 | 6,444.32 | 5,920.12 | 5,714.97 | 29.23 | 32.85 | 163.60 | -1,327.57 | 604.45 | 2,597.91 | 2,551.96 | 45.95 | 56.543 | | | |
| 6,700.00 | 6,540.04 | 6,004.37 | 5,795.74 | 29.80 | 33.36 | 163.68 | -1,349.58 | 613.91 | 2,651.68 | 2,605.02 | 46.66 | 56.827 | | | |
| 6,764.28 | 6,601.58 | 6,058.53 | 5,847.67 | 30.17 | 33.69 | 163.74 | -1,363.72 | 619.99 | 2,686.25 | 2,639.13 | 47.12 | 57.004 | | | |
| 6,800.00 | 6,635.75 | 6,088.48 | 5,876.39 | 30.37 | 33.87 | 177.67 | -1,371.55 | 623.36 | 2,705.70 | 2,658.32 | 47.38 | 57.110 | | | |
| 6,850.00 | 6,683.35 | 6,129.80 | 5,916.00 | 30.66 | 34.13 | -164.35 | -1,382.34 | 628.00 | 2,733.60 | 2,685.89 | 47.72 | 57.288 | | | |
| 6,900.00 | 6,730.36 | 6,170.11 | 5,954.65 | 30.94 | 34.37 | -149.33 | -1,392.87 | 632.52 | 2,762.13 | 2,714.10 | 48.04 | 57.500 | | | |
| 6,950.00 | 6,776.41 | 6,209.12 | 5,992.04 | 31.21 | 34.61 | -137.24 | -1,403.06 | 636.90 | 2,791.10 | 2,742.77 | 48.34 | 57.745 | | | |
| 7,000.00 | 6,821.15 | 6,246.52 | 6,027.89 | 31.47 | 34.84 | -127.46 | -1,412.83 | 641.10 | 2,820.35 | 2,771.73 | 48.61 | 58.018 | | | |
| 7,050.00 | 6,864.24 | 6,282.02 | 6,061.94 | 31.73 | 35.06 | -119.39 | -1,422.11 | 645.09 | 2,849.70 | 2,800.84 | 48.87 | 58.317 | | | |
| 7,100.00 | 6,905.35 | 6,315.37 | 6,093.90 | 31.97 | 35.26 | -112.55 | -1,430.82 | 648.83 | 2,879.02 | 2,829.92 | 49.10 | 58.638 | | | |
| 7,150.00 | 6,944.18 | 6,346.30 | 6,123.56 | 32.21 | 35.45 | -106.65 | -1,438.90 | 652.31 | 2,908.16 | 2,858.85 | 49.31 | 58.975 | | | |
| 7,200.00 | 6,980.42 | 6,374.58 | 6,150.67 | 32.45 | 35.63 | -101.45 | -1,446.28 | 655.48 | 2,937.00 | 2,887.49 | 49.51 | 59.321 | | | |
| 7,250.00 | 7,013.80 | 6,399.99 | 6,175.03 | 32.68 | 35.78 | -96.83 | -1,452.92 | 658.34 | 2,965.39 | 2,915.70 | 49.70 | 59.671 | | | |
| 7,300.00 | 7,044.06 | 6,422.34 | 6,196.47 | 32.91 | 35.92 | -92.67 | -1,458.76 | 660.85 | 2,993.22 | 2,943.35 | 49.87 | 60.015 | | | |
| 7,350.00 | 7,070.98 | 6,441.47 | 6,214.80 | 33.15 | 36.03 | -88.90 | -1,463.76 | 662.99 | 3,020.37 | 2,970.32 | 50.05 | 60.346 | | | |
| 7,400.00 | 7,094.36 | 6,457.22 | 6,229.90 | 33.39 | 36.13 | -85.49 | -1,467.87 | 664.76 | 3,046.70 | 2,996.47 | 50.23 | 60.656 | | | |
| 7,450.00 | 7,114.00 | 8,318.00 | 7,254.00 | 33.65 | 39.98 | -94.81 | -1,756.19 | -324.49 | 3,053.25 | 2,988.77 | 64.48 | 47.353 | | | |
| 7,500.00 | 7,129.76 | 8,365.19 | 7,254.00 | 33.93 | 40.11 | -93.62 | -1,756.59 | -371.68 | 3,057.34 | 2,991.62 | 65.72 | 46.520 | | | |
| 7,550.00 | 7,141.53 | 8,413.64 | 7,254.00 | 34.22 | 40.38 | -92.74 | -1,756.99 | -420.13 | 3,060.45 | 2,993.41 | 67.04 | 45.651 | | | |
| 7,600.00 | 7,149.21 | 8,462.98 | 7,254.00 | 34.55 | 40.80 | -92.17 | -1,757.41 | -469.46 | 3,062.50 | 2,994.05 | 68.45 | 44.739 | | | |
| 7,650.00 | 7,152.75 | 8,512.82 | 7,254.00 | 34.90 | 41.41 | -91.91 | -1,757.82 | -519.31 | 3,063.46 | 2,993.54 | 69.92 | 43.812 | | | |
| 7,667.38 | 7,153.00 | 8,530.20 | 7,254.00 | 35.04 | 41.66 | -91.89 | -1,757.97 | -536.69 | 3,063.53 | 2,993.08 | 70.45 | 43.483 | | | |
| 7,700.00 | 7,153.00 | 8,562.82 | 7,254.00 | 35.29 | 42.16 | -91.89 | -1,758.24 | -569.31 | 3,063.54 | 2,992.07 | 71.46 | 42.868 | | | |
| 7,800.00 | 7,153.00 | 8,662.82 | 7,254.00 | 36.22 | 43.91 | -91.89 | -1,759.08 | -669.30 | 3,063.56 | 2,988.81 | 74.75 | 40.986 | | | |
| 7,900.00 | 7,153.00 | 8,762.82 | 7,254.00 | 37.35 | 45.83 | -91.89 | -1,759.92 | -769.30 | 3,063.58 | 2,985.30 | 78.28 | 39.138 | | | |
| 8,000.00 | 7,153.00 | 8,862.82 | 7,254.00 | 38.67 | 47.87 | -91.89 | -1,760.75 | -869.30 | 3,063.59 | 2,981.57 | 82.02 | 37.351 | | | |
| 8,100.00 | 7,153.00 | 8,962.82 | 7,254.00 | 40.16 | 49.98 | -91.89 | -1,761.59 | -969.29 | 3,063.61 | 2,977.66 | 85.96 | 35.641 | | | |
| 8,200.00 | 7,153.00 | 9,062.82 | 7,254.00 | 41.81 | 52.15 | -91.89 | -1,762.43 | -1,069.29 | 3,063.63 | 2,973.58 | 90.05 | 34.020 | | | |
| 8,300.00 | 7,153.00 | 9,162.82 | 7,254.00 | 43.59 | 54.38 | -91.89 | -1,763.27 | -1,169.28 | 3,063.65 | 2,969.36 | 94.29 | 32.491 | | | |
| 8,400.00 | 7,153.00 | 9,262.82 | 7,254.00 | 45.47 | 56.65 | -91.89 | -1,764.10 | -1,269.28 | 3,063.67 | 2,965.02 | 98.65 | 31.055 | | | |
| 8,500.00 | 7,153.00 | 9,362.82 | 7,254.00 | 47.45 | 58.95 | -91.89 | -1,764.94 | -1,369.28 | 3,063.69 | 2,960.57 | 103.12 | 29.710 | | | |
| 8,600.00 | 7,153.00 | 9,462.82 | 7,254.00 | 49.51 | 61.29 | -91.89 | -1,765.78 | -1,469.27 | 3,063.71 | 2,956.03 | 107.68 | 28.452 | | | |
| 8,700.00 | 7,153.00 | 9,562.82 | 7,254.00 | 51.64 | 63.66 | -91.89 | -1,766.62 | -1,569.27 | 3,063.72 | 2,951.40 | 112.32 | 27.277 | | | |
| 8,800.00 | 7,153.00 | 9,662.82 | 7,254.00 | 53.82 | 66.06 | -91.89 | -1,767.45 | -1,669.27 | 3,063.74 | 2,946.71 | 117.03 | 26.179 | | | |
| 8,900.00 | 7,153.00 | 9,762.82 | 7,254.00 | 56.06 | 68.48 | -91.89 | -1,768.29 | -1,769.26 | 3,063.76 | 2,941.96 | 121.80 | 25.153 | | | |
| 9,000.00 | 7,153.00 | 9,862.82 | 7,254.00 | 58.34 | 70.92 | -91.89 | -1,769.13 | -1,869.26 | 3,063.78 | 2,937.15 | 126.63 | 24.194 | | | |
| 9,100.00 | 7,153.00 | 9,962.82 | 7,254.00 | 60.66 | 73.39 | -91.89 | -1,769.96 | -1,969.26 | 3,063.80 | 2,932.29 | 131.51 | 23.297 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-14H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | Offset Site Error: | 0.00 usft | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-----------|-------------------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | Offset Well Error: | 0.00 usft | | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Separation Factor | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | | | |
| 9,200.00 | 7,153.00 | 10,062.82 | 7,254.00 | 63.01 | 75.86 | -91.89 | -1,770.80 | -2,069.25 | 3,063.82 | 2,927.39 | 136.43 | 22.457 | | |
| 9,300.00 | 7,153.00 | 10,162.82 | 7,254.00 | 65.40 | 78.36 | -91.89 | -1,771.64 | -2,169.25 | 3,063.84 | 2,922.44 | 141.39 | 21.669 | | |
| 9,400.00 | 7,153.00 | 10,262.82 | 7,254.00 | 67.81 | 80.87 | -91.89 | -1,772.48 | -2,269.25 | 3,063.85 | 2,917.47 | 146.39 | 20.930 | | |
| 9,500.00 | 7,153.00 | 10,362.82 | 7,254.00 | 70.24 | 83.39 | -91.89 | -1,773.31 | -2,369.24 | 3,063.87 | 2,912.46 | 151.41 | 20.235 | | |
| 9,600.00 | 7,153.00 | 10,462.82 | 7,254.00 | 72.70 | 85.92 | -91.89 | -1,774.15 | -2,469.24 | 3,063.89 | 2,907.42 | 156.47 | 19.582 | | |
| 9,700.00 | 7,153.00 | 10,562.82 | 7,254.00 | 75.17 | 88.46 | -91.89 | -1,774.99 | -2,569.24 | 3,063.91 | 2,902.36 | 161.55 | 18.966 | | |
| 9,800.00 | 7,153.00 | 10,662.82 | 7,254.00 | 77.67 | 91.02 | -91.89 | -1,775.82 | -2,669.23 | 3,063.93 | 2,897.28 | 166.65 | 18.385 | | |
| 9,900.00 | 7,153.00 | 10,762.82 | 7,254.00 | 80.17 | 93.58 | -91.89 | -1,776.66 | -2,769.23 | 3,063.95 | 2,892.17 | 171.77 | 17.837 | | |
| 10,000.00 | 7,153.00 | 10,862.82 | 7,254.00 | 82.69 | 96.15 | -91.89 | -1,777.50 | -2,869.22 | 3,063.97 | 2,887.05 | 176.92 | 17.319 | | |
| 10,100.00 | 7,153.00 | 10,962.82 | 7,254.00 | 85.23 | 98.73 | -91.89 | -1,778.34 | -2,969.22 | 3,063.98 | 2,881.91 | 182.08 | 16.828 | | |
| 10,200.00 | 7,153.00 | 11,062.82 | 7,254.00 | 87.77 | 101.32 | -91.89 | -1,779.17 | -3,069.22 | 3,064.00 | 2,876.75 | 187.25 | 16.363 | | |
| 10,300.00 | 7,153.00 | 11,162.82 | 7,254.00 | 90.33 | 103.91 | -91.89 | -1,780.01 | -3,169.21 | 3,064.02 | 2,871.58 | 192.45 | 15.921 | | |
| 10,400.00 | 7,153.00 | 11,262.82 | 7,254.00 | 92.89 | 106.51 | -91.89 | -1,780.85 | -3,269.21 | 3,064.04 | 2,866.39 | 197.65 | 15.502 | | |
| 10,500.00 | 7,153.00 | 11,362.82 | 7,254.00 | 95.47 | 109.12 | -91.89 | -1,781.69 | -3,369.21 | 3,064.06 | 2,861.19 | 202.87 | 15.104 | | |
| 10,600.00 | 7,153.00 | 11,462.82 | 7,254.00 | 98.05 | 111.73 | -91.89 | -1,782.52 | -3,469.20 | 3,064.08 | 2,855.98 | 208.10 | 14.724 | | |
| 10,700.00 | 7,153.00 | 11,562.82 | 7,254.00 | 100.64 | 114.34 | -91.89 | -1,783.36 | -3,569.20 | 3,064.10 | 2,850.76 | 213.34 | 14.363 | | |
| 10,800.00 | 7,153.00 | 11,662.82 | 7,254.00 | 103.24 | 116.96 | -91.89 | -1,784.20 | -3,669.20 | 3,064.11 | 2,845.53 | 218.59 | 14.018 | | |
| 10,900.00 | 7,153.00 | 11,762.82 | 7,254.00 | 105.84 | 119.59 | -91.89 | -1,785.03 | -3,769.19 | 3,064.13 | 2,840.29 | 223.85 | 13.689 | | |
| 11,000.00 | 7,153.00 | 11,862.82 | 7,254.00 | 108.45 | 122.22 | -91.89 | -1,785.87 | -3,869.19 | 3,064.15 | 2,835.04 | 229.11 | 13.374 | | |
| 11,100.00 | 7,153.00 | 11,962.82 | 7,254.00 | 111.07 | 124.85 | -91.89 | -1,786.71 | -3,969.19 | 3,064.17 | 2,829.78 | 234.39 | 13.073 | | |
| 11,200.00 | 7,153.00 | 12,062.82 | 7,254.00 | 113.69 | 127.48 | -91.89 | -1,787.55 | -4,069.18 | 3,064.19 | 2,824.52 | 239.67 | 12.785 | | |
| 11,300.00 | 7,153.00 | 12,162.82 | 7,254.00 | 116.31 | 130.12 | -91.89 | -1,788.38 | -4,169.18 | 3,064.21 | 2,819.25 | 244.96 | 12.509 | | |
| 11,400.00 | 7,153.00 | 12,262.82 | 7,254.00 | 118.94 | 132.77 | -91.89 | -1,789.22 | -4,269.18 | 3,064.23 | 2,813.97 | 250.26 | 12.244 | | |
| 11,500.00 | 7,153.00 | 12,362.82 | 7,254.00 | 121.57 | 135.41 | -91.89 | -1,790.06 | -4,369.17 | 3,064.24 | 2,808.68 | 255.56 | 11.990 | | |
| 11,600.00 | 7,153.00 | 12,462.82 | 7,254.00 | 124.21 | 138.06 | -91.89 | -1,790.89 | -4,469.17 | 3,064.26 | 2,803.39 | 260.87 | 11.746 | | |
| 11,700.00 | 7,153.00 | 12,562.82 | 7,254.00 | 126.85 | 140.71 | -91.89 | -1,791.73 | -4,569.17 | 3,064.28 | 2,798.10 | 266.18 | 11.512 | | |
| 11,800.00 | 7,153.00 | 12,662.82 | 7,254.00 | 129.49 | 143.37 | -91.89 | -1,792.57 | -4,669.16 | 3,064.30 | 2,792.80 | 271.50 | 11.287 | | |
| 11,900.00 | 7,153.00 | 12,762.82 | 7,254.00 | 132.14 | 146.02 | -91.89 | -1,793.41 | -4,769.16 | 3,064.32 | 2,787.49 | 276.82 | 11.070 | | |
| 12,000.00 | 7,153.00 | 12,862.82 | 7,254.00 | 134.79 | 148.68 | -91.89 | -1,794.24 | -4,869.15 | 3,064.34 | 2,782.19 | 282.15 | 10.861 | | |
| 12,100.00 | 7,153.00 | 12,962.82 | 7,254.00 | 137.44 | 151.34 | -91.89 | -1,795.08 | -4,969.15 | 3,064.36 | 2,776.87 | 287.48 | 10.659 | | |
| 12,200.00 | 7,153.00 | 13,062.82 | 7,254.00 | 140.10 | 154.01 | -91.89 | -1,795.92 | -5,069.15 | 3,064.37 | 2,771.55 | 292.82 | 10.465 | | |
| 12,300.00 | 7,153.00 | 13,162.82 | 7,254.00 | 142.76 | 156.67 | -91.89 | -1,796.75 | -5,169.14 | 3,064.39 | 2,766.23 | 298.16 | 10.278 | | |
| 12,400.00 | 7,153.00 | 13,262.82 | 7,254.00 | 145.42 | 159.34 | -91.89 | -1,797.59 | -5,269.14 | 3,064.41 | 2,760.91 | 303.50 | 10.097 | | |
| 12,500.00 | 7,153.00 | 13,362.82 | 7,254.00 | 148.08 | 162.01 | -91.89 | -1,798.43 | -5,369.14 | 3,064.43 | 2,755.58 | 308.85 | 9.922 | | |
| 12,600.00 | 7,153.00 | 13,462.82 | 7,254.00 | 150.75 | 164.68 | -91.89 | -1,799.27 | -5,469.13 | 3,064.45 | 2,750.25 | 314.20 | 9.753 | | |
| 12,700.00 | 7,153.00 | 13,562.82 | 7,254.00 | 153.41 | 167.35 | -91.89 | -1,800.10 | -5,569.13 | 3,064.47 | 2,744.91 | 319.55 | 9.590 | | |
| 12,800.00 | 7,153.00 | 13,662.82 | 7,254.00 | 156.08 | 170.02 | -91.89 | -1,800.94 | -5,669.13 | 3,064.49 | 2,739.58 | 324.91 | 9.432 | | |
| 12,900.00 | 7,153.00 | 13,762.82 | 7,254.00 | 158.75 | 172.70 | -91.89 | -1,801.78 | -5,769.12 | 3,064.50 | 2,734.23 | 330.27 | 9.279 | | |
| 13,000.00 | 7,153.00 | 13,862.82 | 7,254.00 | 161.42 | 175.37 | -91.89 | -1,802.62 | -5,869.12 | 3,064.52 | 2,728.89 | 335.63 | 9.131 | | |
| 13,100.00 | 7,153.00 | 13,962.82 | 7,254.00 | 164.10 | 178.05 | -91.89 | -1,803.45 | -5,969.12 | 3,064.54 | 2,723.55 | 341.00 | 8.987 | | |
| 13,200.00 | 7,153.00 | 14,062.82 | 7,254.00 | 166.77 | 180.73 | -91.89 | -1,804.29 | -6,069.11 | 3,064.56 | 2,718.20 | 346.36 | 8.848 | | |
| 13,300.00 | 7,153.00 | 14,162.82 | 7,254.00 | 169.45 | 183.41 | -91.89 | -1,805.13 | -6,169.11 | 3,064.58 | 2,712.85 | 351.73 | 8.713 | | |
| 13,400.00 | 7,153.00 | 14,262.82 | 7,254.00 | 172.13 | 186.09 | -91.89 | -1,805.96 | -6,269.11 | 3,064.60 | 2,707.50 | 357.10 | 8.582 | | |
| 13,500.00 | 7,153.00 | 14,362.82 | 7,254.00 | 174.81 | 188.78 | -91.89 | -1,806.80 | -6,369.10 | 3,064.62 | 2,702.14 | 362.48 | 8.455 | | |
| 13,600.00 | 7,153.00 | 14,462.82 | 7,254.00 | 177.49 | 191.46 | -91.89 | -1,807.64 | -6,469.10 | 3,064.63 | 2,696.78 | 367.85 | 8.331 | | |
| 13,700.00 | 7,153.00 | 14,562.82 | 7,254.00 | 180.17 | 194.14 | -91.89 | -1,808.48 | -6,569.10 | 3,064.65 | 2,691.43 | 373.23 | 8.211 | | |
| 13,800.00 | 7,153.00 | 14,662.82 | 7,254.00 | 182.86 | 196.83 | -91.89 | -1,809.31 | -6,669.09 | 3,064.67 | 2,686.06 | 378.61 | 8.095 | | |
| 13,900.00 | 7,153.00 | 14,762.82 | 7,254.00 | 185.54 | 199.52 | -91.89 | -1,810.15 | -6,769.09 | 3,064.69 | 2,680.70 | 383.99 | 7.981 | | |
| 14,000.00 | 7,153.00 | 14,862.82 | 7,254.00 | 188.23 | 202.20 | -91.89 | -1,810.99 | -6,869.08 | 3,064.71 | 2,675.34 | 389.37 | 7.871 | | |
| 14,100.00 | 7,153.00 | 14,962.82 | 7,254.00 | 190.91 | 204.89 | -91.89 | -1,811.82 | -6,969.08 | 3,064.73 | 2,669.97 | 394.75 | 7.764 | | |
| 14,200.00 | 7,153.00 | 15,062.82 | 7,254.00 | 193.60 | 207.58 | -91.89 | -1,812.66 | -7,069.08 | 3,064.75 | 2,664.61 | 400.14 | 7.659 | | |
| 14,300.00 | 7,153.00 | 15,162.82 | 7,254.00 | 196.29 | 210.27 | -91.89 | -1,813.50 | -7,169.07 | 3,064.77 | 2,659.24 | 405.53 | 7.557 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-14H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Highside | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 14,400.00 | 7,153.00 | 15,262.82 | 7,254.00 | 198.98 | 212.96 | -91.89 | -1,814.34 | -7,269.07 | 3,064.78 | 2,653.87 | 410.92 | 7.458 | | | |
| 14,500.00 | 7,153.00 | 15,362.82 | 7,254.00 | 201.67 | 215.65 | -91.89 | -1,815.17 | -7,369.07 | 3,064.80 | 2,648.50 | 416.31 | 7.362 | | | |
| 14,600.00 | 7,153.00 | 15,462.82 | 7,254.00 | 204.36 | 218.35 | -91.89 | -1,816.01 | -7,469.06 | 3,064.82 | 2,643.12 | 421.70 | 7.268 | | | |
| 14,700.00 | 7,153.00 | 15,562.82 | 7,254.00 | 207.05 | 221.04 | -91.89 | -1,816.85 | -7,569.06 | 3,064.84 | 2,637.75 | 427.09 | 7.176 | | | |
| 14,800.00 | 7,153.00 | 15,662.82 | 7,254.00 | 209.75 | 223.73 | -91.89 | -1,817.69 | -7,669.06 | 3,064.86 | 2,632.38 | 432.48 | 7.087 | | | |
| 14,900.00 | 7,153.00 | 15,762.82 | 7,254.00 | 212.44 | 226.43 | -91.89 | -1,818.52 | -7,769.05 | 3,064.88 | 2,627.00 | 437.88 | 6.999 | | | |
| 15,000.00 | 7,153.00 | 15,862.82 | 7,254.00 | 215.13 | 229.12 | -91.89 | -1,819.36 | -7,869.05 | 3,064.90 | 2,621.62 | 443.27 | 6.914 | | | |
| 15,100.00 | 7,153.00 | 15,962.82 | 7,254.00 | 217.83 | 231.82 | -91.89 | -1,820.20 | -7,969.05 | 3,064.91 | 2,616.24 | 448.67 | 6.831 | | | |
| 15,200.00 | 7,153.00 | 16,062.82 | 7,254.00 | 220.53 | 234.51 | -91.89 | -1,821.03 | -8,069.04 | 3,064.93 | 2,610.86 | 454.07 | 6.750 | | | |
| 15,300.00 | 7,153.00 | 16,162.82 | 7,254.00 | 223.22 | 237.21 | -91.89 | -1,821.87 | -8,169.04 | 3,064.95 | 2,605.48 | 459.47 | 6.671 | | | |
| 15,400.00 | 7,153.00 | 16,262.82 | 7,254.00 | 225.92 | 239.91 | -91.89 | -1,822.71 | -8,269.04 | 3,064.97 | 2,600.10 | 464.87 | 6.593 | | | |
| 15,455.54 | 7,153.00 | 16,318.36 | 7,254.00 | 227.42 | 241.41 | -91.89 | -1,823.17 | -8,324.58 | 3,064.98 | 2,597.11 | 467.87 | 6.551 SF | | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-15H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 103.37 | -7.28 | 30.63 | 31.48 | | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 103.37 | -7.28 | 30.63 | 31.48 | 31.20 | 0.29 | 109.782 | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 103.37 | -7.28 | 30.63 | 31.48 | 30.48 | 1.00 | 31.366 | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 103.37 | -7.28 | 30.63 | 31.48 | 29.76 | 1.72 | 18.297 | CC, ES | | |
| 400.00 | 400.00 | 399.38 | 399.36 | 1.22 | 1.20 | 105.95 | -8.91 | 31.19 | 32.44 | 30.02 | 2.42 | 13.402 | | | |
| 500.00 | 500.00 | 498.52 | 498.36 | 1.58 | 1.54 | 112.76 | -13.79 | 32.86 | 35.67 | 32.55 | 3.12 | 11.441 | | | |
| 600.00 | 600.00 | 597.18 | 596.65 | 1.94 | 1.90 | 121.53 | -21.85 | 35.62 | 41.92 | 38.10 | 3.82 | 10.965 | SF | | |
| 700.00 | 700.00 | 695.14 | 693.89 | 2.29 | 2.27 | 129.94 | -33.02 | 39.44 | 51.80 | 47.27 | 4.53 | 11.440 | | | |
| 800.00 | 800.00 | 792.18 | 789.77 | 2.65 | 2.66 | 136.81 | -47.18 | 44.29 | 65.52 | 60.29 | 5.23 | 12.535 | | | |
| 900.00 | 900.00 | 888.10 | 883.98 | 3.01 | 3.08 | 142.02 | -64.19 | 50.11 | 83.00 | 77.08 | 5.92 | 14.030 | | | |
| 1,000.00 | 1,000.00 | 982.69 | 976.25 | 3.37 | 3.53 | 145.87 | -83.88 | 56.85 | 104.07 | 97.48 | 6.59 | 15.781 | | | |
| 1,100.00 | 1,100.00 | 1,075.80 | 1,066.35 | 3.73 | 4.00 | 148.72 | -106.06 | 64.44 | 128.58 | 121.32 | 7.26 | 17.703 | | | |
| 1,200.00 | 1,200.00 | 1,167.25 | 1,154.06 | 4.09 | 4.50 | 150.85 | -130.53 | 72.82 | 156.37 | 148.45 | 7.92 | 19.754 | | | |
| 1,300.00 | 1,300.00 | 1,256.91 | 1,239.22 | 4.45 | 5.03 | 152.46 | -157.09 | 81.90 | 187.29 | 178.73 | 8.56 | 21.877 | | | |
| 1,400.00 | 1,400.00 | 1,347.33 | 1,324.24 | 4.80 | 5.59 | 153.74 | -186.19 | 91.87 | 221.01 | 211.78 | 9.22 | 23.958 | | | |
| 1,500.00 | 1,500.00 | 1,441.18 | 1,412.31 | 5.16 | 6.20 | 154.73 | -216.85 | 102.36 | 255.32 | 245.38 | 9.94 | 25.688 | | | |
| 1,600.00 | 1,600.00 | 1,535.02 | 1,500.39 | 5.52 | 6.81 | 155.49 | -247.51 | 112.85 | 289.69 | 279.03 | 10.66 | 27.179 | | | |
| 1,700.00 | 1,700.00 | 1,628.87 | 1,588.46 | 5.88 | 7.44 | 156.09 | -278.17 | 123.35 | 324.09 | 312.71 | 11.38 | 28.475 | | | |
| 1,800.00 | 1,800.00 | 1,722.72 | 1,676.54 | 6.24 | 8.07 | 156.57 | -308.83 | 133.84 | 358.52 | 346.41 | 12.11 | 29.611 | | | |
| 1,900.00 | 1,900.00 | 1,816.57 | 1,764.62 | 6.60 | 8.70 | 156.97 | -339.49 | 144.34 | 392.96 | 380.12 | 12.84 | 30.614 | | | |
| 2,000.00 | 2,000.00 | 1,910.42 | 1,852.69 | 6.95 | 9.34 | 157.30 | -370.15 | 154.83 | 427.42 | 413.85 | 13.57 | 31.506 | | | |
| 2,100.00 | 2,100.00 | 2,004.27 | 1,940.77 | 7.31 | 9.98 | 157.58 | -400.81 | 165.33 | 461.89 | 447.59 | 14.30 | 32.303 | | | |
| 2,200.00 | 2,200.00 | 2,098.12 | 2,028.84 | 7.67 | 10.62 | 157.83 | -431.48 | 175.82 | 496.37 | 481.33 | 15.03 | 33.020 | | | |
| 2,300.00 | 2,300.00 | 2,191.96 | 2,116.92 | 8.03 | 11.27 | 158.04 | -462.14 | 186.32 | 530.85 | 515.08 | 15.77 | 33.668 | | | |
| 2,400.00 | 2,400.00 | 2,285.81 | 2,204.99 | 8.39 | 11.91 | 158.23 | -492.80 | 196.81 | 565.34 | 548.84 | 16.50 | 34.256 | | | |
| 2,500.00 | 2,499.98 | 2,379.07 | 2,292.52 | 8.75 | 12.56 | 157.57 | -523.27 | 207.24 | 601.35 | 584.11 | 17.24 | 34.883 | | | |
| 2,600.00 | 2,599.84 | 2,471.09 | 2,378.87 | 9.11 | 13.19 | 157.58 | -553.33 | 217.53 | 640.36 | 622.39 | 17.97 | 35.637 | | | |
| 2,700.00 | 2,699.45 | 2,561.74 | 2,463.94 | 9.46 | 13.82 | 157.64 | -582.94 | 227.67 | 682.34 | 663.65 | 18.69 | 36.512 | | | |
| 2,800.00 | 2,798.70 | 2,650.91 | 2,547.64 | 9.82 | 14.44 | 157.74 | -612.08 | 237.64 | 727.27 | 707.87 | 19.40 | 37.494 | | | |
| 2,900.00 | 2,897.47 | 2,738.51 | 2,629.84 | 10.18 | 15.05 | 157.86 | -640.70 | 247.44 | 775.10 | 755.00 | 20.09 | 38.572 | | | |
| 3,000.00 | 2,995.62 | 2,824.42 | 2,710.47 | 10.55 | 15.64 | 158.00 | -668.77 | 257.04 | 825.80 | 805.02 | 20.78 | 39.736 | | | |
| 3,100.00 | 3,093.06 | 2,908.54 | 2,789.41 | 10.94 | 16.23 | 158.13 | -696.25 | 266.45 | 879.32 | 857.87 | 21.46 | 40.978 | | | |
| 3,200.00 | 3,189.64 | 2,990.76 | 2,866.57 | 11.34 | 16.80 | 158.25 | -723.11 | 275.64 | 935.63 | 913.51 | 22.12 | 42.290 | | | |
| 3,240.86 | 3,228.84 | 3,023.78 | 2,897.57 | 11.50 | 17.03 | 158.30 | -733.90 | 279.34 | 959.42 | 937.03 | 22.40 | 42.840 | | | |
| 3,300.00 | 3,285.45 | 3,071.34 | 2,942.20 | 11.75 | 17.36 | 158.66 | -749.44 | 284.66 | 994.21 | 971.42 | 22.78 | 43.642 | | | |
| 3,400.00 | 3,381.17 | 3,151.76 | 3,017.67 | 12.19 | 17.92 | 159.23 | -775.71 | 293.65 | 1,053.07 | 1,029.64 | 23.43 | 44.938 | | | |
| 3,500.00 | 3,476.90 | 3,232.18 | 3,093.14 | 12.63 | 18.48 | 159.74 | -801.98 | 302.64 | 1,112.00 | 1,087.91 | 24.09 | 46.159 | | | |
| 3,600.00 | 3,572.62 | 3,312.59 | 3,168.61 | 13.09 | 19.05 | 160.20 | -828.26 | 311.63 | 1,170.98 | 1,146.23 | 24.75 | 47.311 | | | |
| 3,700.00 | 3,668.34 | 3,393.01 | 3,244.08 | 13.56 | 19.61 | 160.61 | -854.53 | 320.63 | 1,230.00 | 1,204.59 | 25.41 | 48.399 | | | |
| 3,800.00 | 3,764.07 | 3,473.43 | 3,319.55 | 14.04 | 20.17 | 160.99 | -880.80 | 329.62 | 1,289.06 | 1,262.98 | 26.08 | 49.428 | | | |
| 3,900.00 | 3,859.79 | 3,553.85 | 3,395.02 | 14.52 | 20.73 | 161.33 | -907.08 | 338.61 | 1,348.16 | 1,321.41 | 26.75 | 50.402 | | | |
| 4,000.00 | 3,955.51 | 3,634.26 | 3,470.49 | 15.02 | 21.29 | 161.64 | -933.35 | 347.61 | 1,407.28 | 1,379.86 | 27.42 | 51.325 | | | |
| 4,100.00 | 4,051.24 | 3,714.68 | 3,545.96 | 15.52 | 21.85 | 161.93 | -959.62 | 356.60 | 1,466.43 | 1,438.34 | 28.09 | 52.200 | | | |
| 4,200.00 | 4,146.96 | 3,795.10 | 3,621.44 | 16.03 | 22.42 | 162.20 | -985.90 | 365.59 | 1,525.61 | 1,496.84 | 28.77 | 53.032 | | | |
| 4,300.00 | 4,242.68 | 3,875.51 | 3,696.91 | 16.54 | 22.98 | 162.45 | -1,012.17 | 374.58 | 1,584.80 | 1,555.35 | 29.44 | 53.823 | | | |
| 4,400.00 | 4,338.41 | 3,955.93 | 3,772.38 | 17.06 | 23.54 | 162.68 | -1,038.44 | 383.58 | 1,644.01 | 1,613.88 | 30.12 | 54.576 | | | |
| 4,500.00 | 4,434.13 | 4,036.35 | 3,847.85 | 17.59 | 24.10 | 162.89 | -1,064.71 | 392.57 | 1,703.23 | 1,672.43 | 30.80 | 55.293 | | | |
| 4,600.00 | 4,529.85 | 4,116.77 | 3,923.32 | 18.11 | 24.67 | 163.09 | -1,090.99 | 401.56 | 1,762.47 | 1,730.99 | 31.49 | 55.977 | | | |
| 4,700.00 | 4,625.58 | 4,197.18 | 3,998.79 | 18.65 | 25.23 | 163.28 | -1,117.26 | 410.55 | 1,821.73 | 1,789.56 | 32.17 | 56.629 | | | |
| 4,800.00 | 4,721.30 | 4,277.60 | 4,074.26 | 19.18 | 25.79 | 163.45 | -1,143.53 | 419.55 | 1,880.99 | 1,848.14 | 32.85 | 57.252 | | | |
| 4,900.00 | 4,817.02 | 4,358.02 | 4,149.73 | 19.72 | 26.36 | 163.62 | -1,169.81 | 428.54 | 1,940.27 | 1,906.73 | 33.54 | 57.848 | | | |
| 5,000.00 | 4,912.74 | 4,438.43 | 4,225.20 | 20.27 | 26.92 | 163.77 | -1,196.08 | 437.53 | 1,999.56 | 1,965.33 | 34.23 | 58.418 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-15H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 5,100.00 | 5,008.47 | 4,518.85 | 4,300.67 | 20.81 | 27.48 | 163.91 | -1,222.35 | 446.53 | 2,058.85 | 2,023.93 | 34.92 | 58.964 | | | |
| 5,200.00 | 5,104.19 | 4,599.27 | 4,376.14 | 21.36 | 28.05 | 164.05 | -1,248.63 | 455.52 | 2,118.15 | 2,082.55 | 35.61 | 59.487 | | | |
| 5,300.00 | 5,199.91 | 4,679.68 | 4,451.61 | 21.91 | 28.61 | 164.18 | -1,274.90 | 464.51 | 2,177.46 | 2,141.16 | 36.30 | 59.988 | | | |
| 5,400.00 | 5,295.64 | 4,760.10 | 4,527.08 | 22.46 | 29.17 | 164.31 | -1,301.17 | 473.50 | 2,236.78 | 2,199.79 | 36.99 | 60.469 | | | |
| 5,500.00 | 5,391.36 | 4,840.52 | 4,602.55 | 23.02 | 29.74 | 164.42 | -1,327.44 | 482.50 | 2,296.10 | 2,258.42 | 37.68 | 60.931 | | | |
| 5,600.00 | 5,487.08 | 4,920.94 | 4,678.02 | 23.58 | 30.30 | 164.53 | -1,353.72 | 491.49 | 2,355.43 | 2,317.05 | 38.38 | 61.375 | | | |
| 5,700.00 | 5,582.81 | 5,001.35 | 4,753.49 | 24.13 | 30.86 | 164.64 | -1,379.99 | 500.48 | 2,414.77 | 2,375.69 | 39.07 | 61.801 | | | |
| 5,800.00 | 5,678.53 | 5,081.77 | 4,828.96 | 24.70 | 31.43 | 164.74 | -1,406.26 | 509.47 | 2,474.11 | 2,434.34 | 39.77 | 62.211 | | | |
| 5,900.00 | 5,774.25 | 5,162.19 | 4,904.43 | 25.26 | 31.99 | 164.83 | -1,432.54 | 518.47 | 2,533.45 | 2,492.98 | 40.47 | 62.606 | | | |
| 6,000.00 | 5,869.98 | 5,242.60 | 4,979.90 | 25.82 | 32.56 | 164.93 | -1,458.81 | 527.46 | 2,592.80 | 2,551.64 | 41.16 | 62.986 | | | |
| 6,100.00 | 5,965.70 | 5,323.02 | 5,055.37 | 26.39 | 33.12 | 165.01 | -1,485.08 | 536.45 | 2,652.15 | 2,610.29 | 41.86 | 63.352 | | | |
| 6,200.00 | 6,061.42 | 5,403.44 | 5,130.84 | 26.95 | 33.68 | 165.10 | -1,511.36 | 545.45 | 2,711.51 | 2,668.95 | 42.56 | 63.705 | | | |
| 6,300.00 | 6,157.15 | 5,483.86 | 5,206.31 | 27.52 | 34.25 | 165.18 | -1,537.63 | 554.44 | 2,770.87 | 2,727.61 | 43.26 | 64.045 | | | |
| 6,400.00 | 6,252.87 | 5,564.27 | 5,281.78 | 28.09 | 34.81 | 165.25 | -1,563.90 | 563.43 | 2,830.23 | 2,786.27 | 43.97 | 64.373 | | | |
| 6,500.00 | 6,348.59 | 5,644.69 | 5,357.25 | 28.66 | 35.38 | 165.33 | -1,590.17 | 572.42 | 2,889.60 | 2,844.93 | 44.67 | 64.690 | | | |
| 6,600.00 | 6,444.32 | 5,725.11 | 5,432.72 | 29.23 | 35.94 | 165.40 | -1,616.45 | 581.42 | 2,948.97 | 2,903.60 | 45.37 | 64.996 | | | |
| 6,700.00 | 6,540.04 | 5,805.52 | 5,508.19 | 29.80 | 36.50 | 165.46 | -1,642.72 | 590.41 | 3,008.34 | 2,962.27 | 46.08 | 65.291 | | | |
| 6,764.28 | 6,601.58 | 5,857.22 | 5,556.71 | 30.17 | 36.87 | 165.51 | -1,659.61 | 596.19 | 3,046.51 | 2,999.98 | 46.53 | 65.476 | | | |
| 6,800.00 | 6,635.75 | 5,885.81 | 5,583.54 | 30.37 | 37.07 | 179.80 | -1,668.95 | 599.39 | 3,067.91 | 3,021.14 | 46.78 | 65.585 | | | |
| 6,850.00 | 6,683.35 | 5,925.22 | 5,620.53 | 30.66 | 37.34 | -161.71 | -1,681.83 | 603.80 | 3,098.42 | 3,051.31 | 47.11 | 65.767 | | | |
| 6,900.00 | 6,730.36 | 5,963.66 | 5,656.60 | 30.94 | 37.61 | -146.20 | -1,694.39 | 608.09 | 3,129.36 | 3,081.94 | 47.43 | 65.982 | | | |
| 6,950.00 | 6,776.41 | 6,000.84 | 5,691.49 | 31.21 | 37.87 | -133.64 | -1,706.53 | 612.25 | 3,160.54 | 3,112.82 | 47.72 | 66.227 | | | |
| 7,000.00 | 6,821.15 | 6,036.46 | 5,724.93 | 31.47 | 38.12 | -123.45 | -1,718.17 | 616.24 | 3,191.77 | 3,143.77 | 48.00 | 66.500 | | | |
| 7,050.00 | 6,864.24 | 6,070.27 | 5,756.65 | 31.73 | 38.36 | -115.01 | -1,729.21 | 620.02 | 3,222.86 | 3,174.61 | 48.25 | 66.795 | | | |
| 7,100.00 | 6,905.35 | 6,101.99 | 5,786.42 | 31.97 | 38.58 | -107.88 | -1,739.58 | 623.56 | 3,253.65 | 3,205.16 | 48.48 | 67.109 | | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-5H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 32.79 | 0.00 | 32.79 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.00 | 32.79 | 0.00 | 32.79 | 32.50 | 0.29 | 114.328 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.00 | 32.79 | 0.00 | 32.79 | 31.78 | 1.00 | 32.665 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 0.00 | 32.79 | 0.00 | 32.79 | 31.07 | 1.72 | 19.055 | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.22 | 1.22 | 0.00 | 32.79 | 0.00 | 32.79 | 30.35 | 2.44 | 13.450 | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.58 | 1.58 | 0.00 | 32.79 | 0.00 | 32.79 | 29.63 | 3.15 | 10.394 | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.94 | 1.94 | 0.00 | 32.79 | 0.00 | 32.79 | 28.92 | 3.87 | 8.469 | | |
| 700.00 | 700.00 | 700.00 | 700.00 | 2.29 | 2.29 | 0.00 | 32.79 | 0.00 | 32.79 | 28.20 | 4.59 | 7.146 | | |
| 800.00 | 800.00 | 800.00 | 800.00 | 2.65 | 2.65 | 0.00 | 32.79 | 0.00 | 32.79 | 27.48 | 5.31 | 6.180 | | |
| 900.00 | 900.00 | 900.00 | 900.00 | 3.01 | 3.01 | 0.00 | 32.79 | 0.00 | 32.79 | 26.76 | 6.02 | 5.444 | | |
| 1,000.00 | 1,000.00 | 1,000.00 | 1,000.00 | 3.37 | 3.37 | 0.00 | 32.79 | 0.00 | 32.79 | 26.05 | 6.74 | 4.865 | | |
| 1,100.00 | 1,100.00 | 1,100.00 | 1,100.00 | 3.73 | 3.73 | 0.00 | 32.79 | 0.00 | 32.79 | 25.33 | 7.46 | 4.397 | | |
| 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 4.09 | 4.09 | 0.00 | 32.79 | 0.00 | 32.79 | 24.61 | 8.17 | 4.012 | | |
| 1,300.00 | 1,300.00 | 1,300.00 | 1,300.00 | 4.45 | 4.45 | 0.00 | 32.79 | 0.00 | 32.79 | 23.90 | 8.89 | 3.688 | | |
| 1,400.00 | 1,400.00 | 1,400.00 | 1,400.00 | 4.80 | 4.80 | 0.00 | 32.79 | 0.00 | 32.79 | 23.18 | 9.61 | 3.413 | | |
| 1,500.00 | 1,500.00 | 1,500.00 | 1,500.00 | 5.16 | 5.16 | 0.00 | 32.79 | 0.00 | 32.79 | 22.46 | 10.32 | 3.176 | | |
| 1,600.00 | 1,600.00 | 1,600.00 | 1,600.00 | 5.52 | 5.52 | 0.00 | 32.79 | 0.00 | 32.79 | 21.75 | 11.04 | 2.970 | | |
| 1,700.00 | 1,700.00 | 1,700.00 | 1,700.00 | 5.88 | 5.88 | 0.00 | 32.79 | 0.00 | 32.79 | 21.03 | 11.76 | 2.789 | | |
| 1,800.00 | 1,800.00 | 1,800.00 | 1,800.00 | 6.24 | 6.24 | 0.00 | 32.79 | 0.00 | 32.79 | 20.31 | 12.47 | 2.628 | | |
| 1,900.00 | 1,900.00 | 1,900.00 | 1,900.00 | 6.60 | 6.60 | 0.00 | 32.79 | 0.00 | 32.79 | 19.60 | 13.19 | 2.485 | | |
| 2,000.00 | 2,000.00 | 2,000.00 | 2,000.00 | 6.95 | 6.95 | 0.00 | 32.79 | 0.00 | 32.79 | 18.88 | 13.91 | 2.357 | | |
| 2,100.00 | 2,100.00 | 2,100.00 | 2,100.00 | 7.31 | 7.31 | 0.00 | 32.79 | 0.00 | 32.79 | 18.16 | 14.63 | 2.242 | | |
| 2,200.00 | 2,200.00 | 2,200.00 | 2,200.00 | 7.67 | 7.67 | 0.00 | 32.79 | 0.00 | 32.79 | 17.44 | 15.34 | 2.137 | CC, ES | |
| 2,300.00 | 2,300.00 | 2,298.83 | 2,298.81 | 8.03 | 8.03 | 0.04 | 34.49 | 0.02 | 34.51 | 18.46 | 16.05 | 2.151 | | |
| 2,400.00 | 2,400.00 | 2,397.42 | 2,397.27 | 8.39 | 8.38 | 0.13 | 39.59 | 0.09 | 39.68 | 22.95 | 16.73 | 2.371 | | |
| 2,500.00 | 2,499.98 | 2,495.71 | 2,495.18 | 8.75 | 8.73 | -0.37 | 48.03 | 0.20 | 46.54 | 29.14 | 17.40 | 2.674 | | |
| 2,600.00 | 2,599.84 | 2,593.77 | 2,592.53 | 9.11 | 9.08 | -0.28 | 59.80 | 0.36 | 53.33 | 35.28 | 18.05 | 2.955 | | |
| 2,700.00 | 2,699.45 | 2,691.61 | 2,689.20 | 9.46 | 9.44 | -0.21 | 74.86 | 0.57 | 60.05 | 41.38 | 18.67 | 3.216 | | |
| 2,800.00 | 2,798.70 | 2,789.23 | 2,785.08 | 9.82 | 9.80 | -0.14 | 93.16 | 0.81 | 66.69 | 47.42 | 19.28 | 3.460 | | |
| 2,900.00 | 2,897.47 | 2,886.63 | 2,880.08 | 10.18 | 10.17 | -0.08 | 114.67 | 1.10 | 73.25 | 53.39 | 19.86 | 3.688 | | |
| 3,000.00 | 2,995.62 | 2,983.83 | 2,974.09 | 10.55 | 10.56 | -0.02 | 139.34 | 1.43 | 79.71 | 59.28 | 20.43 | 3.902 | | |
| 3,100.00 | 3,093.06 | 3,080.82 | 3,067.01 | 10.94 | 10.97 | 0.04 | 167.12 | 1.81 | 86.07 | 65.10 | 20.97 | 4.104 | | |
| 3,200.00 | 3,189.64 | 3,177.61 | 3,158.75 | 11.34 | 11.40 | 0.09 | 197.96 | 2.22 | 92.32 | 70.82 | 21.50 | 4.293 | | |
| 3,240.86 | 3,228.84 | 3,217.10 | 3,195.87 | 11.50 | 11.58 | 0.11 | 211.44 | 2.40 | 94.84 | 73.13 | 21.71 | 4.368 | | |
| 3,300.00 | 3,285.45 | 3,274.16 | 3,249.17 | 11.75 | 11.86 | 0.14 | 231.80 | 2.67 | 99.07 | 77.05 | 22.02 | 4.500 | | |
| 3,400.00 | 3,381.17 | 3,370.20 | 3,337.93 | 12.19 | 12.34 | 0.19 | 268.46 | 3.17 | 108.87 | 86.36 | 22.51 | 4.836 | | |
| 3,500.00 | 3,476.90 | 3,465.50 | 3,424.74 | 12.63 | 12.85 | 0.22 | 307.76 | 3.69 | 122.00 | 99.00 | 23.00 | 5.305 | | |
| 3,600.00 | 3,572.62 | 3,562.42 | 3,511.89 | 13.09 | 13.41 | 0.25 | 350.18 | 4.26 | 137.88 | 114.26 | 23.62 | 5.837 | | |
| 3,700.00 | 3,668.34 | 3,661.10 | 3,600.48 | 13.56 | 13.99 | 0.27 | 393.64 | 4.85 | 154.07 | 129.69 | 24.37 | 6.321 | | |
| 3,800.00 | 3,764.07 | 3,759.79 | 3,689.07 | 14.04 | 14.60 | 0.29 | 437.11 | 5.43 | 170.26 | 145.12 | 25.14 | 6.774 | | |
| 3,900.00 | 3,859.79 | 3,858.47 | 3,777.66 | 14.52 | 15.23 | 0.30 | 480.57 | 6.02 | 186.45 | 160.55 | 25.90 | 7.198 | | |
| 4,000.00 | 3,955.51 | 3,957.15 | 3,866.25 | 15.02 | 15.87 | 0.32 | 524.03 | 6.60 | 202.64 | 175.96 | 26.68 | 7.595 | | |
| 4,100.00 | 4,051.24 | 4,055.83 | 3,954.85 | 15.52 | 16.53 | 0.33 | 567.49 | 7.18 | 218.83 | 191.37 | 27.46 | 7.969 | | |
| 4,200.00 | 4,146.96 | 4,154.51 | 4,043.44 | 16.03 | 17.20 | 0.34 | 610.96 | 7.77 | 235.02 | 206.77 | 28.25 | 8.320 | | |
| 4,300.00 | 4,242.68 | 4,253.19 | 4,132.03 | 16.54 | 17.88 | 0.34 | 654.42 | 8.35 | 251.21 | 222.17 | 29.04 | 8.650 | | |
| 4,400.00 | 4,338.41 | 4,351.87 | 4,220.62 | 17.06 | 18.57 | 0.35 | 697.88 | 8.94 | 267.40 | 237.56 | 29.84 | 8.961 | | |
| 4,500.00 | 4,434.13 | 4,450.55 | 4,309.21 | 17.59 | 19.26 | 0.36 | 741.35 | 9.52 | 283.59 | 252.95 | 30.64 | 9.255 | | |
| 4,600.00 | 4,529.85 | 4,549.23 | 4,397.81 | 18.11 | 19.97 | 0.36 | 784.81 | 10.11 | 299.78 | 268.33 | 31.45 | 9.533 | | |
| 4,700.00 | 4,625.58 | 4,647.91 | 4,486.40 | 18.65 | 20.68 | 0.37 | 828.27 | 10.69 | 315.97 | 283.71 | 32.26 | 9.795 | | |
| 4,800.00 | 4,721.30 | 4,746.59 | 4,574.99 | 19.18 | 21.40 | 0.37 | 871.73 | 11.27 | 332.16 | 299.09 | 33.07 | 10.044 | | |
| 4,900.00 | 4,817.02 | 4,845.27 | 4,663.58 | 19.72 | 22.13 | 0.38 | 915.20 | 11.86 | 348.35 | 314.46 | 33.89 | 10.279 | | |
| 5,000.00 | 4,912.74 | 4,943.95 | 4,752.17 | 20.27 | 22.86 | 0.38 | 958.66 | 12.44 | 364.54 | 329.84 | 34.71 | 10.503 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-5H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: 0.00 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|------------------------------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | | Offset Well Error: 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | |
| 5,100.00 | 5,008.47 | 5,042.63 | 4,840.76 | 20.81 | 23.59 | 0.38 | 1,002.12 | 13.03 | 380.73 | 345.20 | 35.53 | 10.716 | |
| 5,200.00 | 5,104.19 | 5,141.31 | 4,929.36 | 21.36 | 24.33 | 0.39 | 1,045.58 | 13.61 | 396.92 | 360.57 | 36.36 | 10.918 | |
| 5,300.00 | 5,199.91 | 5,240.00 | 5,017.95 | 21.91 | 25.07 | 0.39 | 1,089.05 | 14.19 | 413.11 | 375.93 | 37.18 | 11.110 | |
| 5,400.00 | 5,295.64 | 5,338.68 | 5,106.54 | 22.46 | 25.82 | 0.39 | 1,132.51 | 14.78 | 429.30 | 391.29 | 38.01 | 11.293 | |
| 5,500.00 | 5,391.36 | 5,437.36 | 5,195.13 | 23.02 | 26.57 | 0.39 | 1,175.97 | 15.36 | 445.49 | 406.65 | 38.85 | 11.468 | |
| 5,600.00 | 5,487.08 | 5,536.04 | 5,283.72 | 23.58 | 27.32 | 0.40 | 1,219.44 | 15.95 | 461.69 | 422.00 | 39.68 | 11.635 | |
| 5,700.00 | 5,582.81 | 5,634.72 | 5,372.32 | 24.13 | 28.08 | 0.40 | 1,262.90 | 16.53 | 477.88 | 437.36 | 40.52 | 11.795 | |
| 5,800.00 | 5,678.53 | 5,733.40 | 5,460.91 | 24.70 | 28.84 | 0.40 | 1,306.36 | 17.11 | 494.07 | 452.71 | 41.35 | 11.947 | |
| 5,900.00 | 5,774.25 | 5,832.08 | 5,549.50 | 25.26 | 29.60 | 0.40 | 1,349.82 | 17.70 | 510.26 | 468.06 | 42.19 | 12.093 | |
| 6,000.00 | 5,869.98 | 5,930.76 | 5,638.09 | 25.82 | 30.36 | 0.40 | 1,393.29 | 18.28 | 526.45 | 483.41 | 43.04 | 12.233 | |
| 6,100.00 | 5,965.70 | 6,029.44 | 5,726.68 | 26.39 | 31.13 | 0.41 | 1,436.75 | 18.87 | 542.64 | 498.76 | 43.88 | 12.367 | |
| 6,200.00 | 6,061.42 | 6,128.12 | 5,815.28 | 26.95 | 31.89 | 0.41 | 1,480.21 | 19.45 | 558.83 | 514.10 | 44.72 | 12.495 | |
| 6,300.00 | 6,157.15 | 6,226.80 | 5,903.87 | 27.52 | 32.66 | 0.41 | 1,523.67 | 20.03 | 575.02 | 529.45 | 45.57 | 12.619 | |
| 6,400.00 | 6,252.87 | 6,325.48 | 5,992.46 | 28.09 | 33.43 | 0.41 | 1,567.14 | 20.62 | 591.21 | 544.79 | 46.41 | 12.738 | |
| 6,500.00 | 6,348.59 | 6,424.16 | 6,081.05 | 28.66 | 34.20 | 0.41 | 1,610.60 | 21.20 | 607.40 | 560.14 | 47.26 | 12.852 | |
| 6,600.00 | 6,444.32 | 6,522.84 | 6,169.64 | 29.23 | 34.97 | 0.41 | 1,654.06 | 21.79 | 623.59 | 575.48 | 48.11 | 12.961 | |
| 6,700.00 | 6,540.04 | 6,621.52 | 6,258.24 | 29.80 | 35.75 | 0.41 | 1,697.53 | 22.37 | 639.78 | 590.82 | 48.96 | 13.067 | |
| 6,764.28 | 6,601.58 | 6,684.96 | 6,315.19 | 30.17 | 36.25 | 0.42 | 1,725.47 | 22.74 | 650.19 | 600.68 | 49.51 | 13.133 | |
| 6,800.00 | 6,635.75 | 6,720.18 | 6,346.80 | 30.37 | 36.52 | 11.61 | 1,740.98 | 22.95 | 655.99 | 606.18 | 49.81 | 13.169 | |
| 6,850.00 | 6,683.35 | 6,769.20 | 6,390.82 | 30.66 | 36.91 | 26.01 | 1,762.57 | 23.24 | 664.20 | 613.96 | 50.24 | 13.220 | |
| 6,900.00 | 6,730.36 | 6,817.57 | 6,434.24 | 30.94 | 37.29 | 37.74 | 1,783.87 | 23.53 | 672.54 | 621.86 | 50.68 | 13.269 | |
| 6,950.00 | 6,776.41 | 6,864.91 | 6,476.74 | 31.21 | 37.66 | 46.82 | 1,804.72 | 23.81 | 681.12 | 629.98 | 51.15 | 13.317 | |
| 7,000.00 | 6,821.15 | 6,910.86 | 6,517.99 | 31.47 | 38.02 | 53.84 | 1,824.96 | 24.08 | 690.13 | 638.47 | 51.65 | 13.361 | |
| 7,050.00 | 6,864.24 | 6,955.07 | 6,557.68 | 31.73 | 38.37 | 59.34 | 1,844.43 | 24.34 | 699.77 | 647.55 | 52.22 | 13.400 | |
| 7,100.00 | 6,905.35 | 6,997.21 | 6,595.51 | 31.97 | 38.71 | 63.72 | 1,862.99 | 24.59 | 710.31 | 657.43 | 52.88 | 13.433 | |
| 7,150.00 | 6,944.18 | 7,036.96 | 6,631.20 | 32.21 | 39.02 | 67.24 | 1,880.50 | 24.83 | 722.03 | 668.38 | 53.65 | 13.459 | |
| 7,200.00 | 6,980.42 | 7,074.01 | 6,664.46 | 32.45 | 39.31 | 70.03 | 1,896.82 | 25.05 | 735.18 | 680.64 | 54.54 | 13.480 | |
| 7,250.00 | 7,013.80 | 7,108.07 | 6,695.04 | 32.68 | 39.58 | 72.15 | 1,911.82 | 25.25 | 750.02 | 694.46 | 55.57 | 13.497 | |
| 7,300.00 | 7,044.06 | 7,138.90 | 6,722.72 | 32.91 | 39.82 | 73.64 | 1,925.40 | 25.43 | 766.76 | 710.03 | 56.73 | 13.516 | |
| 7,350.00 | 7,070.98 | 7,176.23 | 6,756.23 | 33.15 | 40.12 | 75.11 | 1,941.84 | 25.32 | 785.48 | 727.31 | 58.17 | 13.504 | |
| 7,400.00 | 7,094.36 | 7,236.50 | 6,810.15 | 33.39 | 40.59 | 77.61 | 1,968.25 | 20.45 | 805.48 | 745.50 | 59.97 | 13.430 | |
| 7,450.00 | 7,114.00 | 7,287.70 | 6,855.33 | 33.65 | 40.99 | 79.09 | 1,990.33 | 10.99 | 826.12 | 764.50 | 61.63 | 13.405 | |
| 7,500.00 | 7,129.76 | 7,385.34 | 6,938.79 | 33.93 | 41.73 | 82.85 | 2,031.02 | -18.60 | 846.76 | 783.48 | 63.28 | 13.380 | |
| 7,550.00 | 7,141.53 | 7,557.86 | 7,071.29 | 34.22 | 42.90 | 89.22 | 2,095.27 | -107.10 | 866.05 | 802.33 | 63.72 | 13.592 | |
| 7,600.00 | 7,149.21 | 7,779.71 | 7,196.75 | 34.55 | 44.19 | 94.61 | 2,155.39 | -278.12 | 880.66 | 818.54 | 62.12 | 14.177 | |
| 7,650.00 | 7,152.75 | 8,064.96 | 7,258.00 | 34.90 | 45.58 | 96.81 | 2,183.13 | -552.31 | 885.59 | 825.57 | 60.02 | 14.756 | |
| 7,667.38 | 7,153.00 | 8,082.34 | 7,258.00 | 35.04 | 45.66 | 96.81 | 2,182.99 | -569.69 | 885.48 | 825.05 | 60.43 | 14.654 | |
| 7,700.00 | 7,153.00 | 8,114.96 | 7,258.00 | 35.29 | 45.82 | 96.81 | 2,182.71 | -602.31 | 885.47 | 824.25 | 61.22 | 14.463 | |
| 7,800.00 | 7,153.00 | 8,214.96 | 7,258.00 | 36.22 | 46.40 | 96.81 | 2,181.88 | -702.31 | 885.45 | 821.57 | 63.88 | 13.860 | |
| 7,900.00 | 7,153.00 | 8,314.96 | 7,258.00 | 37.35 | 47.09 | 96.81 | 2,181.04 | -802.30 | 885.43 | 818.55 | 66.88 | 13.239 | |
| 8,000.00 | 7,153.00 | 8,414.96 | 7,258.00 | 38.67 | 47.93 | 96.81 | 2,180.20 | -902.30 | 885.41 | 815.25 | 70.16 | 12.620 | |
| 8,100.00 | 7,153.00 | 8,514.96 | 7,258.00 | 40.16 | 48.90 | 96.81 | 2,179.36 | -1,002.30 | 885.39 | 811.70 | 73.70 | 12.014 | |
| 8,200.00 | 7,153.00 | 8,614.96 | 7,258.00 | 41.81 | 50.02 | 96.81 | 2,178.52 | -1,102.29 | 885.37 | 807.93 | 77.45 | 11.432 | |
| 8,300.00 | 7,153.00 | 8,714.96 | 7,258.00 | 43.59 | 51.29 | 96.81 | 2,177.69 | -1,202.29 | 885.35 | 803.97 | 81.39 | 10.879 | |
| 8,400.00 | 7,153.00 | 8,814.96 | 7,258.00 | 45.47 | 52.69 | 96.81 | 2,176.85 | -1,302.28 | 885.33 | 799.85 | 85.48 | 10.357 | |
| 8,500.00 | 7,153.00 | 8,914.96 | 7,258.00 | 47.45 | 54.22 | 96.81 | 2,176.01 | -1,402.28 | 885.31 | 795.59 | 89.72 | 9.867 | |
| 8,600.00 | 7,153.00 | 9,014.96 | 7,258.00 | 49.51 | 55.88 | 96.81 | 2,175.17 | -1,502.28 | 885.30 | 791.22 | 94.08 | 9.410 | |
| 8,700.00 | 7,153.00 | 9,114.96 | 7,258.00 | 51.64 | 57.64 | 96.81 | 2,174.33 | -1,602.27 | 885.28 | 786.74 | 98.54 | 8.984 | |
| 8,800.00 | 7,153.00 | 9,214.96 | 7,258.00 | 53.82 | 59.49 | 96.81 | 2,173.49 | -1,702.27 | 885.26 | 782.17 | 103.09 | 8.587 | |
| 8,900.00 | 7,153.00 | 9,314.96 | 7,258.00 | 56.06 | 61.43 | 96.81 | 2,172.66 | -1,802.27 | 885.24 | 777.52 | 107.72 | 8.218 | |
| 9,000.00 | 7,153.00 | 9,414.96 | 7,258.00 | 58.34 | 63.44 | 96.81 | 2,171.82 | -1,902.26 | 885.22 | 772.80 | 112.42 | 7.874 | |
| 9,100.00 | 7,153.00 | 9,514.96 | 7,258.00 | 60.66 | 65.52 | 96.81 | 2,170.98 | -2,002.26 | 885.20 | 768.02 | 117.18 | 7.554 | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-5H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 9,200.00 | 7,153.00 | 9,614.96 | 7,258.00 | 63.01 | 67.66 | 96.81 | 2,170.14 | -2,102.26 | 885.18 | 763.18 | 122.00 | 7.256 | | | |
| 9,300.00 | 7,153.00 | 9,714.96 | 7,258.00 | 65.40 | 69.84 | 96.81 | 2,169.30 | -2,202.25 | 885.16 | 758.30 | 126.86 | 6.977 | | | |
| 9,400.00 | 7,153.00 | 9,814.96 | 7,258.00 | 67.81 | 72.07 | 96.81 | 2,168.47 | -2,302.25 | 885.14 | 753.37 | 131.77 | 6.718 | | | |
| 9,500.00 | 7,153.00 | 9,914.96 | 7,258.00 | 70.24 | 74.34 | 96.81 | 2,167.63 | -2,402.25 | 885.12 | 748.41 | 136.71 | 6.475 | | | |
| 9,600.00 | 7,153.00 | 10,014.96 | 7,258.00 | 72.70 | 76.64 | 96.81 | 2,166.79 | -2,502.24 | 885.10 | 743.42 | 141.69 | 6.247 | | | |
| 9,700.00 | 7,153.00 | 10,114.96 | 7,258.00 | 75.17 | 78.98 | 96.81 | 2,165.95 | -2,602.24 | 885.08 | 738.39 | 146.69 | 6.034 | | | |
| 9,800.00 | 7,153.00 | 10,214.96 | 7,258.00 | 77.67 | 81.34 | 96.81 | 2,165.11 | -2,702.24 | 885.06 | 733.34 | 151.73 | 5.833 | | | |
| 9,900.00 | 7,153.00 | 10,314.96 | 7,258.00 | 80.17 | 83.73 | 96.81 | 2,164.27 | -2,802.23 | 885.04 | 728.26 | 156.79 | 5.645 | | | |
| 10,000.00 | 7,153.00 | 10,414.96 | 7,258.00 | 82.69 | 86.14 | 96.81 | 2,163.44 | -2,902.23 | 885.02 | 723.16 | 161.87 | 5.468 | | | |
| 10,100.00 | 7,153.00 | 10,514.96 | 7,258.00 | 85.23 | 88.57 | 96.81 | 2,162.60 | -3,002.22 | 885.00 | 718.03 | 166.97 | 5.300 | | | |
| 10,200.00 | 7,153.00 | 10,614.96 | 7,258.00 | 87.77 | 91.02 | 96.81 | 2,161.76 | -3,102.22 | 884.98 | 712.89 | 172.09 | 5.143 | | | |
| 10,300.00 | 7,153.00 | 10,714.96 | 7,258.00 | 90.33 | 93.49 | 96.81 | 2,160.92 | -3,202.22 | 884.97 | 707.74 | 177.23 | 4.993 | | | |
| 10,400.00 | 7,153.00 | 10,814.96 | 7,258.00 | 92.89 | 95.97 | 96.81 | 2,160.08 | -3,302.21 | 884.95 | 702.56 | 182.38 | 4.852 | | | |
| 10,500.00 | 7,153.00 | 10,914.96 | 7,258.00 | 95.47 | 98.46 | 96.81 | 2,159.25 | -3,402.21 | 884.93 | 697.38 | 187.55 | 4.718 | | | |
| 10,600.00 | 7,153.00 | 11,014.96 | 7,258.00 | 98.05 | 100.97 | 96.81 | 2,158.41 | -3,502.21 | 884.91 | 692.18 | 192.73 | 4.591 | | | |
| 10,700.00 | 7,153.00 | 11,114.96 | 7,258.00 | 100.64 | 103.49 | 96.81 | 2,157.57 | -3,602.20 | 884.89 | 686.96 | 197.92 | 4.471 | | | |
| 10,800.00 | 7,153.00 | 11,214.96 | 7,258.00 | 103.24 | 106.02 | 96.81 | 2,156.73 | -3,702.20 | 884.87 | 681.74 | 203.13 | 4.356 | | | |
| 10,900.00 | 7,153.00 | 11,314.96 | 7,258.00 | 105.84 | 108.56 | 96.82 | 2,155.89 | -3,802.20 | 884.85 | 676.51 | 208.34 | 4.247 | | | |
| 11,000.00 | 7,153.00 | 11,414.96 | 7,258.00 | 108.45 | 111.11 | 96.82 | 2,155.05 | -3,902.19 | 884.83 | 671.26 | 213.57 | 4.143 | | | |
| 11,100.00 | 7,153.00 | 11,514.96 | 7,258.00 | 111.07 | 113.67 | 96.82 | 2,154.22 | -4,002.19 | 884.81 | 666.01 | 218.80 | 4.044 | | | |
| 11,200.00 | 7,153.00 | 11,614.96 | 7,258.00 | 113.69 | 116.24 | 96.82 | 2,153.38 | -4,102.19 | 884.79 | 660.75 | 224.04 | 3.949 | | | |
| 11,300.00 | 7,153.00 | 11,714.96 | 7,258.00 | 116.31 | 118.81 | 96.82 | 2,152.54 | -4,202.18 | 884.77 | 655.48 | 229.29 | 3.859 | | | |
| 11,400.00 | 7,153.00 | 11,814.96 | 7,258.00 | 118.94 | 121.39 | 96.82 | 2,151.70 | -4,302.18 | 884.75 | 650.21 | 234.55 | 3.772 | | | |
| 11,500.00 | 7,153.00 | 11,914.96 | 7,258.00 | 121.57 | 123.98 | 96.82 | 2,150.86 | -4,402.18 | 884.73 | 644.92 | 239.81 | 3.689 | | | |
| 11,600.00 | 7,153.00 | 12,014.96 | 7,258.00 | 124.21 | 126.57 | 96.82 | 2,150.03 | -4,502.17 | 884.71 | 639.64 | 245.08 | 3.610 | | | |
| 11,700.00 | 7,153.00 | 12,114.96 | 7,258.00 | 126.85 | 129.17 | 96.82 | 2,149.19 | -4,602.17 | 884.69 | 634.34 | 250.35 | 3.534 | | | |
| 11,800.00 | 7,153.00 | 12,214.96 | 7,258.00 | 129.49 | 131.78 | 96.82 | 2,148.35 | -4,702.17 | 884.67 | 629.04 | 255.63 | 3.461 | | | |
| 11,900.00 | 7,153.00 | 12,314.96 | 7,258.00 | 132.14 | 134.38 | 96.82 | 2,147.51 | -4,802.16 | 884.65 | 623.74 | 260.92 | 3.391 | | | |
| 12,000.00 | 7,153.00 | 12,414.96 | 7,258.00 | 134.79 | 137.00 | 96.82 | 2,146.67 | -4,902.16 | 884.64 | 618.43 | 266.21 | 3.323 | | | |
| 12,100.00 | 7,153.00 | 12,514.96 | 7,258.00 | 137.44 | 139.62 | 96.82 | 2,145.84 | -5,002.15 | 884.62 | 613.11 | 271.50 | 3.258 | | | |
| 12,200.00 | 7,153.00 | 12,614.96 | 7,258.00 | 140.10 | 142.24 | 96.82 | 2,145.00 | -5,102.15 | 884.60 | 607.79 | 276.80 | 3.196 | | | |
| 12,300.00 | 7,153.00 | 12,714.96 | 7,258.00 | 142.76 | 144.86 | 96.82 | 2,144.16 | -5,202.15 | 884.58 | 602.47 | 282.11 | 3.136 | | | |
| 12,400.00 | 7,153.00 | 12,814.96 | 7,258.00 | 145.42 | 147.49 | 96.82 | 2,143.32 | -5,302.14 | 884.56 | 597.14 | 287.41 | 3.078 | | | |
| 12,500.00 | 7,153.00 | 12,914.96 | 7,258.00 | 148.08 | 150.13 | 96.82 | 2,142.48 | -5,402.14 | 884.54 | 591.81 | 292.72 | 3.022 | | | |
| 12,600.00 | 7,153.00 | 13,014.96 | 7,258.00 | 150.75 | 152.76 | 96.82 | 2,141.64 | -5,502.14 | 884.52 | 586.48 | 298.04 | 2.968 | | | |
| 12,700.00 | 7,153.00 | 13,114.96 | 7,258.00 | 153.41 | 155.40 | 96.82 | 2,140.81 | -5,602.13 | 884.50 | 581.14 | 303.36 | 2.916 | | | |
| 12,800.00 | 7,153.00 | 13,214.96 | 7,258.00 | 156.08 | 158.04 | 96.82 | 2,139.97 | -5,702.13 | 884.48 | 575.80 | 308.68 | 2.865 | | | |
| 12,900.00 | 7,153.00 | 13,314.96 | 7,258.00 | 158.75 | 160.69 | 96.82 | 2,139.13 | -5,802.13 | 884.46 | 570.46 | 314.00 | 2.817 | | | |
| 13,000.00 | 7,153.00 | 13,414.96 | 7,258.00 | 161.42 | 163.33 | 96.82 | 2,138.29 | -5,902.12 | 884.44 | 565.11 | 319.33 | 2.770 | | | |
| 13,100.00 | 7,153.00 | 13,514.96 | 7,258.00 | 164.10 | 165.98 | 96.82 | 2,137.45 | -6,002.12 | 884.42 | 559.77 | 324.66 | 2.724 | | | |
| 13,200.00 | 7,153.00 | 13,614.96 | 7,258.00 | 166.77 | 168.64 | 96.82 | 2,136.62 | -6,102.12 | 884.40 | 554.42 | 329.99 | 2.680 | | | |
| 13,300.00 | 7,153.00 | 13,714.96 | 7,258.00 | 169.45 | 171.29 | 96.82 | 2,135.78 | -6,202.11 | 884.38 | 549.06 | 335.32 | 2.637 | | | |
| 13,400.00 | 7,153.00 | 13,814.96 | 7,258.00 | 172.13 | 173.95 | 96.82 | 2,134.94 | -6,302.11 | 884.36 | 543.71 | 340.66 | 2.596 | | | |
| 13,500.00 | 7,153.00 | 13,914.96 | 7,258.00 | 174.81 | 176.61 | 96.82 | 2,134.10 | -6,402.11 | 884.34 | 538.35 | 346.00 | 2.556 | | | |
| 13,600.00 | 7,153.00 | 14,014.96 | 7,258.00 | 177.49 | 179.27 | 96.82 | 2,133.26 | -6,502.10 | 884.32 | 532.99 | 351.34 | 2.517 | | | |
| 13,700.00 | 7,153.00 | 14,114.96 | 7,258.00 | 180.17 | 181.93 | 96.82 | 2,132.42 | -6,602.10 | 884.31 | 527.63 | 356.68 | 2.479 | | | |
| 13,800.00 | 7,153.00 | 14,214.96 | 7,258.00 | 182.86 | 184.59 | 96.82 | 2,131.59 | -6,702.09 | 884.29 | 522.26 | 362.02 | 2.443 | | | |
| 13,900.00 | 7,153.00 | 14,314.96 | 7,258.00 | 185.54 | 187.26 | 96.82 | 2,130.75 | -6,802.09 | 884.27 | 516.90 | 367.37 | 2.407 | | | |
| 14,000.00 | 7,153.00 | 14,414.96 | 7,258.00 | 188.23 | 189.93 | 96.82 | 2,129.91 | -6,902.09 | 884.25 | 511.53 | 372.72 | 2.372 | | | |
| 14,100.00 | 7,153.00 | 14,514.96 | 7,258.00 | 190.91 | 192.60 | 96.82 | 2,129.07 | -7,002.08 | 884.23 | 506.16 | 378.07 | 2.339 | | | |
| 14,200.00 | 7,153.00 | 14,614.96 | 7,258.00 | 193.60 | 195.27 | 96.82 | 2,128.23 | -7,102.08 | 884.21 | 500.79 | 383.42 | 2.306 | | | |
| 14,300.00 | 7,153.00 | 14,714.96 | 7,258.00 | 196.29 | 197.94 | 96.82 | 2,127.40 | -7,202.08 | 884.19 | 495.42 | 388.77 | 2.274 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-5H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|------------------|-----------------|--------------|--------------|--------------|------------------------|-------------------------|---------------------------|-------------------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Highside | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Reference (usft) | Offset (usft) | Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | |
| 14,400.00 | 7,153.00 | 14,814.96 | 7,258.00 | 198.98 | 200.61 | 96.82 | | 96.82 | 2,126.56 | -7,302.07 | 884.17 | 490.04 | 394.13 | 2.243 | |
| 14,500.00 | 7,153.00 | 14,914.96 | 7,258.00 | 201.67 | 203.29 | 96.82 | | 96.82 | 2,125.72 | -7,402.07 | 884.15 | 484.67 | 399.48 | 2.213 | |
| 14,600.00 | 7,153.00 | 15,014.96 | 7,258.00 | 204.36 | 205.96 | 96.82 | | 96.82 | 2,124.88 | -7,502.07 | 884.13 | 479.29 | 404.84 | 2.184 | |
| 14,700.00 | 7,153.00 | 15,114.96 | 7,258.00 | 207.05 | 208.64 | 96.82 | | 96.82 | 2,124.04 | -7,602.06 | 884.11 | 473.91 | 410.20 | 2.155 | |
| 14,800.00 | 7,153.00 | 15,214.96 | 7,258.00 | 209.75 | 211.32 | 96.82 | | 96.82 | 2,123.20 | -7,702.06 | 884.09 | 468.54 | 415.56 | 2.127 | |
| 14,900.00 | 7,153.00 | 15,314.96 | 7,258.00 | 212.44 | 214.00 | 96.82 | | 96.82 | 2,122.37 | -7,802.06 | 884.07 | 463.15 | 420.92 | 2.100 | |
| 15,000.00 | 7,153.00 | 15,414.96 | 7,258.00 | 215.13 | 216.68 | 96.82 | | 96.82 | 2,121.53 | -7,902.05 | 884.05 | 457.77 | 426.28 | 2.074 | |
| 15,100.00 | 7,153.00 | 15,514.96 | 7,258.00 | 217.83 | 219.36 | 96.82 | | 96.82 | 2,120.69 | -8,002.05 | 884.03 | 452.39 | 431.64 | 2.048 | |
| 15,200.00 | 7,153.00 | 15,614.96 | 7,258.00 | 220.53 | 222.04 | 96.82 | | 96.82 | 2,119.85 | -8,102.05 | 884.01 | 447.01 | 437.01 | 2.023 | |
| 15,300.00 | 7,153.00 | 15,714.96 | 7,258.00 | 223.22 | 224.72 | 96.82 | | 96.82 | 2,119.01 | -8,202.04 | 884.00 | 441.62 | 442.37 | 1.998 | |
| 15,400.00 | 7,153.00 | 15,814.94 | 7,258.00 | 225.92 | 227.41 | 96.82 | | 96.82 | 2,118.18 | -8,302.02 | 883.98 | 436.24 | 447.74 | 1.974 | |
| 15,422.97 | 7,153.00 | 15,837.79 | 7,258.00 | 226.54 | 228.02 | 96.82 | | 96.82 | 2,117.99 | -8,324.87 | 883.97 | 435.00 | 448.97 | 1.969 | |
| 15,455.54 | 7,153.00 | 15,837.79 | 7,258.00 | 227.42 | 228.02 | 96.82 | | 96.82 | 2,117.99 | -8,324.87 | 884.57 | 433.69 | 450.88 | 1.962 SF | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-6H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|--------------------|---------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | Offset Well Error: | | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 14.57 | 0.00 | 14.57 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.00 | 14.57 | 0.00 | 14.57 | 14.28 | 0.29 | 50.798 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.00 | 14.57 | 0.00 | 14.57 | 13.56 | 1.00 | 14.514 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 0.00 | 14.57 | 0.00 | 14.57 | 12.85 | 1.72 | 8.466 | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.22 | 1.22 | 0.00 | 14.57 | 0.00 | 14.57 | 12.13 | 2.44 | 5.976 | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.58 | 1.58 | 0.00 | 14.57 | 0.00 | 14.57 | 11.41 | 3.15 | 4.618 | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.94 | 1.94 | 0.00 | 14.57 | 0.00 | 14.57 | 10.70 | 3.87 | 3.763 | | |
| 700.00 | 700.00 | 700.00 | 700.00 | 2.29 | 2.29 | 0.00 | 14.57 | 0.00 | 14.57 | 9.98 | 4.59 | 3.175 | | |
| 800.00 | 800.00 | 800.00 | 800.00 | 2.65 | 2.65 | 0.00 | 14.57 | 0.00 | 14.57 | 9.26 | 5.31 | 2.746 | | |
| 900.00 | 900.00 | 900.00 | 900.00 | 3.01 | 3.01 | 0.00 | 14.57 | 0.00 | 14.57 | 8.55 | 6.02 | 2.419 | | |
| 1,000.00 | 1,000.00 | 1,000.00 | 1,000.00 | 3.37 | 3.37 | 0.00 | 14.57 | 0.00 | 14.57 | 7.83 | 6.74 | 2.162 | | |
| 1,100.00 | 1,100.00 | 1,100.00 | 1,100.00 | 3.73 | 3.73 | 0.00 | 14.57 | 0.00 | 14.57 | 7.11 | 7.46 | 1.954 | | |
| 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 4.09 | 4.09 | 0.00 | 14.57 | 0.00 | 14.57 | 6.39 | 8.17 | 1.782 | | |
| 1,300.00 | 1,300.00 | 1,300.00 | 1,300.00 | 4.45 | 4.45 | 0.00 | 14.57 | 0.00 | 14.57 | 5.68 | 8.89 | 1.639 | | |
| 1,400.00 | 1,400.00 | 1,400.00 | 1,400.00 | 4.80 | 4.80 | 0.00 | 14.57 | 0.00 | 14.57 | 4.96 | 9.61 | 1.516 | | |
| 1,500.00 | 1,500.00 | 1,500.00 | 1,500.00 | 5.16 | 5.16 | 0.00 | 14.57 | 0.00 | 14.57 | 4.24 | 10.32 | 1.411 | Level 3 | |
| 1,600.00 | 1,600.00 | 1,600.00 | 1,600.00 | 5.52 | 5.52 | 0.00 | 14.57 | 0.00 | 14.57 | 3.53 | 11.04 | 1.319 | Level 3 | |
| 1,700.00 | 1,700.00 | 1,700.00 | 1,700.00 | 5.88 | 5.88 | 0.00 | 14.57 | 0.00 | 14.57 | 2.81 | 11.76 | 1.239 | Level 3 | |
| 1,800.00 | 1,800.00 | 1,800.00 | 1,800.00 | 6.24 | 6.24 | 0.00 | 14.57 | 0.00 | 14.57 | 2.09 | 12.47 | 1.168 | Level 3 | |
| 1,900.00 | 1,900.00 | 1,900.00 | 1,900.00 | 6.60 | 6.60 | 0.00 | 14.57 | 0.00 | 14.57 | 1.38 | 13.19 | 1.104 | Level 3 | |
| 2,000.00 | 2,000.00 | 2,000.00 | 2,000.00 | 6.95 | 6.95 | 0.00 | 14.57 | 0.00 | 14.57 | 0.66 | 13.91 | 1.047 | Level 3 | |
| 2,100.00 | 2,100.00 | 2,100.00 | 2,100.00 | 7.31 | 7.31 | 0.00 | 14.57 | 0.00 | 14.57 | -0.06 | 14.63 | 0.996 | Level 3 | |
| 2,200.00 | 2,200.00 | 2,200.00 | 2,200.00 | 7.67 | 7.67 | 0.00 | 14.57 | 0.00 | 14.57 | -0.77 | 15.34 | 0.950 | Level 3 | |
| 2,300.00 | 2,300.00 | 2,300.00 | 2,300.00 | 8.03 | 8.03 | 0.00 | 14.57 | 0.00 | 14.57 | -1.49 | 16.06 | 0.907 | Level 3, CC, ES, SF | |
| 2,400.00 | 2,400.00 | 2,399.45 | 2,399.43 | 8.39 | 8.39 | 0.07 | 16.29 | 0.02 | 16.30 | -0.46 | 16.77 | 0.972 | Level 3 | |
| 2,500.00 | 2,499.98 | 2,498.77 | 2,498.61 | 8.75 | 8.74 | -0.41 | 21.46 | 0.08 | 19.76 | 2.31 | 17.45 | 1.132 | Level 3 | |
| 2,600.00 | 2,599.84 | 2,597.97 | 2,597.43 | 9.11 | 9.10 | -0.32 | 30.05 | 0.19 | 23.20 | 5.07 | 18.12 | 1.280 | Level 3 | |
| 2,700.00 | 2,699.45 | 2,697.05 | 2,695.78 | 9.46 | 9.45 | -0.24 | 42.04 | 0.33 | 26.60 | 7.83 | 18.77 | 1.417 | Level 3 | |
| 2,800.00 | 2,798.70 | 2,796.01 | 2,793.54 | 9.82 | 9.81 | -0.17 | 57.40 | 0.51 | 29.97 | 10.57 | 19.39 | 1.545 | | |
| 2,900.00 | 2,897.47 | 2,894.87 | 2,890.60 | 10.18 | 10.18 | -0.11 | 76.10 | 0.74 | 33.30 | 13.30 | 20.00 | 1.665 | | |
| 3,000.00 | 2,995.62 | 2,993.61 | 2,986.85 | 10.55 | 10.56 | -0.05 | 98.12 | 1.00 | 36.59 | 16.01 | 20.58 | 1.778 | | |
| 3,100.00 | 3,093.06 | 3,092.24 | 3,082.18 | 10.94 | 10.95 | 0.01 | 123.41 | 1.30 | 39.83 | 18.68 | 21.15 | 1.884 | | |
| 3,200.00 | 3,189.64 | 3,190.76 | 3,176.48 | 11.34 | 11.36 | 0.07 | 151.93 | 1.64 | 43.03 | 21.33 | 21.69 | 1.983 | | |
| 3,240.86 | 3,228.84 | 3,230.99 | 3,214.69 | 11.50 | 11.54 | 0.09 | 164.51 | 1.79 | 44.32 | 22.41 | 21.91 | 2.023 | | |
| 3,300.00 | 3,285.45 | 3,289.15 | 3,269.62 | 11.75 | 11.80 | 0.12 | 183.63 | 2.02 | 46.78 | 24.56 | 22.22 | 2.105 | | |
| 3,400.00 | 3,381.17 | 3,387.20 | 3,361.29 | 12.19 | 12.26 | 0.16 | 218.39 | 2.44 | 53.66 | 30.93 | 22.73 | 2.361 | | |
| 3,500.00 | 3,476.90 | 3,485.99 | 3,452.65 | 12.63 | 12.76 | 0.18 | 255.97 | 2.89 | 63.32 | 39.95 | 23.38 | 2.709 | | |
| 3,600.00 | 3,572.62 | 3,585.49 | 3,544.57 | 13.09 | 13.28 | 0.20 | 294.08 | 3.34 | 73.25 | 49.13 | 24.12 | 3.037 | | |
| 3,700.00 | 3,668.34 | 3,685.00 | 3,636.49 | 13.56 | 13.81 | 0.22 | 332.18 | 3.80 | 83.18 | 58.31 | 24.87 | 3.345 | | |
| 3,800.00 | 3,764.07 | 3,784.51 | 3,728.41 | 14.04 | 14.37 | 0.23 | 370.28 | 4.25 | 93.11 | 67.48 | 25.63 | 3.633 | | |
| 3,900.00 | 3,859.79 | 3,884.01 | 3,820.33 | 14.52 | 14.94 | 0.24 | 408.38 | 4.71 | 103.04 | 76.65 | 26.39 | 3.904 | | |
| 4,000.00 | 3,955.51 | 3,983.52 | 3,912.25 | 15.02 | 15.52 | 0.25 | 446.48 | 5.16 | 112.97 | 85.81 | 27.16 | 4.159 | | |
| 4,100.00 | 4,051.24 | 4,083.02 | 4,004.17 | 15.52 | 16.11 | 0.25 | 484.58 | 5.62 | 122.90 | 94.96 | 27.94 | 4.399 | | |
| 4,200.00 | 4,146.96 | 4,182.53 | 4,096.09 | 16.03 | 16.71 | 0.26 | 522.68 | 6.08 | 132.83 | 104.11 | 28.72 | 4.625 | | |
| 4,300.00 | 4,242.68 | 4,282.04 | 4,188.02 | 16.54 | 17.33 | 0.26 | 560.79 | 6.53 | 142.76 | 113.25 | 29.50 | 4.839 | | |
| 4,400.00 | 4,338.41 | 4,381.54 | 4,279.94 | 17.06 | 17.95 | 0.27 | 598.89 | 6.99 | 152.69 | 122.39 | 30.29 | 5.041 | | |
| 4,500.00 | 4,434.13 | 4,481.05 | 4,371.86 | 17.59 | 18.58 | 0.27 | 636.99 | 7.44 | 162.62 | 131.53 | 31.08 | 5.232 | | |
| 4,600.00 | 4,529.85 | 4,580.55 | 4,463.78 | 18.11 | 19.21 | 0.27 | 675.09 | 7.90 | 172.54 | 140.67 | 31.88 | 5.412 | | |
| 4,700.00 | 4,625.58 | 4,680.06 | 4,555.70 | 18.65 | 19.85 | 0.28 | 713.19 | 8.35 | 182.47 | 149.80 | 32.68 | 5.584 | | |
| 4,800.00 | 4,721.30 | 4,779.56 | 4,647.62 | 19.18 | 20.50 | 0.28 | 751.29 | 8.81 | 192.40 | 158.92 | 33.48 | 5.747 | | |
| 4,900.00 | 4,817.02 | 4,879.07 | 4,739.54 | 19.72 | 21.15 | 0.28 | 789.39 | 9.27 | 202.33 | 168.05 | 34.29 | 5.901 | | |
| 5,000.00 | 4,912.74 | 4,978.58 | 4,831.46 | 20.27 | 21.80 | 0.28 | 827.49 | 9.72 | 212.26 | 177.17 | 35.09 | 6.049 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-6H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,100.00 | 5,008.47 | 5,078.08 | 4,923.38 | 20.81 | 22.47 | 0.28 | 865.60 | 10.18 | 222.19 | 186.29 | 35.90 | 6.189 | | |
| 5,200.00 | 5,104.19 | 5,177.59 | 5,015.31 | 21.36 | 23.13 | 0.29 | 903.70 | 10.63 | 232.12 | 195.40 | 36.72 | 6.322 | | |
| 5,300.00 | 5,199.91 | 5,277.09 | 5,107.23 | 21.91 | 23.80 | 0.29 | 941.80 | 11.09 | 242.05 | 204.52 | 37.53 | 6.450 | | |
| 5,400.00 | 5,295.64 | 5,376.60 | 5,199.15 | 22.46 | 24.47 | 0.29 | 979.90 | 11.54 | 251.98 | 213.63 | 38.35 | 6.571 | | |
| 5,500.00 | 5,391.36 | 5,476.11 | 5,291.07 | 23.02 | 25.14 | 0.29 | 1,018.00 | 12.00 | 261.91 | 222.74 | 39.16 | 6.688 | | |
| 5,600.00 | 5,487.08 | 5,575.61 | 5,382.99 | 23.58 | 25.82 | 0.29 | 1,056.10 | 12.45 | 271.84 | 231.85 | 39.98 | 6.799 | | |
| 5,700.00 | 5,582.81 | 5,675.12 | 5,474.91 | 24.13 | 26.50 | 0.29 | 1,094.20 | 12.91 | 281.77 | 240.96 | 40.80 | 6.905 | | |
| 5,800.00 | 5,678.53 | 5,774.62 | 5,566.83 | 24.70 | 27.18 | 0.29 | 1,132.31 | 13.37 | 291.70 | 250.07 | 41.63 | 7.007 | | |
| 5,900.00 | 5,774.25 | 5,874.13 | 5,658.75 | 25.26 | 27.86 | 0.30 | 1,170.41 | 13.82 | 301.62 | 259.17 | 42.45 | 7.105 | | |
| 6,000.00 | 5,869.98 | 5,973.63 | 5,750.67 | 25.82 | 28.55 | 0.30 | 1,208.51 | 14.28 | 311.55 | 268.28 | 43.28 | 7.199 | | |
| 6,100.00 | 5,965.70 | 6,073.14 | 5,842.60 | 26.39 | 29.23 | 0.30 | 1,246.61 | 14.73 | 321.48 | 277.38 | 44.10 | 7.289 | | |
| 6,200.00 | 6,061.42 | 6,172.65 | 5,934.52 | 26.95 | 29.92 | 0.30 | 1,284.71 | 15.19 | 331.41 | 286.48 | 44.93 | 7.376 | | |
| 6,300.00 | 6,157.15 | 6,272.15 | 6,026.44 | 27.52 | 30.61 | 0.30 | 1,322.81 | 15.64 | 341.34 | 295.58 | 45.76 | 7.459 | | |
| 6,400.00 | 6,252.87 | 6,371.66 | 6,118.36 | 28.09 | 31.30 | 0.30 | 1,360.91 | 16.10 | 351.27 | 304.68 | 46.59 | 7.539 | | |
| 6,500.00 | 6,348.59 | 6,471.16 | 6,210.28 | 28.66 | 32.00 | 0.30 | 1,399.02 | 16.56 | 361.20 | 313.77 | 47.42 | 7.616 | | |
| 6,600.00 | 6,444.32 | 6,570.67 | 6,302.20 | 29.23 | 32.69 | 0.30 | 1,437.12 | 17.01 | 371.13 | 322.87 | 48.26 | 7.691 | | |
| 6,700.00 | 6,540.04 | 6,670.18 | 6,394.12 | 29.80 | 33.39 | 0.30 | 1,475.22 | 17.47 | 381.06 | 331.97 | 49.09 | 7.762 | | |
| 6,764.28 | 6,601.58 | 6,734.14 | 6,453.21 | 30.17 | 33.83 | 0.30 | 1,499.71 | 17.76 | 387.44 | 337.81 | 49.63 | 7.807 | | |
| 6,800.00 | 6,635.75 | 6,769.66 | 6,486.02 | 30.37 | 34.08 | 11.80 | 1,513.31 | 17.92 | 391.01 | 341.09 | 49.93 | 7.832 | | |
| 6,850.00 | 6,683.35 | 6,819.38 | 6,531.95 | 30.66 | 34.43 | 26.80 | 1,532.35 | 18.06 | 396.12 | 345.76 | 50.36 | 7.866 | | |
| 6,900.00 | 6,730.36 | 6,870.36 | 6,578.96 | 30.94 | 34.79 | 39.01 | 1,551.81 | 15.12 | 401.29 | 350.45 | 50.84 | 7.893 | | |
| 6,950.00 | 6,776.41 | 6,921.98 | 6,626.14 | 31.21 | 35.15 | 48.25 | 1,571.29 | 7.55 | 406.46 | 355.10 | 51.36 | 7.914 | | |
| 7,000.00 | 6,821.15 | 6,974.25 | 6,673.09 | 31.47 | 35.50 | 55.17 | 1,590.65 | -4.77 | 411.58 | 359.67 | 51.91 | 7.928 | | |
| 7,050.00 | 6,864.24 | 7,027.19 | 6,719.40 | 31.73 | 35.85 | 60.40 | 1,609.69 | -21.90 | 416.59 | 364.10 | 52.50 | 7.936 | | |
| 7,100.00 | 6,905.35 | 7,080.80 | 6,764.61 | 31.97 | 36.19 | 64.41 | 1,628.24 | -43.89 | 421.45 | 368.34 | 53.11 | 7.936 | | |
| 7,150.00 | 6,944.18 | 7,135.06 | 6,808.26 | 32.21 | 36.52 | 67.54 | 1,646.10 | -70.69 | 426.10 | 372.36 | 53.74 | 7.930 | | |
| 7,200.00 | 6,980.42 | 7,189.96 | 6,849.84 | 32.45 | 36.85 | 70.01 | 1,663.06 | -102.22 | 430.49 | 376.10 | 54.39 | 7.915 | | |
| 7,250.00 | 7,013.80 | 7,245.47 | 6,888.88 | 32.68 | 37.16 | 71.98 | 1,678.93 | -138.33 | 434.57 | 379.51 | 55.06 | 7.893 | | |
| 7,300.00 | 7,044.06 | 7,301.55 | 6,924.87 | 32.91 | 37.47 | 73.55 | 1,693.49 | -178.77 | 438.29 | 382.54 | 55.75 | 7.862 | | |
| 7,350.00 | 7,070.98 | 7,358.15 | 6,957.32 | 33.15 | 37.77 | 74.80 | 1,706.56 | -223.23 | 441.61 | 385.13 | 56.48 | 7.819 | | |
| 7,400.00 | 7,094.36 | 7,415.21 | 6,985.79 | 33.39 | 38.07 | 75.78 | 1,717.94 | -271.33 | 444.49 | 387.25 | 57.24 | 7.765 | | |
| 7,450.00 | 7,114.00 | 7,472.65 | 7,009.85 | 33.65 | 38.37 | 76.52 | 1,727.47 | -322.58 | 446.90 | 388.85 | 58.05 | 7.698 | | |
| 7,500.00 | 7,129.76 | 7,530.39 | 7,029.14 | 33.93 | 38.67 | 77.06 | 1,735.00 | -376.45 | 448.80 | 389.89 | 58.91 | 7.619 | | |
| 7,550.00 | 7,141.53 | 7,588.33 | 7,043.38 | 34.22 | 38.98 | 77.41 | 1,740.41 | -432.33 | 450.17 | 390.36 | 59.81 | 7.526 | | |
| 7,600.00 | 7,149.21 | 7,646.38 | 7,052.35 | 34.55 | 39.29 | 77.59 | 1,743.64 | -489.56 | 451.00 | 390.23 | 60.77 | 7.422 | | |
| 7,650.00 | 7,152.75 | 7,704.44 | 7,055.93 | 34.90 | 39.62 | 77.61 | 1,744.62 | -547.48 | 451.28 | 389.51 | 61.77 | 7.306 | | |
| 7,667.38 | 7,153.00 | 7,723.10 | 7,056.00 | 35.04 | 39.73 | 77.59 | 1,744.49 | -566.14 | 451.26 | 389.10 | 62.16 | 7.259 | | |
| 7,700.00 | 7,153.00 | 7,755.72 | 7,056.00 | 35.29 | 39.93 | 77.59 | 1,744.20 | -598.76 | 451.25 | 388.27 | 62.97 | 7.166 | | |
| 7,800.00 | 7,153.00 | 7,855.72 | 7,056.00 | 36.22 | 40.65 | 77.59 | 1,743.34 | -698.75 | 451.20 | 385.54 | 65.66 | 6.872 | | |
| 7,900.00 | 7,153.00 | 7,955.72 | 7,056.00 | 37.35 | 41.53 | 77.58 | 1,742.47 | -798.75 | 451.15 | 382.51 | 68.65 | 6.572 | | |
| 8,000.00 | 7,153.00 | 8,055.72 | 7,056.00 | 38.67 | 42.58 | 77.58 | 1,741.61 | -898.74 | 451.11 | 379.20 | 71.91 | 6.273 | | |
| 8,100.00 | 7,153.00 | 8,155.72 | 7,056.00 | 40.16 | 43.80 | 77.58 | 1,740.74 | -998.74 | 451.06 | 375.66 | 75.41 | 5.982 | | |
| 8,200.00 | 7,153.00 | 8,255.72 | 7,056.00 | 41.81 | 45.19 | 77.58 | 1,739.88 | -1,098.74 | 451.02 | 371.91 | 79.11 | 5.701 | | |
| 8,300.00 | 7,153.00 | 8,355.72 | 7,056.00 | 43.59 | 46.72 | 77.58 | 1,739.01 | -1,198.73 | 450.97 | 367.98 | 82.99 | 5.434 | | |
| 8,400.00 | 7,153.00 | 8,455.72 | 7,056.00 | 45.47 | 48.39 | 77.58 | 1,738.14 | -1,298.73 | 450.92 | 363.91 | 87.02 | 5.182 | | |
| 8,500.00 | 7,153.00 | 8,555.72 | 7,056.00 | 47.45 | 50.18 | 77.58 | 1,737.28 | -1,398.73 | 450.88 | 359.69 | 91.19 | 4.945 | | |
| 8,600.00 | 7,153.00 | 8,655.72 | 7,056.00 | 49.51 | 52.06 | 77.58 | 1,736.41 | -1,498.72 | 450.83 | 355.37 | 95.47 | 4.722 | | |
| 8,700.00 | 7,153.00 | 8,755.72 | 7,056.00 | 51.64 | 54.04 | 77.57 | 1,735.55 | -1,598.72 | 450.79 | 350.94 | 99.85 | 4.515 | | |
| 8,800.00 | 7,153.00 | 8,855.72 | 7,056.00 | 53.82 | 56.09 | 77.57 | 1,734.68 | -1,698.71 | 450.74 | 346.42 | 104.32 | 4.321 | | |
| 8,900.00 | 7,153.00 | 8,955.72 | 7,056.00 | 56.06 | 58.21 | 77.57 | 1,733.81 | -1,798.71 | 450.69 | 341.83 | 108.87 | 4.140 | | |
| 9,000.00 | 7,153.00 | 9,055.72 | 7,056.00 | 58.34 | 60.38 | 77.57 | 1,732.95 | -1,898.71 | 450.65 | 337.16 | 113.48 | 3.971 | | |
| 9,100.00 | 7,153.00 | 9,155.72 | 7,056.00 | 60.66 | 62.61 | 77.57 | 1,732.08 | -1,998.70 | 450.60 | 332.44 | 118.16 | 3.813 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-6H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 9,200.00 | 7,153.00 | 9,255.72 | 7,056.00 | 63.01 | 64.87 | 77.57 | 1,731.22 | -2,098.70 | 450.56 | 327.67 | 122.89 | 3.666 | | | |
| 9,300.00 | 7,153.00 | 9,355.72 | 7,056.00 | 65.40 | 67.18 | 77.57 | 1,730.35 | -2,198.70 | 450.51 | 322.84 | 127.67 | 3.529 | | | |
| 9,400.00 | 7,153.00 | 9,455.72 | 7,056.00 | 67.81 | 69.52 | 77.56 | 1,729.49 | -2,298.69 | 450.46 | 317.98 | 132.48 | 3.400 | | | |
| 9,500.00 | 7,153.00 | 9,555.72 | 7,056.00 | 70.24 | 71.89 | 77.56 | 1,728.62 | -2,398.69 | 450.42 | 313.08 | 137.34 | 3.280 | | | |
| 9,600.00 | 7,153.00 | 9,655.72 | 7,056.00 | 72.70 | 74.29 | 77.56 | 1,727.75 | -2,498.68 | 450.37 | 308.14 | 142.23 | 3.167 | | | |
| 9,700.00 | 7,153.00 | 9,755.72 | 7,056.00 | 75.17 | 76.71 | 77.56 | 1,726.89 | -2,598.68 | 450.33 | 303.18 | 147.15 | 3.060 | | | |
| 9,800.00 | 7,153.00 | 9,855.72 | 7,056.00 | 77.67 | 79.15 | 77.56 | 1,726.02 | -2,698.68 | 450.28 | 298.18 | 152.10 | 2.960 | | | |
| 9,900.00 | 7,153.00 | 9,955.72 | 7,056.00 | 80.17 | 81.61 | 77.56 | 1,725.16 | -2,798.67 | 450.23 | 293.16 | 157.07 | 2.866 | | | |
| 10,000.00 | 7,153.00 | 10,055.72 | 7,056.00 | 82.69 | 84.09 | 77.56 | 1,724.29 | -2,898.67 | 450.19 | 288.12 | 162.07 | 2.778 | | | |
| 10,100.00 | 7,153.00 | 10,155.72 | 7,056.00 | 85.23 | 86.58 | 77.56 | 1,723.43 | -2,998.67 | 450.14 | 283.06 | 167.08 | 2.694 | | | |
| 10,200.00 | 7,153.00 | 10,255.72 | 7,056.00 | 87.77 | 89.09 | 77.55 | 1,722.56 | -3,098.66 | 450.10 | 277.98 | 172.12 | 2.615 | | | |
| 10,300.00 | 7,153.00 | 10,355.72 | 7,056.00 | 90.33 | 91.61 | 77.55 | 1,721.69 | -3,198.66 | 450.05 | 272.88 | 177.17 | 2.540 | | | |
| 10,400.00 | 7,153.00 | 10,455.72 | 7,056.00 | 92.89 | 94.14 | 77.55 | 1,720.83 | -3,298.65 | 450.00 | 267.77 | 182.24 | 2.469 | | | |
| 10,500.00 | 7,153.00 | 10,555.72 | 7,056.00 | 95.47 | 96.68 | 77.55 | 1,719.96 | -3,398.65 | 449.96 | 262.64 | 187.32 | 2.402 | | | |
| 10,600.00 | 7,153.00 | 10,655.72 | 7,056.00 | 98.05 | 99.24 | 77.55 | 1,719.10 | -3,498.65 | 449.91 | 257.50 | 192.41 | 2.338 | | | |
| 10,700.00 | 7,153.00 | 10,755.72 | 7,056.00 | 100.64 | 101.80 | 77.55 | 1,718.23 | -3,598.64 | 449.86 | 252.35 | 197.52 | 2.278 | | | |
| 10,800.00 | 7,153.00 | 10,855.72 | 7,056.00 | 103.24 | 104.37 | 77.55 | 1,717.36 | -3,698.64 | 449.82 | 247.18 | 202.64 | 2.220 | | | |
| 10,900.00 | 7,153.00 | 10,955.72 | 7,056.00 | 105.84 | 106.95 | 77.55 | 1,716.50 | -3,798.64 | 449.77 | 242.01 | 207.77 | 2.165 | | | |
| 11,000.00 | 7,153.00 | 11,055.72 | 7,056.00 | 108.45 | 109.54 | 77.54 | 1,715.63 | -3,898.63 | 449.73 | 236.82 | 212.91 | 2.112 | | | |
| 11,100.00 | 7,153.00 | 11,155.72 | 7,056.00 | 111.07 | 112.13 | 77.54 | 1,714.77 | -3,998.63 | 449.68 | 231.63 | 218.05 | 2.062 | | | |
| 11,200.00 | 7,153.00 | 11,255.72 | 7,056.00 | 113.69 | 114.73 | 77.54 | 1,713.90 | -4,098.62 | 449.63 | 226.43 | 223.21 | 2.014 | | | |
| 11,300.00 | 7,153.00 | 11,355.72 | 7,056.00 | 116.31 | 117.33 | 77.54 | 1,713.04 | -4,198.62 | 449.59 | 221.22 | 228.37 | 1.969 | | | |
| 11,400.00 | 7,153.00 | 11,455.72 | 7,056.00 | 118.94 | 119.94 | 77.54 | 1,712.17 | -4,298.62 | 449.54 | 216.00 | 233.54 | 1.925 | | | |
| 11,500.00 | 7,153.00 | 11,555.72 | 7,056.00 | 121.57 | 122.56 | 77.54 | 1,711.30 | -4,398.61 | 449.50 | 210.77 | 238.72 | 1.883 | | | |
| 11,600.00 | 7,153.00 | 11,655.72 | 7,056.00 | 124.21 | 125.18 | 77.54 | 1,710.44 | -4,498.61 | 449.45 | 205.54 | 243.91 | 1.843 | | | |
| 11,700.00 | 7,153.00 | 11,755.72 | 7,056.00 | 126.85 | 127.80 | 77.54 | 1,709.57 | -4,598.61 | 449.40 | 200.31 | 249.10 | 1.804 | | | |
| 11,800.00 | 7,153.00 | 11,855.72 | 7,056.00 | 129.49 | 130.43 | 77.53 | 1,708.71 | -4,698.60 | 449.36 | 195.06 | 254.29 | 1.767 | | | |
| 11,900.00 | 7,153.00 | 11,955.72 | 7,056.00 | 132.14 | 133.06 | 77.53 | 1,707.84 | -4,798.60 | 449.31 | 189.82 | 259.50 | 1.731 | | | |
| 12,000.00 | 7,153.00 | 12,055.72 | 7,056.00 | 134.79 | 135.70 | 77.53 | 1,706.98 | -4,898.59 | 449.27 | 184.56 | 264.70 | 1.697 | | | |
| 12,100.00 | 7,153.00 | 12,155.72 | 7,056.00 | 137.44 | 138.34 | 77.53 | 1,706.11 | -4,998.59 | 449.22 | 179.31 | 269.91 | 1.664 | | | |
| 12,200.00 | 7,153.00 | 12,255.72 | 7,056.00 | 140.10 | 140.98 | 77.53 | 1,705.24 | -5,098.59 | 449.17 | 174.05 | 275.13 | 1.633 | | | |
| 12,300.00 | 7,153.00 | 12,355.72 | 7,056.00 | 142.76 | 143.63 | 77.53 | 1,704.38 | -5,198.58 | 449.13 | 168.78 | 280.35 | 1.602 | | | |
| 12,400.00 | 7,153.00 | 12,455.72 | 7,056.00 | 145.42 | 146.27 | 77.53 | 1,703.51 | -5,298.58 | 449.08 | 163.51 | 285.57 | 1.573 | | | |
| 12,500.00 | 7,153.00 | 12,555.72 | 7,056.00 | 148.08 | 148.92 | 77.52 | 1,702.65 | -5,398.57 | 449.04 | 158.24 | 290.80 | 1.544 | | | |
| 12,600.00 | 7,153.00 | 12,655.72 | 7,056.00 | 150.75 | 151.58 | 77.52 | 1,701.78 | -5,498.57 | 448.99 | 152.96 | 296.03 | 1.517 | | | |
| 12,700.00 | 7,153.00 | 12,755.72 | 7,056.00 | 153.41 | 154.23 | 77.52 | 1,700.92 | -5,598.57 | 448.94 | 147.68 | 301.26 | 1.490 | Level 3 | | |
| 12,800.00 | 7,153.00 | 12,855.72 | 7,056.00 | 156.08 | 156.89 | 77.52 | 1,700.05 | -5,698.56 | 448.90 | 142.40 | 306.50 | 1.465 | Level 3 | | |
| 12,900.00 | 7,153.00 | 12,955.72 | 7,056.00 | 158.75 | 159.55 | 77.52 | 1,699.18 | -5,798.56 | 448.85 | 137.11 | 311.74 | 1.440 | Level 3 | | |
| 13,000.00 | 7,153.00 | 13,055.72 | 7,056.00 | 161.42 | 162.22 | 77.52 | 1,698.32 | -5,898.56 | 448.81 | 131.82 | 316.98 | 1.416 | Level 3 | | |
| 13,100.00 | 7,153.00 | 13,155.72 | 7,056.00 | 164.10 | 164.88 | 77.52 | 1,697.45 | -5,998.55 | 448.76 | 126.53 | 322.23 | 1.393 | Level 3 | | |
| 13,200.00 | 7,153.00 | 13,255.72 | 7,056.00 | 166.77 | 167.55 | 77.52 | 1,696.59 | -6,098.55 | 448.71 | 121.24 | 327.48 | 1.370 | Level 3 | | |
| 13,300.00 | 7,153.00 | 13,355.72 | 7,056.00 | 169.45 | 170.21 | 77.51 | 1,695.72 | -6,198.54 | 448.67 | 115.94 | 332.73 | 1.348 | Level 3 | | |
| 13,400.00 | 7,153.00 | 13,455.72 | 7,056.00 | 172.13 | 172.88 | 77.51 | 1,694.85 | -6,298.54 | 448.62 | 110.64 | 337.98 | 1.327 | Level 3 | | |
| 13,500.00 | 7,153.00 | 13,555.72 | 7,056.00 | 174.81 | 175.56 | 77.51 | 1,693.99 | -6,398.54 | 448.58 | 105.34 | 343.24 | 1.307 | Level 3 | | |
| 13,600.00 | 7,153.00 | 13,655.72 | 7,056.00 | 177.49 | 178.23 | 77.51 | 1,693.12 | -6,498.53 | 448.53 | 100.03 | 348.50 | 1.287 | Level 3 | | |
| 13,700.00 | 7,153.00 | 13,755.72 | 7,056.00 | 180.17 | 180.90 | 77.51 | 1,692.26 | -6,598.53 | 448.48 | 94.73 | 353.75 | 1.268 | Level 3 | | |
| 13,800.00 | 7,153.00 | 13,855.72 | 7,056.00 | 182.86 | 183.58 | 77.51 | 1,691.39 | -6,698.53 | 448.44 | 89.42 | 359.02 | 1.249 | Level 3 | | |
| 13,900.00 | 7,153.00 | 13,955.72 | 7,056.00 | 185.54 | 186.26 | 77.51 | 1,690.53 | -6,798.52 | 448.39 | 84.11 | 364.28 | 1.231 | Level 3 | | |
| 14,000.00 | 7,153.00 | 14,055.72 | 7,056.00 | 188.23 | 188.93 | 77.51 | 1,689.66 | -6,898.52 | 448.35 | 78.80 | 369.54 | 1.213 | Level 3 | | |
| 14,100.00 | 7,153.00 | 14,155.72 | 7,056.00 | 190.91 | 191.61 | 77.50 | 1,688.79 | -6,998.51 | 448.30 | 73.49 | 374.81 | 1.196 | Level 3 | | |
| 14,200.00 | 7,153.00 | 14,255.72 | 7,056.00 | 193.60 | 194.29 | 77.50 | 1,687.93 | -7,098.51 | 448.25 | 68.17 | 380.08 | 1.179 | Level 3 | | |
| 14,300.00 | 7,153.00 | 14,355.72 | 7,056.00 | 196.29 | 196.98 | 77.50 | 1,687.06 | -7,198.51 | 448.21 | 62.86 | 385.35 | 1.163 | Level 3 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-6H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 14,400.00 | 7,153.00 | 14,455.72 | 7,056.00 | 198.98 | 199.66 | 77.50 | 1,686.20 | -7,298.50 | 448.16 | 57.54 | 390.62 | 1.147 | Level 3 | |
| 14,500.00 | 7,153.00 | 14,555.72 | 7,056.00 | 201.67 | 202.34 | 77.50 | 1,685.33 | -7,398.50 | 448.12 | 52.22 | 395.89 | 1.132 | Level 3 | |
| 14,600.00 | 7,153.00 | 14,655.72 | 7,056.00 | 204.36 | 205.03 | 77.50 | 1,684.47 | -7,498.50 | 448.07 | 46.90 | 401.17 | 1.117 | Level 3 | |
| 14,700.00 | 7,153.00 | 14,755.72 | 7,056.00 | 207.05 | 207.72 | 77.50 | 1,683.60 | -7,598.49 | 448.02 | 41.58 | 406.44 | 1.102 | Level 3 | |
| 14,800.00 | 7,153.00 | 14,855.72 | 7,056.00 | 209.75 | 210.40 | 77.49 | 1,682.73 | -7,698.49 | 447.98 | 36.26 | 411.72 | 1.088 | Level 3 | |
| 14,900.00 | 7,153.00 | 14,955.72 | 7,056.00 | 212.44 | 213.09 | 77.49 | 1,681.87 | -7,798.48 | 447.93 | 30.93 | 417.00 | 1.074 | Level 3 | |
| 15,000.00 | 7,153.00 | 15,055.72 | 7,056.00 | 215.13 | 215.78 | 77.49 | 1,681.00 | -7,898.48 | 447.89 | 25.61 | 422.28 | 1.061 | Level 3 | |
| 15,100.00 | 7,153.00 | 15,155.72 | 7,056.00 | 217.83 | 218.47 | 77.49 | 1,680.14 | -7,998.48 | 447.84 | 20.28 | 427.56 | 1.047 | Level 3 | |
| 15,200.00 | 7,153.00 | 15,255.72 | 7,056.00 | 220.53 | 221.16 | 77.49 | 1,679.27 | -8,098.47 | 447.79 | 14.96 | 432.84 | 1.035 | Level 3 | |
| 15,300.00 | 7,153.00 | 15,355.72 | 7,056.00 | 223.22 | 223.85 | 77.49 | 1,678.40 | -8,198.47 | 447.75 | 9.63 | 438.12 | 1.022 | Level 3 | |
| 15,400.00 | 7,153.00 | 15,455.72 | 7,056.00 | 225.92 | 226.54 | 77.49 | 1,677.54 | -8,298.47 | 447.70 | 4.30 | 443.40 | 1.010 | Level 3 | |
| 15,440.70 | 7,153.00 | 15,496.19 | 7,056.00 | 227.02 | 227.63 | 77.49 | 1,677.19 | -8,338.94 | 447.68 | 2.12 | 445.56 | 1.005 | Level 3 | |
| 15,455.54 | 7,153.00 | 15,496.19 | 7,056.00 | 227.42 | 227.63 | 77.49 | 1,677.19 | -8,338.94 | 447.93 | 1.17 | 446.76 | 1.003 | Level 3 | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-8H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: 0.00 usft | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|------------------|---------------|--------------|--------------|------------------------|------------------------|------------------------------|------------------------------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | Offset Well Error: 0.00 usft | | |
| Reference | | | | Offset | | Semi Major Axis | | Highside | | Offset Wellbore Centre | | Distance | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Reference (usft) | Offset (usft) | Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 16.71 | 102.00 | 30.63 | 106.50 | 106.22 | 0.29 | 371.378 |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.14 | 0.14 | 16.71 | 102.00 | 30.63 | 106.50 | 105.50 | 1.00 | 106.108 |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.50 | 0.50 | 16.71 | 102.00 | 30.63 | 106.50 | 104.78 | 1.72 | 61.896 |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 0.86 | 0.86 | 16.71 | 102.00 | 30.63 | 106.50 | 104.06 | 2.44 | 44.544 |
| 400.00 | 400.00 | 396.50 | 396.48 | 1.22 | 1.21 | 1.22 | 1.21 | 16.49 | 103.63 | 30.68 | 108.13 | 105.70 | 2.43 | 44.544 |
| 500.00 | 500.00 | 492.77 | 492.63 | 1.58 | 1.56 | 1.58 | 1.56 | 15.87 | 108.48 | 30.83 | 113.02 | 109.89 | 3.13 | 36.062 |
| 600.00 | 600.00 | 588.62 | 588.13 | 1.94 | 1.91 | 1.94 | 1.91 | 14.94 | 116.52 | 31.09 | 121.18 | 117.34 | 3.84 | 31.586 |
| 700.00 | 700.00 | 683.81 | 682.67 | 2.29 | 2.27 | 2.29 | 2.27 | 13.84 | 127.66 | 31.44 | 132.62 | 128.08 | 4.53 | 29.250 |
| 800.00 | 800.00 | 781.32 | 779.18 | 2.65 | 2.65 | 2.65 | 2.65 | 12.69 | 141.58 | 31.88 | 146.61 | 141.37 | 5.24 | 27.977 |
| 900.00 | 900.00 | 880.27 | 877.09 | 3.01 | 3.05 | 3.01 | 3.05 | 11.72 | 155.88 | 32.34 | 160.84 | 154.88 | 5.96 | 27.002 |
| 1,000.00 | 1,000.00 | 979.22 | 975.00 | 3.37 | 3.46 | 3.37 | 3.46 | 10.91 | 170.18 | 32.79 | 175.10 | 168.43 | 6.67 | 26.234 |
| 1,100.00 | 1,100.00 | 1,078.17 | 1,072.90 | 3.73 | 3.87 | 3.73 | 3.87 | 10.22 | 184.48 | 33.25 | 189.40 | 182.00 | 7.39 | 25.622 |
| 1,200.00 | 1,200.00 | 1,177.12 | 1,170.81 | 4.09 | 4.28 | 4.09 | 4.28 | 9.62 | 198.77 | 33.70 | 203.71 | 195.60 | 8.11 | 25.112 |
| 1,300.00 | 1,300.00 | 1,276.07 | 1,268.72 | 4.45 | 4.69 | 4.45 | 4.69 | 9.11 | 213.07 | 34.15 | 218.05 | 209.22 | 8.83 | 24.686 |
| 1,400.00 | 1,400.00 | 1,375.02 | 1,366.63 | 4.80 | 5.11 | 4.80 | 5.11 | 8.65 | 227.37 | 34.61 | 232.40 | 222.85 | 9.55 | 24.325 |
| 1,500.00 | 1,500.00 | 1,473.97 | 1,464.54 | 5.16 | 5.53 | 5.16 | 5.53 | 8.25 | 241.67 | 35.06 | 246.76 | 236.49 | 10.28 | 24.015 |
| 1,600.00 | 1,600.00 | 1,572.92 | 1,562.45 | 5.52 | 5.94 | 5.52 | 5.94 | 7.90 | 255.97 | 35.51 | 261.14 | 250.14 | 11.00 | 23.746 |
| 1,700.00 | 1,700.00 | 1,671.87 | 1,660.36 | 5.88 | 6.36 | 5.88 | 6.36 | 7.58 | 270.27 | 35.97 | 275.52 | 263.80 | 11.72 | 23.510 |
| 1,800.00 | 1,800.00 | 1,770.82 | 1,758.27 | 6.24 | 6.78 | 6.24 | 6.78 | 7.29 | 284.57 | 36.42 | 289.91 | 277.47 | 12.44 | 23.302 |
| 1,900.00 | 1,900.00 | 1,869.76 | 1,856.18 | 6.60 | 7.20 | 6.60 | 7.20 | 7.03 | 298.87 | 36.87 | 304.30 | 291.14 | 13.16 | 23.117 |
| 2,000.00 | 2,000.00 | 1,968.71 | 1,954.09 | 6.95 | 7.62 | 6.95 | 7.62 | 6.80 | 313.17 | 37.33 | 318.71 | 304.82 | 13.89 | 22.951 |
| 2,100.00 | 2,100.00 | 2,067.66 | 2,052.00 | 7.31 | 8.04 | 7.31 | 8.04 | 6.58 | 327.47 | 37.78 | 333.11 | 318.51 | 14.61 | 22.802 |
| 2,200.00 | 2,200.00 | 2,166.61 | 2,149.91 | 7.67 | 8.46 | 7.67 | 8.46 | 6.38 | 341.76 | 38.24 | 347.53 | 332.19 | 15.33 | 22.667 |
| 2,300.00 | 2,300.00 | 2,265.56 | 2,247.82 | 8.03 | 8.88 | 8.03 | 8.88 | 6.20 | 356.06 | 38.69 | 361.94 | 345.89 | 16.05 | 22.544 |
| 2,400.00 | 2,400.00 | 2,364.51 | 2,345.73 | 8.39 | 9.30 | 8.39 | 9.30 | 6.03 | 370.36 | 39.14 | 376.36 | 359.58 | 16.78 | 22.432 |
| 2,500.00 | 2,499.98 | 2,463.69 | 2,443.87 | 8.75 | 9.73 | 8.75 | 9.73 | 5.28 | 384.69 | 39.60 | 389.06 | 371.56 | 17.50 | 22.230 |
| 2,600.00 | 2,599.84 | 2,563.26 | 2,542.39 | 9.11 | 10.15 | 9.11 | 10.15 | 5.18 | 399.08 | 40.05 | 398.30 | 380.08 | 18.23 | 21.853 |
| 2,700.00 | 2,699.45 | 2,663.09 | 2,641.17 | 9.46 | 10.57 | 9.46 | 10.57 | 5.14 | 413.51 | 40.51 | 404.08 | 385.13 | 18.95 | 21.519 |
| 2,800.00 | 2,798.70 | 2,763.05 | 2,740.09 | 9.82 | 11.00 | 9.82 | 11.00 | 5.15 | 427.95 | 40.97 | 406.39 | 386.71 | 19.68 | 20.646 |
| 2,900.00 | 2,897.47 | 2,863.04 | 2,839.02 | 10.18 | 11.43 | 10.18 | 11.43 | 5.21 | 442.40 | 41.43 | 405.22 | 384.81 | 20.41 | 19.851 |
| 3,000.00 | 2,995.62 | 2,962.93 | 2,937.86 | 10.55 | 11.85 | 10.55 | 11.85 | 5.32 | 456.84 | 41.89 | 400.58 | 379.43 | 21.14 | 18.945 |
| 3,100.00 | 3,093.06 | 3,062.59 | 3,036.47 | 10.94 | 12.28 | 10.94 | 12.28 | 5.49 | 471.24 | 42.34 | 392.47 | 370.59 | 21.87 | 17.942 |
| 3,200.00 | 3,189.64 | 3,161.90 | 3,134.74 | 11.34 | 12.70 | 11.34 | 12.70 | 5.73 | 485.59 | 42.80 | 380.90 | 358.30 | 22.60 | 16.851 |
| 3,240.86 | 3,228.84 | 3,202.35 | 3,174.77 | 11.50 | 12.87 | 11.50 | 12.87 | 5.85 | 491.44 | 42.98 | 375.19 | 352.29 | 22.90 | 16.382 |
| 3,300.00 | 3,285.45 | 3,260.84 | 3,232.64 | 11.75 | 13.12 | 11.75 | 13.12 | 6.02 | 499.89 | 43.25 | 366.51 | 343.17 | 23.33 | 15.707 |
| 3,400.00 | 3,381.17 | 3,359.74 | 3,330.50 | 12.19 | 13.54 | 12.19 | 13.54 | 6.32 | 514.18 | 43.70 | 351.83 | 327.77 | 24.07 | 14.619 |
| 3,500.00 | 3,476.90 | 3,458.64 | 3,428.36 | 12.63 | 13.97 | 12.63 | 13.97 | 6.65 | 528.47 | 44.16 | 337.17 | 312.36 | 24.80 | 13.594 |
| 3,600.00 | 3,572.62 | 3,557.54 | 3,526.22 | 13.09 | 14.39 | 13.09 | 14.39 | 7.01 | 542.76 | 44.61 | 322.51 | 296.97 | 25.54 | 12.627 |
| 3,700.00 | 3,668.34 | 3,656.44 | 3,624.08 | 13.56 | 14.81 | 13.56 | 14.81 | 7.40 | 557.06 | 45.07 | 307.87 | 281.59 | 26.28 | 11.713 |
| 3,800.00 | 3,764.07 | 3,755.34 | 3,721.94 | 14.04 | 15.23 | 14.04 | 15.23 | 7.83 | 571.35 | 45.52 | 293.25 | 266.22 | 27.03 | 10.849 |
| 3,900.00 | 3,859.79 | 3,854.24 | 3,819.80 | 14.52 | 15.65 | 14.52 | 15.65 | 8.31 | 585.64 | 45.97 | 278.64 | 250.86 | 27.78 | 10.030 |
| 4,000.00 | 3,955.51 | 3,953.14 | 3,917.66 | 15.02 | 16.08 | 15.02 | 16.08 | 8.84 | 599.93 | 46.43 | 264.06 | 235.52 | 28.54 | 9.254 |
| 4,100.00 | 4,051.24 | 4,052.04 | 4,015.52 | 15.52 | 16.50 | 15.52 | 16.50 | 9.43 | 614.22 | 46.88 | 249.50 | 220.20 | 29.29 | 8.517 |
| 4,200.00 | 4,146.96 | 4,150.94 | 4,113.39 | 16.03 | 16.92 | 16.03 | 16.92 | 10.09 | 628.52 | 47.33 | 234.97 | 204.91 | 30.06 | 7.817 |
| 4,300.00 | 4,242.68 | 4,249.84 | 4,211.25 | 16.54 | 17.34 | 16.54 | 17.34 | 10.84 | 642.81 | 47.79 | 220.47 | 189.64 | 30.83 | 7.152 |
| 4,400.00 | 4,338.41 | 4,348.74 | 4,309.11 | 17.06 | 17.76 | 17.06 | 17.76 | 11.70 | 657.10 | 48.24 | 206.02 | 174.41 | 31.60 | 6.519 |
| 4,500.00 | 4,434.13 | 4,447.64 | 4,406.97 | 17.59 | 18.19 | 17.59 | 18.19 | 12.69 | 671.39 | 48.69 | 191.62 | 159.23 | 32.39 | 5.916 |
| 4,600.00 | 4,529.85 | 4,546.53 | 4,504.83 | 18.11 | 18.61 | 18.11 | 18.61 | 13.83 | 685.68 | 49.15 | 177.28 | 144.09 | 33.19 | 5.342 |
| 4,700.00 | 4,625.58 | 4,645.43 | 4,602.69 | 18.65 | 19.03 | 18.65 | 19.03 | 15.18 | 699.97 | 49.60 | 163.02 | 129.02 | 34.00 | 4.795 |
| 4,800.00 | 4,721.30 | 4,744.33 | 4,700.55 | 19.18 | 19.45 | 19.18 | 19.45 | 16.78 | 714.27 | 50.05 | 148.87 | 114.04 | 34.83 | 4.274 |
| 4,900.00 | 4,817.02 | 4,843.23 | 4,798.41 | 19.72 | 19.88 | 19.72 | 19.88 | 18.72 | 728.56 | 50.51 | 134.86 | 99.17 | 35.69 | 3.778 |
| 5,000.00 | 4,912.74 | 4,942.13 | 4,896.27 | 20.27 | 20.30 | 20.27 | 20.30 | 21.10 | 742.85 | 50.96 | 121.04 | 84.44 | 36.60 | 3.307 |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-8H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|---------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,100.00 | 5,008.47 | 5,041.03 | 4,994.13 | 20.81 | 20.72 | 24.09 | 757.14 | 51.41 | 107.47 | 69.91 | 37.56 | 2.861 | | |
| 5,200.00 | 5,104.19 | 5,139.93 | 5,091.99 | 21.36 | 21.14 | 27.92 | 771.43 | 51.87 | 94.27 | 55.65 | 38.63 | 2.441 | | |
| 5,300.00 | 5,199.91 | 5,238.83 | 5,189.85 | 21.91 | 21.57 | 32.96 | 785.72 | 52.32 | 81.63 | 41.78 | 39.84 | 2.049 | | |
| 5,400.00 | 5,295.64 | 5,337.73 | 5,287.71 | 22.46 | 21.99 | 39.76 | 800.02 | 52.77 | 69.83 | 28.54 | 41.29 | 1.691 | | |
| 5,500.00 | 5,391.36 | 5,436.63 | 5,385.57 | 23.02 | 22.41 | 49.10 | 814.31 | 53.23 | 59.39 | 16.33 | 43.06 | 1.379 | Level 3 | |
| 5,600.00 | 5,487.08 | 5,535.53 | 5,483.43 | 23.58 | 22.83 | 61.84 | 828.60 | 53.68 | 51.15 | 6.01 | 45.14 | 1.133 | Level 3 | |
| 5,700.00 | 5,582.81 | 5,634.46 | 5,581.32 | 24.13 | 23.25 | 78.23 | 842.88 | 54.13 | 46.28 | -0.86 | 47.14 | 0.982 | Level 3 | |
| 5,755.12 | 5,635.57 | 5,688.98 | 5,635.37 | 24.44 | 23.48 | 89.12 | 850.09 | 54.36 | 45.45 | -2.47 | 47.92 | 0.948 | Level 3, CC, ES, SF | |
| 5,800.00 | 5,678.53 | 5,733.12 | 5,679.21 | 24.70 | 23.66 | 98.89 | 855.17 | 54.52 | 46.13 | -2.08 | 48.21 | 0.957 | Level 3 | |
| 5,900.00 | 5,774.25 | 5,830.52 | 5,776.20 | 25.26 | 24.03 | 120.32 | 863.98 | 54.80 | 53.33 | 5.67 | 47.66 | 1.119 | Level 3 | |
| 6,000.00 | 5,869.98 | 5,926.46 | 5,871.98 | 25.82 | 24.36 | 137.04 | 869.43 | 54.97 | 68.49 | 21.92 | 46.56 | 1.471 | Level 3 | |
| 6,100.00 | 5,965.70 | 6,020.76 | 5,966.26 | 26.39 | 24.67 | 148.32 | 871.67 | 55.05 | 90.10 | 44.20 | 45.90 | 1.963 | | |
| 6,200.00 | 6,061.42 | 6,115.93 | 6,061.42 | 26.95 | 24.96 | 155.74 | 871.74 | 55.05 | 115.86 | 70.02 | 45.84 | 2.528 | | |
| 6,300.00 | 6,157.15 | 6,211.65 | 6,157.15 | 27.52 | 25.25 | 160.49 | 871.74 | 55.05 | 142.89 | 96.74 | 46.15 | 3.096 | | |
| 6,400.00 | 6,252.87 | 6,307.38 | 6,252.87 | 28.09 | 25.55 | 163.72 | 871.74 | 55.05 | 170.54 | 123.91 | 46.63 | 3.657 | | |
| 6,500.00 | 6,348.59 | 6,403.10 | 6,348.59 | 28.66 | 25.84 | 166.06 | 871.74 | 55.05 | 198.56 | 151.35 | 47.20 | 4.206 | | |
| 6,600.00 | 6,444.32 | 6,498.82 | 6,444.32 | 29.23 | 26.14 | 167.82 | 871.74 | 55.05 | 226.80 | 178.98 | 47.82 | 4.742 | | |
| 6,700.00 | 6,540.04 | 6,594.55 | 6,540.04 | 29.80 | 26.43 | 169.19 | 871.74 | 55.05 | 255.20 | 206.73 | 48.47 | 5.265 | | |
| 6,764.28 | 6,601.58 | 6,656.08 | 6,601.58 | 30.17 | 26.62 | 169.92 | 871.74 | 55.05 | 273.52 | 224.62 | 48.90 | 5.593 | | |
| 6,800.00 | 6,635.75 | 6,690.25 | 6,635.75 | 30.37 | 26.73 | -177.19 | 871.74 | 55.05 | 283.87 | 234.71 | 49.15 | 5.775 | | |
| 6,850.00 | 6,683.35 | 6,738.42 | 6,683.35 | 30.66 | 26.88 | -171.44 | 871.74 | 55.01 | 298.84 | 249.30 | 49.55 | 6.032 | | |
| 6,900.00 | 6,730.36 | 6,790.45 | 6,735.84 | 30.94 | 27.04 | -149.00 | 871.72 | 52.02 | 313.94 | 263.92 | 50.02 | 6.276 | | |
| 6,950.00 | 6,776.41 | 6,843.24 | 6,788.03 | 31.21 | 27.19 | -139.45 | 871.65 | 44.20 | 328.80 | 278.33 | 50.48 | 6.514 | | |
| 7,000.00 | 6,821.15 | 6,896.85 | 6,840.07 | 31.47 | 27.35 | -132.17 | 871.55 | 31.37 | 343.30 | 292.40 | 50.90 | 6.744 | | |
| 7,050.00 | 6,864.24 | 6,951.34 | 6,891.48 | 31.73 | 27.50 | -126.53 | 871.40 | 13.41 | 357.32 | 306.02 | 51.30 | 6.965 | | |
| 7,100.00 | 6,905.35 | 7,006.73 | 6,941.76 | 31.97 | 27.65 | -122.07 | 871.21 | -9.77 | 370.72 | 319.05 | 51.67 | 7.174 | | |
| 7,150.00 | 6,944.18 | 7,063.03 | 6,990.34 | 32.21 | 27.79 | -118.46 | 870.98 | -38.19 | 383.39 | 331.36 | 52.03 | 7.368 | | |
| 7,200.00 | 6,980.42 | 7,120.24 | 7,036.60 | 32.45 | 27.93 | -115.48 | 870.70 | -71.81 | 395.21 | 342.81 | 52.39 | 7.543 | | |
| 7,250.00 | 7,013.80 | 7,178.31 | 7,079.89 | 32.68 | 28.08 | -112.98 | 870.39 | -110.48 | 406.05 | 353.27 | 52.79 | 7.692 | | |
| 7,300.00 | 7,044.06 | 7,237.18 | 7,119.55 | 32.91 | 28.23 | -110.85 | 870.03 | -153.94 | 415.82 | 362.58 | 53.24 | 7.810 | | |
| 7,350.00 | 7,070.98 | 7,296.74 | 7,154.93 | 33.15 | 28.40 | -109.03 | 869.64 | -201.83 | 424.41 | 370.62 | 53.79 | 7.890 | | |
| 7,400.00 | 7,094.36 | 7,356.88 | 7,185.41 | 33.39 | 28.60 | -107.46 | 869.21 | -253.63 | 431.74 | 377.26 | 54.49 | 7.924 | | |
| 7,450.00 | 7,114.00 | 7,417.42 | 7,210.45 | 33.65 | 28.87 | -106.11 | 868.76 | -308.72 | 437.74 | 382.40 | 55.34 | 7.910 | | |
| 7,500.00 | 7,129.76 | 7,478.18 | 7,229.60 | 33.93 | 29.23 | -104.95 | 868.29 | -366.35 | 442.35 | 385.98 | 56.38 | 7.847 | | |
| 7,550.00 | 7,141.53 | 7,538.97 | 7,242.54 | 34.22 | 29.69 | -103.96 | 867.80 | -425.71 | 445.54 | 387.96 | 57.58 | 7.737 | | |
| 7,600.00 | 7,149.21 | 7,599.57 | 7,249.11 | 34.55 | 30.26 | -103.13 | 867.31 | -485.93 | 447.28 | 388.33 | 58.96 | 7.587 | | |
| 7,650.00 | 7,152.75 | 7,655.02 | 7,250.00 | 34.90 | 30.86 | -102.56 | 866.85 | -541.36 | 447.71 | 387.40 | 60.31 | 7.423 | | |
| 7,667.38 | 7,153.00 | 7,672.39 | 7,250.00 | 35.04 | 31.06 | -102.51 | 866.71 | -558.73 | 447.73 | 386.99 | 60.74 | 7.371 | | |
| 7,700.00 | 7,153.00 | 7,705.01 | 7,250.00 | 35.29 | 31.45 | -102.51 | 866.44 | -591.35 | 447.73 | 386.18 | 61.55 | 7.274 | | |
| 7,800.00 | 7,153.00 | 7,805.01 | 7,250.00 | 36.22 | 32.80 | -102.51 | 865.62 | -691.35 | 447.73 | 383.43 | 64.31 | 6.962 | | |
| 7,900.00 | 7,153.00 | 7,905.01 | 7,250.00 | 37.35 | 34.33 | -102.51 | 864.80 | -791.35 | 447.73 | 380.37 | 67.37 | 6.646 | | |
| 8,000.00 | 7,153.00 | 8,005.01 | 7,250.00 | 38.67 | 36.01 | -102.51 | 863.98 | -891.34 | 447.74 | 377.04 | 70.70 | 6.333 | | |
| 8,100.00 | 7,153.00 | 8,105.01 | 7,250.00 | 40.16 | 37.82 | -102.51 | 863.16 | -991.34 | 447.74 | 373.47 | 74.26 | 6.029 | | |
| 8,200.00 | 7,153.00 | 8,205.01 | 7,250.00 | 41.81 | 39.74 | -102.51 | 862.34 | -1,091.34 | 447.74 | 369.71 | 78.03 | 5.738 | | |
| 8,300.00 | 7,153.00 | 8,305.01 | 7,250.00 | 43.59 | 41.74 | -102.51 | 861.52 | -1,191.33 | 447.74 | 365.77 | 81.97 | 5.462 | | |
| 8,400.00 | 7,153.00 | 8,405.01 | 7,250.00 | 45.47 | 43.83 | -102.51 | 860.70 | -1,291.33 | 447.74 | 361.69 | 86.06 | 5.203 | | |
| 8,500.00 | 7,153.00 | 8,505.01 | 7,250.00 | 47.45 | 45.98 | -102.51 | 859.88 | -1,391.33 | 447.74 | 357.47 | 90.27 | 4.960 | | |
| 8,600.00 | 7,153.00 | 8,605.01 | 7,250.00 | 49.51 | 48.19 | -102.51 | 859.06 | -1,491.32 | 447.75 | 353.14 | 94.60 | 4.733 | | |
| 8,700.00 | 7,153.00 | 8,705.01 | 7,250.00 | 51.64 | 50.45 | -102.51 | 858.24 | -1,591.32 | 447.75 | 348.72 | 99.03 | 4.521 | | |
| 8,800.00 | 7,153.00 | 8,805.01 | 7,250.00 | 53.82 | 52.76 | -102.51 | 857.42 | -1,691.32 | 447.75 | 344.21 | 103.54 | 4.324 | | |
| 8,900.00 | 7,153.00 | 8,905.01 | 7,250.00 | 56.06 | 55.10 | -102.51 | 856.60 | -1,791.31 | 447.75 | 339.62 | 108.13 | 4.141 | | |
| 9,000.00 | 7,153.00 | 9,005.01 | 7,250.00 | 58.34 | 57.48 | -102.51 | 855.78 | -1,891.31 | 447.75 | 334.97 | 112.78 | 3.970 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-8H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 9,100.00 | 7,153.00 | 9,105.01 | 7,250.00 | 60.66 | 59.88 | -102.51 | 854.96 | -1,991.31 | 447.75 | 330.26 | 117.49 | 3.811 | | |
| 9,200.00 | 7,153.00 | 9,205.01 | 7,250.00 | 63.01 | 62.31 | -102.51 | 854.14 | -2,091.30 | 447.75 | 325.51 | 122.25 | 3.663 | | |
| 9,300.00 | 7,153.00 | 9,305.01 | 7,250.00 | 65.40 | 64.77 | -102.51 | 853.32 | -2,191.30 | 447.76 | 320.70 | 127.05 | 3.524 | | |
| 9,400.00 | 7,153.00 | 9,405.01 | 7,250.00 | 67.81 | 67.25 | -102.51 | 852.50 | -2,291.30 | 447.76 | 315.86 | 131.90 | 3.395 | | |
| 9,500.00 | 7,153.00 | 9,505.01 | 7,249.99 | 70.24 | 69.74 | -102.51 | 851.67 | -2,391.29 | 447.76 | 310.98 | 136.78 | 3.274 | | |
| 9,600.00 | 7,153.00 | 9,605.01 | 7,249.99 | 72.70 | 72.25 | -102.51 | 850.85 | -2,491.29 | 447.76 | 306.07 | 141.69 | 3.160 | | |
| 9,700.00 | 7,153.00 | 9,705.01 | 7,249.99 | 75.17 | 74.78 | -102.51 | 850.03 | -2,591.29 | 447.76 | 301.13 | 146.63 | 3.054 | | |
| 9,800.00 | 7,153.00 | 9,805.01 | 7,249.99 | 77.67 | 77.32 | -102.51 | 849.21 | -2,691.28 | 447.76 | 296.16 | 151.60 | 2.954 | | |
| 9,900.00 | 7,153.00 | 9,905.01 | 7,249.99 | 80.17 | 79.87 | -102.51 | 848.39 | -2,791.28 | 447.77 | 291.17 | 156.59 | 2.859 | | |
| 10,000.00 | 7,153.00 | 10,005.01 | 7,249.99 | 82.69 | 82.43 | -102.51 | 847.57 | -2,891.28 | 447.77 | 286.16 | 161.61 | 2.771 | | |
| 10,100.00 | 7,153.00 | 10,105.01 | 7,249.99 | 85.23 | 85.00 | -102.51 | 846.75 | -2,991.27 | 447.77 | 281.13 | 166.64 | 2.687 | | |
| 10,200.00 | 7,153.00 | 10,205.01 | 7,249.99 | 87.77 | 87.58 | -102.51 | 845.93 | -3,091.27 | 447.77 | 276.08 | 171.69 | 2.608 | | |
| 10,300.00 | 7,153.00 | 10,305.01 | 7,249.99 | 90.33 | 90.17 | -102.51 | 845.11 | -3,191.27 | 447.77 | 271.02 | 176.76 | 2.533 | | |
| 10,400.00 | 7,153.00 | 10,405.01 | 7,249.99 | 92.89 | 92.77 | -102.51 | 844.29 | -3,291.26 | 447.77 | 265.93 | 181.84 | 2.462 | | |
| 10,500.00 | 7,153.00 | 10,505.01 | 7,249.99 | 95.47 | 95.37 | -102.51 | 843.47 | -3,391.26 | 447.78 | 260.84 | 186.93 | 2.395 | | |
| 10,600.00 | 7,153.00 | 10,605.01 | 7,249.99 | 98.05 | 97.98 | -102.51 | 842.65 | -3,491.26 | 447.78 | 255.73 | 192.04 | 2.332 | | |
| 10,700.00 | 7,153.00 | 10,705.01 | 7,249.99 | 100.64 | 100.60 | -102.51 | 841.83 | -3,591.25 | 447.78 | 250.62 | 197.16 | 2.271 | | |
| 10,800.00 | 7,153.00 | 10,805.01 | 7,249.99 | 103.24 | 103.22 | -102.51 | 841.01 | -3,691.25 | 447.78 | 245.49 | 202.29 | 2.214 | | |
| 10,900.00 | 7,153.00 | 10,905.01 | 7,249.99 | 105.84 | 105.85 | -102.51 | 840.19 | -3,791.25 | 447.78 | 240.35 | 207.43 | 2.159 | | |
| 11,000.00 | 7,153.00 | 11,005.01 | 7,249.99 | 108.45 | 108.48 | -102.51 | 839.37 | -3,891.24 | 447.78 | 235.20 | 212.58 | 2.106 | | |
| 11,100.00 | 7,153.00 | 11,105.01 | 7,249.99 | 111.07 | 111.11 | -102.51 | 838.55 | -3,991.24 | 447.79 | 230.04 | 217.74 | 2.057 | | |
| 11,200.00 | 7,153.00 | 11,205.01 | 7,249.99 | 113.69 | 113.75 | -102.51 | 837.73 | -4,091.24 | 447.79 | 224.88 | 222.91 | 2.009 | | |
| 11,300.00 | 7,153.00 | 11,305.01 | 7,249.99 | 116.31 | 116.40 | -102.51 | 836.91 | -4,191.23 | 447.79 | 219.71 | 228.08 | 1.963 | | |
| 11,400.00 | 7,153.00 | 11,405.01 | 7,249.99 | 118.94 | 119.04 | -102.51 | 836.09 | -4,291.23 | 447.79 | 214.53 | 233.26 | 1.920 | | |
| 11,500.00 | 7,153.00 | 11,505.01 | 7,249.99 | 121.57 | 121.69 | -102.51 | 835.27 | -4,391.23 | 447.79 | 209.34 | 238.45 | 1.878 | | |
| 11,600.00 | 7,153.00 | 11,605.01 | 7,249.99 | 124.21 | 124.35 | -102.51 | 834.45 | -4,491.22 | 447.79 | 204.15 | 243.64 | 1.838 | | |
| 11,700.00 | 7,153.00 | 11,705.01 | 7,249.99 | 126.85 | 127.00 | -102.51 | 833.63 | -4,591.22 | 447.79 | 198.95 | 248.84 | 1.800 | | |
| 11,800.00 | 7,153.00 | 11,805.01 | 7,249.99 | 129.49 | 129.66 | -102.51 | 832.81 | -4,691.22 | 447.80 | 193.75 | 254.04 | 1.763 | | |
| 11,900.00 | 7,153.00 | 11,905.01 | 7,249.99 | 132.14 | 132.32 | -102.51 | 831.99 | -4,791.21 | 447.80 | 188.54 | 259.25 | 1.727 | | |
| 12,000.00 | 7,153.00 | 12,005.01 | 7,249.99 | 134.79 | 134.99 | -102.51 | 831.17 | -4,891.21 | 447.80 | 183.33 | 264.47 | 1.693 | | |
| 12,100.00 | 7,153.00 | 12,105.01 | 7,249.99 | 137.44 | 137.66 | -102.51 | 830.35 | -4,991.21 | 447.80 | 178.12 | 269.69 | 1.660 | | |
| 12,200.00 | 7,153.00 | 12,205.01 | 7,249.99 | 140.10 | 140.32 | -102.51 | 829.53 | -5,091.20 | 447.80 | 172.89 | 274.91 | 1.629 | | |
| 12,300.00 | 7,153.00 | 12,305.01 | 7,249.99 | 142.76 | 142.99 | -102.51 | 828.71 | -5,191.20 | 447.80 | 167.67 | 280.13 | 1.599 | | |
| 12,400.00 | 7,153.00 | 12,405.01 | 7,249.99 | 145.42 | 145.67 | -102.51 | 827.89 | -5,291.20 | 447.81 | 162.44 | 285.36 | 1.569 | | |
| 12,500.00 | 7,153.00 | 12,505.01 | 7,249.99 | 148.08 | 148.34 | -102.51 | 827.06 | -5,391.19 | 447.81 | 157.21 | 290.60 | 1.541 | | |
| 12,600.00 | 7,153.00 | 12,605.01 | 7,249.99 | 150.75 | 151.02 | -102.51 | 826.24 | -5,491.19 | 447.81 | 151.97 | 295.84 | 1.514 | | |
| 12,700.00 | 7,153.00 | 12,705.01 | 7,249.99 | 153.41 | 153.69 | -102.51 | 825.42 | -5,591.19 | 447.81 | 146.73 | 301.08 | 1.487 Level 3 | | |
| 12,800.00 | 7,153.00 | 12,805.01 | 7,249.99 | 156.08 | 156.37 | -102.51 | 824.60 | -5,691.18 | 447.81 | 141.49 | 306.32 | 1.462 Level 3 | | |
| 12,900.00 | 7,153.00 | 12,905.01 | 7,249.98 | 158.75 | 159.05 | -102.51 | 823.78 | -5,791.18 | 447.81 | 136.25 | 311.57 | 1.437 Level 3 | | |
| 13,000.00 | 7,153.00 | 13,005.01 | 7,249.98 | 161.42 | 161.74 | -102.51 | 822.96 | -5,891.18 | 447.82 | 131.00 | 316.81 | 1.413 Level 3 | | |
| 13,100.00 | 7,153.00 | 13,105.01 | 7,249.98 | 164.10 | 164.42 | -102.51 | 822.14 | -5,991.17 | 447.82 | 125.75 | 322.07 | 1.390 Level 3 | | |
| 13,200.00 | 7,153.00 | 13,205.01 | 7,249.98 | 166.77 | 167.10 | -102.51 | 821.32 | -6,091.17 | 447.82 | 120.50 | 327.32 | 1.368 Level 3 | | |
| 13,300.00 | 7,153.00 | 13,305.01 | 7,249.98 | 169.45 | 169.79 | -102.51 | 820.50 | -6,191.17 | 447.82 | 115.24 | 332.58 | 1.347 Level 3 | | |
| 13,400.00 | 7,153.00 | 13,405.01 | 7,249.98 | 172.13 | 172.48 | -102.51 | 819.68 | -6,291.16 | 447.82 | 109.99 | 337.83 | 1.326 Level 3 | | |
| 13,500.00 | 7,153.00 | 13,505.01 | 7,249.98 | 174.81 | 175.16 | -102.51 | 818.86 | -6,391.16 | 447.82 | 104.73 | 343.10 | 1.305 Level 3 | | |
| 13,600.00 | 7,153.00 | 13,605.01 | 7,249.98 | 177.49 | 177.85 | -102.51 | 818.04 | -6,491.16 | 447.83 | 99.47 | 348.36 | 1.286 Level 3 | | |
| 13,700.00 | 7,153.00 | 13,705.01 | 7,249.98 | 180.17 | 180.54 | -102.51 | 817.22 | -6,591.15 | 447.83 | 94.20 | 353.62 | 1.266 Level 3 | | |
| 13,800.00 | 7,153.00 | 13,805.01 | 7,249.98 | 182.86 | 183.23 | -102.51 | 816.40 | -6,691.15 | 447.83 | 88.94 | 358.89 | 1.248 Level 3 | | |
| 13,900.00 | 7,153.00 | 13,905.01 | 7,249.98 | 185.54 | 185.92 | -102.51 | 815.58 | -6,791.15 | 447.83 | 83.67 | 364.16 | 1.230 Level 3 | | |
| 14,000.00 | 7,153.00 | 14,005.01 | 7,249.98 | 188.23 | 188.62 | -102.51 | 814.76 | -6,891.14 | 447.83 | 78.40 | 369.43 | 1.212 Level 3 | | |
| 14,100.00 | 7,153.00 | 14,105.01 | 7,249.98 | 190.91 | 191.31 | -102.51 | 813.94 | -6,991.14 | 447.83 | 73.13 | 374.70 | 1.195 Level 3 | | |
| 14,200.00 | 7,153.00 | 14,205.01 | 7,249.98 | 193.60 | 194.00 | -102.51 | 813.12 | -7,091.14 | 447.83 | 67.86 | 379.97 | 1.179 Level 3 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-8H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 14,300.00 | 7,153.00 | 14,305.01 | 7,249.98 | 196.29 | 196.70 | -102.51 | 812.30 | -7,191.13 | 447.84 | 62.59 | 385.25 | 1.162 | Level 3 | |
| 14,400.00 | 7,153.00 | 14,405.01 | 7,249.98 | 198.98 | 199.40 | -102.51 | 811.48 | -7,291.13 | 447.84 | 57.31 | 390.52 | 1.147 | Level 3 | |
| 14,500.00 | 7,153.00 | 14,505.01 | 7,249.98 | 201.67 | 202.09 | -102.51 | 810.66 | -7,391.13 | 447.84 | 52.04 | 395.80 | 1.131 | Level 3 | |
| 14,600.00 | 7,153.00 | 14,605.01 | 7,249.98 | 204.36 | 204.79 | -102.51 | 809.84 | -7,491.12 | 447.84 | 46.76 | 401.08 | 1.117 | Level 3 | |
| 14,700.00 | 7,153.00 | 14,705.01 | 7,249.98 | 207.05 | 207.49 | -102.51 | 809.02 | -7,591.12 | 447.84 | 41.48 | 406.36 | 1.102 | Level 3 | |
| 14,800.00 | 7,153.00 | 14,805.01 | 7,249.98 | 209.75 | 210.18 | -102.51 | 808.20 | -7,691.12 | 447.84 | 36.20 | 411.64 | 1.088 | Level 3 | |
| 14,900.00 | 7,153.00 | 14,905.01 | 7,249.98 | 212.44 | 212.88 | -102.51 | 807.38 | -7,791.11 | 447.85 | 30.92 | 416.92 | 1.074 | Level 3 | |
| 15,000.00 | 7,153.00 | 15,005.01 | 7,249.98 | 215.13 | 215.58 | -102.51 | 806.56 | -7,891.11 | 447.85 | 25.64 | 422.21 | 1.061 | Level 3 | |
| 15,100.00 | 7,153.00 | 15,105.01 | 7,249.98 | 217.83 | 218.28 | -102.51 | 805.74 | -7,991.11 | 447.85 | 20.36 | 427.49 | 1.048 | Level 3 | |
| 15,200.00 | 7,153.00 | 15,205.01 | 7,249.98 | 220.53 | 220.98 | -102.51 | 804.92 | -8,091.10 | 447.85 | 15.07 | 432.78 | 1.035 | Level 3 | |
| 15,300.00 | 7,153.00 | 15,305.01 | 7,249.98 | 223.22 | 223.68 | -102.51 | 804.10 | -8,191.10 | 447.85 | 9.79 | 438.07 | 1.022 | Level 3 | |
| 15,400.00 | 7,153.00 | 15,406.14 | 7,249.98 | 225.92 | 226.42 | -102.51 | 803.28 | -8,292.22 | 447.84 | 4.41 | 443.43 | 1.010 | Level 3 | |
| 15,455.54 | 7,153.00 | 15,461.68 | 7,250.00 | 227.42 | 227.92 | -102.51 | 802.97 | -8,347.76 | 447.70 | 1.34 | 446.36 | 1.003 | Level 3 | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-9H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------|--------------|--------------|------------------------|-------------------------|---------------------------|--------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | Offset Well Error: | | 0.00 usft |
| Reference | | | | Offset | | Semi Major Axis | | Highside | | Distance | | Separation | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 19.31 | 87.43 | 30.63 | 92.64 | 92.35 | 0.29 | 323.043 | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 19.31 | 87.43 | 30.63 | 92.64 | 91.64 | 1.00 | 92.298 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 19.31 | 87.43 | 30.63 | 92.64 | 90.92 | 1.72 | 53.840 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 19.31 | 87.43 | 30.63 | 92.64 | 90.20 | 2.44 | 38.005 CC, ES | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.22 | 1.22 | 19.31 | 87.43 | 30.63 | 92.64 | 91.10 | 3.14 | 29.980 | | |
| 500.00 | 500.00 | 497.00 | 496.98 | 1.58 | 1.57 | 19.63 | 88.72 | 31.65 | 94.24 | 95.22 | 3.85 | 25.722 | | |
| 600.00 | 600.00 | 594.97 | 594.82 | 1.94 | 1.92 | 20.56 | 92.63 | 34.74 | 99.07 | 101.00 | 4.56 | 23.141 | | |
| 700.00 | 700.00 | 693.50 | 693.12 | 2.29 | 2.27 | 21.67 | 97.89 | 38.90 | 105.56 | 106.81 | 5.28 | 21.240 | | |
| 800.00 | 800.00 | 793.27 | 792.66 | 2.65 | 2.64 | 22.67 | 103.21 | 43.11 | 112.09 | 112.66 | 5.99 | 19.797 | | |
| 900.00 | 900.00 | 893.04 | 892.20 | 3.01 | 3.01 | 23.56 | 108.53 | 47.32 | 118.65 | 118.53 | 6.71 | 18.663 | | |
| 1,000.00 | 1,000.00 | 992.81 | 991.73 | 3.37 | 3.37 | 24.35 | 113.85 | 51.53 | 125.24 | 124.42 | 7.43 | 17.751 | | |
| 1,100.00 | 1,100.00 | 1,092.57 | 1,091.27 | 3.73 | 3.74 | 25.06 | 119.17 | 55.74 | 131.85 | 130.34 | 8.15 | 17.001 | | |
| 1,200.00 | 1,200.00 | 1,192.34 | 1,190.81 | 4.09 | 4.11 | 25.71 | 124.50 | 59.94 | 138.48 | 136.26 | 8.86 | 16.374 | | |
| 1,300.00 | 1,300.00 | 1,292.11 | 1,290.35 | 4.45 | 4.48 | 26.30 | 129.82 | 64.15 | 145.12 | 142.20 | 9.58 | 15.842 | | |
| 1,400.00 | 1,400.00 | 1,391.88 | 1,389.88 | 4.80 | 4.85 | 26.83 | 135.14 | 68.36 | 151.78 | 148.15 | 10.30 | 15.385 | | |
| 1,500.00 | 1,500.00 | 1,491.65 | 1,489.42 | 5.16 | 5.22 | 27.32 | 140.46 | 72.57 | 158.45 | 154.12 | 11.02 | 14.989 | | |
| 1,600.00 | 1,600.00 | 1,591.42 | 1,588.96 | 5.52 | 5.60 | 27.77 | 145.78 | 76.78 | 165.13 | 160.09 | 11.74 | 14.642 | | |
| 1,700.00 | 1,700.00 | 1,691.19 | 1,688.50 | 5.88 | 5.97 | 28.19 | 151.10 | 80.99 | 171.82 | 166.07 | 12.45 | 14.335 | | |
| 1,800.00 | 1,800.00 | 1,790.95 | 1,788.04 | 6.24 | 6.34 | 28.58 | 156.42 | 85.20 | 178.52 | 172.06 | 13.17 | 14.063 | | |
| 1,900.00 | 1,900.00 | 1,890.72 | 1,887.57 | 6.60 | 6.71 | 28.93 | 161.75 | 89.41 | 185.23 | 178.05 | 13.89 | 13.819 | | |
| 2,000.00 | 2,000.00 | 1,990.49 | 1,987.11 | 6.95 | 7.08 | 29.26 | 167.07 | 93.61 | 191.94 | 184.05 | 14.61 | 13.599 | | |
| 2,100.00 | 2,100.00 | 2,090.26 | 2,086.65 | 7.31 | 7.46 | 29.57 | 172.39 | 97.82 | 198.66 | 190.06 | 15.33 | 13.401 | | |
| 2,200.00 | 2,200.00 | 2,190.03 | 2,186.19 | 7.67 | 7.83 | 29.86 | 177.71 | 102.03 | 205.38 | 196.07 | 16.04 | 13.220 | | |
| 2,300.00 | 2,300.00 | 2,289.80 | 2,285.72 | 8.03 | 8.20 | 30.13 | 183.03 | 106.24 | 212.11 | 202.08 | 16.76 | 13.055 | | |
| 2,400.00 | 2,400.00 | 2,389.57 | 2,385.26 | 8.39 | 8.57 | 30.39 | 188.35 | 110.45 | 218.84 | 206.59 | 17.48 | 12.818 | | |
| 2,500.00 | 2,499.98 | 2,489.41 | 2,484.87 | 8.75 | 8.94 | 30.20 | 193.68 | 114.66 | 224.07 | 208.13 | 18.20 | 12.437 | | |
| 2,600.00 | 2,599.84 | 2,589.32 | 2,584.55 | 9.11 | 9.32 | 31.07 | 199.01 | 118.88 | 226.32 | 206.76 | 18.91 | 11.931 | | |
| 2,700.00 | 2,699.45 | 2,689.17 | 2,684.17 | 9.46 | 9.69 | 32.41 | 204.33 | 123.09 | 225.67 | 202.62 | 19.63 | 11.322 | | |
| 2,800.00 | 2,798.70 | 2,788.84 | 2,783.61 | 9.82 | 10.06 | 34.29 | 209.65 | 127.29 | 222.26 | 195.92 | 20.35 | 10.629 | | |
| 2,900.00 | 2,897.47 | 2,888.22 | 2,882.76 | 10.18 | 10.43 | 36.80 | 214.95 | 131.49 | 216.27 | 186.95 | 21.07 | 9.874 | | |
| 3,000.00 | 2,995.62 | 2,987.18 | 2,981.49 | 10.55 | 10.80 | 40.07 | 220.23 | 135.66 | 208.02 | 176.16 | 21.79 | 9.083 | | |
| 3,100.00 | 3,093.06 | 3,085.59 | 3,079.68 | 10.94 | 11.17 | 44.30 | 225.48 | 139.81 | 197.95 | 164.20 | 22.54 | 8.285 | | |
| 3,200.00 | 3,189.64 | 3,183.35 | 3,177.21 | 11.34 | 11.54 | 49.72 | 230.69 | 143.94 | 186.74 | 159.19 | 22.85 | 7.966 | | |
| 3,240.86 | 3,228.84 | 3,223.07 | 3,216.84 | 11.50 | 11.68 | 52.34 | 232.81 | 145.61 | 182.04 | 152.40 | 23.31 | 7.537 | | |
| 3,300.00 | 3,285.45 | 3,280.47 | 3,274.11 | 11.75 | 11.90 | 56.35 | 235.87 | 148.03 | 175.71 | 143.11 | 24.13 | 6.932 | | |
| 3,400.00 | 3,381.17 | 3,377.53 | 3,370.94 | 12.19 | 12.26 | 63.72 | 241.05 | 152.13 | 167.24 | 136.96 | 24.98 | 6.484 | | |
| 3,500.00 | 3,476.90 | 3,474.59 | 3,467.77 | 12.63 | 12.62 | 71.69 | 246.22 | 156.22 | 161.93 | 134.25 | 25.85 | 6.193 | | |
| 3,600.00 | 3,572.62 | 3,571.65 | 3,564.60 | 13.09 | 12.99 | 79.99 | 251.40 | 160.32 | 160.11 | 132.25 | 25.86 | 6.192 | | |
| 3,600.63 | 3,573.22 | 3,572.26 | 3,565.22 | 13.09 | 12.99 | 80.05 | 251.43 | 160.34 | 160.11 | 135.15 | 26.74 | 6.055 | | |
| 3,700.00 | 3,668.34 | 3,668.70 | 3,661.44 | 13.56 | 13.35 | 88.30 | 256.58 | 164.41 | 161.89 | 132.25 | 27.61 | 6.054 | | |
| 3,800.00 | 3,764.07 | 3,765.76 | 3,758.27 | 14.04 | 13.71 | 96.27 | 261.75 | 168.51 | 167.15 | 132.25 | 28.46 | 6.170 | | |
| 3,900.00 | 3,859.79 | 3,862.82 | 3,855.10 | 14.52 | 14.07 | 103.65 | 266.93 | 172.60 | 175.59 | 132.25 | 29.27 | 6.380 | | |
| 4,000.00 | 3,955.51 | 3,959.88 | 3,951.94 | 15.02 | 14.44 | 110.29 | 272.11 | 176.69 | 186.77 | 132.25 | 30.06 | 6.661 | | |
| 4,100.00 | 4,051.24 | 4,056.93 | 4,048.77 | 15.52 | 14.80 | 116.14 | 277.29 | 180.79 | 200.23 | 132.25 | 30.83 | 6.992 | | |
| 4,200.00 | 4,146.96 | 4,153.99 | 4,145.60 | 16.03 | 15.16 | 121.23 | 282.46 | 184.88 | 215.56 | 132.25 | 31.58 | 7.358 | | |
| 4,300.00 | 4,242.68 | 4,251.05 | 4,242.43 | 16.54 | 15.53 | 125.64 | 287.64 | 188.98 | 232.37 | 132.25 | 32.32 | 7.747 | | |
| 4,400.00 | 4,338.41 | 4,348.11 | 4,339.27 | 17.06 | 15.89 | 129.45 | 292.82 | 193.07 | 250.37 | 132.25 | 33.05 | 8.148 | | |
| 4,500.00 | 4,434.13 | 4,445.16 | 4,436.10 | 17.59 | 16.25 | 132.75 | 297.99 | 197.17 | 269.32 | 132.25 | 33.79 | 8.555 | | |
| 4,600.00 | 4,529.85 | 4,542.22 | 4,532.93 | 18.11 | 16.61 | 135.62 | 303.17 | 201.26 | 289.04 | 132.25 | 34.51 | 8.964 | | |
| 4,700.00 | 4,625.58 | 4,639.28 | 4,629.77 | 18.65 | 16.98 | 138.12 | 308.35 | 205.36 | 309.38 | 132.25 | 35.24 | 9.369 | | |
| 4,800.00 | 4,721.30 | 4,736.34 | 4,726.60 | 19.18 | 17.34 | 140.31 | 313.52 | 209.45 | 330.21 | 132.25 | 35.97 | 9.770 | | |
| 4,900.00 | 4,817.02 | 4,833.39 | 4,823.43 | 19.72 | 17.70 | 142.25 | 318.70 | 213.54 | 351.47 | 132.25 | | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-9H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|----------------|--------|---------------------------|-------------------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | | |
| 5,000.00 | 4,912.74 | 4,930.45 | 4,920.26 | 20.27 | 18.06 | 143.96 | 323.88 | 217.64 | 373.07 | 336.36 | 36.71 | 10.164 | | | |
| 5,100.00 | 5,008.47 | 5,027.51 | 5,017.10 | 20.81 | 18.43 | 145.49 | 329.05 | 221.73 | 394.95 | 357.51 | 37.44 | 10.550 | | | |
| 5,200.00 | 5,104.19 | 5,124.57 | 5,113.93 | 21.36 | 18.79 | 146.86 | 334.23 | 225.83 | 417.08 | 378.91 | 38.17 | 10.926 | | | |
| 5,300.00 | 5,199.91 | 5,221.62 | 5,210.76 | 21.91 | 19.15 | 148.09 | 339.41 | 229.92 | 439.41 | 400.50 | 38.91 | 11.294 | | | |
| 5,400.00 | 5,295.64 | 5,318.68 | 5,307.60 | 22.46 | 19.51 | 149.20 | 344.58 | 234.02 | 461.92 | 422.27 | 39.64 | 11.652 | | | |
| 5,500.00 | 5,391.36 | 5,415.74 | 5,404.43 | 23.02 | 19.88 | 150.21 | 349.76 | 238.11 | 484.58 | 444.19 | 40.38 | 12.000 | | | |
| 5,600.00 | 5,487.08 | 5,512.80 | 5,501.26 | 23.58 | 20.24 | 151.13 | 354.94 | 242.21 | 507.37 | 466.24 | 41.12 | 12.338 | | | |
| 5,700.00 | 5,582.81 | 5,609.85 | 5,598.09 | 24.13 | 20.60 | 151.97 | 360.11 | 246.30 | 530.27 | 488.41 | 41.86 | 12.667 | | | |
| 5,800.00 | 5,678.53 | 5,706.91 | 5,694.93 | 24.70 | 20.97 | 152.74 | 365.29 | 250.39 | 553.27 | 510.67 | 42.60 | 12.986 | | | |
| 5,900.00 | 5,774.25 | 5,803.97 | 5,791.76 | 25.26 | 21.33 | 153.46 | 370.47 | 254.49 | 576.36 | 533.02 | 43.35 | 13.296 | | | |
| 6,000.00 | 5,869.98 | 5,901.03 | 5,888.59 | 25.82 | 21.69 | 154.11 | 375.64 | 258.58 | 599.53 | 555.44 | 44.09 | 13.597 | | | |
| 6,100.00 | 5,965.70 | 5,998.08 | 5,985.43 | 26.39 | 22.05 | 154.72 | 380.82 | 262.68 | 622.77 | 577.93 | 44.84 | 13.889 | | | |
| 6,200.00 | 6,061.42 | 6,095.14 | 6,082.26 | 26.95 | 22.42 | 155.28 | 386.00 | 266.77 | 646.07 | 600.49 | 45.58 | 14.173 | | | |
| 6,300.00 | 6,157.15 | 6,192.20 | 6,179.09 | 27.52 | 22.78 | 155.81 | 391.17 | 270.87 | 669.43 | 623.09 | 46.33 | 14.448 | | | |
| 6,400.00 | 6,252.87 | 6,289.26 | 6,275.93 | 28.09 | 23.14 | 156.29 | 396.35 | 274.96 | 692.83 | 645.75 | 47.08 | 14.716 | | | |
| 6,500.00 | 6,348.59 | 6,386.31 | 6,372.76 | 28.66 | 23.51 | 156.75 | 401.53 | 279.06 | 716.28 | 668.45 | 47.83 | 14.975 | | | |
| 6,600.00 | 6,444.32 | 6,484.36 | 6,470.57 | 29.23 | 23.87 | 157.18 | 406.76 | 283.19 | 739.77 | 691.18 | 48.59 | 15.225 | | | |
| 6,700.00 | 6,540.04 | 6,661.68 | 6,645.76 | 29.80 | 24.43 | 159.88 | 415.89 | 282.70 | 757.96 | 708.52 | 49.44 | 15.331 | | | |
| 6,764.28 | 6,601.58 | 6,763.11 | 6,740.47 | 30.17 | 24.67 | 163.00 | 420.62 | 227.07 | 765.33 | 715.66 | 49.66 | 15.410 | | | |
| 6,800.00 | 6,635.75 | 6,814.03 | 6,785.27 | 30.37 | 24.77 | 176.91 | 422.80 | 203.00 | 768.90 | 719.13 | 49.78 | 15.447 | | | |
| 6,850.00 | 6,683.35 | 6,880.71 | 6,840.39 | 30.66 | 24.89 | -165.27 | 425.41 | 165.64 | 774.23 | 724.26 | 49.97 | 15.494 | | | |
| 6,900.00 | 6,730.36 | 6,942.67 | 6,887.42 | 30.94 | 24.98 | -150.52 | 427.57 | 125.40 | 780.02 | 729.79 | 50.23 | 15.530 | | | |
| 6,950.00 | 6,776.41 | 7,000.59 | 6,927.21 | 31.21 | 25.07 | -138.78 | 429.33 | 83.40 | 786.31 | 735.75 | 50.56 | 15.553 | | | |
| 7,000.00 | 6,821.15 | 7,055.04 | 6,960.59 | 31.47 | 25.21 | -129.42 | 430.75 | 40.42 | 793.09 | 742.14 | 50.96 | 15.564 | | | |
| 7,050.00 | 6,864.24 | 7,106.55 | 6,988.29 | 31.73 | 25.46 | -121.82 | 431.85 | -2.98 | 800.33 | 748.91 | 51.42 | 15.566 | | | |
| 7,100.00 | 6,905.35 | 7,155.55 | 7,010.92 | 31.97 | 25.76 | -115.49 | 432.69 | -46.41 | 807.93 | 756.02 | 51.91 | 15.563 | | | |
| 7,150.00 | 6,944.18 | 7,202.41 | 7,029.02 | 32.21 | 26.08 | -110.12 | 433.29 | -89.61 | 815.81 | 763.37 | 52.44 | 15.558 | | | |
| 7,200.00 | 6,980.42 | 7,247.42 | 7,043.04 | 32.45 | 26.44 | -105.47 | 433.68 | -132.37 | 823.85 | 770.87 | 52.98 | 15.549 | | | |
| 7,250.00 | 7,013.80 | 7,290.83 | 7,053.35 | 32.68 | 26.82 | -101.40 | 433.87 | -174.53 | 831.94 | 778.40 | 53.54 | 15.538 | | | |
| 7,300.00 | 7,044.06 | 7,332.86 | 7,060.26 | 32.91 | 27.23 | -97.82 | 433.89 | -215.98 | 839.95 | 785.84 | 54.11 | 15.523 | | | |
| 7,350.00 | 7,070.98 | 7,373.69 | 7,064.05 | 33.15 | 27.65 | -94.64 | 433.75 | -256.62 | 847.76 | 793.08 | 54.69 | 15.502 | | | |
| 7,400.00 | 7,094.36 | 7,414.33 | 7,065.00 | 33.39 | 28.10 | -91.81 | 433.46 | -297.24 | 855.25 | 799.97 | 55.29 | 15.469 | | | |
| 7,450.00 | 7,114.00 | 7,459.91 | 7,065.00 | 33.65 | 28.66 | -89.28 | 433.08 | -342.82 | 862.09 | 806.04 | 56.05 | 15.381 | | | |
| 7,500.00 | 7,129.76 | 7,507.10 | 7,065.00 | 33.93 | 29.25 | -87.24 | 432.68 | -390.01 | 867.89 | 810.98 | 56.90 | 15.252 | | | |
| 7,550.00 | 7,141.53 | 7,555.55 | 7,065.00 | 34.22 | 29.92 | -85.72 | 432.28 | -438.45 | 872.40 | 814.46 | 57.93 | 15.059 | | | |
| 7,600.00 | 7,149.21 | 7,604.88 | 7,065.00 | 34.55 | 30.62 | -84.73 | 431.86 | -487.79 | 875.42 | 816.36 | 59.06 | 14.822 | | | |
| 7,650.00 | 7,152.75 | 7,654.73 | 7,065.00 | 34.90 | 31.41 | -84.27 | 431.45 | -537.63 | 876.84 | 816.48 | 60.37 | 14.525 | | | |
| 7,667.38 | 7,153.00 | 7,672.11 | 7,065.00 | 35.04 | 31.68 | -84.24 | 431.30 | -555.01 | 876.95 | 816.11 | 60.84 | 14.414 | | | |
| 7,700.00 | 7,153.00 | 7,704.73 | 7,065.00 | 35.29 | 32.20 | -84.24 | 431.03 | -587.63 | 876.95 | 815.20 | 61.75 | 14.201 | | | |
| 7,800.00 | 7,153.00 | 7,804.73 | 7,065.00 | 36.22 | 33.92 | -84.24 | 430.19 | -687.62 | 876.97 | 812.15 | 64.82 | 13.529 | | | |
| 7,900.00 | 7,153.00 | 7,904.73 | 7,065.00 | 37.35 | 35.76 | -84.24 | 429.35 | -787.62 | 876.99 | 808.81 | 68.18 | 12.863 | | | |
| 8,000.00 | 7,153.00 | 8,004.73 | 7,065.00 | 38.67 | 37.71 | -84.24 | 428.51 | -887.62 | 877.01 | 805.22 | 71.79 | 12.216 | | | |
| 8,100.00 | 7,153.00 | 8,104.73 | 7,065.00 | 40.16 | 39.75 | -84.24 | 427.67 | -987.61 | 877.03 | 801.41 | 75.62 | 11.598 | | | |
| 8,200.00 | 7,153.00 | 8,204.73 | 7,065.00 | 41.81 | 41.86 | -84.24 | 426.84 | -1,087.61 | 877.05 | 797.42 | 79.63 | 11.014 | | | |
| 8,300.00 | 7,153.00 | 8,304.73 | 7,065.00 | 43.59 | 44.05 | -84.24 | 426.00 | -1,187.61 | 877.07 | 793.27 | 83.80 | 10.466 | | | |
| 8,400.00 | 7,153.00 | 8,404.73 | 7,065.00 | 45.47 | 46.29 | -84.24 | 425.16 | -1,287.60 | 877.09 | 788.98 | 88.11 | 9.955 | | | |
| 8,500.00 | 7,153.00 | 8,504.73 | 7,065.00 | 47.45 | 48.57 | -84.24 | 424.32 | -1,387.60 | 877.11 | 784.57 | 92.53 | 9.479 | | | |
| 8,600.00 | 7,153.00 | 8,604.73 | 7,065.00 | 49.51 | 50.91 | -84.24 | 423.48 | -1,487.60 | 877.13 | 780.07 | 97.06 | 9.037 | | | |
| 8,700.00 | 7,153.00 | 8,704.73 | 7,065.00 | 51.64 | 53.27 | -84.24 | 422.65 | -1,587.59 | 877.15 | 775.47 | 101.67 | 8.627 | | | |
| 8,800.00 | 7,153.00 | 8,804.73 | 7,065.00 | 53.82 | 55.67 | -84.24 | 421.81 | -1,687.59 | 877.17 | 770.80 | 106.36 | 8.247 | | | |
| 8,900.00 | 7,153.00 | 8,904.73 | 7,065.00 | 56.06 | 58.10 | -84.24 | 420.97 | -1,787.58 | 877.19 | 766.07 | 111.12 | 7.894 | | | |
| 9,000.00 | 7,153.00 | 9,004.73 | 7,065.00 | 58.34 | 60.56 | -84.24 | 420.13 | -1,887.58 | 877.21 | 761.27 | 115.93 | 7.566 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-9H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Separation Factor | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | | | |
| 9,100.00 | 7,153.00 | 9,104.73 | 7,065.00 | 60.66 | 63.03 | -84.24 | 419.29 | -1,987.58 | 877.23 | 756.42 | 120.80 | 7.262 | | |
| 9,200.00 | 7,153.00 | 9,204.73 | 7,065.00 | 63.01 | 65.53 | -84.24 | 418.45 | -2,087.57 | 877.24 | 751.53 | 125.71 | 6.978 | | |
| 9,300.00 | 7,153.00 | 9,304.73 | 7,065.00 | 65.40 | 68.04 | -84.24 | 417.62 | -2,187.57 | 877.26 | 746.60 | 130.66 | 6.714 | | |
| 9,400.00 | 7,153.00 | 9,404.73 | 7,065.00 | 67.81 | 70.57 | -84.24 | 416.78 | -2,287.57 | 877.28 | 741.63 | 135.65 | 6.467 | | |
| 9,500.00 | 7,153.00 | 9,504.73 | 7,065.00 | 70.24 | 73.11 | -84.24 | 415.94 | -2,387.56 | 877.30 | 736.63 | 140.67 | 6.237 | | |
| 9,600.00 | 7,153.00 | 9,604.73 | 7,065.00 | 72.70 | 75.66 | -84.24 | 415.10 | -2,487.56 | 877.32 | 731.60 | 145.72 | 6.021 | | |
| 9,700.00 | 7,153.00 | 9,704.73 | 7,065.00 | 75.17 | 78.23 | -84.24 | 414.26 | -2,587.56 | 877.34 | 726.55 | 150.79 | 5.818 | | |
| 9,800.00 | 7,153.00 | 9,804.73 | 7,065.00 | 77.67 | 80.80 | -84.24 | 413.43 | -2,687.55 | 877.36 | 721.47 | 155.89 | 5.628 | | |
| 9,900.00 | 7,153.00 | 9,904.73 | 7,065.00 | 80.17 | 83.39 | -84.24 | 412.59 | -2,787.55 | 877.38 | 716.37 | 161.01 | 5.449 | | |
| 10,000.00 | 7,153.00 | 10,004.73 | 7,065.00 | 82.69 | 85.98 | -84.24 | 411.75 | -2,887.55 | 877.40 | 711.26 | 166.14 | 5.281 | | |
| 10,100.00 | 7,153.00 | 10,104.73 | 7,065.00 | 85.23 | 88.58 | -84.24 | 410.91 | -2,987.54 | 877.42 | 706.12 | 171.30 | 5.122 | | |
| 10,200.00 | 7,153.00 | 10,204.73 | 7,065.00 | 87.77 | 91.19 | -84.24 | 410.07 | -3,087.54 | 877.44 | 700.97 | 176.47 | 4.972 | | |
| 10,300.00 | 7,153.00 | 10,304.73 | 7,065.00 | 90.33 | 93.81 | -84.24 | 409.24 | -3,187.54 | 877.46 | 695.81 | 181.65 | 4.830 | | |
| 10,400.00 | 7,153.00 | 10,404.73 | 7,065.00 | 92.89 | 96.43 | -84.24 | 408.40 | -3,287.53 | 877.48 | 690.63 | 186.85 | 4.696 | | |
| 10,500.00 | 7,153.00 | 10,504.73 | 7,065.00 | 95.47 | 99.05 | -84.24 | 407.56 | -3,387.53 | 877.50 | 685.44 | 192.06 | 4.569 | | |
| 10,600.00 | 7,153.00 | 10,604.73 | 7,065.00 | 98.05 | 101.68 | -84.24 | 406.72 | -3,487.53 | 877.52 | 680.24 | 197.28 | 4.448 | | |
| 10,700.00 | 7,153.00 | 10,704.73 | 7,065.00 | 100.64 | 104.32 | -84.24 | 405.88 | -3,587.52 | 877.54 | 675.02 | 202.51 | 4.333 | | |
| 10,800.00 | 7,153.00 | 10,804.73 | 7,065.00 | 103.24 | 106.96 | -84.24 | 405.04 | -3,687.52 | 877.56 | 669.80 | 207.75 | 4.224 | | |
| 10,900.00 | 7,153.00 | 10,904.73 | 7,065.00 | 105.84 | 109.60 | -84.24 | 404.21 | -3,787.51 | 877.57 | 664.57 | 213.00 | 4.120 | | |
| 11,000.00 | 7,153.00 | 11,004.73 | 7,065.00 | 108.45 | 112.25 | -84.25 | 403.37 | -3,887.51 | 877.59 | 659.33 | 218.26 | 4.021 | | |
| 11,100.00 | 7,153.00 | 11,104.73 | 7,065.00 | 111.07 | 114.90 | -84.25 | 402.53 | -3,987.51 | 877.61 | 654.09 | 223.53 | 3.926 | | |
| 11,200.00 | 7,153.00 | 11,204.73 | 7,065.00 | 113.69 | 117.56 | -84.25 | 401.69 | -4,087.50 | 877.63 | 648.83 | 228.80 | 3.836 | | |
| 11,300.00 | 7,153.00 | 11,304.73 | 7,065.00 | 116.31 | 120.21 | -84.25 | 400.85 | -4,187.50 | 877.65 | 643.57 | 234.08 | 3.749 | | |
| 11,400.00 | 7,153.00 | 11,404.73 | 7,065.00 | 118.94 | 122.87 | -84.25 | 400.02 | -4,287.50 | 877.67 | 638.31 | 239.36 | 3.667 | | |
| 11,500.00 | 7,153.00 | 11,504.73 | 7,065.00 | 121.57 | 125.54 | -84.25 | 399.18 | -4,387.49 | 877.69 | 633.04 | 244.65 | 3.587 | | |
| 11,600.00 | 7,153.00 | 11,604.73 | 7,065.00 | 124.21 | 128.20 | -84.25 | 398.34 | -4,487.49 | 877.71 | 627.76 | 249.95 | 3.512 | | |
| 11,700.00 | 7,153.00 | 11,704.73 | 7,065.00 | 126.85 | 130.87 | -84.25 | 397.50 | -4,587.49 | 877.73 | 622.48 | 255.25 | 3.439 | | |
| 11,800.00 | 7,153.00 | 11,804.73 | 7,065.00 | 129.49 | 133.54 | -84.25 | 396.66 | -4,687.48 | 877.75 | 617.19 | 260.56 | 3.369 | | |
| 11,900.00 | 7,153.00 | 11,904.73 | 7,065.00 | 132.14 | 136.21 | -84.25 | 395.83 | -4,787.48 | 877.77 | 611.90 | 265.87 | 3.301 | | |
| 12,000.00 | 7,153.00 | 12,004.73 | 7,065.00 | 134.79 | 138.89 | -84.25 | 394.99 | -4,887.48 | 877.79 | 606.60 | 271.19 | 3.237 | | |
| 12,100.00 | 7,153.00 | 12,104.73 | 7,065.00 | 137.44 | 141.56 | -84.25 | 394.15 | -4,987.47 | 877.81 | 601.30 | 276.51 | 3.175 | | |
| 12,200.00 | 7,153.00 | 12,204.73 | 7,065.00 | 140.10 | 144.24 | -84.25 | 393.31 | -5,087.47 | 877.83 | 596.00 | 281.83 | 3.115 | | |
| 12,300.00 | 7,153.00 | 12,304.73 | 7,065.00 | 142.76 | 146.92 | -84.25 | 392.47 | -5,187.47 | 877.85 | 590.69 | 287.16 | 3.057 | | |
| 12,400.00 | 7,153.00 | 12,404.73 | 7,065.00 | 145.42 | 149.60 | -84.25 | 391.63 | -5,287.46 | 877.87 | 585.38 | 292.49 | 3.001 | | |
| 12,500.00 | 7,153.00 | 12,504.73 | 7,065.00 | 148.08 | 152.28 | -84.25 | 390.80 | -5,387.46 | 877.89 | 580.07 | 297.82 | 2.948 | | |
| 12,600.00 | 7,153.00 | 12,604.73 | 7,065.00 | 150.75 | 154.96 | -84.25 | 389.96 | -5,487.45 | 877.90 | 574.75 | 303.15 | 2.896 | | |
| 12,700.00 | 7,153.00 | 12,704.73 | 7,065.00 | 153.41 | 157.65 | -84.25 | 389.12 | -5,587.45 | 877.92 | 569.43 | 308.49 | 2.846 | | |
| 12,800.00 | 7,153.00 | 12,804.73 | 7,065.00 | 156.08 | 160.33 | -84.25 | 388.28 | -5,687.45 | 877.94 | 564.11 | 313.83 | 2.797 | | |
| 12,900.00 | 7,153.00 | 12,904.73 | 7,065.00 | 158.75 | 163.02 | -84.25 | 387.44 | -5,787.44 | 877.96 | 558.78 | 319.18 | 2.751 | | |
| 13,000.00 | 7,153.00 | 13,004.73 | 7,065.00 | 161.42 | 165.71 | -84.25 | 386.61 | -5,887.44 | 877.98 | 553.46 | 324.53 | 2.705 | | |
| 13,100.00 | 7,153.00 | 13,104.73 | 7,065.00 | 164.10 | 168.40 | -84.25 | 385.77 | -5,987.44 | 878.00 | 548.13 | 329.87 | 2.662 | | |
| 13,200.00 | 7,153.00 | 13,204.73 | 7,065.00 | 166.77 | 171.09 | -84.25 | 384.93 | -6,087.43 | 878.02 | 542.80 | 335.23 | 2.619 | | |
| 13,300.00 | 7,153.00 | 13,304.73 | 7,065.00 | 169.45 | 173.78 | -84.25 | 384.09 | -6,187.43 | 878.04 | 537.46 | 340.58 | 2.578 | | |
| 13,400.00 | 7,153.00 | 13,404.73 | 7,065.00 | 172.13 | 176.47 | -84.25 | 383.25 | -6,287.43 | 878.06 | 532.13 | 345.93 | 2.538 | | |
| 13,500.00 | 7,153.00 | 13,504.73 | 7,065.00 | 174.81 | 179.17 | -84.25 | 382.42 | -6,387.42 | 878.08 | 526.79 | 351.29 | 2.500 | | |
| 13,600.00 | 7,153.00 | 13,604.73 | 7,065.00 | 177.49 | 181.86 | -84.25 | 381.58 | -6,487.42 | 878.10 | 521.45 | 356.65 | 2.462 | | |
| 13,700.00 | 7,153.00 | 13,704.73 | 7,065.00 | 180.17 | 184.55 | -84.25 | 380.74 | -6,587.42 | 878.12 | 516.11 | 362.01 | 2.426 | | |
| 13,800.00 | 7,153.00 | 13,804.73 | 7,065.00 | 182.86 | 187.25 | -84.25 | 379.90 | -6,687.41 | 878.14 | 510.76 | 367.37 | 2.390 | | |
| 13,900.00 | 7,153.00 | 13,904.73 | 7,065.00 | 185.54 | 189.95 | -84.25 | 379.06 | -6,787.41 | 878.16 | 505.42 | 372.74 | 2.356 | | |
| 14,000.00 | 7,153.00 | 14,004.73 | 7,065.00 | 188.23 | 192.64 | -84.25 | 378.22 | -6,887.41 | 878.18 | 500.07 | 378.10 | 2.323 | | |
| 14,100.00 | 7,153.00 | 14,104.73 | 7,065.00 | 190.91 | 195.34 | -84.25 | 377.39 | -6,987.40 | 878.20 | 494.73 | 383.47 | 2.290 | | |
| 14,200.00 | 7,153.00 | 14,204.73 | 7,065.00 | 193.60 | 198.04 | -84.25 | 376.55 | -7,087.40 | 878.22 | 489.38 | 388.84 | 2.259 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-10-9H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 14,300.00 | 7,153.00 | 14,304.73 | 7,065.00 | 196.29 | 200.74 | -84.25 | 375.71 | -7,187.40 | 878.23 | 484.03 | 394.21 | 2.228 | | |
| 14,400.00 | 7,153.00 | 14,404.73 | 7,065.00 | 198.98 | 203.44 | -84.25 | 374.87 | -7,287.39 | 878.25 | 478.68 | 399.58 | 2.198 | | |
| 14,500.00 | 7,153.00 | 14,504.73 | 7,065.00 | 201.67 | 206.14 | -84.25 | 374.03 | -7,387.39 | 878.27 | 473.32 | 404.95 | 2.169 | | |
| 14,600.00 | 7,153.00 | 14,604.73 | 7,065.00 | 204.36 | 208.84 | -84.25 | 373.20 | -7,487.38 | 878.29 | 467.97 | 410.32 | 2.140 | | |
| 14,700.00 | 7,153.00 | 14,704.73 | 7,065.00 | 207.05 | 211.54 | -84.25 | 372.36 | -7,587.38 | 878.31 | 462.61 | 415.70 | 2.113 | | |
| 14,800.00 | 7,153.00 | 14,804.73 | 7,065.00 | 209.75 | 214.24 | -84.25 | 371.52 | -7,687.38 | 878.33 | 457.26 | 421.07 | 2.086 | | |
| 14,900.00 | 7,153.00 | 14,904.73 | 7,065.00 | 212.44 | 216.95 | -84.25 | 370.68 | -7,787.37 | 878.35 | 451.90 | 426.45 | 2.060 | | |
| 15,000.00 | 7,153.00 | 15,004.73 | 7,065.00 | 215.13 | 219.65 | -84.25 | 369.84 | -7,887.37 | 878.37 | 446.54 | 431.83 | 2.034 | | |
| 15,100.00 | 7,153.00 | 15,104.73 | 7,065.00 | 217.83 | 222.35 | -84.25 | 369.01 | -7,987.37 | 878.39 | 441.18 | 437.21 | 2.009 | | |
| 15,200.00 | 7,153.00 | 15,204.73 | 7,065.00 | 220.53 | 225.05 | -84.25 | 368.17 | -8,087.36 | 878.41 | 435.82 | 442.59 | 1.985 | | |
| 15,300.00 | 7,153.00 | 15,304.73 | 7,065.00 | 223.22 | 227.76 | -84.25 | 367.33 | -8,187.36 | 878.43 | 430.46 | 447.97 | 1.961 | | |
| 15,400.00 | 7,153.00 | 15,404.73 | 7,065.00 | 225.92 | 230.46 | -84.25 | 366.49 | -8,287.36 | 878.45 | 425.10 | 453.35 | 1.938 | | |
| 15,455.54 | 7,153.00 | 15,460.27 | 7,065.00 | 227.42 | 231.97 | -84.25 | 366.03 | -8,342.90 | 878.46 | 422.12 | 456.34 | 1.925 SF | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-1H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|--------------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|-------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: Reference | | 0-OWSG (Rev2) MWD Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Rule Assigned: Distance | | | Separation Factor | Offset Well Error: | 0.00 usft |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | | Warning | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 94.73 | 0.00 | 94.73 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.00 | 94.73 | 0.00 | 94.73 | 94.44 | 0.29 | 330.311 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.00 | 94.73 | 0.00 | 94.73 | 93.72 | 1.00 | 94.375 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 0.00 | 94.73 | 0.00 | 94.73 | 93.01 | 1.72 | 55.052 | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.22 | 1.22 | 0.00 | 94.73 | 0.00 | 94.73 | 92.29 | 2.44 | 38.860 | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.58 | 1.58 | 0.00 | 94.73 | 0.00 | 94.73 | 91.57 | 3.15 | 30.028 | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.94 | 1.94 | 0.00 | 94.73 | 0.00 | 94.73 | 90.85 | 3.87 | 24.467 | | |
| 700.00 | 700.00 | 700.00 | 700.00 | 2.29 | 2.29 | 0.00 | 94.73 | 0.00 | 94.73 | 90.14 | 4.59 | 20.644 | | |
| 800.00 | 800.00 | 800.00 | 800.00 | 2.65 | 2.65 | 0.00 | 94.73 | 0.00 | 94.73 | 89.42 | 5.31 | 17.855 | | |
| 900.00 | 900.00 | 900.00 | 900.00 | 3.01 | 3.01 | 0.00 | 94.73 | 0.00 | 94.73 | 88.70 | 6.02 | 15.729 | | |
| 1,000.00 | 1,000.00 | 1,000.00 | 1,000.00 | 3.37 | 3.37 | 0.00 | 94.73 | 0.00 | 94.73 | 87.99 | 6.74 | 14.056 | | |
| 1,100.00 | 1,100.00 | 1,100.00 | 1,100.00 | 3.73 | 3.73 | 0.00 | 94.73 | 0.00 | 94.73 | 87.27 | 7.46 | 12.704 | | |
| 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 4.09 | 4.09 | 0.00 | 94.73 | 0.00 | 94.73 | 86.55 | 8.17 | 11.590 | | |
| 1,203.34 | 1,203.34 | 1,203.34 | 1,203.34 | 4.10 | 4.10 | 0.00 | 94.73 | 0.00 | 94.73 | 86.53 | 8.20 | 11.556 CC | | |
| 1,300.00 | 1,300.00 | 1,298.44 | 1,298.44 | 4.45 | 4.44 | 0.06 | 95.12 | 0.09 | 95.14 | 86.25 | 8.88 | 10.709 ES | | |
| 1,400.00 | 1,400.00 | 1,395.20 | 1,395.14 | 4.80 | 4.79 | 0.49 | 98.31 | 0.85 | 98.43 | 88.85 | 9.58 | 10.273 | | |
| 1,500.00 | 1,500.00 | 1,491.63 | 1,491.34 | 5.16 | 5.13 | 1.28 | 104.64 | 2.34 | 105.02 | 94.75 | 10.27 | 10.228 | | |
| 1,600.00 | 1,600.00 | 1,587.52 | 1,586.74 | 5.52 | 5.48 | 2.29 | 114.05 | 4.56 | 114.91 | 103.97 | 10.94 | 10.502 | | |
| 1,700.00 | 1,700.00 | 1,682.65 | 1,681.01 | 5.88 | 5.82 | 3.39 | 126.46 | 7.50 | 128.10 | 116.50 | 11.60 | 11.041 | | |
| 1,800.00 | 1,800.00 | 1,776.83 | 1,773.87 | 6.24 | 6.18 | 4.48 | 141.74 | 11.10 | 144.55 | 132.31 | 12.24 | 11.806 | | |
| 1,900.00 | 1,900.00 | 1,869.88 | 1,865.05 | 6.60 | 6.55 | 5.49 | 159.74 | 15.36 | 164.24 | 151.37 | 12.87 | 12.760 | | |
| 2,000.00 | 2,000.00 | 1,961.61 | 1,954.32 | 6.95 | 6.92 | 6.40 | 180.30 | 20.21 | 187.09 | 173.61 | 13.48 | 13.878 | | |
| 2,100.00 | 2,100.00 | 2,051.88 | 2,041.45 | 7.31 | 7.32 | 7.19 | 203.24 | 25.63 | 213.05 | 198.98 | 14.07 | 15.139 | | |
| 2,200.00 | 2,200.00 | 2,140.54 | 2,126.27 | 7.67 | 7.72 | 7.87 | 228.35 | 31.56 | 242.03 | 227.38 | 14.65 | 16.526 | | |
| 2,300.00 | 2,300.00 | 2,227.48 | 2,208.62 | 8.03 | 8.15 | 8.45 | 255.45 | 37.96 | 273.95 | 258.75 | 15.20 | 18.022 | | |
| 2,400.00 | 2,400.00 | 2,312.58 | 2,288.38 | 8.39 | 8.59 | 8.95 | 284.32 | 44.78 | 308.71 | 292.97 | 15.74 | 19.616 | | |
| 2,500.00 | 2,499.98 | 2,400.00 | 2,369.36 | 8.75 | 9.07 | 8.72 | 316.36 | 52.35 | 344.65 | 328.33 | 16.32 | 21.117 | | |
| 2,600.00 | 2,599.84 | 2,479.31 | 2,441.93 | 9.11 | 9.54 | 9.07 | 347.50 | 59.70 | 380.06 | 363.30 | 16.76 | 22.677 | | |
| 2,700.00 | 2,699.45 | 2,561.55 | 2,516.21 | 9.46 | 10.06 | 9.43 | 381.84 | 67.81 | 414.99 | 397.74 | 17.25 | 24.054 | | |
| 2,800.00 | 2,798.70 | 2,643.06 | 2,588.81 | 9.82 | 10.60 | 9.81 | 417.91 | 76.33 | 449.41 | 431.67 | 17.74 | 25.339 | | |
| 2,900.00 | 2,897.47 | 2,723.89 | 2,659.72 | 10.18 | 11.17 | 10.18 | 455.65 | 85.24 | 483.28 | 465.07 | 18.21 | 26.540 | | |
| 3,000.00 | 2,995.62 | 2,800.00 | 2,725.48 | 10.55 | 11.73 | 10.53 | 492.95 | 94.05 | 516.63 | 498.03 | 18.60 | 27.778 | | |
| 3,100.00 | 3,093.06 | 2,883.59 | 2,796.49 | 10.94 | 12.38 | 10.94 | 535.87 | 104.19 | 549.38 | 530.25 | 19.14 | 28.710 | | |
| 3,200.00 | 3,189.64 | 2,962.52 | 2,862.33 | 11.34 | 13.03 | 11.31 | 578.22 | 114.19 | 581.57 | 561.98 | 19.59 | 29.686 | | |
| 3,240.86 | 3,228.84 | 3,000.00 | 2,893.18 | 11.50 | 13.34 | 11.50 | 598.94 | 119.09 | 594.59 | 574.71 | 19.88 | 29.914 | | |
| 3,300.00 | 3,285.45 | 3,040.70 | 2,926.35 | 11.75 | 13.70 | 11.76 | 621.90 | 124.51 | 613.74 | 593.70 | 20.04 | 30.621 | | |
| 3,400.00 | 3,381.17 | 3,117.49 | 2,988.01 | 12.19 | 14.39 | 12.21 | 666.43 | 135.03 | 648.24 | 627.75 | 20.49 | 31.631 | | |
| 3,500.00 | 3,476.90 | 3,198.91 | 3,052.14 | 12.63 | 15.14 | 12.64 | 715.26 | 146.56 | 685.12 | 664.06 | 21.06 | 32.534 | | |
| 3,600.00 | 3,572.62 | 3,291.50 | 3,124.76 | 13.09 | 16.03 | 13.08 | 771.15 | 159.76 | 722.56 | 700.70 | 21.86 | 33.060 | | |
| 3,700.00 | 3,668.34 | 3,384.10 | 3,197.39 | 13.56 | 16.93 | 13.48 | 827.05 | 172.96 | 760.03 | 737.36 | 22.67 | 33.532 | | |
| 3,800.00 | 3,764.07 | 3,476.69 | 3,270.02 | 14.04 | 17.84 | 13.84 | 882.94 | 186.16 | 797.53 | 774.04 | 23.49 | 33.959 | | |
| 3,900.00 | 3,859.79 | 3,569.28 | 3,342.64 | 14.52 | 18.76 | 14.17 | 938.84 | 199.36 | 835.05 | 810.74 | 24.31 | 34.344 | | |
| 4,000.00 | 3,955.51 | 3,661.87 | 3,415.27 | 15.02 | 19.69 | 14.47 | 994.73 | 212.57 | 872.59 | 847.44 | 25.15 | 34.693 | | |
| 4,100.00 | 4,051.24 | 3,754.46 | 3,487.89 | 15.52 | 20.63 | 14.75 | 1,050.63 | 225.77 | 910.16 | 884.16 | 26.00 | 35.009 | | |
| 4,200.00 | 4,146.96 | 3,847.05 | 3,560.52 | 16.03 | 21.58 | 15.00 | 1,106.52 | 238.97 | 947.74 | 920.89 | 26.85 | 35.297 | | |
| 4,300.00 | 4,242.68 | 3,939.64 | 3,633.15 | 16.54 | 22.53 | 15.24 | 1,162.42 | 252.17 | 985.34 | 957.63 | 27.71 | 35.559 | | |
| 4,400.00 | 4,338.41 | 4,032.23 | 3,705.77 | 17.06 | 23.49 | 15.46 | 1,218.31 | 265.37 | 1,022.95 | 994.37 | 28.57 | 35.799 | | |
| 4,500.00 | 4,434.13 | 4,124.82 | 3,778.40 | 17.59 | 24.45 | 15.66 | 1,274.21 | 278.57 | 1,060.57 | 1,031.12 | 29.45 | 36.018 | | |
| 4,600.00 | 4,529.85 | 4,217.41 | 3,851.02 | 18.11 | 25.41 | 15.85 | 1,330.10 | 291.77 | 1,098.20 | 1,067.88 | 30.32 | 36.218 | | |
| 4,700.00 | 4,625.58 | 4,310.00 | 3,923.65 | 18.65 | 26.38 | 16.02 | 1,386.00 | 304.98 | 1,135.84 | 1,104.64 | 31.20 | 36.403 | | |
| 4,800.00 | 4,721.30 | 4,402.60 | 3,996.28 | 19.18 | 27.36 | 16.19 | 1,441.89 | 318.18 | 1,173.49 | 1,141.40 | 32.09 | 36.572 | | |
| 4,900.00 | 4,817.02 | 4,495.19 | 4,068.90 | 19.72 | 28.33 | 16.34 | 1,497.79 | 331.38 | 1,211.15 | 1,178.17 | 32.98 | 36.728 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-1H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|--|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | | |
| 5,000.00 | 4,912.74 | 4,587.78 | 4,141.53 | 20.27 | 29.31 | 16.49 | 1,553.68 | 344.58 | 1,248.81 | 1,214.94 | 33.87 | 36.872 | | | | |
| 5,100.00 | 5,008.47 | 4,680.37 | 4,214.16 | 20.81 | 30.29 | 16.62 | 1,609.58 | 357.78 | 1,286.48 | 1,251.72 | 34.76 | 37.005 | | | | |
| 5,200.00 | 5,104.19 | 4,772.96 | 4,286.78 | 21.36 | 31.27 | 16.75 | 1,665.47 | 370.98 | 1,324.16 | 1,288.49 | 35.66 | 37.129 | | | | |
| 5,300.00 | 5,199.91 | 4,865.55 | 4,359.41 | 21.91 | 32.26 | 16.87 | 1,721.37 | 384.18 | 1,361.84 | 1,325.27 | 36.57 | 37.243 | | | | |
| 5,400.00 | 5,295.64 | 4,958.14 | 4,432.03 | 22.46 | 33.25 | 16.99 | 1,777.26 | 397.39 | 1,399.53 | 1,362.06 | 37.47 | 37.349 | | | | |
| 5,500.00 | 5,391.36 | 5,050.73 | 4,504.66 | 23.02 | 34.23 | 17.10 | 1,833.16 | 410.59 | 1,437.22 | 1,398.84 | 38.38 | 37.448 | | | | |
| 5,600.00 | 5,487.08 | 5,143.32 | 4,577.29 | 23.58 | 35.22 | 17.20 | 1,889.05 | 423.79 | 1,474.92 | 1,435.63 | 39.29 | 37.540 | | | | |
| 5,700.00 | 5,582.81 | 5,235.91 | 4,649.91 | 24.13 | 36.21 | 17.30 | 1,944.95 | 436.99 | 1,512.62 | 1,472.41 | 40.20 | 37.626 | | | | |
| 5,800.00 | 5,678.53 | 5,328.50 | 4,722.54 | 24.70 | 37.21 | 17.39 | 2,000.84 | 450.19 | 1,550.32 | 1,509.20 | 41.12 | 37.706 | | | | |
| 5,900.00 | 5,774.25 | 5,421.09 | 4,795.16 | 25.26 | 38.20 | 17.48 | 2,056.74 | 463.39 | 1,588.03 | 1,545.99 | 42.03 | 37.780 | | | | |
| 6,000.00 | 5,869.98 | 5,513.69 | 4,867.79 | 25.82 | 39.19 | 17.57 | 2,112.63 | 476.59 | 1,625.74 | 1,582.78 | 42.95 | 37.850 | | | | |
| 6,100.00 | 5,965.70 | 5,606.28 | 4,940.42 | 26.39 | 40.19 | 17.65 | 2,168.53 | 489.80 | 1,663.45 | 1,619.58 | 43.87 | 37.916 | | | | |
| 6,200.00 | 6,061.42 | 5,698.87 | 5,013.04 | 26.95 | 41.19 | 17.72 | 2,224.42 | 503.00 | 1,701.16 | 1,656.37 | 44.79 | 37.977 | | | | |
| 6,300.00 | 6,157.15 | 5,791.46 | 5,085.67 | 27.52 | 42.18 | 17.80 | 2,280.32 | 516.20 | 1,738.88 | 1,693.17 | 45.72 | 38.035 | | | | |
| 6,400.00 | 6,252.87 | 5,884.05 | 5,158.29 | 28.09 | 43.18 | 17.87 | 2,336.21 | 529.40 | 1,776.60 | 1,729.96 | 46.64 | 38.089 | | | | |
| 6,500.00 | 6,348.59 | 5,976.64 | 5,230.92 | 28.66 | 44.18 | 17.94 | 2,392.11 | 542.60 | 1,814.33 | 1,766.76 | 47.57 | 38.140 | | | | |
| 6,600.00 | 6,444.32 | 6,069.23 | 5,303.55 | 29.23 | 45.18 | 18.00 | 2,448.00 | 555.80 | 1,852.05 | 1,803.55 | 48.50 | 38.188 | | | | |
| 6,700.00 | 6,540.04 | 6,161.82 | 5,376.17 | 29.80 | 46.18 | 18.07 | 2,503.90 | 569.00 | 1,889.78 | 1,840.35 | 49.43 | 38.233 | | | | |
| 6,764.28 | 6,601.58 | 6,221.34 | 5,422.86 | 30.17 | 46.82 | 18.10 | 2,539.83 | 577.49 | 1,914.03 | 1,864.01 | 50.03 | 38.260 | | | | |
| 6,800.00 | 6,635.75 | 6,254.23 | 5,448.66 | 30.37 | 47.18 | 18.43 | 2,559.68 | 582.18 | 1,927.84 | 1,877.47 | 50.37 | 38.276 | | | | |
| 6,850.00 | 6,683.35 | 6,299.50 | 5,484.17 | 30.66 | 47.67 | 18.43 | 2,587.01 | 588.63 | 1,948.21 | 1,897.34 | 50.87 | 38.301 | | | | |
| 6,900.00 | 6,730.36 | 6,343.55 | 5,518.72 | 30.94 | 48.14 | 18.43 | 2,613.60 | 594.91 | 1,969.69 | 1,918.30 | 51.39 | 38.328 | | | | |
| 6,950.00 | 6,776.41 | 6,386.05 | 5,552.05 | 31.21 | 48.60 | 18.43 | 2,639.26 | 600.97 | 1,992.18 | 1,940.24 | 51.94 | 38.354 | | | | |
| 7,000.00 | 6,821.15 | 6,426.68 | 5,583.92 | 31.47 | 49.04 | 18.43 | 2,663.78 | 606.77 | 2,015.59 | 1,963.07 | 52.52 | 38.378 | | | | |
| 7,050.00 | 6,864.24 | 6,465.12 | 5,614.07 | 31.73 | 49.46 | 18.43 | 2,686.99 | 612.25 | 2,039.82 | 1,986.70 | 53.13 | 38.395 | | | | |
| 7,100.00 | 6,905.35 | 6,501.08 | 5,642.28 | 31.97 | 49.85 | 18.43 | 2,708.70 | 617.37 | 2,064.80 | 2,011.04 | 53.77 | 38.402 | | | | |
| 7,150.00 | 6,944.18 | 6,534.30 | 5,668.33 | 32.21 | 50.21 | 18.43 | 2,728.75 | 622.11 | 2,090.45 | 2,036.01 | 54.44 | 38.397 | | | | |
| 7,200.00 | 6,980.42 | 6,564.51 | 5,692.03 | 32.45 | 50.53 | 18.43 | 2,746.99 | 626.42 | 2,116.69 | 2,061.53 | 55.16 | 38.375 | | | | |
| 7,250.00 | 7,013.80 | 6,591.48 | 5,713.19 | 32.68 | 50.83 | 18.43 | 2,763.27 | 630.26 | 2,143.43 | 2,087.52 | 55.91 | 38.336 | | | | |
| 7,300.00 | 7,044.06 | 6,615.02 | 5,731.65 | 32.91 | 51.08 | 18.43 | 2,777.48 | 633.62 | 2,170.58 | 2,113.87 | 56.71 | 38.278 | | | | |
| 7,350.00 | 7,070.98 | 6,634.94 | 5,747.28 | 33.15 | 51.30 | 18.43 | 2,789.51 | 636.46 | 2,198.03 | 2,140.49 | 57.54 | 38.203 | | | | |
| 7,400.00 | 7,094.36 | 6,651.10 | 5,759.95 | 33.39 | 51.47 | 18.43 | 2,799.26 | 638.76 | 2,225.66 | 2,167.26 | 58.40 | 38.111 | | | | |
| 7,450.00 | 7,114.00 | 6,663.36 | 5,769.56 | 33.65 | 51.60 | 18.43 | 2,806.66 | 640.51 | 2,253.35 | 2,194.06 | 59.29 | 38.006 | | | | |
| 7,500.00 | 7,129.76 | 6,671.63 | 5,776.05 | 33.93 | 51.69 | 18.43 | 2,811.66 | 641.69 | 2,280.95 | 2,220.75 | 60.20 | 37.891 | | | | |
| 7,550.00 | 7,141.53 | 6,675.86 | 5,779.37 | 34.22 | 51.74 | 18.43 | 2,814.21 | 642.29 | 2,308.30 | 2,247.18 | 61.11 | 37.770 | | | | |
| 7,600.00 | 7,149.21 | 6,676.00 | 5,779.48 | 34.55 | 51.74 | 18.43 | 2,814.29 | 642.31 | 2,335.22 | 2,273.19 | 62.03 | 37.648 | | | | |
| 7,650.00 | 7,152.75 | 6,672.07 | 5,776.40 | 34.90 | 51.70 | 18.43 | 2,811.92 | 641.75 | 2,361.53 | 2,298.61 | 62.93 | 37.529 | | | | |
| 7,667.38 | 7,153.00 | 6,669.75 | 5,774.58 | 35.04 | 51.67 | 18.43 | 2,810.52 | 641.42 | 2,370.50 | 2,307.27 | 63.23 | 37.490 | | | | |
| 7,700.00 | 7,153.00 | 6,664.93 | 5,770.80 | 35.29 | 51.62 | 18.43 | 2,807.61 | 640.74 | 2,387.39 | 2,323.59 | 63.80 | 37.417 | | | | |
| 7,800.00 | 7,153.00 | 6,650.18 | 5,759.23 | 36.22 | 51.46 | 18.43 | 2,798.71 | 638.63 | 2,441.11 | 2,375.55 | 65.57 | 37.232 | | | | |
| 7,900.00 | 7,153.00 | 6,635.43 | 5,747.66 | 37.35 | 51.30 | 18.43 | 2,789.80 | 636.53 | 2,497.59 | 2,430.29 | 67.30 | 37.109 | | | | |
| 8,000.00 | 7,153.00 | 6,620.68 | 5,736.09 | 38.67 | 51.14 | 18.43 | 2,780.90 | 634.43 | 2,556.65 | 2,487.65 | 69.00 | 37.054 | | | | |
| 8,100.00 | 7,153.00 | 6,605.93 | 5,724.52 | 40.16 | 50.98 | 18.43 | 2,771.99 | 632.32 | 2,618.12 | 2,547.48 | 70.63 | 37.066 | | | | |
| 8,200.00 | 7,153.00 | 10,236.51 | 7,252.00 | 41.81 | 72.51 | 92.16 | 3,929.70 | -1,118.11 | 2,632.24 | 2,537.26 | 94.97 | 27.715 | | | | |
| 8,300.00 | 7,153.00 | 10,336.51 | 7,252.00 | 43.59 | 73.32 | 92.16 | 3,928.82 | -1,218.10 | 2,632.18 | 2,533.04 | 99.14 | 26.551 | | | | |
| 8,400.00 | 7,153.00 | 10,436.51 | 7,252.00 | 45.47 | 74.29 | 92.16 | 3,927.94 | -1,318.10 | 2,632.11 | 2,528.69 | 103.42 | 25.450 | | | | |
| 8,500.00 | 7,153.00 | 10,536.51 | 7,252.00 | 47.45 | 75.41 | 92.16 | 3,927.06 | -1,418.10 | 2,632.05 | 2,524.23 | 107.82 | 24.412 | | | | |
| 8,600.00 | 7,153.00 | 10,636.51 | 7,252.00 | 49.51 | 76.69 | 92.16 | 3,926.18 | -1,518.09 | 2,631.99 | 2,519.68 | 112.31 | 23.436 | | | | |
| 8,700.00 | 7,153.00 | 10,736.51 | 7,252.00 | 51.64 | 78.12 | 92.16 | 3,925.30 | -1,618.09 | 2,631.93 | 2,515.05 | 116.88 | 22.518 | | | | |
| 8,800.00 | 7,153.00 | 10,836.51 | 7,252.00 | 53.82 | 79.70 | 92.16 | 3,924.42 | -1,718.08 | 2,631.86 | 2,510.34 | 121.53 | 21.657 | | | | |
| 8,900.00 | 7,153.00 | 10,936.51 | 7,252.00 | 56.06 | 81.40 | 92.16 | 3,923.53 | -1,818.08 | 2,631.80 | 2,505.56 | 126.24 | 20.848 | | | | |
| 9,000.00 | 7,153.00 | 11,036.51 | 7,252.00 | 58.34 | 83.22 | 92.16 | 3,922.65 | -1,918.08 | 2,631.74 | 2,500.73 | 131.01 | 20.088 | | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-1H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------|-----------------|-----------------------------|------------------------------|-------------------------------|----------|--------|---------------------------------|----------------------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | +N/-S (usft) | +E/-W (usft) | | Between Centres (usft) | Between Ellipses (usft) | | | | | |
| 9,100.00 | 7,153.00 | 11,136.51 | 7,252.00 | 60.66 | 85.14 | 92.16 | 3,921.77 | -2,018.07 | 2,631.67 | 2,495.84 | 135.83 | 19.375 | | | |
| 9,200.00 | 7,153.00 | 11,236.51 | 7,252.00 | 63.01 | 87.14 | 92.16 | 3,920.89 | -2,118.07 | 2,631.61 | 2,490.91 | 140.70 | 18.704 | | | |
| 9,300.00 | 7,153.00 | 11,336.51 | 7,252.00 | 65.40 | 89.21 | 92.16 | 3,920.01 | -2,218.06 | 2,631.55 | 2,485.94 | 145.61 | 18.073 | | | |
| 9,400.00 | 7,153.00 | 11,436.51 | 7,252.00 | 67.81 | 91.35 | 92.16 | 3,919.13 | -2,318.06 | 2,631.49 | 2,480.93 | 150.55 | 17.479 | | | |
| 9,500.00 | 7,153.00 | 11,536.51 | 7,252.00 | 70.24 | 93.54 | 92.16 | 3,918.25 | -2,418.06 | 2,631.42 | 2,475.89 | 155.53 | 16.919 | | | |
| 9,600.00 | 7,153.00 | 11,636.51 | 7,252.00 | 72.70 | 95.77 | 92.16 | 3,917.37 | -2,518.05 | 2,631.36 | 2,470.82 | 160.54 | 16.391 | | | |
| 9,700.00 | 7,153.00 | 11,736.51 | 7,252.00 | 75.17 | 98.04 | 92.16 | 3,916.48 | -2,618.05 | 2,631.30 | 2,465.72 | 165.58 | 15.892 | | | |
| 9,800.00 | 7,153.00 | 11,836.51 | 7,252.00 | 77.67 | 100.35 | 92.16 | 3,915.60 | -2,718.05 | 2,631.24 | 2,460.60 | 170.64 | 15.420 | | | |
| 9,900.00 | 7,153.00 | 11,936.51 | 7,252.00 | 80.17 | 102.69 | 92.16 | 3,914.72 | -2,818.04 | 2,631.17 | 2,455.45 | 175.72 | 14.973 | | | |
| 10,000.00 | 7,153.00 | 12,036.51 | 7,252.00 | 82.69 | 105.06 | 92.16 | 3,913.84 | -2,918.04 | 2,631.11 | 2,450.28 | 180.83 | 14.550 | | | |
| 10,100.00 | 7,153.00 | 12,136.51 | 7,252.00 | 85.23 | 107.44 | 92.16 | 3,912.96 | -3,018.03 | 2,631.05 | 2,445.09 | 185.95 | 14.149 | | | |
| 10,200.00 | 7,153.00 | 12,236.51 | 7,252.00 | 87.77 | 109.85 | 92.16 | 3,912.08 | -3,118.03 | 2,630.98 | 2,439.89 | 191.10 | 13.768 | | | |
| 10,300.00 | 7,153.00 | 12,336.51 | 7,252.00 | 90.33 | 112.28 | 92.16 | 3,911.20 | -3,218.03 | 2,630.92 | 2,434.67 | 196.25 | 13.406 | | | |
| 10,400.00 | 7,153.00 | 12,436.51 | 7,252.00 | 92.89 | 114.73 | 92.16 | 3,910.31 | -3,318.02 | 2,630.86 | 2,429.43 | 201.43 | 13.061 | | | |
| 10,500.00 | 7,153.00 | 12,536.51 | 7,252.00 | 95.47 | 117.19 | 92.16 | 3,909.43 | -3,418.02 | 2,630.80 | 2,424.18 | 206.61 | 12.733 | | | |
| 10,600.00 | 7,153.00 | 12,636.51 | 7,252.00 | 98.05 | 119.67 | 92.16 | 3,908.55 | -3,518.01 | 2,630.73 | 2,418.92 | 211.81 | 12.420 | | | |
| 10,700.00 | 7,153.00 | 12,736.51 | 7,252.00 | 100.64 | 122.16 | 92.16 | 3,907.67 | -3,618.01 | 2,630.67 | 2,413.65 | 217.02 | 12.122 | | | |
| 10,800.00 | 7,153.00 | 12,836.51 | 7,252.00 | 103.24 | 124.66 | 92.16 | 3,906.79 | -3,718.01 | 2,630.61 | 2,408.36 | 222.24 | 11.837 | | | |
| 10,900.00 | 7,153.00 | 12,936.51 | 7,252.00 | 105.84 | 127.17 | 92.16 | 3,905.91 | -3,818.00 | 2,630.55 | 2,403.07 | 227.48 | 11.564 | | | |
| 11,000.00 | 7,153.00 | 13,036.51 | 7,252.00 | 108.45 | 129.69 | 92.16 | 3,905.03 | -3,918.00 | 2,630.48 | 2,397.77 | 232.72 | 11.303 | | | |
| 11,100.00 | 7,153.00 | 13,136.51 | 7,252.00 | 111.07 | 132.22 | 92.16 | 3,904.14 | -4,017.99 | 2,630.42 | 2,392.45 | 237.97 | 11.054 | | | |
| 11,200.00 | 7,153.00 | 13,236.51 | 7,252.00 | 113.69 | 134.76 | 92.16 | 3,903.26 | -4,117.99 | 2,630.36 | 2,387.13 | 243.23 | 10.814 | | | |
| 11,300.00 | 7,153.00 | 13,336.51 | 7,252.00 | 116.31 | 137.31 | 92.16 | 3,902.38 | -4,217.99 | 2,630.29 | 2,381.80 | 248.49 | 10.585 | | | |
| 11,400.00 | 7,153.00 | 13,436.51 | 7,252.00 | 118.94 | 139.86 | 92.16 | 3,901.50 | -4,317.98 | 2,630.23 | 2,376.47 | 253.77 | 10.365 | | | |
| 11,500.00 | 7,153.00 | 13,536.51 | 7,252.00 | 121.57 | 142.42 | 92.16 | 3,900.62 | -4,417.98 | 2,630.17 | 2,371.12 | 259.05 | 10.153 | | | |
| 11,600.00 | 7,153.00 | 13,636.51 | 7,252.00 | 124.21 | 144.99 | 92.16 | 3,899.74 | -4,517.97 | 2,630.11 | 2,365.77 | 264.33 | 9.950 | | | |
| 11,700.00 | 7,153.00 | 13,736.51 | 7,252.00 | 126.85 | 147.57 | 92.16 | 3,898.86 | -4,617.97 | 2,630.04 | 2,360.42 | 269.63 | 9.754 | | | |
| 11,800.00 | 7,153.00 | 13,836.51 | 7,252.00 | 129.49 | 150.15 | 92.16 | 3,897.97 | -4,717.97 | 2,629.98 | 2,355.06 | 274.92 | 9.566 | | | |
| 11,900.00 | 7,153.00 | 13,936.51 | 7,252.00 | 132.14 | 152.73 | 92.16 | 3,897.09 | -4,817.96 | 2,629.92 | 2,349.69 | 280.23 | 9.385 | | | |
| 12,000.00 | 7,153.00 | 14,036.51 | 7,252.00 | 134.79 | 155.32 | 92.16 | 3,896.21 | -4,917.96 | 2,629.86 | 2,344.32 | 285.54 | 9.210 | | | |
| 12,100.00 | 7,153.00 | 14,136.51 | 7,252.00 | 137.44 | 157.92 | 92.16 | 3,895.33 | -5,017.96 | 2,629.79 | 2,338.94 | 290.85 | 9.042 | | | |
| 12,200.00 | 7,153.00 | 14,236.51 | 7,252.00 | 140.10 | 160.52 | 92.16 | 3,894.45 | -5,117.95 | 2,629.73 | 2,333.56 | 296.17 | 8.879 | | | |
| 12,300.00 | 7,153.00 | 14,336.51 | 7,252.00 | 142.76 | 163.12 | 92.16 | 3,893.57 | -5,217.95 | 2,629.67 | 2,328.17 | 301.49 | 8.722 | | | |
| 12,400.00 | 7,153.00 | 14,436.51 | 7,252.00 | 145.42 | 165.73 | 92.16 | 3,892.69 | -5,317.94 | 2,629.60 | 2,322.78 | 306.82 | 8.571 | | | |
| 12,500.00 | 7,153.00 | 14,536.51 | 7,252.00 | 148.08 | 168.34 | 92.16 | 3,891.80 | -5,417.94 | 2,629.54 | 2,317.39 | 312.15 | 8.424 | | | |
| 12,600.00 | 7,153.00 | 14,636.51 | 7,252.00 | 150.75 | 170.95 | 92.16 | 3,890.92 | -5,517.94 | 2,629.48 | 2,311.99 | 317.48 | 8.282 | | | |
| 12,700.00 | 7,153.00 | 14,736.51 | 7,252.00 | 153.41 | 173.57 | 92.16 | 3,890.04 | -5,617.93 | 2,629.42 | 2,306.59 | 322.82 | 8.145 | | | |
| 12,800.00 | 7,153.00 | 14,836.51 | 7,252.00 | 156.08 | 176.19 | 92.16 | 3,889.16 | -5,717.93 | 2,629.35 | 2,301.19 | 328.16 | 8.012 | | | |
| 12,900.00 | 7,153.00 | 14,936.51 | 7,252.00 | 158.75 | 178.82 | 92.16 | 3,888.28 | -5,817.92 | 2,629.29 | 2,295.78 | 333.51 | 7.884 | | | |
| 13,000.00 | 7,153.00 | 15,036.51 | 7,252.00 | 161.42 | 181.45 | 92.16 | 3,887.40 | -5,917.92 | 2,629.23 | 2,290.37 | 338.86 | 7.759 | | | |
| 13,100.00 | 7,153.00 | 15,136.51 | 7,252.00 | 164.10 | 184.08 | 92.16 | 3,886.52 | -6,017.92 | 2,629.16 | 2,284.96 | 344.21 | 7.638 | | | |
| 13,200.00 | 7,153.00 | 15,236.51 | 7,252.00 | 166.77 | 186.71 | 92.16 | 3,885.63 | -6,117.91 | 2,629.10 | 2,279.54 | 349.56 | 7.521 | | | |
| 13,300.00 | 7,153.00 | 15,336.51 | 7,252.00 | 169.45 | 189.35 | 92.16 | 3,884.75 | -6,217.91 | 2,629.04 | 2,274.13 | 354.91 | 7.408 | | | |
| 13,400.00 | 7,153.00 | 15,436.51 | 7,252.00 | 172.13 | 191.99 | 92.16 | 3,883.87 | -6,317.90 | 2,628.98 | 2,268.70 | 360.27 | 7.297 | | | |
| 13,500.00 | 7,153.00 | 15,536.51 | 7,252.00 | 174.81 | 194.63 | 92.16 | 3,882.99 | -6,417.90 | 2,628.91 | 2,263.28 | 365.63 | 7.190 | | | |
| 13,600.00 | 7,153.00 | 15,636.51 | 7,252.00 | 177.49 | 197.27 | 92.16 | 3,882.11 | -6,517.90 | 2,628.85 | 2,257.86 | 370.99 | 7.086 | | | |
| 13,700.00 | 7,153.00 | 15,736.51 | 7,252.00 | 180.17 | 199.91 | 92.16 | 3,881.23 | -6,617.89 | 2,628.79 | 2,252.43 | 376.36 | 6.985 | | | |
| 13,800.00 | 7,153.00 | 15,836.51 | 7,252.00 | 182.86 | 202.56 | 92.16 | 3,880.35 | -6,717.89 | 2,628.73 | 2,247.00 | 381.73 | 6.886 | | | |
| 13,900.00 | 7,153.00 | 15,936.51 | 7,252.00 | 185.54 | 205.21 | 92.16 | 3,879.46 | -6,817.89 | 2,628.66 | 2,241.57 | 387.10 | 6.791 | | | |
| 14,000.00 | 7,153.00 | 16,036.51 | 7,252.00 | 188.23 | 207.86 | 92.16 | 3,878.58 | -6,917.88 | 2,628.60 | 2,236.13 | 392.47 | 6.698 | | | |
| 14,100.00 | 7,153.00 | 16,136.51 | 7,252.00 | 190.91 | 210.51 | 92.16 | 3,877.70 | -7,017.88 | 2,628.54 | 2,230.70 | 397.84 | 6.607 | | | |
| 14,200.00 | 7,153.00 | 16,236.51 | 7,252.00 | 193.60 | 213.17 | 92.16 | 3,876.82 | -7,117.87 | 2,628.47 | 2,225.26 | 403.21 | 6.519 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-1H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|--------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Highside | | Rule Assigned: | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 14,300.00 | 7,153.00 | 16,336.51 | 7,252.00 | 196.29 | 215.83 | 92.16 | 3,875.94 | -7,217.87 | 2,628.41 | 2,219.82 | 408.59 | 6.433 | | | |
| 14,400.00 | 7,153.00 | 16,436.51 | 7,252.00 | 198.98 | 218.48 | 92.16 | 3,875.06 | -7,317.87 | 2,628.35 | 2,214.38 | 413.97 | 6.349 | | | |
| 14,500.00 | 7,153.00 | 16,536.51 | 7,252.00 | 201.67 | 221.14 | 92.16 | 3,874.18 | -7,417.86 | 2,628.29 | 2,208.94 | 419.35 | 6.268 | | | |
| 14,600.00 | 7,153.00 | 16,636.51 | 7,252.00 | 204.36 | 223.80 | 92.16 | 3,873.29 | -7,517.86 | 2,628.22 | 2,203.49 | 424.73 | 6.188 | | | |
| 14,700.00 | 7,153.00 | 16,736.51 | 7,252.00 | 207.05 | 226.47 | 92.16 | 3,872.41 | -7,617.85 | 2,628.16 | 2,198.05 | 430.11 | 6.110 | | | |
| 14,800.00 | 7,153.00 | 16,836.51 | 7,252.00 | 209.75 | 229.13 | 92.16 | 3,871.53 | -7,717.85 | 2,628.10 | 2,192.60 | 435.50 | 6.035 | | | |
| 14,900.00 | 7,153.00 | 16,936.51 | 7,252.00 | 212.44 | 231.80 | 92.16 | 3,870.65 | -7,817.85 | 2,628.04 | 2,187.16 | 440.88 | 5.961 | | | |
| 15,000.00 | 7,153.00 | 17,036.51 | 7,252.00 | 215.13 | 234.46 | 92.16 | 3,869.77 | -7,917.84 | 2,627.97 | 2,181.71 | 446.27 | 5.889 | | | |
| 15,100.00 | 7,153.00 | 17,136.51 | 7,252.00 | 217.83 | 237.13 | 92.16 | 3,868.89 | -8,017.84 | 2,627.91 | 2,176.26 | 451.65 | 5.818 | | | |
| 15,200.00 | 7,153.00 | 17,236.51 | 7,252.00 | 220.53 | 239.80 | 92.16 | 3,868.01 | -8,117.83 | 2,627.85 | 2,170.80 | 457.04 | 5.750 | | | |
| 15,300.00 | 7,153.00 | 17,336.51 | 7,252.00 | 223.22 | 242.47 | 92.16 | 3,867.12 | -8,217.83 | 2,627.78 | 2,165.35 | 462.43 | 5.683 | | | |
| 15,360.72 | 7,153.00 | 17,395.63 | 7,252.00 | 224.86 | 244.05 | 92.16 | 3,866.60 | -8,276.95 | 2,627.75 | 2,162.06 | 465.69 | 5.643 | | | |
| 15,400.00 | 7,153.00 | 17,395.63 | 7,252.00 | 225.92 | 244.05 | 92.16 | 3,866.60 | -8,276.95 | 2,628.04 | 2,160.69 | 467.35 | 5.623 | | | |
| 15,455.54 | 7,153.00 | 17,395.63 | 7,252.00 | 227.42 | 244.05 | 92.16 | 3,866.60 | -8,276.95 | 2,629.46 | 2,159.93 | 469.53 | 5.600 SF | | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-2H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 80.15 | 0.00 | 80.15 | 80.15 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.00 | 80.15 | 0.00 | 80.15 | 79.86 | 0.29 | 279.470 | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.00 | 80.15 | 0.00 | 80.15 | 79.14 | 1.00 | 79.849 | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 0.00 | 80.15 | 0.00 | 80.15 | 78.42 | 1.72 | 46.578 | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.22 | 1.22 | 0.00 | 80.15 | 0.00 | 80.15 | 77.71 | 2.44 | 32.879 | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.58 | 1.58 | 0.00 | 80.15 | 0.00 | 80.15 | 76.99 | 3.15 | 25.406 | | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.94 | 1.94 | 0.00 | 80.15 | 0.00 | 80.15 | 76.27 | 3.87 | 20.701 | | | |
| 700.00 | 700.00 | 700.00 | 700.00 | 2.29 | 2.29 | 0.00 | 80.15 | 0.00 | 80.15 | 75.56 | 4.59 | 17.467 | | | |
| 800.00 | 800.00 | 800.00 | 800.00 | 2.65 | 2.65 | 0.00 | 80.15 | 0.00 | 80.15 | 74.84 | 5.31 | 15.106 | | | |
| 900.00 | 900.00 | 900.00 | 900.00 | 3.01 | 3.01 | 0.00 | 80.15 | 0.00 | 80.15 | 74.12 | 6.02 | 13.308 | | | |
| 1,000.00 | 1,000.00 | 1,000.00 | 1,000.00 | 3.37 | 3.37 | 0.00 | 80.15 | 0.00 | 80.15 | 73.41 | 6.74 | 11.892 | | | |
| 1,100.00 | 1,100.00 | 1,100.00 | 1,100.00 | 3.73 | 3.73 | 0.00 | 80.15 | 0.00 | 80.15 | 72.69 | 7.46 | 10.749 | | | |
| 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 4.09 | 4.09 | 0.00 | 80.15 | 0.00 | 80.15 | 71.97 | 8.17 | 9.806 | | | |
| 1,300.00 | 1,300.00 | 1,300.00 | 1,300.00 | 4.45 | 4.45 | 0.00 | 80.15 | 0.00 | 80.15 | 71.26 | 8.89 | 9.015 | | | |
| 1,303.34 | 1,303.34 | 1,303.34 | 1,303.34 | 4.46 | 4.46 | 0.00 | 80.15 | 0.00 | 80.15 | 71.23 | 8.91 | 8.991 CC | | | |
| 1,400.00 | 1,400.00 | 1,398.68 | 1,398.68 | 4.80 | 4.80 | 0.08 | 80.55 | 0.11 | 80.56 | 70.96 | 9.60 | 8.390 ES | | | |
| 1,500.00 | 1,500.00 | 1,495.92 | 1,495.86 | 5.16 | 5.15 | 0.65 | 83.74 | 0.95 | 83.85 | 73.55 | 10.30 | 8.141 | | | |
| 1,600.00 | 1,600.00 | 1,592.83 | 1,592.54 | 5.52 | 5.50 | 1.67 | 90.09 | 2.63 | 90.44 | 79.45 | 10.99 | 8.232 | | | |
| 1,700.00 | 1,700.00 | 1,689.19 | 1,688.40 | 5.88 | 5.84 | 2.94 | 99.54 | 5.12 | 100.34 | 88.68 | 11.66 | 8.606 | | | |
| 1,800.00 | 1,800.00 | 1,784.78 | 1,783.11 | 6.24 | 6.19 | 4.29 | 111.98 | 8.40 | 113.56 | 101.24 | 12.32 | 9.220 | | | |
| 1,900.00 | 1,900.00 | 1,879.40 | 1,876.40 | 6.60 | 6.55 | 5.59 | 127.31 | 12.45 | 130.07 | 117.12 | 12.96 | 10.039 | | | |
| 2,000.00 | 2,000.00 | 1,972.88 | 1,967.98 | 6.95 | 6.91 | 6.75 | 145.36 | 17.22 | 149.84 | 136.26 | 13.58 | 11.033 | | | |
| 2,100.00 | 2,100.00 | 2,065.02 | 2,057.62 | 7.31 | 7.29 | 7.77 | 165.97 | 22.66 | 172.79 | 158.61 | 14.18 | 12.181 | | | |
| 2,200.00 | 2,200.00 | 2,155.68 | 2,145.10 | 7.67 | 7.68 | 8.64 | 188.97 | 28.73 | 198.86 | 184.09 | 14.77 | 13.464 | | | |
| 2,300.00 | 2,300.00 | 2,244.71 | 2,230.23 | 8.03 | 8.09 | 9.38 | 214.14 | 35.37 | 227.98 | 212.64 | 15.34 | 14.864 | | | |
| 2,400.00 | 2,400.00 | 2,331.99 | 2,312.87 | 8.39 | 8.51 | 10.00 | 241.29 | 42.54 | 260.04 | 244.15 | 15.88 | 16.370 | | | |
| 2,500.00 | 2,499.98 | 2,417.95 | 2,393.39 | 8.75 | 8.95 | 9.86 | 270.39 | 50.22 | 293.35 | 276.94 | 16.41 | 17.873 | | | |
| 2,600.00 | 2,599.84 | 2,500.00 | 2,469.36 | 9.11 | 9.40 | 10.31 | 300.34 | 58.13 | 326.27 | 309.41 | 16.86 | 19.349 | | | |
| 2,700.00 | 2,699.45 | 2,587.55 | 2,549.41 | 9.46 | 9.91 | 10.81 | 334.60 | 67.17 | 358.75 | 341.33 | 17.42 | 20.588 | | | |
| 2,800.00 | 2,798.70 | 2,671.23 | 2,624.89 | 9.82 | 10.43 | 11.29 | 369.54 | 76.39 | 390.82 | 372.90 | 17.91 | 21.816 | | | |
| 2,900.00 | 2,897.47 | 2,754.20 | 2,698.65 | 10.18 | 10.98 | 11.77 | 406.28 | 86.09 | 422.44 | 404.05 | 18.39 | 22.967 | | | |
| 3,000.00 | 2,995.62 | 2,836.50 | 2,770.68 | 10.55 | 11.56 | 12.26 | 444.74 | 96.25 | 453.62 | 434.75 | 18.86 | 24.047 | | | |
| 3,100.00 | 3,093.06 | 2,918.13 | 2,840.99 | 10.94 | 12.16 | 12.74 | 484.85 | 106.83 | 484.33 | 465.00 | 19.33 | 25.061 | | | |
| 3,200.00 | 3,189.64 | 3,000.00 | 2,910.28 | 11.34 | 12.79 | 13.23 | 527.01 | 117.96 | 514.57 | 494.76 | 19.80 | 25.986 | | | |
| 3,240.86 | 3,228.84 | 3,032.05 | 2,937.06 | 11.50 | 13.06 | 13.42 | 544.03 | 122.46 | 526.78 | 506.81 | 19.97 | 26.380 | | | |
| 3,300.00 | 3,285.45 | 3,079.37 | 2,976.24 | 11.75 | 13.45 | 13.78 | 569.70 | 129.23 | 544.89 | 524.65 | 20.24 | 26.922 | | | |
| 3,400.00 | 3,381.17 | 3,158.22 | 3,040.53 | 12.19 | 14.12 | 14.33 | 613.83 | 140.88 | 577.64 | 556.95 | 20.69 | 27.913 | | | |
| 3,500.00 | 3,476.90 | 3,246.19 | 3,111.12 | 12.63 | 14.91 | 14.88 | 664.58 | 154.28 | 612.48 | 591.12 | 21.36 | 28.671 | | | |
| 3,600.00 | 3,572.62 | 3,339.70 | 3,186.08 | 13.09 | 15.76 | 15.40 | 718.62 | 168.55 | 647.53 | 625.37 | 22.16 | 29.219 | | | |
| 3,700.00 | 3,668.34 | 3,433.20 | 3,261.03 | 13.56 | 16.63 | 15.86 | 772.67 | 182.81 | 682.63 | 659.65 | 22.97 | 29.716 | | | |
| 3,800.00 | 3,764.07 | 3,526.70 | 3,335.99 | 14.04 | 17.52 | 16.28 | 826.72 | 197.08 | 717.75 | 693.96 | 23.79 | 30.166 | | | |
| 3,900.00 | 3,859.79 | 3,620.21 | 3,410.94 | 14.52 | 18.41 | 16.66 | 880.76 | 211.35 | 752.91 | 728.29 | 24.62 | 30.576 | | | |
| 4,000.00 | 3,955.51 | 3,713.71 | 3,485.90 | 15.02 | 19.31 | 17.01 | 934.81 | 225.61 | 788.10 | 762.63 | 25.47 | 30.948 | | | |
| 4,100.00 | 4,051.24 | 3,807.21 | 3,560.86 | 15.52 | 20.22 | 17.33 | 988.86 | 239.88 | 823.31 | 796.99 | 26.31 | 31.288 | | | |
| 4,200.00 | 4,146.96 | 3,900.72 | 3,635.81 | 16.03 | 21.14 | 17.62 | 1,042.90 | 254.15 | 858.54 | 831.36 | 27.17 | 31.598 | | | |
| 4,300.00 | 4,242.68 | 3,994.22 | 3,710.77 | 16.54 | 22.07 | 17.89 | 1,096.95 | 268.42 | 893.78 | 865.75 | 28.03 | 31.882 | | | |
| 4,400.00 | 4,338.41 | 4,087.72 | 3,785.72 | 17.06 | 23.00 | 18.14 | 1,151.00 | 282.68 | 929.04 | 900.14 | 28.90 | 32.142 | | | |
| 4,500.00 | 4,434.13 | 4,181.23 | 3,860.68 | 17.59 | 23.94 | 18.37 | 1,205.04 | 296.95 | 964.32 | 934.54 | 29.78 | 32.381 | | | |
| 4,600.00 | 4,529.85 | 4,274.73 | 3,935.63 | 18.11 | 24.88 | 18.58 | 1,259.09 | 311.22 | 999.61 | 968.95 | 30.66 | 32.602 | | | |
| 4,700.00 | 4,625.58 | 4,368.23 | 4,010.59 | 18.65 | 25.82 | 18.78 | 1,313.14 | 325.48 | 1,034.91 | 1,003.37 | 31.55 | 32.805 | | | |
| 4,800.00 | 4,721.30 | 4,461.74 | 4,085.54 | 19.18 | 26.77 | 18.96 | 1,367.18 | 339.75 | 1,070.22 | 1,037.79 | 32.44 | 32.992 | | | |
| 4,900.00 | 4,817.02 | 4,555.24 | 4,160.50 | 19.72 | 27.72 | 19.14 | 1,421.23 | 354.02 | 1,105.54 | 1,072.21 | 33.33 | 33.166 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-2H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,000.00 | 4,912.74 | 4,648.74 | 4,235.45 | 20.27 | 28.67 | 19.30 | 1,475.28 | 368.29 | 1,140.87 | 1,106.64 | 34.23 | 33.327 | | |
| 5,100.00 | 5,008.47 | 4,742.25 | 4,310.41 | 20.81 | 29.63 | 19.46 | 1,529.32 | 382.55 | 1,176.21 | 1,141.07 | 35.14 | 33.476 | | |
| 5,200.00 | 5,104.19 | 4,835.75 | 4,385.36 | 21.36 | 30.59 | 19.60 | 1,583.37 | 396.82 | 1,211.55 | 1,175.51 | 36.04 | 33.615 | | |
| 5,300.00 | 5,199.91 | 4,929.25 | 4,460.32 | 21.91 | 31.55 | 19.74 | 1,637.42 | 411.09 | 1,246.90 | 1,209.95 | 36.95 | 33.745 | | |
| 5,400.00 | 5,295.64 | 5,022.76 | 4,535.27 | 22.46 | 32.51 | 19.87 | 1,691.46 | 425.35 | 1,282.26 | 1,244.40 | 37.86 | 33.865 | | |
| 5,500.00 | 5,391.36 | 5,116.26 | 4,610.23 | 23.02 | 33.47 | 19.99 | 1,745.51 | 439.62 | 1,317.62 | 1,278.84 | 38.78 | 33.978 | | |
| 5,600.00 | 5,487.08 | 5,209.76 | 4,685.18 | 23.58 | 34.44 | 20.10 | 1,799.56 | 453.89 | 1,352.99 | 1,313.29 | 39.70 | 34.083 | | |
| 5,700.00 | 5,582.81 | 5,303.27 | 4,760.14 | 24.13 | 35.41 | 20.21 | 1,853.60 | 468.16 | 1,388.36 | 1,347.74 | 40.62 | 34.182 | | |
| 5,800.00 | 5,678.53 | 5,396.77 | 4,835.09 | 24.70 | 36.38 | 20.32 | 1,907.65 | 482.42 | 1,423.73 | 1,382.19 | 41.54 | 34.274 | | |
| 5,900.00 | 5,774.25 | 5,490.27 | 4,910.05 | 25.26 | 37.35 | 20.42 | 1,961.70 | 496.69 | 1,459.11 | 1,416.65 | 42.46 | 34.361 | | |
| 6,000.00 | 5,869.98 | 5,583.78 | 4,985.00 | 25.82 | 38.32 | 20.51 | 2,015.74 | 510.96 | 1,494.49 | 1,451.10 | 43.39 | 34.442 | | |
| 6,100.00 | 5,965.70 | 5,677.28 | 5,059.96 | 26.39 | 39.29 | 20.60 | 2,069.79 | 525.22 | 1,529.88 | 1,485.56 | 44.32 | 34.519 | | |
| 6,200.00 | 6,061.42 | 5,770.78 | 5,134.91 | 26.95 | 40.26 | 20.69 | 2,123.84 | 539.49 | 1,565.27 | 1,520.02 | 45.25 | 34.591 | | |
| 6,300.00 | 6,157.15 | 5,864.29 | 5,209.87 | 27.52 | 41.24 | 20.77 | 2,177.88 | 553.76 | 1,600.66 | 1,554.48 | 46.18 | 34.659 | | |
| 6,400.00 | 6,252.87 | 5,957.79 | 5,284.83 | 28.09 | 42.21 | 20.85 | 2,231.93 | 568.03 | 1,636.06 | 1,588.94 | 47.12 | 34.723 | | |
| 6,500.00 | 6,348.59 | 6,051.29 | 5,359.78 | 28.66 | 43.19 | 20.92 | 2,285.98 | 582.29 | 1,671.45 | 1,623.40 | 48.05 | 34.784 | | |
| 6,600.00 | 6,444.32 | 6,144.80 | 5,434.74 | 29.23 | 44.16 | 21.00 | 2,340.02 | 596.56 | 1,706.85 | 1,657.86 | 48.99 | 34.841 | | |
| 6,700.00 | 6,540.04 | 6,238.30 | 5,509.69 | 29.80 | 45.14 | 21.07 | 2,394.07 | 610.83 | 1,742.26 | 1,692.33 | 49.93 | 34.895 | | |
| 6,764.28 | 6,601.58 | 6,298.41 | 5,557.87 | 30.17 | 45.77 | 21.11 | 2,428.81 | 620.00 | 1,765.02 | 1,714.48 | 50.53 | 34.928 | | |
| 6,800.00 | 6,635.75 | 6,331.61 | 5,584.49 | 30.37 | 46.11 | 31.55 | 2,448.01 | 625.07 | 1,778.05 | 1,727.17 | 50.88 | 34.948 | | |
| 6,850.00 | 6,683.35 | 6,377.28 | 5,621.10 | 30.66 | 46.59 | 44.54 | 2,474.40 | 632.03 | 1,797.52 | 1,746.13 | 51.39 | 34.979 | | |
| 6,900.00 | 6,730.36 | 6,421.69 | 5,656.70 | 30.94 | 47.06 | 54.46 | 2,500.07 | 638.81 | 1,818.34 | 1,766.41 | 51.93 | 35.015 | | |
| 6,950.00 | 6,776.41 | 6,464.49 | 5,691.01 | 31.21 | 47.50 | 61.38 | 2,524.81 | 645.34 | 1,840.40 | 1,787.89 | 52.50 | 35.053 | | |
| 7,000.00 | 6,821.15 | 6,505.36 | 5,723.78 | 31.47 | 47.93 | 65.93 | 2,548.44 | 651.58 | 1,863.61 | 1,810.51 | 53.11 | 35.092 | | |
| 7,050.00 | 6,864.24 | 6,544.00 | 5,754.75 | 31.73 | 48.34 | 68.72 | 2,570.77 | 657.47 | 1,887.90 | 1,834.16 | 53.75 | 35.127 | | |
| 7,100.00 | 6,905.35 | 6,580.10 | 5,783.69 | 31.97 | 48.72 | 70.21 | 2,591.64 | 662.98 | 1,913.19 | 1,858.77 | 54.42 | 35.157 | | |
| 7,150.00 | 6,944.18 | 6,613.40 | 5,810.38 | 32.21 | 49.06 | 70.73 | 2,610.88 | 668.06 | 1,939.40 | 1,884.26 | 55.13 | 35.178 | | |
| 7,200.00 | 6,980.42 | 6,643.63 | 5,834.62 | 32.45 | 49.38 | 70.48 | 2,628.36 | 672.68 | 1,966.44 | 1,910.55 | 55.88 | 35.189 | | |
| 7,250.00 | 7,013.80 | 6,670.58 | 5,856.22 | 32.68 | 49.66 | 69.61 | 2,643.93 | 676.79 | 1,994.22 | 1,937.55 | 56.67 | 35.189 | | |
| 7,300.00 | 7,044.06 | 6,694.02 | 5,875.01 | 32.91 | 49.91 | 68.20 | 2,657.49 | 680.36 | 2,022.64 | 1,965.14 | 57.50 | 35.177 | | |
| 7,350.00 | 7,070.98 | 6,713.79 | 5,890.86 | 33.15 | 50.12 | 66.35 | 2,668.91 | 683.38 | 2,051.59 | 1,993.23 | 58.36 | 35.154 | | |
| 7,400.00 | 7,094.36 | 6,729.74 | 5,903.65 | 33.39 | 50.28 | 64.11 | 2,678.13 | 685.81 | 2,080.93 | 2,021.69 | 59.25 | 35.122 | | |
| 7,450.00 | 7,114.00 | 6,741.74 | 5,913.27 | 33.65 | 50.41 | 61.55 | 2,685.07 | 687.64 | 2,110.52 | 2,050.37 | 60.16 | 35.083 | | |
| 7,500.00 | 7,129.76 | 6,749.70 | 5,919.65 | 33.93 | 50.49 | 58.71 | 2,689.67 | 688.86 | 2,140.20 | 2,079.12 | 61.08 | 35.040 | | |
| 7,550.00 | 7,141.53 | 6,753.57 | 5,922.74 | 34.22 | 50.53 | 55.67 | 2,691.90 | 689.45 | 2,169.77 | 2,107.77 | 62.00 | 34.996 | | |
| 7,600.00 | 7,149.21 | 6,753.09 | 5,923.09 | 34.55 | 63.08 | 87.41 | 3,497.97 | -514.43 | 2,196.75 | 2,122.63 | 74.12 | 29.637 | | |
| 7,650.00 | 7,152.75 | 9,286.94 | 7,058.00 | 34.90 | 63.20 | 87.51 | 3,497.53 | -564.28 | 2,195.80 | 2,120.20 | 75.60 | 29.046 | | |
| 7,667.38 | 7,153.00 | 9,304.31 | 7,058.00 | 35.04 | 63.25 | 87.52 | 3,497.37 | -581.65 | 2,195.72 | 2,119.61 | 76.11 | 28.848 | | |
| 7,700.00 | 7,153.00 | 9,336.93 | 7,058.00 | 35.29 | 63.33 | 87.52 | 3,497.09 | -614.27 | 2,195.70 | 2,118.59 | 77.12 | 28.473 | | |
| 7,800.00 | 7,153.00 | 9,436.93 | 7,058.00 | 36.22 | 63.68 | 87.52 | 3,496.20 | -714.27 | 2,195.64 | 2,115.30 | 80.34 | 27.328 | | |
| 7,900.00 | 7,153.00 | 9,536.93 | 7,058.00 | 37.35 | 64.13 | 87.52 | 3,495.32 | -814.27 | 2,195.58 | 2,111.76 | 83.82 | 26.195 | | |
| 8,000.00 | 7,153.00 | 9,636.93 | 7,058.00 | 38.67 | 64.72 | 87.52 | 3,494.44 | -914.26 | 2,195.52 | 2,108.01 | 87.50 | 25.091 | | |
| 8,100.00 | 7,153.00 | 9,736.93 | 7,058.00 | 40.16 | 65.46 | 87.52 | 3,493.56 | -1,014.26 | 2,195.45 | 2,104.08 | 91.37 | 24.027 | | |
| 8,200.00 | 7,153.00 | 9,836.93 | 7,058.00 | 41.81 | 66.38 | 87.52 | 3,492.68 | -1,114.25 | 2,195.39 | 2,099.98 | 95.41 | 23.011 | | |
| 8,300.00 | 7,153.00 | 9,936.93 | 7,058.00 | 43.59 | 67.49 | 87.52 | 3,491.80 | -1,214.25 | 2,195.33 | 2,095.75 | 99.58 | 22.046 | | |
| 8,400.00 | 7,153.00 | 10,036.93 | 7,058.00 | 45.47 | 68.79 | 87.52 | 3,490.92 | -1,314.25 | 2,195.27 | 2,091.39 | 103.88 | 21.133 | | |
| 8,500.00 | 7,153.00 | 10,136.93 | 7,058.00 | 47.45 | 70.27 | 87.52 | 3,490.03 | -1,414.24 | 2,195.20 | 2,086.92 | 108.28 | 20.273 | | |
| 8,600.00 | 7,153.00 | 10,236.93 | 7,058.00 | 49.51 | 71.91 | 87.52 | 3,489.15 | -1,514.24 | 2,195.14 | 2,082.36 | 112.78 | 19.464 | | |
| 8,700.00 | 7,153.00 | 10,336.93 | 7,058.00 | 51.64 | 73.69 | 87.52 | 3,488.27 | -1,614.23 | 2,195.08 | 2,077.72 | 117.36 | 18.704 | | |
| 8,800.00 | 7,153.00 | 10,436.93 | 7,058.00 | 53.82 | 75.59 | 87.52 | 3,487.39 | -1,714.23 | 2,195.01 | 2,073.00 | 122.01 | 17.990 | | |
| 8,900.00 | 7,153.00 | 10,536.93 | 7,058.00 | 56.06 | 77.59 | 87.52 | 3,486.51 | -1,814.23 | 2,194.95 | 2,068.22 | 126.73 | 17.319 | | |
| 9,000.00 | 7,153.00 | 10,636.93 | 7,058.00 | 58.34 | 79.67 | 87.52 | 3,485.63 | -1,914.22 | 2,194.89 | 2,063.38 | 131.51 | 16.690 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-2H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|---------|--------------------|-----------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | | | Offset Well Error: | | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | | | |
| 9,100.00 | 7,153.00 | 10,736.93 | 7,058.00 | 60.66 | 81.82 | 87.52 | 3,484.75 | -2,014.22 | 2,194.83 | 2,058.49 | 136.34 | 16.099 | | | | |
| 9,200.00 | 7,153.00 | 10,836.93 | 7,058.00 | 63.01 | 84.02 | 87.52 | 3,483.87 | -2,114.22 | 2,194.76 | 2,053.56 | 141.21 | 15.543 | | | | |
| 9,300.00 | 7,153.00 | 10,936.93 | 7,058.00 | 65.40 | 86.27 | 87.52 | 3,482.98 | -2,214.21 | 2,194.70 | 2,048.58 | 146.12 | 15.020 | | | | |
| 9,400.00 | 7,153.00 | 11,036.93 | 7,058.00 | 67.81 | 88.57 | 87.52 | 3,482.10 | -2,314.21 | 2,194.64 | 2,043.57 | 151.07 | 14.527 | | | | |
| 9,500.00 | 7,153.00 | 11,136.93 | 7,058.00 | 70.24 | 90.89 | 87.52 | 3,481.22 | -2,414.20 | 2,194.58 | 2,038.52 | 156.05 | 14.063 | | | | |
| 9,600.00 | 7,153.00 | 11,236.93 | 7,058.00 | 72.70 | 93.25 | 87.52 | 3,480.34 | -2,514.20 | 2,194.51 | 2,033.45 | 161.07 | 13.625 | | | | |
| 9,700.00 | 7,153.00 | 11,336.93 | 7,058.00 | 75.17 | 95.63 | 87.52 | 3,479.46 | -2,614.20 | 2,194.45 | 2,028.35 | 166.11 | 13.211 | | | | |
| 9,800.00 | 7,153.00 | 11,436.93 | 7,058.00 | 77.67 | 98.04 | 87.52 | 3,478.58 | -2,714.19 | 2,194.39 | 2,023.22 | 171.17 | 12.820 | | | | |
| 9,900.00 | 7,153.00 | 11,536.93 | 7,058.00 | 80.17 | 100.47 | 87.52 | 3,477.70 | -2,814.19 | 2,194.33 | 2,018.07 | 176.26 | 12.450 | | | | |
| 10,000.00 | 7,153.00 | 11,636.93 | 7,058.00 | 82.69 | 102.92 | 87.52 | 3,476.81 | -2,914.18 | 2,194.26 | 2,012.90 | 181.36 | 12.099 | | | | |
| 10,100.00 | 7,153.00 | 11,736.93 | 7,058.00 | 85.23 | 105.38 | 87.52 | 3,475.93 | -3,014.18 | 2,194.20 | 2,007.71 | 186.49 | 11.766 | | | | |
| 10,200.00 | 7,153.00 | 11,836.93 | 7,058.00 | 87.77 | 107.86 | 87.52 | 3,475.05 | -3,114.18 | 2,194.14 | 2,002.50 | 191.63 | 11.450 | | | | |
| 10,300.00 | 7,153.00 | 11,936.93 | 7,058.00 | 90.33 | 110.35 | 87.52 | 3,474.17 | -3,214.17 | 2,194.07 | 1,997.28 | 196.79 | 11.149 | | | | |
| 10,400.00 | 7,153.00 | 12,036.93 | 7,058.00 | 92.89 | 112.85 | 87.52 | 3,473.29 | -3,314.17 | 2,194.01 | 1,992.04 | 201.97 | 10.863 | | | | |
| 10,500.00 | 7,153.00 | 12,136.93 | 7,058.00 | 95.47 | 115.37 | 87.52 | 3,472.41 | -3,414.16 | 2,193.95 | 1,986.79 | 207.16 | 10.591 | | | | |
| 10,600.00 | 7,153.00 | 12,236.93 | 7,058.00 | 98.05 | 117.89 | 87.52 | 3,471.53 | -3,514.16 | 2,193.89 | 1,981.53 | 212.36 | 10.331 | | | | |
| 10,700.00 | 7,153.00 | 12,336.93 | 7,058.00 | 100.64 | 120.43 | 87.52 | 3,470.65 | -3,614.16 | 2,193.82 | 1,976.25 | 217.57 | 10.083 | | | | |
| 10,800.00 | 7,153.00 | 12,436.93 | 7,058.00 | 103.24 | 122.97 | 87.52 | 3,469.76 | -3,714.15 | 2,193.76 | 1,970.97 | 222.79 | 9.847 | | | | |
| 10,900.00 | 7,153.00 | 12,536.93 | 7,058.00 | 105.84 | 125.53 | 87.52 | 3,468.88 | -3,814.15 | 2,193.70 | 1,965.67 | 228.03 | 9.620 | | | | |
| 11,000.00 | 7,153.00 | 12,636.93 | 7,058.00 | 108.45 | 128.09 | 87.52 | 3,468.00 | -3,914.14 | 2,193.64 | 1,960.37 | 233.27 | 9.404 | | | | |
| 11,100.00 | 7,153.00 | 12,736.93 | 7,058.00 | 111.07 | 130.65 | 87.52 | 3,467.12 | -4,014.14 | 2,193.57 | 1,955.05 | 238.52 | 9.197 | | | | |
| 11,200.00 | 7,153.00 | 12,836.93 | 7,058.00 | 113.69 | 133.23 | 87.52 | 3,466.24 | -4,114.14 | 2,193.51 | 1,949.73 | 243.78 | 8.998 | | | | |
| 11,300.00 | 7,153.00 | 12,936.93 | 7,058.00 | 116.31 | 135.81 | 87.52 | 3,465.36 | -4,214.13 | 2,193.45 | 1,944.40 | 249.05 | 8.807 | | | | |
| 11,400.00 | 7,153.00 | 13,036.93 | 7,058.00 | 118.94 | 138.39 | 87.52 | 3,464.48 | -4,314.13 | 2,193.39 | 1,939.06 | 254.32 | 8.624 | | | | |
| 11,500.00 | 7,153.00 | 13,136.93 | 7,058.00 | 121.57 | 140.98 | 87.52 | 3,463.59 | -4,414.13 | 2,193.32 | 1,933.72 | 259.60 | 8.449 | | | | |
| 11,600.00 | 7,153.00 | 13,236.93 | 7,058.00 | 124.21 | 143.58 | 87.52 | 3,462.71 | -4,514.12 | 2,193.26 | 1,928.37 | 264.89 | 8.280 | | | | |
| 11,700.00 | 7,153.00 | 13,336.93 | 7,058.00 | 126.85 | 146.18 | 87.52 | 3,461.83 | -4,614.12 | 2,193.20 | 1,923.01 | 270.19 | 8.117 | | | | |
| 11,800.00 | 7,153.00 | 13,436.93 | 7,058.00 | 129.49 | 148.78 | 87.52 | 3,460.95 | -4,714.11 | 2,193.13 | 1,917.65 | 275.49 | 7.961 | | | | |
| 11,900.00 | 7,153.00 | 13,536.93 | 7,058.00 | 132.14 | 151.39 | 87.52 | 3,460.07 | -4,814.11 | 2,193.07 | 1,912.28 | 280.79 | 7.810 | | | | |
| 12,000.00 | 7,153.00 | 13,636.93 | 7,058.00 | 134.79 | 154.01 | 87.52 | 3,459.19 | -4,914.11 | 2,193.01 | 1,906.91 | 286.10 | 7.665 | | | | |
| 12,100.00 | 7,153.00 | 13,736.93 | 7,058.00 | 137.44 | 156.62 | 87.52 | 3,458.31 | -5,014.10 | 2,192.95 | 1,901.53 | 291.41 | 7.525 | | | | |
| 12,200.00 | 7,153.00 | 13,836.93 | 7,058.00 | 140.10 | 159.24 | 87.52 | 3,457.42 | -5,114.10 | 2,192.88 | 1,896.15 | 296.73 | 7.390 | | | | |
| 12,300.00 | 7,153.00 | 13,936.93 | 7,058.00 | 142.76 | 161.87 | 87.52 | 3,456.54 | -5,214.09 | 2,192.82 | 1,890.76 | 302.06 | 7.260 | | | | |
| 12,400.00 | 7,153.00 | 14,036.93 | 7,058.00 | 145.42 | 164.49 | 87.52 | 3,455.66 | -5,314.09 | 2,192.76 | 1,885.37 | 307.38 | 7.134 | | | | |
| 12,500.00 | 7,153.00 | 14,136.93 | 7,058.00 | 148.08 | 167.12 | 87.52 | 3,454.78 | -5,414.09 | 2,192.70 | 1,879.98 | 312.72 | 7.012 | | | | |
| 12,600.00 | 7,153.00 | 14,236.93 | 7,058.00 | 150.75 | 169.76 | 87.52 | 3,453.90 | -5,514.08 | 2,192.63 | 1,874.58 | 318.05 | 6.894 | | | | |
| 12,700.00 | 7,153.00 | 14,336.93 | 7,058.00 | 153.41 | 172.39 | 87.52 | 3,453.02 | -5,614.08 | 2,192.57 | 1,869.18 | 323.39 | 6.780 | | | | |
| 12,800.00 | 7,153.00 | 14,436.93 | 7,058.00 | 156.08 | 175.03 | 87.52 | 3,452.14 | -5,714.07 | 2,192.51 | 1,863.78 | 328.73 | 6.670 | | | | |
| 12,900.00 | 7,153.00 | 14,536.93 | 7,058.00 | 158.75 | 177.67 | 87.52 | 3,451.26 | -5,814.07 | 2,192.45 | 1,858.37 | 334.08 | 6.563 | | | | |
| 13,000.00 | 7,153.00 | 14,636.93 | 7,058.00 | 161.42 | 180.32 | 87.52 | 3,450.37 | -5,914.07 | 2,192.38 | 1,852.96 | 339.42 | 6.459 | | | | |
| 13,100.00 | 7,153.00 | 14,736.93 | 7,058.00 | 164.10 | 182.96 | 87.52 | 3,449.49 | -6,014.06 | 2,192.32 | 1,847.55 | 344.77 | 6.359 | | | | |
| 13,200.00 | 7,153.00 | 14,836.93 | 7,058.00 | 166.77 | 185.61 | 87.52 | 3,448.61 | -6,114.06 | 2,192.26 | 1,842.13 | 350.13 | 6.261 | | | | |
| 13,300.00 | 7,153.00 | 14,936.93 | 7,058.00 | 169.45 | 188.26 | 87.52 | 3,447.73 | -6,214.06 | 2,192.19 | 1,836.71 | 355.48 | 6.167 | | | | |
| 13,400.00 | 7,153.00 | 15,036.93 | 7,058.00 | 172.13 | 190.91 | 87.52 | 3,446.85 | -6,314.05 | 2,192.13 | 1,831.29 | 360.84 | 6.075 | | | | |
| 13,500.00 | 7,153.00 | 15,136.93 | 7,058.00 | 174.81 | 193.57 | 87.52 | 3,445.97 | -6,414.05 | 2,192.07 | 1,825.87 | 366.20 | 5.986 | | | | |
| 13,600.00 | 7,153.00 | 15,236.93 | 7,058.00 | 177.49 | 196.22 | 87.52 | 3,445.09 | -6,514.04 | 2,192.01 | 1,820.44 | 371.57 | 5.899 | | | | |
| 13,700.00 | 7,153.00 | 15,336.93 | 7,058.00 | 180.17 | 198.88 | 87.52 | 3,444.20 | -6,614.04 | 2,191.94 | 1,815.01 | 376.93 | 5.815 | | | | |
| 13,800.00 | 7,153.00 | 15,436.93 | 7,058.00 | 182.86 | 201.54 | 87.52 | 3,443.32 | -6,714.04 | 2,191.88 | 1,809.58 | 382.30 | 5.733 | | | | |
| 13,900.00 | 7,153.00 | 15,536.93 | 7,058.00 | 185.54 | 204.20 | 87.52 | 3,442.44 | -6,814.03 | 2,191.82 | 1,804.15 | 387.67 | 5.654 | | | | |
| 14,000.00 | 7,153.00 | 15,636.93 | 7,058.00 | 188.23 | 206.86 | 87.52 | 3,441.56 | -6,914.03 | 2,191.76 | 1,798.72 | 393.04 | 5.576 | | | | |
| 14,100.00 | 7,153.00 | 15,736.93 | 7,058.00 | 190.91 | 209.53 | 87.52 | 3,440.68 | -7,014.02 | 2,191.69 | 1,793.28 | 398.41 | 5.501 | | | | |
| 14,200.00 | 7,153.00 | 15,836.93 | 7,058.00 | 193.60 | 212.19 | 87.52 | 3,439.80 | -7,114.02 | 2,191.63 | 1,787.84 | 403.79 | 5.428 | | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-2H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 14,300.00 | 7,153.00 | 15,936.93 | 7,058.00 | 196.29 | 214.86 | 87.52 | 3,438.92 | -7,214.02 | 2,191.57 | 1,782.41 | 409.16 | 5.356 | | |
| 14,400.00 | 7,153.00 | 16,036.93 | 7,058.00 | 198.98 | 217.53 | 87.52 | 3,438.04 | -7,314.01 | 2,191.50 | 1,776.96 | 414.54 | 5.287 | | |
| 14,500.00 | 7,153.00 | 16,136.93 | 7,058.00 | 201.67 | 220.20 | 87.52 | 3,437.15 | -7,414.01 | 2,191.44 | 1,771.52 | 419.92 | 5.219 | | |
| 14,600.00 | 7,153.00 | 16,236.93 | 7,058.00 | 204.36 | 222.87 | 87.52 | 3,436.27 | -7,514.00 | 2,191.38 | 1,766.08 | 425.30 | 5.153 | | |
| 14,700.00 | 7,153.00 | 16,336.93 | 7,058.00 | 207.05 | 225.54 | 87.52 | 3,435.39 | -7,614.00 | 2,191.32 | 1,760.63 | 430.68 | 5.088 | | |
| 14,800.00 | 7,153.00 | 16,436.93 | 7,058.00 | 209.75 | 228.21 | 87.52 | 3,434.51 | -7,714.00 | 2,191.25 | 1,755.19 | 436.07 | 5.025 | | |
| 14,900.00 | 7,153.00 | 16,536.93 | 7,058.00 | 212.44 | 230.89 | 87.52 | 3,433.63 | -7,813.99 | 2,191.19 | 1,749.74 | 441.45 | 4.964 | | |
| 15,000.00 | 7,153.00 | 16,636.93 | 7,058.00 | 215.13 | 233.56 | 87.52 | 3,432.75 | -7,913.99 | 2,191.13 | 1,744.29 | 446.84 | 4.904 | | |
| 15,100.00 | 7,153.00 | 16,736.93 | 7,058.00 | 217.83 | 236.24 | 87.51 | 3,431.87 | -8,013.98 | 2,191.07 | 1,738.84 | 452.23 | 4.845 | | |
| 15,200.00 | 7,153.00 | 16,836.93 | 7,058.00 | 220.53 | 238.92 | 87.51 | 3,430.98 | -8,113.98 | 2,191.00 | 1,733.39 | 457.62 | 4.788 | | |
| 15,300.00 | 7,153.00 | 16,936.93 | 7,058.00 | 223.22 | 241.59 | 87.51 | 3,430.10 | -8,213.98 | 2,190.94 | 1,727.93 | 463.01 | 4.732 | | |
| 15,375.66 | 7,153.00 | 17,011.19 | 7,058.00 | 225.26 | 243.58 | 87.51 | 3,429.45 | -8,288.23 | 2,190.89 | 1,723.82 | 467.07 | 4.691 | | |
| 15,400.00 | 7,153.00 | 17,011.19 | 7,058.00 | 225.92 | 243.58 | 87.51 | 3,429.45 | -8,288.23 | 2,191.03 | 1,722.88 | 468.15 | 4.680 | | |
| 15,455.54 | 7,153.00 | 17,011.19 | 7,058.00 | 227.42 | 243.58 | 87.51 | 3,429.45 | -8,288.23 | 2,192.35 | 1,721.97 | 470.38 | 4.661 SF | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-3H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|--------------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|-------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: Reference | | 0-OWSG (Rev2) MWD Offset | | Semi Major Axis | | | Offset Wellbore Centre | | Rule Assigned: Distance | | | | Offset Well Error: | 0.00 usft |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | Warning | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 61.93 | 0.00 | 61.93 | 61.93 | 0.29 | 215.968 | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.00 | 61.93 | 0.00 | 61.93 | 61.65 | 1.00 | 61.705 | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.00 | 61.93 | 0.00 | 61.93 | 60.93 | 1.72 | 35.995 | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 0.00 | 61.93 | 0.00 | 61.93 | 60.21 | 2.44 | 25.408 | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.22 | 1.22 | 0.00 | 61.93 | 0.00 | 61.93 | 59.50 | 3.15 | 19.633 | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.58 | 1.58 | 0.00 | 61.93 | 0.00 | 61.93 | 58.78 | 3.87 | 15.998 | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.94 | 1.94 | 0.00 | 61.93 | 0.00 | 61.93 | 58.06 | 4.59 | 13.498 | | |
| 700.00 | 700.00 | 700.00 | 700.00 | 2.29 | 2.29 | 0.00 | 61.93 | 0.00 | 61.93 | 57.35 | 5.31 | 11.674 | | |
| 800.00 | 800.00 | 800.00 | 800.00 | 2.65 | 2.65 | 0.00 | 61.93 | 0.00 | 61.93 | 56.63 | 6.02 | 10.284 | | |
| 900.00 | 900.00 | 900.00 | 900.00 | 3.01 | 3.01 | 0.00 | 61.93 | 0.00 | 61.93 | 55.91 | 6.74 | 9.190 | | |
| 1,000.00 | 1,000.00 | 1,000.00 | 1,000.00 | 3.37 | 3.37 | 0.00 | 61.93 | 0.00 | 61.93 | 55.20 | 7.46 | 8.306 | | |
| 1,100.00 | 1,100.00 | 1,100.00 | 1,100.00 | 3.73 | 3.73 | 0.00 | 61.93 | 0.00 | 61.93 | 54.48 | 8.17 | 7.578 | | |
| 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 4.09 | 4.09 | 0.00 | 61.93 | 0.00 | 61.93 | 53.76 | 8.89 | 6.967 | | |
| 1,300.00 | 1,300.00 | 1,300.00 | 1,300.00 | 4.45 | 4.45 | 0.00 | 61.93 | 0.00 | 61.93 | 53.04 | 9.61 | 6.447 | | |
| 1,400.00 | 1,400.00 | 1,400.00 | 1,400.00 | 4.80 | 4.80 | 0.00 | 61.93 | 0.00 | 61.93 | 52.33 | 10.32 | 5.999 | | |
| 1,500.00 | 1,500.00 | 1,500.00 | 1,500.00 | 5.16 | 5.16 | 0.00 | 61.93 | 0.00 | 61.93 | 51.61 | 11.04 | 5.610 | | |
| 1,600.00 | 1,600.00 | 1,600.00 | 1,600.00 | 5.52 | 5.52 | 0.00 | 61.93 | 0.00 | 61.93 | 50.89 | 11.76 | 5.268 | | |
| 1,700.00 | 1,700.00 | 1,700.00 | 1,700.00 | 5.88 | 5.88 | 0.00 | 61.93 | 0.00 | 61.93 | 50.18 | 12.47 | 4.965 | | |
| 1,800.00 | 1,800.00 | 1,800.00 | 1,800.00 | 6.24 | 6.24 | 0.00 | 61.93 | 0.00 | 61.93 | 49.46 | 13.19 | 4.695 | | |
| 1,900.00 | 1,900.00 | 1,900.00 | 1,900.00 | 6.60 | 6.60 | 0.00 | 61.93 | 0.00 | 61.93 | 48.74 | 13.91 | 4.453 CC, ES | | |
| 2,000.00 | 2,000.00 | 2,000.00 | 2,000.00 | 6.95 | 6.95 | 0.00 | 61.93 | 0.00 | 61.93 | 48.03 | 14.61 | 4.351 | | |
| 2,100.00 | 2,100.00 | 2,097.93 | 2,097.92 | 7.31 | 7.31 | 0.44 | 63.54 | 0.48 | 63.57 | 48.96 | 15.30 | 4.478 | | |
| 2,200.00 | 2,200.00 | 2,195.64 | 2,195.49 | 7.67 | 7.66 | 1.62 | 68.33 | 1.93 | 68.50 | 53.20 | 15.97 | 4.807 | | |
| 2,300.00 | 2,300.00 | 2,292.89 | 2,292.38 | 8.03 | 8.00 | 3.25 | 76.26 | 4.33 | 76.76 | 60.79 | 16.62 | 5.317 | | |
| 2,400.00 | 2,400.00 | 2,389.47 | 2,388.27 | 8.39 | 8.35 | 5.01 | 87.24 | 7.64 | 88.36 | 71.74 | 17.25 | 5.890 | | |
| 2,500.00 | 2,499.98 | 2,485.42 | 2,483.10 | 8.75 | 8.70 | 6.16 | 101.21 | 11.86 | 101.58 | 84.33 | 17.85 | 6.427 | | |
| 2,600.00 | 2,599.84 | 2,580.93 | 2,576.96 | 9.11 | 9.06 | 7.95 | 118.13 | 16.97 | 114.73 | 96.88 | 18.44 | 6.934 | | |
| 2,700.00 | 2,699.45 | 2,675.99 | 2,669.73 | 9.46 | 9.42 | 9.77 | 137.93 | 22.95 | 127.84 | 109.41 | 19.00 | 7.418 | | |
| 2,800.00 | 2,798.70 | 2,770.60 | 2,761.34 | 9.82 | 9.80 | 11.60 | 160.55 | 29.79 | 140.96 | 121.95 | 19.55 | 7.883 | | |
| 2,900.00 | 2,897.47 | 2,864.76 | 2,851.69 | 10.18 | 10.20 | 13.44 | 185.93 | 37.45 | 154.10 | 134.55 | 20.08 | 8.332 | | |
| 3,000.00 | 2,995.62 | 2,958.47 | 2,940.69 | 10.55 | 10.62 | 15.27 | 214.00 | 45.93 | 167.30 | 147.22 | 20.60 | 8.768 | | |
| 3,100.00 | 3,093.06 | 3,051.73 | 3,028.27 | 10.94 | 11.07 | 17.10 | 244.68 | 55.20 | 180.60 | 160.00 | 21.11 | 9.192 | | |
| 3,200.00 | 3,189.64 | 3,144.55 | 3,114.34 | 11.34 | 11.53 | 18.91 | 277.91 | 65.23 | 194.02 | 172.91 | 21.32 | 9.362 | | |
| 3,240.86 | 3,228.84 | 3,182.35 | 3,149.07 | 11.50 | 11.73 | 19.65 | 292.20 | 69.55 | 199.55 | 178.23 | 21.62 | 9.630 | | |
| 3,300.00 | 3,285.45 | 3,236.86 | 3,198.79 | 11.75 | 12.03 | 20.71 | 313.59 | 76.01 | 208.16 | 186.55 | 22.12 | 10.188 | | |
| 3,400.00 | 3,381.17 | 3,328.31 | 3,281.22 | 12.19 | 12.56 | 22.24 | 351.48 | 87.45 | 225.38 | 203.26 | 22.62 | 10.866 | | |
| 3,500.00 | 3,476.90 | 3,418.70 | 3,361.42 | 12.63 | 13.11 | 23.44 | 391.40 | 99.51 | 245.83 | 223.21 | 23.12 | 11.652 | | |
| 3,600.00 | 3,572.62 | 3,507.87 | 3,439.21 | 13.09 | 13.69 | 24.36 | 433.13 | 112.11 | 269.39 | 246.27 | 23.76 | 12.458 | | |
| 3,700.00 | 3,668.34 | 3,600.00 | 3,518.11 | 13.56 | 14.33 | 25.06 | 478.65 | 125.86 | 295.99 | 272.23 | 24.08 | 13.513 | | |
| 3,800.00 | 3,764.07 | 3,682.02 | 3,587.03 | 14.04 | 14.94 | 25.50 | 521.20 | 138.71 | 325.43 | 301.34 | 24.55 | 14.571 | | |
| 3,900.00 | 3,859.79 | 3,766.74 | 3,656.86 | 14.52 | 15.60 | 25.80 | 567.13 | 152.58 | 357.70 | 333.15 | 25.06 | 15.669 | | |
| 4,000.00 | 3,955.51 | 3,851.56 | 3,725.35 | 15.02 | 16.29 | 25.99 | 615.03 | 167.05 | 392.65 | 367.59 | 25.88 | 16.559 | | |
| 4,100.00 | 4,051.24 | 3,944.90 | 3,800.16 | 15.52 | 17.09 | 26.13 | 668.46 | 183.19 | 428.53 | 402.65 | 26.71 | 17.388 | | |
| 4,200.00 | 4,146.96 | 4,038.24 | 3,874.97 | 16.03 | 17.90 | 26.25 | 721.89 | 199.33 | 464.41 | 437.70 | 27.55 | 18.160 | | |
| 4,300.00 | 4,242.68 | 4,131.57 | 3,949.78 | 16.54 | 18.73 | 26.36 | 775.32 | 215.47 | 500.29 | 472.74 | 28.40 | 18.880 | | |
| 4,400.00 | 4,338.41 | 4,224.91 | 4,024.59 | 17.06 | 19.58 | 26.45 | 828.75 | 231.60 | 536.18 | 507.78 | 29.26 | 19.553 | | |
| 4,500.00 | 4,434.13 | 4,318.24 | 4,099.40 | 17.59 | 20.44 | 26.53 | 882.18 | 247.74 | 572.06 | 542.81 | 30.12 | 20.181 | | |
| 4,600.00 | 4,529.85 | 4,411.58 | 4,174.21 | 18.11 | 21.31 | 26.60 | 935.61 | 263.88 | 607.95 | 577.83 | 31.00 | 20.770 | | |
| 4,700.00 | 4,625.58 | 4,504.92 | 4,249.02 | 18.65 | 22.19 | 26.66 | 989.04 | 280.02 | 643.84 | 612.84 | 31.88 | 21.322 | | |
| 4,800.00 | 4,721.30 | 4,598.25 | 4,323.83 | 19.18 | 23.08 | 26.71 | 1,042.47 | 296.15 | 679.73 | 647.85 | 32.77 | 21.841 | | |
| 4,900.00 | 4,817.02 | 4,691.59 | 4,398.64 | 19.72 | 23.98 | 26.76 | 1,095.90 | 312.29 | 715.61 | 682.85 | 33.66 | 22.328 | | |
| 5,000.00 | 4,912.74 | 4,784.93 | 4,473.45 | 20.27 | 24.88 | 26.81 | 1,149.33 | 328.43 | 751.50 | 717.84 | | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-3H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,100.00 | 5,008.47 | 4,878.26 | 4,548.26 | 20.81 | 25.80 | 26.85 | 1,202.76 | 344.57 | 787.39 | 752.84 | 34.56 | 22.786 | | |
| 5,200.00 | 5,104.19 | 4,971.60 | 4,623.07 | 21.36 | 26.71 | 26.89 | 1,256.19 | 360.70 | 823.28 | 787.82 | 35.46 | 23.219 | | |
| 5,300.00 | 5,199.91 | 5,064.94 | 4,697.88 | 21.91 | 27.64 | 26.92 | 1,309.62 | 376.84 | 859.17 | 822.81 | 36.36 | 23.627 | | |
| 5,400.00 | 5,295.64 | 5,158.27 | 4,772.69 | 22.46 | 28.56 | 26.95 | 1,363.05 | 392.98 | 895.06 | 857.79 | 37.28 | 24.012 | | |
| 5,500.00 | 5,391.36 | 5,251.61 | 4,847.50 | 23.02 | 29.50 | 26.98 | 1,416.48 | 409.12 | 930.95 | 892.76 | 38.19 | 24.377 | | |
| 5,600.00 | 5,487.08 | 5,344.95 | 4,922.31 | 23.58 | 30.43 | 27.01 | 1,469.91 | 425.25 | 966.84 | 927.73 | 39.11 | 24.722 | | |
| 5,700.00 | 5,582.81 | 5,438.28 | 4,997.12 | 24.13 | 31.37 | 27.03 | 1,523.34 | 441.39 | 1,002.73 | 962.70 | 40.03 | 25.049 | | |
| 5,800.00 | 5,678.53 | 5,531.62 | 5,071.93 | 24.70 | 32.32 | 27.06 | 1,576.77 | 457.53 | 1,038.62 | 997.67 | 40.96 | 25.360 | | |
| 5,900.00 | 5,774.25 | 5,624.96 | 5,146.74 | 25.26 | 33.26 | 27.08 | 1,630.20 | 473.67 | 1,074.51 | 1,032.63 | 41.88 | 25.655 | | |
| 6,000.00 | 5,869.98 | 5,718.29 | 5,221.55 | 25.82 | 34.21 | 27.10 | 1,683.63 | 489.80 | 1,110.41 | 1,067.59 | 42.81 | 25.936 | | |
| 6,100.00 | 5,965.70 | 5,811.63 | 5,296.36 | 26.39 | 35.16 | 27.12 | 1,737.06 | 505.94 | 1,146.30 | 1,102.55 | 43.75 | 26.203 | | |
| 6,200.00 | 6,061.42 | 5,904.96 | 5,371.17 | 26.95 | 36.12 | 27.14 | 1,790.49 | 522.08 | 1,182.19 | 1,137.51 | 44.68 | 26.458 | | |
| 6,300.00 | 6,157.15 | 5,998.30 | 5,445.98 | 27.52 | 37.07 | 27.15 | 1,843.92 | 538.22 | 1,218.08 | 1,172.46 | 45.62 | 26.701 | | |
| 6,400.00 | 6,252.87 | 6,091.64 | 5,520.79 | 28.09 | 38.03 | 27.17 | 1,897.35 | 554.35 | 1,253.97 | 1,207.41 | 46.56 | 26.933 | | |
| 6,500.00 | 6,348.59 | 6,184.97 | 5,595.60 | 28.66 | 38.99 | 27.18 | 1,950.78 | 570.49 | 1,289.86 | 1,242.36 | 47.50 | 27.154 | | |
| 6,600.00 | 6,444.32 | 6,278.31 | 5,670.41 | 29.23 | 39.95 | 27.20 | 2,004.20 | 586.63 | 1,325.76 | 1,277.31 | 48.44 | 27.366 | | |
| 6,700.00 | 6,540.04 | 6,371.65 | 5,745.22 | 29.80 | 40.91 | 27.21 | 2,057.63 | 602.77 | 1,361.65 | 1,312.26 | 49.39 | 27.569 | | |
| 6,764.28 | 6,601.58 | 6,431.65 | 5,793.31 | 30.17 | 41.53 | 27.22 | 2,091.98 | 613.14 | 1,384.72 | 1,334.72 | 50.00 | 27.695 | | |
| 6,800.00 | 6,635.75 | 6,464.77 | 5,819.86 | 30.37 | 41.87 | 37.69 | 2,110.94 | 618.87 | 1,398.02 | 1,347.67 | 50.35 | 27.766 | | |
| 6,850.00 | 6,683.35 | 6,510.25 | 5,856.31 | 30.66 | 42.34 | 50.68 | 2,136.98 | 626.73 | 1,418.21 | 1,367.33 | 50.88 | 27.873 | | |
| 6,900.00 | 6,730.36 | 6,554.38 | 5,891.68 | 30.94 | 42.80 | 60.60 | 2,162.24 | 634.36 | 1,440.12 | 1,388.66 | 51.45 | 27.988 | | |
| 6,950.00 | 6,776.41 | 6,596.82 | 5,925.70 | 31.21 | 43.24 | 67.49 | 2,186.53 | 641.70 | 1,463.64 | 1,411.57 | 52.07 | 28.109 | | |
| 7,000.00 | 6,821.15 | 6,637.25 | 5,958.10 | 31.47 | 43.66 | 71.96 | 2,209.68 | 648.69 | 1,488.69 | 1,435.96 | 52.73 | 28.234 | | |
| 7,050.00 | 6,864.24 | 6,675.37 | 5,988.65 | 31.73 | 44.05 | 74.62 | 2,231.50 | 655.28 | 1,515.17 | 1,461.74 | 53.42 | 28.362 | | |
| 7,100.00 | 6,905.35 | 6,710.88 | 6,017.11 | 31.97 | 44.42 | 75.92 | 2,251.83 | 661.42 | 1,543.00 | 1,488.83 | 54.16 | 28.489 | | |
| 7,150.00 | 6,944.18 | 6,743.51 | 6,043.27 | 32.21 | 44.76 | 76.16 | 2,270.50 | 667.06 | 1,572.08 | 1,517.14 | 54.94 | 28.615 | | |
| 7,200.00 | 6,980.42 | 6,773.02 | 6,066.92 | 32.45 | 45.07 | 75.55 | 2,287.39 | 672.16 | 1,602.32 | 1,546.56 | 55.76 | 28.738 | | |
| 7,250.00 | 7,013.80 | 6,799.17 | 6,087.88 | 32.68 | 45.34 | 74.20 | 2,302.37 | 676.68 | 1,633.59 | 1,576.99 | 56.61 | 28.859 | | |
| 7,300.00 | 7,044.06 | 6,821.78 | 6,106.00 | 32.91 | 45.57 | 72.22 | 2,315.31 | 680.59 | 1,665.79 | 1,608.30 | 57.48 | 28.978 | | |
| 7,350.00 | 7,070.98 | 6,840.66 | 6,121.13 | 33.15 | 45.77 | 69.68 | 2,326.12 | 683.86 | 1,698.75 | 1,640.36 | 58.39 | 29.095 | | |
| 7,400.00 | 7,094.36 | 6,855.68 | 6,133.17 | 33.39 | 45.92 | 66.64 | 2,334.72 | 686.45 | 1,732.31 | 1,673.01 | 59.30 | 29.212 | | |
| 7,450.00 | 7,114.00 | 9,043.55 | 7,162.00 | 33.65 | 56.43 | 89.12 | 3,058.83 | -364.83 | 1,765.81 | 1,697.91 | 67.90 | 26.008 | | |
| 7,500.00 | 7,129.76 | 9,090.74 | 7,162.00 | 33.93 | 56.50 | 89.64 | 3,058.44 | -412.02 | 1,760.67 | 1,691.39 | 69.28 | 25.413 | | |
| 7,550.00 | 7,141.53 | 9,139.19 | 7,162.00 | 34.22 | 56.59 | 89.98 | 3,058.03 | -460.47 | 1,756.93 | 1,686.20 | 70.73 | 24.839 | | |
| 7,600.00 | 7,149.21 | 9,188.52 | 7,162.00 | 34.55 | 56.71 | 90.19 | 3,057.62 | -509.80 | 1,754.53 | 1,682.32 | 72.21 | 24.299 | | |
| 7,650.00 | 7,152.75 | 9,238.37 | 7,162.00 | 34.90 | 56.85 | 90.29 | 3,057.20 | -559.65 | 1,753.43 | 1,679.70 | 73.72 | 23.784 | | |
| 7,667.38 | 7,153.00 | 9,255.75 | 7,162.00 | 35.04 | 56.91 | 90.29 | 3,057.05 | -577.02 | 1,753.35 | 1,679.09 | 74.25 | 23.613 | | |
| 7,700.00 | 7,153.00 | 9,288.37 | 7,162.00 | 35.29 | 57.03 | 90.29 | 3,056.78 | -609.64 | 1,753.34 | 1,678.09 | 75.26 | 23.298 | | |
| 7,800.00 | 7,153.00 | 9,388.37 | 7,162.00 | 36.22 | 57.49 | 90.29 | 3,055.94 | -709.64 | 1,753.32 | 1,674.79 | 78.53 | 22.326 | | |
| 7,900.00 | 7,153.00 | 9,488.37 | 7,162.00 | 37.35 | 58.12 | 90.29 | 3,055.10 | -809.64 | 1,753.30 | 1,671.25 | 82.05 | 21.368 | | |
| 8,000.00 | 7,153.00 | 9,588.37 | 7,162.00 | 38.67 | 58.96 | 90.29 | 3,054.26 | -909.63 | 1,753.28 | 1,667.50 | 85.79 | 20.438 | | |
| 8,100.00 | 7,153.00 | 9,688.37 | 7,162.00 | 40.16 | 60.04 | 90.29 | 3,053.43 | -1,009.63 | 1,753.26 | 1,663.56 | 89.70 | 19.545 | | |
| 8,200.00 | 7,153.00 | 9,788.37 | 7,162.00 | 41.81 | 61.36 | 90.29 | 3,052.59 | -1,109.62 | 1,753.24 | 1,659.46 | 93.78 | 18.695 | | |
| 8,300.00 | 7,153.00 | 9,888.37 | 7,162.00 | 43.59 | 62.89 | 90.29 | 3,051.75 | -1,209.62 | 1,753.22 | 1,655.22 | 98.00 | 17.890 | | |
| 8,400.00 | 7,153.00 | 9,988.37 | 7,162.00 | 45.47 | 64.61 | 90.29 | 3,050.91 | -1,309.62 | 1,753.20 | 1,650.86 | 102.34 | 17.131 | | |
| 8,500.00 | 7,153.00 | 10,088.37 | 7,162.00 | 47.45 | 66.47 | 90.29 | 3,050.07 | -1,409.61 | 1,753.18 | 1,646.40 | 106.79 | 16.418 | | |
| 8,600.00 | 7,153.00 | 10,188.37 | 7,162.00 | 49.51 | 68.46 | 90.29 | 3,049.23 | -1,509.61 | 1,753.16 | 1,641.84 | 111.32 | 15.748 | | |
| 8,700.00 | 7,153.00 | 10,288.37 | 7,162.00 | 51.64 | 70.54 | 90.29 | 3,048.39 | -1,609.61 | 1,753.14 | 1,637.20 | 115.94 | 15.121 | | |
| 8,800.00 | 7,153.00 | 10,388.37 | 7,162.00 | 53.82 | 72.69 | 90.29 | 3,047.56 | -1,709.60 | 1,753.12 | 1,632.49 | 120.63 | 14.533 | | |
| 8,900.00 | 7,153.00 | 10,488.37 | 7,162.00 | 56.06 | 74.91 | 90.29 | 3,046.72 | -1,809.60 | 1,753.10 | 1,627.72 | 125.39 | 13.982 | | |
| 9,000.00 | 7,153.00 | 10,588.37 | 7,162.00 | 58.34 | 77.17 | 90.29 | 3,045.88 | -1,909.60 | 1,753.08 | 1,622.89 | 130.19 | 13.465 | | |
| 9,100.00 | 7,153.00 | 10,688.37 | 7,162.00 | 60.66 | 79.48 | 90.29 | 3,045.04 | -2,009.59 | 1,753.06 | 1,618.01 | 135.05 | 12.981 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-3H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 9,200.00 | 7,153.00 | 10,788.37 | 7,162.00 | 63.01 | 81.82 | 90.29 | 3,044.20 | -2,109.59 | 1,753.04 | 1,613.09 | 139.96 | 12.526 | | |
| 9,300.00 | 7,153.00 | 10,888.37 | 7,162.00 | 65.40 | 84.19 | 90.29 | 3,043.36 | -2,209.59 | 1,753.02 | 1,608.13 | 144.90 | 12.098 | | |
| 9,400.00 | 7,153.00 | 10,988.37 | 7,162.00 | 67.81 | 86.58 | 90.29 | 3,042.52 | -2,309.58 | 1,753.00 | 1,603.13 | 149.87 | 11.696 | | |
| 9,500.00 | 7,153.00 | 11,088.37 | 7,162.00 | 70.24 | 89.00 | 90.29 | 3,041.69 | -2,409.58 | 1,752.98 | 1,598.10 | 154.88 | 11.318 | | |
| 9,600.00 | 7,153.00 | 11,188.37 | 7,162.00 | 72.70 | 91.44 | 90.29 | 3,040.85 | -2,509.58 | 1,752.96 | 1,593.04 | 159.92 | 10.961 | | |
| 9,700.00 | 7,153.00 | 11,288.37 | 7,162.00 | 75.17 | 93.90 | 90.29 | 3,040.01 | -2,609.57 | 1,752.94 | 1,587.96 | 164.99 | 10.625 | | |
| 9,800.00 | 7,153.00 | 11,388.37 | 7,162.00 | 77.67 | 96.37 | 90.29 | 3,039.17 | -2,709.57 | 1,752.92 | 1,582.85 | 170.07 | 10.307 | | |
| 9,900.00 | 7,153.00 | 11,488.37 | 7,162.00 | 80.17 | 98.86 | 90.29 | 3,038.33 | -2,809.56 | 1,752.90 | 1,577.72 | 175.18 | 10.006 | | |
| 10,000.00 | 7,153.00 | 11,588.37 | 7,162.00 | 82.69 | 101.36 | 90.29 | 3,037.49 | -2,909.56 | 1,752.88 | 1,572.57 | 180.31 | 9.721 | | |
| 10,100.00 | 7,153.00 | 11,688.37 | 7,162.00 | 85.23 | 103.88 | 90.29 | 3,036.65 | -3,009.56 | 1,752.86 | 1,567.40 | 185.46 | 9.451 | | |
| 10,200.00 | 7,153.00 | 11,788.37 | 7,162.00 | 87.77 | 106.40 | 90.29 | 3,035.82 | -3,109.55 | 1,752.84 | 1,562.22 | 190.62 | 9.195 | | |
| 10,300.00 | 7,153.00 | 11,888.37 | 7,162.00 | 90.33 | 108.94 | 90.29 | 3,034.98 | -3,209.55 | 1,752.82 | 1,557.02 | 195.80 | 8.952 | | |
| 10,400.00 | 7,153.00 | 11,988.37 | 7,162.00 | 92.89 | 111.48 | 90.29 | 3,034.14 | -3,309.55 | 1,752.80 | 1,551.81 | 201.00 | 8.721 | | |
| 10,500.00 | 7,153.00 | 12,088.37 | 7,162.00 | 95.47 | 114.03 | 90.29 | 3,033.30 | -3,409.54 | 1,752.78 | 1,546.58 | 206.20 | 8.500 | | |
| 10,600.00 | 7,153.00 | 12,188.37 | 7,162.00 | 98.05 | 116.60 | 90.29 | 3,032.46 | -3,509.54 | 1,752.76 | 1,541.34 | 211.42 | 8.290 | | |
| 10,700.00 | 7,153.00 | 12,288.37 | 7,162.00 | 100.64 | 119.16 | 90.29 | 3,031.62 | -3,609.54 | 1,752.74 | 1,536.09 | 216.65 | 8.090 | | |
| 10,800.00 | 7,153.00 | 12,388.37 | 7,162.00 | 103.24 | 121.74 | 90.29 | 3,030.78 | -3,709.53 | 1,752.72 | 1,530.83 | 221.89 | 7.899 | | |
| 10,900.00 | 7,153.00 | 12,488.37 | 7,162.00 | 105.84 | 124.32 | 90.29 | 3,029.95 | -3,809.53 | 1,752.70 | 1,525.56 | 227.14 | 7.716 | | |
| 11,000.00 | 7,153.00 | 12,588.37 | 7,162.00 | 108.45 | 126.91 | 90.29 | 3,029.11 | -3,909.53 | 1,752.68 | 1,520.29 | 232.40 | 7.542 | | |
| 11,100.00 | 7,153.00 | 12,688.37 | 7,162.00 | 111.07 | 129.50 | 90.29 | 3,028.27 | -4,009.52 | 1,752.66 | 1,515.00 | 237.66 | 7.375 | | |
| 11,200.00 | 7,153.00 | 12,788.37 | 7,162.00 | 113.69 | 132.10 | 90.29 | 3,027.43 | -4,109.52 | 1,752.64 | 1,509.70 | 242.94 | 7.214 | | |
| 11,300.00 | 7,153.00 | 12,888.37 | 7,162.00 | 116.31 | 134.70 | 90.29 | 3,026.59 | -4,209.52 | 1,752.62 | 1,504.40 | 248.22 | 7.061 | | |
| 11,400.00 | 7,153.00 | 12,988.37 | 7,162.00 | 118.94 | 137.31 | 90.29 | 3,025.75 | -4,309.51 | 1,752.60 | 1,499.09 | 253.51 | 6.913 | | |
| 11,500.00 | 7,153.00 | 13,088.37 | 7,162.00 | 121.57 | 139.92 | 90.29 | 3,024.91 | -4,409.51 | 1,752.58 | 1,493.78 | 258.80 | 6.772 | | |
| 11,600.00 | 7,153.00 | 13,188.37 | 7,162.00 | 124.21 | 142.54 | 90.29 | 3,024.08 | -4,509.51 | 1,752.56 | 1,488.46 | 264.11 | 6.636 | | |
| 11,700.00 | 7,153.00 | 13,288.37 | 7,162.00 | 126.85 | 145.16 | 90.29 | 3,023.24 | -4,609.50 | 1,752.54 | 1,483.13 | 269.41 | 6.505 | | |
| 11,800.00 | 7,153.00 | 13,388.37 | 7,162.00 | 129.49 | 147.78 | 90.29 | 3,022.40 | -4,709.50 | 1,752.52 | 1,477.80 | 274.72 | 6.379 | | |
| 11,900.00 | 7,153.00 | 13,488.37 | 7,162.00 | 132.14 | 150.41 | 90.29 | 3,021.56 | -4,809.49 | 1,752.50 | 1,472.46 | 280.04 | 6.258 | | |
| 12,000.00 | 7,153.00 | 13,588.37 | 7,162.00 | 134.79 | 153.04 | 90.29 | 3,020.72 | -4,909.49 | 1,752.48 | 1,467.12 | 285.36 | 6.141 | | |
| 12,100.00 | 7,153.00 | 13,688.37 | 7,162.00 | 137.44 | 155.67 | 90.29 | 3,019.88 | -5,009.49 | 1,752.46 | 1,461.77 | 290.69 | 6.029 | | |
| 12,200.00 | 7,153.00 | 13,788.37 | 7,162.00 | 140.10 | 158.31 | 90.29 | 3,019.04 | -5,109.48 | 1,752.44 | 1,456.42 | 296.02 | 5.920 | | |
| 12,300.00 | 7,153.00 | 13,888.37 | 7,162.00 | 142.76 | 160.95 | 90.29 | 3,018.21 | -5,209.48 | 1,752.42 | 1,451.07 | 301.36 | 5.815 | | |
| 12,400.00 | 7,153.00 | 13,988.37 | 7,162.00 | 145.42 | 163.59 | 90.29 | 3,017.37 | -5,309.48 | 1,752.40 | 1,445.71 | 306.69 | 5.714 | | |
| 12,500.00 | 7,153.00 | 14,088.37 | 7,162.00 | 148.08 | 166.24 | 90.29 | 3,016.53 | -5,409.47 | 1,752.38 | 1,440.35 | 312.04 | 5.616 | | |
| 12,600.00 | 7,153.00 | 14,188.37 | 7,162.00 | 150.75 | 168.88 | 90.29 | 3,015.69 | -5,509.47 | 1,752.36 | 1,434.98 | 317.38 | 5.521 | | |
| 12,700.00 | 7,153.00 | 14,288.37 | 7,162.00 | 153.41 | 171.53 | 90.29 | 3,014.85 | -5,609.47 | 1,752.34 | 1,429.61 | 322.73 | 5.430 | | |
| 12,800.00 | 7,153.00 | 14,388.37 | 7,162.00 | 156.08 | 174.18 | 90.29 | 3,014.01 | -5,709.46 | 1,752.32 | 1,424.24 | 328.08 | 5.341 | | |
| 12,900.00 | 7,153.00 | 14,488.37 | 7,162.00 | 158.75 | 176.84 | 90.29 | 3,013.17 | -5,809.46 | 1,752.30 | 1,418.87 | 333.44 | 5.255 | | |
| 13,000.00 | 7,153.00 | 14,588.37 | 7,162.00 | 161.42 | 179.49 | 90.29 | 3,012.34 | -5,909.46 | 1,752.28 | 1,413.49 | 338.80 | 5.172 | | |
| 13,100.00 | 7,153.00 | 14,688.37 | 7,162.00 | 164.10 | 182.15 | 90.29 | 3,011.50 | -6,009.45 | 1,752.26 | 1,408.11 | 344.16 | 5.091 | | |
| 13,200.00 | 7,153.00 | 14,788.37 | 7,162.00 | 166.77 | 184.81 | 90.29 | 3,010.66 | -6,109.45 | 1,752.25 | 1,402.73 | 349.52 | 5.013 | | |
| 13,300.00 | 7,153.00 | 14,888.37 | 7,162.00 | 169.45 | 187.47 | 90.29 | 3,009.82 | -6,209.45 | 1,752.23 | 1,397.34 | 354.88 | 4.937 | | |
| 13,400.00 | 7,153.00 | 14,988.37 | 7,162.00 | 172.13 | 190.13 | 90.29 | 3,008.98 | -6,309.44 | 1,752.21 | 1,391.95 | 360.25 | 4.864 | | |
| 13,500.00 | 7,153.00 | 15,088.37 | 7,162.00 | 174.81 | 192.80 | 90.29 | 3,008.14 | -6,409.44 | 1,752.19 | 1,386.56 | 365.62 | 4.792 | | |
| 13,600.00 | 7,153.00 | 15,188.37 | 7,162.00 | 177.49 | 195.46 | 90.29 | 3,007.30 | -6,509.43 | 1,752.17 | 1,381.17 | 370.99 | 4.723 | | |
| 13,700.00 | 7,153.00 | 15,288.37 | 7,162.00 | 180.17 | 198.13 | 90.29 | 3,006.47 | -6,609.43 | 1,752.15 | 1,375.78 | 376.37 | 4.655 | | |
| 13,800.00 | 7,153.00 | 15,388.37 | 7,162.00 | 182.86 | 200.80 | 90.29 | 3,005.63 | -6,709.43 | 1,752.13 | 1,370.38 | 381.74 | 4.590 | | |
| 13,900.00 | 7,153.00 | 15,488.37 | 7,162.00 | 185.54 | 203.47 | 90.29 | 3,004.79 | -6,809.42 | 1,752.11 | 1,364.98 | 387.12 | 4.526 | | |
| 14,000.00 | 7,153.00 | 15,588.37 | 7,162.00 | 188.23 | 206.14 | 90.29 | 3,003.95 | -6,909.42 | 1,752.09 | 1,359.58 | 392.50 | 4.464 | | |
| 14,100.00 | 7,153.00 | 15,688.37 | 7,162.00 | 190.91 | 208.81 | 90.29 | 3,003.11 | -7,009.42 | 1,752.07 | 1,354.18 | 397.88 | 4.403 | | |
| 14,200.00 | 7,153.00 | 15,788.37 | 7,162.00 | 193.60 | 211.49 | 90.29 | 3,002.27 | -7,109.41 | 1,752.05 | 1,348.78 | 403.27 | 4.345 | | |
| 14,300.00 | 7,153.00 | 15,888.37 | 7,162.00 | 196.29 | 214.16 | 90.29 | 3,001.43 | -7,209.41 | 1,752.03 | 1,343.37 | 408.65 | 4.287 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-3H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------|-----------------|--------------|--------------|------------------------|-------------------------|---------------------------|--------------------|-----------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Highside | | Distance | | | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Reference | Offset | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 14,400.00 | 7,153.00 | 15,988.37 | 7,162.00 | 198.98 | 216.84 | 90.29 | | 3,000.60 | -7,309.41 | 1,752.01 | 1,337.97 | 414.04 | 4.232 | | |
| 14,500.00 | 7,153.00 | 16,088.37 | 7,162.00 | 201.67 | 219.52 | 90.29 | | 2,999.76 | -7,409.40 | 1,751.99 | 1,332.56 | 419.43 | 4.177 | | |
| 14,600.00 | 7,153.00 | 16,188.37 | 7,162.00 | 204.36 | 222.19 | 90.29 | | 2,998.92 | -7,509.40 | 1,751.97 | 1,327.15 | 424.81 | 4.124 | | |
| 14,700.00 | 7,153.00 | 16,288.37 | 7,162.00 | 207.05 | 224.87 | 90.29 | | 2,998.08 | -7,609.40 | 1,751.95 | 1,321.74 | 430.21 | 4.072 | | |
| 14,800.00 | 7,153.00 | 16,388.37 | 7,162.00 | 209.75 | 227.55 | 90.29 | | 2,997.24 | -7,709.39 | 1,751.93 | 1,316.33 | 435.60 | 4.022 | | |
| 14,900.00 | 7,153.00 | 16,488.37 | 7,162.00 | 212.44 | 230.24 | 90.29 | | 2,996.40 | -7,809.39 | 1,751.91 | 1,310.92 | 440.99 | 3.973 | | |
| 15,000.00 | 7,153.00 | 16,588.37 | 7,162.00 | 215.13 | 232.92 | 90.29 | | 2,995.57 | -7,909.39 | 1,751.89 | 1,305.50 | 446.38 | 3.925 | | |
| 15,100.00 | 7,153.00 | 16,688.37 | 7,162.00 | 217.83 | 235.60 | 90.29 | | 2,994.73 | -8,009.38 | 1,751.87 | 1,300.09 | 451.78 | 3.878 | | |
| 15,200.00 | 7,153.00 | 16,788.37 | 7,162.00 | 220.53 | 238.29 | 90.29 | | 2,993.89 | -8,109.38 | 1,751.85 | 1,294.67 | 457.18 | 3.832 | | |
| 15,300.00 | 7,153.00 | 16,888.37 | 7,162.00 | 223.22 | 240.97 | 90.29 | | 2,993.05 | -8,209.38 | 1,751.83 | 1,289.25 | 462.57 | 3.787 | | |
| 15,389.04 | 7,153.00 | 16,977.40 | 7,162.00 | 225.62 | 243.36 | 90.29 | | 2,992.30 | -8,298.41 | 1,751.81 | 1,284.43 | 467.38 | 3.748 | | |
| 15,400.00 | 7,153.00 | 16,978.51 | 7,162.00 | 225.92 | 243.39 | 90.29 | | 2,992.29 | -8,299.52 | 1,751.83 | 1,283.93 | 467.90 | 3.744 | | |
| 15,455.54 | 7,153.00 | 16,978.51 | 7,162.00 | 227.42 | 243.39 | 90.29 | | 2,992.29 | -8,299.52 | 1,753.02 | 1,282.77 | 470.25 | 3.728 SF | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-4H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|----------------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | | Rule Assigned: | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 47.36 | 0.00 | 47.36 | 47.36 | | | | | |
| 100.00 | 100.00 | 100.00 | 100.00 | 0.14 | 0.14 | 0.00 | 47.36 | 0.00 | 47.36 | 47.07 | 0.29 | 165.141 | | | |
| 200.00 | 200.00 | 200.00 | 200.00 | 0.50 | 0.50 | 0.00 | 47.36 | 0.00 | 47.36 | 46.36 | 1.00 | 47.183 | | | |
| 300.00 | 300.00 | 300.00 | 300.00 | 0.86 | 0.86 | 0.00 | 47.36 | 0.00 | 47.36 | 45.64 | 1.72 | 27.524 | | | |
| 400.00 | 400.00 | 400.00 | 400.00 | 1.22 | 1.22 | 0.00 | 47.36 | 0.00 | 47.36 | 44.92 | 2.44 | 19.428 | | | |
| 500.00 | 500.00 | 500.00 | 500.00 | 1.58 | 1.58 | 0.00 | 47.36 | 0.00 | 47.36 | 44.20 | 3.15 | 15.013 | | | |
| 600.00 | 600.00 | 600.00 | 600.00 | 1.94 | 1.94 | 0.00 | 47.36 | 0.00 | 47.36 | 43.49 | 3.87 | 12.233 | | | |
| 700.00 | 700.00 | 700.00 | 700.00 | 2.29 | 2.29 | 0.00 | 47.36 | 0.00 | 47.36 | 42.77 | 4.59 | 10.321 | | | |
| 800.00 | 800.00 | 800.00 | 800.00 | 2.65 | 2.65 | 0.00 | 47.36 | 0.00 | 47.36 | 42.05 | 5.31 | 8.927 | | | |
| 900.00 | 900.00 | 900.00 | 900.00 | 3.01 | 3.01 | 0.00 | 47.36 | 0.00 | 47.36 | 41.34 | 6.02 | 7.864 | | | |
| 1,000.00 | 1,000.00 | 1,000.00 | 1,000.00 | 3.37 | 3.37 | 0.00 | 47.36 | 0.00 | 47.36 | 40.62 | 6.74 | 7.027 | | | |
| 1,100.00 | 1,100.00 | 1,100.00 | 1,100.00 | 3.73 | 3.73 | 0.00 | 47.36 | 0.00 | 47.36 | 39.90 | 7.46 | 6.352 | | | |
| 1,200.00 | 1,200.00 | 1,200.00 | 1,200.00 | 4.09 | 4.09 | 0.00 | 47.36 | 0.00 | 47.36 | 39.19 | 8.17 | 5.794 | | | |
| 1,300.00 | 1,300.00 | 1,300.00 | 1,300.00 | 4.45 | 4.45 | 0.00 | 47.36 | 0.00 | 47.36 | 38.47 | 8.89 | 5.327 | | | |
| 1,400.00 | 1,400.00 | 1,400.00 | 1,400.00 | 4.80 | 4.80 | 0.00 | 47.36 | 0.00 | 47.36 | 37.75 | 9.61 | 4.930 | | | |
| 1,500.00 | 1,500.00 | 1,500.00 | 1,500.00 | 5.16 | 5.16 | 0.00 | 47.36 | 0.00 | 47.36 | 37.03 | 10.32 | 4.587 | | | |
| 1,600.00 | 1,600.00 | 1,600.00 | 1,600.00 | 5.52 | 5.52 | 0.00 | 47.36 | 0.00 | 47.36 | 36.32 | 11.04 | 4.289 | | | |
| 1,700.00 | 1,700.00 | 1,700.00 | 1,700.00 | 5.88 | 5.88 | 0.00 | 47.36 | 0.00 | 47.36 | 35.60 | 11.76 | 4.028 | | | |
| 1,800.00 | 1,800.00 | 1,800.00 | 1,800.00 | 6.24 | 6.24 | 0.00 | 47.36 | 0.00 | 47.36 | 34.88 | 12.47 | 3.796 | | | |
| 1,900.00 | 1,900.00 | 1,900.00 | 1,900.00 | 6.60 | 6.60 | 0.00 | 47.36 | 0.00 | 47.36 | 34.17 | 13.19 | 3.590 | | | |
| 2,000.00 | 2,000.00 | 2,000.00 | 2,000.00 | 6.95 | 6.95 | 0.00 | 47.36 | 0.00 | 47.36 | 33.45 | 13.91 | 3.405 | | | |
| 2,100.00 | 2,100.00 | 2,100.00 | 2,100.00 | 7.31 | 7.31 | 0.00 | 47.36 | 0.00 | 47.36 | 32.73 | 14.63 | 3.238 | CC, ES | | |
| 2,200.00 | 2,200.00 | 2,198.42 | 2,198.41 | 7.67 | 7.67 | 0.65 | 48.95 | 0.56 | 48.98 | 33.65 | 15.33 | 3.195 | | | |
| 2,300.00 | 2,300.00 | 2,296.62 | 2,296.46 | 8.03 | 8.02 | 2.37 | 53.72 | 2.23 | 53.89 | 37.87 | 16.02 | 3.364 | | | |
| 2,400.00 | 2,400.00 | 2,394.35 | 2,393.83 | 8.39 | 8.37 | 4.63 | 61.62 | 4.99 | 62.13 | 45.44 | 16.69 | 3.723 | | | |
| 2,500.00 | 2,499.98 | 2,491.60 | 2,490.38 | 8.75 | 8.71 | 6.46 | 72.58 | 8.83 | 72.02 | 54.69 | 17.33 | 4.155 | | | |
| 2,600.00 | 2,599.84 | 2,588.49 | 2,586.13 | 9.11 | 9.07 | 9.05 | 86.57 | 13.72 | 81.91 | 63.95 | 17.96 | 4.561 | | | |
| 2,700.00 | 2,699.45 | 2,685.00 | 2,680.95 | 9.46 | 9.43 | 11.73 | 103.54 | 19.66 | 91.87 | 73.31 | 18.56 | 4.949 | | | |
| 2,800.00 | 2,798.70 | 2,781.14 | 2,774.74 | 9.82 | 9.80 | 14.46 | 123.43 | 26.62 | 101.97 | 82.82 | 19.15 | 5.326 | | | |
| 2,900.00 | 2,897.47 | 2,876.88 | 2,867.39 | 10.18 | 10.18 | 17.22 | 146.18 | 34.58 | 112.28 | 92.57 | 19.71 | 5.697 | | | |
| 3,000.00 | 2,995.62 | 2,972.22 | 2,958.81 | 10.55 | 10.59 | 19.97 | 171.72 | 43.52 | 122.88 | 102.63 | 20.26 | 6.066 | | | |
| 3,100.00 | 3,093.06 | 3,067.16 | 3,048.89 | 10.94 | 11.01 | 22.70 | 199.99 | 53.42 | 133.84 | 113.04 | 20.80 | 6.436 | | | |
| 3,200.00 | 3,189.64 | 3,161.69 | 3,137.55 | 11.34 | 11.46 | 25.38 | 230.93 | 64.25 | 145.20 | 123.87 | 21.33 | 6.806 | | | |
| 3,240.86 | 3,228.84 | 3,200.00 | 3,173.17 | 11.50 | 11.64 | 26.46 | 244.25 | 68.91 | 149.97 | 128.43 | 21.54 | 6.961 | | | |
| 3,300.00 | 3,285.45 | 3,255.75 | 3,224.66 | 11.75 | 11.93 | 27.98 | 264.44 | 75.97 | 157.56 | 135.69 | 21.88 | 7.202 | | | |
| 3,400.00 | 3,381.17 | 3,349.07 | 3,309.87 | 12.19 | 12.44 | 30.04 | 300.33 | 88.54 | 173.14 | 150.71 | 22.43 | 7.720 | | | |
| 3,500.00 | 3,476.90 | 3,441.43 | 3,392.95 | 12.63 | 12.97 | 31.54 | 338.41 | 101.86 | 192.01 | 169.03 | 22.97 | 8.357 | | | |
| 3,600.00 | 3,572.62 | 3,532.67 | 3,473.69 | 13.09 | 13.53 | 32.55 | 378.49 | 115.89 | 214.01 | 190.50 | 23.52 | 9.101 | | | |
| 3,700.00 | 3,668.34 | 3,622.61 | 3,551.93 | 13.56 | 14.12 | 33.18 | 420.37 | 130.55 | 239.03 | 214.98 | 24.05 | 9.940 | | | |
| 3,800.00 | 3,764.07 | 3,711.13 | 3,627.53 | 14.04 | 14.73 | 33.51 | 463.81 | 145.75 | 266.95 | 242.38 | 24.56 | 10.868 | | | |
| 3,900.00 | 3,859.79 | 3,800.00 | 3,701.97 | 14.52 | 15.39 | 33.62 | 509.64 | 161.79 | 297.68 | 272.55 | 25.13 | 11.844 | | | |
| 4,000.00 | 3,955.51 | 3,889.28 | 3,775.55 | 15.02 | 16.08 | 33.60 | 557.36 | 178.49 | 330.61 | 304.84 | 25.76 | 12.833 | | | |
| 4,100.00 | 4,051.24 | 3,983.63 | 3,853.22 | 15.52 | 16.84 | 33.58 | 607.93 | 196.19 | 363.72 | 337.12 | 26.60 | 13.674 | | | |
| 4,200.00 | 4,146.96 | 4,077.99 | 3,930.90 | 16.03 | 17.62 | 33.56 | 658.49 | 213.89 | 396.83 | 369.38 | 27.45 | 14.458 | | | |
| 4,300.00 | 4,242.68 | 4,172.35 | 4,008.57 | 16.54 | 18.41 | 33.54 | 709.06 | 231.58 | 429.94 | 401.64 | 28.31 | 15.188 | | | |
| 4,400.00 | 4,338.41 | 4,266.71 | 4,086.24 | 17.06 | 19.22 | 33.52 | 759.63 | 249.28 | 463.06 | 433.88 | 29.18 | 15.871 | | | |
| 4,500.00 | 4,434.13 | 4,361.07 | 4,163.92 | 17.59 | 20.05 | 33.51 | 810.19 | 266.98 | 496.17 | 466.11 | 30.06 | 16.509 | | | |
| 4,600.00 | 4,529.85 | 4,455.43 | 4,241.59 | 18.11 | 20.88 | 33.50 | 860.76 | 284.68 | 529.28 | 498.34 | 30.94 | 17.106 | | | |
| 4,700.00 | 4,625.58 | 4,549.79 | 4,319.27 | 18.65 | 21.73 | 33.49 | 911.33 | 302.37 | 562.40 | 530.56 | 31.84 | 17.665 | | | |
| 4,800.00 | 4,721.30 | 4,644.14 | 4,396.94 | 19.18 | 22.59 | 33.48 | 961.89 | 320.07 | 595.51 | 562.77 | 32.74 | 18.190 | | | |
| 4,900.00 | 4,817.02 | 4,738.50 | 4,474.62 | 19.72 | 23.45 | 33.47 | 1,012.46 | 337.77 | 628.62 | 594.98 | 33.65 | 18.684 | | | |
| 5,000.00 | 4,912.74 | 4,832.86 | 4,552.29 | 20.27 | 24.32 | 33.46 | 1,063.03 | 355.47 | 661.73 | 627.18 | 34.56 | 19.148 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-4H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,100.00 | 5,008.47 | 4,927.22 | 4,629.96 | 20.81 | 25.20 | 33.46 | 1,113.60 | 373.17 | 694.85 | 659.37 | 35.48 | 19.586 | | |
| 5,200.00 | 5,104.19 | 5,021.58 | 4,707.64 | 21.36 | 26.08 | 33.45 | 1,164.16 | 390.86 | 727.96 | 691.56 | 36.40 | 19.998 | | |
| 5,300.00 | 5,199.91 | 5,115.94 | 4,785.31 | 21.91 | 26.97 | 33.45 | 1,214.73 | 408.56 | 761.07 | 723.74 | 37.33 | 20.388 | | |
| 5,400.00 | 5,295.64 | 5,210.29 | 4,862.99 | 22.46 | 27.87 | 33.44 | 1,265.30 | 426.26 | 794.19 | 755.92 | 38.26 | 20.756 | | |
| 5,500.00 | 5,391.36 | 5,304.65 | 4,940.66 | 23.02 | 28.77 | 33.44 | 1,315.86 | 443.96 | 827.30 | 788.10 | 39.20 | 21.105 | | |
| 5,600.00 | 5,487.08 | 5,399.01 | 5,018.34 | 23.58 | 29.67 | 33.43 | 1,366.43 | 461.65 | 860.41 | 820.27 | 40.14 | 21.435 | | |
| 5,700.00 | 5,582.81 | 5,493.37 | 5,096.01 | 24.13 | 30.57 | 33.43 | 1,417.00 | 479.35 | 893.53 | 852.44 | 41.08 | 21.749 | | |
| 5,800.00 | 5,678.53 | 5,587.73 | 5,173.68 | 24.70 | 31.48 | 33.42 | 1,467.57 | 497.05 | 926.64 | 884.61 | 42.03 | 22.046 | | |
| 5,900.00 | 5,774.25 | 5,682.09 | 5,251.36 | 25.26 | 32.40 | 33.42 | 1,518.13 | 514.75 | 959.75 | 916.77 | 42.98 | 22.329 | | |
| 6,000.00 | 5,869.98 | 5,776.45 | 5,329.03 | 25.82 | 33.31 | 33.42 | 1,568.70 | 532.44 | 992.87 | 948.93 | 43.93 | 22.599 | | |
| 6,100.00 | 5,965.70 | 5,870.80 | 5,406.71 | 26.39 | 34.23 | 33.42 | 1,619.27 | 550.14 | 1,025.98 | 981.09 | 44.89 | 22.855 | | |
| 6,200.00 | 6,061.42 | 5,965.16 | 5,484.38 | 26.95 | 35.15 | 33.41 | 1,669.83 | 567.84 | 1,059.09 | 1,013.24 | 45.85 | 23.100 | | |
| 6,300.00 | 6,157.15 | 6,059.52 | 5,562.06 | 27.52 | 36.07 | 33.41 | 1,720.40 | 585.54 | 1,092.20 | 1,045.40 | 46.81 | 23.333 | | |
| 6,400.00 | 6,252.87 | 6,153.88 | 5,639.73 | 28.09 | 37.00 | 33.41 | 1,770.97 | 603.23 | 1,125.32 | 1,077.55 | 47.77 | 23.556 | | |
| 6,500.00 | 6,348.59 | 6,248.24 | 5,717.40 | 28.66 | 37.92 | 33.40 | 1,821.53 | 620.93 | 1,158.43 | 1,109.69 | 48.74 | 23.769 | | |
| 6,600.00 | 6,444.32 | 6,342.60 | 5,795.08 | 29.23 | 38.85 | 33.40 | 1,872.10 | 638.63 | 1,191.54 | 1,141.84 | 49.70 | 23.973 | | |
| 6,700.00 | 6,540.04 | 6,436.95 | 5,872.75 | 29.80 | 39.78 | 33.40 | 1,922.67 | 656.33 | 1,224.66 | 1,173.98 | 50.67 | 24.168 | | |
| 6,764.28 | 6,601.58 | 6,497.61 | 5,922.68 | 30.17 | 40.38 | 33.40 | 1,955.18 | 667.70 | 1,245.94 | 1,194.65 | 51.30 | 24.290 | | |
| 6,800.00 | 6,635.75 | 6,531.08 | 5,950.24 | 30.37 | 40.71 | 44.03 | 1,973.11 | 673.98 | 1,258.36 | 1,206.70 | 51.66 | 24.360 | | |
| 6,850.00 | 6,683.35 | 6,577.00 | 5,988.03 | 30.66 | 41.17 | 57.25 | 1,997.72 | 682.59 | 1,277.64 | 1,225.44 | 52.21 | 24.472 | | |
| 6,900.00 | 6,730.36 | 6,621.49 | 6,024.66 | 30.94 | 41.61 | 67.36 | 2,021.56 | 690.94 | 1,299.06 | 1,246.25 | 52.81 | 24.599 | | |
| 6,950.00 | 6,776.41 | 6,664.22 | 6,059.84 | 31.21 | 42.03 | 74.41 | 2,044.46 | 698.95 | 1,322.51 | 1,269.05 | 53.46 | 24.740 | | |
| 7,000.00 | 6,821.15 | 6,704.88 | 6,093.30 | 31.47 | 42.43 | 79.00 | 2,066.25 | 706.58 | 1,347.89 | 1,293.74 | 54.15 | 24.893 | | |
| 7,050.00 | 6,864.24 | 6,743.14 | 6,124.80 | 31.73 | 42.81 | 81.73 | 2,086.75 | 713.75 | 1,375.10 | 1,320.22 | 54.88 | 25.057 | | |
| 7,100.00 | 6,905.35 | 6,779.28 | 6,156.30 | 31.97 | 43.18 | 71.94 | 2,106.60 | 720.60 | 1,406.31 | 1,347.70 | 55.59 | 25.221 | | |
| 7,150.00 | 6,944.18 | 6,816.49 | 6,186.80 | 32.21 | 43.54 | 75.09 | 2,126.45 | 725.45 | 1,436.92 | 1,374.20 | 56.29 | 25.385 | | |
| 7,200.00 | 6,980.42 | 6,851.73 | 6,217.30 | 32.45 | 43.89 | 77.38 | 2,146.30 | 730.30 | 1,467.53 | 1,400.69 | 56.99 | 25.549 | | |
| 7,250.00 | 7,013.80 | 6,886.97 | 6,247.80 | 32.68 | 44.23 | 79.00 | 2,166.15 | 735.15 | 1,498.14 | 1,424.58 | 57.69 | 25.713 | | |
| 7,300.00 | 7,044.06 | 6,917.21 | 6,278.30 | 32.91 | 44.57 | 80.12 | 2,186.00 | 740.00 | 1,528.70 | 1,448.47 | 58.39 | 25.877 | | |
| 7,350.00 | 7,070.98 | 6,947.45 | 6,308.80 | 33.15 | 44.92 | 80.86 | 2,205.85 | 744.85 | 1,559.26 | 1,472.36 | 59.09 | 26.041 | | |
| 7,400.00 | 7,094.36 | 6,977.69 | 6,339.30 | 33.39 | 45.27 | 81.32 | 2,225.70 | 749.70 | 1,589.82 | 1,496.25 | 59.79 | 26.205 | | |
| 7,450.00 | 7,114.00 | 6,998.93 | 6,369.80 | 33.63 | 45.62 | 81.58 | 2,245.55 | 754.55 | 1,620.38 | 1,520.14 | 60.49 | 26.369 | | |
| 7,500.00 | 7,129.76 | 7,019.17 | 6,399.30 | 33.87 | 45.97 | 81.71 | 2,265.40 | 759.40 | 1,650.94 | 1,544.03 | 61.19 | 26.533 | | |
| 7,550.00 | 7,141.53 | 7,039.41 | 6,429.80 | 34.11 | 46.32 | 81.77 | 2,285.25 | 764.25 | 1,681.50 | 1,567.92 | 61.89 | 26.697 | | |
| 7,600.00 | 7,149.21 | 7,059.65 | 6,459.30 | 34.35 | 46.67 | 81.78 | 2,305.10 | 769.10 | 1,712.06 | 1,591.81 | 62.59 | 26.861 | | |
| 7,650.00 | 7,152.75 | 7,079.89 | 6,489.80 | 34.59 | 47.02 | 81.79 | 2,324.95 | 773.95 | 1,742.62 | 1,615.70 | 63.29 | 27.025 | | |
| 7,667.38 | 7,153.00 | 7,099.13 | 6,519.30 | 34.83 | 47.37 | 81.79 | 2,344.80 | 778.80 | 1,773.18 | 1,639.59 | 63.99 | 27.189 | | |
| 7,700.00 | 7,153.00 | 7,119.37 | 6,549.80 | 35.07 | 47.72 | 81.79 | 2,364.65 | 783.65 | 1,803.74 | 1,663.48 | 64.69 | 27.353 | | |
| 7,800.00 | 7,153.00 | 7,139.61 | 6,579.30 | 35.31 | 48.07 | 81.79 | 2,384.50 | 788.50 | 1,834.30 | 1,687.37 | 65.39 | 27.517 | | |
| 7,900.00 | 7,153.00 | 7,159.85 | 6,609.80 | 35.55 | 48.42 | 81.79 | 2,404.35 | 793.35 | 1,864.86 | 1,711.26 | 66.09 | 27.681 | | |
| 8,000.00 | 7,153.00 | 7,180.09 | 6,639.30 | 35.79 | 48.77 | 81.79 | 2,424.20 | 798.20 | 1,895.42 | 1,735.15 | 66.79 | 27.845 | | |
| 8,100.00 | 7,153.00 | 7,200.33 | 6,669.80 | 36.03 | 49.12 | 81.79 | 2,444.05 | 803.05 | 1,925.98 | 1,759.04 | 67.49 | 28.009 | | |
| 8,200.00 | 7,153.00 | 7,220.57 | 6,699.30 | 36.27 | 49.47 | 81.79 | 2,463.90 | 807.90 | 1,956.54 | 1,782.93 | 68.19 | 28.173 | | |
| 8,300.00 | 7,153.00 | 7,240.81 | 6,729.80 | 36.51 | 49.82 | 81.79 | 2,483.75 | 812.75 | 1,987.10 | 1,806.82 | 68.89 | 28.337 | | |
| 8,400.00 | 7,153.00 | 7,261.05 | 6,759.30 | 36.75 | 50.17 | 81.79 | 2,503.60 | 817.60 | 2,017.66 | 1,830.71 | 69.59 | 28.501 | | |
| 8,500.00 | 7,153.00 | 7,281.29 | 6,789.80 | 37.00 | 50.52 | 81.79 | 2,523.45 | 822.45 | 2,048.22 | 1,854.60 | 70.29 | 28.665 | | |
| 8,600.00 | 7,153.00 | 7,301.53 | 6,819.30 | 37.24 | 50.87 | 81.79 | 2,543.30 | 827.30 | 2,078.78 | 1,878.49 | 71.00 | 28.829 | | |
| 8,700.00 | 7,153.00 | 7,321.77 | 6,849.80 | 37.48 | 51.22 | 81.79 | 2,563.15 | 832.15 | 2,109.34 | 1,902.38 | 71.70 | 28.993 | | |
| 8,800.00 | 7,153.00 | 7,342.01 | 6,879.30 | 37.72 | 51.57 | 81.79 | 2,583.00 | 837.00 | 2,139.90 | 1,926.27 | 72.40 | 29.157 | | |
| 8,900.00 | 7,153.00 | 7,362.25 | 6,909.80 | 37.96 | 51.92 | 81.78 | 2,602.85 | 841.85 | 2,170.46 | 1,950.16 | 73.10 | 29.321 | | |
| 9,000.00 | 7,153.00 | 7,382.49 | 6,939.30 | 38.20 | 52.27 | 81.78 | 2,622.70 | 846.70 | 2,200.92 | 1,974.05 | 73.80 | 29.485 | | |
| 9,100.00 | 7,153.00 | 7,402.73 | 6,969.80 | 38.44 | 52.62 | 81.78 | 2,642.55 | 851.55 | 2,231.48 | 2,000.00 | 74.50 | 29.649 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-4H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | Offset Site Error: | 0.00 usft | | |
|--|-----------------------|--------------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: Reference | | 0-OWSG (Rev2) MWD Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Offset Well Error: | 0.00 usft |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | Warning | |
| 9,200.00 | 7,153.00 | 10,390.98 | 6,963.00 | 63.01 | 79.89 | 81.78 | 2,607.19 | -2,105.92 | 1,329.64 | 1,189.70 | 139.94 | 9.501 | | |
| 9,300.00 | 7,153.00 | 10,490.98 | 6,963.00 | 65.40 | 82.34 | 81.78 | 2,606.35 | -2,205.92 | 1,329.62 | 1,184.79 | 144.83 | 9.180 | | |
| 9,400.00 | 7,153.00 | 10,590.98 | 6,963.00 | 67.81 | 84.81 | 81.78 | 2,605.51 | -2,305.92 | 1,329.60 | 1,179.84 | 149.76 | 8.878 | | |
| 9,500.00 | 7,153.00 | 10,690.98 | 6,963.00 | 70.24 | 87.29 | 81.78 | 2,604.68 | -2,405.91 | 1,329.58 | 1,174.86 | 154.72 | 8.593 | | |
| 9,600.00 | 7,153.00 | 10,790.98 | 6,963.00 | 72.70 | 89.79 | 81.78 | 2,603.84 | -2,505.91 | 1,329.56 | 1,169.85 | 159.71 | 8.325 | | |
| 9,700.00 | 7,153.00 | 10,890.98 | 6,963.00 | 75.17 | 92.30 | 81.78 | 2,603.00 | -2,605.91 | 1,329.54 | 1,164.81 | 164.73 | 8.071 | | |
| 9,800.00 | 7,153.00 | 10,990.98 | 6,963.00 | 77.67 | 94.82 | 81.78 | 2,602.16 | -2,705.90 | 1,329.52 | 1,159.76 | 169.76 | 7.832 | | |
| 9,900.00 | 7,153.00 | 11,090.98 | 6,963.00 | 80.17 | 97.35 | 81.78 | 2,601.32 | -2,805.90 | 1,329.50 | 1,154.68 | 174.82 | 7.605 | | |
| 10,000.00 | 7,153.00 | 11,190.98 | 6,963.00 | 82.69 | 99.89 | 81.78 | 2,600.48 | -2,905.90 | 1,329.48 | 1,149.58 | 179.90 | 7.390 | | |
| 10,100.00 | 7,153.00 | 11,290.98 | 6,963.00 | 85.23 | 102.45 | 81.78 | 2,599.65 | -3,005.89 | 1,329.46 | 1,144.46 | 185.00 | 7.186 | | |
| 10,200.00 | 7,153.00 | 11,390.98 | 6,963.00 | 87.77 | 105.01 | 81.78 | 2,598.81 | -3,105.89 | 1,329.44 | 1,139.33 | 190.12 | 6.993 | | |
| 10,300.00 | 7,153.00 | 11,490.98 | 6,963.00 | 90.33 | 107.58 | 81.78 | 2,597.97 | -3,205.89 | 1,329.42 | 1,134.18 | 195.24 | 6.809 | | |
| 10,400.00 | 7,153.00 | 11,590.98 | 6,963.00 | 92.89 | 110.15 | 81.78 | 2,597.13 | -3,305.88 | 1,329.40 | 1,129.02 | 200.39 | 6.634 | | |
| 10,500.00 | 7,153.00 | 11,690.98 | 6,963.00 | 95.47 | 112.73 | 81.78 | 2,596.29 | -3,405.88 | 1,329.38 | 1,123.84 | 205.54 | 6.468 | | |
| 10,600.00 | 7,153.00 | 11,790.98 | 6,963.00 | 98.05 | 115.32 | 81.78 | 2,595.45 | -3,505.87 | 1,329.36 | 1,118.65 | 210.71 | 6.309 | | |
| 10,700.00 | 7,153.00 | 11,890.98 | 6,963.00 | 100.64 | 117.92 | 81.78 | 2,594.61 | -3,605.87 | 1,329.34 | 1,113.45 | 215.89 | 6.157 | | |
| 10,800.00 | 7,153.00 | 11,990.98 | 6,963.00 | 103.24 | 120.52 | 81.78 | 2,593.78 | -3,705.87 | 1,329.32 | 1,108.24 | 221.08 | 6.013 | | |
| 10,900.00 | 7,153.00 | 12,090.98 | 6,963.00 | 105.84 | 123.12 | 81.78 | 2,592.94 | -3,805.86 | 1,329.31 | 1,103.02 | 226.28 | 5.875 | | |
| 11,000.00 | 7,153.00 | 12,190.98 | 6,963.00 | 108.45 | 125.73 | 81.78 | 2,592.10 | -3,905.86 | 1,329.29 | 1,097.80 | 231.49 | 5.742 | | |
| 11,100.00 | 7,153.00 | 12,290.98 | 6,963.00 | 111.07 | 128.35 | 81.78 | 2,591.26 | -4,005.86 | 1,329.27 | 1,092.56 | 236.71 | 5.616 | | |
| 11,200.00 | 7,153.00 | 12,390.98 | 6,963.00 | 113.69 | 130.97 | 81.78 | 2,590.42 | -4,105.85 | 1,329.25 | 1,087.32 | 241.93 | 5.494 | | |
| 11,300.00 | 7,153.00 | 12,490.98 | 6,963.00 | 116.31 | 133.59 | 81.78 | 2,589.58 | -4,205.85 | 1,329.23 | 1,082.06 | 247.16 | 5.378 | | |
| 11,400.00 | 7,153.00 | 12,590.98 | 6,963.00 | 118.94 | 136.22 | 81.78 | 2,588.74 | -4,305.85 | 1,329.21 | 1,076.81 | 252.40 | 5.266 | | |
| 11,500.00 | 7,153.00 | 12,690.98 | 6,963.00 | 121.57 | 138.85 | 81.78 | 2,587.91 | -4,405.84 | 1,329.19 | 1,071.54 | 257.65 | 5.159 | | |
| 11,600.00 | 7,153.00 | 12,790.98 | 6,963.00 | 124.21 | 141.48 | 81.78 | 2,587.07 | -4,505.84 | 1,329.17 | 1,066.27 | 262.90 | 5.056 | | |
| 11,700.00 | 7,153.00 | 12,890.98 | 6,963.00 | 126.85 | 144.12 | 81.78 | 2,586.23 | -4,605.84 | 1,329.15 | 1,061.00 | 268.15 | 4.957 | | |
| 11,800.00 | 7,153.00 | 12,990.98 | 6,963.00 | 129.49 | 146.76 | 81.78 | 2,585.39 | -4,705.83 | 1,329.13 | 1,055.71 | 273.41 | 4.861 | | |
| 11,900.00 | 7,153.00 | 13,090.98 | 6,963.00 | 132.14 | 149.40 | 81.78 | 2,584.55 | -4,805.83 | 1,329.11 | 1,050.43 | 278.68 | 4.769 | | |
| 12,000.00 | 7,153.00 | 13,190.98 | 6,963.00 | 134.79 | 152.05 | 81.78 | 2,583.71 | -4,905.83 | 1,329.09 | 1,045.14 | 283.95 | 4.681 | | |
| 12,100.00 | 7,153.00 | 13,290.98 | 6,963.00 | 137.44 | 154.69 | 81.78 | 2,582.88 | -5,005.82 | 1,329.07 | 1,039.84 | 289.23 | 4.595 | | |
| 12,200.00 | 7,153.00 | 13,390.98 | 6,963.00 | 140.10 | 157.35 | 81.78 | 2,582.04 | -5,105.82 | 1,329.05 | 1,034.54 | 294.51 | 4.513 | | |
| 12,300.00 | 7,153.00 | 13,490.98 | 6,963.00 | 142.76 | 160.00 | 81.78 | 2,581.20 | -5,205.81 | 1,329.03 | 1,029.23 | 299.80 | 4.433 | | |
| 12,400.00 | 7,153.00 | 13,590.98 | 6,963.00 | 145.42 | 162.65 | 81.78 | 2,580.36 | -5,305.81 | 1,329.01 | 1,023.93 | 305.08 | 4.356 | | |
| 12,500.00 | 7,153.00 | 13,690.98 | 6,963.00 | 148.08 | 165.31 | 81.78 | 2,579.52 | -5,405.81 | 1,328.99 | 1,018.62 | 310.38 | 4.282 | | |
| 12,600.00 | 7,153.00 | 13,790.98 | 6,963.00 | 150.75 | 167.97 | 81.78 | 2,578.68 | -5,505.80 | 1,328.97 | 1,013.30 | 315.67 | 4.210 | | |
| 12,700.00 | 7,153.00 | 13,890.98 | 6,963.00 | 153.41 | 170.63 | 81.78 | 2,577.84 | -5,605.80 | 1,328.95 | 1,007.98 | 320.97 | 4.140 | | |
| 12,800.00 | 7,153.00 | 13,990.98 | 6,963.00 | 156.08 | 173.29 | 81.78 | 2,577.01 | -5,705.80 | 1,328.93 | 1,002.66 | 326.27 | 4.073 | | |
| 12,900.00 | 7,153.00 | 14,090.98 | 6,963.00 | 158.75 | 175.96 | 81.78 | 2,576.17 | -5,805.79 | 1,328.91 | 997.34 | 331.58 | 4.008 | | |
| 13,000.00 | 7,153.00 | 14,190.98 | 6,963.00 | 161.42 | 178.62 | 81.78 | 2,575.33 | -5,905.79 | 1,328.89 | 992.01 | 336.88 | 3.945 | | |
| 13,100.00 | 7,153.00 | 14,290.98 | 6,963.00 | 164.10 | 181.29 | 81.78 | 2,574.49 | -6,005.79 | 1,328.87 | 986.68 | 342.19 | 3.883 | | |
| 13,200.00 | 7,153.00 | 14,390.98 | 6,963.00 | 166.77 | 183.96 | 81.78 | 2,573.65 | -6,105.78 | 1,328.85 | 981.35 | 347.51 | 3.824 | | |
| 13,300.00 | 7,153.00 | 14,490.98 | 6,963.00 | 169.45 | 186.63 | 81.78 | 2,572.81 | -6,205.78 | 1,328.83 | 976.01 | 352.82 | 3.766 | | |
| 13,400.00 | 7,153.00 | 14,590.98 | 6,963.00 | 172.13 | 189.30 | 81.78 | 2,571.98 | -6,305.78 | 1,328.81 | 970.67 | 358.14 | 3.710 | | |
| 13,500.00 | 7,153.00 | 14,690.98 | 6,963.00 | 174.81 | 191.98 | 81.78 | 2,571.14 | -6,405.77 | 1,328.79 | 965.33 | 363.46 | 3.656 | | |
| 13,600.00 | 7,153.00 | 14,790.98 | 6,963.00 | 177.49 | 194.65 | 81.78 | 2,570.30 | -6,505.77 | 1,328.77 | 959.99 | 368.78 | 3.603 | | |
| 13,700.00 | 7,153.00 | 14,890.98 | 6,963.00 | 180.17 | 197.33 | 81.78 | 2,569.46 | -6,605.77 | 1,328.75 | 954.65 | 374.11 | 3.552 | | |
| 13,800.00 | 7,153.00 | 14,990.98 | 6,963.00 | 182.86 | 200.01 | 81.78 | 2,568.62 | -6,705.76 | 1,328.74 | 949.30 | 379.43 | 3.502 | | |
| 13,900.00 | 7,153.00 | 15,090.98 | 6,963.00 | 185.54 | 202.68 | 81.78 | 2,567.78 | -6,805.76 | 1,328.72 | 943.95 | 384.76 | 3.453 | | |
| 14,000.00 | 7,153.00 | 15,190.98 | 6,963.00 | 188.23 | 205.36 | 81.78 | 2,566.94 | -6,905.76 | 1,328.70 | 938.61 | 390.09 | 3.406 | | |
| 14,100.00 | 7,153.00 | 15,290.98 | 6,963.00 | 190.91 | 208.04 | 81.78 | 2,566.11 | -7,005.75 | 1,328.68 | 933.25 | 395.42 | 3.360 | | |
| 14,200.00 | 7,153.00 | 15,390.98 | 6,963.00 | 193.60 | 210.73 | 81.78 | 2,565.27 | -7,105.75 | 1,328.66 | 927.90 | 400.76 | 3.315 | | |
| 14,300.00 | 7,153.00 | 15,490.98 | 6,963.00 | 196.29 | 213.41 | 81.78 | 2,564.43 | -7,205.74 | 1,328.64 | 922.55 | 406.09 | 3.272 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - CE 5-68 11-3-4H - ORIGINAL WELLBORE - PROPOSAL #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 0-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 14,400.00 | 7,153.00 | 15,590.98 | 6,963.00 | 198.98 | 216.09 | 81.78 | 2,563.59 | -7,305.74 | 1,328.62 | 917.19 | 411.43 | 3.229 | | | |
| 14,500.00 | 7,153.00 | 15,690.98 | 6,963.00 | 201.67 | 218.78 | 81.78 | 2,562.75 | -7,405.74 | 1,328.60 | 911.83 | 416.76 | 3.188 | | | |
| 14,600.00 | 7,153.00 | 15,790.98 | 6,963.00 | 204.36 | 221.46 | 81.78 | 2,561.91 | -7,505.73 | 1,328.58 | 906.47 | 422.10 | 3.148 | | | |
| 14,700.00 | 7,153.00 | 15,890.98 | 6,963.00 | 207.05 | 224.15 | 81.78 | 2,561.08 | -7,605.73 | 1,328.56 | 901.11 | 427.44 | 3.108 | | | |
| 14,800.00 | 7,153.00 | 15,990.98 | 6,963.00 | 209.75 | 226.84 | 81.78 | 2,560.24 | -7,705.73 | 1,328.54 | 895.75 | 432.79 | 3.070 | | | |
| 14,900.00 | 7,153.00 | 16,090.98 | 6,963.00 | 212.44 | 229.52 | 81.78 | 2,559.40 | -7,805.72 | 1,328.52 | 890.39 | 438.13 | 3.032 | | | |
| 15,000.00 | 7,153.00 | 16,190.98 | 6,963.00 | 215.13 | 232.21 | 81.78 | 2,558.56 | -7,905.72 | 1,328.50 | 885.03 | 443.47 | 2.996 | | | |
| 15,100.00 | 7,153.00 | 16,290.98 | 6,963.00 | 217.83 | 234.90 | 81.78 | 2,557.72 | -8,005.72 | 1,328.48 | 879.66 | 448.82 | 2.960 | | | |
| 15,200.00 | 7,153.00 | 16,390.98 | 6,963.00 | 220.53 | 237.59 | 81.78 | 2,556.88 | -8,105.71 | 1,328.46 | 874.30 | 454.17 | 2.925 | | | |
| 15,300.00 | 7,153.00 | 16,490.98 | 6,963.00 | 223.22 | 240.28 | 81.78 | 2,556.04 | -8,205.71 | 1,328.44 | 868.93 | 459.51 | 2.891 | | | |
| 15,400.00 | 7,153.00 | 16,590.98 | 6,963.00 | 225.92 | 242.97 | 81.78 | 2,555.21 | -8,305.71 | 1,328.42 | 863.56 | 464.86 | 2.858 | | | |
| 15,408.14 | 7,153.00 | 16,598.86 | 6,963.00 | 226.14 | 243.19 | 81.78 | 2,555.14 | -8,313.58 | 1,328.42 | 863.12 | 465.30 | 2.855 | | | |
| 15,455.54 | 7,153.00 | 16,598.86 | 6,963.00 | 227.42 | 243.19 | 81.78 | 2,555.14 | -8,313.58 | 1,329.26 | 861.82 | 467.45 | 2.844 SF | | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 1C-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 0.00 | 0.00 | 6.00 | 6.00 | 0.00 | 0.00 | 23.74 | 1,874.69 | 824.42 | 2,047.96 | | | | | |
| 100.00 | 100.00 | 90.67 | 90.67 | 0.14 | 0.27 | 23.74 | 1,874.94 | 824.56 | 2,048.30 | 2,047.88 | 0.41 | 4,943.569 | | |
| 200.00 | 200.00 | 188.91 | 188.91 | 0.50 | 0.62 | 23.73 | 1,875.90 | 824.71 | 2,049.25 | 2,048.13 | 1.12 | 1,827.594 | | |
| 300.00 | 300.00 | 343.11 | 343.03 | 0.86 | 1.16 | 23.61 | 1,877.34 | 820.59 | 2,049.18 | 2,047.15 | 2.02 | 1,012.084 | | |
| 400.00 | 400.00 | 500.69 | 500.18 | 1.22 | 1.74 | 23.33 | 1,876.17 | 809.24 | 2,045.42 | 2,042.47 | 2.95 | 692.367 | | |
| 500.00 | 500.00 | 618.20 | 616.93 | 1.58 | 2.19 | 23.00 | 1,875.45 | 795.99 | 2,040.40 | 2,036.64 | 3.76 | 543.084 | | |
| 600.00 | 600.00 | 749.73 | 747.11 | 1.94 | 2.73 | 22.52 | 1,874.64 | 777.25 | 2,034.29 | 2,029.65 | 4.64 | 438.353 | | |
| 700.00 | 700.00 | 885.30 | 880.50 | 2.29 | 3.33 | 21.90 | 1,873.17 | 753.12 | 2,026.43 | 2,020.84 | 5.58 | 363.058 | | |
| 800.00 | 800.00 | 1,010.83 | 1,003.00 | 2.65 | 3.93 | 21.19 | 1,871.77 | 725.77 | 2,017.19 | 2,010.68 | 6.51 | 309.918 | | |
| 900.00 | 900.00 | 1,136.06 | 1,124.70 | 3.01 | 4.57 | 20.43 | 1,869.49 | 696.33 | 2,006.92 | 1,999.44 | 7.47 | 268.587 | | |
| 1,000.00 | 1,000.00 | 1,256.71 | 1,241.25 | 3.37 | 5.22 | 19.62 | 1,866.13 | 665.37 | 1,995.11 | 1,986.67 | 8.44 | 236.277 | | |
| 1,100.00 | 1,100.00 | 1,342.55 | 1,323.64 | 3.73 | 5.72 | 18.99 | 1,864.13 | 641.36 | 1,983.36 | 1,974.07 | 9.28 | 213.662 | | |
| 1,200.00 | 1,200.00 | 1,421.36 | 1,398.96 | 4.09 | 6.19 | 18.35 | 1,863.76 | 618.18 | 1,973.06 | 1,962.97 | 10.10 | 195.375 | | |
| 1,300.00 | 1,300.00 | 1,512.19 | 1,485.51 | 4.45 | 6.74 | 17.58 | 1,864.11 | 590.62 | 1,963.66 | 1,952.66 | 11.01 | 178.413 | | |
| 1,400.00 | 1,400.00 | 1,609.17 | 1,577.69 | 4.80 | 7.36 | 16.73 | 1,864.71 | 560.49 | 1,954.68 | 1,942.71 | 11.97 | 163.285 | | |
| 1,500.00 | 1,500.00 | 1,704.37 | 1,667.78 | 5.16 | 7.98 | 15.85 | 1,865.65 | 529.74 | 1,946.14 | 1,933.19 | 12.95 | 150.323 | | |
| 1,600.00 | 1,600.00 | 1,801.40 | 1,759.62 | 5.52 | 8.62 | 14.95 | 1,866.52 | 498.46 | 1,938.03 | 1,924.09 | 13.94 | 138.980 | | |
| 1,700.00 | 1,700.00 | 1,874.63 | 1,829.04 | 5.88 | 9.09 | 14.28 | 1,867.39 | 475.16 | 1,930.82 | 1,916.02 | 14.79 | 130.509 | | |
| 1,800.00 | 1,800.00 | 1,974.21 | 1,923.83 | 6.24 | 9.74 | 13.38 | 1,868.99 | 444.70 | 1,924.78 | 1,908.98 | 15.80 | 121.814 | | |
| 1,900.00 | 1,900.00 | 2,068.35 | 2,013.48 | 6.60 | 10.35 | 12.54 | 1,870.14 | 415.97 | 1,918.85 | 1,902.07 | 16.78 | 114.358 | | |
| 2,000.00 | 2,000.00 | 2,200.58 | 2,138.23 | 6.95 | 11.25 | 11.25 | 1,871.43 | 372.19 | 1,912.66 | 1,894.62 | 18.04 | 106.008 | | |
| 2,100.00 | 2,100.00 | 2,307.69 | 2,239.10 | 7.31 | 12.00 | 10.19 | 1,871.02 | 336.16 | 1,905.63 | 1,886.47 | 19.16 | 99.448 | | |
| 2,200.00 | 2,200.00 | 2,404.73 | 2,329.67 | 7.67 | 12.71 | 9.15 | 1,870.75 | 301.35 | 1,898.89 | 1,878.65 | 20.24 | 93.808 | | |
| 2,300.00 | 2,300.00 | 2,504.31 | 2,422.16 | 8.03 | 13.46 | 8.05 | 1,870.41 | 264.45 | 1,892.58 | 1,871.21 | 21.37 | 88.571 | | |
| 2,400.00 | 2,400.00 | 2,601.07 | 2,512.11 | 8.39 | 14.19 | 6.98 | 1,869.71 | 228.80 | 1,886.65 | 1,864.18 | 22.47 | 83.966 | | |
| 2,500.00 | 2,499.98 | 2,689.96 | 2,595.55 | 8.75 | 14.83 | 5.47 | 1,868.79 | 198.16 | 1,879.66 | 1,856.18 | 23.49 | 80.030 | | |
| 2,600.00 | 2,599.84 | 2,772.44 | 2,673.61 | 9.11 | 15.41 | 4.69 | 1,868.12 | 171.54 | 1,870.25 | 1,845.81 | 24.44 | 76.531 | | |
| 2,700.00 | 2,699.45 | 2,851.97 | 2,748.56 | 9.46 | 15.96 | 3.90 | 1,868.16 | 144.95 | 1,858.62 | 1,833.25 | 25.37 | 73.263 | | |
| 2,800.00 | 2,798.70 | 2,955.13 | 2,845.92 | 9.82 | 16.69 | 2.87 | 1,868.41 | 110.85 | 1,844.31 | 1,817.85 | 26.46 | 69.691 | | |
| 2,900.00 | 2,897.47 | 3,088.26 | 2,971.37 | 10.18 | 17.62 | 1.50 | 1,866.57 | 66.36 | 1,825.50 | 1,797.75 | 27.76 | 65.772 | | |
| 3,000.00 | 2,995.62 | 3,179.90 | 3,057.99 | 10.55 | 18.27 | 0.56 | 1,864.23 | 36.53 | 1,802.87 | 1,774.11 | 28.76 | 62.677 | | |
| 3,100.00 | 3,093.06 | 3,264.89 | 3,137.82 | 10.94 | 18.87 | -0.40 | 1,862.58 | 7.43 | 1,777.92 | 1,748.18 | 29.74 | 59.789 | | |
| 3,200.00 | 3,189.64 | 3,359.84 | 3,227.00 | 11.34 | 19.56 | -1.53 | 1,860.59 | -25.11 | 1,750.10 | 1,719.32 | 30.78 | 56.861 | | |
| 3,240.86 | 3,228.84 | 3,397.39 | 3,262.38 | 11.50 | 19.82 | -1.98 | 1,859.76 | -37.69 | 1,737.90 | 1,706.71 | 31.19 | 55.715 | | |
| 3,300.00 | 3,285.45 | 3,448.97 | 3,311.06 | 11.75 | 20.19 | -2.59 | 1,858.61 | -54.69 | 1,720.02 | 1,688.25 | 31.77 | 54.146 | | |
| 3,400.00 | 3,381.17 | 3,531.61 | 3,389.04 | 12.19 | 20.77 | -3.59 | 1,856.97 | -81.98 | 1,690.50 | 1,657.79 | 32.70 | 51.691 | | |
| 3,500.00 | 3,476.90 | 3,609.00 | 3,461.87 | 12.63 | 21.32 | -4.58 | 1,855.87 | -108.15 | 1,662.18 | 1,628.56 | 33.61 | 49.450 | | |
| 3,600.00 | 3,572.62 | 3,669.75 | 3,518.80 | 13.09 | 21.77 | -5.40 | 1,855.71 | -129.35 | 1,635.71 | 1,601.29 | 34.42 | 47.527 | | |
| 3,700.00 | 3,668.34 | 3,732.31 | 3,577.15 | 13.56 | 22.25 | -6.27 | 1,856.58 | -151.87 | 1,611.61 | 1,576.38 | 35.23 | 45.745 | | |
| 3,800.00 | 3,764.07 | 3,800.00 | 3,639.73 | 14.04 | 22.78 | -7.28 | 1,858.44 | -177.60 | 1,589.84 | 1,553.75 | 36.09 | 44.058 | | |
| 3,900.00 | 3,859.79 | 3,891.85 | 3,724.16 | 14.52 | 23.52 | -8.72 | 1,861.33 | -213.67 | 1,569.66 | 1,532.50 | 37.16 | 42.241 | | |
| 4,000.00 | 3,955.51 | 3,983.80 | 3,808.63 | 15.02 | 24.27 | -10.19 | 1,863.88 | -249.90 | 1,550.27 | 1,512.04 | 38.23 | 40.554 | | |
| 4,100.00 | 4,051.24 | 4,134.45 | 3,948.49 | 15.52 | 25.44 | -12.57 | 1,866.06 | -305.77 | 1,530.59 | 1,490.87 | 39.72 | 38.531 | | |
| 4,200.00 | 4,146.96 | 4,237.75 | 4,045.53 | 16.03 | 26.19 | -14.16 | 1,864.61 | -341.16 | 1,508.61 | 1,467.82 | 40.79 | 36.984 | | |
| 4,300.00 | 4,242.68 | 4,310.82 | 4,114.03 | 16.54 | 26.73 | -15.33 | 1,864.04 | -366.60 | 1,488.42 | 1,446.79 | 41.63 | 35.753 | | |
| 4,400.00 | 4,338.41 | 4,384.41 | 4,182.88 | 17.06 | 27.28 | -16.53 | 1,864.20 | -392.59 | 1,470.31 | 1,427.85 | 42.46 | 34.627 | | |
| 4,500.00 | 4,434.13 | 4,466.00 | 4,259.07 | 17.59 | 27.90 | -17.89 | 1,865.10 | -421.76 | 1,454.22 | 1,410.88 | 43.34 | 33.553 | | |
| 4,600.00 | 4,529.85 | 4,543.82 | 4,331.68 | 18.11 | 28.48 | -19.20 | 1,866.48 | -449.69 | 1,439.92 | 1,395.75 | 44.17 | 32.599 | | |
| 4,700.00 | 4,625.58 | 4,626.85 | 4,409.23 | 18.65 | 29.11 | -20.61 | 1,868.44 | -479.31 | 1,427.28 | 1,382.26 | 45.02 | 31.702 | | |
| 4,800.00 | 4,721.30 | 4,736.26 | 4,511.68 | 19.18 | 29.92 | -22.47 | 1,871.15 | -517.61 | 1,415.76 | 1,369.69 | 46.07 | 30.730 | | |
| 4,900.00 | 4,817.02 | 4,816.96 | 4,587.32 | 19.72 | 30.52 | -23.86 | 1,872.50 | -545.69 | 1,404.68 | 1,357.82 | 46.87 | 29.972 | | |
| 5,000.00 | 4,912.74 | 4,909.21 | 4,673.37 | 20.27 | 31.22 | -25.50 | 1,874.19 | -578.91 | 1,395.52 | 1,347.78 | 47.75 | 29.227 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 1C-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,100.00 | 5,008.47 | 5,030.29 | 4,786.59 | 20.81 | 32.13 | -27.69 | 1,874.99 | -621.80 | 1,386.55 | 1,337.70 | 48.85 | 28.383 | | |
| 5,200.00 | 5,104.19 | 5,141.58 | 4,891.48 | 21.36 | 32.92 | -29.67 | 1,874.43 | -658.98 | 1,377.03 | 1,327.20 | 49.83 | 27.635 | | |
| 5,300.00 | 5,199.91 | 5,236.38 | 4,981.43 | 21.91 | 33.57 | -31.32 | 1,874.06 | -688.93 | 1,367.99 | 1,317.35 | 50.64 | 27.012 | | |
| 5,400.00 | 5,295.64 | 5,323.00 | 5,063.88 | 22.46 | 34.14 | -32.81 | 1,874.16 | -715.48 | 1,360.09 | 1,308.72 | 51.37 | 26.474 | | |
| 5,500.00 | 5,391.36 | 5,408.21 | 5,144.97 | 23.02 | 34.71 | -34.28 | 1,874.62 | -741.63 | 1,353.74 | 1,301.66 | 52.08 | 25.994 | | |
| 5,600.00 | 5,487.08 | 5,481.26 | 5,214.35 | 23.58 | 35.20 | -35.54 | 1,875.53 | -764.47 | 1,349.47 | 1,296.81 | 52.67 | 25.622 | | |
| 5,700.00 | 5,582.81 | 5,593.56 | 5,321.22 | 24.13 | 35.95 | -37.44 | 1,878.21 | -798.86 | 1,346.96 | 1,293.41 | 53.55 | 25.153 | | |
| 5,800.00 | 5,678.53 | 5,732.41 | 5,454.67 | 24.70 | 36.79 | -39.73 | 1,879.34 | -837.15 | 1,342.42 | 1,287.85 | 54.57 | 24.599 | | |
| 5,900.00 | 5,774.25 | 5,893.74 | 5,611.56 | 25.26 | 37.67 | -42.22 | 1,879.79 | -874.57 | 1,336.37 | 1,280.77 | 55.61 | 24.032 | | |
| 6,000.00 | 5,869.98 | 5,987.78 | 5,703.69 | 25.82 | 38.12 | -43.64 | 1,878.60 | -893.46 | 1,327.70 | 1,271.44 | 56.26 | 23.598 | | |
| 6,100.00 | 5,965.70 | 6,137.83 | 5,850.79 | 26.39 | 38.83 | -46.00 | 1,873.51 | -922.49 | 1,318.16 | 1,261.06 | 57.11 | 23.082 | | |
| 6,200.00 | 6,061.42 | 6,293.95 | 6,004.77 | 26.95 | 39.47 | -48.45 | 1,863.97 | -946.41 | 1,305.00 | 1,247.17 | 57.83 | 22.565 | | |
| 6,300.00 | 6,157.15 | 6,436.80 | 6,146.76 | 27.52 | 39.92 | -50.50 | 1,855.83 | -959.39 | 1,288.68 | 1,230.27 | 58.41 | 22.063 | | |
| 6,400.00 | 6,252.87 | 6,536.22 | 6,245.99 | 28.09 | 40.17 | -51.78 | 1,851.83 | -963.97 | 1,270.95 | 1,211.97 | 58.97 | 21.551 | | |
| 6,500.00 | 6,348.59 | 6,224.66 | 7,259.25 | 28.66 | 45.80 | 3.69 | 1,833.82 | 49.82 | 1,187.59 | 1,140.60 | 46.99 | 25.273 | | |
| 6,600.00 | 6,444.32 | 8,222.60 | 7,259.30 | 29.23 | 45.78 | 3.44 | 1,833.86 | 47.77 | 1,096.67 | 1,047.94 | 48.73 | 22.505 | | |
| 6,700.00 | 6,540.04 | 8,220.46 | 7,259.35 | 29.80 | 45.76 | 3.18 | 1,833.91 | 45.62 | 1,007.47 | 956.74 | 50.72 | 19.862 | | |
| 6,764.28 | 6,601.58 | 8,219.03 | 7,259.39 | 30.17 | 45.74 | 3.01 | 1,833.94 | 44.19 | 951.26 | 899.09 | 52.16 | 18.236 | | |
| 6,800.00 | 6,635.75 | 8,217.34 | 7,259.44 | 30.37 | 45.72 | 20.48 | 1,833.97 | 42.51 | 920.54 | 867.52 | 53.02 | 17.364 | | |
| 6,850.00 | 6,683.35 | 8,211.98 | 7,259.59 | 30.66 | 45.66 | 42.18 | 1,834.09 | 37.14 | 878.53 | 824.28 | 54.25 | 16.194 | | |
| 6,900.00 | 6,730.36 | 8,203.04 | 7,259.85 | 30.94 | 45.56 | 59.51 | 1,834.30 | 28.22 | 838.05 | 782.52 | 55.53 | 15.092 | | |
| 6,950.00 | 6,776.41 | 8,190.51 | 7,260.25 | 31.21 | 45.42 | 72.65 | 1,834.62 | 15.69 | 799.53 | 742.70 | 56.83 | 14.069 | | |
| 7,000.00 | 6,821.15 | 8,179.00 | 7,260.64 | 31.47 | 45.29 | 82.79 | 1,834.94 | 4.20 | 763.38 | 705.17 | 58.21 | 13.113 | | |
| 7,050.00 | 6,864.24 | 8,156.46 | 7,261.47 | 31.73 | 45.06 | 89.72 | 1,835.70 | -18.32 | 729.96 | 670.46 | 59.50 | 12.269 | | |
| 7,100.00 | 6,905.35 | 8,135.09 | 7,262.30 | 31.97 | 44.85 | 95.06 | 1,836.63 | -39.65 | 699.66 | 638.84 | 60.82 | 11.503 | | |
| 7,150.00 | 6,944.18 | 8,110.73 | 7,263.30 | 32.21 | 44.60 | 98.92 | 1,837.92 | -63.96 | 672.80 | 610.69 | 62.10 | 10.834 | | |
| 7,200.00 | 6,980.42 | 8,084.00 | 7,264.46 | 32.45 | 44.34 | 101.67 | 1,839.64 | -90.60 | 649.59 | 586.27 | 63.32 | 10.258 | | |
| 7,250.00 | 7,013.80 | 8,050.65 | 7,265.60 | 32.68 | 44.05 | 103.28 | 1,842.27 | -123.83 | 630.12 | 565.67 | 64.45 | 9.777 | | |
| 7,300.00 | 7,044.06 | 8,016.38 | 7,266.06 | 32.91 | 43.76 | 104.22 | 1,845.58 | -157.93 | 614.41 | 548.88 | 65.53 | 9.377 | | |
| 7,350.00 | 7,070.98 | 7,967.28 | 7,265.25 | 33.15 | 43.35 | 103.90 | 1,851.18 | -206.70 | 602.44 | 536.04 | 66.40 | 9.073 | | |
| 7,400.00 | 7,094.36 | 7,847.97 | 7,248.33 | 33.39 | 42.50 | 99.22 | 1,860.08 | -324.25 | 591.07 | 524.30 | 66.77 | 8.852 | | |
| 7,450.00 | 7,114.00 | 7,771.43 | 7,225.27 | 33.65 | 42.01 | 96.18 | 1,859.94 | -397.18 | 577.82 | 510.19 | 67.64 | 8.543 | | |
| 7,500.00 | 7,129.76 | 7,733.34 | 7,211.84 | 33.93 | 41.81 | 95.25 | 1,859.47 | -432.82 | 567.60 | 498.95 | 68.65 | 8.268 | | |
| 7,550.00 | 7,141.53 | 7,693.41 | 7,196.88 | 34.22 | 41.62 | 93.92 | 1,859.18 | -469.84 | 560.60 | 491.02 | 69.58 | 8.057 | | |
| 7,600.00 | 7,149.21 | 7,650.47 | 7,179.32 | 34.55 | 41.45 | 92.14 | 1,858.98 | -509.03 | 556.48 | 486.04 | 70.43 | 7.901 | | |
| 7,650.00 | 7,152.75 | 7,607.58 | 7,160.10 | 34.90 | 41.28 | 90.13 | 1,858.83 | -547.35 | 554.98 | 483.76 | 71.22 | 7.793 | | |
| 7,656.63 | 7,152.90 | 7,602.17 | 7,157.55 | 34.95 | 41.26 | 89.86 | 1,858.82 | -552.13 | 554.97 | 483.65 | 71.33 | 7.781 | CC | |
| 7,667.38 | 7,153.00 | 7,593.56 | 7,153.43 | 35.04 | 41.24 | 89.42 | 1,858.81 | -559.69 | 555.05 | 483.55 | 71.50 | 7.763 | ES | |
| 7,700.00 | 7,153.00 | 7,567.95 | 7,140.68 | 35.29 | 41.17 | 88.11 | 1,858.84 | -581.90 | 555.77 | 483.74 | 72.03 | 7.716 | | |
| 7,800.00 | 7,153.00 | 7,493.58 | 7,099.56 | 36.22 | 40.99 | 83.90 | 1,859.48 | -643.83 | 562.26 | 488.66 | 73.60 | 7.639 | SF | |
| 7,900.00 | 7,153.00 | 7,422.10 | 7,054.75 | 37.35 | 40.88 | 79.41 | 1,860.04 | -699.49 | 575.77 | 500.85 | 74.92 | 7.685 | | |
| 8,000.00 | 7,153.00 | 7,362.08 | 7,013.18 | 38.67 | 40.83 | 75.35 | 1,860.15 | -742.75 | 597.49 | 521.61 | 75.88 | 7.874 | | |
| 8,100.00 | 7,153.00 | 7,321.00 | 6,982.56 | 40.16 | 40.80 | 72.45 | 1,860.00 | -770.13 | 628.48 | 551.94 | 76.53 | 8.212 | | |
| 8,200.00 | 7,153.00 | 7,267.19 | 6,940.38 | 41.81 | 40.80 | 68.60 | 1,859.79 | -803.52 | 668.36 | 591.90 | 76.46 | 8.741 | | |
| 8,300.00 | 7,153.00 | 7,226.00 | 6,906.81 | 43.59 | 40.79 | 65.68 | 1,859.76 | -827.39 | 716.63 | 640.45 | 76.18 | 9.407 | | |
| 8,400.00 | 7,153.00 | 7,192.96 | 6,879.09 | 45.47 | 40.80 | 63.37 | 1,859.74 | -845.37 | 772.16 | 696.38 | 75.77 | 10.190 | | |
| 8,500.00 | 7,153.00 | 7,162.25 | 6,852.69 | 47.45 | 40.81 | 61.25 | 1,859.65 | -861.05 | 833.93 | 758.70 | 75.23 | 11.085 | | |
| 8,600.00 | 7,153.00 | 7,130.00 | 6,824.35 | 49.51 | 40.81 | 59.06 | 1,859.47 | -876.43 | 901.02 | 826.44 | 74.58 | 12.081 | | |
| 8,700.00 | 7,153.00 | 7,108.46 | 6,805.11 | 51.64 | 40.82 | 57.62 | 1,859.28 | -886.11 | 972.45 | 898.37 | 74.08 | 13.127 | | |
| 8,800.00 | 7,153.00 | 7,083.88 | 6,782.89 | 53.82 | 40.82 | 56.01 | 1,858.95 | -896.64 | 1,047.50 | 973.97 | 73.53 | 14.246 | | |
| 8,900.00 | 7,153.00 | 7,061.73 | 6,762.66 | 56.06 | 40.83 | 54.59 | 1,858.54 | -905.64 | 1,125.57 | 1,052.53 | 73.04 | 15.411 | | |
| 9,000.00 | 7,153.00 | 7,035.00 | 6,737.98 | 58.34 | 40.84 | 52.92 | 1,857.91 | -915.89 | 1,206.22 | 1,133.71 | 72.51 | 16.635 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 1C-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 9,100.00 | 7,153.00 | 7,035.00 | 6,737.98 | 60.66 | 40.84 | 52.92 | 1,857.91 | -915.89 | 1,289.07 | 1,216.68 | 72.39 | 17.807 | | |
| 9,200.00 | 7,153.00 | 7,035.00 | 6,737.98 | 63.01 | 40.84 | 52.92 | 1,857.91 | -915.89 | 1,374.20 | 1,301.94 | 72.26 | 19.017 | | |
| 9,300.00 | 7,153.00 | 6,997.78 | 6,703.14 | 65.40 | 40.84 | 50.66 | 1,857.01 | -928.92 | 1,459.96 | 1,388.25 | 71.71 | 20.360 | | |
| 9,400.00 | 7,153.00 | 6,985.76 | 6,691.76 | 67.81 | 40.84 | 49.96 | 1,856.75 | -932.81 | 1,547.64 | 1,476.16 | 71.49 | 21.649 | | |
| 9,500.00 | 7,153.00 | 6,974.66 | 6,681.22 | 70.24 | 40.84 | 49.32 | 1,856.53 | -936.26 | 1,636.52 | 1,565.22 | 71.30 | 22.954 | | |
| 9,600.00 | 7,153.00 | 6,940.00 | 6,648.00 | 72.70 | 40.84 | 47.38 | 1,855.92 | -946.14 | 1,726.93 | 1,656.04 | 70.88 | 24.363 | | |
| 9,700.00 | 7,153.00 | 6,940.00 | 6,648.00 | 75.17 | 40.84 | 47.38 | 1,855.92 | -946.14 | 1,817.40 | 1,746.55 | 70.85 | 25.652 | | |
| 9,800.00 | 7,153.00 | 6,940.00 | 6,648.00 | 77.67 | 40.84 | 47.38 | 1,855.92 | -946.14 | 1,908.83 | 1,838.02 | 70.81 | 26.957 | | |
| 9,900.00 | 7,153.00 | 6,940.00 | 6,648.00 | 80.17 | 40.84 | 47.38 | 1,855.92 | -946.14 | 2,001.07 | 1,930.30 | 70.77 | 28.275 | | |
| 10,000.00 | 7,153.00 | 6,940.00 | 6,648.00 | 82.69 | 40.84 | 47.38 | 1,855.92 | -946.14 | 2,094.03 | 2,023.29 | 70.73 | 29.605 | | |
| 10,100.00 | 7,153.00 | 6,940.00 | 6,648.00 | 85.23 | 40.84 | 47.38 | 1,855.92 | -946.14 | 2,187.61 | 2,116.91 | 70.70 | 30.944 | | |
| 10,200.00 | 7,153.00 | 6,940.00 | 6,648.00 | 87.77 | 40.84 | 47.38 | 1,855.92 | -946.14 | 2,281.73 | 2,211.07 | 70.66 | 32.291 | | |
| 10,300.00 | 7,153.00 | 6,940.00 | 6,648.00 | 90.33 | 40.84 | 47.38 | 1,855.92 | -946.14 | 2,376.33 | 2,305.70 | 70.63 | 33.646 | | |
| 10,400.00 | 7,153.00 | 6,940.00 | 6,648.00 | 92.89 | 40.84 | 47.38 | 1,855.92 | -946.14 | 2,471.36 | 2,400.76 | 70.60 | 35.007 | | |
| 10,500.00 | 7,153.00 | 6,940.00 | 6,648.00 | 95.47 | 40.84 | 47.38 | 1,855.92 | -946.14 | 2,566.77 | 2,496.20 | 70.57 | 36.373 | | |
| 10,600.00 | 7,153.00 | 6,940.00 | 6,648.00 | 98.05 | 40.84 | 47.38 | 1,855.92 | -946.14 | 2,662.51 | 2,591.97 | 70.54 | 37.744 | | |
| 10,700.00 | 7,153.00 | 6,940.00 | 6,648.00 | 100.64 | 40.84 | 47.38 | 1,855.92 | -946.14 | 2,758.55 | 2,688.04 | 70.52 | 39.119 | | |
| 10,800.00 | 7,153.00 | 6,940.00 | 6,648.00 | 103.24 | 40.84 | 47.38 | 1,855.92 | -946.14 | 2,854.87 | 2,784.38 | 70.49 | 40.498 | | |
| 10,900.00 | 7,153.00 | 6,940.00 | 6,648.00 | 105.84 | 40.84 | 47.38 | 1,855.92 | -946.14 | 2,951.43 | 2,880.96 | 70.47 | 41.880 | | |
| 11,000.00 | 7,153.00 | 6,897.08 | 6,606.19 | 108.45 | 40.81 | 45.09 | 1,855.18 | -955.73 | 3,046.11 | 2,975.87 | 70.23 | 43.371 | | |
| 11,100.00 | 7,153.00 | 6,894.56 | 6,603.71 | 111.07 | 40.81 | 44.96 | 1,855.13 | -956.18 | 3,142.84 | 3,072.63 | 70.21 | 44.761 | | |
| 11,200.00 | 7,153.00 | 6,892.18 | 6,601.36 | 113.69 | 40.81 | 44.84 | 1,855.09 | -956.60 | 3,239.76 | 3,169.57 | 70.20 | 46.153 | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 26N-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 0.00 | 0.00 | 6.00 | 6.00 | 0.00 | 0.00 | 23.41 | 1,905.29 | 824.70 | 2,076.12 | | | | | |
| 100.00 | 100.00 | 100.45 | 100.45 | 0.14 | 0.31 | 23.40 | 1,905.47 | 824.58 | 2,076.24 | 2,075.79 | 0.45 | 4,615.064 | | |
| 200.00 | 200.00 | 202.99 | 202.98 | 0.50 | 0.67 | 23.38 | 1,906.07 | 823.86 | 2,076.51 | 2,075.33 | 1.18 | 1,766.756 | | |
| 300.00 | 300.00 | 323.66 | 323.58 | 0.86 | 1.11 | 23.27 | 1,907.36 | 820.18 | 2,076.30 | 2,074.33 | 1.97 | 1,054.464 | | |
| 400.00 | 400.00 | 490.28 | 489.65 | 1.22 | 1.73 | 22.92 | 1,908.56 | 806.99 | 2,073.85 | 2,070.90 | 2.94 | 704.515 | | |
| 500.00 | 500.00 | 606.18 | 604.74 | 1.58 | 2.18 | 22.57 | 1,908.69 | 793.33 | 2,069.36 | 2,065.60 | 3.75 | 551.216 | | |
| 600.00 | 600.00 | 704.53 | 702.19 | 1.94 | 2.59 | 22.23 | 1,909.13 | 780.11 | 2,064.61 | 2,060.10 | 4.51 | 458.151 | | |
| 700.00 | 700.00 | 798.01 | 794.61 | 2.29 | 2.99 | 21.85 | 1,910.30 | 766.11 | 2,060.10 | 2,054.84 | 5.26 | 391.664 | | |
| 800.00 | 800.00 | 888.95 | 884.15 | 2.65 | 3.39 | 21.42 | 1,912.64 | 750.34 | 2,056.05 | 2,050.03 | 6.02 | 341.636 | | |
| 900.00 | 900.00 | 985.06 | 978.29 | 3.01 | 3.83 | 20.89 | 1,916.36 | 731.40 | 2,052.46 | 2,045.65 | 6.82 | 301.152 | | |
| 1,000.00 | 1,000.00 | 1,109.45 | 1,099.67 | 3.37 | 4.44 | 20.14 | 1,921.35 | 704.71 | 2,048.65 | 2,040.87 | 7.78 | 263.392 | | |
| 1,100.00 | 1,100.00 | 1,204.35 | 1,191.79 | 3.73 | 4.93 | 19.51 | 1,924.99 | 682.17 | 2,044.09 | 2,035.47 | 8.62 | 237.021 | | |
| 1,200.00 | 1,200.00 | 1,307.59 | 1,291.57 | 4.09 | 5.49 | 18.78 | 1,929.71 | 656.08 | 2,039.99 | 2,030.45 | 9.54 | 213.823 | | |
| 1,300.00 | 1,300.00 | 1,469.49 | 1,446.80 | 4.45 | 6.44 | 17.50 | 1,935.89 | 610.57 | 2,034.77 | 2,023.94 | 10.83 | 187.888 | | |
| 1,400.00 | 1,400.00 | 1,631.63 | 1,600.62 | 4.80 | 7.46 | 16.10 | 1,937.67 | 559.37 | 2,026.17 | 2,013.99 | 12.18 | 166.396 | | |
| 1,500.00 | 1,500.00 | 1,700.19 | 1,665.19 | 5.16 | 7.92 | 15.47 | 1,938.23 | 536.35 | 2,017.36 | 2,004.36 | 13.00 | 155.175 | | |
| 1,600.00 | 1,600.00 | 1,768.04 | 1,729.13 | 5.52 | 8.37 | 14.83 | 1,939.74 | 513.67 | 2,010.37 | 1,996.55 | 13.82 | 145.418 | | |
| 1,700.00 | 1,700.00 | 1,843.72 | 1,800.45 | 5.88 | 8.89 | 14.12 | 1,942.34 | 488.50 | 2,005.06 | 1,990.35 | 14.70 | 136.363 | | |
| 1,800.00 | 1,800.00 | 1,947.95 | 1,898.71 | 6.24 | 9.60 | 13.13 | 1,946.20 | 453.96 | 2,000.59 | 1,984.82 | 15.78 | 126.811 | | |
| 1,900.00 | 1,900.00 | 2,044.94 | 1,990.03 | 6.60 | 10.27 | 12.20 | 1,949.10 | 421.40 | 1,995.90 | 1,979.09 | 16.81 | 118.701 | | |
| 2,000.00 | 2,000.00 | 2,135.59 | 2,074.80 | 6.95 | 10.92 | 11.28 | 1,952.58 | 389.47 | 1,992.23 | 1,974.40 | 17.83 | 111.727 | | |
| 2,100.00 | 2,100.00 | 2,259.46 | 2,190.50 | 7.31 | 11.82 | 10.01 | 1,956.51 | 345.41 | 1,988.56 | 1,969.47 | 19.09 | 104.144 | | |
| 2,200.00 | 2,200.00 | 2,352.76 | 2,277.43 | 7.67 | 12.52 | 9.04 | 1,958.55 | 311.61 | 1,984.47 | 1,964.31 | 20.16 | 98.444 | | |
| 2,300.00 | 2,300.00 | 2,440.37 | 2,358.33 | 8.03 | 13.20 | 8.07 | 1,961.06 | 278.07 | 1,981.37 | 1,960.16 | 21.21 | 93.429 | | |
| 2,400.00 | 2,400.00 | 2,567.89 | 2,475.79 | 8.39 | 14.21 | 6.64 | 1,964.11 | 228.52 | 1,978.59 | 1,956.01 | 22.58 | 87.645 | | |
| 2,500.00 | 2,499.98 | 2,617.70 | 2,521.70 | 8.75 | 14.60 | 5.49 | 1,965.29 | 209.24 | 1,974.72 | 1,951.38 | 23.34 | 84.598 | | |
| 2,600.00 | 2,599.84 | 2,661.00 | 2,561.67 | 9.11 | 14.94 | 5.02 | 1,967.11 | 192.69 | 1,970.07 | 1,946.03 | 24.04 | 81.943 | | |
| 2,700.00 | 2,699.45 | 2,753.58 | 2,647.24 | 9.46 | 15.67 | 4.01 | 1,972.14 | 157.71 | 1,963.64 | 1,938.52 | 25.13 | 78.154 | | |
| 2,800.00 | 2,798.70 | 2,833.89 | 2,721.57 | 9.82 | 16.30 | 3.15 | 1,977.02 | 127.68 | 1,955.07 | 1,928.97 | 26.10 | 74.897 | | |
| 2,900.00 | 2,897.47 | 2,924.48 | 2,805.65 | 10.18 | 17.00 | 2.19 | 1,982.89 | 94.49 | 1,944.11 | 1,916.96 | 27.15 | 71.616 | | |
| 3,000.00 | 2,995.62 | 3,043.26 | 2,916.84 | 10.55 | 17.87 | 0.98 | 1,989.85 | 53.33 | 1,929.84 | 1,901.46 | 28.37 | 68.013 | | |
| 3,100.00 | 3,093.06 | 3,137.00 | 3,005.10 | 10.94 | 18.54 | 0.04 | 1,994.50 | 22.07 | 1,911.84 | 1,882.46 | 29.38 | 65.070 | | |
| 3,200.00 | 3,189.64 | 3,213.79 | 3,077.16 | 11.34 | 19.10 | -0.78 | 1,998.59 | -4.16 | 1,891.34 | 1,861.07 | 30.27 | 62.482 | | |
| 3,240.86 | 3,228.84 | 3,254.68 | 3,115.37 | 11.50 | 19.40 | -1.23 | 2,000.97 | -18.50 | 1,882.36 | 1,851.65 | 30.70 | 61.305 | | |
| 3,300.00 | 3,285.45 | 3,341.29 | 3,196.75 | 11.75 | 20.04 | -2.18 | 2,005.09 | -47.83 | 1,868.52 | 1,836.98 | 31.54 | 59.251 | | |
| 3,400.00 | 3,381.17 | 3,403.60 | 3,255.56 | 12.19 | 20.47 | -2.84 | 2,008.22 | -68.17 | 1,845.70 | 1,813.41 | 32.28 | 57.171 | | |
| 3,500.00 | 3,476.90 | 3,492.75 | 3,339.89 | 12.63 | 21.09 | -3.79 | 2,013.38 | -96.66 | 1,824.20 | 1,790.98 | 33.22 | 54.913 | | |
| 3,600.00 | 3,572.62 | 3,567.06 | 3,410.13 | 13.09 | 21.61 | -4.60 | 2,017.83 | -120.48 | 1,803.51 | 1,769.47 | 34.04 | 52.974 | | |
| 3,700.00 | 3,668.34 | 3,615.00 | 3,455.30 | 13.56 | 21.94 | -5.13 | 2,021.25 | -136.19 | 1,784.86 | 1,750.20 | 34.66 | 51.496 | | |
| 3,800.00 | 3,764.07 | 3,690.35 | 3,525.84 | 14.04 | 22.50 | -6.01 | 2,027.80 | -161.84 | 1,768.25 | 1,732.76 | 35.49 | 49.817 | | |
| 3,900.00 | 3,859.79 | 3,754.36 | 3,585.28 | 14.52 | 22.99 | -6.80 | 2,034.53 | -184.62 | 1,754.13 | 1,717.90 | 36.23 | 48.416 | | |
| 4,000.00 | 3,955.51 | 3,831.51 | 3,656.64 | 15.02 | 23.59 | -7.77 | 2,043.66 | -212.49 | 1,742.08 | 1,705.00 | 37.07 | 46.990 | | |
| 4,100.00 | 4,051.24 | 3,935.43 | 3,752.62 | 15.52 | 24.40 | -9.10 | 2,055.55 | -250.49 | 1,730.60 | 1,692.45 | 38.15 | 45.361 | | |
| 4,200.00 | 4,146.96 | 4,036.86 | 3,846.40 | 16.03 | 25.19 | -10.42 | 2,066.78 | -287.48 | 1,719.65 | 1,680.46 | 39.19 | 43.881 | | |
| 4,300.00 | 4,242.68 | 4,179.96 | 3,980.14 | 16.54 | 26.26 | -12.21 | 2,080.95 | -336.35 | 1,708.06 | 1,667.53 | 40.54 | 42.135 | | |
| 4,400.00 | 4,338.41 | 4,272.31 | 4,066.35 | 17.06 | 26.96 | -13.42 | 2,088.19 | -368.64 | 1,695.52 | 1,654.05 | 41.46 | 40.891 | | |
| 4,500.00 | 4,434.13 | 4,378.61 | 4,165.14 | 17.59 | 27.78 | -14.87 | 2,095.79 | -407.13 | 1,683.58 | 1,641.07 | 42.51 | 39.607 | | |
| 4,600.00 | 4,529.85 | 4,496.18 | 4,275.05 | 18.11 | 28.66 | -16.48 | 2,102.79 | -448.29 | 1,671.13 | 1,627.52 | 43.61 | 38.321 | | |
| 4,700.00 | 4,625.58 | 4,584.73 | 4,358.20 | 18.65 | 29.31 | -17.67 | 2,108.06 | -478.28 | 1,659.29 | 1,614.83 | 44.46 | 37.320 | | |
| 4,800.00 | 4,721.30 | 4,686.24 | 4,453.88 | 19.18 | 30.04 | -19.02 | 2,114.05 | -511.67 | 1,647.97 | 1,602.58 | 45.39 | 36.308 | | |
| 4,900.00 | 4,817.02 | 4,774.07 | 4,536.69 | 19.72 | 30.66 | -20.20 | 2,119.13 | -540.47 | 1,637.41 | 1,591.20 | 46.20 | 35.439 | | |
| 5,000.00 | 4,912.74 | 4,853.32 | 4,610.97 | 20.27 | 31.25 | -21.32 | 2,123.62 | -567.74 | 1,628.27 | 1,581.32 | 46.95 | 34.682 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 26N-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Measured Reference | | Measured Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Depth (usft) | Vertical Depth (usft) | Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,100.00 | 5,008.47 | 4,944.79 | 4,696.51 | 20.81 | 31.93 | -22.63 | 2,128.97 | -599.68 | 1,620.45 | 1,572.67 | 47.79 | 33.911 | | |
| 5,200.00 | 5,104.19 | 5,063.42 | 4,808.48 | 21.36 | 32.77 | -24.26 | 2,136.12 | -638.18 | 1,612.72 | 1,563.93 | 48.79 | 33.053 | | |
| 5,300.00 | 5,199.91 | 5,162.02 | 4,902.20 | 21.91 | 33.43 | -25.56 | 2,142.10 | -668.23 | 1,605.09 | 1,555.47 | 49.62 | 32.349 | | |
| 5,400.00 | 5,295.64 | 5,256.30 | 4,991.88 | 22.46 | 34.06 | -26.82 | 2,147.39 | -696.85 | 1,597.86 | 1,547.46 | 50.40 | 31.705 | | |
| 5,500.00 | 5,391.36 | 5,336.70 | 5,068.43 | 23.02 | 34.59 | -27.87 | 2,152.79 | -720.82 | 1,592.14 | 1,541.07 | 51.07 | 31.177 | | |
| 5,600.00 | 5,487.08 | 5,483.92 | 5,209.28 | 23.58 | 35.52 | -29.79 | 2,160.60 | -762.89 | 1,585.27 | 1,533.09 | 52.18 | 30.380 | | |
| 5,700.00 | 5,582.81 | 5,627.89 | 5,347.97 | 24.13 | 36.39 | -31.66 | 2,165.48 | -801.21 | 1,577.02 | 1,523.81 | 53.21 | 29.638 | | |
| 5,800.00 | 5,678.53 | 5,816.49 | 5,531.19 | 24.70 | 37.40 | -34.10 | 2,165.62 | -845.77 | 1,565.68 | 1,511.36 | 54.33 | 28.818 | | |
| 5,900.00 | 5,774.25 | 5,881.59 | 5,594.72 | 25.26 | 37.73 | -34.94 | 2,164.80 | -859.99 | 1,552.64 | 1,497.72 | 54.92 | 28.270 | | |
| 6,000.00 | 5,869.98 | 6,007.29 | 5,718.15 | 25.82 | 38.31 | -36.43 | 2,165.35 | -883.61 | 1,540.09 | 1,484.39 | 55.70 | 27.648 | | |
| 6,100.00 | 5,965.70 | 6,116.99 | 5,826.52 | 26.39 | 38.76 | -37.62 | 2,166.82 | -900.55 | 1,526.95 | 1,470.55 | 56.39 | 27.078 | | |
| 6,200.00 | 6,061.42 | 6,256.11 | 5,964.78 | 26.95 | 39.25 | -38.99 | 2,168.40 | -915.84 | 1,511.23 | 1,454.13 | 57.10 | 26.465 | | |
| 6,300.00 | 6,157.15 | 6,360.32 | 6,068.51 | 27.52 | 39.59 | -40.01 | 2,169.23 | -925.80 | 1,495.09 | 1,437.35 | 57.74 | 25.895 | | |
| 6,400.00 | 6,252.87 | 6,094.51 | 7,119.46 | 28.09 | 45.34 | 3.46 | 2,194.36 | 75.00 | 1,444.11 | 1,389.35 | 54.76 | 26.372 | | |
| 6,500.00 | 6,348.59 | 8,093.27 | 7,119.45 | 28.66 | 45.33 | 3.38 | 2,194.43 | 73.75 | 1,365.16 | 1,308.56 | 56.60 | 24.121 | | |
| 6,600.00 | 6,444.32 | 8,091.87 | 7,119.44 | 29.23 | 45.32 | 3.28 | 2,194.52 | 72.36 | 1,289.13 | 1,230.58 | 58.55 | 22.017 | | |
| 6,700.00 | 6,540.04 | 8,090.29 | 7,119.43 | 29.80 | 45.30 | 3.18 | 2,194.61 | 70.77 | 1,216.58 | 1,155.97 | 60.61 | 20.071 | | |
| 6,764.28 | 6,601.58 | 8,089.15 | 7,119.43 | 30.17 | 45.29 | 3.10 | 2,194.67 | 69.64 | 1,172.07 | 1,110.09 | 61.98 | 18.910 | | |
| 6,800.00 | 6,635.75 | 8,086.29 | 7,119.42 | 30.37 | 45.26 | 17.79 | 2,194.83 | 66.78 | 1,148.23 | 1,085.50 | 62.73 | 18.305 | | |
| 6,850.00 | 6,683.35 | 8,074.42 | 7,119.44 | 30.66 | 45.13 | 35.90 | 2,195.43 | 54.93 | 1,116.26 | 1,052.58 | 63.69 | 17.528 | | |
| 6,900.00 | 6,730.36 | 8,052.54 | 7,119.69 | 30.94 | 44.90 | 44.99 | 2,196.25 | 33.06 | 1,086.16 | 1,021.66 | 64.50 | 16.839 | | |
| 6,950.00 | 6,776.41 | 8,019.68 | 7,120.60 | 31.21 | 44.55 | 60.16 | 2,196.80 | 0.22 | 1,058.02 | 992.89 | 65.13 | 16.245 | | |
| 7,000.00 | 6,821.15 | 7,985.55 | 7,122.23 | 31.47 | 44.20 | 67.73 | 2,196.55 | -33.86 | 1,031.83 | 966.14 | 65.69 | 15.707 | | |
| 7,050.00 | 6,864.24 | 7,962.75 | 7,123.53 | 31.73 | 43.99 | 74.01 | 2,196.21 | -56.62 | 1,007.89 | 941.49 | 66.40 | 15.180 | | |
| 7,100.00 | 6,905.35 | 7,936.07 | 7,125.17 | 31.97 | 43.75 | 78.65 | 2,195.81 | -83.25 | 986.39 | 919.39 | 67.00 | 14.722 | | |
| 7,150.00 | 6,944.18 | 7,905.68 | 7,127.18 | 32.21 | 43.48 | 82.05 | 2,195.37 | -113.57 | 967.33 | 899.84 | 67.49 | 14.332 | | |
| 7,200.00 | 6,980.42 | 7,871.45 | 7,129.33 | 32.45 | 43.20 | 84.48 | 2,194.92 | -147.73 | 950.67 | 882.75 | 67.92 | 13.998 | | |
| 7,250.00 | 7,013.80 | 7,835.45 | 7,130.72 | 32.68 | 42.92 | 86.20 | 2,194.60 | -183.70 | 936.35 | 868.06 | 68.29 | 13.710 | | |
| 7,300.00 | 7,044.06 | 7,794.88 | 7,131.14 | 32.91 | 42.62 | 87.24 | 2,194.43 | -224.27 | 924.33 | 855.73 | 68.61 | 13.473 | | |
| 7,350.00 | 7,070.98 | 7,731.09 | 7,124.70 | 33.15 | 42.20 | 86.84 | 2,193.69 | -287.65 | 913.86 | 845.19 | 68.67 | 13.308 | | |
| 7,400.00 | 7,094.36 | 7,689.91 | 7,115.20 | 33.39 | 41.93 | 86.82 | 2,192.77 | -327.69 | 905.01 | 835.97 | 69.04 | 13.108 | | |
| 7,450.00 | 7,114.00 | 7,658.50 | 7,106.81 | 33.65 | 41.75 | 86.86 | 2,192.25 | -357.96 | 898.64 | 829.10 | 69.54 | 12.923 | | |
| 7,500.00 | 7,129.76 | 7,625.87 | 7,097.48 | 33.93 | 41.56 | 86.54 | 2,191.97 | -389.22 | 894.71 | 824.68 | 70.04 | 12.775 | | |
| 7,550.00 | 7,141.53 | 7,589.10 | 7,085.90 | 34.22 | 41.39 | 85.81 | 2,191.93 | -424.11 | 893.04 | 822.51 | 70.53 | 12.661 | | |
| 7,567.74 | 7,144.73 | 7,575.34 | 7,080.98 | 34.33 | 41.33 | 85.46 | 2,191.91 | -436.97 | 892.92 | 822.20 | 70.72 | 12.626 CC, ES | | |
| 7,600.00 | 7,149.21 | 7,550.78 | 7,071.35 | 34.55 | 41.22 | 84.74 | 2,191.86 | -459.56 | 893.32 | 822.26 | 71.05 | 12.573 | | |
| 7,650.00 | 7,152.75 | 7,512.54 | 7,054.27 | 34.90 | 41.06 | 83.39 | 2,191.72 | -493.76 | 895.46 | 823.86 | 71.59 | 12.507 | | |
| 7,667.38 | 7,153.00 | 7,492.83 | 7,044.43 | 35.04 | 40.99 | 82.64 | 2,191.50 | -510.84 | 896.55 | 824.82 | 71.73 | 12.500 | | |
| 7,700.00 | 7,153.00 | 7,458.16 | 7,025.42 | 35.29 | 40.88 | 81.43 | 2,190.57 | -539.81 | 898.74 | 826.74 | 72.00 | 12.483 | | |
| 7,800.00 | 7,153.00 | 7,389.67 | 6,982.42 | 36.22 | 40.73 | 78.70 | 2,187.24 | -592.97 | 907.73 | 834.37 | 73.36 | 12.374 | | |
| 7,900.00 | 7,153.00 | 7,326.00 | 6,939.89 | 37.35 | 40.61 | 76.05 | 2,185.33 | -640.30 | 923.25 | 848.52 | 74.73 | 12.354 SF | | |
| 8,000.00 | 7,153.00 | 7,293.98 | 6,917.86 | 38.67 | 40.57 | 74.71 | 2,185.05 | -663.54 | 945.04 | 868.63 | 76.42 | 12.367 | | |
| 8,100.00 | 7,153.00 | 7,250.43 | 6,887.21 | 40.16 | 40.53 | 72.89 | 2,185.44 | -694.48 | 973.50 | 895.72 | 77.78 | 12.517 | | |
| 8,200.00 | 7,153.00 | 7,203.10 | 6,852.94 | 41.81 | 40.49 | 70.91 | 2,186.64 | -727.09 | 1,008.03 | 929.14 | 78.89 | 12.778 | | |
| 8,300.00 | 7,153.00 | 7,155.11 | 6,816.77 | 43.59 | 40.48 | 68.87 | 2,187.66 | -758.61 | 1,047.81 | 968.05 | 79.76 | 13.137 | | |
| 8,400.00 | 7,153.00 | 7,106.62 | 6,778.76 | 45.47 | 40.47 | 66.78 | 2,188.20 | -788.70 | 1,092.55 | 1,012.16 | 80.39 | 13.590 | | |
| 8,500.00 | 7,153.00 | 7,060.47 | 6,741.12 | 47.45 | 40.48 | 64.74 | 2,187.55 | -815.39 | 1,141.75 | 1,060.94 | 80.81 | 14.128 | | |
| 8,600.00 | 7,153.00 | 7,020.18 | 6,707.21 | 49.51 | 40.49 | 62.94 | 2,186.03 | -837.09 | 1,195.29 | 1,114.20 | 81.09 | 14.740 | | |
| 8,700.00 | 7,153.00 | 6,983.69 | 6,675.90 | 51.64 | 40.50 | 61.31 | 2,184.21 | -855.74 | 1,252.93 | 1,171.69 | 81.24 | 15.422 | | |
| 8,800.00 | 7,153.00 | 6,945.00 | 6,642.16 | 53.82 | 40.51 | 59.59 | 2,181.85 | -874.52 | 1,314.34 | 1,233.12 | 81.22 | 16.183 | | |
| 8,900.00 | 7,153.00 | 6,945.00 | 6,642.16 | 56.06 | 40.51 | 59.59 | 2,181.85 | -874.52 | 1,379.50 | 1,297.90 | 81.60 | 16.906 | | |
| 9,000.00 | 7,153.00 | 6,945.00 | 6,642.16 | 58.34 | 40.51 | 59.59 | 2,181.85 | -874.52 | 1,448.64 | 1,366.80 | 81.84 | 17.702 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 26N-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 9,100.00 | 7,153.00 | 6,903.67 | 6,605.16 | 60.66 | 40.52 | 57.76 | 2,179.24 | -892.74 | 1,519.39 | 1,437.88 | 81.52 | 18.639 | | |
| 9,200.00 | 7,153.00 | 6,891.57 | 6,594.09 | 63.01 | 40.53 | 57.23 | 2,178.52 | -897.58 | 1,593.72 | 1,512.23 | 81.48 | 19.559 | | |
| 9,300.00 | 7,153.00 | 6,850.00 | 6,555.36 | 65.40 | 40.54 | 55.41 | 2,176.25 | -912.45 | 1,671.44 | 1,590.38 | 81.06 | 20.619 | | |
| 9,400.00 | 7,153.00 | 6,850.00 | 6,555.36 | 67.81 | 40.54 | 55.41 | 2,176.25 | -912.45 | 1,749.75 | 1,668.65 | 81.10 | 21.574 | | |
| 9,500.00 | 7,153.00 | 6,850.00 | 6,555.36 | 70.24 | 40.54 | 55.41 | 2,176.25 | -912.45 | 1,830.18 | 1,749.08 | 81.10 | 22.566 | | |
| 9,600.00 | 7,153.00 | 6,850.00 | 6,555.36 | 72.70 | 40.54 | 55.41 | 2,176.25 | -912.45 | 1,912.46 | 1,831.39 | 81.07 | 23.591 | | |
| 9,700.00 | 7,153.00 | 6,850.00 | 6,555.36 | 75.17 | 40.54 | 55.41 | 2,176.25 | -912.45 | 1,996.35 | 1,915.34 | 81.01 | 24.643 | | |
| 9,800.00 | 7,153.00 | 6,850.00 | 6,555.36 | 77.67 | 40.54 | 55.41 | 2,176.25 | -912.45 | 2,081.67 | 2,000.73 | 80.94 | 25.720 | | |
| 9,900.00 | 7,153.00 | 6,850.00 | 6,555.36 | 80.17 | 40.54 | 55.41 | 2,176.25 | -912.45 | 2,168.24 | 2,087.39 | 80.85 | 26.818 | | |
| 10,000.00 | 7,153.00 | 6,850.00 | 6,555.36 | 82.69 | 40.54 | 55.41 | 2,176.25 | -912.45 | 2,255.93 | 2,175.17 | 80.76 | 27.934 | | |
| 10,100.00 | 7,153.00 | 6,850.00 | 6,555.36 | 85.23 | 40.54 | 55.41 | 2,176.25 | -912.45 | 2,344.60 | 2,263.94 | 80.66 | 29.068 | | |
| 10,200.00 | 7,153.00 | 6,850.00 | 6,555.36 | 87.77 | 40.54 | 55.41 | 2,176.25 | -912.45 | 2,434.15 | 2,353.59 | 80.56 | 30.215 | | |
| 10,300.00 | 7,153.00 | 6,850.00 | 6,555.36 | 90.33 | 40.54 | 55.41 | 2,176.25 | -912.45 | 2,524.48 | 2,444.02 | 80.46 | 31.376 | | |
| 10,400.00 | 7,153.00 | 6,850.00 | 6,555.36 | 92.89 | 40.54 | 55.41 | 2,176.25 | -912.45 | 2,615.52 | 2,535.16 | 80.36 | 32.548 | | |
| 10,500.00 | 7,153.00 | 6,850.00 | 6,555.36 | 95.47 | 40.54 | 55.41 | 2,176.25 | -912.45 | 2,707.19 | 2,626.93 | 80.26 | 33.730 | | |
| 10,600.00 | 7,153.00 | 6,850.00 | 6,555.36 | 98.05 | 40.54 | 55.41 | 2,176.25 | -912.45 | 2,799.43 | 2,719.26 | 80.16 | 34.922 | | |
| 10,700.00 | 7,153.00 | 6,850.00 | 6,555.36 | 100.64 | 40.54 | 55.41 | 2,176.25 | -912.45 | 2,892.18 | 2,812.11 | 80.07 | 36.121 | | |
| 10,800.00 | 7,153.00 | 6,805.34 | 6,512.44 | 103.24 | 40.51 | 53.49 | 2,174.45 | -924.59 | 2,982.56 | 2,902.81 | 79.75 | 37.401 | | |
| 10,900.00 | 7,153.00 | 6,802.84 | 6,510.00 | 105.84 | 40.51 | 53.39 | 2,174.38 | -925.13 | 3,075.89 | 2,996.23 | 79.66 | 38.615 | | |
| 11,000.00 | 7,153.00 | 6,800.49 | 6,507.70 | 108.45 | 40.51 | 53.29 | 2,174.32 | -925.62 | 3,169.61 | 3,090.04 | 79.57 | 39.835 | | |
| 11,100.00 | 7,153.00 | 6,798.25 | 6,505.51 | 111.07 | 40.51 | 53.20 | 2,174.26 | -926.08 | 3,263.69 | 3,184.21 | 79.49 | 41.059 | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 40N-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 0.00 | 0.00 | 6.00 | 6.00 | 0.00 | 0.00 | 24.77 | 1,786.17 | 824.15 | 1,967.13 | | | | | |
| 100.00 | 100.00 | 105.34 | 105.34 | 0.14 | 0.32 | 24.77 | 1,786.13 | 824.26 | 1,967.15 | 1,966.68 | 0.46 | 4,242.335 | | |
| 200.00 | 200.00 | 243.80 | 243.80 | 0.50 | 0.81 | 24.78 | 1,785.13 | 824.12 | 1,966.55 | 1,965.24 | 1.31 | 1,498.673 | | |
| 300.00 | 300.00 | 413.30 | 413.11 | 0.86 | 1.42 | 24.78 | 1,778.33 | 821.00 | 1,961.63 | 1,959.35 | 2.28 | 861.931 | | |
| 400.00 | 400.00 | 649.92 | 648.44 | 1.22 | 2.32 | 24.67 | 1,758.43 | 807.57 | 1,950.13 | 1,946.64 | 3.50 | 557.732 | | |
| 500.00 | 500.00 | 830.28 | 826.93 | 1.58 | 3.07 | 24.53 | 1,737.41 | 792.72 | 1,936.49 | 1,931.98 | 4.52 | 428.861 | | |
| 600.00 | 600.00 | 1,023.49 | 1,016.36 | 1.94 | 3.96 | 24.36 | 1,705.54 | 772.19 | 1,916.65 | 1,911.08 | 5.57 | 344.023 | | |
| 700.00 | 700.00 | 1,143.50 | 1,133.42 | 2.29 | 4.55 | 24.27 | 1,682.80 | 758.61 | 1,894.72 | 1,888.36 | 6.37 | 297.660 | | |
| 800.00 | 800.00 | 1,366.87 | 1,349.26 | 2.65 | 5.74 | 24.17 | 1,631.91 | 732.24 | 1,869.34 | 1,861.81 | 7.53 | 248.248 | | |
| 900.00 | 900.00 | 1,459.43 | 1,437.88 | 3.01 | 6.27 | 24.12 | 1,608.17 | 719.99 | 1,840.51 | 1,832.28 | 8.23 | 223.537 | | |
| 1,000.00 | 1,000.00 | 1,545.00 | 1,519.85 | 3.37 | 6.77 | 24.06 | 1,586.60 | 708.26 | 1,811.90 | 1,802.98 | 8.92 | 203.185 | | |
| 1,100.00 | 1,100.00 | 1,635.33 | 1,606.48 | 3.73 | 7.29 | 23.97 | 1,564.34 | 695.67 | 1,783.70 | 1,774.08 | 9.62 | 185.380 | | |
| 1,200.00 | 1,200.00 | 1,726.24 | 1,693.74 | 4.09 | 7.82 | 23.88 | 1,542.25 | 682.88 | 1,755.78 | 1,745.45 | 10.33 | 169.947 | | |
| 1,300.00 | 1,300.00 | 1,838.03 | 1,800.88 | 4.45 | 8.48 | 23.76 | 1,514.67 | 666.83 | 1,727.37 | 1,716.25 | 11.11 | 155.451 | | |
| 1,400.00 | 1,400.00 | 1,954.81 | 1,912.65 | 4.80 | 9.18 | 23.65 | 1,485.03 | 650.49 | 1,698.57 | 1,686.66 | 11.91 | 142.642 | | |
| 1,500.00 | 1,500.00 | 2,069.80 | 2,022.02 | 5.16 | 9.90 | 23.48 | 1,454.75 | 632.01 | 1,667.94 | 1,655.24 | 12.70 | 131.323 | | |
| 1,600.00 | 1,600.00 | 2,158.11 | 2,105.90 | 5.52 | 10.45 | 23.30 | 1,431.83 | 616.59 | 1,637.14 | 1,623.72 | 13.42 | 122.015 | | |
| 1,700.00 | 1,700.00 | 2,278.67 | 2,220.26 | 5.88 | 11.22 | 23.02 | 1,400.41 | 594.95 | 1,606.11 | 1,591.88 | 14.23 | 112.861 | | |
| 1,800.00 | 1,800.00 | 2,377.31 | 2,313.45 | 6.24 | 11.87 | 22.75 | 1,374.10 | 576.13 | 1,574.04 | 1,559.05 | 14.99 | 105.033 | | |
| 1,900.00 | 1,900.00 | 2,487.90 | 2,417.63 | 6.60 | 12.60 | 22.42 | 1,343.99 | 554.49 | 1,541.28 | 1,525.51 | 15.78 | 97.694 | | |
| 2,000.00 | 2,000.00 | 2,583.96 | 2,507.90 | 6.95 | 13.25 | 22.12 | 1,317.22 | 535.42 | 1,507.86 | 1,491.33 | 16.53 | 91.212 | | |
| 2,100.00 | 2,100.00 | 2,661.30 | 2,580.77 | 7.31 | 13.77 | 21.89 | 1,296.00 | 520.59 | 1,475.14 | 1,457.90 | 17.24 | 85.558 | | |
| 2,200.00 | 2,200.00 | 2,746.49 | 2,661.32 | 7.67 | 14.33 | 21.63 | 1,273.11 | 504.88 | 1,443.27 | 1,425.30 | 17.97 | 80.309 | | |
| 2,300.00 | 2,300.00 | 2,847.00 | 2,756.28 | 8.03 | 15.00 | 21.30 | 1,246.24 | 485.87 | 1,411.36 | 1,392.62 | 18.74 | 75.300 | | |
| 2,400.00 | 2,400.00 | 2,933.93 | 2,838.37 | 8.39 | 15.57 | 20.97 | 1,223.22 | 468.93 | 1,379.54 | 1,360.05 | 19.49 | 70.788 | | |
| 2,500.00 | 2,499.98 | 3,003.90 | 2,904.77 | 8.75 | 16.02 | 20.37 | 1,205.41 | 455.90 | 1,347.47 | 1,327.28 | 20.19 | 66.728 | | |
| 2,600.00 | 2,599.84 | 3,089.85 | 2,986.78 | 9.11 | 16.57 | 20.38 | 1,184.60 | 440.73 | 1,313.81 | 1,292.88 | 20.93 | 62.766 | | |
| 2,700.00 | 2,699.45 | 3,185.12 | 3,077.55 | 9.46 | 17.17 | 20.41 | 1,161.57 | 423.29 | 1,276.93 | 1,255.24 | 21.69 | 58.881 | | |
| 2,800.00 | 2,798.70 | 3,278.61 | 3,166.66 | 9.82 | 17.76 | 20.52 | 1,138.84 | 406.45 | 1,237.02 | 1,214.59 | 22.43 | 55.153 | | |
| 2,900.00 | 2,897.47 | 3,371.60 | 3,255.27 | 10.18 | 18.35 | 20.76 | 1,115.71 | 390.34 | 1,193.88 | 1,170.73 | 23.16 | 51.555 | | |
| 3,000.00 | 2,995.62 | 3,464.04 | 3,343.37 | 10.55 | 18.94 | 21.14 | 1,092.32 | 374.88 | 1,147.67 | 1,123.80 | 23.87 | 48.077 | | |
| 3,100.00 | 3,093.06 | 3,555.18 | 3,430.06 | 10.94 | 19.52 | 21.61 | 1,069.02 | 359.15 | 1,098.19 | 1,073.62 | 24.57 | 44.689 | | |
| 3,200.00 | 3,189.64 | 3,648.82 | 3,518.90 | 11.34 | 20.14 | 22.13 | 1,045.38 | 341.36 | 1,045.64 | 1,020.36 | 25.27 | 41.372 | | |
| 3,240.86 | 3,228.84 | 3,690.79 | 3,558.51 | 11.50 | 20.41 | 22.33 | 1,034.73 | 332.48 | 1,023.04 | 997.47 | 25.56 | 40.020 | | |
| 3,300.00 | 3,285.45 | 3,746.77 | 3,611.15 | 11.75 | 20.80 | 22.30 | 1,020.37 | 319.92 | 989.62 | 963.64 | 25.97 | 38.101 | | |
| 3,400.00 | 3,381.17 | 3,837.07 | 3,695.77 | 12.19 | 21.42 | 22.23 | 996.67 | 299.19 | 932.46 | 905.80 | 26.66 | 34.971 | | |
| 3,500.00 | 3,476.90 | 3,923.43 | 3,776.52 | 12.63 | 22.03 | 22.16 | 973.47 | 279.21 | 874.75 | 847.39 | 27.35 | 31.979 | | |
| 3,600.00 | 3,572.62 | 4,003.22 | 3,851.11 | 13.09 | 22.59 | 22.12 | 951.61 | 261.17 | 816.78 | 788.73 | 28.05 | 29.120 | | |
| 3,700.00 | 3,668.34 | 4,069.39 | 3,913.40 | 13.56 | 23.05 | 22.22 | 933.75 | 247.76 | 759.90 | 731.13 | 28.76 | 26.418 | | |
| 3,800.00 | 3,764.07 | 4,136.20 | 3,976.86 | 14.04 | 23.48 | 22.48 | 916.40 | 236.16 | 704.79 | 675.31 | 29.47 | 23.912 | | |
| 3,900.00 | 3,859.79 | 4,212.77 | 4,050.16 | 14.52 | 23.96 | 22.95 | 897.55 | 224.57 | 651.47 | 621.31 | 30.16 | 21.598 | | |
| 4,000.00 | 3,955.51 | 4,301.95 | 4,135.43 | 15.02 | 24.51 | 23.54 | 875.50 | 210.58 | 597.97 | 567.15 | 30.82 | 19.403 | | |
| 4,100.00 | 4,051.24 | 4,390.75 | 4,220.15 | 15.52 | 25.07 | 24.18 | 853.33 | 195.91 | 544.05 | 512.58 | 31.47 | 17.288 | | |
| 4,200.00 | 4,146.96 | 4,482.73 | 4,307.38 | 16.03 | 25.67 | 24.92 | 829.11 | 179.63 | 488.64 | 456.55 | 32.09 | 15.228 | | |
| 4,300.00 | 4,242.68 | 4,560.00 | 4,380.73 | 16.54 | 26.18 | 25.70 | 809.00 | 165.99 | 433.56 | 400.74 | 32.81 | 13.213 | | |
| 4,400.00 | 4,338.41 | 4,637.57 | 4,454.70 | 17.06 | 26.67 | 26.70 | 789.75 | 152.77 | 379.75 | 346.20 | 33.55 | 11.320 | | |
| 4,500.00 | 4,434.13 | 4,723.36 | 4,536.67 | 17.59 | 27.21 | 28.19 | 768.84 | 138.52 | 326.61 | 292.40 | 34.21 | 9.548 | | |
| 4,600.00 | 4,529.85 | 4,810.43 | 4,619.64 | 18.11 | 27.76 | 30.41 | 746.74 | 124.08 | 272.90 | 238.06 | 34.84 | 7.833 | | |
| 4,700.00 | 4,625.58 | 4,895.11 | 4,700.10 | 18.65 | 28.31 | 33.65 | 724.54 | 109.73 | 218.81 | 183.27 | 35.54 | 6.157 | | |
| 4,800.00 | 4,721.30 | 4,976.88 | 4,777.78 | 19.18 | 28.84 | 38.65 | 703.25 | 95.67 | 165.53 | 129.07 | 36.47 | 4.539 | | |
| 4,900.00 | 4,817.02 | 5,058.35 | 4,855.63 | 19.72 | 29.35 | 47.76 | 683.11 | 82.58 | 115.65 | 77.61 | 38.05 | 3.040 | | |
| 5,000.00 | 4,912.74 | 5,142.43 | 4,936.33 | 20.27 | 29.86 | 67.55 | 663.24 | 69.86 | 72.94 | 30.76 | 42.18 | 1.729 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 40N-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|--------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Highside | | Distance | | Separation | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 5,097.63 | 5,006.20 | 5,226.33 | 5,016.86 | 20.80 | 30.37 | 107.90 | 643.73 | 56.67 | 52.46 | 2.17 | 50.29 | 1.043 | Level 3, CC | | |
| 5,100.00 | 5,008.47 | 5,228.36 | 5,018.80 | 20.81 | 30.38 | 109.06 | 643.26 | 56.34 | 52.47 | 2.08 | 50.39 | 1.041 | Level 3, ES, SF | | |
| 5,200.00 | 5,104.19 | 5,313.86 | 5,100.74 | 21.36 | 30.91 | 149.40 | 623.56 | 41.94 | 74.94 | 27.25 | 47.69 | 1.572 | | | |
| 5,300.00 | 5,199.91 | 5,398.81 | 5,182.08 | 22.91 | 31.43 | 168.57 | 604.08 | 27.00 | 118.23 | 73.53 | 44.70 | 2.645 | | | |
| 5,400.00 | 5,295.64 | 5,484.23 | 5,263.84 | 21.46 | 31.96 | 177.70 | 584.50 | 11.94 | 167.05 | 123.21 | 43.84 | 3.810 | | | |
| 5,500.00 | 5,391.36 | 5,570.30 | 5,346.48 | 23.02 | 32.48 | -177.48 | 565.11 | -2.30 | 217.27 | 173.42 | 43.85 | 4.955 | | | |
| 5,600.00 | 5,487.08 | 5,657.29 | 5,430.13 | 23.58 | 33.00 | -174.49 | 545.86 | -16.46 | 267.86 | 223.65 | 44.21 | 6.059 | | | |
| 5,700.00 | 5,582.81 | 5,744.54 | 5,514.04 | 24.13 | 33.52 | -172.29 | 527.19 | -31.34 | 318.28 | 273.58 | 44.70 | 7.121 | | | |
| 5,800.00 | 5,678.53 | 5,826.05 | 5,592.06 | 24.70 | 34.02 | -170.33 | 510.21 | -47.71 | 368.99 | 323.89 | 45.10 | 8.182 | | | |
| 5,900.00 | 5,774.25 | 5,899.69 | 5,661.77 | 25.26 | 34.50 | -168.66 | 493.49 | -64.58 | 422.09 | 376.71 | 45.38 | 9.301 | | | |
| 6,000.00 | 5,869.98 | 5,986.18 | 5,743.59 | 25.82 | 35.08 | -167.25 | 472.96 | -83.59 | 476.16 | 430.12 | 46.04 | 10.342 | | | |
| 6,100.00 | 5,965.70 | 6,071.64 | 5,824.97 | 26.39 | 35.62 | -166.50 | 452.35 | -99.60 | 529.97 | 483.23 | 46.73 | 11.340 | | | |
| 6,200.00 | 6,061.42 | 6,152.04 | 5,901.70 | 26.95 | 36.13 | -166.13 | 432.43 | -113.02 | 583.92 | 536.57 | 47.35 | 12.331 | | | |
| 6,300.00 | 6,157.15 | 6,236.55 | 5,982.26 | 27.52 | 36.67 | -165.84 | 411.03 | -126.92 | 638.30 | 590.24 | 48.07 | 13.280 | | | |
| 6,400.00 | 6,252.87 | 6,324.11 | 6,065.87 | 28.09 | 37.22 | -165.60 | 389.19 | -141.09 | 692.32 | 643.48 | 48.84 | 14.176 | | | |
| 6,500.00 | 6,348.59 | 6,407.36 | 6,145.47 | 28.66 | 37.74 | -165.44 | 368.60 | -154.10 | 746.04 | 696.50 | 49.53 | 15.061 | | | |
| 6,600.00 | 6,444.32 | 6,486.48 | 6,221.04 | 29.23 | 38.23 | -165.36 | 348.42 | -166.00 | 800.27 | 750.10 | 50.17 | 15.952 | | | |
| 6,700.00 | 6,540.04 | 6,559.00 | 6,290.36 | 29.80 | 38.68 | -165.44 | 329.21 | -175.20 | 854.89 | 804.18 | 50.71 | 16.859 | | | |
| 6,764.28 | 6,601.58 | 6,604.91 | 6,334.17 | 30.17 | 38.95 | -165.62 | 316.19 | -179.54 | 890.58 | 839.54 | 51.04 | 17.448 | | | |
| 6,800.00 | 6,635.75 | 6,626.19 | 6,354.39 | 30.37 | 39.08 | -151.80 | 309.73 | -180.99 | 910.56 | 859.40 | 51.17 | 17.795 | | | |
| 6,850.00 | 6,683.35 | 6,654.00 | 6,380.72 | 30.66 | 39.25 | -134.36 | 300.88 | -182.34 | 938.08 | 886.73 | 51.35 | 18.270 | | | |
| 6,900.00 | 6,730.36 | 6,681.58 | 6,406.67 | 30.94 | 39.40 | -120.28 | 291.54 | -182.64 | 965.01 | 913.47 | 51.54 | 18.725 | | | |
| 6,950.00 | 6,776.41 | 6,705.66 | 6,429.11 | 31.21 | 39.53 | -109.39 | 282.86 | -181.69 | 991.38 | 939.67 | 51.71 | 19.172 | | | |
| 7,000.00 | 6,821.15 | 6,727.13 | 6,448.89 | 31.47 | 39.65 | -100.96 | 274.72 | -179.90 | 1,017.21 | 965.33 | 51.88 | 19.607 | | | |
| 7,050.00 | 6,864.24 | 6,749.00 | 6,468.78 | 31.73 | 39.77 | -94.45 | 266.06 | -177.15 | 1,042.53 | 990.43 | 52.10 | 20.009 | | | |
| 7,100.00 | 6,905.35 | 7,050.73 | 6,737.72 | 31.97 | 40.49 | -103.70 | 181.51 | -75.21 | 1,065.63 | 1,009.08 | 56.55 | 18.843 | | | |
| 7,150.00 | 6,944.18 | 7,060.60 | 6,746.49 | 32.21 | 40.49 | -99.42 | 179.90 | -70.99 | 1,084.56 | 1,027.66 | 56.90 | 19.062 | | | |
| 7,200.00 | 6,980.42 | 7,078.98 | 6,762.83 | 32.45 | 40.50 | -96.17 | 177.09 | -63.06 | 1,103.93 | 1,046.56 | 57.37 | 19.244 | | | |
| 7,250.00 | 7,013.80 | 7,092.56 | 6,774.87 | 32.68 | 40.51 | -93.10 | 175.05 | -57.11 | 1,123.78 | 1,065.97 | 57.81 | 19.438 | | | |
| 7,300.00 | 7,044.06 | 7,101.49 | 6,782.77 | 32.91 | 40.52 | -90.10 | 173.73 | -53.17 | 1,144.09 | 1,085.86 | 58.24 | 19.645 | | | |
| 7,350.00 | 7,070.98 | 7,105.93 | 6,786.70 | 33.15 | 40.52 | -87.13 | 173.07 | -51.19 | 1,164.79 | 1,106.15 | 58.64 | 19.863 | | | |
| 7,400.00 | 7,094.36 | 7,106.13 | 6,786.87 | 33.39 | 40.52 | -84.16 | 173.04 | -51.10 | 1,185.73 | 1,126.71 | 59.03 | 20.088 | | | |
| 7,450.00 | 7,114.00 | 7,102.34 | 6,783.52 | 33.65 | 40.52 | -81.20 | 173.60 | -52.79 | 1,206.76 | 1,147.37 | 59.40 | 20.317 | | | |
| 7,500.00 | 7,129.76 | 7,094.81 | 6,776.86 | 33.93 | 40.51 | -78.27 | 174.72 | -56.12 | 1,227.69 | 1,167.93 | 59.75 | 20.546 | | | |
| 7,550.00 | 7,141.53 | 7,083.82 | 6,767.12 | 34.22 | 40.51 | -75.42 | 176.36 | -60.95 | 1,248.28 | 1,188.18 | 60.10 | 20.769 | | | |
| 7,600.00 | 7,149.21 | 7,069.65 | 6,754.54 | 34.55 | 40.49 | -72.70 | 178.51 | -67.10 | 1,268.32 | 1,207.87 | 60.45 | 20.982 | | | |
| 7,650.00 | 7,152.75 | 7,052.58 | 6,739.34 | 34.90 | 40.48 | -70.13 | 181.14 | -74.41 | 1,287.56 | 1,226.77 | 60.79 | 21.181 | | | |
| 7,667.38 | 7,153.00 | 7,011.35 | 6,702.51 | 35.04 | 40.44 | -67.81 | 188.46 | -91.38 | 1,293.88 | 1,233.57 | 60.31 | 21.455 | | | |
| 7,700.00 | 7,153.00 | 7,032.04 | 6,720.99 | 35.29 | 40.47 | -68.70 | 184.36 | -83.05 | 1,306.30 | 1,245.20 | 61.10 | 21.379 | | | |
| 7,800.00 | 7,153.00 | 6,844.00 | 6,553.67 | 36.22 | 40.14 | -60.66 | 230.21 | -154.66 | 1,344.84 | 1,285.99 | 58.85 | 22.853 | | | |
| 7,900.00 | 7,153.00 | 6,815.03 | 6,528.05 | 37.35 | 40.03 | -59.39 | 240.57 | -163.32 | 1,386.87 | 1,327.28 | 59.59 | 23.273 | | | |
| 8,000.00 | 7,153.00 | 6,801.05 | 6,515.58 | 38.67 | 39.97 | -58.77 | 245.76 | -166.94 | 1,434.44 | 1,373.82 | 60.62 | 23.661 | | | |
| 8,100.00 | 7,153.00 | 6,789.57 | 6,505.30 | 40.16 | 39.93 | -58.26 | 250.11 | -169.63 | 1,487.02 | 1,425.38 | 61.64 | 24.126 | | | |
| 8,200.00 | 7,153.00 | 6,779.98 | 6,496.69 | 41.81 | 39.89 | -57.84 | 253.80 | -171.70 | 1,544.13 | 1,481.53 | 62.59 | 24.669 | | | |
| 8,300.00 | 7,153.00 | 6,749.00 | 6,468.78 | 43.59 | 39.77 | -56.45 | 266.06 | -177.15 | 1,605.74 | 1,542.73 | 63.01 | 25.484 | | | |
| 8,400.00 | 7,153.00 | 6,749.00 | 6,468.78 | 45.47 | 39.77 | -56.45 | 266.06 | -177.15 | 1,670.41 | 1,606.43 | 63.98 | 26.109 | | | |
| 8,500.00 | 7,153.00 | 6,749.00 | 6,468.78 | 47.45 | 39.77 | -56.45 | 266.06 | -177.15 | 1,738.42 | 1,673.58 | 64.84 | 26.810 | | | |
| 8,600.00 | 7,153.00 | 6,749.00 | 6,468.78 | 49.51 | 39.77 | -56.45 | 266.06 | -177.15 | 1,809.41 | 1,743.80 | 65.61 | 27.579 | | | |
| 8,700.00 | 7,153.00 | 6,749.00 | 6,468.78 | 51.64 | 39.77 | -56.45 | 266.06 | -177.15 | 1,883.04 | 1,816.75 | 66.29 | 28.408 | | | |
| 8,800.00 | 7,153.00 | 6,749.00 | 6,468.78 | 53.82 | 39.77 | -56.45 | 266.06 | -177.15 | 1,959.00 | 1,892.12 | 66.88 | 29.289 | | | |
| 8,900.00 | 7,153.00 | 6,749.00 | 6,468.78 | 56.06 | 39.77 | -56.45 | 266.06 | -177.15 | 2,037.04 | 1,969.63 | 67.41 | 30.218 | | | |
| 9,000.00 | 7,153.00 | 6,749.00 | 6,468.78 | 58.34 | 39.77 | -56.45 | 266.06 | -177.15 | 2,116.93 | 2,049.05 | 67.88 | 31.187 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 40N-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 9,100.00 | 7,153.00 | 6,749.00 | 6,468.78 | 60.66 | 39.77 | -56.45 | 266.06 | -177.15 | 2,198.46 | 2,130.18 | 68.29 | 32.194 | | |
| 9,200.00 | 7,153.00 | 6,749.00 | 6,468.78 | 63.01 | 39.77 | -56.45 | 266.06 | -177.15 | 2,281.47 | 2,212.82 | 68.65 | 33.232 | | |
| 9,300.00 | 7,153.00 | 6,749.00 | 6,468.78 | 65.40 | 39.77 | -56.45 | 266.06 | -177.15 | 2,365.79 | 2,296.81 | 68.98 | 34.299 | | |
| 9,400.00 | 7,153.00 | 6,749.00 | 6,468.78 | 67.81 | 39.77 | -56.45 | 266.06 | -177.15 | 2,451.29 | 2,382.03 | 69.26 | 35.392 | | |
| 9,500.00 | 7,153.00 | 6,749.00 | 6,468.78 | 70.24 | 39.77 | -56.45 | 266.06 | -177.15 | 2,537.85 | 2,468.33 | 69.52 | 36.507 | | |
| 9,600.00 | 7,153.00 | 6,749.00 | 6,468.78 | 72.70 | 39.77 | -56.45 | 266.06 | -177.15 | 2,625.36 | 2,555.62 | 69.75 | 37.642 | | |
| 9,700.00 | 7,153.00 | 6,749.00 | 6,468.78 | 75.17 | 39.77 | -56.45 | 266.06 | -177.15 | 2,713.74 | 2,643.79 | 69.95 | 38.796 | | |
| 9,800.00 | 7,153.00 | 6,749.00 | 6,468.78 | 77.67 | 39.77 | -56.45 | 266.06 | -177.15 | 2,802.90 | 2,732.76 | 70.13 | 39.965 | | |
| 9,900.00 | 7,153.00 | 6,749.00 | 6,468.78 | 80.17 | 39.77 | -56.45 | 266.06 | -177.15 | 2,892.77 | 2,822.47 | 70.30 | 41.150 | | |
| 10,000.00 | 7,153.00 | 6,749.00 | 6,468.78 | 82.69 | 39.77 | -56.45 | 266.06 | -177.15 | 2,983.28 | 2,912.83 | 70.45 | 42.347 | | |
| 10,100.00 | 7,153.00 | 6,749.00 | 6,468.78 | 85.23 | 39.77 | -56.45 | 266.06 | -177.15 | 3,074.38 | 3,003.79 | 70.58 | 43.556 | | |
| 10,200.00 | 7,153.00 | 6,749.00 | 6,468.78 | 87.77 | 39.77 | -56.45 | 266.06 | -177.15 | 3,166.02 | 3,095.31 | 70.71 | 44.775 | | |
| 10,300.00 | 7,153.00 | 6,749.00 | 6,468.78 | 90.33 | 39.77 | -56.45 | 266.06 | -177.15 | 3,258.15 | 3,187.32 | 70.82 | 46.004 | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 41N-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 0.00 | 0.00 | 6.00 | 6.00 | 0.00 | 0.00 | 24.09 | 1,844.82 | 824.98 | 2,020.88 | | | | | |
| 100.00 | 100.00 | 89.44 | 89.43 | 0.14 | 0.26 | 24.09 | 1,845.10 | 825.09 | 2,021.25 | 2,020.84 | 0.41 | 4,948.766 | | |
| 200.00 | 200.00 | 188.31 | 188.30 | 0.50 | 0.62 | 24.09 | 1,846.07 | 825.45 | 2,022.29 | 2,021.17 | 1.12 | 1,805.733 | | |
| 300.00 | 300.00 | 394.50 | 394.43 | 0.86 | 1.33 | 24.05 | 1,843.62 | 822.81 | 2,020.84 | 2,018.64 | 2.20 | 919.434 | | |
| 400.00 | 400.00 | 561.12 | 560.61 | 1.22 | 1.93 | 23.88 | 1,836.77 | 813.16 | 2,014.66 | 2,011.52 | 3.14 | 640.965 | | |
| 500.00 | 500.00 | 689.36 | 688.11 | 1.58 | 2.41 | 23.64 | 1,830.22 | 801.07 | 2,006.13 | 2,002.17 | 3.96 | 506.310 | | |
| 600.00 | 600.00 | 816.71 | 814.18 | 1.94 | 2.93 | 23.26 | 1,824.08 | 784.16 | 1,996.38 | 1,991.57 | 4.80 | 415.574 | | |
| 700.00 | 700.00 | 934.39 | 929.96 | 2.29 | 3.44 | 22.78 | 1,818.80 | 763.84 | 1,985.36 | 1,979.73 | 5.63 | 352.800 | | |
| 800.00 | 800.00 | 1,036.31 | 1,029.85 | 2.65 | 3.90 | 22.29 | 1,815.00 | 743.98 | 1,974.30 | 1,967.88 | 6.41 | 307.797 | | |
| 900.00 | 900.00 | 1,167.27 | 1,157.66 | 3.01 | 4.53 | 21.59 | 1,809.22 | 716.02 | 1,961.96 | 1,954.62 | 7.35 | 267.047 | | |
| 1,000.00 | 1,000.00 | 1,268.92 | 1,256.47 | 3.37 | 5.04 | 21.00 | 1,804.51 | 692.66 | 1,949.05 | 1,940.87 | 8.18 | 238.387 | | |
| 1,100.00 | 1,100.00 | 1,417.93 | 1,400.68 | 3.73 | 5.84 | 20.06 | 1,796.51 | 656.00 | 1,935.11 | 1,925.86 | 9.25 | 209.258 | | |
| 1,200.00 | 1,200.00 | 1,523.64 | 1,502.25 | 4.09 | 6.43 | 19.32 | 1,789.72 | 627.55 | 1,919.56 | 1,909.41 | 10.15 | 189.147 | | |
| 1,300.00 | 1,300.00 | 1,627.33 | 1,601.65 | 4.45 | 7.04 | 18.56 | 1,783.41 | 598.71 | 1,904.32 | 1,893.26 | 11.06 | 172.196 | | |
| 1,400.00 | 1,400.00 | 1,720.52 | 1,691.16 | 4.80 | 7.58 | 17.89 | 1,776.75 | 573.63 | 1,888.71 | 1,876.79 | 11.92 | 158.448 | | |
| 1,500.00 | 1,500.00 | 1,812.90 | 1,780.20 | 5.16 | 8.11 | 17.25 | 1,770.52 | 549.84 | 1,874.10 | 1,861.33 | 12.78 | 146.700 | | |
| 1,600.00 | 1,600.00 | 1,914.30 | 1,877.88 | 5.52 | 8.70 | 16.53 | 1,763.62 | 523.50 | 1,859.66 | 1,845.98 | 13.68 | 135.901 | | |
| 1,700.00 | 1,700.00 | 2,062.14 | 2,018.82 | 5.88 | 9.63 | 15.33 | 1,752.25 | 480.41 | 1,843.65 | 1,828.78 | 14.87 | 123.951 | | |
| 1,800.00 | 1,800.00 | 2,191.91 | 2,140.31 | 6.24 | 10.52 | 14.06 | 1,741.34 | 436.14 | 1,825.99 | 1,809.94 | 16.05 | 113.767 | | |
| 1,900.00 | 1,900.00 | 2,288.99 | 2,230.90 | 6.60 | 11.22 | 13.08 | 1,732.36 | 402.42 | 1,807.92 | 1,790.85 | 17.07 | 105.907 | | |
| 2,000.00 | 2,000.00 | 2,388.61 | 2,324.24 | 6.95 | 11.92 | 12.09 | 1,722.49 | 369.05 | 1,790.09 | 1,771.99 | 18.10 | 98.904 | | |
| 2,100.00 | 2,100.00 | 2,497.76 | 2,426.60 | 7.31 | 12.69 | 11.02 | 1,710.79 | 333.01 | 1,772.14 | 1,752.96 | 19.18 | 92.393 | | |
| 2,200.00 | 2,200.00 | 2,592.54 | 2,515.64 | 7.67 | 13.35 | 10.09 | 1,699.84 | 302.45 | 1,754.08 | 1,733.90 | 20.18 | 86.926 | | |
| 2,300.00 | 2,300.00 | 2,671.70 | 2,590.55 | 8.03 | 13.88 | 9.35 | 1,690.83 | 278.49 | 1,737.08 | 1,716.00 | 21.08 | 82.397 | | |
| 2,400.00 | 2,400.00 | 2,755.42 | 2,670.30 | 8.39 | 14.43 | 8.61 | 1,681.68 | 254.71 | 1,721.27 | 1,699.28 | 21.99 | 78.272 | | |
| 2,500.00 | 2,499.98 | 2,867.07 | 2,776.39 | 8.75 | 15.16 | 7.04 | 1,668.66 | 222.45 | 1,703.30 | 1,680.24 | 23.05 | 73.893 | | |
| 2,600.00 | 2,599.84 | 2,920.00 | 2,826.57 | 9.11 | 15.51 | 6.58 | 1,663.31 | 206.49 | 1,683.67 | 1,659.85 | 23.83 | 70.666 | | |
| 2,700.00 | 2,699.45 | 2,986.80 | 2,889.79 | 9.46 | 15.97 | 5.94 | 1,658.19 | 185.51 | 1,663.17 | 1,638.48 | 24.69 | 67.357 | | |
| 2,800.00 | 2,798.70 | 3,066.76 | 2,964.69 | 9.82 | 16.54 | 5.06 | 1,653.29 | 158.00 | 1,640.86 | 1,615.20 | 25.66 | 63.949 | | |
| 2,900.00 | 2,897.47 | 3,159.34 | 3,051.55 | 10.18 | 17.20 | 4.01 | 1,647.81 | 126.43 | 1,616.03 | 1,589.31 | 26.72 | 60.478 | | |
| 3,000.00 | 2,995.62 | 3,253.41 | 3,139.73 | 10.55 | 17.88 | 2.90 | 1,642.07 | 94.18 | 1,588.26 | 1,560.46 | 27.79 | 57.147 | | |
| 3,100.00 | 3,093.06 | 3,344.88 | 3,225.52 | 10.94 | 18.54 | 1.78 | 1,636.42 | 62.96 | 1,557.72 | 1,528.86 | 28.85 | 53.988 | | |
| 3,200.00 | 3,189.64 | 3,439.55 | 3,313.81 | 11.34 | 19.24 | 0.49 | 1,630.32 | 29.32 | 1,524.20 | 1,494.25 | 29.95 | 50.890 | | |
| 3,240.86 | 3,228.84 | 3,475.19 | 3,347.04 | 11.50 | 19.50 | -0.02 | 1,627.97 | 16.67 | 1,509.71 | 1,479.33 | 30.38 | 49.691 | | |
| 3,300.00 | 3,285.45 | 3,531.49 | 3,399.71 | 11.75 | 19.92 | -0.82 | 1,624.22 | -2.85 | 1,488.55 | 1,457.51 | 31.03 | 47.966 | | |
| 3,400.00 | 3,381.17 | 3,639.68 | 3,500.60 | 12.19 | 20.73 | -2.45 | 1,615.80 | -41.03 | 1,452.31 | 1,420.09 | 32.23 | 45.065 | | |
| 3,500.00 | 3,476.90 | 3,729.18 | 3,583.90 | 12.63 | 21.40 | -3.89 | 1,608.20 | -72.84 | 1,416.31 | 1,383.00 | 33.31 | 42.518 | | |
| 3,600.00 | 3,572.62 | 3,817.38 | 3,666.04 | 13.09 | 22.07 | -5.36 | 1,600.68 | -104.09 | 1,381.15 | 1,346.76 | 34.39 | 40.160 | | |
| 3,700.00 | 3,668.34 | 3,916.17 | 3,758.12 | 13.56 | 22.81 | -7.07 | 1,591.64 | -138.70 | 1,346.36 | 1,310.82 | 35.54 | 37.881 | | |
| 3,800.00 | 3,764.07 | 4,008.40 | 3,844.20 | 14.04 | 23.49 | -8.73 | 1,582.71 | -170.59 | 1,312.08 | 1,275.44 | 36.65 | 35.805 | | |
| 3,900.00 | 3,859.79 | 4,107.72 | 3,937.58 | 14.52 | 24.20 | -10.51 | 1,572.57 | -202.86 | 1,278.15 | 1,240.39 | 37.76 | 33.848 | | |
| 4,000.00 | 3,955.51 | 4,197.66 | 4,022.88 | 15.02 | 24.82 | -12.10 | 1,563.06 | -229.75 | 1,244.53 | 1,205.74 | 38.79 | 32.080 | | |
| 4,100.00 | 4,051.24 | 4,276.00 | 4,096.84 | 15.52 | 25.36 | -13.59 | 1,555.33 | -254.36 | 1,212.75 | 1,172.97 | 39.78 | 30.488 | | |
| 4,200.00 | 4,146.96 | 4,351.94 | 4,168.22 | 16.03 | 25.91 | -15.15 | 1,548.28 | -279.32 | 1,182.87 | 1,142.10 | 40.77 | 29.015 | | |
| 4,300.00 | 4,242.68 | 4,431.20 | 4,242.73 | 16.54 | 26.48 | -16.83 | 1,541.05 | -305.34 | 1,154.50 | 1,112.73 | 41.77 | 27.638 | | |
| 4,400.00 | 4,338.41 | 4,509.50 | 4,316.10 | 17.06 | 27.05 | -18.58 | 1,534.40 | -331.87 | 1,128.32 | 1,085.54 | 42.77 | 26.379 | | |
| 4,500.00 | 4,434.13 | 4,592.91 | 4,393.93 | 17.59 | 27.67 | -20.55 | 1,527.54 | -361.10 | 1,104.26 | 1,060.46 | 43.80 | 25.209 | | |
| 4,600.00 | 4,529.85 | 4,682.42 | 4,477.67 | 18.11 | 28.34 | -22.71 | 1,520.28 | -391.87 | 1,081.83 | 1,036.97 | 44.87 | 24.112 | | |
| 4,700.00 | 4,625.58 | 4,767.48 | 4,556.75 | 18.65 | 28.99 | -24.89 | 1,512.88 | -422.29 | 1,061.26 | 1,015.37 | 45.89 | 23.127 | | |
| 4,800.00 | 4,721.30 | 4,855.38 | 4,638.14 | 19.18 | 29.68 | -27.26 | 1,504.90 | -454.51 | 1,042.78 | 995.86 | 46.92 | 22.224 | | |
| 4,900.00 | 4,817.02 | 4,958.45 | 4,733.94 | 19.72 | 30.47 | -30.08 | 1,494.97 | -491.22 | 1,025.66 | 977.62 | 48.04 | 21.351 | | |
| 5,000.00 | 4,912.74 | 5,057.35 | 4,826.57 | 20.27 | 31.19 | -32.78 | 1,484.94 | -524.36 | 1,009.41 | 960.34 | 49.07 | 20.572 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 41N-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------|-----------------------|------------------|---------------|-----------------------|------------------------|----------------|------------------------|-------------------------|---------------------------|----------------------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Measured Reference | | Measured Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Depth (usft) | Vertical Depth (usft) | Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,100.00 | 5,008.47 | 5,145.21 | 4,909.21 | 20.81 | 31.82 | -35.20 | 1,476.13 | -552.87 | 994.95 | 944.98 | 49.96 | 19.914 | | |
| 5,200.00 | 5,104.19 | 5,238.17 | 4,997.19 | 21.36 | 32.46 | -37.73 | 1,467.44 | -581.58 | 982.32 | 931.48 | 50.85 | 19.319 | | |
| 5,300.00 | 5,199.91 | 5,322.00 | 5,076.75 | 21.91 | 33.03 | -40.01 | 1,460.08 | -606.98 | 971.93 | 920.32 | 51.61 | 18.831 | | |
| 5,400.00 | 5,295.64 | 5,389.31 | 5,140.43 | 22.46 | 33.50 | -41.88 | 1,454.71 | -628.08 | 964.88 | 912.68 | 52.20 | 18.485 | | |
| 5,500.00 | 5,391.36 | 5,465.76 | 5,212.44 | 23.02 | 34.04 | -44.03 | 1,449.36 | -653.20 | 961.70 | 908.89 | 52.81 | 18.212 | | |
| 5,600.00 | 5,487.08 | 5,574.36 | 5,314.68 | 23.58 | 34.81 | -47.11 | 1,441.66 | -688.98 | 961.01 | 907.33 | 53.68 | 17.903 | | |
| 5,683.04 | 5,566.57 | 5,654.99 | 5,391.39 | 24.04 | 35.36 | -49.32 | 1,435.63 | -713.08 | 960.07 | 905.79 | 54.28 | 17.687 | | |
| 5,700.00 | 5,582.81 | 5,668.00 | 5,403.73 | 24.13 | 35.45 | -49.68 | 1,434.61 | -717.05 | 960.12 | 905.75 | 54.37 | 17.660 | | |
| 5,800.00 | 5,678.53 | 5,744.66 | 5,476.16 | 24.70 | 35.98 | -51.86 | 1,428.28 | -741.36 | 962.40 | 907.55 | 54.85 | 17.547 | | |
| 5,900.00 | 5,774.25 | 5,823.21 | 5,549.84 | 25.26 | 36.55 | -54.14 | 1,421.23 | -767.66 | 968.05 | 912.75 | 55.30 | 17.505 | | |
| 6,000.00 | 5,869.98 | 5,906.42 | 5,627.46 | 25.82 | 37.18 | -56.60 | 1,412.93 | -796.48 | 976.66 | 920.90 | 55.77 | 17.513 | | |
| 6,100.00 | 5,965.70 | 5,989.30 | 5,704.32 | 26.39 | 37.82 | -59.09 | 1,403.58 | -826.03 | 988.13 | 931.93 | 56.20 | 17.584 | | |
| 6,200.00 | 6,061.42 | 7,850.93 | 6,934.80 | 26.95 | 44.48 | -32.67 | 1,273.62 | -6.70 | 916.33 | 884.81 | 31.52 | 29.073 | | |
| 6,300.00 | 6,157.15 | 7,853.18 | 6,934.84 | 27.52 | 44.50 | -29.64 | 1,273.63 | -4.45 | 816.42 | 784.56 | 31.86 | 25.624 | | |
| 6,400.00 | 6,252.87 | 7,855.41 | 6,934.88 | 28.09 | 44.52 | -26.46 | 1,273.64 | -2.22 | 716.53 | 684.28 | 32.25 | 22.219 | | |
| 6,500.00 | 6,348.59 | 7,857.61 | 6,934.92 | 28.66 | 44.54 | -23.12 | 1,273.64 | -0.02 | 616.67 | 583.97 | 32.70 | 18.858 | | |
| 6,600.00 | 6,444.32 | 7,859.80 | 6,934.96 | 29.23 | 44.56 | -19.65 | 1,273.65 | 2.16 | 516.84 | 483.59 | 33.25 | 15.543 | | |
| 6,700.00 | 6,540.04 | 7,861.96 | 6,935.00 | 29.80 | 44.58 | -16.06 | 1,273.66 | 4.33 | 417.09 | 383.11 | 33.98 | 12.274 | | |
| 6,764.28 | 6,601.58 | 7,863.34 | 6,935.02 | 30.17 | 44.60 | -13.71 | 1,273.67 | 5.71 | 353.04 | 318.43 | 34.61 | 10.199 | | |
| 6,800.00 | 6,635.75 | 7,862.97 | 6,935.02 | 30.37 | 44.59 | -13.62 | 1,273.66 | 5.34 | 317.49 | 282.44 | 35.05 | 9.057 | | |
| 6,850.00 | 6,683.35 | 7,858.67 | 6,934.94 | 30.66 | 44.55 | -12.88 | 1,273.65 | 1.04 | 267.98 | 232.16 | 35.82 | 7.482 | | |
| 6,900.00 | 6,730.36 | 7,850.02 | 6,934.79 | 30.94 | 44.47 | -9.30 | 1,273.61 | -7.61 | 219.17 | 182.28 | 36.88 | 5.942 | | |
| 6,950.00 | 6,776.41 | 7,837.11 | 6,934.55 | 31.21 | 44.34 | -103.82 | 1,273.56 | -20.52 | 171.51 | 133.00 | 38.51 | 4.453 | | |
| 7,000.00 | 6,821.15 | 7,820.06 | 6,934.23 | 31.47 | 44.18 | -108.00 | 1,273.46 | -37.57 | 125.62 | 84.27 | 41.35 | 3.038 | | |
| 7,050.00 | 6,864.24 | 7,799.03 | 6,933.82 | 31.73 | 43.98 | -104.97 | 1,273.33 | -58.59 | 82.58 | 35.41 | 47.17 | 1.751 | | |
| 7,100.00 | 6,905.35 | 7,774.27 | 6,933.42 | 31.97 | 43.77 | -89.92 | 1,273.11 | -83.34 | 45.89 | -14.90 | 60.79 | 0.755 Level 3 | | |
| 7,139.82 | 6,936.47 | 7,751.50 | 6,933.23 | 32.16 | 43.58 | 63.26 | 1,272.81 | -106.12 | 32.08 | -35.23 | 67.31 | 0.477 Level 3, CC, ES, SF | | |
| 7,150.00 | 6,944.18 | 7,745.24 | 6,933.22 | 32.21 | 43.53 | 54.88 | 1,272.71 | -112.37 | 33.03 | -29.08 | 62.11 | 0.532 Level 3 | | |
| 7,200.00 | 6,980.42 | 7,712.04 | 6,933.35 | 32.45 | 43.26 | 20.89 | 1,272.07 | -145.57 | 55.74 | 20.79 | 34.95 | 1.595 | | |
| 7,250.00 | 7,013.80 | 7,678.72 | 6,933.38 | 32.68 | 43.01 | 5.70 | 1,271.28 | -178.88 | 86.67 | 58.77 | 27.90 | 3.106 | | |
| 7,300.00 | 7,044.06 | 7,646.46 | 6,931.92 | 32.91 | 42.79 | -0.88 | 1,270.53 | -211.09 | 118.47 | 91.84 | 26.63 | 4.449 | | |
| 7,350.00 | 7,070.98 | 7,614.33 | 6,928.94 | 33.15 | 42.57 | -4.13 | 1,269.80 | -243.07 | 149.55 | 122.90 | 26.66 | 5.610 | | |
| 7,400.00 | 7,094.36 | 7,580.64 | 6,924.31 | 33.39 | 42.36 | -5.90 | 1,269.13 | -276.43 | 179.27 | 152.28 | 26.99 | 6.642 | | |
| 7,450.00 | 7,114.00 | 7,545.96 | 6,918.30 | 33.65 | 42.16 | -6.78 | 1,268.74 | -310.58 | 207.03 | 179.66 | 27.37 | 7.564 | | |
| 7,500.00 | 7,129.76 | 7,511.00 | 6,910.99 | 33.93 | 41.97 | -7.16 | 1,268.66 | -344.77 | 232.69 | 204.91 | 27.78 | 8.375 | | |
| 7,550.00 | 7,141.53 | 7,477.73 | 6,902.71 | 34.22 | 41.82 | -7.28 | 1,268.76 | -376.98 | 256.36 | 227.98 | 28.38 | 9.033 | | |
| 7,600.00 | 7,149.21 | 7,444.65 | 6,893.03 | 34.55 | 41.67 | -7.27 | 1,268.95 | -408.62 | 278.19 | 249.09 | 29.10 | 9.560 | | |
| 7,650.00 | 7,152.75 | 7,411.60 | 6,881.95 | 34.90 | 41.52 | -7.20 | 1,269.22 | -439.75 | 298.13 | 268.20 | 29.93 | 9.960 | | |
| 7,667.38 | 7,153.00 | 7,410.00 | 6,881.38 | 35.04 | 41.52 | -7.30 | 1,269.23 | -441.24 | 304.84 | 273.76 | 31.08 | 9.808 | | |
| 7,700.00 | 7,153.00 | 7,379.24 | 6,869.74 | 35.29 | 41.42 | -6.90 | 1,269.54 | -469.71 | 317.03 | 286.11 | 30.92 | 10.255 | | |
| 7,800.00 | 7,153.00 | 7,321.00 | 6,844.38 | 36.22 | 41.23 | -6.14 | 1,270.25 | -522.12 | 360.43 | 327.02 | 33.41 | 10.789 | | |
| 7,900.00 | 7,153.00 | 7,256.24 | 6,811.88 | 37.35 | 41.10 | -5.32 | 1,271.31 | -578.11 | 410.41 | 375.32 | 35.09 | 11.695 | | |
| 8,000.00 | 7,153.00 | 7,201.65 | 6,781.52 | 38.67 | 41.01 | -4.67 | 1,272.43 | -623.45 | 465.84 | 428.59 | 37.25 | 12.505 | | |
| 8,100.00 | 7,153.00 | 7,154.66 | 6,752.83 | 40.16 | 40.96 | -4.19 | 1,273.25 | -660.65 | 526.73 | 487.20 | 39.53 | 13.326 | | |
| 8,200.00 | 7,153.00 | 7,130.00 | 6,736.83 | 41.81 | 40.93 | -3.96 | 1,273.60 | -679.40 | 592.92 | 550.27 | 42.65 | 13.904 | | |
| 8,300.00 | 7,153.00 | 7,070.59 | 6,695.93 | 43.59 | 40.92 | -3.52 | 1,274.03 | -722.48 | 661.99 | 618.64 | 43.35 | 15.269 | | |
| 8,400.00 | 7,153.00 | 7,035.00 | 6,669.99 | 45.47 | 40.91 | -3.32 | 1,273.94 | -746.83 | 734.91 | 689.89 | 45.02 | 16.323 | | |
| 8,500.00 | 7,153.00 | 6,995.89 | 6,640.41 | 47.45 | 40.92 | -3.11 | 1,273.89 | -772.43 | 810.53 | 764.30 | 46.23 | 17.531 | | |
| 8,600.00 | 7,153.00 | 6,940.00 | 6,596.53 | 49.51 | 40.93 | -2.78 | 1,274.44 | -807.02 | 888.84 | 842.19 | 46.65 | 19.054 | | |
| 8,700.00 | 7,153.00 | 6,940.00 | 6,596.53 | 51.64 | 40.93 | -2.78 | 1,274.44 | -807.02 | 968.28 | 919.51 | 48.77 | 19.853 | | |
| 8,800.00 | 7,153.00 | 6,905.18 | 6,568.19 | 53.82 | 40.95 | -2.53 | 1,275.52 | -827.21 | 1,049.91 | 1,000.38 | 49.54 | 21.195 | | |
| 8,900.00 | 7,153.00 | 6,881.90 | 6,548.78 | 56.06 | 40.96 | -2.32 | 1,276.83 | -839.99 | 1,133.36 | 1,082.88 | 50.48 | 22.451 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 41N-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|-----------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|---------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | |
| Reference | | | | Offset | | | Semi Major Axis | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | |
| 9,000.00 | 7,153.00 | 6,844.00 | 6,516.45 | 58.34 | 40.98 | -1.91 | 1,279.95 | -859.53 | 1,218.62 | 1,167.64 | 50.97 | 23.907 | | | |
| 9,100.00 | 7,153.00 | 6,844.00 | 6,516.45 | 60.66 | 40.98 | -1.91 | 1,279.95 | -859.53 | 1,304.63 | 1,252.48 | 52.16 | 25.013 | | | |
| 9,200.00 | 7,153.00 | 6,844.00 | 6,516.45 | 63.01 | 40.98 | -1.91 | 1,279.95 | -859.53 | 1,392.52 | 1,339.37 | 53.15 | 26.199 | | | |
| 9,300.00 | 7,153.00 | 6,808.79 | 6,485.68 | 65.40 | 41.00 | -1.48 | 1,283.85 | -876.17 | 1,480.69 | 1,427.25 | 53.44 | 27.708 | | | |
| 9,400.00 | 7,153.00 | 6,794.47 | 6,472.96 | 67.81 | 41.01 | -1.29 | 1,285.68 | -882.50 | 1,570.19 | 1,516.18 | 54.01 | 29.071 | | | |
| 9,500.00 | 7,153.00 | 6,749.00 | 6,431.92 | 70.24 | 41.03 | -0.67 | 1,292.46 | -900.84 | 1,661.57 | 1,607.44 | 54.12 | 30.701 | | | |
| 9,600.00 | 7,153.00 | 6,749.00 | 6,431.92 | 72.70 | 41.03 | -0.67 | 1,292.46 | -900.84 | 1,752.03 | 1,697.25 | 54.78 | 31.986 | | | |
| 9,700.00 | 7,153.00 | 6,749.00 | 6,431.92 | 75.17 | 41.03 | -0.67 | 1,292.46 | -900.84 | 1,843.48 | 1,788.13 | 55.35 | 33.307 | | | |
| 9,800.00 | 7,153.00 | 6,749.00 | 6,431.92 | 77.67 | 41.03 | -0.67 | 1,292.46 | -900.84 | 1,935.77 | 1,879.92 | 55.85 | 34.660 | | | |
| 9,900.00 | 7,153.00 | 6,749.00 | 6,431.92 | 80.17 | 41.03 | -0.67 | 1,292.46 | -900.84 | 2,028.80 | 1,972.50 | 56.30 | 36.038 | | | |
| 10,000.00 | 7,153.00 | 6,749.00 | 6,431.92 | 82.69 | 41.03 | -0.67 | 1,292.46 | -900.84 | 2,122.45 | 2,065.76 | 56.69 | 37.439 | | | |
| 10,100.00 | 7,153.00 | 6,749.00 | 6,431.92 | 85.23 | 41.03 | -0.67 | 1,292.46 | -900.84 | 2,216.67 | 2,159.62 | 57.04 | 38.858 | | | |
| 10,200.00 | 7,153.00 | 6,749.00 | 6,431.92 | 87.77 | 41.03 | -0.67 | 1,292.46 | -900.84 | 2,311.37 | 2,254.00 | 57.36 | 40.293 | | | |
| 10,300.00 | 7,153.00 | 6,708.69 | 6,394.70 | 90.33 | 41.03 | -0.12 | 1,299.25 | -914.72 | 2,404.88 | 2,347.49 | 57.39 | 41.902 | | | |
| 10,400.00 | 7,153.00 | 6,702.36 | 6,388.78 | 92.89 | 41.03 | -0.04 | 1,300.34 | -916.68 | 2,499.86 | 2,442.22 | 57.64 | 43.372 | | | |
| 10,500.00 | 7,153.00 | 6,696.40 | 6,383.19 | 95.47 | 41.03 | 0.04 | 1,301.38 | -918.47 | 2,595.14 | 2,537.28 | 57.87 | 44.847 | | | |
| 10,600.00 | 7,153.00 | 6,654.00 | 6,343.00 | 98.05 | 41.02 | 0.57 | 1,308.93 | -929.64 | 2,692.02 | 2,634.13 | 57.89 | 46.499 | | | |
| 10,700.00 | 7,153.00 | 6,654.00 | 6,343.00 | 100.64 | 41.02 | 0.57 | 1,308.93 | -929.64 | 2,787.48 | 2,729.35 | 58.13 | 47.949 | | | |
| 10,800.00 | 7,153.00 | 6,654.00 | 6,343.00 | 103.24 | 41.02 | 0.57 | 1,308.93 | -929.64 | 2,883.25 | 2,824.89 | 58.36 | 49.409 | | | |
| 10,900.00 | 7,153.00 | 6,654.00 | 6,343.00 | 105.84 | 41.02 | 0.57 | 1,308.93 | -929.64 | 2,979.29 | 2,920.73 | 58.56 | 50.876 | | | |
| 11,000.00 | 7,153.00 | 6,654.00 | 6,343.00 | 108.45 | 41.02 | 0.57 | 1,308.93 | -929.64 | 3,075.59 | 3,016.84 | 58.75 | 52.350 | | | |
| 11,100.00 | 7,153.00 | 6,654.00 | 6,343.00 | 111.07 | 41.02 | 0.57 | 1,308.93 | -929.64 | 3,172.12 | 3,113.19 | 58.93 | 53.829 | | | |
| 11,200.00 | 7,153.00 | 6,654.00 | 6,343.00 | 113.69 | 41.02 | 0.57 | 1,308.93 | -929.64 | 3,268.85 | 3,209.76 | 59.10 | 55.314 | | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 8C-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 0.00 | 0.00 | 6.00 | 6.00 | 0.00 | 0.00 | 24.42 | 1,816.04 | 824.70 | 1,994.53 | | | | | |
| 100.00 | 100.00 | 99.18 | 99.18 | 0.14 | 0.30 | 24.42 | 1,816.27 | 824.55 | 1,994.68 | 1,994.24 | 0.44 | 4,514.018 | | |
| 200.00 | 200.00 | 215.94 | 215.94 | 0.50 | 0.71 | 24.39 | 1,816.75 | 823.71 | 1,994.79 | 1,993.57 | 1.22 | 1,640.498 | | |
| 300.00 | 300.00 | 426.03 | 425.80 | 0.86 | 1.47 | 24.23 | 1,812.61 | 815.85 | 1,991.36 | 1,989.03 | 2.33 | 853.935 | | |
| 400.00 | 400.00 | 522.19 | 521.66 | 1.22 | 1.83 | 24.09 | 1,809.27 | 809.05 | 1,985.30 | 1,982.26 | 3.04 | 654.108 | | |
| 500.00 | 500.00 | 671.09 | 669.83 | 1.58 | 2.40 | 23.78 | 1,804.72 | 795.09 | 1,978.89 | 1,974.94 | 3.95 | 501.146 | | |
| 600.00 | 600.00 | 947.29 | 942.38 | 1.94 | 3.58 | 23.00 | 1,782.97 | 756.72 | 1,965.90 | 1,960.52 | 5.38 | 365.695 | | |
| 700.00 | 700.00 | 1,157.41 | 1,146.50 | 2.29 | 4.63 | 22.20 | 1,754.38 | 716.06 | 1,945.41 | 1,938.84 | 6.57 | 296.142 | | |
| 800.00 | 800.00 | 1,317.53 | 1,300.47 | 2.65 | 5.50 | 21.57 | 1,726.28 | 682.37 | 1,920.98 | 1,913.40 | 7.58 | 253.407 | | |
| 900.00 | 900.00 | 1,413.76 | 1,392.64 | 3.01 | 6.05 | 20.99 | 1,708.15 | 661.44 | 1,895.28 | 1,886.94 | 8.35 | 227.107 | | |
| 1,000.00 | 1,000.00 | 1,506.66 | 1,481.60 | 3.37 | 6.59 | 20.77 | 1,690.62 | 641.22 | 1,869.64 | 1,860.54 | 9.11 | 205.334 | | |
| 1,100.00 | 1,100.00 | 1,590.50 | 1,561.99 | 3.73 | 7.08 | 20.40 | 1,675.21 | 623.09 | 1,844.59 | 1,834.75 | 9.84 | 187.522 | | |
| 1,200.00 | 1,200.00 | 1,683.66 | 1,651.38 | 4.09 | 7.63 | 19.97 | 1,658.61 | 602.76 | 1,820.08 | 1,809.46 | 10.61 | 171.502 | | |
| 1,300.00 | 1,300.00 | 1,807.77 | 1,770.08 | 4.45 | 8.38 | 19.35 | 1,635.90 | 574.51 | 1,794.88 | 1,783.36 | 11.52 | 155.794 | | |
| 1,400.00 | 1,400.00 | 1,899.52 | 1,857.58 | 4.80 | 8.95 | 18.85 | 1,618.85 | 552.83 | 1,769.24 | 1,756.93 | 12.32 | 143.654 | | |
| 1,500.00 | 1,500.00 | 2,084.81 | 2,032.31 | 5.16 | 10.18 | 17.65 | 1,582.11 | 503.44 | 1,741.70 | 1,728.18 | 13.52 | 128.855 | | |
| 1,600.00 | 1,600.00 | 2,256.13 | 2,189.27 | 5.52 | 11.49 | 16.16 | 1,543.16 | 447.03 | 1,709.20 | 1,694.45 | 14.75 | 115.855 | | |
| 1,700.00 | 1,700.00 | 2,352.83 | 2,276.47 | 5.88 | 12.28 | 15.18 | 1,519.87 | 412.31 | 1,674.94 | 1,659.23 | 15.71 | 106.619 | | |
| 1,800.00 | 1,800.00 | 2,451.28 | 2,365.32 | 6.24 | 13.09 | 14.16 | 1,495.77 | 377.40 | 1,640.91 | 1,624.22 | 16.69 | 98.308 | | |
| 1,900.00 | 1,900.00 | 2,549.91 | 2,454.25 | 6.60 | 13.91 | 13.12 | 1,470.98 | 342.72 | 1,606.80 | 1,589.12 | 17.69 | 90.835 | | |
| 2,000.00 | 2,000.00 | 2,633.99 | 2,530.27 | 6.95 | 14.60 | 12.22 | 1,449.50 | 313.92 | 1,573.04 | 1,554.41 | 18.63 | 84.435 | | |
| 2,100.00 | 2,100.00 | 2,718.54 | 2,607.15 | 7.31 | 15.28 | 11.33 | 1,427.91 | 286.14 | 1,540.12 | 1,520.55 | 19.57 | 78.689 | | |
| 2,200.00 | 2,200.00 | 2,804.34 | 2,685.55 | 7.67 | 15.97 | 10.44 | 1,406.01 | 259.00 | 1,507.95 | 1,487.42 | 20.53 | 73.463 | | |
| 2,300.00 | 2,300.00 | 2,914.19 | 2,786.02 | 8.03 | 16.86 | 9.27 | 1,377.69 | 224.82 | 1,476.14 | 1,454.55 | 21.59 | 68.367 | | |
| 2,400.00 | 2,400.00 | 3,004.18 | 2,867.64 | 8.39 | 17.59 | 8.21 | 1,353.79 | 195.40 | 1,443.62 | 1,421.02 | 22.60 | 63.876 | | |
| 2,500.00 | 2,499.98 | 3,083.72 | 2,940.24 | 8.75 | 18.23 | 6.78 | 1,332.98 | 170.45 | 1,410.61 | 1,387.03 | 23.58 | 59.822 | | |
| 2,600.00 | 2,599.84 | 3,162.88 | 3,012.97 | 9.11 | 18.86 | 5.95 | 1,312.62 | 146.76 | 1,375.49 | 1,350.93 | 24.55 | 56.018 | | |
| 2,700.00 | 2,699.45 | 3,241.30 | 3,085.50 | 9.46 | 19.46 | 5.14 | 1,292.86 | 124.43 | 1,338.30 | 1,312.79 | 25.51 | 52.467 | | |
| 2,800.00 | 2,798.70 | 3,323.00 | 3,161.62 | 9.82 | 20.06 | 4.31 | 1,272.71 | 102.64 | 1,299.02 | 1,272.57 | 26.45 | 49.107 | | |
| 2,900.00 | 2,897.47 | 3,403.75 | 3,237.25 | 10.18 | 20.62 | 3.49 | 1,253.07 | 82.24 | 1,257.43 | 1,230.05 | 27.37 | 45.937 | | |
| 3,000.00 | 2,995.62 | 3,487.09 | 3,315.53 | 10.55 | 21.21 | 2.60 | 1,233.00 | 61.89 | 1,213.31 | 1,185.01 | 28.30 | 42.871 | | |
| 3,100.00 | 3,093.06 | 3,571.47 | 3,394.92 | 10.94 | 21.80 | 1.62 | 1,212.86 | 41.58 | 1,166.64 | 1,137.41 | 29.23 | 39.906 | | |
| 3,200.00 | 3,189.64 | 3,669.61 | 3,486.73 | 11.34 | 22.51 | 0.22 | 1,189.30 | 16.20 | 1,117.03 | 1,086.79 | 30.24 | 36.934 | | |
| 3,240.86 | 3,228.84 | 3,712.76 | 3,526.63 | 11.50 | 22.83 | -0.53 | 1,178.51 | 3.80 | 1,095.57 | 1,064.89 | 30.68 | 35.708 | | |
| 3,300.00 | 3,285.45 | 3,751.98 | 3,562.72 | 11.75 | 23.14 | -1.28 | 1,168.78 | -8.05 | 1,064.36 | 1,033.08 | 31.28 | 34.028 | | |
| 3,400.00 | 3,381.17 | 3,827.16 | 3,631.65 | 12.19 | 23.74 | -2.91 | 1,150.72 | -32.04 | 1,012.71 | 980.35 | 32.36 | 31.298 | | |
| 3,500.00 | 3,476.90 | 3,911.87 | 3,709.12 | 12.63 | 24.43 | -4.94 | 1,130.29 | -59.57 | 961.83 | 928.30 | 33.53 | 28.686 | | |
| 3,600.00 | 3,572.62 | 3,991.00 | 3,781.40 | 13.09 | 25.07 | -7.02 | 1,110.95 | -85.31 | 911.71 | 876.98 | 34.73 | 26.253 | | |
| 3,700.00 | 3,668.34 | 4,065.49 | 3,849.64 | 13.56 | 25.67 | -9.14 | 1,093.06 | -109.22 | 863.15 | 827.20 | 35.95 | 24.010 | | |
| 3,800.00 | 3,764.07 | 4,141.88 | 3,920.15 | 14.04 | 26.26 | -11.43 | 1,075.47 | -132.76 | 816.67 | 779.47 | 37.20 | 21.955 | | |
| 3,900.00 | 3,859.79 | 4,217.96 | 3,991.01 | 14.52 | 26.83 | -13.78 | 1,058.52 | -154.63 | 772.08 | 733.62 | 38.46 | 20.076 | | |
| 4,000.00 | 3,955.51 | 4,293.67 | 4,061.65 | 15.02 | 27.40 | -16.35 | 1,042.47 | -176.66 | 730.06 | 690.30 | 39.76 | 18.361 | | |
| 4,100.00 | 4,051.24 | 4,377.20 | 4,138.95 | 15.52 | 28.04 | -19.59 | 1,024.56 | -202.75 | 690.25 | 649.06 | 41.18 | 16.761 | | |
| 4,200.00 | 4,146.96 | 4,453.71 | 4,209.27 | 16.03 | 28.65 | -22.95 | 1,008.09 | -227.98 | 653.34 | 610.71 | 42.64 | 15.323 | | |
| 4,300.00 | 4,242.68 | 4,534.87 | 4,283.89 | 16.54 | 29.29 | -26.80 | 991.00 | -254.94 | 620.06 | 575.93 | 44.13 | 14.051 | | |
| 4,400.00 | 4,338.41 | 4,618.42 | 4,360.96 | 17.06 | 29.95 | -31.02 | 973.56 | -282.07 | 590.36 | 544.75 | 45.61 | 12.945 | | |
| 4,500.00 | 4,434.13 | 4,704.67 | 4,440.36 | 17.59 | 30.63 | -35.74 | 955.05 | -310.24 | 564.55 | 517.49 | 47.05 | 11.998 | | |
| 4,600.00 | 4,529.85 | 4,789.17 | 4,517.85 | 18.11 | 31.31 | -40.72 | 935.91 | -337.94 | 542.93 | 494.55 | 48.39 | 11.221 | | |
| 4,700.00 | 4,625.58 | 4,871.18 | 4,593.21 | 18.65 | 31.97 | -45.77 | 917.41 | -364.51 | 526.77 | 477.25 | 49.51 | 10.639 | | |
| 4,800.00 | 4,721.30 | 4,954.82 | 4,670.16 | 19.18 | 32.63 | -51.08 | 898.51 | -391.29 | 516.43 | 466.02 | 50.41 | 10.244 | | |
| 4,900.00 | 4,817.02 | 5,040.95 | 4,749.68 | 19.72 | 33.31 | -56.60 | 879.12 | -418.11 | 511.89 | 460.83 | 51.06 | 10.025 | | |
| 4,924.86 | 4,840.82 | 5,060.89 | 4,768.11 | 19.86 | 33.46 | -57.88 | 874.64 | -424.23 | 511.68 | 460.52 | 51.16 | 10.001 | CC, ES, SF | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 8C-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 5,000.00 | 4,912.74 | 5,120.86 | 4,823.50 | 20.27 | 33.93 | -61.74 | 861.06 | -442.80 | 513.59 | 462.24 | 51.35 | 10.001 | | |
| 5,100.00 | 5,008.47 | 5,207.61 | 4,903.70 | 20.81 | 34.60 | -67.24 | 841.49 | -469.45 | 521.54 | 470.07 | 51.47 | 10.133 | | |
| 5,200.00 | 5,104.19 | 5,285.02 | 4,975.50 | 21.36 | 35.20 | -71.96 | 824.40 | -492.80 | 535.18 | 483.92 | 51.26 | 10.440 | | |
| 5,300.00 | 5,199.91 | 5,369.00 | 5,053.14 | 21.91 | 35.84 | -76.88 | 805.97 | -518.98 | 555.21 | 504.19 | 51.02 | 10.882 | | |
| 5,400.00 | 5,295.64 | 5,471.24 | 5,148.50 | 22.46 | 36.60 | -82.41 | 784.19 | -548.68 | 578.39 | 527.37 | 51.02 | 11.336 | | |
| 5,500.00 | 5,391.36 | 5,565.91 | 5,237.87 | 23.02 | 37.26 | -87.08 | 764.93 | -573.26 | 602.98 | 552.07 | 50.91 | 11.844 | | |
| 5,600.00 | 5,487.08 | 5,669.11 | 5,335.77 | 23.58 | 37.94 | -91.74 | 744.58 | -598.79 | 630.18 | 579.24 | 50.94 | 12.371 | | |
| 5,700.00 | 5,582.81 | 5,762.84 | 5,425.50 | 24.13 | 38.53 | -95.63 | 726.61 | -619.05 | 657.51 | 606.60 | 50.92 | 12.914 | | |
| 5,800.00 | 5,678.53 | 5,865.42 | 5,523.75 | 24.70 | 39.15 | -99.63 | 706.28 | -640.42 | 687.16 | 636.12 | 51.04 | 13.464 | | |
| 5,900.00 | 5,774.25 | 5,972.08 | 5,626.79 | 25.26 | 39.76 | -103.42 | 686.30 | -659.34 | 716.20 | 664.94 | 51.26 | 13.972 | | |
| 6,000.00 | 5,869.98 | 6,068.65 | 5,720.81 | 25.82 | 40.26 | -106.35 | 671.79 | -675.85 | 745.64 | 694.13 | 51.51 | 14.475 | | |
| 6,100.00 | 5,965.70 | 6,173.65 | 5,823.50 | 26.39 | 40.78 | -109.15 | 658.30 | -693.14 | 775.37 | 723.46 | 51.92 | 14.935 | | |
| 6,200.00 | 6,061.42 | 6,307.55 | 5,955.39 | 26.95 | 41.37 | -112.33 | 644.25 | -711.32 | 803.13 | 750.62 | 52.51 | 15.295 | | |
| 6,300.00 | 6,157.15 | 6,452.71 | 6,099.67 | 27.52 | 41.87 | -115.17 | 636.84 | -725.16 | 826.27 | 773.20 | 53.07 | 15.569 | | |
| 6,400.00 | 6,252.87 | 6,591.06 | 6,237.83 | 28.09 | 42.23 | -117.60 | 634.62 | -731.72 | 844.60 | 791.09 | 53.51 | 15.783 | | |
| 6,500.00 | 6,348.59 | 6,707.09 | 6,353.85 | 28.66 | 42.46 | -119.61 | 634.04 | -732.73 | 859.91 | 805.97 | 53.95 | 15.940 | | |
| 6,600.00 | 6,444.32 | 6,832.98 | 6,479.71 | 29.23 | 42.67 | -121.77 | 633.89 | -730.74 | 873.93 | 819.62 | 54.30 | 16.093 | | |
| 6,700.00 | 6,540.04 | 7,049.67 | 7,049.67 | 29.80 | 42.63 | -124.08 | 635.79 | -744.24 | 882.92 | 809.40 | 43.53 | 19.596 | | |
| 6,764.28 | 6,601.58 | 7,129.18 | 7,192.99 | 30.17 | 42.68 | -125.56 | 632.63 | -745.78 | 824.11 | 782.70 | 41.41 | 19.902 | | |
| 6,800.00 | 6,635.75 | 7,211.15 | 7,208.74 | 30.37 | 42.73 | -125.98 | 630.83 | -726.92 | 806.14 | 763.40 | 42.74 | 18.862 | | |
| 6,850.00 | 6,683.35 | 7,304.70 | 7,219.88 | 30.66 | 42.77 | -124.66 | 629.29 | -719.31 | 781.36 | 736.45 | 44.91 | 17.397 | | |
| 6,900.00 | 6,730.36 | 7,419.66 | 7,224.44 | 30.94 | 42.80 | -133.74 | 628.62 | -718.08 | 757.92 | 710.71 | 47.21 | 16.054 | | |
| 6,950.00 | 6,776.41 | 7,539.61 | 7,224.44 | 31.21 | 42.80 | -127.26 | 628.62 | -718.13 | 736.46 | 686.99 | 49.47 | 14.886 | | |
| 7,000.00 | 6,821.15 | 7,659.99 | 7,221.52 | 31.47 | 42.78 | -121.96 | 629.05 | -719.29 | 717.34 | 665.68 | 51.66 | 13.885 | | |
| 7,050.00 | 6,864.24 | 7,784.39 | 7,216.59 | 31.73 | 42.75 | -117.52 | 629.77 | -705.07 | 700.75 | 646.99 | 53.76 | 13.035 | | |
| 7,100.00 | 6,905.35 | 7,909.71 | 7,210.67 | 31.97 | 42.73 | -113.79 | 630.58 | -721.71 | 686.80 | 631.03 | 55.77 | 12.314 | | |
| 7,150.00 | 6,944.18 | 8,035.05 | 7,203.30 | 32.21 | 42.71 | -110.39 | 631.49 | -740.99 | 675.53 | 617.89 | 57.64 | 11.720 | | |
| 7,200.00 | 6,980.42 | 8,160.42 | 7,194.56 | 32.45 | 42.69 | -107.18 | 632.46 | -762.14 | 666.89 | 607.57 | 59.33 | 11.241 | | |
| 7,250.00 | 7,013.80 | 8,285.80 | 7,184.50 | 32.68 | 42.66 | -104.08 | 633.45 | -784.60 | 660.77 | 599.95 | 60.82 | 10.865 | | |
| 7,300.00 | 7,044.06 | 8,411.19 | 7,173.45 | 32.91 | 42.65 | -101.09 | 634.39 | -807.25 | 656.99 | 594.85 | 62.15 | 10.571 | | |
| 7,350.00 | 7,070.98 | 8,536.58 | 7,161.45 | 33.15 | 42.64 | -98.20 | 635.18 | -829.55 | 655.41 | 592.10 | 63.31 | 10.353 | | |
| 7,364.24 | 7,078.01 | 8,661.97 | 7,157.85 | 33.22 | 42.63 | -97.39 | 635.39 | -835.84 | 655.33 | 591.72 | 63.61 | 10.302 | | |
| 7,400.00 | 7,094.36 | 8,787.36 | 7,148.46 | 33.39 | 42.62 | -95.39 | 635.84 | -851.51 | 655.81 | 591.51 | 64.30 | 10.199 | | |
| 7,450.00 | 7,114.00 | 8,912.75 | 7,134.09 | 33.65 | 42.61 | -92.59 | 636.35 | -873.69 | 657.96 | 592.84 | 65.13 | 10.103 | | |
| 7,500.00 | 7,129.76 | 9,038.14 | 7,120.40 | 33.93 | 42.61 | -90.06 | 636.65 | -893.07 | 661.66 | 595.76 | 65.90 | 10.041 | | |
| 7,550.00 | 7,141.53 | 9,163.53 | 7,105.42 | 34.22 | 42.61 | -87.56 | 636.76 | -912.60 | 666.67 | 600.11 | 66.56 | 10.017 | | |
| 7,600.00 | 7,149.21 | 9,288.92 | 7,089.61 | 34.55 | 42.62 | -85.17 | 636.68 | -931.61 | 672.74 | 605.61 | 67.13 | 10.021 | | |
| 7,650.00 | 7,152.75 | 9,414.31 | 7,074.97 | 34.90 | 42.62 | -83.09 | 636.43 | -947.92 | 679.62 | 611.92 | 67.70 | 10.038 | | |
| 7,667.38 | 7,153.00 | 9,539.70 | 7,065.68 | 35.04 | 42.62 | -82.05 | 636.22 | -957.79 | 682.12 | 614.32 | 67.80 | 10.061 | | |
| 7,700.00 | 7,153.00 | 9,665.09 | 7,052.56 | 35.29 | 42.63 | -80.95 | 635.87 | -971.32 | 687.29 | 619.22 | 68.07 | 10.097 | | |
| 7,800.00 | 7,153.00 | 9,790.48 | 7,007.40 | 36.22 | 42.66 | -77.25 | 634.31 | -984.63 | 708.69 | 640.11 | 68.58 | 10.334 | | |
| 7,900.00 | 7,153.00 | 9,915.87 | 6,974.85 | 37.35 | 42.68 | -74.65 | 633.06 | -998.81 | 738.10 | 668.96 | 69.14 | 10.675 | | |
| 8,000.00 | 7,153.00 | 10,041.26 | 6,933.97 | 38.67 | 42.72 | -71.49 | 631.67 | -1012.77 | 775.39 | 706.15 | 69.24 | 11.199 | | |
| 8,100.00 | 7,153.00 | 10,166.65 | 6,906.31 | 40.16 | 42.74 | -69.41 | 630.95 | -1026.16 | 820.02 | 750.56 | 69.46 | 11.806 | | |
| 8,200.00 | 7,153.00 | 10,292.04 | 6,877.82 | 41.81 | 42.76 | -67.32 | 630.50 | -1039.13 | 871.56 | 802.09 | 69.46 | 12.547 | | |
| 8,300.00 | 7,153.00 | 10,417.43 | 6,853.91 | 43.59 | 42.78 | -65.61 | 630.35 | -1052.76 | 929.30 | 859.86 | 69.44 | 13.383 | | |
| 8,400.00 | 7,153.00 | 10,542.82 | 6,824.54 | 45.47 | 42.80 | -63.57 | 630.34 | -1066.24 | 992.30 | 923.11 | 69.19 | 14.341 | | |
| 8,500.00 | 7,153.00 | 10,668.21 | 6,798.85 | 47.45 | 42.81 | -61.83 | 630.41 | -1079.99 | 1,059.71 | 990.74 | 68.97 | 15.365 | | |
| 8,600.00 | 7,153.00 | 10,793.60 | 6,767.92 | 49.51 | 42.83 | -59.81 | 630.59 | -1093.39 | 1,130.95 | 1,062.34 | 68.61 | 16.483 | | |
| 8,700.00 | 7,153.00 | 10,919.00 | 6,767.92 | 51.64 | 42.83 | -59.81 | 630.59 | -1106.39 | 1,205.51 | 1,136.71 | 68.80 | 17.521 | | |
| 8,800.00 | 7,153.00 | 11,044.39 | 6,741.92 | 53.82 | 42.83 | -58.17 | 630.80 | -1119.50 | 1,282.78 | 1,214.28 | 68.49 | 18.729 | | |
| 8,900.00 | 7,153.00 | 11,169.78 | 6,728.27 | 56.06 | 42.83 | -57.34 | 630.91 | -1132.89 | 1,362.70 | 1,294.32 | 68.38 | 19.928 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ ENCORE 8C-12HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 9,000.00 | 7,153.00 | 7,073.72 | 6,715.78 | 58.34 | 42.84 | -56.58 | 631.01 | -689.55 | 1,444.78 | 1,376.50 | 68.27 | 21.161 | | |
| 9,100.00 | 7,153.00 | 7,035.00 | 6,679.07 | 60.66 | 42.84 | -54.44 | 631.33 | -701.83 | 1,529.36 | 1,461.52 | 67.84 | 22.544 | | |
| 9,200.00 | 7,153.00 | 7,035.00 | 6,679.07 | 63.01 | 42.84 | -54.44 | 631.33 | -701.83 | 1,614.45 | 1,546.55 | 67.90 | 23.777 | | |
| 9,300.00 | 7,153.00 | 7,035.00 | 6,679.07 | 65.40 | 42.84 | -54.44 | 631.33 | -701.83 | 1,701.17 | 1,633.24 | 67.93 | 25.042 | | |
| 9,400.00 | 7,153.00 | 7,035.00 | 6,679.07 | 67.81 | 42.84 | -54.44 | 631.33 | -701.83 | 1,789.27 | 1,721.33 | 67.95 | 26.334 | | |
| 9,500.00 | 7,153.00 | 7,035.00 | 6,679.07 | 70.24 | 42.84 | -54.44 | 631.33 | -701.83 | 1,878.57 | 1,810.63 | 67.94 | 27.649 | | |
| 9,600.00 | 7,153.00 | 7,035.00 | 6,679.07 | 72.70 | 42.84 | -54.44 | 631.33 | -701.83 | 1,968.89 | 1,900.96 | 67.93 | 28.984 | | |
| 9,700.00 | 7,153.00 | 7,035.00 | 6,679.07 | 75.17 | 42.84 | -54.44 | 631.33 | -701.83 | 2,060.11 | 1,992.20 | 67.91 | 30.335 | | |
| 9,800.00 | 7,153.00 | 7,035.00 | 6,679.07 | 77.67 | 42.84 | -54.44 | 631.33 | -701.83 | 2,152.11 | 2,084.23 | 67.89 | 31.702 | | |
| 9,900.00 | 7,153.00 | 7,035.00 | 6,679.07 | 80.17 | 42.84 | -54.44 | 631.33 | -701.83 | 2,244.80 | 2,176.94 | 67.86 | 33.080 | | |
| 10,000.00 | 7,153.00 | 6,997.01 | 6,642.40 | 82.69 | 42.83 | -52.40 | 631.71 | -711.70 | 2,336.55 | 2,268.98 | 67.57 | 34.579 | | |
| 10,100.00 | 7,153.00 | 6,992.61 | 6,638.11 | 85.23 | 42.82 | -52.17 | 631.76 | -712.68 | 2,430.00 | 2,362.47 | 67.53 | 35.986 | | |
| 10,200.00 | 7,153.00 | 6,988.50 | 6,634.10 | 87.77 | 42.82 | -51.95 | 631.81 | -713.57 | 2,523.92 | 2,456.43 | 67.49 | 37.398 | | |
| 10,300.00 | 7,153.00 | 6,984.65 | 6,630.33 | 90.33 | 42.82 | -51.75 | 631.86 | -714.37 | 2,618.25 | 2,550.80 | 67.45 | 38.817 | | |
| 10,400.00 | 7,153.00 | 6,981.04 | 6,626.80 | 92.89 | 42.82 | -51.56 | 631.91 | -715.10 | 2,712.97 | 2,645.55 | 67.42 | 40.241 | | |
| 10,500.00 | 7,153.00 | 6,940.00 | 6,586.31 | 95.47 | 42.80 | -49.47 | 632.53 | -721.77 | 2,809.50 | 2,742.33 | 67.17 | 41.825 | | |
| 10,600.00 | 7,153.00 | 6,940.00 | 6,586.31 | 98.05 | 42.80 | -49.47 | 632.53 | -721.77 | 2,904.62 | 2,837.45 | 67.17 | 43.241 | | |
| 10,700.00 | 7,153.00 | 6,940.00 | 6,586.31 | 100.64 | 42.80 | -49.47 | 632.53 | -721.77 | 3,000.06 | 2,932.89 | 67.17 | 44.661 | | |
| 10,800.00 | 7,153.00 | 6,940.00 | 6,586.31 | 103.24 | 42.80 | -49.47 | 632.53 | -721.77 | 3,095.79 | 3,028.61 | 67.17 | 46.086 | | |
| 10,900.00 | 7,153.00 | 6,940.00 | 6,586.31 | 105.84 | 42.80 | -49.47 | 632.53 | -721.77 | 3,191.78 | 3,124.60 | 67.18 | 47.514 | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ MIRACLE 40C-11HZ - SIDETRACK - SIDETRACK | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 4,100.00 | 4,051.24 | 13,628.00 | 7,212.49 | 15.52 | 176.18 | 179.29 | -360.89 | 16.36 | 3,280.00 | 3,207.14 | 72.85 | 45.021 | | |
| 4,200.00 | 4,146.96 | 13,628.00 | 7,212.49 | 16.03 | 176.18 | 179.29 | -360.89 | 16.36 | 3,193.53 | 3,118.83 | 74.69 | 42.756 | | |
| 4,300.00 | 4,242.68 | 13,628.00 | 7,212.49 | 16.54 | 176.18 | 179.29 | -360.89 | 16.36 | 3,107.87 | 3,031.18 | 76.69 | 40.524 | | |
| 4,400.00 | 4,338.41 | 13,628.00 | 7,212.49 | 17.06 | 176.18 | 179.29 | -360.89 | 16.36 | 3,023.09 | 2,944.23 | 78.87 | 38.332 | | |
| 4,500.00 | 4,434.13 | 13,628.00 | 7,212.49 | 17.59 | 176.18 | 179.29 | -360.89 | 16.36 | 2,939.27 | 2,858.05 | 81.22 | 36.188 | | |
| 4,600.00 | 4,529.85 | 13,628.00 | 7,212.49 | 18.11 | 176.18 | 179.29 | -360.89 | 16.36 | 2,856.50 | 2,772.72 | 83.78 | 34.097 | | |
| 4,700.00 | 4,625.58 | 13,628.00 | 7,212.49 | 18.65 | 176.18 | 179.29 | -360.89 | 16.36 | 2,774.85 | 2,688.31 | 86.54 | 32.065 | | |
| 4,800.00 | 4,721.30 | 13,628.00 | 7,212.49 | 19.18 | 176.18 | 179.29 | -360.89 | 16.36 | 2,694.45 | 2,604.93 | 89.52 | 30.099 | | |
| 4,900.00 | 4,817.02 | 13,628.00 | 7,212.49 | 19.72 | 176.18 | 179.29 | -360.89 | 16.36 | 2,615.39 | 2,522.66 | 92.73 | 28.205 | | |
| 5,000.00 | 4,912.74 | 13,628.00 | 7,212.49 | 20.27 | 176.18 | 179.29 | -360.89 | 16.36 | 2,537.82 | 2,441.64 | 96.18 | 26.386 | | |
| 5,100.00 | 5,008.47 | 13,628.00 | 7,212.49 | 20.81 | 176.18 | 179.29 | -360.89 | 16.36 | 2,461.86 | 2,361.98 | 99.88 | 24.647 | | |
| 5,200.00 | 5,104.19 | 13,628.00 | 7,212.49 | 21.36 | 176.18 | 179.29 | -360.89 | 16.36 | 2,387.68 | 2,283.83 | 103.84 | 22.993 | | |
| 5,300.00 | 5,199.91 | 13,628.00 | 7,212.49 | 21.91 | 176.18 | 179.29 | -360.89 | 16.36 | 2,315.44 | 2,207.37 | 108.07 | 21.425 | | |
| 5,400.00 | 5,295.64 | 13,628.00 | 7,212.49 | 22.46 | 176.18 | 179.29 | -360.89 | 16.36 | 2,245.32 | 2,132.76 | 112.57 | 19.947 | | |
| 5,500.00 | 5,391.36 | 13,628.00 | 7,212.49 | 23.02 | 176.18 | 179.29 | -360.89 | 16.36 | 2,177.55 | 2,060.22 | 117.33 | 18.560 | | |
| 5,600.00 | 5,487.08 | 13,628.00 | 7,212.49 | 23.58 | 176.18 | 179.29 | -360.89 | 16.36 | 2,112.34 | 1,989.99 | 122.35 | 17.265 | | |
| 5,700.00 | 5,582.81 | 13,628.00 | 7,212.49 | 24.13 | 176.18 | 179.29 | -360.89 | 16.36 | 2,049.93 | 1,922.31 | 127.62 | 16.062 | | |
| 5,800.00 | 5,678.53 | 13,628.00 | 7,212.49 | 24.70 | 176.18 | 179.29 | -360.89 | 16.36 | 1,990.59 | 1,857.46 | 133.13 | 14.953 | | |
| 5,900.00 | 5,774.25 | 13,628.00 | 7,212.49 | 25.26 | 176.18 | 179.29 | -360.89 | 16.36 | 1,934.60 | 1,795.77 | 138.83 | 13.935 | | |
| 6,000.00 | 5,869.98 | 13,628.00 | 7,212.49 | 25.82 | 176.18 | 179.29 | -360.89 | 16.36 | 1,882.27 | 1,737.57 | 144.70 | 13.008 | | |
| 6,100.00 | 5,965.70 | 13,628.00 | 7,212.49 | 26.39 | 176.18 | 179.29 | -360.89 | 16.36 | 1,833.89 | 1,683.21 | 150.68 | 12.171 | | |
| 6,200.00 | 6,061.42 | 13,628.00 | 7,212.49 | 26.95 | 176.18 | 179.29 | -360.89 | 16.36 | 1,789.80 | 1,633.09 | 156.71 | 11.421 | | |
| 6,300.00 | 6,157.15 | 13,628.00 | 7,212.49 | 27.52 | 176.18 | 179.29 | -360.89 | 16.36 | 1,750.33 | 1,587.60 | 162.72 | 10.756 | | |
| 6,400.00 | 6,252.87 | 13,628.00 | 7,212.49 | 28.09 | 176.18 | 179.29 | -360.89 | 16.36 | 1,715.77 | 1,547.15 | 168.63 | 10.175 | | |
| 6,500.00 | 6,348.59 | 13,628.00 | 7,212.49 | 28.66 | 176.18 | 179.29 | -360.89 | 16.36 | 1,686.45 | 1,512.12 | 174.33 | 9.674 | | |
| 6,600.00 | 6,444.32 | 13,628.00 | 7,212.49 | 29.23 | 176.18 | 179.29 | -360.89 | 16.36 | 1,662.64 | 1,482.90 | 179.74 | 9.250 | | |
| 6,700.00 | 6,540.04 | 13,628.00 | 7,212.49 | 29.80 | 176.18 | 179.29 | -360.89 | 16.36 | 1,644.57 | 1,459.82 | 184.75 | 8.902 | | |
| 6,764.28 | 6,601.58 | 13,628.00 | 7,212.49 | 30.17 | 176.18 | 179.29 | -360.89 | 16.36 | 1,636.08 | 1,448.36 | 187.72 | 8.716 | | |
| 6,800.00 | 6,635.75 | 13,628.00 | 7,212.49 | 30.37 | 176.18 | -169.39 | -360.89 | 16.36 | 1,632.43 | 1,443.16 | 189.27 | 8.625 | | |
| 6,850.00 | 6,683.35 | 13,628.00 | 7,212.49 | 30.66 | 176.18 | -155.00 | -360.89 | 16.36 | 1,628.63 | 1,437.35 | 191.29 | 8.514 | | |
| 6,900.00 | 6,730.36 | 13,628.00 | 7,212.49 | 30.94 | 176.18 | -143.45 | -360.89 | 16.36 | 1,626.40 | 1,433.29 | 193.11 | 8.422 | | |
| 6,945.43 | 6,772.25 | 13,628.00 | 7,212.49 | 31.18 | 176.18 | -135.38 | -360.89 | 16.36 | 1,625.74 | 1,431.16 | 194.59 | 8.355 CC | | |
| 6,950.00 | 6,776.41 | 13,628.00 | 7,212.49 | 31.21 | 176.18 | -134.68 | -360.89 | 16.36 | 1,625.75 | 1,431.02 | 194.73 | 8.349 | | |
| 7,000.00 | 6,821.15 | 13,628.00 | 7,212.49 | 31.47 | 176.18 | -128.05 | -360.89 | 16.36 | 1,626.69 | 1,430.58 | 196.11 | 8.295 ES | | |
| 7,050.00 | 6,864.24 | 13,628.00 | 7,212.49 | 31.73 | 176.18 | -122.92 | -360.89 | 16.36 | 1,629.21 | 1,431.96 | 197.25 | 8.260 | | |
| 7,100.00 | 6,905.35 | 13,628.00 | 7,212.49 | 31.97 | 176.18 | -118.82 | -360.89 | 16.36 | 1,633.29 | 1,435.15 | 198.14 | 8.243 SF | | |
| 7,150.00 | 6,944.18 | 13,628.00 | 7,212.49 | 32.21 | 176.18 | -115.42 | -360.89 | 16.36 | 1,638.88 | 1,440.09 | 198.79 | 8.244 | | |
| 7,200.00 | 6,980.42 | 13,628.00 | 7,212.49 | 32.45 | 176.18 | -112.49 | -360.89 | 16.36 | 1,645.92 | 1,446.74 | 199.18 | 8.263 | | |
| 7,250.00 | 7,013.80 | 13,628.00 | 7,212.49 | 32.68 | 176.18 | -109.88 | -360.89 | 16.36 | 1,654.35 | 1,455.01 | 199.34 | 8.299 | | |
| 7,300.00 | 7,044.06 | 13,628.00 | 7,212.49 | 32.91 | 176.18 | -107.51 | -360.89 | 16.36 | 1,664.08 | 1,464.81 | 199.26 | 8.351 | | |
| 7,350.00 | 7,070.98 | 13,628.00 | 7,212.49 | 33.15 | 176.18 | -105.29 | -360.89 | 16.36 | 1,675.01 | 1,476.04 | 198.97 | 8.418 | | |
| 7,400.00 | 7,094.36 | 13,628.00 | 7,212.49 | 33.39 | 176.18 | -103.19 | -360.89 | 16.36 | 1,687.03 | 1,488.56 | 198.47 | 8.500 | | |
| 7,450.00 | 7,114.00 | 13,628.00 | 7,212.49 | 33.65 | 176.18 | -101.18 | -360.89 | 16.36 | 1,700.04 | 1,502.25 | 197.78 | 8.595 | | |
| 7,500.00 | 7,129.76 | 13,628.00 | 7,212.49 | 33.93 | 176.18 | -99.24 | -360.89 | 16.36 | 1,713.91 | 1,516.98 | 196.93 | 8.703 | | |
| 7,550.00 | 7,141.53 | 13,628.00 | 7,212.49 | 34.22 | 176.18 | -97.37 | -360.89 | 16.36 | 1,728.52 | 1,532.61 | 195.91 | 8.823 | | |
| 7,600.00 | 7,149.21 | 13,628.00 | 7,212.49 | 34.55 | 176.18 | -95.57 | -360.89 | 16.36 | 1,743.74 | 1,548.98 | 194.75 | 8.954 | | |
| 7,650.00 | 7,152.75 | 13,628.00 | 7,212.49 | 34.90 | 176.18 | -93.85 | -360.89 | 16.36 | 1,759.43 | 1,565.96 | 193.47 | 9.094 | | |
| 7,667.38 | 7,153.00 | 13,628.00 | 7,212.49 | 35.04 | 176.18 | -93.27 | -360.89 | 16.36 | 1,764.98 | 1,571.98 | 193.00 | 9.145 | | |
| 7,700.00 | 7,153.00 | 13,628.00 | 7,212.49 | 35.29 | 176.18 | -93.27 | -360.89 | 16.36 | 1,775.69 | 1,583.61 | 192.08 | 9.244 | | |
| 7,800.00 | 7,153.00 | 13,628.00 | 7,212.49 | 36.22 | 176.18 | -93.27 | -360.89 | 16.36 | 1,811.80 | 1,622.67 | 189.12 | 9.580 | | |
| 7,900.00 | 7,153.00 | 13,628.00 | 7,212.49 | 37.35 | 176.18 | -93.27 | -360.89 | 16.36 | 1,852.60 | 1,666.64 | 185.96 | 9.962 | | |
| 8,000.00 | 7,153.00 | 13,628.00 | 7,212.49 | 38.67 | 176.18 | -93.27 | -360.89 | 16.36 | 1,897.80 | 1,715.16 | 182.65 | 10.391 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ MIRACLE 40C-11HZ - SIDETRACK - SIDETRACK | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 8,100.00 | 7,153.00 | 13,628.00 | 7,212.49 | 40.16 | 176.18 | -93.27 | -360.89 | 16.36 | 1,947.10 | 1,767.87 | 179.23 | 10.864 | | |
| 8,200.00 | 7,153.00 | 13,628.00 | 7,212.49 | 41.81 | 176.18 | -93.27 | -360.89 | 16.36 | 2,000.18 | 1,824.44 | 175.74 | 11.381 | | |
| 8,300.00 | 7,153.00 | 13,628.00 | 7,212.49 | 43.59 | 176.18 | -93.27 | -360.89 | 16.36 | 2,056.76 | 1,884.53 | 172.23 | 11.942 | | |
| 8,400.00 | 7,153.00 | 13,628.00 | 7,212.49 | 45.47 | 176.18 | -93.27 | -360.89 | 16.36 | 2,116.55 | 1,947.83 | 168.72 | 12.545 | | |
| 8,500.00 | 7,153.00 | 13,628.00 | 7,212.49 | 47.45 | 176.18 | -93.27 | -360.89 | 16.36 | 2,179.29 | 2,014.04 | 165.25 | 13.188 | | |
| 8,600.00 | 7,153.00 | 13,628.00 | 7,212.49 | 49.51 | 176.18 | -93.27 | -360.89 | 16.36 | 2,244.74 | 2,082.91 | 161.83 | 13.871 | | |
| 8,700.00 | 7,153.00 | 13,628.00 | 7,212.49 | 51.64 | 176.18 | -93.27 | -360.89 | 16.36 | 2,312.66 | 2,154.17 | 158.49 | 14.592 | | |
| 8,800.00 | 7,153.00 | 13,628.00 | 7,212.49 | 53.82 | 176.18 | -93.27 | -360.89 | 16.36 | 2,382.84 | 2,227.61 | 155.23 | 15.351 | | |
| 8,900.00 | 7,153.00 | 13,628.00 | 7,212.49 | 56.06 | 176.18 | -93.27 | -360.89 | 16.36 | 2,455.08 | 2,303.02 | 152.07 | 16.145 | | |
| 9,000.00 | 7,153.00 | 13,628.00 | 7,212.49 | 58.34 | 176.18 | -93.27 | -360.89 | 16.36 | 2,529.22 | 2,380.22 | 149.01 | 16.974 | | |
| 9,100.00 | 7,153.00 | 13,628.00 | 7,212.49 | 60.66 | 176.18 | -93.27 | -360.89 | 16.36 | 2,605.09 | 2,459.04 | 146.06 | 17.836 | | |
| 9,200.00 | 7,153.00 | 13,628.00 | 7,212.49 | 63.01 | 176.18 | -93.27 | -360.89 | 16.36 | 2,682.54 | 2,539.33 | 143.21 | 18.731 | | |
| 9,300.00 | 7,153.00 | 13,628.00 | 7,212.49 | 65.40 | 176.18 | -93.27 | -360.89 | 16.36 | 2,761.44 | 2,620.96 | 140.48 | 19.657 | | |
| 9,400.00 | 7,153.00 | 13,628.00 | 7,212.49 | 67.81 | 176.18 | -93.27 | -360.89 | 16.36 | 2,841.67 | 2,703.81 | 137.86 | 20.612 | | |
| 9,500.00 | 7,153.00 | 13,628.00 | 7,212.49 | 70.24 | 176.18 | -93.27 | -360.89 | 16.36 | 2,923.12 | 2,787.77 | 135.35 | 21.596 | | |
| 9,600.00 | 7,153.00 | 13,628.00 | 7,212.49 | 72.70 | 176.18 | -93.27 | -360.89 | 16.36 | 3,005.69 | 2,872.74 | 132.95 | 22.608 | | |
| 9,700.00 | 7,153.00 | 13,628.00 | 7,212.49 | 75.17 | 176.18 | -93.27 | -360.89 | 16.36 | 3,089.29 | 2,958.64 | 130.65 | 23.646 | | |
| 9,800.00 | 7,153.00 | 13,628.00 | 7,212.49 | 77.67 | 176.18 | -93.27 | -360.89 | 16.36 | 3,173.83 | 3,045.39 | 128.44 | 24.710 | | |
| 9,900.00 | 7,153.00 | 13,628.00 | 7,212.49 | 80.17 | 176.18 | -93.27 | -360.89 | 16.36 | 3,259.26 | 3,132.92 | 126.34 | 25.798 | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ MIRACLE 40N-11HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | Rule Assigned: | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 4,100.00 | 4,051.24 | 13,558.00 | 7,081.26 | 15.52 | 175.40 | 179.27 | -727.59 | 17.01 | 3,256.95 | 3,171.03 | 85.91 | 37.909 | | |
| 4,200.00 | 4,146.96 | 13,558.00 | 7,081.26 | 16.03 | 175.40 | 179.27 | -727.59 | 17.01 | 3,177.15 | 3,088.66 | 88.49 | 35.903 | | |
| 4,300.00 | 4,242.68 | 13,558.00 | 7,081.26 | 16.54 | 175.40 | 179.27 | -727.59 | 17.01 | 3,098.53 | 3,007.29 | 91.24 | 33.961 | | |
| 4,400.00 | 4,338.41 | 13,558.00 | 7,081.26 | 17.06 | 175.40 | 179.27 | -727.59 | 17.01 | 3,021.17 | 2,927.01 | 94.16 | 32.087 | | |
| 4,500.00 | 4,434.13 | 13,558.00 | 7,081.26 | 17.59 | 175.40 | 179.27 | -727.59 | 17.01 | 2,945.17 | 2,847.92 | 97.25 | 30.284 | | |
| 4,600.00 | 4,529.85 | 13,558.00 | 7,081.26 | 18.11 | 175.40 | 179.27 | -727.59 | 17.01 | 2,870.65 | 2,770.11 | 100.53 | 28.555 | | |
| 4,700.00 | 4,625.58 | 13,558.00 | 7,081.26 | 18.65 | 175.40 | 179.27 | -727.59 | 17.01 | 2,797.71 | 2,693.71 | 104.00 | 26.902 | | |
| 4,800.00 | 4,721.30 | 13,558.00 | 7,081.26 | 19.18 | 175.40 | 179.27 | -727.59 | 17.01 | 2,726.50 | 2,618.84 | 107.65 | 25.326 | | |
| 4,900.00 | 4,817.02 | 13,558.00 | 7,081.26 | 19.72 | 175.40 | 179.27 | -727.59 | 17.01 | 2,657.13 | 2,545.63 | 111.50 | 23.831 | | |
| 5,000.00 | 4,912.74 | 13,558.00 | 7,081.26 | 20.27 | 175.40 | 179.27 | -727.59 | 17.01 | 2,589.78 | 2,474.24 | 115.54 | 22.415 | | |
| 5,100.00 | 5,008.47 | 13,558.00 | 7,081.26 | 20.81 | 175.40 | 179.27 | -727.59 | 17.01 | 2,524.58 | 2,404.83 | 119.76 | 21.081 | | |
| 5,200.00 | 5,104.19 | 13,558.00 | 7,081.26 | 21.36 | 175.40 | 179.27 | -727.59 | 17.01 | 2,461.73 | 2,337.57 | 124.16 | 19.828 | | |
| 5,300.00 | 5,199.91 | 13,558.00 | 7,081.26 | 21.91 | 175.40 | 179.27 | -727.59 | 17.01 | 2,401.39 | 2,272.67 | 128.72 | 18.655 | | |
| 5,400.00 | 5,295.64 | 13,558.00 | 7,081.26 | 22.46 | 175.40 | 179.27 | -727.59 | 17.01 | 2,343.77 | 2,210.33 | 133.45 | 17.563 | | |
| 5,500.00 | 5,391.36 | 13,558.00 | 7,081.26 | 23.02 | 175.40 | 179.27 | -727.59 | 17.01 | 2,289.07 | 2,150.77 | 138.30 | 16.551 | | |
| 5,600.00 | 5,487.08 | 13,558.00 | 7,081.26 | 23.58 | 175.40 | 179.27 | -727.59 | 17.01 | 2,237.50 | 2,094.24 | 143.27 | 15.618 | | |
| 5,700.00 | 5,582.81 | 13,558.00 | 7,081.26 | 24.13 | 175.40 | 179.27 | -727.59 | 17.01 | 2,189.29 | 2,040.98 | 148.31 | 14.762 | | |
| 5,800.00 | 5,678.53 | 13,558.00 | 7,081.26 | 24.70 | 175.40 | 179.27 | -727.59 | 17.01 | 2,144.66 | 1,991.27 | 153.39 | 13.981 | | |
| 5,900.00 | 5,774.25 | 13,558.00 | 7,081.26 | 25.26 | 175.40 | 179.27 | -727.59 | 17.01 | 2,103.85 | 1,945.37 | 158.48 | 13.275 | | |
| 6,000.00 | 5,869.98 | 13,558.00 | 7,081.26 | 25.82 | 175.40 | 179.27 | -727.59 | 17.01 | 2,067.06 | 1,903.55 | 163.51 | 12.642 | | |
| 6,100.00 | 5,965.70 | 13,558.00 | 7,081.26 | 26.39 | 175.40 | 179.27 | -727.59 | 17.01 | 2,034.53 | 1,866.09 | 168.45 | 12.078 | | |
| 6,200.00 | 6,061.42 | 13,558.00 | 7,081.26 | 26.95 | 175.40 | 179.27 | -727.59 | 17.01 | 2,006.47 | 1,833.24 | 173.22 | 11.583 | | |
| 6,300.00 | 6,157.15 | 13,558.00 | 7,081.26 | 27.52 | 175.40 | 179.27 | -727.59 | 17.01 | 1,983.05 | 1,805.26 | 177.79 | 11.154 | | |
| 6,400.00 | 6,252.87 | 13,558.00 | 7,081.26 | 28.09 | 175.40 | 179.27 | -727.59 | 17.01 | 1,964.45 | 1,782.37 | 182.08 | 10.789 | | |
| 6,500.00 | 6,348.59 | 13,558.00 | 7,081.26 | 28.66 | 175.40 | 179.27 | -727.59 | 17.01 | 1,950.81 | 1,764.77 | 186.04 | 10.486 | | |
| 6,600.00 | 6,444.32 | 13,558.00 | 7,081.26 | 29.23 | 175.40 | 179.27 | -727.59 | 17.01 | 1,942.22 | 1,752.60 | 189.63 | 10.242 | | |
| 6,700.00 | 6,540.04 | 13,558.00 | 7,081.26 | 29.80 | 175.40 | 179.27 | -727.59 | 17.01 | 1,938.77 | 1,745.97 | 192.80 | 10.056 | | |
| 6,717.10 | 6,556.40 | 13,558.00 | 7,081.26 | 29.90 | 175.40 | 179.27 | -727.59 | 17.01 | 1,938.69 | 1,745.40 | 193.30 | 10.030 | CC | |
| 6,764.28 | 6,601.58 | 13,558.00 | 7,081.26 | 30.17 | 175.40 | 179.27 | -727.59 | 17.01 | 1,939.26 | 1,744.67 | 194.60 | 9.965 | ES | |
| 6,800.00 | 6,635.75 | 13,558.00 | 7,081.26 | 30.37 | 175.40 | -168.92 | -727.59 | 17.01 | 1,940.46 | 1,744.94 | 195.52 | 9.925 | | |
| 6,850.00 | 6,683.35 | 13,558.00 | 7,081.26 | 30.66 | 175.40 | -153.88 | -727.59 | 17.01 | 1,943.20 | 1,746.50 | 196.70 | 9.879 | | |
| 6,900.00 | 6,730.36 | 13,558.00 | 7,081.26 | 30.94 | 175.40 | -141.71 | -727.59 | 17.01 | 1,947.16 | 1,749.42 | 197.74 | 9.847 | | |
| 6,950.00 | 6,776.41 | 13,558.00 | 7,081.26 | 31.21 | 175.40 | -132.35 | -727.59 | 17.01 | 1,952.32 | 1,753.67 | 198.65 | 9.828 | | |
| 7,000.00 | 6,821.15 | 13,558.00 | 7,081.26 | 31.47 | 175.40 | -125.18 | -727.59 | 17.01 | 1,958.62 | 1,759.21 | 199.41 | 9.822 | SF | |
| 7,050.00 | 6,864.24 | 13,558.00 | 7,081.26 | 31.73 | 175.40 | -119.56 | -727.59 | 17.01 | 1,966.00 | 1,765.98 | 200.03 | 9.829 | | |
| 7,100.00 | 6,905.35 | 13,558.00 | 7,081.26 | 31.97 | 175.40 | -115.02 | -727.59 | 17.01 | 1,974.40 | 1,773.90 | 200.50 | 9.847 | | |
| 7,150.00 | 6,944.18 | 13,558.00 | 7,081.26 | 32.21 | 175.40 | -111.23 | -727.59 | 17.01 | 1,983.73 | 1,782.91 | 200.82 | 9.878 | | |
| 7,200.00 | 6,980.42 | 13,558.00 | 7,081.26 | 32.45 | 175.40 | -107.97 | -727.59 | 17.01 | 1,993.92 | 1,792.91 | 201.01 | 9.919 | | |
| 7,250.00 | 7,013.80 | 13,558.00 | 7,081.26 | 32.68 | 175.40 | -105.11 | -727.59 | 17.01 | 2,004.88 | 1,803.81 | 201.07 | 9.971 | | |
| 7,300.00 | 7,044.06 | 13,558.00 | 7,081.26 | 32.91 | 175.40 | -102.54 | -727.59 | 17.01 | 2,016.50 | 1,815.49 | 201.01 | 10.032 | | |
| 7,350.00 | 7,070.98 | 13,558.00 | 7,081.26 | 33.15 | 175.40 | -100.20 | -727.59 | 17.01 | 2,028.70 | 1,827.86 | 200.83 | 10.101 | | |
| 7,400.00 | 7,094.36 | 13,558.00 | 7,081.26 | 33.39 | 175.40 | -98.04 | -727.59 | 17.01 | 2,041.36 | 1,840.81 | 200.55 | 10.179 | | |
| 7,450.00 | 7,114.00 | 13,558.00 | 7,081.26 | 33.65 | 175.40 | -96.05 | -727.59 | 17.01 | 2,054.39 | 1,854.20 | 200.18 | 10.263 | | |
| 7,500.00 | 7,129.76 | 13,558.00 | 7,081.26 | 33.93 | 175.40 | -94.19 | -727.59 | 17.01 | 2,067.67 | 1,867.95 | 199.73 | 10.353 | | |
| 7,550.00 | 7,141.53 | 13,558.00 | 7,081.26 | 34.22 | 175.40 | -92.48 | -727.59 | 17.01 | 2,081.11 | 1,881.92 | 199.19 | 10.448 | | |
| 7,600.00 | 7,149.21 | 13,558.00 | 7,081.26 | 34.55 | 175.40 | -90.90 | -727.59 | 17.01 | 2,094.60 | 1,896.01 | 198.59 | 10.547 | | |
| 7,650.00 | 7,152.75 | 13,558.00 | 7,081.26 | 34.90 | 175.40 | -89.46 | -727.59 | 17.01 | 2,108.04 | 1,910.11 | 197.93 | 10.651 | | |
| 7,667.38 | 7,153.00 | 13,558.00 | 7,081.26 | 35.04 | 175.40 | -88.99 | -727.59 | 17.01 | 2,112.68 | 1,914.99 | 197.68 | 10.687 | | |
| 7,700.00 | 7,153.00 | 13,558.00 | 7,081.26 | 35.29 | 175.40 | -88.99 | -727.59 | 17.01 | 2,121.60 | 1,924.39 | 197.20 | 10.758 | | |
| 7,800.00 | 7,153.00 | 13,558.00 | 7,081.26 | 36.22 | 175.40 | -88.99 | -727.59 | 17.01 | 2,151.80 | 1,956.18 | 195.62 | 11.000 | | |
| 7,900.00 | 7,153.00 | 13,558.00 | 7,081.26 | 37.35 | 175.40 | -88.99 | -727.59 | 17.01 | 2,186.16 | 1,992.29 | 193.87 | 11.277 | | |
| 8,000.00 | 7,153.00 | 13,558.00 | 7,081.26 | 38.67 | 175.40 | -88.99 | -727.59 | 17.01 | 2,224.49 | 2,032.53 | 191.96 | 11.589 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ MIRACLE 40N-11HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 16-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 8,100.00 | 7,153.00 | 13,558.00 | 7,081.26 | 40.16 | 175.40 | -88.99 | -727.59 | 17.01 | 2,266.59 | 2,076.68 | 189.91 | 11.935 | | |
| 8,200.00 | 7,153.00 | 13,558.00 | 7,081.26 | 41.81 | 175.40 | -88.99 | -727.59 | 17.01 | 2,312.24 | 2,124.50 | 187.75 | 12.316 | | |
| 8,300.00 | 7,153.00 | 13,558.00 | 7,081.26 | 43.59 | 175.40 | -88.99 | -727.59 | 17.01 | 2,361.26 | 2,175.76 | 185.50 | 12.729 | | |
| 8,400.00 | 7,153.00 | 13,558.00 | 7,081.26 | 45.47 | 175.40 | -88.99 | -727.59 | 17.01 | 2,413.42 | 2,230.25 | 183.17 | 13.176 | | |
| 8,500.00 | 7,153.00 | 13,558.00 | 7,081.26 | 47.45 | 175.40 | -88.99 | -727.59 | 17.01 | 2,468.53 | 2,287.75 | 180.79 | 13.654 | | |
| 8,600.00 | 7,153.00 | 13,558.00 | 7,081.26 | 49.51 | 175.40 | -88.99 | -727.59 | 17.01 | 2,526.40 | 2,348.03 | 178.37 | 14.164 | | |
| 8,700.00 | 7,153.00 | 13,558.00 | 7,081.26 | 51.64 | 175.40 | -88.99 | -727.59 | 17.01 | 2,586.85 | 2,410.91 | 175.94 | 14.703 | | |
| 8,800.00 | 7,153.00 | 13,558.00 | 7,081.26 | 53.82 | 175.40 | -88.99 | -727.59 | 17.01 | 2,649.69 | 2,476.19 | 173.50 | 15.272 | | |
| 8,900.00 | 7,153.00 | 13,558.00 | 7,081.26 | 56.06 | 175.40 | -88.99 | -727.59 | 17.01 | 2,714.76 | 2,543.68 | 171.07 | 15.869 | | |
| 9,000.00 | 7,153.00 | 13,558.00 | 7,081.26 | 58.34 | 175.40 | -88.99 | -727.59 | 17.01 | 2,781.90 | 2,613.23 | 168.67 | 16.493 | | |
| 9,100.00 | 7,153.00 | 13,558.00 | 7,081.26 | 60.66 | 175.40 | -88.99 | -727.59 | 17.01 | 2,850.97 | 2,684.68 | 166.29 | 17.144 | | |
| 9,200.00 | 7,153.00 | 13,558.00 | 7,081.26 | 63.01 | 175.40 | -88.99 | -727.59 | 17.01 | 2,921.83 | 2,757.87 | 163.95 | 17.821 | | |
| 9,300.00 | 7,153.00 | 13,558.00 | 7,081.26 | 65.40 | 175.40 | -88.99 | -727.59 | 17.01 | 2,994.35 | 2,832.69 | 161.66 | 18.522 | | |
| 9,400.00 | 7,153.00 | 13,558.00 | 7,081.26 | 67.81 | 175.40 | -88.99 | -727.59 | 17.01 | 3,068.42 | 2,909.00 | 159.42 | 19.248 | | |
| 9,500.00 | 7,153.00 | 13,558.00 | 7,081.26 | 70.24 | 175.40 | -88.99 | -727.59 | 17.01 | 3,143.93 | 2,986.70 | 157.23 | 19.996 | | |
| 9,600.00 | 7,153.00 | 13,558.00 | 7,081.26 | 72.70 | 175.40 | -88.99 | -727.59 | 17.01 | 3,220.77 | 3,065.67 | 155.10 | 20.766 | | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ MIRACLE 9C-11HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | |
|---|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|-----------|
| Survey Program: 128-OWSG (Rev2) MWD | | | | | | | | | | Rule Assigned: | | | Offset Well Error: | | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | | |
| 4,600.00 | 4,529.85 | 13,682.00 | 7,228.58 | 18.11 | 176.01 | 179.51 | -1,286.12 | 7.85 | 3,274.95 | 3,157.41 | 117.54 | 27.862 | | | |
| 4,700.00 | 4,625.58 | 13,682.00 | 7,228.58 | 18.65 | 176.01 | 179.51 | -1,286.12 | 7.85 | 3,211.86 | 3,090.89 | 120.97 | 26.551 | | | |
| 4,800.00 | 4,721.30 | 13,682.00 | 7,228.58 | 19.18 | 176.01 | 179.51 | -1,286.12 | 7.85 | 3,150.67 | 3,026.16 | 124.51 | 25.305 | | | |
| 4,900.00 | 4,817.02 | 13,682.00 | 7,228.58 | 19.72 | 176.01 | 179.51 | -1,286.12 | 7.85 | 3,091.51 | 2,963.37 | 128.14 | 24.125 | | | |
| 5,000.00 | 4,912.74 | 13,682.00 | 7,228.58 | 20.27 | 176.01 | 179.51 | -1,286.12 | 7.85 | 3,034.49 | 2,902.61 | 131.88 | 23.010 | | | |
| 5,100.00 | 5,008.47 | 13,682.00 | 7,228.58 | 20.81 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,979.74 | 2,844.04 | 135.69 | 21.960 | | | |
| 5,200.00 | 5,104.19 | 13,682.00 | 7,228.58 | 21.36 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,927.38 | 2,787.80 | 139.58 | 20.973 | | | |
| 5,300.00 | 5,199.91 | 13,682.00 | 7,228.58 | 21.91 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,877.54 | 2,734.01 | 143.53 | 20.048 | | | |
| 5,400.00 | 5,295.64 | 13,682.00 | 7,228.58 | 22.46 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,830.36 | 2,682.84 | 147.52 | 19.186 | | | |
| 5,500.00 | 5,391.36 | 13,682.00 | 7,228.58 | 23.02 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,785.97 | 2,634.43 | 151.54 | 18.384 | | | |
| 5,600.00 | 5,487.08 | 13,682.00 | 7,228.58 | 23.58 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,744.51 | 2,588.94 | 155.57 | 17.641 | | | |
| 5,700.00 | 5,582.81 | 13,682.00 | 7,228.58 | 24.13 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,706.11 | 2,546.52 | 159.59 | 16.957 | | | |
| 5,800.00 | 5,678.53 | 13,682.00 | 7,228.58 | 24.70 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,670.90 | 2,507.34 | 163.56 | 16.330 | | | |
| 5,900.00 | 5,774.25 | 13,682.00 | 7,228.58 | 25.26 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,639.02 | 2,471.55 | 167.48 | 15.758 | | | |
| 6,000.00 | 5,869.98 | 13,682.00 | 7,228.58 | 25.82 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,610.58 | 2,439.28 | 171.30 | 15.240 | | | |
| 6,100.00 | 5,965.70 | 13,682.00 | 7,228.58 | 26.39 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,585.70 | 2,410.69 | 175.01 | 14.775 | | | |
| 6,200.00 | 6,061.42 | 13,682.00 | 7,228.58 | 26.95 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,564.48 | 2,385.90 | 178.57 | 14.361 | | | |
| 6,300.00 | 6,157.15 | 13,682.00 | 7,228.58 | 27.52 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,547.01 | 2,365.03 | 181.97 | 13.997 | | | |
| 6,400.00 | 6,252.87 | 13,682.00 | 7,228.58 | 28.09 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,533.36 | 2,348.19 | 185.17 | 13.681 | | | |
| 6,500.00 | 6,348.59 | 13,682.00 | 7,228.58 | 28.66 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,523.62 | 2,335.46 | 188.16 | 13.412 | | | |
| 6,600.00 | 6,444.32 | 13,682.00 | 7,228.58 | 29.23 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,517.80 | 2,326.90 | 190.91 | 13.189 | | | |
| 6,696.50 | 6,536.69 | 13,682.00 | 7,228.58 | 29.78 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,515.95 | 2,322.64 | 193.32 | 13.015 | CC | | |
| 6,700.00 | 6,540.04 | 13,682.00 | 7,228.58 | 29.80 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,515.96 | 2,322.56 | 193.40 | 13.009 | | | |
| 6,764.28 | 6,601.58 | 13,682.00 | 7,228.58 | 30.17 | 176.01 | 179.51 | -1,286.12 | 7.85 | 2,516.87 | 2,322.01 | 194.86 | 12.916 | ES | | |
| 6,800.00 | 6,635.75 | 13,682.00 | 7,228.58 | 30.37 | 176.01 | -168.68 | -1,286.12 | 7.85 | 2,518.07 | 2,322.45 | 195.62 | 12.872 | | | |
| 6,850.00 | 6,683.35 | 13,682.00 | 7,228.58 | 30.66 | 176.01 | -153.66 | -1,286.12 | 7.85 | 2,520.56 | 2,323.93 | 196.63 | 12.819 | | | |
| 6,900.00 | 6,730.36 | 13,682.00 | 7,228.58 | 30.94 | 176.01 | -141.55 | -1,286.12 | 7.85 | 2,523.97 | 2,326.41 | 197.56 | 12.776 | | | |
| 6,950.00 | 6,776.41 | 13,682.00 | 7,228.58 | 31.21 | 176.01 | -132.28 | -1,286.12 | 7.85 | 2,528.27 | 2,329.87 | 198.40 | 12.743 | | | |
| 7,000.00 | 6,821.15 | 13,682.00 | 7,228.58 | 31.47 | 176.01 | -125.22 | -1,286.12 | 7.85 | 2,533.42 | 2,334.26 | 199.15 | 12.721 | | | |
| 7,050.00 | 6,864.24 | 13,682.00 | 7,228.58 | 31.73 | 176.01 | -119.75 | -1,286.12 | 7.85 | 2,539.38 | 2,339.56 | 199.82 | 12.709 | | | |
| 7,100.00 | 6,905.35 | 13,682.00 | 7,228.58 | 31.97 | 176.01 | -115.38 | -1,286.12 | 7.85 | 2,546.09 | 2,345.71 | 200.38 | 12.706 | SF | | |
| 7,150.00 | 6,944.18 | 13,682.00 | 7,228.58 | 32.21 | 176.01 | -111.79 | -1,286.12 | 7.85 | 2,553.50 | 2,352.65 | 200.86 | 12.713 | | | |
| 7,200.00 | 6,980.42 | 13,682.00 | 7,228.58 | 32.45 | 176.01 | -108.76 | -1,286.12 | 7.85 | 2,561.56 | 2,360.31 | 201.24 | 12.729 | | | |
| 7,250.00 | 7,013.80 | 13,682.00 | 7,228.58 | 32.68 | 176.01 | -106.14 | -1,286.12 | 7.85 | 2,570.18 | 2,368.64 | 201.54 | 12.753 | | | |
| 7,300.00 | 7,044.06 | 13,682.00 | 7,228.58 | 32.91 | 176.01 | -103.83 | -1,286.12 | 7.85 | 2,579.30 | 2,377.55 | 201.76 | 12.784 | | | |
| 7,350.00 | 7,070.98 | 13,682.00 | 7,228.58 | 33.15 | 176.01 | -101.77 | -1,286.12 | 7.85 | 2,588.85 | 2,386.95 | 201.90 | 12.823 | | | |
| 7,400.00 | 7,094.36 | 13,682.00 | 7,228.58 | 33.39 | 176.01 | -99.90 | -1,286.12 | 7.85 | 2,598.75 | 2,396.78 | 201.97 | 12.867 | | | |
| 7,450.00 | 7,114.00 | 13,682.00 | 7,228.58 | 33.65 | 176.01 | -98.20 | -1,286.12 | 7.85 | 2,608.91 | 2,406.94 | 201.98 | 12.917 | | | |
| 7,500.00 | 7,129.76 | 13,682.00 | 7,228.58 | 33.93 | 176.01 | -96.65 | -1,286.12 | 7.85 | 2,619.27 | 2,417.34 | 201.93 | 12.971 | | | |
| 7,550.00 | 7,141.53 | 13,682.00 | 7,228.58 | 34.22 | 176.01 | -95.24 | -1,286.12 | 7.85 | 2,629.74 | 2,427.92 | 201.82 | 13.030 | | | |
| 7,600.00 | 7,149.21 | 13,682.00 | 7,228.58 | 34.55 | 176.01 | -93.97 | -1,286.12 | 7.85 | 2,640.23 | 2,438.57 | 201.66 | 13.093 | | | |
| 7,650.00 | 7,152.75 | 13,682.00 | 7,228.58 | 34.90 | 176.01 | -92.83 | -1,286.12 | 7.85 | 2,650.67 | 2,449.22 | 201.45 | 13.158 | | | |
| 7,667.38 | 7,153.00 | 13,682.00 | 7,228.58 | 35.04 | 176.01 | -92.46 | -1,286.12 | 7.85 | 2,654.28 | 2,452.91 | 201.36 | 13.182 | | | |
| 7,700.00 | 7,153.00 | 13,682.00 | 7,228.58 | 35.29 | 176.01 | -92.46 | -1,286.12 | 7.85 | 2,661.21 | 2,460.02 | 201.19 | 13.227 | | | |
| 7,800.00 | 7,153.00 | 13,682.00 | 7,228.58 | 36.22 | 176.01 | -92.46 | -1,286.12 | 7.85 | 2,684.84 | 2,484.23 | 200.61 | 13.383 | | | |
| 7,900.00 | 7,153.00 | 13,682.00 | 7,228.58 | 37.35 | 176.01 | -92.46 | -1,286.12 | 7.85 | 2,711.95 | 2,512.02 | 199.93 | 13.565 | | | |
| 8,000.00 | 7,153.00 | 13,682.00 | 7,228.58 | 38.67 | 176.01 | -92.46 | -1,286.12 | 7.85 | 2,742.44 | 2,543.29 | 199.15 | 13.771 | | | |
| 8,100.00 | 7,153.00 | 13,682.00 | 7,228.58 | 40.16 | 176.01 | -92.46 | -1,286.12 | 7.85 | 2,776.21 | 2,577.93 | 198.27 | 14.002 | | | |
| 8,200.00 | 7,153.00 | 13,682.00 | 7,228.58 | 41.81 | 176.01 | -92.46 | -1,286.12 | 7.85 | 2,813.12 | 2,615.83 | 197.29 | 14.259 | | | |
| 8,300.00 | 7,153.00 | 13,682.00 | 7,228.58 | 43.59 | 176.01 | -92.46 | -1,286.12 | 7.85 | 2,853.06 | 2,656.84 | 196.22 | 14.540 | | | |
| 8,400.00 | 7,153.00 | 13,682.00 | 7,228.58 | 45.47 | 176.01 | -92.46 | -1,286.12 | 7.85 | 2,895.90 | 2,700.85 | 195.05 | 14.847 | | | |
| 8,500.00 | 7,153.00 | 13,682.00 | 7,228.58 | 47.45 | 176.01 | -92.46 | -1,286.12 | 7.85 | 2,941.53 | 2,747.72 | 193.80 | 15.178 | | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| | | | | | | | | | | | | | | | | | | |
|--|------------------------------|------------------------------|------------------------------|-------------------------|----------------------|------------------------------|------------------------|---------------------|-------------------------------|--------------------------------|----------------------------------|--------------------------|---------------------------|-----------|-----------------------|--|----------------|--|
| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST HZ MIRACLE 9C-11HZ - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft | | | | |
| Survey Program: 128-OWSG (Rev2) MWD | | | | | | | | | | | | | Offset Well Error: | 0.00 usft | | | | |
| Reference | | | | Offset | | | Semi Major Axis | | Highside | | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | Highside Toolface (°) | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | | | | | |
| 8,600.00 | 7,153.00 | 13,682.00 | 7,228.58 | 49.51 | 176.01 | -92.46 | -1,286.12 | 7.85 | 2,989.80 | 2,797.32 | 192.48 | 15.533 | | | | | | |
| 8,700.00 | 7,153.00 | 13,682.00 | 7,228.58 | 51.64 | 176.01 | -92.46 | -1,286.12 | 7.85 | 3,040.59 | 2,849.50 | 191.09 | 15.912 | | | | | | |
| 8,800.00 | 7,153.00 | 13,682.00 | 7,228.58 | 53.82 | 176.01 | -92.46 | -1,286.12 | 7.85 | 3,093.79 | 2,904.14 | 189.64 | 16.314 | | | | | | |
| 8,900.00 | 7,153.00 | 13,682.00 | 7,228.58 | 56.06 | 176.01 | -92.46 | -1,286.12 | 7.85 | 3,149.26 | 2,961.11 | 188.15 | 16.738 | | | | | | |
| 9,000.00 | 7,153.00 | 13,682.00 | 7,228.58 | 58.34 | 176.01 | -92.46 | -1,286.12 | 7.85 | 3,206.89 | 3,020.28 | 186.61 | 17.185 | | | | | | |
| 9,100.00 | 7,153.00 | 13,682.00 | 7,228.58 | 60.66 | 176.01 | -92.46 | -1,286.12 | 7.85 | 3,266.57 | 3,081.52 | 185.05 | 17.652 | | | | | | |

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|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST VERT JEFFERS 2-1 - Wellbore #1 - Design #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-INC | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 8,700.00 | 7,153.00 | 7,185.00 | 7,185.00 | 51.64 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,243.32 | 3,056.08 | 187.24 | 17.322 | | |
| 8,800.00 | 7,153.00 | 7,185.00 | 7,185.00 | 53.82 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,206.86 | 3,017.02 | 189.84 | 16.892 | | |
| 8,900.00 | 7,153.00 | 7,185.00 | 7,185.00 | 56.06 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,173.14 | 2,980.56 | 192.58 | 16.477 | | |
| 9,000.00 | 7,153.00 | 7,185.00 | 7,185.00 | 58.34 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,142.24 | 2,946.82 | 195.42 | 16.080 | | |
| 9,100.00 | 7,153.00 | 7,185.00 | 7,185.00 | 60.66 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,114.24 | 2,915.89 | 198.35 | 15.701 | | |
| 9,200.00 | 7,153.00 | 7,185.00 | 7,185.00 | 63.01 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,089.23 | 2,887.87 | 201.36 | 15.342 | | |
| 9,300.00 | 7,153.00 | 7,185.00 | 7,185.00 | 65.40 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,067.27 | 2,862.86 | 204.42 | 15.005 | | |
| 9,400.00 | 7,153.00 | 7,185.00 | 7,185.00 | 67.81 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,048.44 | 2,840.93 | 207.51 | 14.690 | | |
| 9,500.00 | 7,153.00 | 7,185.00 | 7,185.00 | 70.24 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,032.80 | 2,822.17 | 210.63 | 14.399 | | |
| 9,600.00 | 7,153.00 | 7,185.00 | 7,185.00 | 72.70 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,020.38 | 2,806.63 | 213.75 | 14.131 | | |
| 9,700.00 | 7,153.00 | 7,185.00 | 7,185.00 | 75.17 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,011.23 | 2,794.38 | 216.85 | 13.886 | | |
| 9,800.00 | 7,153.00 | 7,185.00 | 7,185.00 | 77.67 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,005.39 | 2,785.46 | 219.93 | 13.665 | | |
| 9,900.00 | 7,153.00 | 7,185.00 | 7,185.00 | 80.17 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,002.87 | 2,779.91 | 222.96 | 13.468 | | |
| 9,925.79 | 7,153.00 | 7,185.00 | 7,185.00 | 80.82 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,002.76 | 2,779.02 | 223.74 | 13.421 | CC | |
| 10,000.00 | 7,153.00 | 7,185.00 | 7,185.00 | 82.69 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,003.67 | 2,777.74 | 225.94 | 13.294 | ES | |
| 10,100.00 | 7,153.00 | 7,185.00 | 7,185.00 | 85.23 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,007.81 | 2,778.96 | 228.84 | 13.144 | | |
| 10,200.00 | 7,153.00 | 7,185.00 | 7,185.00 | 87.77 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,015.25 | 2,783.59 | 231.66 | 13.016 | | |
| 10,300.00 | 7,153.00 | 7,185.00 | 7,185.00 | 90.33 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,025.98 | 2,791.59 | 234.40 | 12.910 | | |
| 10,400.00 | 7,153.00 | 7,185.00 | 7,185.00 | 92.89 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,039.97 | 2,802.94 | 237.03 | 12.825 | | |
| 10,500.00 | 7,153.00 | 7,185.00 | 7,185.00 | 95.47 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,057.17 | 2,817.62 | 239.55 | 12.762 | | |
| 10,600.00 | 7,153.00 | 7,185.00 | 7,185.00 | 98.05 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,077.52 | 2,835.56 | 241.96 | 12.719 | | |
| 10,700.00 | 7,153.00 | 7,185.00 | 7,185.00 | 100.64 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,100.96 | 2,856.71 | 244.25 | 12.696 | | |
| 10,800.00 | 7,153.00 | 7,185.00 | 7,185.00 | 103.24 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,127.43 | 2,881.00 | 246.42 | 12.691 | SF | |
| 10,900.00 | 7,153.00 | 7,185.00 | 7,185.00 | 105.84 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,156.84 | 2,908.37 | 248.47 | 12.705 | | |
| 11,000.00 | 7,153.00 | 7,185.00 | 7,185.00 | 108.45 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,189.12 | 2,938.73 | 250.39 | 12.737 | | |
| 11,100.00 | 7,153.00 | 7,185.00 | 7,185.00 | 111.07 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,224.18 | 2,971.98 | 252.19 | 12.785 | | |
| 11,200.00 | 7,153.00 | 7,185.00 | 7,185.00 | 113.69 | 144.13 | 90.00 | 4,287.96 | -2,845.24 | 3,261.92 | 3,008.05 | 253.87 | 12.849 | | |

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|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST VERT JEFFERS 2-2 - Wellbore #1 - Design #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|---|-----------------------|-----------------------|-----------------------|------------------|---------------|-----------------------|------------------------|--------------|------------------------|-------------------------|---------------------------|-------------------|--------------------|-----------|
| Survey Program: 0-INC | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 8,200.00 | 7,153.00 | 7,152.00 | 7,152.00 | 41.81 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 3,251.35 | 3,078.39 | 172.96 | 18.798 | | |
| 8,300.00 | 7,153.00 | 7,152.00 | 7,152.00 | 43.59 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 3,165.71 | 2,992.56 | 173.15 | 18.283 | | |
| 8,400.00 | 7,153.00 | 7,152.00 | 7,152.00 | 45.47 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 3,080.94 | 2,907.46 | 173.48 | 17.760 | | |
| 8,500.00 | 7,153.00 | 7,152.00 | 7,152.00 | 47.45 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,997.10 | 2,823.14 | 173.96 | 17.228 | | |
| 8,600.00 | 7,153.00 | 7,152.00 | 7,152.00 | 49.51 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,914.29 | 2,739.66 | 174.63 | 16.689 | | |
| 8,700.00 | 7,153.00 | 7,152.00 | 7,152.00 | 51.64 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,832.58 | 2,657.10 | 175.49 | 16.141 | | |
| 8,800.00 | 7,153.00 | 7,152.00 | 7,152.00 | 53.82 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,752.08 | 2,575.53 | 176.56 | 15.588 | | |
| 8,900.00 | 7,153.00 | 7,152.00 | 7,152.00 | 56.06 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,672.90 | 2,495.05 | 177.85 | 15.029 | | |
| 9,000.00 | 7,153.00 | 7,152.00 | 7,152.00 | 58.34 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,595.16 | 2,415.78 | 179.38 | 14.467 | | |
| 9,100.00 | 7,153.00 | 7,152.00 | 7,152.00 | 60.66 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,518.99 | 2,337.83 | 181.15 | 13.905 | | |
| 9,200.00 | 7,153.00 | 7,152.00 | 7,152.00 | 63.01 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,444.54 | 2,261.35 | 183.18 | 13.345 | | |
| 9,300.00 | 7,153.00 | 7,152.00 | 7,152.00 | 65.40 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,371.96 | 2,186.49 | 185.47 | 12.789 | | |
| 9,400.00 | 7,153.00 | 7,152.00 | 7,152.00 | 67.81 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,301.45 | 2,113.42 | 188.02 | 12.240 | | |
| 9,500.00 | 7,153.00 | 7,152.00 | 7,152.00 | 70.24 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,233.18 | 2,042.35 | 190.83 | 11.702 | | |
| 9,600.00 | 7,153.00 | 7,152.00 | 7,152.00 | 72.70 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,167.38 | 1,973.48 | 193.90 | 11.178 | | |
| 9,700.00 | 7,153.00 | 7,152.00 | 7,152.00 | 75.17 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,104.28 | 1,907.05 | 197.23 | 10.669 | | |
| 9,800.00 | 7,153.00 | 7,152.00 | 7,152.00 | 77.67 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,044.12 | 1,843.33 | 200.80 | 10.180 | | |
| 9,900.00 | 7,153.00 | 7,152.00 | 7,152.00 | 80.17 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,987.18 | 1,782.59 | 204.59 | 9.713 | | |
| 10,000.00 | 7,153.00 | 7,152.00 | 7,152.00 | 82.69 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,933.74 | 1,725.13 | 208.60 | 9.270 | | |
| 10,100.00 | 7,153.00 | 7,152.00 | 7,152.00 | 85.23 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,884.09 | 1,671.29 | 212.79 | 8.854 | | |
| 10,200.00 | 7,153.00 | 7,152.00 | 7,152.00 | 87.77 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,838.54 | 1,621.41 | 217.13 | 8.467 | | |
| 10,300.00 | 7,153.00 | 7,152.00 | 7,152.00 | 90.33 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,797.41 | 1,575.82 | 221.58 | 8.112 | | |
| 10,400.00 | 7,153.00 | 7,152.00 | 7,152.00 | 92.89 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,761.00 | 1,534.90 | 226.09 | 7.789 | | |
| 10,500.00 | 7,153.00 | 7,152.00 | 7,152.00 | 95.47 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,729.61 | 1,499.00 | 230.61 | 7.500 | | |
| 10,600.00 | 7,153.00 | 7,152.00 | 7,152.00 | 98.05 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,703.53 | 1,468.46 | 235.07 | 7.247 | | |
| 10,700.00 | 7,153.00 | 7,152.00 | 7,152.00 | 100.64 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,682.99 | 1,443.58 | 239.41 | 7.030 | | |
| 10,800.00 | 7,153.00 | 7,152.00 | 7,152.00 | 103.24 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,668.20 | 1,424.65 | 243.56 | 6.849 | | |
| 10,900.00 | 7,153.00 | 7,152.00 | 7,152.00 | 105.84 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,659.32 | 1,411.86 | 247.46 | 6.705 | | |
| 10,997.77 | 7,153.00 | 7,152.00 | 7,152.00 | 108.39 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,656.44 | 1,405.46 | 250.98 | 6.600 | CC | |
| 11,000.00 | 7,153.00 | 7,152.00 | 7,152.00 | 108.45 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,656.44 | 1,405.39 | 251.05 | 6.598 | | |
| 11,100.00 | 7,153.00 | 7,152.00 | 7,152.00 | 111.07 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,659.59 | 1,405.30 | 254.30 | 6.526 | ES | |
| 11,200.00 | 7,153.00 | 7,152.00 | 7,152.00 | 113.69 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,668.74 | 1,411.59 | 257.15 | 6.489 | | |
| 11,300.00 | 7,153.00 | 7,152.00 | 7,152.00 | 116.31 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,683.79 | 1,424.18 | 259.60 | 6.486 | SF | |
| 11,400.00 | 7,153.00 | 7,152.00 | 7,152.00 | 118.94 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,704.58 | 1,442.94 | 261.64 | 6.515 | | |
| 11,500.00 | 7,153.00 | 7,152.00 | 7,152.00 | 121.57 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,730.91 | 1,467.64 | 263.27 | 6.575 | | |
| 11,600.00 | 7,153.00 | 7,152.00 | 7,152.00 | 124.21 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,762.52 | 1,498.01 | 264.51 | 6.663 | | |
| 11,700.00 | 7,153.00 | 7,152.00 | 7,152.00 | 126.85 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,799.15 | 1,533.76 | 265.39 | 6.779 | | |
| 11,800.00 | 7,153.00 | 7,152.00 | 7,152.00 | 129.49 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,840.48 | 1,574.54 | 265.94 | 6.921 | | |
| 11,900.00 | 7,153.00 | 7,152.00 | 7,152.00 | 132.14 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,886.22 | 1,620.02 | 266.20 | 7.086 | | |
| 12,000.00 | 7,153.00 | 7,152.00 | 7,152.00 | 134.79 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,936.04 | 1,669.85 | 266.20 | 7.273 | | |
| 12,100.00 | 7,153.00 | 7,152.00 | 7,152.00 | 137.44 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 1,989.65 | 1,723.67 | 265.98 | 7.480 | | |
| 12,200.00 | 7,153.00 | 7,152.00 | 7,152.00 | 140.10 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,046.74 | 1,781.16 | 265.58 | 7.707 | | |
| 12,300.00 | 7,153.00 | 7,152.00 | 7,152.00 | 142.76 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,107.04 | 1,842.01 | 265.03 | 7.950 | | |
| 12,400.00 | 7,153.00 | 7,152.00 | 7,152.00 | 145.42 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,170.27 | 1,905.91 | 264.36 | 8.210 | | |
| 12,500.00 | 7,153.00 | 7,152.00 | 7,152.00 | 148.08 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,236.18 | 1,972.59 | 263.59 | 8.484 | | |
| 12,600.00 | 7,153.00 | 7,152.00 | 7,152.00 | 150.75 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,304.55 | 2,041.80 | 262.75 | 8.771 | | |
| 12,700.00 | 7,153.00 | 7,152.00 | 7,152.00 | 153.41 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,375.16 | 2,113.31 | 261.85 | 9.071 | | |
| 12,800.00 | 7,153.00 | 7,152.00 | 7,152.00 | 156.08 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,447.82 | 2,186.91 | 260.92 | 9.382 | | |
| 12,900.00 | 7,153.00 | 7,152.00 | 7,152.00 | 158.75 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,522.36 | 2,262.40 | 259.96 | 9.703 | | |
| 13,000.00 | 7,153.00 | 7,152.00 | 7,152.00 | 161.42 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,598.60 | 2,339.62 | 258.99 | 10.034 | | |
| 13,100.00 | 7,153.00 | 7,152.00 | 7,152.00 | 164.10 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,676.41 | 2,418.41 | 258.01 | 10.373 | | |
| 13,200.00 | 7,153.00 | 7,152.00 | 7,152.00 | 166.77 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,755.65 | 2,498.62 | 257.03 | 10.721 | | |

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

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST VERT JEFFERS 2-2 - Wellbore #1 - Design #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|---------------------------|-----------|
| Survey Program: 0-INC | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Minimum Separation (usft) | Separation Factor | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | | | | |
| 13,300.00 | 7,153.00 | 7,152.00 | 7,152.00 | 169.45 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,836.21 | 2,580.14 | 256.06 | 11.076 | | |
| 13,400.00 | 7,153.00 | 7,152.00 | 7,152.00 | 172.13 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 2,917.97 | 2,662.86 | 255.11 | 11.438 | | |
| 13,500.00 | 7,153.00 | 7,152.00 | 7,152.00 | 174.81 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 3,000.83 | 2,746.66 | 254.17 | 11.806 | | |
| 13,600.00 | 7,153.00 | 7,152.00 | 7,152.00 | 177.49 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 3,084.71 | 2,831.46 | 253.25 | 12.180 | | |
| 13,700.00 | 7,153.00 | 7,152.00 | 7,152.00 | 180.17 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 3,169.52 | 2,917.17 | 252.35 | 12.560 | | |
| 13,800.00 | 7,153.00 | 7,152.00 | 7,152.00 | 182.86 | 143.47 | 90.00 | 2,932.91 | -3,906.16 | 3,255.20 | 3,003.72 | 251.48 | 12.944 | | |

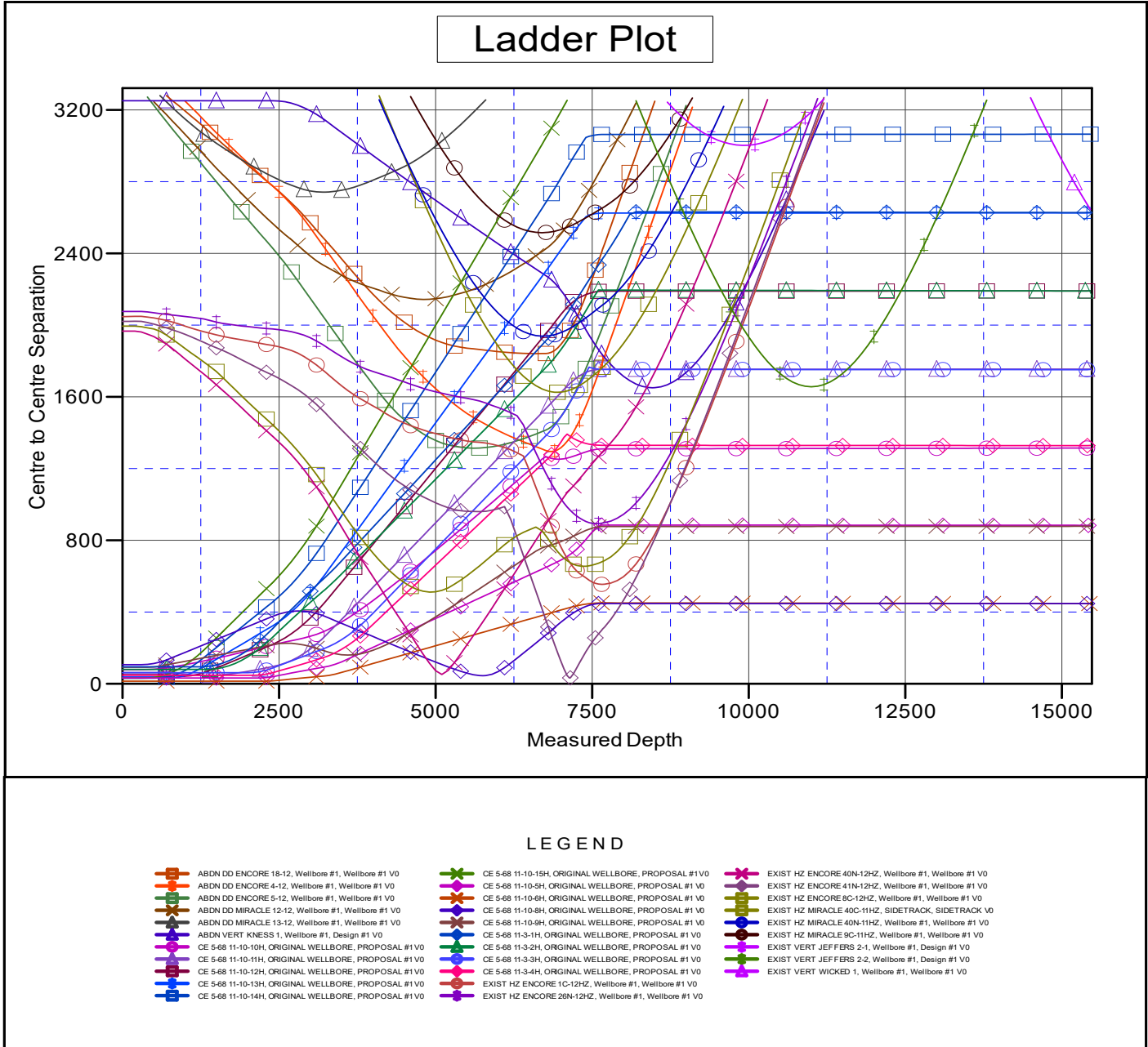
| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

| Offset Design: SEC. 11 T5N R68W 6th P.M. - EXIST VERT WICKED 1 - Wellbore #1 - Wellbore #1 | | | | | | | | | | | | | Offset Site Error: | 0.00 usft |
|--|-----------------------------|-----------------------------|-----------------------------|---------------------|------------------|-----------------------------|------------------------|-----------------|------------------------------|-------------------------------|---------------------------------|----------------------|--------------------|-----------|
| Survey Program: 100-GYD_CT | | | | | | | | | | | | | Offset Well Error: | 0.00 usft |
| Reference | | Offset | | Semi Major Axis | | Highside Toolface (°) | Offset Wellbore Centre | | Distance | | Rule Assigned: | | Warning | |
| Measured Depth (usft) | Vertical Depth (usft) | Measured Depth (usft) | Vertical Depth (usft) | Reference (usft) | Offset (usft) | | +N/-S (usft) | +E/-W (usft) | Between Centres (usft) | Between Ellipses (usft) | Minimum Separation (usft) | Separation Factor | | |
| 14,500.00 | 7,153.00 | 6,915.50 | 6,899.18 | 201.67 | 4.53 | -84.20 | -976.28 | -9,779.59 | 3,268.72 | 3,117.07 | 151.65 | 21.554 | | |
| 14,600.00 | 7,153.00 | 6,925.37 | 6,909.01 | 204.36 | 4.54 | -84.46 | -976.22 | -9,780.57 | 3,195.91 | 3,039.62 | 156.29 | 20.449 | | |
| 14,700.00 | 7,153.00 | 6,935.25 | 6,918.83 | 207.05 | 4.56 | -84.71 | -976.17 | -9,781.54 | 3,124.57 | 2,963.49 | 161.08 | 19.398 | | |
| 14,800.00 | 7,153.00 | 6,945.12 | 6,928.66 | 209.75 | 4.57 | -84.96 | -976.11 | -9,782.52 | 3,054.81 | 2,888.79 | 166.02 | 18.401 | | |
| 14,900.00 | 7,153.00 | 6,955.00 | 6,938.49 | 212.44 | 4.59 | -85.22 | -976.05 | -9,783.49 | 2,986.73 | 2,815.63 | 171.10 | 17.456 | | |
| 15,000.00 | 7,153.00 | 6,964.87 | 6,948.31 | 215.13 | 4.60 | -85.47 | -975.99 | -9,784.47 | 2,920.46 | 2,744.14 | 176.32 | 16.563 | | |
| 15,100.00 | 7,153.00 | 6,974.75 | 6,958.14 | 217.83 | 4.61 | -85.72 | -975.94 | -9,785.45 | 2,856.12 | 2,674.44 | 181.68 | 15.721 | | |
| 15,200.00 | 7,153.00 | 6,984.62 | 6,967.96 | 220.53 | 4.63 | -85.98 | -975.88 | -9,786.42 | 2,793.84 | 2,606.69 | 187.15 | 14.928 | | |
| 15,300.00 | 7,153.00 | 6,994.50 | 6,977.79 | 223.22 | 4.64 | -86.23 | -975.82 | -9,787.40 | 2,733.77 | 2,541.03 | 192.74 | 14.184 | | |
| 15,400.00 | 7,153.00 | 7,004.37 | 6,987.62 | 225.92 | 4.65 | -86.48 | -975.77 | -9,788.37 | 2,676.05 | 2,477.64 | 198.41 | 13.488 | | |
| 15,455.54 | 7,153.00 | 7,009.86 | 6,993.08 | 227.42 | 4.66 | -86.63 | -975.73 | -9,788.91 | 2,645.06 | 2,443.47 | 201.59 | 13.121 | CC, ES, SF | |

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to KBE @ 5000.00usft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: CE 5-68 11-10-7H
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.35°

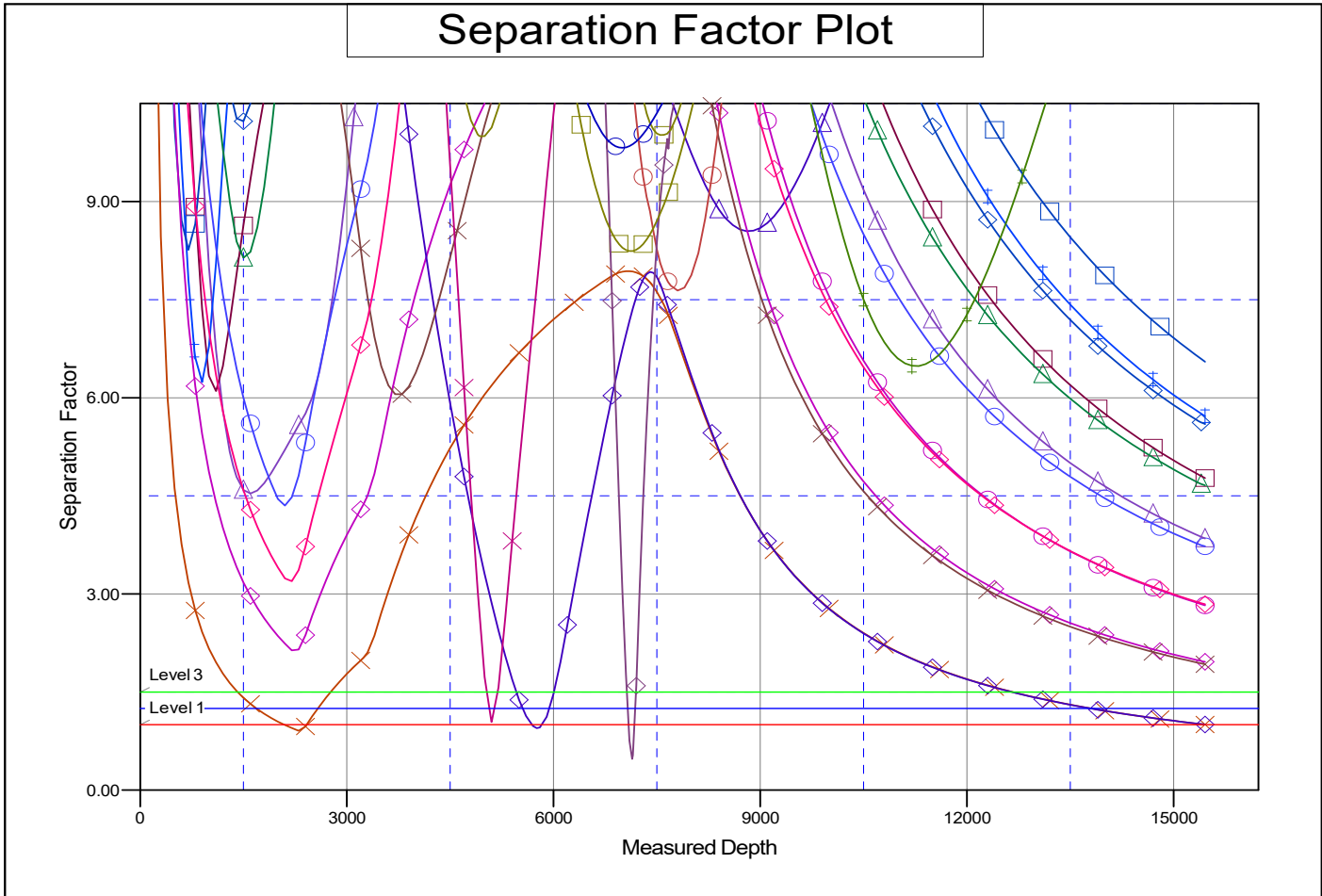


CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

| | | | |
|---------------------------|-----------------------------------|-------------------------------------|-----------------------|
| Company: | BISON IV OPERATING | Local Co-ordinate Reference: | Well CE 5-68 11-10-7H |
| Project: | LARIMER COUNTY, COLORADO (NAD 83) | TVD Reference: | KBE @ 5000.00usft |
| Reference Site: | SEC. 11 T5N R68W 6th P.M. | MD Reference: | KBE @ 5000.00usft |
| Site Error: | 0.00 usft | North Reference: | True |
| Reference Well: | CE 5-68 11-10-7H | Survey Calculation Method: | Minimum Curvature |
| Well Error: | 0.00 usft | Output errors are at | 2.00 sigma |
| Reference Wellbore | ORIGINAL WELLBORE | Database: | Database 1 |
| Reference Design: | PROPOSAL #1 | Offset TVD Reference: | Offset Datum |

Reference Depths are relative to KBE @ 5000.00usft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: CE 5-68 11-10-7H
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.35°



LEGEND

| | | |
|--|---|--|
| ABDN DD ENCORE 18-12, Wellbore #1, Wellbore #1 V0 | CE 5-68 11-10-15H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | EXIST HZ ENCORE 40N-12HZ, Wellbore #1, Wellbore #1 V0 |
| ABDN DD ENCORE 4-12, Wellbore #1, Wellbore #1 V0 | CE 5-68 11-10-5H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | EXIST HZ ENCORE 41N-12HZ, Wellbore #1, Wellbore #1 V0 |
| ABDN DD ENCORE 5-12, Wellbore #1, Wellbore #1 V0 | CE 5-68 11-10-6H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | EXIST HZ ENCORE 8C-12HZ, Wellbore #1, Wellbore #1 V0 |
| ABDN DD MIRACLE 13-12, Wellbore #1, Wellbore #1 V0 | CE 5-68 11-10-8H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | EXIST HZ MIRACLE 40C-11HZ, SIDETRACK, SIDETRACK V0 |
| ABDN DD MIRACLE 12-12, Wellbore #1, Wellbore #1 V0 | CE 5-68 11-10-9H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | EXIST HZ MIRACLE 40N-11HZ, Wellbore #1, Wellbore #1 V0 |
| ABDN VERT KNESS 1, Wellbore #1, Design #1 V0 | CE 5-68 11-3-1H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | EXIST HZ MIRACLE 9C-11HZ, Wellbore #1, Wellbore #1 V0 |
| CE 5-68 11-10-10H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | CE 5-68 11-3-2H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | EXIST VERT JEFFERS 2-1, Wellbore #1, Design #1 V0 |
| CE 5-68 11-10-11H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | CE 5-68 11-3-3H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | EXIST VERT JEFFERS 2-2, Wellbore #1, Design #1 V0 |
| CE 5-68 11-10-12H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | CE 5-68 11-3-4H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | EXIST VERT WICKED 1, Wellbore #1, Wellbore #1 V0 |
| CE 5-68 11-10-13H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | EXIST HZ ENCORE 1C-12HZ, Wellbore #1, Wellbore #1 V0 | |
| CE 5-68 11-10-14H, ORIGINAL WELLBORE, PROPOSAL #1 V0 | EXIST HZ ENCORE 26N-12HZ, Wellbore #1, Wellbore #1 V0 | |