



BISON IV OPERATING

LARIMER COUNTY, COLORADO (NAD 83)

SEC. 11 T5N R68W 6th P.M.

CE 5-68 11-3-1H

ORIGINAL WELLBORE

PROPOSAL #1

Anticollision Report

18 July, 2024



Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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	2024-07-18		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	17,395.63	PROPOSAL #1 (ORIGINAL WELLBORE)	OWSG (Rev2) MWD	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
SEC. 11 T5N R68W 6th P.M.						
ABDN DD ENCORE 18-12 - Wellbore #1 - Wellbore #1	4,900.70	4,811.00	1,719.13	1,661.16	29.655	CC, ES
ABDN DD ENCORE 18-12 - Wellbore #1 - Wellbore #1	5,600.00	5,170.32	1,812.05	1,745.63	27.282	SF
ABDN DD ENCORE 4-12 - Wellbore #1 - Wellbore #1	5,471.68	5,311.84	928.60	864.26	14.432	CC
ABDN DD ENCORE 4-12 - Wellbore #1 - Wellbore #1	5,500.00	5,327.82	928.86	863.94	14.309	ES
ABDN DD ENCORE 4-12 - Wellbore #1 - Wellbore #1	5,800.00	5,499.76	962.18	892.27	13.762	SF
ABDN DD ENCORE 5-12 - Wellbore #1 - Wellbore #1	4,363.67	4,647.31	1,553.49	1,494.86	26.498	CC
ABDN DD ENCORE 5-12 - Wellbore #1 - Wellbore #1	4,400.00	4,649.31	1,553.77	1,494.55	26.238	ES
ABDN DD ENCORE 5-12 - Wellbore #1 - Wellbore #1	4,900.00	4,832.85	1,627.98	1,561.92	24.644	SF
ABDN DD MIRACLE 12-12 - Wellbore #1 - Wellbore #1	3,204.54	4,066.81	2,552.94	2,515.38	67.964	CC, ES
ABDN DD MIRACLE 12-12 - Wellbore #1 - Wellbore #1	5,200.00	5,209.35	3,045.09	2,981.42	47.827	SF
ABDN DD MIRACLE 13-12 - Wellbore #1 - Wellbore #1	2,445.43	2,995.90	2,930.37	2,900.55	98.280	CC
ABDN DD MIRACLE 13-12 - Wellbore #1 - Wellbore #1	2,500.00	3,026.54	2,930.87	2,900.40	96.172	ES
ABDN DD MIRACLE 13-12 - Wellbore #1 - Wellbore #1	3,900.00	3,915.04	3,242.48	3,193.06	65.607	SF
ABDN VERT DONNAMITE 1 - Wellbore #1 - Design #1						Out of range
ABDN VERT KNESS 1 - Wellbore #1 - Design #1	10,499.06	7,258.00	979.12	770.77	4.699	CC
ABDN VERT KNESS 1 - Wellbore #1 - Design #1	10,500.00	7,258.00	979.12	770.77	4.699	ES, 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	10,365.35	7,322.00	2,923.31	2,716.64	14.145	CC
ABDN VERT RAUSLER 1 - Wellbore #1 - Design #1	10,400.00	7,322.00	2,923.52	2,715.88	14.080	ES
ABDN VERT RAUSLER 1 - Wellbore #1 - Design #1	11,400.00	7,322.00	3,101.01	2,864.42	13.107	SF
CE 5-68 11-10-10H - ORIGINAL WELLBORE - PROPOS	300.00	300.00	37.63	35.91	21.871	CC, ES
CE 5-68 11-10-10H - ORIGINAL WELLBORE - PROPOS	1,400.00	1,392.65	123.37	113.82	12.911	SF
CE 5-68 11-10-11H - ORIGINAL WELLBORE - PROPOS	700.00	700.00	50.44	45.86	10.994	CC, ES
CE 5-68 11-10-11H - ORIGINAL WELLBORE - PROPOS	900.00	896.44	56.94	50.98	9.554	SF
CE 5-68 11-10-12H - ORIGINAL WELLBORE - PROPOS	600.00	600.00	62.65	58.78	16.183	CC, ES
CE 5-68 11-10-12H - ORIGINAL WELLBORE - PROPOS	900.00	892.64	77.82	71.90	13.141	SF
CE 5-68 11-10-13H - ORIGINAL WELLBORE - PROPOS	500.00	500.00	79.04	75.89	25.057	CC, ES
CE 5-68 11-10-13H - ORIGINAL WELLBORE - PROPOS	900.00	887.04	105.81	99.92	17.978	SF
CE 5-68 11-10-14H - ORIGINAL WELLBORE - PROPOS	400.00	400.00	92.65	90.21	38.008	CC, ES
CE 5-68 11-10-14H - ORIGINAL WELLBORE - PROPOS	900.00	879.83	134.55	128.69	22.972	SF
CE 5-68 11-10-15H - ORIGINAL WELLBORE - PROPOS	300.00	300.00	106.51	104.79	61.899	CC, ES
CE 5-68 11-10-15H - ORIGINAL WELLBORE - PROPOS	900.00	870.83	166.45	160.62	28.529	SF
CE 5-68 11-10-5H - ORIGINAL WELLBORE - PROPOSA	1,250.00	1,250.00	61.94	53.41	7.260	CC, ES
CE 5-68 11-10-5H - ORIGINAL WELLBORE - PROPOSA	17,395.63	15,775.22	1,748.17	1,280.89	3.741	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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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
Offset Well - Wellbore - Design						
SEC. 11 T5N R68W 6th P.M.						
CE 5-68 11-10-6H - ORIGINAL WELLBORE - PROPOSA	1,250.00	1,250.00	80.16	71.63	9.395	CC, ES
CE 5-68 11-10-6H - ORIGINAL WELLBORE - PROPOSA	17,395.63	15,415.25	2,197.55	1,733.77	4.738	SF
CE 5-68 11-10-7H - ORIGINAL WELLBORE - PROPOSA	1,250.00	1,250.00	94.73	86.19	11.103	CC, ES
CE 5-68 11-10-7H - ORIGINAL WELLBORE - PROPOSA	17,395.63	15,360.77	2,627.75	2,162.05	5.643	SF
CE 5-68 11-10-8H - ORIGINAL WELLBORE - PROPOSA	2,574.13	2,546.94	30.64	10.50	1.521	CC, ES, SF
CE 5-68 11-10-9H - ORIGINAL WELLBORE - PROPOSA	400.00	400.00	31.49	29.05	12.917	CC, ES
CE 5-68 11-10-9H - ORIGINAL WELLBORE - PROPOSA	2,000.00	1,993.04	74.78	60.63	5.285	SF
CE 5-68 11-3-2H - ORIGINAL WELLBORE - PROPOSAL	1,250.00	1,250.00	14.58	6.05	1.709	CC, ES
CE 5-68 11-3-2H - ORIGINAL WELLBORE - PROPOSAL	17,395.63	16,996.06	478.16	37.96	1.086	Level 3, SF
CE 5-68 11-3-3H - ORIGINAL WELLBORE - PROPOSAL	1,250.00	1,250.00	32.79	24.26	3.843	CC, ES
CE 5-68 11-3-3H - ORIGINAL WELLBORE - PROPOSAL	17,395.63	16,948.62	878.71	399.23	1.833	SF
CE 5-68 11-3-4H - ORIGINAL WELLBORE - PROPOSAL	1,250.00	1,250.00	47.37	38.84	5.552	CC, ES
CE 5-68 11-3-4H - ORIGINAL WELLBORE - PROPOSAL	17,395.63	16,551.23	1,342.58	872.90	2.859	SF
EXIST HZ ENCORE 1C-12HZ - Wellbore #1 - Wellbore #	4,369.53	3,903.17	731.04	687.44	16.769	CC, ES
EXIST HZ ENCORE 1C-12HZ - Wellbore #1 - Wellbore #	4,700.00	4,184.76	764.46	717.20	16.176	SF
EXIST HZ ENCORE 26N-12HZ - Wellbore #1 - Wellbore	4,533.20	3,985.55	867.41	822.83	19.458	CC
EXIST HZ ENCORE 26N-12HZ - Wellbore #1 - Wellbore	4,600.00	4,048.28	868.27	822.75	19.075	ES
EXIST HZ ENCORE 26N-12HZ - Wellbore #1 - Wellbore	7,700.00	8,778.29	1,371.20	1,282.68	15.489	SF
EXIST HZ ENCORE 40N-12HZ - Wellbore #1 - Wellbore	3,802.01	3,675.01	111.73	70.75	2.727	CC, ES, SF
EXIST HZ ENCORE 41N-12HZ - Wellbore #1 - Wellbore	4,213.71	3,879.93	512.23	468.77	11.786	CC, ES
EXIST HZ ENCORE 41N-12HZ - Wellbore #1 - Wellbore	4,300.00	3,935.59	516.54	472.57	11.747	SF
EXIST HZ ENCORE 8C-12HZ - Wellbore #1 - Wellbore #	3,808.45	3,680.41	246.54	204.61	5.879	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						Out of range
EXIST HZ MIRACLE 40N-11HZ - Wellbore #1 - Wellbore						Out of range
EXIST HZ MIRACLE 9C-11HZ - Wellbore #1 - Wellbore #						Out of range
EXIST HZ PROWANT 18-1HZ - Wellbore #1 - Wellbore #						Out of range
EXIST VERT JEFFERS 2-1 - Wellbore #1 - Design #1	11,960.42	7,284.00	373.46	129.19	1.529	CC
EXIST VERT JEFFERS 2-1 - Wellbore #1 - Design #1	12,000.00	7,284.00	375.56	127.97	1.517	ES, SF
EXIST VERT JEFFERS 2-2 - Wellbore #1 - Design #1	13,033.23	7,251.00	972.18	700.91	3.584	CC, ES, SF
EXIST VERT WICKED 1 - Wellbore #1 - Wellbore #1						Out of range

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	Vertical	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)	Reference Offset (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
600.00	600.00	1,612.45	1,577.92	1.94	7.56	60.79	1,519.86	2,717.89	3,265.43	3,257.49	7.94	411.341
700.00	700.00	1,691.00	1,652.78	2.29	8.05	60.86	1,504.83	2,699.44	3,235.55	3,226.96	8.59	376.615
800.00	800.00	1,753.35	1,712.31	2.65	8.43	60.93	1,492.87	2,685.29	3,206.39	3,197.20	9.19	349.016
900.00	900.00	1,823.11	1,779.13	3.01	8.86	61.01	1,479.56	2,670.30	3,178.25	3,168.43	9.82	323.735
1,000.00	1,000.00	1,974.80	1,924.28	3.37	9.78	61.18	1,450.87	2,636.93	3,149.92	3,139.15	10.77	292.503
1,100.00	1,100.00	2,051.26	1,997.36	3.73	10.26	61.24	1,437.52	2,618.82	3,120.73	3,109.29	11.43	273.010
1,200.00	1,200.00	2,160.34	2,101.71	4.09	10.94	61.31	1,419.13	2,592.92	3,091.81	3,079.59	12.22	253.085
1,250.00	1,250.00	2,242.54	2,180.04	4.27	11.46	61.37	1,404.27	2,572.90	3,076.70	3,063.99	12.71	241.997
1,300.00	1,300.00	2,275.57	2,211.50	4.44	11.67	48.36	1,398.31	2,564.81	3,061.34	3,048.31	13.03	234.941
1,400.00	1,399.93	2,425.40	2,354.21	4.80	12.63	49.06	1,372.37	2,527.28	3,029.15	3,015.18	13.97	216.853

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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)			
1,500.00	1,499.68	2,535.50	2,458.52	5.16	13.36	49.81	1,354.13	2,497.15	2,992.87	2,978.11	14.76	202.763	
1,600.00	1,599.13	2,585.00	2,505.38	5.52	13.69	50.55	1,346.00	2,483.42	2,954.59	2,939.26	15.34	192.635	
1,700.00	1,698.15	2,643.08	2,560.60	5.89	14.06	51.36	1,336.78	2,467.95	2,915.42	2,899.48	15.95	182.824	
1,800.00	1,796.63	2,694.57	2,609.89	6.27	14.39	52.21	1,329.06	2,455.25	2,876.00	2,859.47	16.54	173.889	
1,900.00	1,894.44	2,802.89	2,713.51	6.67	15.06	53.46	1,309.90	2,430.17	2,834.93	2,817.58	17.35	163.443	
2,000.00	1,991.46	2,916.70	2,822.00	7.09	15.79	54.94	1,287.84	2,403.81	2,791.40	2,773.21	18.19	153.469	
2,100.00	2,087.58	2,984.05	2,886.17	7.53	16.22	56.24	1,275.27	2,387.63	2,745.98	2,727.09	18.89	145.389	
2,200.00	2,182.68	3,040.17	2,939.87	8.01	16.57	57.53	1,265.89	2,374.35	2,700.07	2,680.50	19.57	137.972	
2,300.00	2,276.65	3,166.99	3,060.92	8.52	17.38	59.55	1,243.97	2,343.57	2,652.03	2,631.51	20.51	129.288	
2,400.00	2,369.36	3,211.00	3,102.86	9.07	17.66	60.97	1,235.79	2,332.99	2,602.92	2,581.70	21.22	122.636	
2,500.00	2,460.71	3,271.56	3,160.74	9.67	18.04	62.64	1,224.93	2,318.90	2,553.58	2,531.55	22.03	115.916	
2,600.00	2,550.59	3,360.21	3,245.85	10.31	18.58	64.75	1,210.25	2,298.87	2,504.36	2,481.39	22.97	109.045	
2,700.00	2,638.88	3,462.75	3,343.78	10.99	19.23	67.25	1,191.92	2,274.67	2,453.34	2,429.34	24.00	102.221	
2,800.00	2,725.48	3,521.14	3,399.45	11.73	19.60	69.27	1,180.75	2,261.03	2,401.90	2,376.93	24.97	96.200	
2,900.00	2,810.28	3,567.00	3,443.25	12.51	19.89	71.16	1,171.98	2,250.63	2,350.95	2,324.99	25.97	90.533	
3,000.00	2,893.18	3,621.39	3,495.31	13.34	20.23	73.26	1,161.86	2,238.61	2,300.76	2,273.69	27.07	85.002	
3,100.00	2,974.07	3,765.17	3,632.80	14.22	21.14	77.21	1,136.55	2,205.07	2,250.88	2,222.39	28.48	79.020	
3,166.85	3,026.99	3,813.48	3,678.69	14.84	21.45	79.00	1,127.94	2,192.67	2,216.77	2,187.42	29.35	75.531	
3,200.00	3,052.99	3,836.91	3,700.93	15.15	21.61	79.50	1,123.72	2,186.61	2,200.01	2,170.22	29.79	73.852	
3,300.00	3,131.43	3,897.28	3,758.20	16.11	22.01	80.83	1,112.75	2,170.98	2,150.63	2,119.49	31.14	69.055	
3,400.00	3,209.87	3,951.81	3,809.93	17.08	22.37	82.06	1,102.75	2,156.91	2,103.17	2,070.62	32.55	64.608	
3,500.00	3,288.30	4,007.00	3,862.32	18.07	22.74	83.33	1,092.57	2,142.89	2,057.99	2,023.96	34.03	60.475	
3,600.00	3,366.74	4,036.45	3,890.36	19.07	22.92	84.01	1,087.22	2,135.65	2,015.47	1,979.96	35.50	56.766	
3,700.00	3,445.18	4,069.44	3,921.92	20.08	23.13	84.78	1,081.48	2,127.92	1,976.10	1,939.06	37.04	53.353	
3,800.00	3,523.62	4,124.66	3,974.99	21.10	23.47	86.07	1,072.35	2,115.67	1,939.95	1,901.28	38.67	50.165	
3,900.00	3,602.05	4,241.59	4,086.88	22.12	24.21	88.87	1,053.22	2,087.64	1,905.19	1,864.70	40.49	47.055	
4,000.00	3,680.49	4,316.57	4,158.20	23.15	24.69	90.71	1,040.59	2,068.28	1,871.93	1,829.67	42.25	44.302	
4,100.00	3,758.93	4,377.33	4,216.03	24.19	25.09	92.22	1,030.66	2,052.49	1,841.42	1,797.39	44.03	41.826	
4,200.00	3,837.37	4,435.62	4,271.38	25.23	25.48	93.71	1,020.42	2,037.35	1,813.90	1,768.07	45.83	39.581	
4,300.00	3,915.80	4,494.76	4,327.37	26.28	25.87	95.24	1,009.17	2,021.99	1,789.63	1,741.97	47.66	37.553	
4,400.00	3,994.24	4,555.57	4,385.04	27.33	26.28	96.83	998.08	2,006.20	1,768.64	1,719.15	49.49	35.738	
4,500.00	4,072.68	4,612.94	4,439.62	28.38	26.65	98.32	988.33	1,991.46	1,751.10	1,699.81	51.29	34.140	
4,600.00	4,151.12	4,664.25	4,488.61	29.44	26.98	99.66	980.19	1,978.55	1,737.18	1,684.14	53.04	32.749	
4,700.00	4,229.55	4,722.00	4,543.97	30.50	27.34	101.15	971.46	1,964.64	1,727.23	1,672.46	54.77	31.537	
4,800.00	4,307.99	4,761.94	4,582.39	31.56	27.58	102.18	965.63	1,955.41	1,721.18	1,664.79	56.39	30.524	
4,900.00	4,386.43	4,811.00	4,629.71	32.63	27.87	103.43	958.64	1,944.52	1,719.13	1,661.17	57.96	29.660	
4,900.70	4,386.98	4,811.00	4,629.71	32.63	27.87	103.43	958.64	1,944.52	1,719.13	1,661.16	57.97	29.655 CC, ES	
5,000.00	4,464.87	4,861.18	4,678.27	33.69	28.15	104.71	951.71	1,933.91	1,721.04	1,661.59	59.45	28.947	
5,100.00	4,543.31	4,898.00	4,713.99	34.76	28.36	105.64	946.78	1,926.51	1,726.94	1,666.13	60.82	28.396	
5,200.00	4,621.74	4,955.51	4,770.02	35.83	28.66	107.07	939.44	1,915.84	1,736.71	1,674.56	62.15	27.946	
5,300.00	4,700.18	5,003.75	4,817.25	36.90	28.90	108.25	933.70	1,907.86	1,750.42	1,687.08	63.34	27.634	
5,400.00	4,778.62	5,056.71	4,869.36	37.97	29.15	109.50	928.17	1,900.19	1,767.73	1,703.28	64.45	27.426	
5,500.00	4,857.06	5,112.29	4,924.29	39.05	29.38	110.77	923.20	1,893.32	1,788.35	1,722.88	65.48	27.313	
5,600.00	4,935.49	5,170.32	4,981.80	40.12	29.62	112.06	918.58	1,887.15	1,812.05	1,745.63	66.42	27.282 SF	
5,700.00	5,013.93	5,236.30	5,047.33	41.20	29.87	113.48	913.88	1,881.03	1,838.45	1,771.13	67.31	27.312	
5,800.00	5,092.37	5,297.45	5,108.18	42.27	30.08	114.75	910.11	1,876.25	1,867.32	1,799.21	68.11	27.417	
5,900.00	5,170.81	5,367.98	5,178.52	43.35	30.31	116.15	906.79	1,872.33	1,898.62	1,829.74	68.88	27.564	
6,000.00	5,249.24	5,448.90	5,259.33	44.43	30.54	117.67	904.52	1,868.96	1,931.36	1,861.73	69.64	27.735	
6,100.00	5,327.68	5,515.00	5,325.40	45.51	30.72	118.85	903.43	1,867.48	1,966.03	1,895.76	70.28	27.975	
6,200.00	5,406.12	5,580.71	5,391.10	46.59	30.88	119.98	902.62	1,866.89	2,002.55	1,931.68	70.87	28.257	
6,300.00	5,484.56	5,651.45	5,461.84	47.67	31.04	121.16	901.80	1,866.65	2,040.60	1,969.16	71.45	28.561	
6,400.00	5,562.99	5,744.46	5,554.85	48.75	31.26	122.65	900.82	1,866.61	2,079.99	2,007.89	72.10	28.849	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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)		
6,500.00	5,641.43	5,841.67	5,652.04	49.84	31.50	124.18	900.48	1,865.33	2,119.40	2,046.65	72.75	29.132	
6,600.00	5,719.87	5,920.68	5,731.04	50.92	31.70	125.39	900.17	1,863.85	2,159.72	2,086.42	73.30	29.463	
6,700.00	5,798.31	6,000.25	5,810.59	52.00	31.91	126.58	899.78	1,862.24	2,201.08	2,127.24	73.83	29.811	
6,800.00	5,876.75	6,078.40	5,888.73	53.09	32.11	127.72	899.45	1,860.53	2,243.33	2,168.98	74.34	30.175	
6,900.00	5,955.18	6,150.95	5,961.26	54.17	32.31	128.75	899.03	1,859.03	2,286.66	2,211.85	74.81	30.566	
7,000.00	6,033.62	6,229.00	6,039.29	55.25	32.51	129.83	898.55	1,857.47	2,330.95	2,255.65	75.29	30.959	
7,100.00	6,112.06	6,302.55	6,112.82	56.34	32.71	130.81	898.09	1,856.12	2,376.13	2,300.39	75.74	31.373	
7,200.00	6,190.50	6,385.55	6,195.81	57.43	32.93	131.88	897.60	1,854.71	2,422.13	2,345.91	76.23	31.776	
7,300.00	6,268.93	6,463.08	6,273.33	58.51	33.14	132.86	897.23	1,853.24	2,468.73	2,392.06	76.68	32.197	
7,400.00	6,347.37	6,540.38	6,350.61	59.60	33.35	133.80	896.76	1,851.74	2,516.10	2,438.98	77.12	32.626	
7,500.00	6,425.81	6,616.35	6,426.57	60.68	33.55	134.70	896.40	1,850.44	2,564.12	2,486.56	77.55	33.063	
7,600.00	6,504.25	6,689.97	6,500.18	61.77	33.75	135.55	895.98	1,849.33	2,612.90	2,534.93	77.97	33.512	
7,700.00	6,582.68	6,769.78	6,579.98	62.86	33.96	136.43	895.52	1,848.17	2,662.28	2,583.86	78.42	33.949	
7,800.00	6,661.12	6,846.90	6,657.09	63.95	34.17	137.27	895.03	1,846.90	2,712.19	2,633.34	78.85	34.396	
7,888.30	6,730.38	6,913.20	6,723.37	64.91	34.36	137.97	894.57	1,845.80	2,756.75	2,677.53	79.22	34.798	
7,900.00	6,739.57	6,921.99	6,732.17	65.03	34.38	140.12	894.51	1,845.67	2,762.74	2,683.47	79.27	34.852	
7,950.00	6,779.07	6,960.72	6,770.90	65.56	34.49	149.65	894.24	1,845.12	2,789.54	2,710.05	79.49	35.092	
8,000.00	6,818.72	7,000.30	6,810.46	66.07	34.60	159.56	893.97	1,844.56	2,818.07	2,738.35	79.72	35.348	
8,050.00	6,858.20	7,039.70	6,849.86	66.56	34.70	169.60	893.70	1,843.99	2,848.07	2,768.11	79.96	35.619	
8,100.00	6,897.22	7,078.52	6,888.68	67.02	34.81	179.54	893.38	1,843.28	2,879.27	2,799.07	80.20	35.902	
8,150.00	6,935.48	7,117.05	6,927.19	67.44	34.92	-170.79	892.98	1,842.38	2,911.42	2,830.98	80.44	36.193	
8,200.00	6,972.69	7,162.69	6,972.82	67.84	35.05	-161.59	892.62	1,841.41	2,944.23	2,863.50	80.74	36.468	
8,250.00	7,008.57	7,206.85	7,016.97	68.20	35.17	-152.96	892.53	1,840.80	2,977.43	2,896.39	81.04	36.742	
8,300.00	7,042.85	7,237.85	7,047.97	68.52	35.26	-144.81	892.53	1,840.49	3,010.88	2,929.61	81.27	37.048	
8,350.00	7,075.25	7,267.81	7,077.93	68.81	35.34	-137.24	892.51	1,840.21	3,044.44	2,962.93	81.51	37.350	
8,400.00	7,105.55	7,293.00	7,103.12	69.07	35.41	-130.20	892.48	1,839.98	3,077.91	2,996.18	81.74	37.657	
8,450.00	7,133.50	7,320.24	7,130.35	69.29	35.48	-123.79	892.42	1,839.76	3,111.11	3,029.13	81.99	37.946	
8,500.00	7,158.89	7,342.54	7,152.66	69.48	35.54	-117.90	892.35	1,839.58	3,143.87	3,061.64	82.23	38.235	
8,550.00	7,181.54	7,362.42	7,172.54	69.63	35.59	-112.55	892.27	1,839.44	3,175.99	3,093.53	82.47	38.512	
8,600.00	7,201.26	7,384.00	7,194.12	69.75	35.65	-107.81	892.16	1,839.29	3,207.33	3,124.60	82.74	38.766	
8,650.00	7,217.91	7,394.75	7,204.86	69.84	35.68	-103.41	892.10	1,839.21	3,237.71	3,154.75	82.96	39.028	
8,700.00	7,231.36	7,407.03	7,217.15	69.90	35.71	-99.58	892.03	1,839.13	3,266.97	3,183.76	83.21	39.261	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 Toolface (°)	Offset Wellbore Centre		Distance		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)			
800.00	800.00	2,020.37	1,961.73	2.65	10.33	56.17	1,700.78	2,537.70	3,269.78	3,258.85	10.93	299.149	
900.00	900.00	2,117.73	2,051.45	3.01	11.08	55.87	1,695.03	2,500.33	3,234.17	3,222.42	11.75	275.277	
1,000.00	1,000.00	2,187.60	2,115.89	3.37	11.62	55.65	1,690.71	2,473.68	3,198.71	3,186.26	12.45	256.943	
1,100.00	1,100.00	2,258.22	2,181.26	3.73	12.16	55.43	1,686.67	2,447.26	3,164.13	3,150.97	13.16	240.403	
1,200.00	1,200.00	2,382.29	2,295.45	4.09	13.14	54.96	1,682.08	2,398.98	3,129.42	3,115.28	14.15	221.228	
1,250.00	1,250.00	2,511.38	2,412.51	4.27	14.24	54.39	1,678.96	2,344.69	3,110.83	3,095.83	15.00	207.454	
1,300.00	1,300.00	2,550.27	2,447.56	4.44	14.58	41.20	1,678.19	2,327.86	3,091.83	3,076.43	15.41	200.681	
1,400.00	1,399.93	2,585.00	2,478.89	4.80	14.88	41.60	1,677.51	2,312.89	3,052.75	3,036.74	16.01	190.651	
1,500.00	1,499.68	2,650.04	2,537.97	5.16	15.43	41.94	1,676.34	2,285.72	3,012.32	2,995.56	16.76	179.681	
1,600.00	1,599.13	2,726.62	2,608.12	5.52	16.07	42.31	1,675.36	2,255.05	2,971.02	2,953.44	17.57	169.060	
1,700.00	1,698.15	2,851.69	2,721.99	5.89	17.13	42.59	1,674.61	2,203.30	2,926.75	2,908.12	18.64	157.055	
1,800.00	1,796.63	2,922.49	2,786.63	6.27	17.73	43.14	1,673.04	2,174.45	2,879.94	2,860.54	19.41	148.401	
1,900.00	1,894.44	2,996.44	2,854.63	6.67	18.33	43.82	1,670.27	2,145.54	2,831.44	2,811.26	20.18	140.319	
2,000.00	1,991.46	3,081.50	2,933.99	7.09	19.02	44.59	1,666.99	2,112.62	2,781.01	2,760.02	20.99	132.475	
2,100.00	2,087.58	3,174.87	3,019.03	7.53	19.78	45.49	1,662.94	2,076.57	2,728.29	2,706.44	21.84	124.901	
2,200.00	2,182.68	3,270.89	3,106.98	8.01	20.57	46.49	1,660.24	2,038.15	2,673.19	2,650.46	22.73	117.625	
2,300.00	2,276.65	3,331.87	3,162.71	8.52	21.08	47.57	1,658.87	2,013.45	2,616.05	2,592.59	23.46	111.505	
2,400.00	2,369.36	3,389.00	3,215.44	9.07	21.55	48.78	1,657.20	1,991.53	2,558.10	2,533.92	24.18	105.790	
2,500.00	2,460.71	3,450.42	3,272.41	9.67	22.03	50.14	1,655.17	1,968.68	2,499.01	2,474.09	24.91	100.306	
2,600.00	2,550.59	3,545.57	3,360.61	10.31	22.78	51.83	1,651.74	1,933.12	2,438.03	2,412.25	25.78	94.580	
2,700.00	2,638.88	3,626.55	3,435.53	10.99	23.42	53.66	1,648.45	1,902.55	2,374.97	2,348.37	26.60	89.300	
2,800.00	2,725.48	3,700.77	3,504.04	11.73	24.02	55.63	1,646.03	1,874.13	2,310.43	2,283.02	27.40	84.314	
2,900.00	2,810.28	3,774.91	3,572.60	12.51	24.61	57.85	1,643.03	1,846.07	2,244.56	2,216.35	28.22	79.550	
3,000.00	2,893.18	3,852.15	3,643.99	13.34	25.23	60.35	1,639.72	1,816.74	2,177.42	2,148.37	29.04	74.971	
3,100.00	2,974.07	3,953.83	3,737.71	14.22	26.06	63.53	1,634.87	1,777.63	2,108.95	2,079.03	29.93	70.469	
3,166.85	3,026.99	4,047.94	3,823.70	14.84	26.85	66.42	1,628.55	1,739.91	2,061.55	2,031.01	30.54	67.495	
3,200.00	3,052.99	4,080.33	3,853.12	15.15	27.13	67.05	1,626.19	1,726.56	2,037.79	2,006.97	30.82	66.115	
3,300.00	3,131.43	4,124.64	3,893.32	16.11	27.50	67.94	1,622.97	1,708.22	1,966.43	1,934.81	31.62	62.196	
3,400.00	3,209.87	4,159.66	3,925.31	17.08	27.80	68.67	1,620.54	1,694.18	1,896.51	1,864.07	32.45	58.450	
3,500.00	3,288.30	4,198.94	3,961.41	18.07	28.13	69.53	1,617.98	1,678.91	1,828.17	1,794.85	33.33	54.858	
3,600.00	3,366.74	4,249.00	4,007.50	19.07	28.54	70.63	1,615.57	1,659.52	1,761.21	1,726.96	34.25	51.417	
3,700.00	3,445.18	4,311.14	4,064.66	20.08	29.05	72.01	1,614.02	1,635.20	1,695.48	1,660.25	35.23	48.127	
3,800.00	3,523.62	4,396.36	4,142.59	21.10	29.77	73.96	1,613.53	1,600.73	1,630.30	1,594.07	36.23	44.998	
3,900.00	3,602.05	4,486.70	4,224.56	22.12	30.56	76.18	1,612.53	1,562.77	1,564.78	1,527.55	37.23	42.028	
4,000.00	3,680.49	4,544.00	4,276.42	23.15	31.07	77.70	1,611.63	1,538.42	1,499.95	1,461.64	38.31	39.153	
4,100.00	3,758.93	4,600.93	4,328.10	24.19	31.57	79.31	1,610.53	1,514.55	1,436.62	1,397.19	39.43	36.431	
4,200.00	3,837.37	4,648.67	4,371.68	25.23	31.98	80.74	1,609.35	1,495.11	1,375.35	1,334.71	40.64	33.838	
4,300.00	3,915.80	4,692.46	4,411.95	26.28	32.34	82.12	1,608.01	1,477.94	1,316.63	1,274.69	41.94	31.391	
4,400.00	3,994.24	4,738.56	4,454.64	27.33	32.71	83.65	1,606.35	1,460.63	1,260.83	1,217.51	43.32	29.104	
4,500.00	4,072.68	4,788.74	4,501.35	28.38	33.09	85.40	1,604.37	1,442.43	1,208.09	1,163.31	44.78	26.979	
4,600.00	4,151.12	4,837.39	4,546.89	29.44	33.46	87.17	1,602.31	1,425.41	1,158.77	1,112.41	46.36	24.998	
4,700.00	4,229.55	4,884.95	4,591.66	30.50	33.80	88.97	1,600.08	1,409.52	1,113.42	1,065.36	48.06	23.167	
4,800.00	4,307.99	4,972.08	4,673.72	31.56	34.43	92.44	1,595.43	1,380.64	1,071.64	1,021.90	49.73	21.548	
4,900.00	4,386.43	5,025.76	4,724.06	32.63	34.81	94.68	1,592.31	1,362.25	1,032.85	981.14	51.71	19.974	
5,000.00	4,464.87	5,076.00	4,771.51	33.69	35.17	96.83	1,589.47	1,345.98	999.52	945.68	53.84	18.563	
5,100.00	4,543.31	5,114.18	4,807.85	34.76	35.41	98.48	1,587.48	1,334.46	972.30	916.19	56.12	17.327	
5,200.00	4,621.74	5,164.00	4,855.72	35.83	35.72	100.64	1,585.26	1,320.83	951.88	893.48	58.40	16.300	
5,300.00	4,700.18	5,213.55	4,903.65	36.90	36.00	102.79	1,583.49	1,308.40	938.00	877.34	60.66	15.463	
5,400.00	4,778.62	5,271.87	4,960.30	37.97	36.32	105.30	1,581.98	1,294.64	930.25	867.40	62.85	14.802	
5,471.68	4,834.84	5,311.84	4,999.29	38.74	36.52	107.00	1,581.14	1,285.88	928.60	864.26	64.34	14.432 CC	
5,500.00	4,857.06	5,327.82	5,014.92	39.05	36.60	107.68	1,580.84	1,282.54	928.86	863.94	64.91	14.309 ES	
5,600.00	4,935.49	5,382.93	5,068.96	40.12	36.86	110.00	1,579.85	1,271.79	933.85	867.06	66.79	13.981	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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	
5,700.00	5,013.93	5,439.26	5,124.43	41.20	37.11	112.32	1,578.81	1,262.07	945.14	876.67	68.47	13.805		
5,800.00	5,092.37	5,499.76	5,184.21	42.27	37.35	114.74	1,577.74	1,252.83	962.18	892.27	69.92	13.762 SF		
5,900.00	5,170.81	5,561.64	5,245.52	43.35	37.58	117.14	1,576.71	1,244.54	984.48	913.33	71.15	13.837		
6,000.00	5,249.24	5,624.57	5,308.01	44.43	37.80	119.49	1,575.63	1,237.18	1,011.55	939.37	72.18	14.014		
6,100.00	5,327.68	5,688.49	5,371.58	45.51	38.01	121.77	1,574.41	1,230.64	1,042.93	969.90	73.03	14.281		
6,200.00	5,406.12	5,748.00	5,430.85	46.59	38.19	123.80	1,573.00	1,225.40	1,078.34	1,004.65	73.69	14.634		
6,300.00	5,484.56	5,810.05	5,492.70	47.67	38.36	125.82	1,571.12	1,220.96	1,117.58	1,043.35	74.23	15.056		
6,400.00	5,562.99	5,879.98	5,562.56	48.75	38.54	127.90	1,569.72	1,217.99	1,159.75	1,085.02	74.73	15.520		
6,500.00	5,641.43	5,954.10	5,636.64	49.84	38.70	129.93	1,568.73	1,216.17	1,204.12	1,128.94	75.18	16.016		
6,600.00	5,719.87	6,029.29	5,711.82	50.92	38.86	131.87	1,567.76	1,214.72	1,250.31	1,174.71	75.60	16.539		
6,700.00	5,798.31	6,105.41	5,787.92	52.00	39.02	133.71	1,566.77	1,213.46	1,298.05	1,222.06	75.98	17.083		
6,800.00	5,876.75	6,186.52	5,869.01	53.09	39.19	135.56	1,565.74	1,212.15	1,347.06	1,270.67	76.38	17.635		
6,900.00	5,955.18	6,265.27	5,947.75	54.17	39.36	137.25	1,565.03	1,210.80	1,396.92	1,320.17	76.75	18.202		
7,000.00	6,033.62	6,339.39	6,021.85	55.25	39.51	138.75	1,564.24	1,209.71	1,448.00	1,370.95	77.05	18.793		
7,100.00	6,112.06	6,418.97	6,101.43	56.34	39.66	140.22	1,563.77	1,209.56	1,499.98	1,422.58	77.40	19.380		
7,200.00	6,190.50	6,495.00	6,177.46	57.43	39.79	141.53	1,563.45	1,209.75	1,552.72	1,475.02	77.70	19.982		
7,300.00	6,268.93	6,570.42	6,252.88	58.51	39.93	142.77	1,562.95	1,209.76	1,606.28	1,528.27	78.01	20.591		
7,400.00	6,347.37	6,647.23	6,329.69	59.60	40.08	143.97	1,562.27	1,209.62	1,660.59	1,582.26	78.33	21.199		
7,500.00	6,425.81	6,728.01	6,410.46	60.68	40.24	145.17	1,561.51	1,209.23	1,715.45	1,636.75	78.70	21.798		
7,600.00	6,504.25	6,810.68	6,493.12	61.77	40.42	146.34	1,560.85	1,208.46	1,770.64	1,691.56	79.09	22.388		
7,700.00	6,582.68	6,889.58	6,572.01	62.86	40.59	147.41	1,560.35	1,207.51	1,826.16	1,746.71	79.45	22.984		
7,800.00	6,661.12	6,967.58	6,650.01	63.95	40.76	148.40	1,559.79	1,206.54	1,882.18	1,802.36	79.82	23.580		
7,888.30	6,730.38	7,041.06	6,723.48	64.91	40.93	149.30	1,559.33	1,205.33	1,931.89	1,851.70	80.19	24.092		
7,900.00	6,739.57	7,051.11	6,733.53	65.03	40.95	151.64	1,559.28	1,205.15	1,938.51	1,858.27	80.24	24.158		
7,950.00	6,779.07	7,094.47	6,776.88	65.56	41.06	161.85	1,559.12	1,204.38	1,967.51	1,887.03	80.48	24.446		
8,000.00	6,818.72	7,133.79	6,816.19	66.07	41.15	172.20	1,559.04	1,203.70	1,997.40	1,916.69	80.71	24.747		
8,050.00	6,858.20	7,169.07	6,851.47	66.56	41.23	-177.52	1,558.93	1,203.16	2,028.05	1,947.12	80.93	25.060		
8,100.00	6,897.22	7,204.00	6,886.40	67.02	41.31	-167.56	1,558.75	1,202.68	2,059.22	1,978.06	81.16	25.372		
8,150.00	6,935.48	7,241.41	6,923.80	67.44	41.39	-158.13	1,558.52	1,202.23	2,090.65	2,009.21	81.44	25.672		
8,200.00	6,972.69	7,277.93	6,960.32	67.84	41.48	-149.36	1,558.30	1,201.81	2,122.12	2,040.39	81.73	25.965		
8,250.00	7,008.57	7,311.45	6,993.84	68.20	41.55	-141.29	1,558.08	1,201.47	2,153.46	2,071.44	82.02	26.256		
8,300.00	7,042.85	7,342.15	7,024.54	68.52	41.62	-133.94	1,557.85	1,201.23	2,184.53	2,102.23	82.30	26.543		
8,350.00	7,075.25	7,371.06	7,053.44	68.81	41.68	-127.28	1,557.59	1,201.07	2,215.21	2,132.61	82.60	26.819		
8,400.00	7,105.55	7,400.18	7,082.56	69.07	41.74	-121.34	1,557.31	1,200.96	2,245.35	2,162.43	82.92	27.079		
8,450.00	7,133.50	7,428.93	7,111.31	69.29	41.81	-116.06	1,557.05	1,200.86	2,274.79	2,191.52	83.26	27.321		
8,500.00	7,158.89	7,455.07	7,137.45	69.48	41.86	-111.35	1,556.82	1,200.78	2,303.41	2,219.80	83.61	27.550		
8,550.00	7,181.54	7,478.72	7,161.09	69.63	41.91	-107.15	1,556.62	1,200.72	2,331.13	2,247.17	83.96	27.765		
8,600.00	7,201.26	7,500.29	7,182.66	69.75	41.96	-103.45	1,556.45	1,200.66	2,357.85	2,273.53	84.32	27.963		
8,650.00	7,217.91	7,518.54	7,200.91	69.84	42.00	-100.16	1,556.33	1,200.62	2,383.47	2,298.79	84.68	28.146		
8,700.00	7,231.36	7,533.32	7,215.69	69.90	42.03	-97.24	1,556.23	1,200.58	2,407.91	2,322.87	85.04	28.315		
8,750.00	7,241.51	7,544.51	7,226.88	69.92	42.05	-94.68	1,556.17	1,200.56	2,431.07	2,345.68	85.39	28.469		
8,800.00	7,248.28	7,552.01	7,234.39	69.92	42.07	-92.46	1,556.13	1,200.54	2,452.88	2,367.14	85.74	28.608		
8,850.00	7,251.62	7,555.78	7,238.16	69.89	42.07	-90.55	1,556.11	1,200.53	2,473.22	2,387.15	86.08	28.732		
8,873.35	7,252.00	7,556.25	7,238.63	69.87	42.08	-89.77	1,556.11	1,200.53	2,482.20	2,395.97	86.23	28.785		
8,900.00	7,252.00	7,556.32	7,238.69	69.84	42.08	-89.77	1,556.11	1,200.53	2,492.36	2,405.96	86.41	28.845		
9,000.00	7,252.00	7,556.57	7,238.94	69.75	42.08	-89.77	1,556.11	1,200.53	2,532.64	2,445.58	87.06	29.091		
9,100.00	7,252.00	7,556.81	7,239.19	69.69	42.08	-89.78	1,556.11	1,200.53	2,576.17	2,488.47	87.70	29.374		
9,200.00	7,252.00	7,557.06	7,239.44	69.66	42.08	-89.79	1,556.10	1,200.53	2,622.79	2,534.47	88.33	29.695		
9,300.00	7,252.00	7,557.31	7,239.68	69.67	42.08	-89.79	1,556.10	1,200.53	2,672.34	2,583.42	88.93	30.051		
9,400.00	7,252.00	7,557.56	7,239.93	69.71	42.08	-89.80	1,556.10	1,200.53	2,724.67	2,635.17	89.50	30.443		
9,500.00	7,252.00	7,557.80	7,240.18	69.80	42.08	-89.81	1,556.10	1,200.53	2,779.61	2,689.56	90.05	30.869		
9,600.00	7,252.00	7,558.05	7,240.43	69.93	42.08	-89.81	1,556.10	1,200.53	2,837.00	2,746.44	90.56	31.327		

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 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)			
9,700.00	7,252.00	7,558.30	7,240.67	70.12	42.08	-89.82	1,556.10	1,200.53	2,896.72	2,805.68	91.04	31.816	
9,800.00	7,252.00	7,558.54	7,240.92	70.37	42.08	-89.82	1,556.10	1,200.53	2,958.61	2,867.11	91.50	32.336	
9,900.00	7,252.00	7,558.79	7,241.16	70.70	42.08	-89.83	1,556.10	1,200.53	3,022.54	2,930.62	91.92	32.883	
10,000.00	7,252.00	7,559.03	7,241.41	71.11	42.08	-89.84	1,556.09	1,200.53	3,088.39	2,996.08	92.31	33.456	
10,100.00	7,252.00	7,559.28	7,241.66	71.62	42.08	-89.84	1,556.09	1,200.53	3,156.03	3,063.36	92.68	34.054	
10,200.00	7,252.00	7,559.52	7,241.90	72.25	42.08	-89.85	1,556.09	1,200.52	3,225.36	3,132.34	93.02	34.676	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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	
300.00	300.00	1,861.00	1,775.03	0.86	10.60	62.01	1,373.46	2,583.76	3,279.13	3,270.66	8.48	386.802		
400.00	400.00	2,012.66	1,908.61	1.22	11.98	62.35	1,325.47	2,530.35	3,232.73	3,223.29	9.44	342.340		
500.00	500.00	2,071.37	1,960.17	1.58	12.51	62.50	1,306.53	2,509.61	3,186.21	3,176.22	9.99	318.939		
600.00	600.00	2,131.00	2,012.94	1.94	13.05	62.65	1,287.51	2,489.37	3,140.89	3,130.32	10.57	297.145		
700.00	700.00	2,177.59	2,054.38	2.29	13.46	62.78	1,272.76	2,474.04	3,096.57	3,085.46	11.11	278.740		
800.00	800.00	2,241.58	2,111.48	2.65	14.02	62.95	1,252.59	2,453.34	3,053.03	3,041.28	11.75	259.938		
900.00	900.00	2,311.00	2,173.77	3.01	14.62	63.14	1,231.31	2,431.30	3,010.41	2,998.00	12.42	242.458		
1,000.00	1,000.00	2,341.31	2,201.16	3.37	14.87	63.22	1,222.37	2,421.89	2,968.94	2,956.02	12.91	229.925		
1,100.00	1,100.00	2,401.00	2,255.69	3.73	15.36	63.36	1,205.80	2,404.16	2,929.36	2,915.81	13.55	216.226		
1,200.00	1,200.00	2,551.96	2,393.31	4.09	16.60	63.68	1,165.82	2,356.78	2,889.55	2,874.98	14.57	198.296		
1,250.00	1,250.00	2,667.23	2,496.95	4.27	17.60	63.88	1,135.60	2,316.40	2,867.52	2,852.28	15.24	188.111		
1,300.00	1,300.00	2,705.17	2,530.89	4.44	17.94	51.05	1,125.48	2,302.82	2,845.29	2,829.69	15.60	182.390		
1,400.00	1,399.93	2,761.00	2,581.22	4.80	18.42	52.00	1,110.41	2,283.93	2,800.72	2,784.49	16.24	172.491		
1,500.00	1,499.68	2,817.11	2,632.05	5.16	18.90	53.02	1,095.22	2,265.64	2,755.32	2,738.43	16.88	163.204		
1,600.00	1,599.13	2,926.37	2,730.88	5.52	19.83	54.37	1,066.44	2,229.02	2,707.81	2,690.07	17.75	152.591		
1,700.00	1,698.15	3,028.00	2,822.43	5.89	20.71	55.83	1,040.39	2,193.40	2,657.62	2,639.04	18.58	143.050		
1,800.00	1,796.63	3,083.73	2,872.77	6.27	21.19	57.16	1,026.44	2,174.00	2,606.48	2,587.23	19.24	135.445		
1,900.00	1,894.44	3,138.01	2,922.17	6.67	21.65	58.56	1,013.65	2,155.50	2,554.99	2,535.07	19.92	128.258		
2,000.00	1,991.46	3,206.00	2,984.20	7.09	22.21	60.18	997.30	2,132.97	2,502.80	2,482.12	20.67	121.078		
2,100.00	2,087.58	3,314.09	3,082.50	7.53	23.11	62.36	970.35	2,097.01	2,448.97	2,427.37	21.60	113.363		
2,200.00	2,182.68	3,383.00	3,145.13	8.01	23.69	64.32	952.93	2,074.15	2,394.20	2,371.77	22.43	106.732		
2,300.00	2,276.65	3,430.98	3,188.83	8.52	24.09	66.16	940.49	2,058.71	2,339.19	2,315.96	23.24	100.664		
2,400.00	2,269.36	3,488.25	3,241.05	9.07	24.57	68.23	925.01	2,041.02	2,284.32	2,260.19	24.14	94.640		
2,500.00	2,260.71	3,559.89	3,306.45	9.67	25.15	70.65	905.87	2,018.93	2,229.37	2,204.22	25.16	88.622		
2,600.00	2,250.59	3,683.11	3,418.23	10.31	26.19	74.19	873.51	1,978.42	2,172.85	2,146.43	26.42	82.242		
2,700.00	2,638.88	3,739.00	3,468.93	10.99	26.67	76.63	859.12	1,959.82	2,116.84	2,089.31	27.54	76.876		
2,800.00	2,725.48	3,796.87	3,521.51	11.73	27.16	79.20	844.33	1,940.68	2,061.72	2,032.97	28.75	71.709		
2,900.00	2,810.28	3,912.19	3,625.68	12.51	28.15	83.25	814.45	1,901.29	2,007.05	1,976.80	30.25	66.355		
3,000.00	2,893.18	3,962.33	3,670.63	13.34	28.60	85.83	801.14	1,883.50	1,952.83	1,921.16	31.67	61.661		
3,100.00	2,974.07	4,012.00	3,715.16	14.22	29.04	88.42	787.65	1,866.11	1,900.76	1,867.53	33.22	57.213		
3,166.85	3,026.99	4,055.14	3,753.73	14.84	29.43	90.44	775.70	1,850.93	1,867.19	1,832.83	34.37	54.331		
3,200.00	3,052.99	4,075.75	3,772.11	15.15	29.61	91.05	769.93	1,843.62	1,850.94	1,815.99	34.95	52.955		
3,300.00	3,131.43	4,118.81	3,810.47	16.11	30.00	92.34	757.72	1,828.32	1,803.82	1,767.09	36.74	49.102		
3,400.00	3,209.87	4,156.31	3,843.92	17.08	30.34	93.48	746.97	1,815.21	1,760.10	1,721.50	38.60	45.602		
3,500.00	3,288.30	4,181.00	3,865.96	18.07	30.56	94.23	739.83	1,806.69	1,720.10	1,679.61	40.49	42.479		
3,600.00	3,366.74	4,225.59	3,905.89	19.07	30.95	95.61	726.90	1,791.63	1,684.02	1,641.49	42.53	39.597		
3,700.00	3,445.18	4,272.00	3,947.65	20.08	31.36	97.06	713.47	1,776.47	1,652.35	1,607.72	44.62	37.028		
3,800.00	3,523.62	4,307.29	3,979.41	21.10	31.67	98.17	703.14	1,765.08	1,624.93	1,578.23	46.71	34.791		
3,900.00	3,602.05	4,360.81	4,027.33	22.12	32.14	99.88	686.96	1,747.60	1,601.78	1,552.89	48.89	32.765		
4,000.00	3,680.49	4,405.66	4,067.44	23.15	32.54	101.32	673.28	1,732.88	1,583.15	1,532.13	51.02	31.032		
4,100.00	3,758.93	4,451.61	4,108.66	24.19	32.94	102.80	659.56	1,717.92	1,569.31	1,516.20	53.11	29.550		
4,200.00	3,837.37	4,524.27	4,173.83	25.23	33.58	105.14	638.30	1,693.85	1,559.95	1,504.68	55.27	28.224		
4,300.00	3,915.80	4,598.54	4,240.26	26.28	34.24	107.54	617.20	1,668.21	1,554.71	1,497.35	57.35	27.108		
4,363.67	3,965.75	4,647.31	4,283.91	26.95	34.68	109.11	604.01	1,650.90	1,553.49	1,494.86	58.63	26.498 CC		
4,400.00	3,994.24	4,649.31	4,285.67	27.33	34.70	109.18	603.32	1,650.23	1,553.77	1,494.55	59.22	26.238 ES		
4,500.00	4,072.68	4,681.66	4,314.47	28.38	35.00	110.23	594.01	1,638.81	1,558.13	1,497.26	60.87	25.597		
4,600.00	4,151.12	4,717.00	4,345.76	29.44	35.32	111.38	583.22	1,626.43	1,567.94	1,505.55	62.39	25.132		
4,700.00	4,229.55	4,750.21	4,375.09	30.50	35.63	112.47	572.76	1,614.89	1,583.02	1,519.28	63.74	24.837		
4,800.00	4,307.99	4,789.55	4,409.85	31.56	35.99	113.75	560.28	1,601.32	1,603.11	1,538.15	64.96	24.677		
4,900.00	4,386.43	4,832.85	4,448.08	32.63	36.40	115.15	546.44	1,586.46	1,627.98	1,561.92	66.06	24.644 SF		
5,000.00	4,464.87	4,878.09	4,487.90	33.69	36.82	116.61	531.78	1,570.75	1,657.29	1,590.27	67.02	24.729		
5,100.00	4,543.31	4,991.38	4,587.64	34.76	37.88	120.21	496.61	1,530.17	1,690.29	1,621.96	68.33	24.737		

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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: Reference		16-OWSG (Rev2) MWD Offset		Semi Major Axis		Highside Toolface (°)	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)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.00	4,621.74	5,074.18	4,660.45	35.83	38.67	122.79	472.95	1,498.60	1,725.53	1,656.25	69.28	24.908	
5,300.00	4,700.18	5,151.22	4,728.03	36.90	39.41	125.15	452.01	1,468.16	1,763.61	1,693.54	70.07	25.170	
5,400.00	4,778.62	5,207.67	4,777.95	37.97	39.93	126.84	437.62	1,446.06	1,804.63	1,734.01	70.62	25.554	
5,500.00	4,857.06	5,260.14	4,824.98	39.05	40.40	128.35	425.06	1,426.48	1,848.68	1,777.62	71.06	26.017	
5,600.00	4,935.49	5,304.72	4,865.65	40.12	40.77	129.59	415.07	1,411.23	1,895.71	1,824.36	71.36	26.567	
5,700.00	5,013.93	5,350.53	4,908.16	41.20	41.13	130.80	405.44	1,397.15	1,945.45	1,873.84	71.61	27.166	
5,800.00	5,092.37	5,391.37	4,946.34	42.27	41.42	131.84	396.94	1,385.41	1,997.76	1,925.99	71.77	27.836	
5,900.00	5,170.81	5,438.43	4,990.53	43.35	41.76	133.00	387.04	1,372.57	2,052.46	1,980.53	71.93	28.533	
6,000.00	5,249.24	5,508.52	5,056.58	44.43	42.25	134.67	372.69	1,354.01	2,108.83	2,036.60	72.23	29.197	
6,100.00	5,327.68	5,589.18	5,133.20	45.51	42.78	136.48	357.34	1,334.03	2,166.33	2,093.76	72.57	29.852	
6,200.00	5,406.12	5,663.76	5,204.73	46.59	43.23	138.04	344.46	1,317.32	2,224.67	2,151.80	72.86	30.532	
6,300.00	5,484.56	5,756.04	5,293.81	47.67	43.75	139.85	329.81	1,298.27	2,283.76	2,210.50	73.26	31.172	
6,400.00	5,562.99	5,846.68	5,382.29	48.75	44.21	141.45	317.70	1,282.75	2,342.93	2,269.28	73.66	31.809	
6,500.00	5,641.43	5,977.81	5,510.97	49.84	44.80	143.56	303.12	1,262.22	2,401.83	2,327.55	74.28	32.333	
6,600.00	5,719.87	6,065.55	5,597.52	50.92	45.16	144.85	295.37	1,250.07	2,460.25	2,385.60	74.65	32.956	
6,700.00	5,798.31	6,157.88	5,688.91	52.00	45.51	146.09	288.29	1,239.11	2,518.88	2,443.83	75.05	33.562	
6,800.00	5,876.75	6,284.03	5,814.24	53.09	45.93	147.62	281.39	1,226.54	2,576.75	2,501.11	75.64	34.068	
6,900.00	5,955.18	6,393.38	5,923.16	54.17	46.25	148.82	277.62	1,217.59	2,633.96	2,557.83	76.13	34.599	
7,000.00	6,033.62	6,480.52	6,010.11	55.25	46.48	149.68	275.79	1,212.22	2,690.89	2,614.37	76.52	35.166	
7,100.00	6,112.06	6,575.24	6,104.72	56.34	46.70	150.54	274.58	1,208.00	2,747.79	2,670.84	76.96	35.706	
7,200.00	6,190.50	6,660.44	6,189.89	57.43	46.88	151.25	274.12	1,205.26	2,804.60	2,727.24	77.36	36.256	
7,300.00	6,268.93	6,737.92	6,267.34	58.51	47.04	151.86	273.89	1,203.21	2,861.56	2,783.83	77.73	36.816	
7,400.00	6,347.37	6,813.97	6,343.37	59.60	47.19	152.43	273.70	1,201.67	2,918.79	2,840.69	78.10	37.374	
7,500.00	6,425.81	6,899.93	6,429.32	60.68	47.36	153.04	273.55	1,200.20	2,976.22	2,897.69	78.53	37.901	
7,600.00	6,504.25	6,983.66	6,513.03	61.77	47.52	153.61	273.74	1,198.95	3,033.56	2,954.61	78.95	38.424	
7,700.00	6,582.68	7,058.84	6,588.21	62.86	47.66	154.10	273.95	1,198.17	3,091.10	3,011.76	79.34	38.960	
7,800.00	6,661.12	7,133.32	6,662.69	63.95	47.80	154.56	274.06	1,197.61	3,148.92	3,069.19	79.73	39.493	
7,888.30	6,730.38	7,203.28	6,732.65	64.91	47.94	154.98	274.17	1,197.21	3,200.13	3,120.03	80.11	39.948	
7,900.00	6,739.57	7,212.84	6,742.21	65.03	47.95	157.31	274.18	1,197.16	3,206.95	3,126.79	80.16	40.007	
7,950.00	6,779.07	7,253.97	6,783.34	65.56	48.03	167.48	274.26	1,196.88	3,236.54	3,156.15	80.40	40.256	
8,000.00	6,818.72	7,295.17	6,824.54	66.07	48.11	177.81	274.34	1,196.50	3,266.71	3,186.05	80.66	40.502	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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
500.00	500.00	1,693.00	1,640.06	1.58	8.61	102.55	-663.14	2,977.81	3,264.23	3,255.82	8.41	388.161	
600.00	600.00	1,763.98	1,705.23	1.94	9.17	102.81	-671.08	2,950.84	3,228.97	3,219.87	9.09	355.047	
700.00	700.00	1,876.85	1,808.98	2.29	10.06	103.23	-683.60	2,908.18	3,194.01	3,184.00	10.01	319.100	
800.00	800.00	2,021.46	1,941.40	2.65	11.23	103.75	-697.91	2,851.86	3,157.75	3,146.65	11.09	284.662	
900.00	900.00	2,104.42	2,017.29	3.01	11.90	104.04	-705.19	2,819.15	3,120.99	3,109.12	11.87	262.888	
1,000.00	1,000.00	2,180.77	2,087.39	3.37	12.52	104.31	-711.36	2,789.53	3,084.81	3,072.18	12.62	244.354	
1,100.00	1,100.00	2,285.36	2,183.46	3.73	13.37	104.68	-720.05	2,749.13	3,048.94	3,035.42	13.52	225.557	
1,200.00	1,200.00	2,433.68	2,319.32	4.09	14.60	105.18	-729.94	2,690.45	3,011.92	2,997.31	14.62	206.074	
1,250.00	1,250.00	2,506.43	2,385.42	4.27	15.21	105.45	-735.45	2,660.57	2,992.80	2,977.63	15.17	197.334	
1,300.00	1,300.00	2,547.42	2,422.63	4.44	15.57	92.74	-738.54	2,643.64	2,973.59	2,958.02	15.57	190.962	
1,400.00	1,399.93	2,607.00	2,476.76	4.80	16.08	93.83	-742.93	2,619.15	2,935.66	2,919.38	16.28	180.300	
1,500.00	1,499.68	2,667.00	2,531.68	5.16	16.58	94.94	-747.76	2,595.49	2,899.57	2,882.56	17.01	170.487	
1,600.00	1,599.13	2,696.85	2,559.16	5.52	16.82	95.86	-750.34	2,584.12	2,865.20	2,847.59	17.61	162.747	
1,700.00	1,698.15	2,756.00	2,613.85	5.89	17.29	96.97	-755.81	2,562.26	2,832.91	2,814.55	18.36	154.266	
1,800.00	1,796.63	2,895.13	2,742.06	6.27	18.41	98.80	-770.37	2,510.22	2,801.71	2,782.15	19.56	143.234	
1,900.00	1,894.44	2,992.99	2,831.24	6.67	19.24	100.40	-781.27	2,471.45	2,769.37	2,748.77	20.61	134.384	
2,000.00	1,991.46	3,061.43	2,893.75	7.09	19.81	101.74	-788.88	2,444.62	2,738.74	2,717.19	21.55	127.102	
2,100.00	2,087.58	3,129.76	2,956.35	7.53	20.38	103.08	-796.28	2,418.28	2,710.04	2,687.51	22.53	120.282	
2,200.00	2,182.68	3,198.00	3,019.02	8.01	20.94	104.42	-803.63	2,392.28	2,683.41	2,659.85	23.56	113.882	
2,300.00	2,276.65	3,272.75	3,087.84	8.52	21.55	105.84	-811.43	2,364.15	2,658.96	2,634.28	24.68	107.736	
2,400.00	2,369.36	3,337.36	3,147.55	9.07	22.06	107.11	-817.57	2,340.27	2,636.90	2,611.11	25.79	102.237	
2,500.00	2,460.71	3,410.31	3,215.43	9.67	22.62	108.46	-823.30	2,314.17	2,617.55	2,590.56	26.99	96.992	
2,600.00	2,550.59	3,487.56	3,287.63	10.31	23.21	109.84	-827.74	2,287.04	2,600.50	2,572.26	28.24	92.074	
2,700.00	2,638.88	3,554.00	3,349.80	10.99	23.70	111.06	-831.96	2,264.02	2,586.59	2,557.09	29.51	87.657	
2,800.00	2,725.48	3,614.56	3,406.52	11.73	24.15	112.17	-836.09	2,243.19	2,575.88	2,545.08	30.81	83.616	
2,900.00	2,810.28	3,827.44	3,604.64	12.51	25.78	115.64	-846.69	2,166.13	2,566.88	2,534.05	32.83	78.181	
3,000.00	2,893.18	3,883.29	3,656.23	13.34	26.23	116.67	-848.42	2,144.81	2,558.89	2,524.66	34.23	74.761	
3,100.00	2,974.07	3,988.46	3,753.10	14.22	27.09	118.50	-852.34	2,104.04	2,554.47	2,518.58	35.89	71.173	
3,166.85	3,026.99	4,039.53	3,799.73	14.84	27.52	119.41	-854.61	2,083.36	2,553.09	2,516.13	36.96	69.076	
3,200.00	3,052.99	4,063.54	3,821.61	15.15	27.73	119.83	-855.75	2,073.54	2,552.94	2,515.45	37.49	68.096	
3,204.54	3,056.55	4,066.81	3,824.59	15.20	27.75	119.89	-855.90	2,072.20	2,552.94	2,515.38	37.56	67.964 CC, ES	
3,300.00	3,131.43	4,081.00	3,837.51	16.11	27.87	120.13	-856.59	2,066.37	2,554.43	2,515.59	38.83	65.781	
3,400.00	3,209.87	4,127.71	3,880.26	17.08	28.26	120.95	-859.04	2,047.70	2,558.76	2,518.46	40.30	63.493	
3,500.00	3,288.30	4,171.00	3,920.29	18.07	28.61	121.70	-861.58	2,031.43	2,566.63	2,524.90	41.74	61.495	
3,600.00	3,366.74	4,189.24	3,937.24	19.07	28.75	122.01	-862.74	2,024.78	2,577.41	2,534.40	43.02	59.915	
3,700.00	3,445.18	4,233.49	3,978.34	20.08	29.10	122.77	-865.84	2,008.72	2,591.11	2,546.70	44.40	58.353	
3,800.00	3,523.62	4,315.87	4,054.57	21.10	29.76	124.19	-872.65	1,978.22	2,607.29	2,561.29	46.00	56.685	
3,900.00	3,602.05	4,391.94	4,124.02	22.12	30.40	125.53	-879.86	1,948.06	2,624.96	2,577.40	47.55	55.199	
4,000.00	3,680.49	4,448.78	4,175.84	23.15	30.89	126.53	-885.34	1,925.33	2,644.87	2,595.90	48.97	54.005	
4,100.00	3,758.93	4,495.81	4,218.70	24.19	31.29	127.35	-890.06	1,906.57	2,667.26	2,616.96	50.30	53.029	
4,200.00	3,837.37	4,542.78	4,261.51	25.23	31.69	128.17	-895.03	1,887.89	2,692.14	2,640.55	51.58	52.190	
4,300.00	3,915.80	4,589.69	4,304.25	26.28	32.09	128.99	-900.23	1,869.26	2,719.44	2,666.61	52.83	51.476	
4,400.00	3,994.24	4,642.97	4,352.82	27.33	32.54	129.91	-906.31	1,848.22	2,749.07	2,694.99	54.07	50.840	
4,500.00	4,072.68	4,701.00	4,406.00	28.38	33.03	130.89	-912.55	1,825.86	2,780.73	2,725.43	55.31	50.278	
4,600.00	4,151.12	4,752.51	4,453.35	29.44	33.45	131.75	-917.98	1,806.30	2,814.42	2,757.98	56.45	49.859	
4,700.00	4,229.55	4,809.32	4,505.57	30.50	33.92	132.69	-924.18	1,784.81	2,850.17	2,792.58	57.58	49.496	
4,800.00	4,307.99	4,909.45	4,597.72	31.56	34.74	134.32	-934.28	1,746.99	2,887.31	2,828.32	58.99	48.947	
4,900.00	4,386.43	5,052.00	4,727.18	32.63	35.98	136.64	-947.20	1,688.75	2,924.40	2,863.72	60.68	48.193	
5,000.00	4,464.87	5,104.90	4,775.05	33.69	36.45	137.48	-951.35	1,666.63	2,962.54	2,900.83	61.72	48.002	
5,100.00	4,543.31	5,142.00	4,808.78	34.76	36.78	138.07	-954.53	1,651.51	3,002.95	2,940.34	62.61	47.966	
5,200.00	4,621.74	5,209.35	4,870.11	35.83	37.36	139.12	-960.38	1,624.31	3,045.09	2,981.42	63.67	47.827 SF	
5,300.00	4,700.18	5,253.43	4,910.23	36.90	37.74	139.80	-964.19	1,606.44	3,088.67	3,024.14	64.53	47.860	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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	
5,400.00	4,778.62	5,286.61	4,940.33	37.97	38.03	140.31	-967.42	1,592.87	3,134.17	3,068.89	65.29	48.007	
5,500.00	4,857.06	5,320.60	4,971.08	39.05	38.33	140.83	-971.10	1,578.85	3,181.56	3,115.55	66.00	48.202	
5,600.00	4,935.49	5,384.27	5,028.58	40.12	38.90	141.80	-978.21	1,552.44	3,230.45	3,163.52	66.94	48.261	
5,700.00	5,013.93	5,434.82	5,074.26	41.20	39.35	142.56	-983.82	1,531.54	3,280.61	3,212.88	67.73	48.436	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 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)			
700.00	700.00	1,851.26	1,750.59	2.29	11.28	106.86	-896.35	2,957.24	3,270.96	3,258.86	12.09	270.447	
800.00	800.00	1,922.64	1,813.46	2.65	11.95	107.35	-914.88	2,928.98	3,238.54	3,225.54	13.00	249.051	
900.00	900.00	1,986.23	1,869.63	3.01	12.54	107.78	-931.44	2,904.19	3,207.06	3,193.19	13.87	231.183	
1,000.00	1,000.00	2,040.00	1,917.09	3.37	13.03	108.16	-946.02	2,883.55	3,176.75	3,162.06	14.68	216.361	
1,100.00	1,100.00	2,098.73	1,969.07	3.73	13.57	108.59	-962.21	2,861.53	3,147.73	3,132.19	15.54	202.554	
1,200.00	1,200.00	2,151.00	2,015.62	4.09	14.04	108.96	-976.53	2,842.54	3,120.14	3,103.78	16.35	190.783	
1,250.00	1,250.00	2,176.01	2,037.98	4.27	14.27	109.14	-983.40	2,833.68	3,106.91	3,090.16	16.75	185.447	
1,300.00	1,300.00	2,218.00	2,075.61	4.44	14.64	96.42	-995.01	2,819.14	3,094.20	3,076.92	17.28	179.049	
1,400.00	1,399.93	2,268.86	2,121.24	4.80	15.09	97.33	-1,009.32	2,801.79	3,069.84	3,051.74	18.10	169.609	
1,500.00	1,499.68	2,335.72	2,181.05	5.16	15.67	98.38	-1,028.70	2,779.07	3,047.00	3,027.94	19.06	159.904	
1,600.00	1,599.13	2,398.00	2,236.77	5.52	16.22	99.39	-1,047.27	2,758.35	3,026.11	3,006.11	20.00	151.332	
1,700.00	1,698.15	2,461.30	2,293.37	5.89	16.78	100.42	-1,066.61	2,737.62	3,007.21	2,986.23	20.97	143.402	
1,800.00	1,796.63	2,577.62	2,396.97	6.27	17.82	102.05	-1,102.82	2,699.08	2,989.82	2,967.41	22.41	133.438	
1,900.00	1,894.44	2,662.00	2,471.71	6.67	18.59	103.37	-1,129.15	2,670.08	2,973.22	2,949.60	23.63	125.833	
2,000.00	1,991.46	2,720.47	2,523.62	7.09	19.11	104.36	-1,147.25	2,650.16	2,958.92	2,934.26	24.66	119.983	
2,100.00	2,087.58	2,769.00	2,567.03	7.53	19.54	105.19	-1,162.03	2,634.29	2,947.62	2,921.98	25.64	114.960	
2,200.00	2,182.68	2,819.63	2,612.40	8.01	19.99	106.02	-1,177.62	2,618.10	2,939.31	2,912.65	26.67	110.230	
2,300.00	2,276.65	2,907.09	2,690.60	8.52	20.76	107.33	-1,205.10	2,590.19	2,933.83	2,905.79	28.04	104.618	
2,400.00	2,369.36	2,971.94	2,748.19	9.07	21.34	108.32	-1,225.95	2,568.87	2,930.71	2,901.43	29.28	100.083	
2,445.43	2,411.04	2,995.90	2,769.39	9.34	21.56	108.68	-1,233.83	2,560.99	2,930.37	2,900.55	29.82	98.280 CC	
2,500.00	2,460.71	3,026.54	2,796.46	9.67	21.84	109.13	-1,244.05	2,550.91	2,930.87	2,900.40	30.48	96.172 ES	
2,600.00	2,550.59	3,095.64	2,857.47	10.31	22.47	110.13	-1,267.12	2,528.09	2,934.23	2,902.39	31.84	92.164	
2,700.00	2,638.88	3,159.41	2,913.79	10.99	23.05	111.01	-1,288.28	2,506.95	2,940.81	2,907.63	33.18	88.627	
2,800.00	2,725.48	3,295.70	3,034.23	11.73	24.31	113.02	-1,332.26	2,460.78	2,950.49	2,915.29	35.20	83.820	
2,900.00	2,810.28	3,336.29	3,070.10	12.51	24.69	113.45	-1,345.02	2,446.68	2,962.85	2,926.45	36.39	81.414	
3,000.00	2,893.18	3,396.78	3,123.53	13.34	25.25	114.16	-1,364.04	2,425.65	2,978.98	2,941.20	37.78	78.860	
3,100.00	2,974.07	3,481.92	3,199.01	14.22	26.03	115.24	-1,389.75	2,395.82	2,998.37	2,958.99	39.38	76.135	
3,166.85	3,026.99	3,520.13	3,232.99	14.84	26.38	115.61	-1,400.97	2,382.39	3,013.30	2,973.01	40.29	74.787	
3,200.00	3,052.99	3,538.86	3,249.65	15.15	26.55	115.93	-1,406.42	2,375.81	3,021.24	2,980.50	40.74	74.159	
3,300.00	3,131.43	3,632.69	3,333.04	16.11	27.41	117.53	-1,433.30	2,342.25	3,046.41	3,004.01	42.40	71.851	
3,400.00	3,209.87	3,686.44	3,380.69	17.08	27.91	118.44	-1,448.48	2,322.55	3,073.45	3,029.75	43.70	70.337	
3,500.00	3,288.30	3,722.00	3,412.19	18.07	28.24	119.04	-1,458.52	2,309.45	3,102.71	3,057.90	44.81	69.241	
3,600.00	3,366.74	3,764.19	3,449.53	19.07	28.63	119.75	-1,470.57	2,293.94	3,134.30	3,088.34	45.95	68.207	
3,700.00	3,445.18	3,795.64	3,477.34	20.08	28.92	120.28	-1,479.71	2,282.45	3,168.28	3,121.31	46.97	67.455	
3,800.00	3,523.62	3,847.62	3,523.15	21.10	29.42	121.15	-1,495.13	2,263.33	3,204.50	3,156.35	48.14	66.562	
3,900.00	3,602.05	3,915.04	3,581.78	22.12	30.07	122.29	-1,515.72	2,237.19	3,242.48	3,193.06	49.42	65.607 SF	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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	-25.68	2,853.58	-1,372.03	3,166.29				
100.00	100.00	106.00	106.00	0.14	1.34	-25.68	2,853.58	-1,372.03	3,166.29	3,164.81	1.48	2,140.844	
200.00	200.00	206.00	206.00	0.50	3.61	-25.68	2,853.58	-1,372.03	3,166.29	3,162.17	4.11	769.556	
300.00	300.00	306.00	306.00	0.86	5.69	-25.68	2,853.58	-1,372.03	3,166.29	3,159.74	6.55	483.472	
400.00	400.00	406.00	406.00	1.22	7.73	-25.68	2,853.58	-1,372.03	3,166.29	3,157.34	8.95	353.817	
500.00	500.00	506.00	506.00	1.58	9.76	-25.68	2,853.58	-1,372.03	3,166.29	3,154.95	11.34	279.311	
600.00	600.00	606.00	606.00	1.94	11.78	-25.68	2,853.58	-1,372.03	3,166.29	3,152.57	13.72	230.827	
700.00	700.00	706.00	706.00	2.29	13.80	-25.68	2,853.58	-1,372.03	3,166.29	3,150.19	16.09	196.728	
800.00	800.00	806.00	806.00	2.65	15.82	-25.68	2,853.58	-1,372.03	3,166.29	3,147.82	18.47	171.426	
900.00	900.00	906.00	906.00	3.01	17.83	-25.68	2,853.58	-1,372.03	3,166.29	3,145.44	20.84	151.901	
1,000.00	1,000.00	1,006.00	1,006.00	3.37	19.85	-25.68	2,853.58	-1,372.03	3,166.29	3,143.07	23.22	136.374	
1,100.00	1,100.00	1,106.00	1,106.00	3.73	21.86	-25.68	2,853.58	-1,372.03	3,166.29	3,140.70	25.59	123.731	
1,200.00	1,200.00	1,206.00	1,206.00	4.09	23.88	-25.68	2,853.58	-1,372.03	3,166.29	3,138.32	27.96	113.235	
1,250.00	1,250.00	1,256.00	1,256.00	4.27	24.88	-25.68	2,853.58	-1,372.03	3,166.29	3,137.14	29.15	108.628	
1,300.00	1,300.00	1,306.00	1,306.00	4.44	25.89	-38.98	2,853.58	-1,372.03	3,165.95	3,135.61	30.33	104.371	
1,400.00	1,399.93	1,405.93	1,405.93	4.80	27.90	-39.05	2,853.58	-1,372.03	3,163.24	3,130.53	32.70	96.726	
1,500.00	1,499.68	1,505.68	1,505.68	5.16	29.91	-39.20	2,853.58	-1,372.03	3,157.82	3,122.75	35.07	90.045	
1,600.00	1,599.13	1,605.13	1,605.13	5.52	31.91	-39.42	2,853.58	-1,372.03	3,149.71	3,112.28	37.43	84.147	
1,700.00	1,698.15	1,704.15	1,704.15	5.89	33.90	-39.72	2,853.58	-1,372.03	3,138.94	3,099.16	39.79	78.893	
1,800.00	1,796.63	1,802.63	1,802.63	6.27	35.88	-40.10	2,853.58	-1,372.03	3,125.54	3,083.40	42.14	74.175	
1,900.00	1,894.44	1,900.44	1,900.44	6.67	37.85	-40.55	2,853.58	-1,372.03	3,109.54	3,065.06	44.48	69.907	
2,000.00	1,991.46	1,997.46	1,997.46	7.09	39.80	-41.09	2,853.58	-1,372.03	3,091.00	3,044.18	46.82	66.020	
2,100.00	2,087.58	2,093.58	2,093.58	7.53	41.74	-41.70	2,853.58	-1,372.03	3,069.97	3,020.82	49.15	62.459	
2,200.00	2,182.68	2,188.68	2,188.68	8.01	43.65	-42.41	2,853.58	-1,372.03	3,046.52	2,995.04	51.48	59.180	
2,300.00	2,276.65	2,282.65	2,282.65	8.52	45.54	-43.20	2,853.58	-1,372.03	3,020.72	2,966.91	53.80	56.145	
2,400.00	2,369.36	2,375.36	2,375.36	9.07	47.40	-44.08	2,853.58	-1,372.03	2,992.65	2,936.53	56.12	53.324	
2,500.00	2,460.71	2,466.71	2,466.71	9.67	49.24	-45.05	2,853.58	-1,372.03	2,962.41	2,903.97	58.44	50.692	
2,600.00	2,550.59	2,556.59	2,556.59	10.31	51.05	-46.11	2,853.58	-1,372.03	2,930.10	2,869.35	60.76	48.227	
2,700.00	2,638.88	2,644.88	2,644.88	10.99	52.83	-47.28	2,853.58	-1,372.03	2,895.84	2,832.77	63.07	45.912	
2,800.00	2,725.48	2,731.48	2,731.48	11.73	54.57	-48.54	2,853.58	-1,372.03	2,859.74	2,794.35	65.39	43.732	
2,900.00	2,810.28	2,816.28	2,816.28	12.51	56.27	-49.90	2,853.58	-1,372.03	2,821.95	2,754.24	67.71	41.674	
3,000.00	2,893.18	2,899.18	2,899.18	13.34	57.94	-51.35	2,853.58	-1,372.03	2,782.61	2,712.57	70.04	39.727	
3,100.00	2,974.07	2,980.07	2,980.07	14.22	59.57	-52.91	2,853.58	-1,372.03	2,741.88	2,669.50	72.38	37.883	
3,166.85	3,026.99	3,032.99	3,032.99	14.84	60.63	-54.00	2,853.58	-1,372.03	2,713.96	2,640.01	73.94	36.703	
3,200.00	3,052.99	3,058.99	3,058.99	15.15	61.15	-54.31	2,853.58	-1,372.03	2,700.03	2,625.30	74.72	36.134	
3,300.00	3,131.43	3,137.43	3,137.43	16.11	62.73	-55.24	2,853.58	-1,372.03	2,658.53	2,581.43	77.10	34.483	
3,400.00	3,209.87	3,215.87	3,215.87	17.08	64.31	-56.20	2,853.58	-1,372.03	2,617.84	2,538.33	79.51	32.926	
3,500.00	3,288.30	3,294.30	3,294.30	18.07	65.89	-57.18	2,853.58	-1,372.03	2,578.00	2,496.05	81.95	31.458	
3,600.00	3,366.74	3,372.74	3,372.74	19.07	67.47	-58.18	2,853.58	-1,372.03	2,539.06	2,454.63	84.43	30.073	
3,700.00	3,445.18	3,451.18	3,451.18	20.08	69.04	-59.20	2,853.58	-1,372.03	2,501.04	2,414.11	86.94	28.768	
3,800.00	3,523.62	3,529.62	3,529.62	21.10	70.62	-60.24	2,853.58	-1,372.03	2,464.01	2,374.53	89.48	27.537	
3,900.00	3,602.05	3,608.05	3,608.05	22.12	72.20	-61.31	2,853.58	-1,372.03	2,427.99	2,335.94	92.05	26.376	
4,000.00	3,680.49	3,686.49	3,686.49	23.15	73.78	-62.40	2,853.58	-1,372.03	2,393.03	2,298.38	94.65	25.282	
4,100.00	3,758.93	3,764.93	3,764.93	24.19	75.35	-63.51	2,853.58	-1,372.03	2,359.20	2,261.91	97.28	24.251	
4,200.00	3,837.37	3,843.37	3,843.37	25.23	76.93	-64.64	2,853.58	-1,372.03	2,326.52	2,226.58	99.94	23.280	
4,300.00	3,915.80	3,921.80	3,921.80	26.28	78.51	-65.79	2,853.58	-1,372.03	2,295.05	2,192.44	102.61	22.366	
4,400.00	3,994.24	4,000.24	4,000.24	27.33	80.09	-66.97	2,853.58	-1,372.03	2,264.85	2,159.53	105.32	21.505	
4,500.00	4,072.68	4,078.68	4,078.68	28.38	81.66	-68.17	2,853.58	-1,372.03	2,235.96	2,127.91	108.04	20.695	
4,600.00	4,151.12	4,157.12	4,157.12	29.44	83.24	-69.38	2,853.58	-1,372.03	2,208.43	2,097.64	110.79	19.934	
4,700.00	4,229.55	4,235.55	4,235.55	30.50	84.82	-70.62	2,853.58	-1,372.03	2,182.32	2,068.77	113.55	19.219	
4,800.00	4,307.99	4,313.99	4,313.99	31.56	86.40	-71.87	2,853.58	-1,372.03	2,157.68	2,041.35	116.33	18.548	
4,900.00	4,386.43	4,392.43	4,392.43	32.63	87.97	-73.15	2,853.58	-1,372.03	2,134.55	2,015.44	119.12	17.920	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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								Rule Assigned:				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				
5,000.00	4,464.87	4,470.87	4,470.87	33.69	89.55	-74.44	2,853.58	-1,372.03	2,113.00	1,991.08	121.92	17.331					
5,100.00	4,543.31	4,549.31	4,549.31	34.76	91.13	-75.74	2,853.58	-1,372.03	2,093.06	1,968.34	124.72	16.781					
5,200.00	4,621.74	4,627.74	4,627.74	35.83	92.71	-77.07	2,853.58	-1,372.03	2,074.79	1,947.25	127.54	16.268					
5,300.00	4,700.18	4,706.18	4,706.18	36.90	94.28	-78.40	2,853.58	-1,372.03	2,058.22	1,927.87	130.35	15.790					
5,400.00	4,778.62	4,784.62	4,784.62	37.97	95.86	-79.75	2,853.58	-1,372.03	2,043.40	1,910.25	133.15	15.346					
5,500.00	4,857.06	4,863.06	4,863.06	39.05	97.44	-81.11	2,853.58	-1,372.03	2,030.37	1,894.42	135.96	14.934					
5,600.00	4,935.49	4,941.49	4,941.49	40.12	99.01	-82.49	2,853.58	-1,372.03	2,019.16	1,880.42	138.75	14.553					
5,700.00	5,013.93	5,019.93	5,019.93	41.20	100.59	-83.87	2,853.58	-1,372.03	2,009.81	1,868.29	141.52	14.201					
5,800.00	5,092.37	5,098.37	5,098.37	42.27	102.17	-85.25	2,853.58	-1,372.03	2,002.33	1,858.05	144.28	13.878					
5,900.00	5,170.81	5,176.81	5,176.81	43.35	103.75	-86.65	2,853.58	-1,372.03	1,996.76	1,849.74	147.02	13.582					
6,000.00	5,249.24	5,255.24	5,255.24	44.43	105.32	-88.04	2,853.58	-1,372.03	1,993.09	1,843.37	149.73	13.311					
6,100.00	5,327.68	5,333.68	5,333.68	45.51	106.90	-89.44	2,853.58	-1,372.03	1,991.36	1,838.95	152.41	13.066					
6,139.81	5,358.91	5,364.91	5,364.91	45.94	107.53	-90.00	2,853.58	-1,372.03	1,991.21	1,837.74	153.47	12.975					
6,200.00	5,406.12	5,412.12	5,412.12	46.59	108.48	-90.84	2,853.58	-1,372.03	1,991.56	1,836.49	155.06	12.844					
6,300.00	5,484.56	5,490.56	5,490.56	47.67	110.06	-92.24	2,853.58	-1,372.03	1,993.68	1,836.00	157.68	12.644					
6,400.00	5,562.99	5,568.99	5,568.99	48.75	111.63	-93.64	2,853.58	-1,372.03	1,997.74	1,837.47	160.26	12.465					
6,500.00	5,641.43	5,647.43	5,647.43	49.84	113.21	-95.03	2,853.58	-1,372.03	2,003.70	1,840.90	162.81	12.307					
6,600.00	5,719.87	5,725.87	5,725.87	50.92	114.79	-96.42	2,853.58	-1,372.03	2,011.56	1,846.25	165.31	12.168					
6,700.00	5,798.31	5,804.31	5,804.31	52.00	116.37	-97.79	2,853.58	-1,372.03	2,021.30	1,853.53	167.77	12.048					
6,800.00	5,876.75	5,882.75	5,882.75	53.09	117.94	-99.16	2,853.58	-1,372.03	2,032.88	1,862.69	170.19	11.944					
6,900.00	5,955.18	5,961.18	5,961.18	54.17	119.52	-100.52	2,853.58	-1,372.03	2,046.28	1,873.70	172.57	11.857					
7,000.00	6,033.62	6,039.62	6,039.62	55.25	121.10	-101.87	2,853.58	-1,372.03	2,061.45	1,886.54	174.91	11.786					
7,100.00	6,112.06	6,118.06	6,118.06	56.34	122.68	-103.20	2,853.58	-1,372.03	2,078.37	1,901.17	177.21	11.729					
7,200.00	6,190.50	6,196.50	6,196.50	57.43	124.25	-104.52	2,853.58	-1,372.03	2,096.99	1,917.53	179.46	11.685					
7,300.00	6,268.93	6,274.93	6,274.93	58.51	125.83	-105.83	2,853.58	-1,372.03	2,117.26	1,935.58	181.68	11.654					
7,400.00	6,347.37	6,353.37	6,353.37	59.60	127.41	-107.11	2,853.58	-1,372.03	2,139.14	1,955.29	183.85	11.635					
7,500.00	6,425.81	6,431.81	6,431.81	60.68	128.99	-108.38	2,853.58	-1,372.03	2,162.58	1,976.58	185.99	11.627					
7,600.00	6,504.25	6,510.25	6,510.25	61.77	130.56	-109.64	2,853.58	-1,372.03	2,187.52	1,999.42	188.10	11.630					
7,700.00	6,582.68	6,588.68	6,588.68	62.86	132.14	-110.87	2,853.58	-1,372.03	2,213.93	2,023.76	190.17	11.642					
7,800.00	6,661.12	6,667.12	6,667.12	63.95	133.72	-112.08	2,853.58	-1,372.03	2,241.73	2,049.53	192.21	11.663					
7,888.30	6,730.38	6,736.38	6,736.38	64.91	135.11	-113.13	2,853.58	-1,372.03	2,267.42	2,073.43	193.98	11.689					
7,900.00	6,739.57	6,745.57	6,745.57	65.03	135.30	-111.74	2,853.58	-1,372.03	2,270.79	2,076.57	194.22	11.692					
7,950.00	6,779.07	6,785.07	6,785.07	65.56	136.09	-105.66	2,853.58	-1,372.03	2,282.85	2,087.64	195.22	11.694					
8,000.00	6,818.72	6,824.72	6,824.72	66.07	136.89	-99.57	2,853.58	-1,372.03	2,291.12	2,094.91	196.21	11.677					
8,050.00	6,858.20	6,864.20	6,864.20	66.56	137.68	-93.69	2,853.58	-1,372.03	2,295.56	2,098.38	197.18	11.642					
8,100.00	6,897.22	6,903.22	6,903.22	67.02	138.47	-88.20	2,853.58	-1,372.03	2,296.17	2,098.05	198.13	11.589					
8,150.00	6,935.48	6,941.48	6,941.48	67.44	139.24	-83.27	2,853.58	-1,372.03	2,293.00	2,093.96	199.04	11.520					
8,200.00	6,972.69	6,978.69	6,978.69	67.84	139.98	-78.99	2,853.58	-1,372.03	2,286.08	2,086.17	199.91	11.436					
8,250.00	7,008.57	7,014.57	7,014.57	68.20	140.71	-75.40	2,853.58	-1,372.03	2,275.51	2,074.77	200.74	11.336					
8,300.00	7,042.85	7,048.85	7,048.85	68.52	141.39	-72.52	2,853.58	-1,372.03	2,261.38	2,059.86	201.51	11.222					
8,350.00	7,075.25	7,081.25	7,081.25	68.81	142.05	-70.34	2,853.58	-1,372.03	2,243.80	2,041.57	202.23	11.095					
8,400.00	7,105.55	7,111.55	7,111.55	69.07	142.66	-68.82	2,853.58	-1,372.03	2,222.93	2,020.04	202.89	10.956					
8,450.00	7,133.50	7,139.50	7,139.50	69.29	143.22	-67.97	2,853.58	-1,372.03	2,198.91	1,995.42	203.49	10.806					
8,500.00	7,158.89	7,164.89	7,164.89	69.48	143.73	-67.75	2,853.58	-1,372.03	2,171.93	1,967.91	204.02	10.646					
8,550.00	7,181.54	7,187.54	7,187.54	69.63	144.18	-68.19	2,853.58	-1,372.03	2,142.18	1,937.69	204.48	10.476					
8,600.00	7,201.26	7,207.26	7,207.26	69.75	144.58	-69.30	2,853.58	-1,372.03	2,109.86	1,904.97	204.88	10.298					
8,650.00	7,217.91	7,223.91	7,223.91	69.84	144.92	-71.12	2,853.58	-1,372.03	2,075.19	1,869.97	205.21	10.112					
8,700.00	7,231.36	7,237.36	7,237.36	69.90	145.19	-73.71	2,853.58	-1,372.03	2,038.40	1,832.92	205.48	9.920					
8,750.00	7,241.51	7,247.51	7,247.51	69.92	145.39	-77.17	2,853.58	-1,372.03	1,999.72	1,794.05	205.67	9.723					
8,800.00	7,248.28	7,254.28	7,254.28	69.92	145.53	-81.58	2,853.58	-1,372.03	1,959.40	1,753.61	205.79	9.521					
8,850.00	7,251.62	7,257.62	7,257.62	69.89	145.59	-87.05	2,853.58	-1,372.03	1,917.68	1,711.84	205.85	9.316					
8,873.35	7,252.00	7,258.00	7,258.00	69.87	145.60	-90.00	2,853.58	-1,372.03	1,897.80	1,691.95	205.85	9.219					

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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						Rule Assigned:				Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Reference Depth (usft)	Measured Depth (usft)	Vertical Offset 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
8,900.00	7,252.00	7,258.00	7,258.00	69.84	145.60	-90.00	2,853.58	-1,372.03	1,875.02	1,669.18	205.84	9.109	
9,000.00	7,252.00	7,258.00	7,258.00	69.75	145.60	-90.00	2,853.58	-1,372.03	1,790.50	1,584.68	205.82	8.699	
9,100.00	7,252.00	7,258.00	7,258.00	69.69	145.60	-90.00	2,853.58	-1,372.03	1,707.65	1,501.85	205.80	8.298	
9,200.00	7,252.00	7,258.00	7,258.00	69.66	145.60	-90.00	2,853.58	-1,372.03	1,626.73	1,420.94	205.79	7.905	
9,300.00	7,252.00	7,258.00	7,258.00	69.67	145.60	-90.00	2,853.58	-1,372.03	1,548.04	1,342.25	205.79	7.522	
9,400.00	7,252.00	7,258.00	7,258.00	69.71	145.60	-90.00	2,853.58	-1,372.03	1,471.95	1,266.14	205.81	7.152	
9,500.00	7,252.00	7,258.00	7,258.00	69.80	145.60	-90.00	2,853.58	-1,372.03	1,398.86	1,193.01	205.85	6.796	
9,600.00	7,252.00	7,258.00	7,258.00	69.93	145.60	-90.00	2,853.58	-1,372.03	1,329.29	1,123.38	205.91	6.456	
9,700.00	7,252.00	7,258.00	7,258.00	70.12	145.60	-90.00	2,853.58	-1,372.03	1,263.80	1,057.80	206.00	6.135	
9,800.00	7,252.00	7,258.00	7,258.00	70.37	145.60	-90.00	2,853.58	-1,372.03	1,203.07	996.93	206.14	5.836	
9,900.00	7,252.00	7,258.00	7,258.00	70.70	145.60	-90.00	2,853.58	-1,372.03	1,147.85	941.53	206.32	5.564	
10,000.00	7,252.00	7,258.00	7,258.00	71.11	145.60	-90.00	2,853.58	-1,372.03	1,098.98	892.43	206.55	5.321	
10,100.00	7,252.00	7,258.00	7,258.00	71.62	145.60	-90.00	2,853.58	-1,372.03	1,057.32	850.49	206.83	5.112	
10,200.00	7,252.00	7,258.00	7,258.00	72.25	145.60	-90.00	2,853.58	-1,372.03	1,023.78	816.61	207.17	4.942	
10,300.00	7,252.00	7,258.00	7,258.00	73.01	145.60	-90.00	2,853.58	-1,372.03	999.15	791.61	207.55	4.814	
10,400.00	7,252.00	7,258.00	7,258.00	73.92	145.60	-90.00	2,853.58	-1,372.03	984.12	776.17	207.95	4.732	
10,499.06	7,252.00	7,258.00	7,258.00	74.97	145.60	-90.00	2,853.58	-1,372.03	979.12	770.77	208.35	4.699	CC
10,500.00	7,252.00	7,258.00	7,258.00	74.98	145.60	-90.00	2,853.58	-1,372.03	979.12	770.77	208.36	4.699	ES, SF
10,600.00	7,252.00	7,258.00	7,258.00	76.20	145.60	-90.00	2,853.58	-1,372.03	984.31	775.57	208.74	4.715	
10,700.00	7,252.00	7,258.00	7,258.00	77.58	145.60	-90.00	2,853.58	-1,372.03	999.53	790.45	209.08	4.781	
10,800.00	7,252.00	7,258.00	7,258.00	79.11	145.60	-90.00	2,853.58	-1,372.03	1,024.33	814.97	209.36	4.893	
10,900.00	7,252.00	7,258.00	7,258.00	80.77	145.60	-90.00	2,853.58	-1,372.03	1,058.03	848.46	209.57	5.048	
11,000.00	7,252.00	7,258.00	7,258.00	82.55	145.60	-90.00	2,853.58	-1,372.03	1,099.83	890.10	209.73	5.244	
11,100.00	7,252.00	7,258.00	7,258.00	84.43	145.60	-90.00	2,853.58	-1,372.03	1,148.83	939.00	209.82	5.475	
11,200.00	7,252.00	7,258.00	7,258.00	86.40	145.60	-90.00	2,853.58	-1,372.03	1,204.16	994.28	209.87	5.738	
11,300.00	7,252.00	7,258.00	7,258.00	88.45	145.60	-90.00	2,853.58	-1,372.03	1,264.98	1,055.10	209.88	6.027	
11,400.00	7,252.00	7,258.00	7,258.00	90.56	145.60	-90.00	2,853.58	-1,372.03	1,330.55	1,120.68	209.87	6.340	
11,500.00	7,252.00	7,258.00	7,258.00	92.73	145.60	-90.00	2,853.58	-1,372.03	1,400.20	1,190.36	209.83	6.673	
11,600.00	7,252.00	7,258.00	7,258.00	94.95	145.60	-90.00	2,853.58	-1,372.03	1,473.34	1,263.56	209.79	7.023	
11,700.00	7,252.00	7,258.00	7,258.00	97.21	145.60	-90.00	2,853.58	-1,372.03	1,549.49	1,339.76	209.73	7.388	
11,800.00	7,252.00	7,258.00	7,258.00	99.51	145.60	-90.00	2,853.58	-1,372.03	1,628.22	1,418.56	209.67	7.766	
11,900.00	7,252.00	7,258.00	7,258.00	101.83	145.60	-90.00	2,853.58	-1,372.03	1,709.18	1,499.58	209.61	8.154	
12,000.00	7,252.00	7,258.00	7,258.00	104.19	145.60	-90.00	2,853.58	-1,372.03	1,792.06	1,582.52	209.54	8.552	
12,100.00	7,252.00	7,258.00	7,258.00	106.57	145.60	-90.00	2,853.58	-1,372.03	1,876.61	1,667.13	209.48	8.958	
12,200.00	7,252.00	7,258.00	7,258.00	108.97	145.60	-90.00	2,853.58	-1,372.03	1,962.62	1,753.19	209.42	9.371	
12,300.00	7,252.00	7,258.00	7,258.00	111.39	145.60	-90.00	2,853.58	-1,372.03	2,049.89	1,840.52	209.37	9.791	
12,400.00	7,252.00	7,258.00	7,258.00	113.84	145.60	-90.00	2,853.58	-1,372.03	2,138.28	1,928.96	209.32	10.216	
12,500.00	7,252.00	7,258.00	7,258.00	116.29	145.60	-90.00	2,853.58	-1,372.03	2,227.65	2,018.38	209.27	10.645	
12,600.00	7,252.00	7,258.00	7,258.00	118.76	145.60	-90.00	2,853.58	-1,372.03	2,317.89	2,108.67	209.22	11.079	
12,700.00	7,252.00	7,258.00	7,258.00	121.25	145.60	-90.00	2,853.58	-1,372.03	2,408.90	2,199.72	209.18	11.516	
12,800.00	7,252.00	7,258.00	7,258.00	123.74	145.60	-90.00	2,853.58	-1,372.03	2,500.60	2,291.46	209.14	11.957	
12,900.00	7,252.00	7,258.00	7,258.00	126.25	145.60	-90.00	2,853.58	-1,372.03	2,592.91	2,383.81	209.10	12.400	
13,000.00	7,252.00	7,258.00	7,258.00	128.77	145.60	-90.00	2,853.58	-1,372.03	2,685.77	2,476.70	209.07	12.846	
13,100.00	7,252.00	7,258.00	7,258.00	131.30	145.60	-90.00	2,853.58	-1,372.03	2,779.13	2,570.09	209.04	13.295	
13,200.00	7,252.00	7,258.00	7,258.00	133.83	145.60	-90.00	2,853.58	-1,372.03	2,872.93	2,663.92	209.01	13.745	
13,300.00	7,252.00	7,258.00	7,258.00	136.38	145.60	-90.00	2,853.58	-1,372.03	2,967.14	2,758.15	208.99	14.198	
13,400.00	7,252.00	7,258.00	7,258.00	138.93	145.60	-90.00	2,853.58	-1,372.03	3,061.72	2,852.75	208.96	14.652	
13,500.00	7,252.00	7,258.00	7,258.00	141.49	145.60	-90.00	2,853.58	-1,372.03	3,156.63	2,947.68	208.95	15.107	
13,600.00	7,252.00	7,258.00	7,258.00	144.05	145.60	-90.00	2,853.58	-1,372.03	3,251.84	3,042.92	208.93	15.564	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 RAUSLER 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)			
8,900.00	7,252.00	7,322.00	7,322.00	69.84	146.88	90.00	6,757.04	-1,272.71	3,270.01	3,075.44	194.57	16.806	
9,000.00	7,252.00	7,322.00	7,322.00	69.75	146.88	90.00	6,757.04	-1,272.71	3,226.44	3,033.06	193.38	16.685	
9,100.00	7,252.00	7,322.00	7,322.00	69.69	146.88	90.00	6,757.04	-1,272.71	3,185.41	2,993.02	192.39	16.557	
9,200.00	7,252.00	7,322.00	7,322.00	69.66	146.88	90.00	6,757.04	-1,272.71	3,147.03	2,955.37	191.66	16.420	
9,300.00	7,252.00	7,322.00	7,322.00	69.67	146.88	90.00	6,757.04	-1,272.71	3,111.38	2,920.17	191.21	16.272	
9,400.00	7,252.00	7,322.00	7,322.00	69.71	146.88	90.00	6,757.04	-1,272.71	3,078.58	2,887.49	191.09	16.110	
9,500.00	7,252.00	7,322.00	7,322.00	69.80	146.88	90.00	6,757.04	-1,272.71	3,048.70	2,857.39	191.31	15.936	
9,600.00	7,252.00	7,322.00	7,322.00	69.93	146.88	90.00	6,757.04	-1,272.71	3,021.84	2,829.94	191.90	15.747	
9,700.00	7,252.00	7,322.00	7,322.00	70.12	146.88	90.00	6,757.04	-1,272.71	2,998.07	2,805.23	192.84	15.547	
9,800.00	7,252.00	7,322.00	7,322.00	70.37	146.88	90.00	6,757.04	-1,272.71	2,977.48	2,783.34	194.13	15.337	
9,900.00	7,252.00	7,322.00	7,322.00	70.70	146.88	90.00	6,757.04	-1,272.71	2,960.12	2,764.36	195.76	15.121	
10,000.00	7,252.00	7,322.00	7,322.00	71.11	146.88	90.00	6,757.04	-1,272.71	2,946.05	2,748.37	197.68	14.903	
10,100.00	7,252.00	7,322.00	7,322.00	71.62	146.88	90.00	6,757.04	-1,272.71	2,935.33	2,735.46	199.87	14.686	
10,200.00	7,252.00	7,322.00	7,322.00	72.25	146.88	90.00	6,757.04	-1,272.71	2,927.98	2,725.70	202.29	14.475	
10,300.00	7,252.00	7,322.00	7,322.00	73.01	146.88	90.00	6,757.04	-1,272.71	2,924.04	2,719.16	204.89	14.272	
10,365.35	7,252.00	7,322.00	7,322.00	73.59	146.88	90.00	6,757.04	-1,272.71	2,923.31	2,716.64	206.67	14.145 CC	
10,400.00	7,252.00	7,322.00	7,322.00	73.92	146.88	90.00	6,757.04	-1,272.71	2,923.52	2,715.88	207.63	14.080 ES	
10,500.00	7,252.00	7,322.00	7,322.00	74.98	146.88	90.00	6,757.04	-1,272.71	2,926.41	2,715.92	210.49	13.903	
10,600.00	7,252.00	7,322.00	7,322.00	76.20	146.88	90.00	6,757.04	-1,272.71	2,932.71	2,719.29	213.43	13.741	
10,700.00	7,252.00	7,322.00	7,322.00	77.58	146.88	90.00	6,757.04	-1,272.71	2,942.40	2,726.00	216.41	13.597	
10,800.00	7,252.00	7,322.00	7,322.00	79.11	146.88	90.00	6,757.04	-1,272.71	2,955.45	2,736.04	219.41	13.470	
10,900.00	7,252.00	7,322.00	7,322.00	80.77	146.88	90.00	6,757.04	-1,272.71	2,971.80	2,749.41	222.40	13.363	
11,000.00	7,252.00	7,322.00	7,322.00	82.55	146.88	90.00	6,757.04	-1,272.71	2,991.41	2,766.05	225.36	13.274	
11,100.00	7,252.00	7,322.00	7,322.00	84.43	146.88	90.00	6,757.04	-1,272.71	3,014.21	2,785.94	228.27	13.204	
11,200.00	7,252.00	7,322.00	7,322.00	86.40	146.88	90.00	6,757.04	-1,272.71	3,040.13	2,809.01	231.13	13.154	
11,300.00	7,252.00	7,322.00	7,322.00	88.45	146.88	90.00	6,757.04	-1,272.71	3,069.09	2,835.19	233.90	13.121	
11,400.00	7,252.00	7,322.00	7,322.00	90.56	146.88	90.00	6,757.04	-1,272.71	3,101.01	2,864.42	236.59	13.107 SF	
11,500.00	7,252.00	7,322.00	7,322.00	92.73	146.88	90.00	6,757.04	-1,272.71	3,135.79	2,896.60	239.19	13.110	
11,600.00	7,252.00	7,322.00	7,322.00	94.95	146.88	90.00	6,757.04	-1,272.71	3,173.34	2,931.66	241.68	13.130	
11,700.00	7,252.00	7,322.00	7,322.00	97.21	146.88	90.00	6,757.04	-1,272.71	3,213.57	2,969.50	244.07	13.166	
11,800.00	7,252.00	7,322.00	7,322.00	99.51	146.88	90.00	6,757.04	-1,272.71	3,256.37	3,010.02	246.36	13.218	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 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	125.52	-21.87	30.63	37.63				
100.00	100.00	100.00	100.00	0.14	0.14	125.52	-21.87	30.63	37.63	37.35	0.29	131.228	
200.00	200.00	200.00	200.00	0.50	0.50	125.52	-21.87	30.63	37.63	36.63	1.00	37.494	
300.00	300.00	300.00	300.00	0.86	0.86	125.52	-21.87	30.63	37.63	35.91	1.72	21.871	CC, ES
400.00	400.00	398.83	398.81	1.22	1.21	124.31	-22.05	32.32	39.15	36.72	2.43	16.131	
500.00	500.00	497.42	497.26	1.58	1.55	121.17	-22.62	37.39	43.78	40.65	3.13	13.985	
600.00	600.00	596.07	595.56	1.94	1.91	117.28	-23.54	45.65	51.55	47.71	3.84	13.438	
700.00	700.00	695.65	694.72	2.29	2.29	114.15	-24.55	54.76	60.24	55.69	4.55	13.250	
800.00	800.00	795.22	793.87	2.65	2.67	111.81	-25.56	63.87	69.07	63.81	5.26	13.133	
900.00	900.00	894.80	893.02	3.01	3.05	110.01	-26.58	72.98	77.98	72.01	5.97	13.055	
1,000.00	1,000.00	994.38	992.17	3.37	3.43	108.58	-27.59	82.09	86.96	80.27	6.69	13.002	
1,100.00	1,100.00	1,093.95	1,091.33	3.73	3.81	107.41	-28.61	91.20	95.98	88.57	7.40	12.962	
1,200.00	1,200.00	1,193.53	1,190.48	4.09	4.20	106.45	-29.62	100.32	105.03	96.91	8.12	12.933	
1,250.00	1,250.00	1,243.31	1,240.05	4.27	4.39	106.03	-30.13	104.87	109.57	101.09	8.48	12.921	
1,300.00	1,300.00	1,293.10	1,289.63	4.44	4.58	92.48	-30.63	109.43	114.13	105.29	8.84	12.913	
1,400.00	1,399.93	1,392.65	1,388.76	4.80	4.97	93.21	-31.65	118.54	123.37	113.82	9.56	12.911	SF
1,500.00	1,499.68	1,492.06	1,487.74	5.16	5.36	95.32	-32.66	127.63	132.94	122.66	10.27	12.938	
1,600.00	1,599.13	1,591.20	1,586.46	5.52	5.74	98.48	-33.67	136.71	143.16	132.16	11.00	13.014	
1,700.00	1,698.15	1,689.95	1,684.80	5.89	6.12	102.42	-34.67	145.74	154.54	142.80	11.74	13.166	
1,800.00	1,796.63	1,788.20	1,782.63	6.27	6.51	106.87	-35.67	154.73	167.61	155.12	12.49	13.419	
1,900.00	1,894.44	1,885.83	1,879.84	6.67	6.89	111.59	-36.67	163.67	182.90	169.64	13.26	13.794	
2,000.00	1,991.46	1,982.71	1,976.31	7.09	7.26	116.35	-37.65	172.53	200.89	186.84	14.04	14.304	
2,100.00	2,087.58	2,078.73	2,071.92	7.53	7.64	120.97	-38.63	181.32	221.95	207.11	14.84	14.956	
2,200.00	2,182.68	2,173.77	2,166.56	8.01	8.01	125.32	-39.60	190.02	246.35	230.71	15.64	15.747	
2,300.00	2,276.65	2,267.72	2,260.11	8.52	8.38	129.32	-40.55	198.61	274.26	257.81	16.45	16.673	
2,400.00	2,369.36	2,360.45	2,352.45	9.07	8.74	132.93	-41.50	207.10	305.74	288.49	17.25	17.722	
2,500.00	2,460.71	2,451.87	2,443.48	9.67	9.09	136.16	-42.43	215.46	340.80	322.75	18.05	18.882	
2,600.00	2,550.59	2,541.85	2,533.08	10.31	9.44	139.01	-43.35	223.70	379.42	360.58	18.84	20.142	
2,700.00	2,638.88	2,630.29	2,621.14	10.99	9.79	141.52	-44.25	231.79	421.52	401.90	19.61	21.490	
2,800.00	2,725.48	2,717.07	2,707.56	11.73	10.13	143.72	-45.13	239.73	467.02	446.64	20.38	22.913	
2,900.00	2,810.28	2,802.10	2,792.22	12.51	10.46	145.63	-46.00	247.51	515.85	494.71	21.14	24.404	
3,000.00	2,893.18	2,885.27	2,875.04	13.34	10.78	147.29	-46.84	255.12	567.89	546.01	21.88	25.953	
3,100.00	2,974.07	2,966.48	2,955.90	14.22	11.10	148.72	-47.67	262.55	623.06	600.45	22.61	27.554	
3,166.85	3,026.99	3,019.62	3,008.82	14.84	11.31	149.57	-48.21	267.42	661.64	638.54	23.09	28.650	
3,200.00	3,052.99	3,045.75	3,034.83	15.15	11.41	150.19	-48.48	269.81	681.13	657.80	23.33	29.194	
3,300.00	3,131.43	3,124.54	3,113.29	16.11	11.72	151.88	-49.28	277.02	740.21	716.17	24.04	30.790	
3,400.00	3,209.87	3,203.34	3,191.75	17.08	12.03	153.33	-50.08	284.23	799.68	774.92	24.75	32.308	
3,500.00	3,288.30	3,282.13	3,270.21	18.07	12.33	154.59	-50.88	291.44	859.43	833.97	25.47	33.749	
3,600.00	3,366.74	3,360.92	3,348.67	19.07	12.64	155.69	-51.68	298.65	919.43	893.25	26.18	35.119	
3,700.00	3,445.18	3,439.72	3,427.13	20.08	12.95	156.66	-52.49	305.86	979.63	952.73	26.90	36.419	
3,800.00	3,523.62	3,518.51	3,505.59	21.10	13.26	157.51	-53.29	313.07	1,039.98	1,012.36	27.62	37.654	
3,900.00	3,602.05	3,597.31	3,584.05	22.12	13.56	158.28	-54.09	320.28	1,100.48	1,072.13	28.34	38.827	
4,000.00	3,680.49	3,676.10	3,662.51	23.15	13.87	158.96	-54.89	327.49	1,161.08	1,132.01	29.07	39.942	
4,100.00	3,758.93	3,754.90	3,740.97	24.19	14.18	159.58	-55.70	334.70	1,221.78	1,191.99	29.80	41.003	
4,200.00	3,837.37	3,833.69	3,819.43	25.23	14.49	160.15	-56.50	341.91	1,282.57	1,252.04	30.53	42.012	
4,300.00	3,915.80	3,912.49	3,897.89	26.28	14.80	160.66	-57.30	349.12	1,343.43	1,312.16	31.26	42.974	
4,400.00	3,994.24	3,991.28	3,976.35	27.33	15.10	161.13	-58.10	356.33	1,404.35	1,372.35	32.00	43.891	
4,500.00	4,072.68	4,070.08	4,054.81	28.38	15.41	161.56	-58.90	363.54	1,465.32	1,432.59	32.73	44.765	
4,600.00	4,151.12	4,148.87	4,133.27	29.44	15.72	161.95	-59.71	370.75	1,526.34	1,492.87	33.47	45.600	
4,700.00	4,229.55	4,227.67	4,211.73	30.50	16.03	162.32	-60.51	377.96	1,587.41	1,553.19	34.21	46.397	
4,800.00	4,307.99	4,306.46	4,290.19	31.56	16.34	162.66	-61.31	385.17	1,648.51	1,613.55	34.96	47.159	
4,900.00	4,386.43	4,385.25	4,368.65	32.63	16.64	162.97	-62.11	392.38	1,709.65	1,673.95	35.70	47.888	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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: Reference		0-OWSG (Rev2) MWD Offset					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
5,000.00	4,464.87	4,464.05	4,447.11	33.69	16.95	163.26	-62.91	399.59	1,770.81	1,734.37	36.45	48.586	
5,100.00	4,543.31	4,542.84	4,525.57	34.76	17.26	163.54	-63.72	406.80	1,832.01	1,794.81	37.19	49.254	
5,200.00	4,621.74	4,621.64	4,604.03	35.83	17.57	163.79	-64.52	414.01	1,893.23	1,855.28	37.94	49.895	
5,300.00	4,700.18	4,700.43	4,682.49	36.90	17.87	164.03	-65.32	421.22	1,954.47	1,915.78	38.69	50.510	
5,400.00	4,778.62	4,779.23	4,760.95	37.97	18.18	164.26	-66.12	428.43	2,015.73	1,976.29	39.45	51.101	
5,500.00	4,857.06	4,858.02	4,839.41	39.05	18.49	164.47	-66.93	435.64	2,077.01	2,036.81	40.20	51.668	
5,600.00	4,935.49	4,936.82	4,917.87	40.12	18.80	164.67	-67.73	442.85	2,138.31	2,097.36	40.95	52.213	
5,700.00	5,013.93	5,015.61	4,996.33	41.20	19.11	164.86	-68.53	450.07	2,199.62	2,157.91	41.71	52.737	
5,800.00	5,092.37	5,094.41	5,074.79	42.27	19.41	165.04	-69.33	457.28	2,260.95	2,218.48	42.47	53.242	
5,900.00	5,170.81	5,173.20	5,153.25	43.35	19.72	165.21	-70.13	464.49	2,322.29	2,279.06	43.22	53.728	
6,000.00	5,249.24	5,251.99	5,231.71	44.43	20.03	165.37	-70.94	471.70	2,383.64	2,339.66	43.98	54.196	
6,100.00	5,327.68	5,330.79	5,310.17	45.51	20.34	165.52	-71.74	478.91	2,445.00	2,400.26	44.74	54.647	
6,200.00	5,406.12	5,409.58	5,388.63	46.59	20.65	165.67	-72.54	486.12	2,506.38	2,460.87	45.50	55.082	
6,300.00	5,484.56	5,488.38	5,467.09	47.67	20.95	165.81	-73.34	493.33	2,567.76	2,521.50	46.26	55.502	
6,400.00	5,562.99	5,567.17	5,545.55	48.75	21.26	165.94	-74.15	500.54	2,629.15	2,582.13	47.03	55.908	
6,500.00	5,641.43	5,645.97	5,624.01	49.84	21.57	166.07	-74.95	507.75	2,690.55	2,642.76	47.79	56.300	
6,600.00	5,719.87	5,724.76	5,702.47	50.92	21.88	166.19	-75.75	514.96	2,751.96	2,703.41	48.55	56.678	
6,700.00	5,798.31	5,803.56	5,780.93	52.00	22.18	166.30	-76.55	522.17	2,813.38	2,764.06	49.32	57.045	
6,800.00	5,876.75	5,882.35	5,859.39	53.09	22.49	166.41	-77.35	529.38	2,874.80	2,824.71	50.08	57.399	
6,900.00	5,955.18	5,961.15	5,937.85	54.17	22.80	166.52	-78.16	536.59	2,936.23	2,885.38	50.85	57.741	
7,000.00	6,033.62	6,039.94	6,016.31	55.25	23.11	166.62	-78.96	543.80	2,997.66	2,946.04	51.62	58.073	
7,100.00	6,112.06	6,118.74	6,094.77	56.34	23.42	166.72	-79.76	551.01	3,059.10	3,006.72	52.39	58.395	
7,200.00	6,190.50	6,197.53	6,173.23	57.43	23.72	166.81	-80.56	558.22	3,120.55	3,067.39	53.16	58.706	
7,300.00	6,268.93	6,276.32	6,251.69	58.51	24.03	166.90	-81.36	565.43	3,182.00	3,128.07	53.93	59.008	
7,400.00	6,347.37	6,355.12	6,330.15	59.60	24.34	166.99	-82.17	572.64	3,243.45	3,188.76	54.70	59.301	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 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	142.61	-40.08	30.63	50.44				
100.00	100.00	100.00	100.00	0.14	0.14	142.61	-40.08	30.63	50.44	50.16	0.29	175.900	
200.00	200.00	200.00	200.00	0.50	0.50	142.61	-40.08	30.63	50.44	49.44	1.00	50.257	
300.00	300.00	300.00	300.00	0.86	0.86	142.61	-40.08	30.63	50.44	48.72	1.72	29.317	
400.00	400.00	400.00	400.00	1.22	1.22	142.61	-40.08	30.63	50.44	48.01	2.44	20.694	
500.00	500.00	500.00	500.00	1.58	1.58	142.61	-40.08	30.63	50.44	47.29	3.15	15.991	
600.00	600.00	600.00	600.00	1.94	1.94	142.61	-40.08	30.63	50.44	46.57	3.87	13.030	
700.00	700.00	700.00	700.00	2.29	2.29	142.61	-40.08	30.63	50.44	45.86	4.59	10.994 CC, ES	
800.00	800.00	798.33	798.31	2.65	2.63	143.25	-41.69	31.13	52.06	46.78	5.28	9.857	
900.00	900.00	896.44	896.28	3.01	2.96	144.94	-46.51	32.64	56.94	50.98	5.96	9.554 SF	
1,000.00	1,000.00	995.47	995.01	3.37	3.29	147.04	-53.91	34.96	64.45	57.80	6.65	9.695	
1,100.00	1,100.00	1,095.14	1,094.36	3.73	3.64	148.75	-61.56	37.35	72.22	64.88	7.34	9.833	
1,200.00	1,200.00	1,194.82	1,193.72	4.09	4.00	150.13	-69.20	39.75	80.05	72.01	8.05	9.949	
1,250.00	1,250.00	1,244.66	1,243.39	4.27	4.18	150.72	-73.03	40.95	83.98	75.59	8.40	10.000	
1,300.00	1,300.00	1,294.46	1,293.04	4.44	4.36	138.10	-76.85	42.14	88.25	79.49	8.75	10.084	
1,400.00	1,399.93	1,393.83	1,392.08	4.80	4.72	140.22	-84.47	44.53	98.80	89.34	9.46	10.447	
1,500.00	1,499.68	1,492.78	1,490.71	5.16	5.09	142.98	-92.06	46.91	112.22	102.06	10.16	11.042	
1,600.00	1,599.13	1,591.18	1,588.79	5.52	5.45	145.97	-99.61	49.27	128.72	117.85	10.87	11.843	
1,700.00	1,698.15	1,688.92	1,686.22	5.89	5.82	148.92	-107.11	51.62	148.46	136.88	11.58	12.825	
1,800.00	1,796.63	1,785.88	1,782.86	6.27	6.18	151.68	-114.55	53.95	171.53	159.25	12.28	13.967	
1,900.00	1,894.44	1,881.93	1,878.60	6.67	6.54	154.17	-121.92	56.26	197.98	185.00	12.99	15.246	
2,000.00	1,991.46	1,976.97	1,973.33	7.09	6.90	156.37	-129.21	58.54	227.82	214.13	13.69	16.644	
2,100.00	2,087.58	2,070.87	2,066.93	7.53	7.26	158.28	-136.42	60.80	261.04	246.65	14.39	18.143	
2,200.00	2,182.68	2,163.53	2,159.29	8.01	7.61	159.94	-143.52	63.02	297.59	282.50	15.08	19.729	
2,300.00	2,276.65	2,254.83	2,250.29	8.52	7.95	161.37	-150.53	65.22	337.43	321.65	15.78	21.389	
2,400.00	2,369.36	2,344.65	2,339.82	9.07	8.29	162.61	-157.42	67.37	380.50	364.04	16.46	23.112	
2,500.00	2,460.71	2,432.89	2,427.78	9.67	8.63	163.67	-164.19	69.49	426.76	409.61	17.15	24.890	
2,600.00	2,550.59	2,519.45	2,514.05	10.31	8.96	164.59	-170.83	71.57	476.12	458.29	17.82	26.715	
2,700.00	2,638.88	2,604.20	2,598.54	10.99	9.28	165.38	-177.33	73.61	528.52	510.03	18.49	28.582	
2,800.00	2,725.48	2,687.06	2,681.13	11.73	9.60	166.05	-183.69	75.60	583.90	564.74	19.15	30.485	
2,900.00	2,810.28	2,767.93	2,761.73	12.51	9.91	166.63	-189.89	77.54	642.17	622.37	19.81	32.421	
3,000.00	2,893.18	2,846.69	2,840.24	13.34	10.21	167.13	-195.94	79.43	703.27	682.82	20.45	34.387	
3,100.00	2,974.07	2,923.26	2,916.56	14.22	10.50	167.54	-201.81	81.27	767.11	746.03	21.09	36.380	
3,166.85	3,026.99	2,973.18	2,966.32	14.84	10.69	167.78	-205.64	82.47	811.28	789.77	21.51	37.724	
3,200.00	3,052.99	2,997.68	2,990.74	15.15	10.79	168.01	-207.52	83.06	833.48	811.77	21.71	38.388	
3,300.00	3,131.43	3,071.57	3,064.39	16.11	11.07	168.65	-213.19	84.84	900.48	878.15	22.33	40.327	
3,400.00	3,209.87	3,145.47	3,138.05	17.08	11.35	169.19	-218.86	86.61	967.53	944.58	22.95	42.153	
3,500.00	3,288.30	3,219.36	3,211.71	18.07	11.63	169.66	-224.53	88.39	1,034.62	1,011.04	23.58	43.876	
3,600.00	3,366.74	3,293.26	3,285.36	19.07	11.92	170.08	-230.20	90.16	1,101.75	1,077.54	24.21	45.503	
3,700.00	3,445.18	3,367.15	3,359.02	20.08	12.20	170.45	-235.87	91.94	1,168.91	1,144.06	24.85	47.040	
3,800.00	3,523.62	3,441.05	3,432.67	21.10	12.48	170.78	-241.54	93.71	1,236.09	1,210.60	25.49	48.493	
3,900.00	3,602.05	3,514.94	3,506.33	22.12	12.77	171.07	-247.20	95.49	1,303.29	1,277.16	26.13	49.869	
4,000.00	3,680.49	3,588.84	3,579.98	23.15	13.05	171.34	-252.87	97.26	1,370.51	1,343.73	26.78	51.173	
4,100.00	3,758.93	3,662.73	3,653.64	24.19	13.34	171.58	-258.54	99.04	1,437.74	1,410.31	27.43	52.410	
4,200.00	3,837.37	3,736.63	3,727.30	25.23	13.62	171.80	-264.21	100.81	1,504.99	1,476.90	28.09	53.584	
4,300.00	3,915.80	3,810.52	3,800.95	26.28	13.90	172.00	-269.88	102.59	1,572.25	1,543.50	28.74	54.700	
4,400.00	3,994.24	3,884.42	3,874.61	27.33	14.19	172.19	-275.55	104.37	1,639.51	1,610.11	29.40	55.762	
4,500.00	4,072.68	3,958.31	3,948.26	28.38	14.47	172.36	-281.22	106.14	1,706.79	1,676.73	30.06	56.772	
4,600.00	4,151.12	4,032.21	4,021.92	29.44	14.75	172.51	-286.89	107.92	1,774.07	1,743.34	30.73	57.735	
4,700.00	4,229.55	4,106.10	4,095.57	30.50	15.04	172.66	-292.56	109.69	1,841.36	1,809.97	31.39	58.654	
4,800.00	4,307.99	4,180.00	4,169.23	31.56	15.32	172.80	-298.23	111.47	1,908.66	1,876.60	32.06	59.531	
4,900.00	4,386.43	4,253.89	4,242.89	32.63	15.61	172.92	-303.90	113.24	1,975.96	1,943.23	32.73	60.368	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 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	4,464.87	4,327.79	4,316.54	33.69	15.89	173.04	-309.57	115.02	2,043.27	2,009.86	33.40	61.169	
5,100.00	4,543.31	4,401.68	4,390.20	34.76	16.17	173.15	-315.24	116.79	2,110.58	2,076.50	34.08	61.935	
5,200.00	4,621.74	4,475.58	4,463.85	35.83	16.46	173.26	-320.91	118.57	2,177.89	2,143.14	34.75	62.668	
5,300.00	4,700.18	4,549.47	4,537.51	36.90	16.74	173.35	-326.57	120.34	2,245.21	2,209.78	35.43	63.371	
5,400.00	4,778.62	4,623.37	4,611.16	37.97	17.03	173.44	-332.24	122.12	2,312.53	2,276.42	36.11	64.045	
5,500.00	4,857.06	4,697.26	4,684.82	39.05	17.31	173.53	-337.91	123.89	2,379.86	2,343.07	36.79	64.692	
5,600.00	4,935.49	4,771.16	4,758.47	40.12	17.60	173.61	-343.58	125.67	2,447.18	2,409.72	37.47	65.313	
5,700.00	5,013.93	4,845.05	4,832.13	41.20	17.88	173.69	-349.25	127.44	2,514.51	2,476.36	38.15	65.909	
5,800.00	5,092.37	4,918.94	4,905.79	42.27	18.16	173.76	-354.92	129.22	2,581.85	2,543.01	38.83	66.483	
5,900.00	5,170.81	4,992.84	4,979.44	43.35	18.45	173.83	-360.59	130.99	2,649.18	2,609.66	39.52	67.034	
6,000.00	5,249.24	5,066.73	5,053.10	44.43	18.73	173.90	-366.26	132.77	2,716.52	2,676.31	40.21	67.565	
6,100.00	5,327.68	5,140.63	5,126.75	45.51	19.02	173.96	-371.93	134.55	2,783.86	2,742.97	40.89	68.077	
6,200.00	5,406.12	5,214.52	5,200.41	46.59	19.30	174.02	-377.60	136.32	2,851.20	2,809.62	41.58	68.569	
6,300.00	5,484.56	5,288.42	5,274.06	47.67	19.59	174.08	-383.27	138.10	2,918.54	2,876.27	42.27	69.044	
6,400.00	5,562.99	5,362.31	5,347.72	48.75	19.87	174.14	-388.94	139.87	2,985.89	2,942.92	42.96	69.502	
6,500.00	5,641.43	5,436.21	5,421.38	49.84	20.16	174.19	-394.61	141.65	3,053.23	3,009.58	43.65	69.944	
6,600.00	5,719.87	5,510.10	5,495.03	50.92	20.44	174.24	-400.27	143.42	3,120.58	3,076.23	44.34	70.371	
6,700.00	5,798.31	5,584.00	5,568.69	52.00	20.72	174.29	-405.94	145.20	3,187.92	3,142.89	45.04	70.783	
6,800.00	5,876.75	5,657.89	5,642.34	53.09	21.01	174.33	-411.61	146.97	3,255.27	3,209.54	45.73	71.182	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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	150.73	-54.65	30.63	62.65				
100.00	100.00	100.00	100.00	0.14	0.14	150.73	-54.65	30.63	62.65	62.36	0.29	218.464	
200.00	200.00	200.00	200.00	0.50	0.50	150.73	-54.65	30.63	62.65	61.65	1.00	62.418	
300.00	300.00	300.00	300.00	0.86	0.86	150.73	-54.65	30.63	62.65	60.93	1.72	36.411	
400.00	400.00	400.00	400.00	1.22	1.22	150.73	-54.65	30.63	62.65	60.21	2.44	25.702	
500.00	500.00	500.00	500.00	1.58	1.58	150.73	-54.65	30.63	62.65	59.50	3.15	19.860	
600.00	600.00	600.00	600.00	1.94	1.94	150.73	-54.65	30.63	62.65	58.78	3.87	16.183 CC, ES	
700.00	700.00	697.85	697.83	2.29	2.27	150.98	-56.22	31.20	64.34	59.77	4.56	14.096	
800.00	800.00	795.47	795.32	2.65	2.60	151.64	-60.92	32.89	69.39	64.15	5.24	13.235	
900.00	900.00	892.64	892.13	3.01	2.93	152.55	-68.70	35.69	77.82	71.90	5.92	13.141 SF	
1,000.00	1,000.00	989.14	987.95	3.37	3.28	153.53	-79.48	39.57	89.60	83.01	6.60	13.584	
1,100.00	1,100.00	1,086.26	1,083.97	3.73	3.65	154.47	-93.09	44.47	104.41	97.13	7.28	14.346	
1,200.00	1,200.00	1,185.06	1,181.60	4.09	4.04	155.20	-107.43	49.63	119.77	111.78	7.98	15.006	
1,250.00	1,250.00	1,234.46	1,230.41	4.27	4.24	155.50	-114.60	52.22	127.45	119.12	8.33	15.296	
1,300.00	1,300.00	1,283.80	1,279.16	4.44	4.44	142.50	-121.76	54.79	135.48	126.80	8.69	15.598	
1,400.00	1,399.93	1,382.09	1,376.27	4.80	4.85	143.51	-136.02	59.93	153.63	144.23	9.40	16.350	
1,500.00	1,499.68	1,479.75	1,472.76	5.16	5.26	144.91	-150.20	65.03	174.62	164.52	10.10	17.281	
1,600.00	1,599.13	1,576.65	1,568.50	5.52	5.67	146.50	-164.26	70.10	198.57	187.75	10.81	18.365	
1,700.00	1,698.15	1,672.69	1,663.39	5.89	6.08	148.15	-178.20	75.12	225.53	214.01	11.52	19.580	
1,800.00	1,796.63	1,767.74	1,757.31	6.27	6.48	149.77	-191.99	80.09	255.58	243.36	12.22	20.908	
1,900.00	1,894.44	1,861.70	1,850.14	6.67	6.89	151.31	-205.63	85.00	288.75	275.83	12.93	22.336	
2,000.00	1,991.46	1,954.43	1,941.76	7.09	7.29	152.74	-219.09	89.84	325.06	311.43	13.63	23.848	
2,100.00	2,087.58	2,045.84	2,032.08	7.53	7.69	154.05	-232.35	94.62	364.50	350.17	14.33	25.434	
2,200.00	2,182.68	2,135.81	2,120.97	8.01	8.08	155.23	-245.41	99.32	407.05	392.02	15.03	27.085	
2,300.00	2,276.65	2,224.23	2,208.33	8.52	8.47	156.29	-258.24	103.94	452.68	436.95	15.72	28.792	
2,400.00	2,369.36	2,311.00	2,294.06	9.07	8.85	157.23	-270.83	108.48	501.35	484.94	16.41	30.549	
2,500.00	2,460.71	2,396.00	2,378.04	9.67	9.22	158.07	-283.17	112.92	553.01	535.91	17.10	32.348	
2,600.00	2,550.59	2,479.13	2,460.18	10.31	9.59	158.80	-295.23	117.26	607.60	589.83	17.77	34.187	
2,700.00	2,638.88	2,560.30	2,540.38	10.99	9.94	159.44	-307.01	121.50	665.07	646.63	18.44	36.060	
2,800.00	2,725.48	2,639.40	2,618.53	11.73	10.29	159.98	-318.49	125.64	725.34	706.24	19.11	37.966	
2,900.00	2,810.28	2,716.34	2,694.55	12.51	10.63	160.45	-329.66	129.66	788.35	768.59	19.76	39.901	
3,000.00	2,893.18	2,791.02	2,768.34	13.34	10.96	160.83	-340.49	133.56	854.01	833.61	20.40	41.864	
3,100.00	2,974.07	2,863.35	2,839.81	14.22	11.28	161.14	-350.99	137.34	922.25	901.22	21.03	43.854	
3,166.85	3,026.99	2,910.35	2,886.24	14.84	11.49	161.31	-357.81	139.80	969.26	947.82	21.45	45.197	
3,200.00	3,052.99	2,933.39	2,909.00	15.15	11.59	161.59	-361.16	141.00	992.86	971.21	21.65	45.860	
3,300.00	3,131.43	3,002.87	2,977.65	16.11	11.90	162.37	-371.24	144.63	1,064.09	1,041.83	22.26	47.802	
3,400.00	3,209.87	3,072.36	3,046.31	17.08	12.21	163.05	-381.32	148.26	1,135.41	1,112.54	22.88	49.635	
3,500.00	3,288.30	3,141.84	3,114.96	18.07	12.52	163.65	-391.41	151.89	1,206.81	1,183.31	23.49	51.367	
3,600.00	3,366.74	3,211.32	3,183.61	19.07	12.82	164.18	-401.49	155.53	1,278.26	1,254.14	24.12	53.004	
3,700.00	3,445.18	3,280.81	3,252.26	20.08	13.13	164.66	-411.57	159.16	1,349.76	1,325.01	24.74	54.553	
3,800.00	3,523.62	3,350.29	3,320.91	21.10	13.44	165.10	-421.66	162.79	1,421.30	1,395.93	25.37	56.020	
3,900.00	3,602.05	3,419.77	3,389.56	22.12	13.75	165.49	-431.74	166.42	1,492.88	1,466.87	26.00	57.410	
4,000.00	3,680.49	3,489.26	3,458.22	23.15	14.06	165.84	-441.83	170.05	1,564.49	1,537.85	26.64	58.729	
4,100.00	3,758.93	3,558.74	3,526.87	24.19	14.37	166.17	-451.91	173.68	1,636.12	1,608.85	27.28	59.982	
4,200.00	3,837.37	3,628.22	3,595.52	25.23	14.68	166.46	-461.99	177.31	1,707.78	1,679.87	27.92	61.172	
4,300.00	3,915.80	3,697.71	3,664.17	26.28	14.99	166.74	-472.08	180.94	1,779.46	1,750.90	28.56	62.305	
4,400.00	3,994.24	3,767.19	3,732.82	27.33	15.30	166.99	-482.16	184.57	1,851.16	1,821.96	29.21	63.383	
4,500.00	4,072.68	3,836.67	3,801.47	28.38	15.60	167.22	-492.24	188.21	1,922.88	1,893.02	29.85	64.410	
4,600.00	4,151.12	3,906.16	3,870.13	29.44	15.91	167.44	-502.33	191.84	1,994.61	1,964.10	30.50	65.390	
4,700.00	4,229.55	3,975.64	3,938.78	30.50	16.22	167.64	-512.41	195.47	2,066.35	2,035.20	31.15	66.325	
4,800.00	4,307.99	4,045.12	4,007.43	31.56	16.53	167.83	-522.50	199.10	2,138.11	2,106.30	31.81	67.218	
4,900.00	4,386.43	4,114.60	4,076.08	32.63	16.84	168.01	-532.58	202.73	2,209.87	2,177.41	32.46	68.072	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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	
5,000.00	4,464.87	4,184.09	4,144.73	33.69	17.15	168.17	-542.66	206.36	2,281.65	2,248.52	33.12	68.889	
5,100.00	4,543.31	4,253.57	4,213.38	34.76	17.46	168.33	-552.75	209.99	2,353.43	2,319.65	33.78	69.671	
5,200.00	4,621.74	4,323.05	4,282.04	35.83	17.77	168.48	-562.83	213.62	2,425.22	2,390.78	34.44	70.420	
5,300.00	4,700.18	4,392.54	4,350.69	36.90	18.08	168.61	-572.91	217.25	2,497.02	2,461.92	35.10	71.138	
5,400.00	4,778.62	4,462.02	4,419.34	37.97	18.39	168.74	-583.00	220.89	2,568.82	2,533.06	35.76	71.827	
5,500.00	4,857.06	4,531.50	4,487.99	39.05	18.70	168.87	-593.08	224.52	2,640.64	2,604.21	36.43	72.488	
5,600.00	4,935.49	4,600.99	4,556.64	40.12	19.01	168.98	-603.17	228.15	2,712.45	2,675.36	37.09	73.123	
5,700.00	5,013.93	4,670.47	4,625.29	41.20	19.32	169.09	-613.25	231.78	2,784.27	2,746.51	37.76	73.734	
5,800.00	5,092.37	4,739.95	4,693.95	42.27	19.63	169.20	-623.33	235.41	2,856.10	2,817.67	38.43	74.321	
5,900.00	5,170.81	4,809.44	4,762.60	43.35	19.94	169.30	-633.42	239.04	2,927.93	2,888.83	39.10	74.885	
6,000.00	5,249.24	4,878.92	4,831.25	44.43	20.25	169.39	-643.50	242.67	2,999.77	2,960.00	39.77	75.429	
6,100.00	5,327.68	4,948.40	4,899.90	45.51	20.56	169.48	-653.58	246.30	3,071.61	3,031.17	40.44	75.953	
6,200.00	5,406.12	5,017.89	4,968.55	46.59	20.87	169.57	-663.67	249.94	3,143.45	3,102.34	41.11	76.457	
6,300.00	5,484.56	5,087.37	5,037.20	47.67	21.18	169.65	-673.75	253.57	3,215.30	3,173.51	41.79	76.944	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 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	157.20	-72.87	30.63	79.04				
100.00	100.00	100.00	100.00	0.14	0.14	157.20	-72.87	30.63	79.04	78.76	0.29	275.626	
200.00	200.00	200.00	200.00	0.50	0.50	157.20	-72.87	30.63	79.04	78.04	1.00	78.750	
300.00	300.00	300.00	300.00	0.86	0.86	157.20	-72.87	30.63	79.04	77.32	1.72	45.938	
400.00	400.00	400.00	400.00	1.22	1.22	157.20	-72.87	30.63	79.04	76.61	2.44	32.427	
500.00	500.00	500.00	500.00	1.58	1.58	157.20	-72.87	30.63	79.04	75.89	3.15	25.057	CC, ES
600.00	600.00	597.32	597.30	1.94	1.91	157.40	-74.48	31.00	80.72	76.87	3.85	20.987	
700.00	700.00	694.41	694.26	2.29	2.24	157.96	-79.29	32.10	85.74	81.21	4.53	18.942	
800.00	800.00	791.06	790.56	2.65	2.57	158.75	-87.27	33.93	94.11	88.90	5.21	18.072	
900.00	900.00	887.04	885.87	3.01	2.92	159.65	-98.31	36.46	105.81	99.92	5.89	17.978	SF
1,000.00	1,000.00	982.16	979.89	3.37	3.29	160.55	-112.32	39.67	120.81	114.25	6.56	18.423	
1,100.00	1,100.00	1,076.22	1,072.35	3.73	3.68	161.37	-129.16	43.53	139.08	131.86	7.22	19.256	
1,200.00	1,200.00	1,172.46	1,166.46	4.09	4.10	162.11	-148.75	48.02	159.87	151.95	7.91	20.204	
1,250.00	1,250.00	1,221.34	1,214.25	4.27	4.32	162.41	-158.78	50.32	170.36	162.10	8.26	20.624	
1,300.00	1,300.00	1,270.14	1,261.95	4.44	4.55	149.36	-168.79	52.62	181.22	172.60	8.61	21.035	
1,400.00	1,399.93	1,367.17	1,356.81	4.80	5.00	150.06	-188.71	57.18	205.17	195.84	9.33	21.990	
1,500.00	1,499.68	1,463.37	1,450.85	5.16	5.46	150.97	-208.45	61.71	232.11	222.07	10.04	23.117	
1,600.00	1,599.13	1,558.61	1,543.96	5.52	5.91	151.99	-227.99	66.19	262.08	251.33	10.75	24.385	
1,700.00	1,698.15	1,652.79	1,636.02	5.89	6.37	153.03	-247.32	70.62	295.11	283.66	11.45	25.771	
1,800.00	1,796.63	1,745.77	1,726.93	6.27	6.82	154.06	-266.40	74.99	331.21	319.06	12.15	27.256	
1,900.00	1,894.44	1,837.46	1,816.56	6.67	7.27	155.04	-285.22	79.30	370.38	357.53	12.85	28.827	
2,000.00	1,991.46	1,927.75	1,904.82	7.09	7.72	155.96	-303.74	83.55	412.60	399.06	13.54	30.469	
2,100.00	2,087.58	2,016.51	1,991.59	7.53	8.16	156.81	-321.96	87.73	457.86	443.63	14.23	32.175	
2,200.00	2,182.68	2,103.64	2,076.77	8.01	8.59	157.58	-339.84	91.82	506.12	491.20	14.91	33.934	
2,300.00	2,276.65	2,189.03	2,160.25	8.52	9.02	158.27	-357.36	95.84	557.33	541.74	15.59	35.741	
2,400.00	2,369.36	2,272.59	2,241.94	9.07	9.44	158.88	-374.51	99.77	611.46	595.19	16.27	37.589	
2,500.00	2,460.71	2,354.21	2,321.73	9.67	9.85	159.42	-391.26	103.61	668.44	651.50	16.93	39.476	
2,600.00	2,550.59	2,433.79	2,399.52	10.31	10.25	159.89	-407.59	107.36	728.20	710.61	17.59	41.396	
2,700.00	2,638.88	2,511.24	2,475.23	10.99	10.64	160.28	-423.48	111.00	790.70	772.46	18.24	43.348	
2,800.00	2,725.48	2,586.45	2,548.76	11.73	11.01	160.61	-438.92	114.54	855.84	836.96	18.88	45.329	
2,900.00	2,810.28	2,659.34	2,620.01	12.51	11.38	160.87	-453.88	117.96	923.56	904.05	19.51	47.339	
3,000.00	2,893.18	2,729.82	2,688.91	13.34	11.74	161.06	-468.34	121.28	993.78	973.65	20.13	49.377	
3,100.00	2,974.07	2,797.80	2,755.37	14.22	12.08	161.19	-482.29	124.48	1,066.41	1,045.68	20.73	51.442	
3,166.85	3,026.99	2,841.81	2,798.39	14.84	12.30	161.24	-491.32	126.55	1,116.26	1,095.14	21.13	52.835	
3,200.00	3,052.99	2,863.34	2,819.45	15.15	12.41	161.49	-495.74	127.56	1,141.25	1,119.92	21.32	53.525	
3,300.00	3,131.43	2,928.31	2,882.95	16.11	12.74	162.20	-509.07	130.62	1,216.66	1,194.75	21.90	55.545	
3,400.00	3,209.87	2,993.27	2,946.46	17.08	13.07	162.82	-522.40	133.67	1,292.14	1,269.65	22.49	57.454	
3,500.00	3,288.30	3,058.23	3,009.96	18.07	13.40	163.38	-535.73	136.73	1,367.69	1,344.61	23.08	59.258	
3,600.00	3,366.74	3,123.19	3,073.47	19.07	13.73	163.88	-549.07	139.78	1,443.28	1,419.61	23.67	60.966	
3,700.00	3,445.18	3,188.15	3,136.98	20.08	14.05	164.33	-562.40	142.84	1,518.92	1,494.65	24.27	62.583	
3,800.00	3,523.62	3,253.12	3,200.48	21.10	14.38	164.74	-575.73	145.90	1,594.60	1,569.73	24.87	64.116	
3,900.00	3,602.05	3,318.08	3,263.99	22.12	14.71	165.11	-589.06	148.95	1,670.30	1,644.83	25.47	65.570	
4,000.00	3,680.49	3,383.04	3,327.49	23.15	15.04	165.45	-602.39	152.01	1,746.04	1,719.96	26.08	66.951	
4,100.00	3,758.93	3,448.00	3,391.00	24.19	15.37	165.76	-615.72	155.06	1,821.80	1,795.11	26.69	68.264	
4,200.00	3,837.37	3,512.96	3,454.51	25.23	15.70	166.05	-629.05	158.12	1,897.58	1,870.28	27.30	69.512	
4,300.00	3,915.80	3,577.93	3,518.01	26.28	16.03	166.31	-642.38	161.17	1,973.38	1,945.46	27.91	70.700	
4,400.00	3,994.24	3,642.89	3,581.52	27.33	16.36	166.56	-655.71	164.23	2,049.19	2,020.66	28.53	71.833	
4,500.00	4,072.68	3,707.85	3,645.02	28.38	16.69	166.79	-669.05	167.29	2,125.02	2,095.88	29.14	72.912	
4,600.00	4,151.12	3,772.81	3,708.53	29.44	17.02	167.00	-682.38	170.34	2,200.87	2,171.10	29.76	73.942	
4,700.00	4,229.55	3,837.77	3,772.04	30.50	17.35	167.20	-695.71	173.40	2,276.72	2,246.34	30.39	74.926	
4,800.00	4,307.99	3,902.74	3,835.54	31.56	17.68	167.38	-709.04	176.45	2,352.59	2,321.58	31.01	75.866	
4,900.00	4,386.43	3,967.70	3,899.05	32.63	18.01	167.56	-722.37	179.51	2,428.47	2,396.83	31.63	76.765	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 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	
5,000.00	4,464.87	4,032.66	3,962.55	33.69	18.34	167.72	-735.70	182.57	2,504.36	2,472.09	32.26	77.626	
5,100.00	4,543.31	4,097.62	4,026.06	34.76	18.68	167.88	-749.03	185.62	2,580.25	2,547.36	32.89	78.450	
5,200.00	4,621.74	4,162.58	4,089.56	35.83	19.01	168.02	-762.36	188.68	2,656.15	2,622.63	33.52	79.240	
5,300.00	4,700.18	4,227.55	4,153.07	36.90	19.34	168.16	-775.69	191.73	2,732.06	2,697.91	34.15	79.997	
5,400.00	4,778.62	4,292.51	4,216.58	37.97	19.67	168.29	-789.02	194.79	2,807.98	2,773.19	34.78	80.724	
5,500.00	4,857.06	4,357.47	4,280.08	39.05	20.00	168.41	-802.36	197.84	2,883.90	2,848.48	35.42	81.422	
5,600.00	4,935.49	4,422.43	4,343.59	40.12	20.33	168.53	-815.69	200.90	2,959.82	2,923.77	36.06	82.092	
5,700.00	5,013.93	4,487.39	4,407.09	41.20	20.66	168.64	-829.02	203.96	3,035.76	2,999.06	36.69	82.736	
5,800.00	5,092.37	4,552.36	4,470.60	42.27	20.99	168.75	-842.35	207.01	3,111.69	3,074.36	37.33	83.356	
5,900.00	5,170.81	4,617.32	4,534.11	43.35	21.32	168.85	-855.68	210.07	3,187.63	3,149.66	37.97	83.952	
6,000.00	5,249.24	4,682.28	4,597.61	44.43	21.65	168.94	-869.01	213.12	3,263.58	3,224.97	38.61	84.526	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 Toolface (°)	Offset Wellbore Centre		Distance		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	160.70	-87.44	30.63	92.65				
100.00	100.00	100.00	100.00	0.14	0.14	160.70	-87.44	30.63	92.65	92.36	0.29	323.069	
200.00	200.00	200.00	200.00	0.50	0.50	160.70	-87.44	30.63	92.65	91.65	1.00	92.306	
300.00	300.00	300.00	300.00	0.86	0.86	160.70	-87.44	30.63	92.65	90.93	1.72	53.845	
400.00	400.00	400.00	400.00	1.22	1.22	160.70	-87.44	30.63	92.65	90.21	2.44	38.008 CC, ES	
500.00	500.00	496.84	496.82	1.58	1.55	160.63	-88.94	31.28	94.34	91.21	3.13	30.146	
600.00	600.00	593.45	593.31	1.94	1.88	160.43	-93.44	33.21	99.39	95.58	3.81	26.067	
700.00	700.00	689.63	689.14	2.29	2.22	160.16	-100.88	36.41	107.80	103.30	4.50	23.967	
800.00	800.00	785.16	784.00	2.65	2.57	159.83	-111.19	40.84	119.53	114.35	5.18	23.075	
900.00	900.00	879.83	877.59	3.01	2.95	159.50	-124.27	46.46	134.55	128.69	5.86	22.972 SF	
1,000.00	1,000.00	973.46	969.64	3.37	3.34	159.18	-139.99	53.22	152.82	146.29	6.53	23.410	
1,100.00	1,100.00	1,065.87	1,059.89	3.73	3.76	158.90	-158.21	61.05	174.26	167.07	7.19	24.237	
1,200.00	1,200.00	1,156.88	1,148.10	4.09	4.21	158.65	-178.76	69.89	198.83	190.99	7.84	25.363	
1,250.00	1,250.00	1,201.82	1,191.39	4.27	4.44	158.53	-189.86	74.66	212.26	204.10	8.16	26.009	
1,300.00	1,300.00	1,247.86	1,235.57	4.44	4.68	145.03	-201.80	79.79	226.70	218.21	8.50	26.679	
1,400.00	1,399.93	1,342.88	1,326.66	4.80	5.20	144.93	-226.61	90.46	257.86	248.65	9.21	28.000	
1,500.00	1,499.68	1,436.92	1,416.81	5.16	5.73	145.14	-251.18	101.02	291.73	281.81	9.92	29.405	
1,600.00	1,599.13	1,529.87	1,505.93	5.52	6.26	145.56	-275.46	111.46	328.33	317.70	10.63	30.885	
1,700.00	1,698.15	1,621.63	1,593.90	5.89	6.79	146.09	-299.43	121.76	367.67	356.33	11.34	32.429	
1,800.00	1,796.63	1,712.07	1,680.61	6.27	7.32	146.69	-323.06	131.92	409.76	397.72	12.04	34.025	
1,900.00	1,894.44	1,801.10	1,765.96	6.67	7.84	147.31	-346.31	141.91	454.61	441.86	12.75	35.665	
2,000.00	1,991.46	1,888.59	1,849.85	7.09	8.35	147.92	-369.17	151.74	502.22	488.77	13.45	37.343	
2,100.00	2,087.58	1,974.45	1,932.16	7.53	8.86	148.50	-391.60	161.38	552.58	538.43	14.15	39.053	
2,200.00	2,182.68	2,058.57	2,012.81	8.01	9.36	149.05	-413.57	170.82	605.66	590.81	14.85	40.792	
2,300.00	2,276.65	2,140.84	2,091.68	8.52	9.85	149.54	-435.06	180.06	661.44	645.89	15.54	42.555	
2,400.00	2,369.36	2,221.17	2,168.70	9.07	10.33	149.97	-456.05	189.08	719.87	703.64	16.24	44.340	
2,500.00	2,460.71	2,299.46	2,243.76	9.67	10.80	150.35	-476.50	197.87	780.92	764.00	16.92	46.147	
2,600.00	2,550.59	2,375.61	2,316.77	10.31	11.26	150.65	-496.39	206.43	844.53	826.93	17.60	47.974	
2,700.00	2,638.88	2,449.54	2,387.64	10.99	11.71	150.89	-515.70	214.73	910.65	892.37	18.28	49.820	
2,800.00	2,725.48	2,521.14	2,456.29	11.73	12.14	151.05	-534.40	222.77	979.20	960.26	18.94	51.687	
2,900.00	2,810.28	2,590.34	2,522.63	12.51	12.55	151.14	-552.48	230.54	1,050.12	1,030.52	19.60	53.575	
3,000.00	2,893.18	2,657.04	2,586.58	13.34	12.96	151.14	-569.90	238.03	1,123.34	1,103.09	20.25	55.484	
3,100.00	2,974.07	2,721.18	2,648.06	14.22	13.34	151.06	-586.66	245.23	1,198.77	1,177.89	20.88	57.417	
3,166.85	3,026.99	2,762.57	2,687.75	14.84	13.60	150.95	-597.47	249.88	1,250.39	1,229.10	21.29	58.720	
3,200.00	3,052.99	2,782.81	2,707.15	15.15	13.72	151.28	-602.76	252.15	1,276.23	1,254.73	21.50	59.365	
3,300.00	3,131.43	2,843.84	2,765.67	16.11	14.09	152.21	-618.70	259.00	1,354.28	1,332.17	22.11	61.257	
3,400.00	3,209.87	2,904.87	2,824.18	17.08	14.46	153.03	-634.64	265.86	1,432.45	1,409.73	22.72	63.046	
3,500.00	3,288.30	2,965.90	2,882.69	18.07	14.83	153.78	-650.59	272.71	1,510.73	1,487.39	23.34	64.737	
3,600.00	3,366.74	3,026.93	2,941.20	19.07	15.20	154.45	-666.53	279.57	1,589.10	1,565.15	23.95	66.339	
3,700.00	3,445.18	3,087.97	2,999.72	20.08	15.57	155.06	-682.47	286.42	1,667.56	1,642.98	24.57	67.857	
3,800.00	3,523.62	3,149.00	3,058.23	21.10	15.94	155.62	-698.41	293.27	1,746.08	1,720.88	25.20	69.296	
3,900.00	3,602.05	3,210.03	3,116.74	22.12	16.31	156.14	-714.36	300.13	1,824.66	1,798.84	25.82	70.663	
4,000.00	3,680.49	3,271.06	3,175.25	23.15	16.68	156.61	-730.30	306.98	1,903.30	1,876.85	26.45	71.962	
4,100.00	3,758.93	3,332.09	3,233.77	24.19	17.05	157.04	-746.24	313.83	1,981.98	1,954.90	27.08	73.196	
4,200.00	3,837.37	3,393.13	3,292.28	25.23	17.42	157.44	-762.19	320.69	2,060.70	2,032.99	27.71	74.371	
4,300.00	3,915.80	3,454.16	3,350.79	26.28	17.79	157.82	-778.13	327.54	2,139.46	2,111.12	28.34	75.491	
4,400.00	3,994.24	3,515.19	3,409.30	27.33	18.16	158.16	-794.07	334.39	2,218.25	2,189.27	28.97	76.558	
4,500.00	4,072.68	3,576.22	3,467.82	28.38	18.53	158.49	-810.01	341.25	2,297.07	2,267.46	29.61	77.575	
4,600.00	4,151.12	3,637.25	3,526.33	29.44	18.91	158.79	-825.96	348.10	2,375.92	2,345.67	30.25	78.547	
4,700.00	4,229.55	3,698.28	3,584.84	30.50	19.28	159.07	-841.90	354.95	2,454.79	2,423.90	30.89	79.475	
4,800.00	4,307.99	3,759.32	3,643.35	31.56	19.65	159.34	-857.84	361.81	2,533.68	2,502.15	31.53	80.363	
4,900.00	4,386.43	3,820.35	3,701.87	32.63	20.02	159.59	-873.79	368.66	2,612.59	2,580.42	32.17	81.212	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 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	4,464.87	3,881.38	3,760.38	33.69	20.39	159.82	-889.73	375.51	2,691.52	2,658.70	32.81	82.025	
5,100.00	4,543.31	3,942.41	3,818.89	34.76	20.77	160.04	-905.67	382.37	2,770.46	2,737.01	33.46	82.804	
5,200.00	4,621.74	4,003.44	3,877.41	35.83	21.14	160.25	-921.61	389.22	2,849.42	2,815.32	34.10	83.551	
5,300.00	4,700.18	4,064.47	3,935.92	36.90	21.51	160.45	-937.56	396.07	2,928.40	2,893.65	34.75	84.267	
5,400.00	4,778.62	4,125.51	3,994.43	37.97	21.88	160.64	-953.50	402.93	3,007.39	2,971.99	35.40	84.955	
5,500.00	4,857.06	4,186.54	4,052.94	39.05	22.25	160.82	-969.44	409.78	3,086.38	3,050.34	36.05	85.615	
5,600.00	4,935.49	4,247.57	4,111.46	40.12	22.63	160.99	-985.39	416.63	3,165.39	3,128.69	36.70	86.250	
5,700.00	5,013.93	4,308.60	4,169.97	41.20	23.00	161.15	-1,001.33	423.49	3,244.41	3,207.06	37.35	86.860	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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	163.29	-102.01	30.63	106.51	106.51			
100.00	100.00	100.00	100.00	0.14	0.14	163.29	-102.01	30.63	106.51	106.22	0.29	371.391	
200.00	200.00	200.00	200.00	0.50	0.50	163.29	-102.01	30.63	106.51	105.50	1.00	106.112	
300.00	300.00	300.00	300.00	0.86	0.86	163.29	-102.01	30.63	106.51	104.79	1.72	61.899 CC, ES	
400.00	400.00	396.38	396.36	1.22	1.19	163.25	-103.54	31.15	108.19	105.78	2.41	44.847	
500.00	500.00	492.55	492.40	1.58	1.52	163.16	-108.13	32.72	113.23	110.13	3.10	36.536	
600.00	600.00	588.28	587.79	1.94	1.86	163.03	-115.72	35.32	121.60	117.82	3.79	32.102	
700.00	700.00	683.37	682.22	2.29	2.22	162.86	-126.24	38.92	133.30	128.82	4.48	29.785	
800.00	800.00	777.62	775.41	2.65	2.60	162.69	-139.59	43.49	148.26	143.10	5.16	28.743	
900.00	900.00	870.83	867.06	3.01	3.01	162.53	-155.64	48.99	166.45	160.62	5.83	28.529 SF	
1,000.00	1,000.00	962.84	956.94	3.37	3.43	162.38	-174.23	55.35	187.82	181.31	6.50	28.880	
1,100.00	1,100.00	1,053.48	1,044.82	3.73	3.88	162.24	-195.22	62.53	212.28	205.12	7.17	29.620	
1,200.00	1,200.00	1,142.59	1,130.50	4.09	4.36	162.12	-218.40	70.47	239.78	231.97	7.81	30.711	
1,250.00	1,250.00	1,186.54	1,172.46	4.27	4.61	162.06	-230.76	74.70	254.64	246.51	8.13	31.326	
1,300.00	1,300.00	1,229.95	1,213.71	4.44	4.86	148.59	-243.56	79.08	270.58	262.13	8.45	32.025	
1,400.00	1,399.93	1,315.17	1,294.06	4.80	5.38	148.43	-270.41	88.27	306.66	297.58	9.08	33.769	
1,500.00	1,499.68	1,406.74	1,380.00	5.16	5.97	148.49	-300.32	98.51	346.73	336.94	9.79	35.416	
1,600.00	1,599.13	1,497.02	1,464.72	5.52	6.56	148.71	-329.82	108.60	389.54	379.04	10.50	37.115	
1,700.00	1,698.15	1,585.88	1,548.12	5.89	7.15	149.01	-358.85	118.54	435.08	423.88	11.20	38.858	
1,800.00	1,796.63	1,673.23	1,630.09	6.27	7.73	149.35	-387.39	128.31	483.34	471.45	11.89	40.638	
1,900.00	1,894.44	1,758.94	1,710.53	6.67	8.31	149.71	-415.39	137.89	534.31	521.72	12.59	42.449	
2,000.00	1,991.46	1,842.93	1,789.35	7.09	8.88	150.06	-442.83	147.29	587.96	574.68	13.28	44.287	
2,100.00	2,087.58	1,925.08	1,866.45	7.53	9.44	150.38	-469.67	156.47	644.26	630.30	13.96	46.148	
2,200.00	2,182.68	2,005.30	1,941.74	8.01	9.99	150.67	-495.88	165.44	703.18	688.54	14.64	48.029	
2,300.00	2,276.65	2,083.49	2,015.12	8.52	10.52	150.92	-521.42	174.19	764.66	749.35	15.32	49.927	
2,400.00	2,369.36	2,159.55	2,086.50	9.07	11.04	151.11	-546.27	182.69	828.67	812.68	15.98	51.842	
2,500.00	2,460.71	2,233.40	2,155.80	9.67	11.55	151.25	-570.40	190.95	895.14	878.49	16.65	53.774	
2,600.00	2,550.59	2,304.93	2,222.94	10.31	12.04	151.33	-593.77	198.95	964.01	946.71	17.30	55.722	
2,700.00	2,638.88	2,374.07	2,287.82	10.99	12.52	151.33	-616.36	206.68	1,035.21	1,017.27	17.95	57.688	
2,800.00	2,725.48	2,440.73	2,350.38	11.73	12.98	151.27	-638.14	214.14	1,108.68	1,090.10	18.58	59.672	
2,900.00	2,810.28	2,504.83	2,410.54	12.51	13.43	151.12	-659.08	221.30	1,184.33	1,165.13	19.20	61.678	
3,000.00	2,893.18	2,566.29	2,468.22	13.34	13.85	150.89	-679.16	228.18	1,262.09	1,242.28	19.81	63.705	
3,100.00	2,974.07	2,625.03	2,523.35	14.22	14.26	150.56	-698.35	234.75	1,341.87	1,321.46	20.41	65.759	
3,166.85	3,026.99	2,662.75	2,558.74	14.84	14.52	150.28	-710.67	238.96	1,396.28	1,375.49	20.80	67.143	
3,200.00	3,052.99	2,681.15	2,576.01	15.15	14.65	150.59	-716.68	241.02	1,423.48	1,402.50	20.99	67.828	
3,300.00	3,131.43	2,736.63	2,628.08	16.11	15.03	151.48	-734.81	247.23	1,505.62	1,484.06	21.56	69.842	
3,400.00	3,209.87	2,792.11	2,680.15	17.08	15.42	152.27	-752.94	253.43	1,587.87	1,565.74	22.13	71.749	
3,500.00	3,288.30	2,847.60	2,732.22	18.07	15.81	152.99	-771.06	259.64	1,670.21	1,647.50	22.71	73.554	
3,600.00	3,366.74	2,903.08	2,784.29	19.07	16.19	153.65	-789.19	265.84	1,752.63	1,729.34	23.29	75.266	
3,700.00	3,445.18	2,958.57	2,836.36	20.08	16.58	154.25	-807.32	272.04	1,835.12	1,811.26	23.87	76.889	
3,800.00	3,523.62	3,014.05	2,888.44	21.10	16.96	154.80	-825.45	278.25	1,917.67	1,893.22	24.45	78.431	
3,900.00	3,602.05	3,069.54	2,940.51	22.12	17.35	155.30	-843.57	284.45	2,000.28	1,975.24	25.04	79.897	
4,000.00	3,680.49	3,125.02	2,992.58	23.15	17.74	155.77	-861.70	290.66	2,082.93	2,057.31	25.62	81.290	
4,100.00	3,758.93	3,180.51	3,044.65	24.19	18.12	156.20	-879.83	296.86	2,165.63	2,139.41	26.21	82.617	
4,200.00	3,837.37	3,235.99	3,096.72	25.23	18.51	156.60	-897.96	303.07	2,248.36	2,221.55	26.80	83.881	
4,300.00	3,915.80	3,291.47	3,148.79	26.28	18.90	156.97	-916.08	309.27	2,331.12	2,303.73	27.40	85.086	
4,400.00	3,994.24	3,346.96	3,200.86	27.33	19.29	157.32	-934.21	315.48	2,413.92	2,385.92	27.99	86.236	
4,500.00	4,072.68	3,402.44	3,252.93	28.38	19.67	157.65	-952.34	321.68	2,496.74	2,468.15	28.59	87.334	
4,600.00	4,151.12	3,457.93	3,305.01	29.44	20.06	157.95	-970.46	327.89	2,579.58	2,550.40	29.19	88.383	
4,700.00	4,229.55	3,513.41	3,357.08	30.50	20.45	158.24	-988.59	334.09	2,662.45	2,632.66	29.79	89.386	
4,800.00	4,307.99	3,568.90	3,409.15	31.56	20.84	158.51	-1,006.72	340.30	2,745.33	2,714.95	30.39	90.345	
4,900.00	4,386.43	3,624.38	3,461.22	32.63	21.22	158.76	-1,024.85	346.50	2,828.24	2,797.25	30.99	91.264	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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	
5,000.00	4,464.87	3,679.86	3,513.29	33.69	21.61	159.00	-1,042.97	352.70	2,911.16	2,879.57	31.59	92.144	
5,100.00	4,543.31	3,735.35	3,565.36	34.76	22.00	159.23	-1,061.10	358.91	2,994.10	2,961.90	32.20	92.988	
5,200.00	4,621.74	3,790.83	3,617.43	35.83	22.39	159.44	-1,079.23	365.11	3,077.05	3,044.24	32.81	93.797	
5,300.00	4,700.18	3,846.32	3,669.50	36.90	22.77	159.64	-1,097.36	371.32	3,160.01	3,126.60	33.41	94.573	
5,400.00	4,778.62	3,901.80	3,721.58	37.97	23.16	159.84	-1,115.48	377.52	3,242.99	3,208.96	34.02	95.319	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	180.00	-61.94	0.00	61.94				
100.00	100.00	100.00	100.00	0.14	0.14	180.00	-61.94	0.00	61.94	61.65	0.29	215.982	
200.00	200.00	200.00	200.00	0.50	0.50	180.00	-61.94	0.00	61.94	60.94	1.00	61.709	
300.00	300.00	300.00	300.00	0.86	0.86	180.00	-61.94	0.00	61.94	60.22	1.72	35.997	
400.00	400.00	400.00	400.00	1.22	1.22	180.00	-61.94	0.00	61.94	59.50	2.44	25.410	
500.00	500.00	500.00	500.00	1.58	1.58	180.00	-61.94	0.00	61.94	58.78	3.15	19.635	
600.00	600.00	600.00	600.00	1.94	1.94	180.00	-61.94	0.00	61.94	58.07	3.87	15.999	
700.00	700.00	700.00	700.00	2.29	2.29	180.00	-61.94	0.00	61.94	57.35	4.59	13.499	
800.00	800.00	800.00	800.00	2.65	2.65	180.00	-61.94	0.00	61.94	56.63	5.31	11.675	
900.00	900.00	900.00	900.00	3.01	3.01	180.00	-61.94	0.00	61.94	55.92	6.02	10.285	
1,000.00	1,000.00	1,000.00	1,000.00	3.37	3.37	180.00	-61.94	0.00	61.94	55.20	6.74	9.191	
1,100.00	1,100.00	1,100.00	1,100.00	3.73	3.73	180.00	-61.94	0.00	61.94	54.48	7.46	8.307	
1,200.00	1,200.00	1,200.00	1,200.00	4.09	4.09	180.00	-61.94	0.00	61.94	53.77	8.17	7.578	
1,250.00	1,250.00	1,250.00	1,250.00	4.27	4.27	180.00	-61.94	0.00	61.94	53.41	8.53	7.260 CC, ES	
1,300.00	1,300.00	1,300.00	1,300.00	4.44	4.45	166.80	-61.94	0.00	62.36	53.47	8.89	7.015	
1,400.00	1,399.93	1,399.93	1,399.93	4.80	4.80	167.48	-61.94	0.00	65.77	56.16	9.61	6.846	
1,500.00	1,499.68	1,499.68	1,499.68	5.16	5.16	168.65	-61.94	0.00	72.59	62.27	10.32	7.031	
1,600.00	1,599.13	1,599.13	1,599.13	5.52	5.52	170.03	-61.94	0.00	82.87	71.83	11.04	7.506	
1,700.00	1,698.15	1,698.15	1,698.15	5.89	5.87	171.42	-61.94	0.00	96.61	84.85	11.75	8.219	
1,800.00	1,796.63	1,796.63	1,796.63	6.27	6.23	172.68	-61.94	0.00	113.81	101.34	12.47	9.129	
1,900.00	1,894.44	1,894.44	1,894.44	6.67	6.58	173.76	-61.94	0.00	134.46	121.28	13.18	10.204	
2,000.00	1,991.46	1,991.46	1,991.46	7.09	6.92	174.67	-61.94	0.00	158.54	144.65	13.89	11.418	
2,100.00	2,087.58	2,087.58	2,087.58	7.53	7.27	175.41	-61.94	0.00	186.00	171.41	14.59	12.749	
2,200.00	2,182.68	2,182.68	2,182.68	8.01	7.61	176.02	-61.94	0.00	216.83	201.53	15.29	14.179	
2,300.00	2,276.65	2,283.88	2,283.87	8.52	7.97	176.60	-60.71	0.02	249.86	233.83	16.02	15.593	
2,400.00	2,369.36	2,387.75	2,387.61	9.07	8.34	177.23	-55.79	0.08	282.90	266.14	16.76	16.880	
2,500.00	2,460.71	2,492.93	2,492.42	9.67	8.72	177.89	-46.98	0.20	315.87	298.38	17.49	18.060	
2,600.00	2,550.59	2,599.45	2,598.16	10.31	9.10	178.57	-34.14	0.37	348.74	330.52	18.22	19.143	
2,700.00	2,638.88	2,707.35	2,704.70	10.99	9.49	179.28	-17.14	0.60	381.47	362.53	18.94	20.141	
2,800.00	2,725.48	2,816.65	2,811.90	11.73	9.90	-179.99	4.17	0.89	414.05	394.39	19.66	21.060	
2,900.00	2,810.28	2,927.39	2,919.60	12.51	10.34	-179.23	29.90	1.23	446.42	426.04	20.38	21.906	
3,000.00	2,893.18	3,039.59	3,027.63	13.34	10.80	-178.45	60.20	1.64	478.56	457.46	21.10	22.683	
3,100.00	2,974.07	3,153.29	3,135.80	14.22	11.29	-177.65	95.20	2.11	510.44	488.62	21.82	23.394	
3,166.85	3,026.99	3,230.14	3,208.09	14.84	11.65	-177.11	121.27	2.46	531.58	509.27	22.30	23.833	
3,200.00	3,052.99	3,268.58	3,243.97	15.15	11.83	-176.84	135.04	2.65	541.83	519.28	22.55	24.032	
3,300.00	3,131.43	3,386.32	3,352.70	16.11	12.42	-176.01	180.18	3.25	570.28	547.00	23.28	24.495	
3,400.00	3,209.87	3,506.51	3,461.69	17.08	13.08	-175.13	230.83	3.93	594.96	570.93	24.03	24.756	
3,500.00	3,288.30	3,603.64	3,548.89	18.07	13.65	-174.42	273.61	4.51	617.76	592.83	24.93	24.784	
3,600.00	3,366.74	3,700.73	3,636.06	19.07	14.23	-173.76	316.37	5.08	640.65	614.81	25.84	24.794	
3,700.00	3,445.18	3,797.82	3,723.22	20.08	14.84	-173.15	359.14	5.66	663.61	636.84	26.77	24.790	
3,800.00	3,523.62	3,894.92	3,810.39	21.10	15.46	-172.58	401.90	6.23	686.63	658.92	27.72	24.773	
3,900.00	3,602.05	3,992.01	3,897.55	22.12	16.10	-172.04	444.66	6.81	709.72	681.04	28.68	24.746	
4,000.00	3,680.49	4,089.10	3,984.71	23.15	16.75	-171.54	487.42	7.38	732.86	703.20	29.66	24.710	
4,100.00	3,758.93	4,186.19	4,071.88	24.19	17.41	-171.07	530.19	7.96	756.06	725.40	30.65	24.666	
4,200.00	3,837.37	4,283.28	4,159.04	25.23	18.08	-170.63	572.95	8.53	779.29	747.64	31.66	24.616	
4,300.00	3,915.80	4,380.37	4,246.21	26.28	18.77	-170.21	615.71	9.11	802.57	769.90	32.68	24.562	
4,400.00	3,994.24	4,477.46	4,333.37	27.33	19.45	-169.82	658.47	9.68	825.89	792.19	33.71	24.503	
4,500.00	4,072.68	4,574.55	4,420.54	28.38	20.15	-169.45	701.24	10.25	849.24	814.50	34.75	24.442	
4,600.00	4,151.12	4,671.64	4,507.70	29.44	20.85	-169.10	744.00	10.83	872.63	836.83	35.80	24.378	
4,700.00	4,229.55	4,768.74	4,594.87	30.50	21.56	-168.76	786.76	11.40	896.04	859.19	36.86	24.312	
4,800.00	4,307.99	4,865.83	4,682.03	31.56	22.28	-168.45	829.52	11.98	919.48	881.56	37.92	24.245	
4,900.00	4,386.43	4,962.92	4,769.20	32.63	23.00	-168.15	872.29	12.55	942.95	903.95	39.00	24.177	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 Toolface (°)	Offset Wellbore Centre		Distance		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)	Minimum Separation (usft)		
5,000.00	4,464.87	5,060.01	4,856.36	33.69	23.72	-167.86	915.05	13.13	966.44	926.36	40.09	24.109	
5,100.00	4,543.31	5,157.10	4,943.53	34.76	24.45	-167.59	957.81	13.70	989.95	948.78	41.18	24.041	
5,200.00	4,621.74	5,254.19	5,030.69	35.83	25.18	-167.33	1,000.57	14.28	1,013.49	971.21	42.28	23.973	
5,300.00	4,700.18	5,351.28	5,117.86	36.90	25.92	-167.08	1,043.34	14.85	1,037.04	993.65	43.38	23.905	
5,400.00	4,778.62	5,448.37	5,205.02	37.97	26.66	-166.84	1,086.10	15.43	1,060.61	1,016.11	44.49	23.837	
5,500.00	4,857.06	5,545.46	5,292.19	39.05	27.40	-166.61	1,128.86	16.00	1,084.19	1,038.58	45.61	23.771	
5,600.00	4,935.49	5,642.55	5,379.35	40.12	28.14	-166.40	1,171.62	16.58	1,107.79	1,061.06	46.73	23.705	
5,700.00	5,013.93	5,739.65	5,466.52	41.20	28.89	-166.19	1,214.39	17.15	1,131.41	1,083.55	47.86	23.640	
5,800.00	5,092.37	5,836.74	5,553.68	42.27	29.63	-165.99	1,257.15	17.72	1,155.03	1,106.04	48.99	23.576	
5,900.00	5,170.81	5,933.83	5,640.85	43.35	30.38	-165.80	1,299.91	18.30	1,178.68	1,128.55	50.13	23.513	
6,000.00	5,249.24	6,030.92	5,728.01	44.43	31.14	-165.61	1,342.67	18.87	1,202.33	1,151.06	51.27	23.451	
6,100.00	5,327.68	6,128.01	5,815.18	45.51	31.89	-165.44	1,385.44	19.45	1,225.99	1,173.58	52.41	23.390	
6,200.00	5,406.12	6,225.10	5,902.34	46.59	32.65	-165.27	1,428.20	20.02	1,249.67	1,196.11	53.56	23.331	
6,300.00	5,484.56	6,322.19	5,989.51	47.67	33.40	-165.10	1,470.96	20.60	1,273.35	1,218.64	54.72	23.272	
6,400.00	5,562.99	6,419.28	6,076.67	48.75	34.16	-164.94	1,513.73	21.17	1,297.05	1,241.18	55.87	23.215	
6,500.00	5,641.43	6,516.37	6,163.83	49.84	34.92	-164.79	1,556.49	21.75	1,320.75	1,263.72	57.03	23.159	
6,600.00	5,719.87	6,613.47	6,251.00	50.92	35.68	-164.64	1,599.25	22.32	1,344.47	1,286.27	58.19	23.104	
6,700.00	5,798.31	6,710.56	6,338.16	52.00	36.45	-164.50	1,642.01	22.90	1,368.19	1,308.83	59.36	23.050	
6,800.00	5,876.75	6,807.65	6,425.33	53.09	37.21	-164.36	1,684.78	23.47	1,391.91	1,331.39	60.52	22.997	
6,900.00	5,955.18	6,904.74	6,512.49	54.17	37.98	-164.23	1,727.54	24.05	1,415.65	1,353.95	61.70	22.946	
7,000.00	6,033.62	7,001.83	6,599.66	55.25	38.74	-164.10	1,770.30	24.62	1,439.39	1,376.52	62.87	22.895	
7,100.00	6,112.06	7,098.92	6,686.82	56.34	39.51	-163.98	1,813.06	25.19	1,463.14	1,399.10	64.04	22.846	
7,200.00	6,190.50	7,174.35	6,754.54	57.43	40.10	-163.88	1,846.28	25.37	1,487.18	1,422.11	65.07	22.854	
7,300.00	6,268.93	7,217.13	6,792.87	58.51	40.44	-163.72	1,865.06	22.71	1,514.08	1,448.22	65.86	22.988	
7,400.00	6,347.37	7,250.00	6,822.15	59.60	40.70	-163.53	1,879.39	18.50	1,544.46	1,477.96	66.50	23.225	
7,500.00	6,425.81	7,300.00	6,866.16	60.68	41.09	-163.13	1,900.90	8.54	1,578.11	1,510.74	67.37	23.425	
7,600.00	6,504.25	7,335.00	6,896.43	61.77	41.35	-162.77	1,915.66	-0.96	1,615.14	1,547.18	67.96	23.766	
7,700.00	6,582.68	7,370.06	6,926.18	62.86	41.61	-162.34	1,930.16	-12.51	1,655.47	1,586.91	68.55	24.148	
7,800.00	6,661.12	7,400.00	6,951.05	63.95	41.83	-161.93	1,942.27	-23.97	1,699.02	1,630.04	68.98	24.629	
7,888.30	6,730.38	7,429.94	6,975.36	64.91	42.05	-161.49	1,954.08	-36.86	1,740.09	1,670.68	69.41	25.069	
7,900.00	6,739.57	7,433.43	6,978.15	65.03	42.07	-159.42	1,955.44	-38.45	1,745.66	1,676.21	69.45	25.135	
7,950.00	6,779.07	7,450.00	6,991.29	65.56	42.19	-150.57	1,961.82	-46.27	1,768.74	1,699.10	69.63	25.400	
8,000.00	6,818.72	7,450.00	6,991.29	66.07	42.19	-142.04	1,961.82	-46.27	1,790.63	1,721.33	69.30	25.840	
8,050.00	6,858.20	7,479.72	7,014.33	66.56	42.39	-133.58	1,972.99	-61.34	1,810.74	1,741.03	69.71	25.975	
8,100.00	6,897.22	7,500.00	7,029.64	67.02	42.53	-125.76	1,980.41	-72.38	1,829.41	1,759.59	69.82	26.202	
8,150.00	6,935.48	7,500.00	7,029.64	67.44	42.53	-118.73	1,980.41	-72.38	1,846.42	1,777.15	69.27	26.654	
8,200.00	6,972.69	7,528.22	7,050.34	67.84	42.71	-112.34	1,990.43	-88.73	1,861.39	1,791.87	69.51	26.777	
8,250.00	7,008.57	7,550.00	7,065.81	68.20	42.86	-106.77	1,997.91	-102.11	1,874.55	1,805.02	69.53	26.959	
8,300.00	7,042.85	7,550.00	7,065.81	68.52	42.86	-101.98	1,997.91	-102.11	1,885.77	1,816.93	68.84	27.394	
8,350.00	7,075.25	7,578.03	7,085.04	68.81	43.03	-97.91	2,007.18	-120.27	1,894.73	1,825.73	69.00	27.460	
8,400.00	7,105.55	7,600.00	7,099.54	69.07	43.17	-94.53	2,014.17	-135.23	1,901.70	1,832.74	68.96	27.576	
8,450.00	7,133.50	7,600.00	7,099.54	69.29	43.17	-91.70	2,014.17	-135.23	1,906.58	1,838.36	68.22	27.948	
8,500.00	7,158.89	7,628.35	7,117.47	69.48	43.34	-89.55	2,022.80	-155.42	1,909.10	1,840.69	68.41	27.908	
8,550.00	7,181.54	7,650.00	7,130.55	69.63	43.47	-87.90	2,029.08	-171.48	1,909.56	1,841.16	68.41	27.915	
8,600.00	7,201.26	7,650.00	7,130.55	69.75	43.47	-86.59	2,029.08	-171.48	1,907.93	1,840.19	67.73	28.168	
8,650.00	7,217.91	7,678.43	7,146.88	69.84	43.63	-85.94	2,036.91	-193.39	1,903.94	1,835.90	68.05	27.981	
8,700.00	7,231.36	7,700.00	7,158.62	69.90	43.76	-85.69	2,042.52	-210.59	1,897.97	1,829.78	68.19	27.834	
8,750.00	7,241.51	7,700.00	7,158.62	69.92	43.76	-85.64	2,042.52	-210.59	1,889.98	1,822.28	67.70	27.916	
8,800.00	7,248.28	7,727.43	7,172.68	69.92	43.91	-86.30	2,049.23	-233.16	1,879.81	1,811.63	68.18	27.570	
8,850.00	7,251.62	7,750.00	7,183.53	69.89	44.03	-87.33	2,054.39	-252.27	1,867.83	1,799.25	68.58	27.236	
8,873.35	7,252.00	7,750.00	7,183.53	69.87	44.03	-87.81	2,054.39	-252.27	1,861.56	1,793.10	68.46	27.193	
8,900.00	7,252.00	7,750.00	7,183.53	69.84	44.03	-87.81	2,054.39	-252.27	1,854.39	1,786.05	68.34	27.136	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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			
9,000.00	7,252.00	7,800.00	7,205.09	69.75	44.30	-88.49	2,064.60	-296.20	1,829.48	1,759.93	69.55	26.303				
9,100.00	7,252.00	7,827.03	7,215.29	69.69	44.43	-88.81	2,069.40	-320.76	1,808.06	1,737.85	70.21	25.751				
9,200.00	7,252.00	7,850.00	7,223.14	69.66	44.55	-89.07	2,073.07	-342.03	1,790.32	1,719.41	70.91	25.248				
9,300.00	7,252.00	7,900.00	7,237.54	69.67	44.80	-89.53	2,079.73	-389.43	1,775.76	1,703.28	72.48	24.500				
9,400.00	7,252.00	7,950.00	7,248.18	69.71	45.04	-89.88	2,084.55	-438.03	1,764.75	1,690.63	74.12	23.808				
9,500.00	7,252.00	7,984.51	7,253.28	69.80	45.20	-90.04	2,086.77	-472.09	1,757.03	1,681.60	75.44	23.291				
9,600.00	7,252.00	8,026.87	7,257.02	69.93	45.40	-90.16	2,088.25	-514.24	1,752.65	1,675.65	77.00	22.762				
9,700.00	7,252.00	8,079.59	7,258.00	70.12	45.65	-90.20	2,088.29	-566.94	1,751.49	1,672.67	78.82	22.221				
9,800.00	7,252.00	8,179.59	7,258.00	70.37	46.18	-90.20	2,087.45	-666.94	1,751.45	1,669.56	81.89	21.389				
9,900.00	7,252.00	8,279.59	7,258.00	70.70	46.83	-90.20	2,086.61	-766.93	1,751.41	1,666.22	85.19	20.558				
10,000.00	7,252.00	8,379.59	7,258.00	71.11	47.61	-90.20	2,085.77	-866.93	1,751.36	1,662.64	88.72	19.740				
10,100.00	7,252.00	8,479.59	7,258.00	71.62	48.54	-90.20	2,084.93	-966.93	1,751.32	1,658.88	92.44	18.945				
10,200.00	7,252.00	8,579.59	7,258.00	72.25	49.61	-90.20	2,084.09	-1,066.92	1,751.28	1,654.94	96.34	18.178				
10,300.00	7,252.00	8,679.59	7,258.00	73.01	50.82	-90.20	2,083.26	-1,166.92	1,751.24	1,650.85	100.38	17.445				
10,400.00	7,252.00	8,779.59	7,258.00	73.92	52.18	-90.20	2,082.42	-1,266.92	1,751.19	1,646.63	104.56	16.748				
10,500.00	7,252.00	8,879.59	7,258.00	74.98	53.67	-90.20	2,081.58	-1,366.91	1,751.15	1,642.29	108.86	16.087				
10,600.00	7,252.00	8,979.59	7,258.00	76.20	55.28	-90.20	2,080.74	-1,466.91	1,751.11	1,637.85	113.26	15.461				
10,700.00	7,252.00	9,079.59	7,258.00	77.58	57.00	-90.20	2,079.90	-1,566.91	1,751.06	1,633.32	117.74	14.872				
10,800.00	7,252.00	9,179.59	7,258.00	79.11	58.83	-90.20	2,079.07	-1,666.90	1,751.02	1,628.71	122.31	14.316				
10,900.00	7,252.00	9,279.59	7,258.00	80.77	60.74	-90.20	2,078.23	-1,766.90	1,750.98	1,624.02	126.95	13.792				
11,000.00	7,252.00	9,379.59	7,258.00	82.55	62.72	-90.20	2,077.39	-1,866.90	1,750.93	1,619.28	131.66	13.299				
11,100.00	7,252.00	9,479.59	7,258.00	84.43	64.78	-90.20	2,076.55	-1,966.89	1,750.89	1,614.47	136.41	12.835				
11,200.00	7,252.00	9,579.59	7,258.00	86.40	66.90	-90.20	2,075.71	-2,066.89	1,750.85	1,609.62	141.22	12.398				
11,300.00	7,252.00	9,679.59	7,258.00	88.45	69.06	-90.20	2,074.87	-2,166.89	1,750.80	1,604.72	146.08	11.985				
11,400.00	7,252.00	9,779.59	7,258.00	90.56	71.28	-90.20	2,074.04	-2,266.88	1,750.76	1,599.78	150.98	11.596				
11,500.00	7,252.00	9,879.59	7,258.00	92.73	73.53	-90.20	2,073.20	-2,366.88	1,750.72	1,594.81	155.91	11.229				
11,600.00	7,252.00	9,979.59	7,258.00	94.95	75.82	-90.20	2,072.36	-2,466.87	1,750.67	1,589.80	160.88	10.882				
11,700.00	7,252.00	10,079.59	7,258.00	97.21	78.15	-90.20	2,071.52	-2,566.87	1,750.63	1,584.76	165.87	10.554				
11,800.00	7,252.00	10,179.59	7,258.00	99.51	80.50	-90.20	2,070.68	-2,666.87	1,750.59	1,579.69	170.90	10.243				
11,900.00	7,252.00	10,279.59	7,258.00	101.83	82.88	-90.20	2,069.85	-2,766.86	1,750.54	1,574.60	175.95	9.949				
12,000.00	7,252.00	10,379.59	7,258.00	104.19	85.28	-90.20	2,069.01	-2,866.86	1,750.50	1,569.48	181.02	9.670				
12,100.00	7,252.00	10,479.59	7,258.00	106.57	87.71	-90.20	2,068.17	-2,966.86	1,750.46	1,564.34	186.11	9.405				
12,200.00	7,252.00	10,579.59	7,258.00	108.97	90.15	-90.20	2,067.33	-3,066.85	1,750.41	1,559.19	191.23	9.154				
12,300.00	7,252.00	10,679.59	7,258.00	111.39	92.61	-90.20	2,066.49	-3,166.85	1,750.37	1,554.01	196.36	8.914				
12,400.00	7,252.00	10,779.59	7,258.00	113.84	95.09	-90.20	2,065.65	-3,266.85	1,750.33	1,548.82	201.51	8.686				
12,500.00	7,252.00	10,879.59	7,258.00	116.29	97.58	-90.20	2,064.82	-3,366.84	1,750.28	1,543.62	206.67	8.469				
12,600.00	7,252.00	10,979.59	7,258.00	118.76	100.08	-90.20	2,063.98	-3,466.84	1,750.24	1,538.40	211.85	8.262				
12,700.00	7,252.00	11,079.59	7,258.00	121.25	102.60	-90.20	2,063.14	-3,566.84	1,750.20	1,533.16	217.04	8.064				
12,800.00	7,252.00	11,179.59	7,258.00	123.74	105.13	-90.20	2,062.30	-3,666.83	1,750.15	1,527.92	222.24	7.875				
12,900.00	7,252.00	11,279.59	7,258.00	126.25	107.66	-90.20	2,061.46	-3,766.83	1,750.11	1,522.66	227.45	7.694				
13,000.00	7,252.00	11,379.59	7,258.00	128.77	110.21	-90.20	2,060.63	-3,866.83	1,750.07	1,517.39	232.68	7.522				
13,100.00	7,252.00	11,479.59	7,258.00	131.30	112.77	-90.20	2,059.79	-3,966.82	1,750.02	1,512.11	237.91	7.356				
13,200.00	7,252.00	11,579.59	7,258.00	133.83	115.33	-90.20	2,058.95	-4,066.82	1,749.98	1,506.83	243.15	7.197				
13,300.00	7,252.00	11,679.59	7,258.00	136.38	117.90	-90.20	2,058.11	-4,166.82	1,749.94	1,501.53	248.40	7.045				
13,400.00	7,252.00	11,779.59	7,258.00	138.93	120.48	-90.20	2,057.27	-4,266.81	1,749.89	1,496.23	253.66	6.898				
13,500.00	7,252.00	11,879.59	7,258.00	141.49	123.06	-90.20	2,056.43	-4,366.81	1,749.85	1,490.92	258.93	6.758				
13,600.00	7,252.00	11,979.59	7,258.00	144.05	125.65	-90.20	2,055.60	-4,466.80	1,749.81	1,485.60	264.21	6.623				
13,700.00	7,252.00	12,079.59	7,258.00	146.63	128.25	-90.20	2,054.76	-4,566.80	1,749.76	1,480.28	269.49	6.493				
13,800.00	7,252.00	12,179.59	7,258.00	149.20	130.85	-90.20	2,053.92	-4,666.80	1,749.72	1,474.95	274.77	6.368				
13,900.00	7,252.00	12,279.59	7,258.00	151.79	133.46	-90.20	2,053.08	-4,766.79	1,749.68	1,469.61	280.07	6.247				
14,000.00	7,252.00	12,379.59	7,258.00	154.38	136.07	-90.20	2,052.24	-4,866.79	1,749.63	1,464.27	285.37	6.131				
14,100.00	7,252.00	12,479.59	7,258.00	156.97	138.69	-90.20	2,051.41	-4,966.79	1,749.59	1,458.92	290.67	6.019				

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 Toolface (°)	Offset Wellbore Centre		Distance		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)			
14,200.00	7,252.00	12,579.59	7,258.00	159.57	141.31	-90.20	2,050.57	-5,066.78	1,749.55	1,453.57	295.98	5.911	
14,300.00	7,252.00	12,679.59	7,258.00	162.17	143.93	-90.20	2,049.73	-5,166.78	1,749.51	1,448.21	301.30	5.807	
14,400.00	7,252.00	12,779.59	7,258.00	164.78	146.56	-90.20	2,048.89	-5,266.78	1,749.46	1,442.85	306.62	5.706	
14,500.00	7,252.00	12,879.59	7,258.00	167.39	149.19	-90.20	2,048.05	-5,366.77	1,749.42	1,437.48	311.94	5.608	
14,600.00	7,252.00	12,979.59	7,258.00	170.00	151.83	-90.20	2,047.22	-5,466.77	1,749.38	1,432.11	317.27	5.514	
14,700.00	7,252.00	13,079.59	7,258.00	172.62	154.47	-90.20	2,046.38	-5,566.77	1,749.33	1,426.74	322.60	5.423	
14,800.00	7,252.00	13,179.59	7,258.00	175.24	157.11	-90.20	2,045.54	-5,666.76	1,749.29	1,421.36	327.93	5.334	
14,900.00	7,252.00	13,279.59	7,258.00	177.86	159.75	-90.20	2,044.70	-5,766.76	1,749.25	1,415.98	333.27	5.249	
15,000.00	7,252.00	13,379.59	7,258.00	180.49	162.40	-90.20	2,043.86	-5,866.76	1,749.20	1,410.59	338.61	5.166	
15,100.00	7,252.00	13,479.59	7,258.00	183.12	165.05	-90.20	2,043.02	-5,966.75	1,749.16	1,405.20	343.96	5.085	
15,200.00	7,252.00	13,579.59	7,258.00	185.75	167.70	-90.20	2,042.19	-6,066.75	1,749.12	1,399.81	349.30	5.007	
15,300.00	7,252.00	13,679.59	7,258.00	188.38	170.35	-90.20	2,041.35	-6,166.74	1,749.07	1,394.42	354.65	4.932	
15,400.00	7,252.00	13,779.59	7,258.00	191.02	173.01	-90.20	2,040.51	-6,266.74	1,749.03	1,389.02	360.01	4.858	
15,500.00	7,252.00	13,879.59	7,258.00	193.66	175.66	-90.20	2,039.67	-6,366.74	1,748.99	1,383.62	365.36	4.787	
15,600.00	7,252.00	13,979.59	7,258.00	196.30	178.32	-90.20	2,038.83	-6,466.73	1,748.94	1,378.22	370.72	4.718	
15,700.00	7,252.00	14,079.59	7,258.00	198.95	180.99	-90.20	2,038.00	-6,566.73	1,748.90	1,372.82	376.08	4.650	
15,800.00	7,252.00	14,179.59	7,258.00	201.59	183.65	-90.20	2,037.16	-6,666.73	1,748.86	1,367.41	381.45	4.585	
15,900.00	7,252.00	14,279.59	7,258.00	204.24	186.32	-90.20	2,036.32	-6,766.72	1,748.81	1,362.00	386.81	4.521	
16,000.00	7,252.00	14,379.59	7,258.00	206.89	188.98	-90.20	2,035.48	-6,866.72	1,748.77	1,356.59	392.18	4.459	
16,100.00	7,252.00	14,479.59	7,258.00	209.55	191.65	-90.20	2,034.64	-6,966.72	1,748.73	1,351.18	397.55	4.399	
16,200.00	7,252.00	14,579.59	7,258.00	212.20	194.32	-90.20	2,033.80	-7,066.71	1,748.68	1,345.76	402.92	4.340	
16,300.00	7,252.00	14,679.59	7,258.00	214.86	196.99	-90.20	2,032.97	-7,166.71	1,748.64	1,340.34	408.30	4.283	
16,400.00	7,252.00	14,779.59	7,258.00	217.51	199.67	-90.20	2,032.13	-7,266.71	1,748.60	1,334.92	413.67	4.227	
16,500.00	7,252.00	14,879.59	7,258.00	220.17	202.34	-90.20	2,031.29	-7,366.70	1,748.55	1,329.50	419.05	4.173	
16,600.00	7,252.00	14,979.59	7,258.00	222.83	205.02	-90.20	2,030.45	-7,466.70	1,748.51	1,324.08	424.43	4.120	
16,700.00	7,252.00	15,079.59	7,258.00	225.49	207.69	-90.20	2,029.61	-7,566.70	1,748.47	1,318.66	429.81	4.068	
16,800.00	7,252.00	15,179.59	7,258.00	228.16	210.37	-90.20	2,028.78	-7,666.69	1,748.42	1,313.23	435.19	4.018	
16,900.00	7,252.00	15,279.59	7,258.00	230.82	213.05	-90.20	2,027.94	-7,766.69	1,748.38	1,307.81	440.57	3.968	
17,000.00	7,252.00	15,379.59	7,258.00	233.49	215.73	-90.20	2,027.10	-7,866.68	1,748.34	1,302.38	445.96	3.920	
17,100.00	7,252.00	15,479.59	7,258.00	236.16	218.41	-90.20	2,026.26	-7,966.68	1,748.29	1,296.95	451.35	3.874	
17,200.00	7,252.00	15,579.59	7,258.00	238.82	221.09	-90.20	2,025.42	-8,066.68	1,748.25	1,291.52	456.73	3.828	
17,300.00	7,252.00	15,679.59	7,258.00	241.49	223.78	-90.20	2,024.58	-8,166.67	1,748.21	1,286.08	462.12	3.783	
17,395.63	7,252.00	15,775.22	7,258.00	244.05	226.34	-90.20	2,023.78	-8,262.30	1,748.17	1,280.89	467.28	3.741 SF	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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)	Minimum Separation (usft)		
0.00	0.00	0.00	0.00	0.00	0.00	180.00	-80.16	0.00	80.16				
100.00	100.00	100.00	100.00	0.14	0.14	180.00	-80.16	0.00	80.16	79.87	0.29	279.512	
200.00	200.00	200.00	200.00	0.50	0.50	180.00	-80.16	0.00	80.16	79.15	1.00	79.861	
300.00	300.00	300.00	300.00	0.86	0.86	180.00	-80.16	0.00	80.16	78.44	1.72	46.585	
400.00	400.00	400.00	400.00	1.22	1.22	180.00	-80.16	0.00	80.16	77.72	2.44	32.884	
500.00	500.00	500.00	500.00	1.58	1.58	180.00	-80.16	0.00	80.16	77.00	3.15	25.410	
600.00	600.00	600.00	600.00	1.94	1.94	180.00	-80.16	0.00	80.16	76.29	3.87	20.705	
700.00	700.00	700.00	700.00	2.29	2.29	180.00	-80.16	0.00	80.16	75.57	4.59	17.470	
800.00	800.00	800.00	800.00	2.65	2.65	180.00	-80.16	0.00	80.16	74.85	5.31	15.109	
900.00	900.00	900.00	900.00	3.01	3.01	180.00	-80.16	0.00	80.16	74.14	6.02	13.310	
1,000.00	1,000.00	1,000.00	1,000.00	3.37	3.37	180.00	-80.16	0.00	80.16	73.42	6.74	11.894	
1,100.00	1,100.00	1,100.00	1,100.00	3.73	3.73	180.00	-80.16	0.00	80.16	72.70	7.46	10.750	
1,200.00	1,200.00	1,200.00	1,200.00	4.09	4.09	180.00	-80.16	0.00	80.16	71.98	8.17	9.807	
1,250.00	1,250.00	1,250.00	1,250.00	4.27	4.27	180.00	-80.16	0.00	80.16	71.63	8.53	9.395 CC, ES	
1,300.00	1,300.00	1,300.00	1,300.00	4.44	4.45	166.78	-80.16	0.00	80.58	71.69	8.89	9.064	
1,400.00	1,399.93	1,399.93	1,399.93	4.80	4.80	167.31	-80.16	0.00	83.98	74.38	9.61	8.742	
1,500.00	1,499.68	1,499.68	1,499.68	5.16	5.16	168.25	-80.16	0.00	90.80	80.48	10.32	8.795	
1,600.00	1,599.13	1,599.13	1,599.13	5.52	5.52	169.42	-80.16	0.00	101.06	90.02	11.04	9.154	
1,700.00	1,698.15	1,698.15	1,698.15	5.89	5.87	170.65	-80.16	0.00	114.77	103.02	11.75	9.764	
1,800.00	1,796.63	1,796.63	1,796.63	6.27	6.23	171.82	-80.16	0.00	131.94	119.47	12.47	10.583	
1,900.00	1,894.44	1,894.44	1,894.44	6.67	6.58	172.88	-80.16	0.00	152.55	139.38	13.18	11.577	
2,000.00	1,991.46	1,991.46	1,991.46	7.09	6.92	173.80	-80.16	0.00	176.59	162.71	13.89	12.718	
2,100.00	2,087.58	2,087.58	2,087.58	7.53	7.27	174.58	-80.16	0.00	204.02	189.43	14.59	13.983	
2,200.00	2,182.68	2,182.68	2,182.68	8.01	7.61	175.24	-80.16	0.00	234.81	219.52	15.29	15.354	
2,300.00	2,276.65	2,276.65	2,276.65	8.52	7.95	175.79	-80.16	0.00	268.92	252.93	15.99	16.816	
2,400.00	2,369.36	2,377.53	2,377.52	9.07	8.31	176.33	-79.11	0.01	305.38	288.65	16.73	18.256	
2,500.00	2,460.71	2,482.26	2,482.14	9.67	8.68	176.91	-74.36	0.07	341.87	324.40	17.47	19.567	
2,600.00	2,550.59	2,588.50	2,588.01	10.31	9.06	177.52	-65.64	0.17	378.26	360.04	18.21	20.768	
2,700.00	2,638.88	2,696.29	2,695.03	10.99	9.45	178.15	-52.79	0.33	414.50	395.55	18.95	21.873	
2,800.00	2,725.48	2,805.68	2,803.06	11.73	9.84	178.81	-35.65	0.53	450.57	430.89	19.69	22.889	
2,900.00	2,810.28	2,916.72	2,911.97	12.51	10.26	179.50	-14.04	0.79	486.42	466.00	20.42	23.824	
3,000.00	2,893.18	3,029.45	3,021.59	13.34	10.70	-179.80	12.20	1.10	522.01	500.86	21.15	24.685	
3,100.00	2,974.07	3,143.91	3,131.76	14.22	11.17	-179.07	43.24	1.48	557.29	535.41	21.88	25.475	
3,166.85	3,026.99	3,221.41	3,205.61	14.84	11.50	-178.56	66.74	1.76	580.69	558.32	22.36	25.965	
3,200.00	3,052.99	3,260.23	3,242.35	15.15	11.67	-178.32	79.26	1.91	592.05	569.44	22.61	26.188	
3,300.00	3,131.43	3,379.41	3,354.05	16.11	12.23	-177.55	120.79	2.40	623.83	600.49	23.34	26.725	
3,400.00	3,209.87	3,484.85	3,451.59	17.08	12.75	-176.87	160.81	2.88	652.56	628.41	24.14	27.030	
3,500.00	3,288.30	3,580.49	3,539.94	18.07	13.25	-176.30	197.43	3.32	681.06	656.07	24.99	27.253	
3,600.00	3,366.74	3,676.12	3,628.29	19.07	13.77	-175.77	234.05	3.76	709.61	683.76	25.85	27.449	
3,700.00	3,445.18	3,771.76	3,716.64	20.08	14.30	-175.29	270.67	4.20	738.22	711.49	26.73	27.619	
3,800.00	3,523.62	3,867.40	3,804.99	21.10	14.84	-174.84	307.29	4.63	766.87	739.26	27.62	27.768	
3,900.00	3,602.05	3,963.04	3,893.34	22.12	15.40	-174.42	343.92	5.07	795.57	767.05	28.52	27.898	
4,000.00	3,680.49	4,058.68	3,981.69	23.15	15.96	-174.03	380.54	5.51	824.30	794.87	29.43	28.011	
4,100.00	3,758.93	4,154.32	4,070.04	24.19	16.54	-173.67	417.16	5.95	853.06	822.71	30.35	28.108	
4,200.00	3,837.37	4,249.96	4,158.39	25.23	17.13	-173.33	453.78	6.38	881.85	850.57	31.28	28.192	
4,300.00	3,915.80	4,345.60	4,246.73	26.28	17.72	-173.01	490.40	6.82	910.67	878.45	32.22	28.265	
4,400.00	3,994.24	4,441.24	4,335.08	27.33	18.32	-172.71	527.02	7.26	939.51	906.35	33.17	28.327	
4,500.00	4,072.68	4,536.88	4,423.43	28.38	18.93	-172.43	563.64	7.70	968.38	934.26	34.12	28.379	
4,600.00	4,151.12	4,632.52	4,511.78	29.44	19.54	-172.17	600.26	8.14	997.26	962.18	35.09	28.424	
4,700.00	4,229.55	4,728.16	4,600.13	30.50	20.16	-171.92	636.88	8.57	1,026.17	990.11	36.05	28.462	
4,800.00	4,307.99	4,823.80	4,688.48	31.56	20.79	-171.69	673.50	9.01	1,055.09	1,018.06	37.03	28.493	
4,900.00	4,386.43	4,919.43	4,776.83	32.63	21.41	-171.46	710.12	9.45	1,084.02	1,046.01	38.01	28.518	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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)	Minimum Separation (usft)		
5,000.00	4,464.87	5,015.07	4,865.18	33.69	22.05	-171.25	746.74	9.89	1,112.97	1,073.97	39.00	28.539	
5,100.00	4,543.31	5,110.71	4,953.53	34.76	22.68	-171.05	783.37	10.33	1,141.93	1,101.94	39.99	28.556	
5,200.00	4,621.74	5,206.35	5,041.88	35.83	23.32	-170.86	819.99	10.76	1,170.91	1,129.92	40.99	28.568	
5,300.00	4,700.18	5,301.99	5,130.23	36.90	23.96	-170.68	856.61	11.20	1,199.90	1,157.91	41.99	28.577	
5,400.00	4,778.62	5,397.63	5,218.58	37.97	24.61	-170.51	893.23	11.64	1,228.89	1,185.90	42.99	28.583	
5,500.00	4,857.06	5,493.27	5,306.93	39.05	25.26	-170.34	929.85	12.08	1,257.90	1,213.90	44.00	28.587	
5,600.00	4,935.49	5,588.91	5,395.27	40.12	25.91	-170.18	966.47	12.52	1,286.91	1,241.90	45.02	28.588	
5,700.00	5,013.93	5,684.55	5,483.62	41.20	26.56	-170.03	1,003.09	12.95	1,315.94	1,269.91	46.03	28.587	
5,800.00	5,092.37	5,780.19	5,571.97	42.27	27.21	-169.89	1,039.71	13.39	1,344.97	1,297.92	47.05	28.584	
5,900.00	5,170.81	5,875.83	5,660.32	43.35	27.87	-169.75	1,076.33	13.83	1,374.01	1,325.93	48.08	28.579	
6,000.00	5,249.24	5,971.47	5,748.67	44.43	28.53	-169.62	1,112.95	14.27	1,403.06	1,353.95	49.10	28.573	
6,100.00	5,327.68	6,067.11	5,837.02	45.51	29.19	-169.49	1,149.57	14.70	1,432.11	1,381.98	50.13	28.566	
6,200.00	5,406.12	6,162.74	5,925.37	46.59	29.85	-169.37	1,186.19	15.14	1,461.17	1,410.00	51.16	28.558	
6,300.00	5,484.56	6,258.38	6,013.72	47.67	30.52	-169.25	1,222.82	15.58	1,490.24	1,438.04	52.20	28.549	
6,400.00	5,562.99	6,354.02	6,102.07	48.75	31.18	-169.14	1,259.44	16.02	1,519.31	1,466.07	53.24	28.539	
6,500.00	5,641.43	6,449.66	6,190.42	49.84	31.85	-169.03	1,296.06	16.46	1,548.38	1,494.11	54.28	28.528	
6,600.00	5,719.87	6,545.30	6,278.77	50.92	32.51	-168.93	1,332.68	16.89	1,577.46	1,522.15	55.32	28.517	
6,700.00	5,798.31	6,640.94	6,367.12	52.00	33.18	-168.83	1,369.30	17.33	1,606.55	1,550.19	56.36	28.505	
6,800.00	5,876.75	6,736.58	6,455.47	53.09	33.85	-168.73	1,405.92	17.77	1,635.64	1,578.23	57.41	28.492	
6,900.00	5,955.18	6,809.17	6,522.52	54.17	34.36	-168.66	1,433.71	18.10	1,664.89	1,606.59	58.30	28.558	
7,000.00	6,033.62	6,850.00	6,560.22	55.25	34.65	-168.57	1,449.33	18.64	1,696.21	1,637.25	58.96	28.770	
7,100.00	6,112.06	6,900.00	6,606.13	56.34	35.00	-168.34	1,468.31	11.33	1,730.29	1,670.59	59.70	28.983	
7,200.00	6,190.50	6,950.00	6,651.44	57.43	35.34	-167.97	1,487.00	1.52	1,767.34	1,706.87	60.47	29.227	
7,300.00	6,268.93	6,982.79	6,680.65	58.51	35.56	-167.66	1,499.03	-7.22	1,807.22	1,746.21	61.00	29.625	
7,400.00	6,347.37	7,018.36	6,711.77	59.60	35.79	-167.27	1,511.83	-18.72	1,849.93	1,788.38	61.55	30.053	
7,500.00	6,425.81	7,050.00	6,738.87	60.68	36.00	-166.88	1,522.96	-30.70	1,895.43	1,833.41	62.02	30.563	
7,600.00	6,504.25	7,082.58	6,766.08	61.77	36.20	-166.43	1,534.12	-44.69	1,943.66	1,881.19	62.47	31.113	
7,700.00	6,582.68	7,100.00	6,780.32	62.86	36.31	-166.17	1,539.95	-52.86	1,994.66	1,932.07	62.59	31.867	
7,800.00	6,661.12	7,150.00	6,819.85	63.95	36.61	-165.36	1,556.10	-78.84	2,048.18	1,984.80	63.38	32.315	
7,888.30	6,730.38	7,150.00	6,819.85	64.91	36.61	-165.36	1,556.10	-78.84	2,097.48	2,034.39	63.09	33.246	
7,900.00	6,739.57	7,150.00	6,819.85	65.03	36.61	-163.17	1,556.10	-78.84	2,104.16	2,041.11	63.05	33.375	
7,950.00	6,779.07	7,174.87	6,838.69	65.56	36.76	-153.44	1,563.79	-93.13	2,131.76	2,068.35	63.41	33.620	
8,000.00	6,818.72	7,200.00	6,857.14	66.07	36.91	-143.95	1,571.31	-108.45	2,158.38	2,094.63	63.75	33.858	
8,050.00	6,858.20	7,200.00	6,857.14	66.56	36.91	-135.16	1,571.31	-108.45	2,183.39	2,119.94	63.44	34.414	
8,100.00	6,897.22	7,200.00	6,857.14	67.02	36.91	-126.90	1,571.31	-108.45	2,207.09	2,143.99	63.10	34.979	
8,150.00	6,935.48	7,228.21	6,877.09	67.44	37.06	-119.18	1,579.42	-126.67	2,228.77	2,165.36	63.41	35.148	
8,200.00	6,972.69	7,250.00	6,891.92	67.84	37.19	-112.33	1,585.43	-141.45	2,248.78	2,185.24	63.54	35.392	
8,250.00	7,008.57	7,250.00	6,891.92	68.20	37.19	-106.38	1,585.43	-141.45	2,266.76	2,203.67	63.09	35.929	
8,300.00	7,042.85	7,271.24	6,905.87	68.52	37.30	-101.17	1,591.08	-156.43	2,282.62	2,219.45	63.17	36.136	
8,350.00	7,075.25	7,300.00	6,923.92	68.81	37.46	-96.73	1,598.38	-177.60	2,296.46	2,233.03	63.43	36.203	
8,400.00	7,105.55	7,300.00	6,923.92	69.07	37.46	-92.99	1,598.38	-177.60	2,307.77	2,244.82	62.94	36.664	
8,450.00	7,133.50	7,300.00	6,923.92	69.29	37.46	-89.85	1,598.38	-177.60	2,317.06	2,254.59	62.47	37.094	
8,500.00	7,158.89	7,330.68	6,942.08	69.48	37.63	-87.37	1,605.70	-201.22	2,323.62	2,260.81	62.81	36.993	
8,550.00	7,181.54	7,350.00	6,952.90	69.63	37.73	-85.40	1,610.06	-216.62	2,327.97	2,265.08	62.89	37.017	
8,600.00	7,201.26	7,350.00	6,952.90	69.75	37.73	-83.84	1,610.06	-216.62	2,329.95	2,267.45	62.50	37.281	
8,650.00	7,217.91	7,375.66	6,966.52	69.84	37.86	-82.86	1,615.52	-237.66	2,329.34	2,266.51	62.83	37.071	
8,700.00	7,231.36	7,400.00	6,978.63	69.90	37.99	-82.33	1,620.36	-258.21	2,326.46	2,263.28	63.19	36.818	
8,750.00	7,241.51	7,400.00	6,978.63	69.92	37.99	-82.06	1,620.36	-258.21	2,321.09	2,258.12	62.96	36.864	
8,800.00	7,248.28	7,419.95	6,987.95	69.92	38.09	-82.34	1,624.07	-275.45	2,313.38	2,250.04	63.33	36.527	
8,850.00	7,251.62	7,450.00	7,000.93	69.89	38.25	-83.14	1,629.22	-302.06	2,303.55	2,239.52	64.03	35.978	
8,873.35	7,252.00	7,450.00	7,000.93	69.87	38.25	-83.53	1,629.22	-302.06	2,298.00	2,234.00	64.01	35.901	
8,900.00	7,252.00	7,450.00	7,000.93	69.84	38.25	-83.53	1,629.22	-302.06	2,291.58	2,227.57	64.01	35.803	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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)			
9,000.00	7,252.00	7,478.20	7,011.92	69.75	38.40	-83.80	1,633.56	-327.67	2,269.57	2,204.75	64.82	35.013	
9,100.00	7,252.00	7,500.00	7,019.61	69.69	38.51	-83.98	1,636.57	-347.84	2,250.61	2,184.99	65.62	34.298	
9,200.00	7,252.00	7,550.00	7,034.55	69.66	38.77	-84.35	1,642.35	-395.19	2,234.59	2,167.36	67.23	33.238	
9,300.00	7,252.00	7,574.71	7,040.50	69.67	38.90	-84.50	1,644.61	-419.05	2,221.49	2,153.14	68.35	32.500	
9,400.00	7,252.00	7,600.00	7,045.61	69.71	39.04	-84.63	1,646.52	-443.75	2,211.46	2,141.87	69.59	31.777	
9,500.00	7,252.00	7,650.00	7,052.73	69.80	39.32	-84.80	1,649.04	-493.16	2,204.29	2,132.84	71.46	30.848	
9,600.00	7,252.00	7,679.89	7,055.08	69.93	39.48	-84.86	1,649.75	-522.94	2,200.06	2,127.11	72.95	30.159	
9,700.00	7,252.00	7,719.62	7,056.00	70.12	39.71	-84.89	1,649.79	-562.66	2,198.75	2,124.07	74.68	29.441	
9,800.00	7,252.00	7,819.62	7,056.00	70.37	40.37	-84.89	1,648.93	-662.66	2,198.74	2,120.94	77.80	28.261	
9,900.00	7,252.00	7,919.62	7,056.00	70.70	41.19	-84.89	1,648.06	-762.65	2,198.72	2,117.55	81.17	27.089	
10,000.00	7,252.00	8,019.62	7,056.00	71.11	42.18	-84.89	1,647.19	-862.65	2,198.71	2,113.95	84.76	25.940	
10,100.00	7,252.00	8,119.62	7,056.00	71.62	43.34	-84.89	1,646.33	-962.65	2,198.69	2,110.14	88.55	24.830	
10,200.00	7,252.00	8,219.62	7,056.00	72.25	44.67	-84.89	1,645.46	-1,062.64	2,198.67	2,106.16	92.51	23.767	
10,300.00	7,252.00	8,319.62	7,056.00	73.01	46.15	-84.89	1,644.60	-1,162.64	2,198.66	2,102.04	96.62	22.755	
10,400.00	7,252.00	8,419.62	7,056.00	73.92	47.77	-84.89	1,643.73	-1,262.64	2,198.64	2,097.78	100.86	21.798	
10,500.00	7,252.00	8,519.62	7,056.00	74.98	49.52	-84.89	1,642.86	-1,362.63	2,198.63	2,093.41	105.22	20.896	
10,600.00	7,252.00	8,619.62	7,056.00	76.20	51.37	-84.89	1,642.00	-1,462.63	2,198.61	2,088.94	109.67	20.047	
10,700.00	7,252.00	8,719.62	7,056.00	77.58	53.32	-84.89	1,641.13	-1,562.62	2,198.60	2,084.39	114.21	19.250	
10,800.00	7,252.00	8,819.62	7,056.00	79.11	55.34	-84.89	1,640.27	-1,662.62	2,198.58	2,079.75	118.83	18.502	
10,900.00	7,252.00	8,919.62	7,056.00	80.77	57.44	-84.89	1,639.40	-1,762.62	2,198.57	2,075.05	123.51	17.800	
11,000.00	7,252.00	9,019.62	7,056.00	82.55	59.59	-84.89	1,638.54	-1,862.61	2,198.55	2,070.29	128.26	17.142	
11,100.00	7,252.00	9,119.62	7,056.00	84.43	61.80	-84.89	1,637.67	-1,962.61	2,198.53	2,065.48	133.05	16.524	
11,200.00	7,252.00	9,219.62	7,056.00	86.40	64.05	-84.89	1,636.80	-2,062.61	2,198.52	2,060.62	137.90	15.943	
11,300.00	7,252.00	9,319.62	7,056.00	88.45	66.34	-84.89	1,635.94	-2,162.60	2,198.50	2,055.72	142.79	15.397	
11,400.00	7,252.00	9,419.62	7,056.00	90.56	68.67	-84.89	1,635.07	-2,262.60	2,198.49	2,050.78	147.71	14.884	
11,500.00	7,252.00	9,519.62	7,056.00	92.73	71.03	-84.89	1,634.21	-2,362.59	2,198.47	2,045.80	152.67	14.400	
11,600.00	7,252.00	9,619.62	7,056.00	94.95	73.42	-84.89	1,633.34	-2,462.59	2,198.46	2,040.80	157.66	13.944	
11,700.00	7,252.00	9,719.62	7,056.00	97.21	75.83	-84.89	1,632.48	-2,562.59	2,198.44	2,035.76	162.68	13.514	
11,800.00	7,252.00	9,819.62	7,056.00	99.51	78.26	-84.89	1,631.61	-2,662.58	2,198.43	2,030.70	167.72	13.107	
11,900.00	7,252.00	9,919.62	7,056.00	101.83	80.72	-84.88	1,630.74	-2,762.58	2,198.41	2,025.62	172.79	12.723	
12,000.00	7,252.00	10,019.62	7,056.00	104.19	83.19	-84.88	1,629.88	-2,862.58	2,198.39	2,020.52	177.88	12.359	
12,100.00	7,252.00	10,119.62	7,056.00	106.57	85.68	-84.88	1,629.01	-2,962.57	2,198.38	2,015.39	182.99	12.014	
12,200.00	7,252.00	10,219.62	7,056.00	108.97	88.18	-84.88	1,628.15	-3,062.57	2,198.36	2,010.25	188.11	11.687	
12,300.00	7,252.00	10,319.62	7,056.00	111.39	90.70	-84.88	1,627.28	-3,162.56	2,198.35	2,005.10	193.25	11.376	
12,400.00	7,252.00	10,419.62	7,056.00	113.84	93.23	-84.88	1,626.41	-3,262.56	2,198.33	1,999.92	198.41	11.080	
12,500.00	7,252.00	10,519.62	7,056.00	116.29	95.77	-84.88	1,625.55	-3,362.56	2,198.32	1,994.74	203.58	10.798	
12,600.00	7,252.00	10,619.62	7,056.00	118.76	98.32	-84.88	1,624.68	-3,462.55	2,198.30	1,989.54	208.76	10.530	
12,700.00	7,252.00	10,719.62	7,056.00	121.25	100.87	-84.88	1,623.82	-3,562.55	2,198.29	1,984.33	213.96	10.274	
12,800.00	7,252.00	10,819.62	7,056.00	123.74	103.44	-84.88	1,622.95	-3,662.55	2,198.27	1,979.11	219.16	10.030	
12,900.00	7,252.00	10,919.62	7,056.00	126.25	106.02	-84.88	1,622.09	-3,762.54	2,198.25	1,973.88	224.38	9.797	
13,000.00	7,252.00	11,019.62	7,056.00	128.77	108.60	-84.88	1,621.22	-3,862.54	2,198.24	1,968.63	229.60	9.574	
13,100.00	7,252.00	11,119.62	7,056.00	131.30	111.19	-84.88	1,620.35	-3,962.53	2,198.22	1,963.38	234.84	9.361	
13,200.00	7,252.00	11,219.62	7,056.00	133.83	113.79	-84.88	1,619.49	-4,062.53	2,198.21	1,958.13	240.08	9.156	
13,300.00	7,252.00	11,319.62	7,056.00	136.38	116.39	-84.88	1,618.62	-4,162.53	2,198.19	1,952.86	245.33	8.960	
13,400.00	7,252.00	11,419.62	7,056.00	138.93	119.00	-84.88	1,617.76	-4,262.52	2,198.18	1,947.59	250.59	8.772	
13,500.00	7,252.00	11,519.62	7,056.00	141.49	121.61	-84.88	1,616.89	-4,362.52	2,198.16	1,942.31	255.86	8.591	
13,600.00	7,252.00	11,619.62	7,056.00	144.05	124.23	-84.88	1,616.03	-4,462.52	2,198.15	1,937.02	261.13	8.418	
13,700.00	7,252.00	11,719.62	7,056.00	146.63	126.85	-84.88	1,615.16	-4,562.51	2,198.13	1,931.73	266.40	8.251	
13,800.00	7,252.00	11,819.62	7,056.00	149.20	129.48	-84.88	1,614.29	-4,662.51	2,198.11	1,926.43	271.69	8.091	
13,900.00	7,252.00	11,919.62	7,056.00	151.79	132.11	-84.88	1,613.43	-4,762.50	2,198.10	1,921.12	276.98	7.936	
14,000.00	7,252.00	12,019.62	7,056.00	154.38	134.75	-84.88	1,612.56	-4,862.50	2,198.08	1,915.81	282.27	7.787	
14,100.00	7,252.00	12,119.62	7,056.00	156.97	137.38	-84.88	1,611.70	-4,962.50	2,198.07	1,910.50	287.57	7.644	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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)			
14,200.00	7,252.00	12,219.62	7,056.00	159.57	140.03	-84.88	1,610.83	-5,062.49	2,198.05	1,905.18	292.87	7.505	
14,300.00	7,252.00	12,319.62	7,056.00	162.17	142.67	-84.88	1,609.97	-5,162.49	2,198.04	1,899.86	298.18	7.372	
14,400.00	7,252.00	12,419.62	7,056.00	164.78	145.32	-84.88	1,609.10	-5,262.49	2,198.02	1,894.53	303.49	7.242	
14,500.00	7,252.00	12,519.62	7,056.00	167.39	147.97	-84.88	1,608.23	-5,362.48	2,198.01	1,889.20	308.80	7.118	
14,600.00	7,252.00	12,619.62	7,056.00	170.00	150.62	-84.88	1,607.37	-5,462.48	2,197.99	1,883.87	314.12	6.997	
14,700.00	7,252.00	12,719.62	7,056.00	172.62	153.27	-84.88	1,606.50	-5,562.47	2,197.97	1,878.53	319.45	6.881	
14,800.00	7,252.00	12,819.62	7,056.00	175.24	155.93	-84.88	1,605.64	-5,662.47	2,197.96	1,873.19	324.77	6.768	
14,900.00	7,252.00	12,919.62	7,056.00	177.86	158.59	-84.88	1,604.77	-5,762.47	2,197.94	1,867.84	330.10	6.658	
15,000.00	7,252.00	13,019.62	7,056.00	180.49	161.25	-84.88	1,603.90	-5,862.46	2,197.93	1,862.50	335.43	6.553	
15,100.00	7,252.00	13,119.62	7,056.00	183.12	163.92	-84.88	1,603.04	-5,962.46	2,197.91	1,857.15	340.77	6.450	
15,200.00	7,252.00	13,219.62	7,056.00	185.75	166.58	-84.88	1,602.17	-6,062.46	2,197.90	1,851.79	346.10	6.350	
15,300.00	7,252.00	13,319.62	7,056.00	188.38	169.25	-84.88	1,601.31	-6,162.45	2,197.88	1,846.44	351.44	6.254	
15,400.00	7,252.00	13,419.62	7,056.00	191.02	171.92	-84.88	1,600.44	-6,262.45	2,197.86	1,841.08	356.79	6.160	
15,500.00	7,252.00	13,519.62	7,056.00	193.66	174.59	-84.88	1,599.58	-6,362.44	2,197.85	1,835.72	362.13	6.069	
15,600.00	7,252.00	13,619.62	7,056.00	196.30	177.26	-84.88	1,598.71	-6,462.44	2,197.83	1,830.36	367.48	5.981	
15,700.00	7,252.00	13,719.62	7,056.00	198.95	179.94	-84.88	1,597.84	-6,562.44	2,197.82	1,824.99	372.83	5.895	
15,800.00	7,252.00	13,819.62	7,056.00	201.59	182.61	-84.88	1,596.98	-6,662.43	2,197.80	1,819.63	378.18	5.812	
15,900.00	7,252.00	13,919.62	7,056.00	204.24	185.29	-84.88	1,596.11	-6,762.43	2,197.79	1,814.26	383.53	5.730	
16,000.00	7,252.00	14,019.62	7,056.00	206.89	187.97	-84.88	1,595.25	-6,862.43	2,197.77	1,808.89	388.89	5.651	
16,100.00	7,252.00	14,119.62	7,056.00	209.55	190.65	-84.88	1,594.38	-6,962.42	2,197.76	1,803.51	394.24	5.575	
16,200.00	7,252.00	14,219.62	7,056.00	212.20	193.33	-84.88	1,593.52	-7,062.42	2,197.74	1,798.14	399.60	5.500	
16,300.00	7,252.00	14,319.62	7,056.00	214.86	196.01	-84.88	1,592.65	-7,162.41	2,197.72	1,792.76	404.96	5.427	
16,400.00	7,252.00	14,419.62	7,056.00	217.51	198.69	-84.88	1,591.78	-7,262.41	2,197.71	1,787.39	410.32	5.356	
16,500.00	7,252.00	14,519.62	7,056.00	220.17	201.38	-84.88	1,590.92	-7,362.41	2,197.69	1,782.01	415.69	5.287	
16,600.00	7,252.00	14,619.62	7,056.00	222.83	204.06	-84.88	1,590.05	-7,462.40	2,197.68	1,776.63	421.05	5.219	
16,700.00	7,252.00	14,719.62	7,056.00	225.49	206.75	-84.88	1,589.19	-7,562.40	2,197.66	1,771.24	426.42	5.154	
16,800.00	7,252.00	14,819.62	7,056.00	228.16	209.43	-84.88	1,588.32	-7,662.40	2,197.65	1,765.86	431.79	5.090	
16,900.00	7,252.00	14,919.62	7,056.00	230.82	212.12	-84.88	1,587.45	-7,762.39	2,197.63	1,760.48	437.16	5.027	
17,000.00	7,252.00	15,019.62	7,056.00	233.49	214.81	-84.88	1,586.59	-7,862.39	2,197.62	1,755.09	442.53	4.966	
17,100.00	7,252.00	15,119.62	7,056.00	236.16	217.50	-84.88	1,585.72	-7,962.38	2,197.60	1,749.70	447.90	4.906	
17,200.00	7,252.00	15,219.62	7,056.00	238.82	220.19	-84.88	1,584.86	-8,062.38	2,197.58	1,744.31	453.27	4.848	
17,300.00	7,252.00	15,319.62	7,056.00	241.49	222.88	-84.88	1,583.99	-8,162.38	2,197.57	1,738.92	458.65	4.791	
17,395.63	7,252.00	15,415.25	7,056.00	244.05	225.45	-84.88	1,583.16	-8,258.00	2,197.55	1,733.77	463.79	4.738 SF	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 11-10-7H - 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)			
0.00	0.00	0.00	0.00	0.00	0.00	-180.00	-94.73	0.00	94.73				
100.00	100.00	100.00	100.00	0.14	0.14	-180.00	-94.73	0.00	94.73	94.44	0.29	330.311	
200.00	200.00	200.00	200.00	0.50	0.50	-180.00	-94.73	0.00	94.73	93.72	1.00	94.375	
300.00	300.00	300.00	300.00	0.86	0.86	-180.00	-94.73	0.00	94.73	93.01	1.72	55.052	
400.00	400.00	400.00	400.00	1.22	1.22	-180.00	-94.73	0.00	94.73	92.29	2.44	38.860	
500.00	500.00	500.00	500.00	1.58	1.58	-180.00	-94.73	0.00	94.73	91.57	3.15	30.028	
600.00	600.00	600.00	600.00	1.94	1.94	-180.00	-94.73	0.00	94.73	90.85	3.87	24.467	
700.00	700.00	700.00	700.00	2.29	2.29	-180.00	-94.73	0.00	94.73	90.14	4.59	20.644	
800.00	800.00	800.00	800.00	2.65	2.65	-180.00	-94.73	0.00	94.73	89.42	5.31	17.855	
900.00	900.00	900.00	900.00	3.01	3.01	-180.00	-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	-180.00	-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	-180.00	-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	-180.00	-94.73	0.00	94.73	86.55	8.17	11.590	
1,250.00	1,250.00	1,250.00	1,250.00	4.27	4.27	-180.00	-94.73	0.00	94.73	86.19	8.53	11.103 CC, ES	
1,300.00	1,300.00	1,300.00	1,300.00	4.44	4.45	166.77	-94.73	0.00	95.15	86.26	8.89	10.703	
1,400.00	1,399.93	1,399.93	1,399.93	4.80	4.80	167.22	-94.73	0.00	98.55	88.94	9.61	10.258	
1,500.00	1,499.68	1,499.68	1,499.68	5.16	5.16	168.03	-94.73	0.00	105.36	95.04	10.32	10.206	
1,600.00	1,599.13	1,599.13	1,599.13	5.52	5.52	169.06	-94.73	0.00	115.61	104.57	11.04	10.472	
1,700.00	1,698.15	1,698.15	1,698.15	5.89	5.87	170.19	-94.73	0.00	129.31	117.55	11.75	11.001	
1,800.00	1,796.63	1,796.63	1,796.63	6.27	6.23	171.29	-94.73	0.00	146.45	133.98	12.47	11.747	
1,900.00	1,894.44	1,894.44	1,894.44	6.67	6.58	172.32	-94.73	0.00	167.04	153.86	13.18	12.676	
2,000.00	1,991.46	1,991.46	1,991.46	7.09	6.92	173.23	-94.73	0.00	191.05	177.16	13.89	13.759	
2,100.00	2,087.58	2,087.58	2,087.58	7.53	7.27	174.02	-94.73	0.00	218.45	203.86	14.59	14.972	
2,200.00	2,182.68	2,182.68	2,182.68	8.01	7.61	174.70	-94.73	0.00	249.22	233.93	15.29	16.295	
2,300.00	2,276.65	2,276.65	2,276.65	8.52	7.95	175.28	-94.73	0.00	283.31	267.31	15.99	17.714	
2,400.00	2,369.36	2,369.36	2,369.36	9.07	8.28	175.77	-94.73	0.00	320.67	303.98	16.69	19.214	
2,500.00	2,460.71	2,469.33	2,469.32	9.67	8.64	176.25	-93.89	0.01	360.53	343.11	17.42	20.691	
2,600.00	2,550.59	2,574.76	2,574.65	10.31	9.01	176.78	-89.40	0.06	400.49	382.31	18.18	22.030	
2,700.00	2,638.88	2,681.91	2,681.45	10.99	9.40	177.34	-80.87	0.15	440.32	421.39	18.93	23.259	
2,800.00	2,725.48	2,790.84	2,789.63	11.73	9.79	177.93	-68.11	0.28	479.98	460.30	19.68	24.389	
2,900.00	2,810.28	2,901.61	2,899.05	12.51	10.19	178.54	-50.93	0.46	519.42	498.99	20.43	25.428	
3,000.00	2,893.18	3,014.28	3,009.59	13.34	10.61	179.18	-29.12	0.69	558.59	537.42	21.17	26.386	
3,100.00	2,974.07	3,128.93	3,121.09	14.22	11.05	179.84	-2.49	0.97	597.44	575.53	21.91	27.266	
3,166.85	3,026.99	3,206.69	3,196.07	14.84	11.36	-179.70	18.10	1.18	623.22	600.81	22.41	27.812	
3,200.00	3,052.99	3,245.69	3,233.46	15.15	11.52	-179.47	29.19	1.30	635.75	613.10	22.65	28.063	
3,300.00	3,131.43	3,337.24	3,321.09	16.11	11.91	-178.97	55.67	1.58	673.14	649.71	23.43	28.731	
3,400.00	3,209.87	3,429.83	3,409.72	17.08	12.32	-178.51	82.46	1.86	710.56	686.35	24.21	29.345	
3,500.00	3,288.30	3,522.42	3,498.36	18.07	12.73	-178.10	109.24	2.14	748.02	723.01	25.01	29.909	
3,600.00	3,366.74	3,615.01	3,586.99	19.07	13.16	-177.72	136.03	2.42	785.51	759.70	25.82	30.428	
3,700.00	3,445.18	3,707.60	3,675.62	20.08	13.59	-177.39	162.82	2.70	823.03	796.40	26.63	30.906	
3,800.00	3,523.62	3,800.19	3,764.25	21.10	14.04	-177.08	189.60	2.98	860.57	833.12	27.45	31.347	
3,900.00	3,602.05	3,892.78	3,852.88	22.12	14.49	-176.79	216.39	3.26	898.13	869.84	28.28	31.754	
4,000.00	3,680.49	3,985.37	3,941.51	23.15	14.95	-176.53	243.18	3.54	935.70	906.58	29.12	32.131	
4,100.00	3,758.93	4,077.96	4,030.14	24.19	15.41	-176.29	269.96	3.82	973.29	943.33	29.97	32.480	
4,200.00	3,837.37	4,170.56	4,118.77	25.23	15.88	-176.07	296.75	4.11	1,010.90	980.08	30.82	32.803	
4,300.00	3,915.80	4,263.15	4,207.40	26.28	16.35	-175.86	323.54	4.39	1,048.52	1,016.84	31.67	33.104	
4,400.00	3,994.24	4,355.74	4,296.04	27.33	16.83	-175.67	350.32	4.67	1,086.15	1,053.61	32.53	33.384	
4,500.00	4,072.68	4,448.33	4,384.67	28.38	17.31	-175.49	377.11	4.95	1,123.78	1,090.38	33.40	33.645	
4,600.00	4,151.12	4,540.92	4,473.30	29.44	17.80	-175.32	403.90	5.23	1,161.43	1,127.16	34.27	33.888	
4,700.00	4,229.55	4,633.51	4,561.93	30.50	18.29	-175.16	430.68	5.51	1,199.09	1,163.94	35.15	34.116	
4,800.00	4,307.99	4,726.10	4,650.56	31.56	18.79	-175.02	457.47	5.79	1,236.75	1,200.72	36.03	34.329	
4,900.00	4,386.43	4,818.69	4,739.19	32.63	19.28	-174.88	484.26	6.07	1,274.42	1,237.51	36.91	34.529	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 11-10-7H - 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	
5,000.00	4,464.87	4,911.28	4,827.82	33.69	19.78	-174.75	511.04	6.35	1,312.09	1,274.30	37.80	34.716	
5,100.00	4,543.31	5,003.87	4,916.45	34.76	20.29	-174.62	537.83	6.63	1,349.77	1,311.09	38.68	34.892	
5,200.00	4,621.74	5,096.46	5,005.08	35.83	20.79	-174.51	564.62	6.91	1,387.46	1,347.88	39.58	35.057	
5,300.00	4,700.18	5,189.05	5,093.71	36.90	21.30	-174.39	591.41	7.20	1,425.15	1,384.68	40.47	35.213	
5,400.00	4,778.62	5,281.65	5,182.35	37.97	21.81	-174.29	618.19	7.48	1,462.84	1,421.47	41.37	35.360	
5,500.00	4,857.06	5,374.24	5,270.98	39.05	22.32	-174.19	644.98	7.76	1,500.54	1,458.27	42.27	35.498	
5,600.00	4,935.49	5,466.83	5,359.61	40.12	22.83	-174.09	671.77	8.04	1,538.24	1,495.07	43.17	35.629	
5,700.00	5,013.93	5,559.42	5,448.24	41.20	23.35	-174.00	698.55	8.32	1,575.95	1,531.87	44.08	35.753	
5,800.00	5,092.37	5,652.01	5,536.87	42.27	23.87	-173.92	725.34	8.60	1,613.66	1,568.67	44.99	35.871	
5,900.00	5,170.81	5,744.60	5,625.50	43.35	24.38	-173.84	752.13	8.88	1,651.37	1,605.48	45.89	35.982	
6,000.00	5,249.24	5,837.19	5,714.13	44.43	24.90	-173.76	778.91	9.16	1,689.09	1,642.28	46.81	36.087	
6,100.00	5,327.68	5,929.78	5,802.76	45.51	25.43	-173.68	805.70	9.44	1,726.80	1,679.09	47.72	36.187	
6,200.00	5,406.12	6,022.37	5,891.39	46.59	25.95	-173.61	832.49	9.72	1,764.52	1,715.89	48.63	36.283	
6,300.00	5,484.56	6,114.96	5,980.02	47.67	26.47	-173.54	859.27	10.00	1,802.25	1,752.70	49.55	36.373	
6,400.00	5,562.99	6,207.55	6,068.66	48.75	27.00	-173.47	886.06	10.29	1,839.97	1,789.50	50.47	36.459	
6,500.00	5,641.43	6,300.15	6,157.29	49.84	27.52	-173.41	912.85	10.57	1,877.70	1,826.31	51.39	36.541	
6,600.00	5,719.87	6,392.74	6,245.92	50.92	28.05	-173.35	939.63	10.85	1,915.43	1,863.12	52.31	36.620	
6,700.00	5,798.31	6,485.33	6,334.55	52.00	28.58	-173.29	966.42	11.13	1,953.16	1,899.93	53.23	36.694	
6,800.00	5,876.75	6,577.92	6,423.18	53.09	29.10	-173.23	993.21	11.41	1,990.89	1,936.74	54.15	36.766	
6,900.00	5,955.18	6,670.51	6,511.81	54.17	29.63	-173.18	1,019.99	11.69	2,028.62	1,973.55	55.08	36.834	
7,000.00	6,033.62	6,763.10	6,600.44	55.25	30.16	-173.13	1,046.78	11.97	2,066.36	2,010.36	56.00	36.899	
7,100.00	6,112.06	6,800.00	6,635.75	56.34	30.37	-173.08	1,057.44	10.97	2,105.20	2,048.67	56.54	37.237	
7,200.00	6,190.50	6,850.00	6,683.35	57.43	30.66	-172.90	1,071.79	5.83	2,146.26	2,089.09	57.17	37.541	
7,300.00	6,268.93	6,883.72	6,715.14	58.51	30.85	-172.72	1,081.35	-0.07	2,189.49	2,131.84	57.65	37.982	
7,400.00	6,347.37	6,920.34	6,749.22	59.60	31.05	-172.47	1,091.57	-8.68	2,234.90	2,176.76	58.15	38.436	
7,500.00	6,425.81	6,950.00	6,776.41	60.68	31.21	-172.22	1,099.72	-17.31	2,282.47	2,223.93	58.55	38.986	
7,600.00	6,504.25	7,000.00	6,821.15	61.77	31.47	-171.73	1,113.09	-35.14	2,332.23	2,273.04	59.19	39.404	
7,700.00	6,582.68	7,017.95	6,836.82	62.86	31.56	-171.53	1,117.77	-42.52	2,383.93	2,324.53	59.40	40.133	
7,800.00	6,661.12	7,050.00	6,864.24	63.95	31.73	-171.14	1,125.94	-56.97	2,437.78	2,378.00	59.79	40.774	
7,888.30	6,730.38	7,069.81	6,880.78	64.91	31.82	-170.88	1,130.86	-66.69	2,487.01	2,427.02	59.99	41.455	
7,900.00	6,739.57	7,072.83	6,883.28	65.03	31.84	-168.63	1,131.60	-68.22	2,493.62	2,433.59	60.02	41.543	
7,950.00	6,779.07	7,100.00	6,905.35	65.56	31.97	-158.85	1,138.15	-82.63	2,521.44	2,461.07	60.37	41.765	
8,000.00	6,818.72	7,100.00	6,905.35	66.07	31.97	-149.51	1,138.15	-82.63	2,548.04	2,487.78	60.27	42.280	
8,050.00	6,858.20	7,100.00	6,905.35	66.56	31.97	-140.50	1,138.15	-82.63	2,573.67	2,513.54	60.13	42.800	
8,100.00	6,897.22	7,127.93	6,927.34	67.02	32.11	-131.89	1,144.67	-98.57	2,597.71	2,537.27	60.44	42.981	
8,150.00	6,935.48	7,150.00	6,944.18	67.44	32.21	-124.06	1,149.64	-111.94	2,620.34	2,559.71	60.63	43.215	
8,200.00	6,972.69	7,150.00	6,944.18	67.84	32.21	-117.09	1,149.64	-111.94	2,641.25	2,580.81	60.44	43.703	
8,250.00	7,008.57	7,172.48	6,960.81	68.20	32.32	-110.90	1,154.55	-126.25	2,660.30	2,599.68	60.62	43.888	
8,300.00	7,042.85	7,200.00	6,980.42	68.52	32.45	-105.54	1,160.33	-144.66	2,677.52	2,616.64	60.88	43.980	
8,350.00	7,075.25	7,200.00	6,980.42	68.81	32.45	-100.92	1,160.33	-144.66	2,692.52	2,631.86	60.65	44.393	
8,400.00	7,105.55	7,218.74	6,993.28	69.07	32.53	-97.03	1,164.11	-157.76	2,705.45	2,644.68	60.77	44.519	
8,450.00	7,133.50	7,250.00	7,013.80	69.29	32.68	-93.82	1,170.12	-180.56	2,716.30	2,655.17	61.13	44.433	
8,500.00	7,158.89	7,250.00	7,013.80	69.48	32.68	-91.12	1,170.12	-180.56	2,724.61	2,663.67	60.94	44.708	
8,550.00	7,181.54	7,250.00	7,013.80	69.63	32.68	-88.92	1,170.12	-180.56	2,730.88	2,670.09	60.78	44.928	
8,600.00	7,201.26	7,281.61	7,033.31	69.75	32.82	-87.38	1,175.82	-204.76	2,734.51	2,673.26	61.25	44.644	
8,650.00	7,217.91	7,300.00	7,044.06	69.84	32.91	-86.25	1,178.95	-219.34	2,735.93	2,674.42	61.52	44.474	
8,700.00	7,231.36	7,300.00	7,044.06	69.90	32.91	-85.43	1,178.95	-219.34	2,735.08	2,673.58	61.49	44.477	
8,750.00	7,241.51	7,328.54	7,059.85	69.92	33.04	-85.23	1,183.53	-242.67	2,731.70	2,669.64	62.06	44.016	
8,800.00	7,248.28	7,350.00	7,070.98	69.92	33.15	-85.41	1,186.75	-260.73	2,726.12	2,663.57	62.55	43.585	
8,850.00	7,251.62	7,350.00	7,070.98	69.89	33.15	-85.79	1,186.75	-260.73	2,718.27	2,655.58	62.69	43.360	
8,873.35	7,252.00	7,350.00	7,070.98	69.87	33.15	-86.10	1,186.75	-260.73	2,713.93	2,651.15	62.78	43.229	
8,900.00	7,252.00	7,374.26	7,082.78	69.84	33.26	-86.35	1,190.14	-281.66	2,708.55	2,645.21	63.35	42.758	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 11-10-7H - 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		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)			
9,000.00	7,252.00	7,400.00	7,094.36	69.75	33.39	-86.59	1,193.45	-304.40	2,690.53	2,626.20	64.33	41.826	
9,100.00	7,252.00	7,450.00	7,114.00	69.69	33.65	-87.01	1,199.02	-350.03	2,675.06	2,609.17	65.90	40.596	
9,200.00	7,252.00	7,473.71	7,121.97	69.66	33.78	-87.18	1,201.24	-372.25	2,661.98	2,594.88	67.10	39.673	
9,300.00	7,252.00	7,500.00	7,129.76	69.67	33.93	-87.35	1,203.39	-397.26	2,651.45	2,583.00	68.45	38.737	
9,400.00	7,252.00	7,550.00	7,141.53	69.71	34.22	-87.60	1,206.55	-445.74	2,643.21	2,572.89	70.32	37.587	
9,500.00	7,252.00	7,600.00	7,149.21	69.80	34.55	-87.76	1,208.47	-495.09	2,637.45	2,565.17	72.27	36.492	
9,600.00	7,252.00	7,626.45	7,151.60	69.93	34.73	-87.81	1,208.98	-521.42	2,633.83	2,559.97	73.86	35.660	
9,700.00	7,252.00	7,667.38	7,153.00	70.12	35.04	-87.84	1,209.06	-562.32	2,632.58	2,556.83	75.74	34.756	
9,800.00	7,252.00	7,765.15	7,153.00	70.37	35.87	-87.84	1,208.26	-660.08	2,632.51	2,553.68	78.83	33.394	
9,900.00	7,252.00	7,865.15	7,153.00	70.70	36.93	-87.84	1,207.45	-760.08	2,632.45	2,550.25	82.20	32.026	
10,000.00	7,252.00	7,965.15	7,153.00	71.11	38.19	-87.84	1,206.63	-860.08	2,632.39	2,546.60	85.79	30.684	
10,100.00	7,252.00	8,065.15	7,153.00	71.62	39.63	-87.84	1,205.81	-960.07	2,632.32	2,542.74	89.58	29.385	
10,200.00	7,252.00	8,165.15	7,153.00	72.25	41.23	-87.84	1,204.99	-1,060.07	2,632.26	2,538.72	93.54	28.140	
10,300.00	7,252.00	8,265.15	7,153.00	73.01	42.96	-87.84	1,204.17	-1,160.07	2,632.20	2,534.54	97.66	26.954	
10,400.00	7,252.00	8,365.15	7,153.00	73.92	44.81	-87.84	1,203.35	-1,260.06	2,632.14	2,530.24	101.90	25.831	
10,500.00	7,252.00	8,465.15	7,153.00	74.98	46.76	-87.84	1,202.53	-1,360.06	2,632.07	2,525.82	106.26	24.771	
10,600.00	7,252.00	8,565.15	7,153.00	76.20	48.79	-87.84	1,201.72	-1,460.06	2,632.01	2,521.30	110.72	23.773	
10,700.00	7,252.00	8,665.15	7,153.00	77.58	50.89	-87.84	1,200.90	-1,560.05	2,631.95	2,516.69	115.26	22.835	
10,800.00	7,252.00	8,765.15	7,153.00	79.11	53.06	-87.84	1,200.08	-1,660.05	2,631.89	2,512.00	119.88	21.954	
10,900.00	7,252.00	8,865.15	7,153.00	80.77	55.28	-87.84	1,199.26	-1,760.05	2,631.82	2,507.25	124.57	21.127	
11,000.00	7,252.00	8,965.15	7,153.00	82.55	57.54	-87.84	1,198.44	-1,860.04	2,631.76	2,502.44	129.32	20.350	
11,100.00	7,252.00	9,065.15	7,153.00	84.43	59.85	-87.84	1,197.62	-1,960.04	2,631.70	2,497.57	134.13	19.621	
11,200.00	7,252.00	9,165.15	7,153.00	86.40	62.19	-87.84	1,196.80	-2,060.04	2,631.63	2,492.66	138.98	18.935	
11,300.00	7,252.00	9,265.15	7,153.00	88.45	64.57	-87.84	1,195.98	-2,160.03	2,631.57	2,487.70	143.87	18.291	
11,400.00	7,252.00	9,365.15	7,153.00	90.56	66.97	-87.84	1,195.17	-2,260.03	2,631.51	2,482.70	148.81	17.684	
11,500.00	7,252.00	9,465.15	7,153.00	92.73	69.39	-87.84	1,194.35	-2,360.03	2,631.45	2,477.67	153.78	17.112	
11,600.00	7,252.00	9,565.15	7,153.00	94.95	71.84	-87.84	1,193.53	-2,460.02	2,631.38	2,472.61	158.77	16.573	
11,700.00	7,252.00	9,665.15	7,153.00	97.21	74.31	-87.84	1,192.71	-2,560.02	2,631.32	2,467.52	163.80	16.064	
11,800.00	7,252.00	9,765.15	7,153.00	99.51	76.80	-87.84	1,191.89	-2,660.02	2,631.26	2,462.40	168.85	15.583	
11,900.00	7,252.00	9,865.15	7,153.00	101.83	79.30	-87.84	1,191.07	-2,760.01	2,631.20	2,457.26	173.93	15.128	
12,000.00	7,252.00	9,965.15	7,153.00	104.19	81.81	-87.84	1,190.25	-2,860.01	2,631.13	2,452.10	179.03	14.697	
12,100.00	7,252.00	10,065.15	7,153.00	106.57	84.34	-87.84	1,189.44	-2,960.01	2,631.07	2,446.92	184.15	14.288	
12,200.00	7,252.00	10,165.15	7,153.00	108.97	86.89	-87.84	1,188.62	-3,060.00	2,631.01	2,441.72	189.28	13.900	
12,300.00	7,252.00	10,265.15	7,153.00	111.39	89.44	-87.84	1,187.80	-3,160.00	2,630.94	2,436.51	194.44	13.531	
12,400.00	7,252.00	10,365.15	7,153.00	113.84	92.00	-87.84	1,186.98	-3,260.00	2,630.88	2,431.28	199.60	13.181	
12,500.00	7,252.00	10,465.15	7,153.00	116.29	94.57	-87.84	1,186.16	-3,359.99	2,630.82	2,426.03	204.78	12.847	
12,600.00	7,252.00	10,565.15	7,153.00	118.76	97.15	-87.84	1,185.34	-3,459.99	2,630.76	2,420.78	209.98	12.529	
12,700.00	7,252.00	10,665.15	7,153.00	121.25	99.74	-87.84	1,184.52	-3,559.99	2,630.69	2,415.51	215.19	12.225	
12,800.00	7,252.00	10,765.15	7,153.00	123.74	102.33	-87.84	1,183.71	-3,659.98	2,630.63	2,410.23	220.40	11.935	
12,900.00	7,252.00	10,865.15	7,153.00	126.25	104.93	-87.84	1,182.89	-3,759.98	2,630.57	2,404.94	225.63	11.659	
13,000.00	7,252.00	10,965.15	7,153.00	128.77	107.54	-87.84	1,182.07	-3,859.98	2,630.50	2,399.63	230.87	11.394	
13,100.00	7,252.00	11,065.15	7,153.00	131.30	110.15	-87.84	1,181.25	-3,959.97	2,630.44	2,394.32	236.12	11.140	
13,200.00	7,252.00	11,165.15	7,153.00	133.83	112.77	-87.84	1,180.43	-4,059.97	2,630.38	2,389.01	241.37	10.898	
13,300.00	7,252.00	11,265.15	7,153.00	136.38	115.39	-87.84	1,179.61	-4,159.97	2,630.32	2,383.68	246.64	10.665	
13,400.00	7,252.00	11,365.15	7,153.00	138.93	118.02	-87.84	1,178.79	-4,259.96	2,630.25	2,378.35	251.91	10.441	
13,500.00	7,252.00	11,465.15	7,153.00	141.49	120.65	-87.84	1,177.97	-4,359.96	2,630.19	2,373.00	257.19	10.227	
13,600.00	7,252.00	11,565.14	7,153.00	144.05	123.29	-87.84	1,177.16	-4,459.96	2,630.13	2,367.66	262.47	10.021	
13,700.00	7,252.00	11,665.14	7,153.00	146.63	125.93	-87.84	1,176.34	-4,559.95	2,630.07	2,362.30	267.76	9.822	
13,800.00	7,252.00	11,765.14	7,153.00	149.20	128.57	-87.84	1,175.52	-4,659.95	2,630.00	2,356.94	273.06	9.632	
13,900.00	7,252.00	11,865.14	7,153.00	151.79	131.22	-87.84	1,174.70	-4,759.95	2,629.94	2,351.58	278.36	9.448	
14,000.00	7,252.00	11,965.14	7,153.00	154.38	133.87	-87.84	1,173.88	-4,859.94	2,629.88	2,346.21	283.67	9.271	
14,100.00	7,252.00	12,065.14	7,153.00	156.97	136.52	-87.84	1,173.06	-4,959.94	2,629.81	2,340.83	288.98	9.100	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 11-10-7H - 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		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)			
14,200.00	7,252.00	12,165.14	7,153.00	159.57	139.17	-87.84	1,172.24	-5,059.93	2,629.75	2,335.45	294.30	8.936	
14,300.00	7,252.00	12,265.14	7,153.00	162.17	141.83	-87.84	1,171.43	-5,159.93	2,629.69	2,330.07	299.62	8.777	
14,400.00	7,252.00	12,365.14	7,153.00	164.78	144.49	-87.84	1,170.61	-5,259.93	2,629.63	2,324.68	304.94	8.623	
14,500.00	7,252.00	12,465.14	7,153.00	167.39	147.15	-87.84	1,169.79	-5,359.92	2,629.56	2,319.29	310.27	8.475	
14,600.00	7,252.00	12,565.14	7,153.00	170.00	149.82	-87.84	1,168.97	-5,459.92	2,629.50	2,313.89	315.61	8.332	
14,700.00	7,252.00	12,665.14	7,153.00	172.62	152.48	-87.84	1,168.15	-5,559.92	2,629.44	2,308.49	320.94	8.193	
14,800.00	7,252.00	12,765.14	7,153.00	175.24	155.15	-87.84	1,167.33	-5,659.91	2,629.38	2,303.09	326.28	8.059	
14,900.00	7,252.00	12,865.14	7,153.00	177.86	157.82	-87.84	1,166.51	-5,759.91	2,629.31	2,297.69	331.63	7.929	
15,000.00	7,252.00	12,965.14	7,153.00	180.49	160.49	-87.84	1,165.70	-5,859.91	2,629.25	2,292.28	336.97	7.803	
15,100.00	7,252.00	13,065.14	7,153.00	183.12	163.17	-87.84	1,164.88	-5,959.90	2,629.19	2,286.86	342.32	7.680	
15,200.00	7,252.00	13,165.14	7,153.00	185.75	165.84	-87.84	1,164.06	-6,059.90	2,629.12	2,281.45	347.67	7.562	
15,300.00	7,252.00	13,265.14	7,153.00	188.38	168.52	-87.84	1,163.24	-6,159.90	2,629.06	2,276.03	353.03	7.447	
15,400.00	7,252.00	13,365.14	7,153.00	191.02	171.20	-87.84	1,162.42	-6,259.89	2,629.00	2,270.61	358.39	7.336	
15,500.00	7,252.00	13,465.14	7,153.00	193.66	173.88	-87.84	1,161.60	-6,359.89	2,628.94	2,265.19	363.75	7.227	
15,600.00	7,252.00	13,565.14	7,153.00	196.30	176.56	-87.84	1,160.78	-6,459.89	2,628.87	2,259.77	369.11	7.122	
15,700.00	7,252.00	13,665.14	7,153.00	198.95	179.24	-87.84	1,159.97	-6,559.88	2,628.81	2,254.34	374.47	7.020	
15,800.00	7,252.00	13,765.14	7,153.00	201.59	181.92	-87.84	1,159.15	-6,659.88	2,628.75	2,248.91	379.84	6.921	
15,900.00	7,252.00	13,865.14	7,153.00	204.24	184.61	-87.84	1,158.33	-6,759.88	2,628.69	2,243.48	385.21	6.824	
16,000.00	7,252.00	13,965.14	7,153.00	206.89	187.29	-87.84	1,157.51	-6,859.87	2,628.62	2,238.05	390.58	6.730	
16,100.00	7,252.00	14,065.14	7,153.00	209.55	189.98	-87.84	1,156.69	-6,959.87	2,628.56	2,232.61	395.95	6.639	
16,200.00	7,252.00	14,165.14	7,153.00	212.20	192.66	-87.84	1,155.87	-7,059.87	2,628.50	2,227.17	401.32	6.550	
16,300.00	7,252.00	14,265.14	7,153.00	214.86	195.35	-87.84	1,155.05	-7,159.86	2,628.43	2,221.74	406.70	6.463	
16,400.00	7,252.00	14,365.14	7,153.00	217.51	198.04	-87.84	1,154.23	-7,259.86	2,628.37	2,216.30	412.08	6.378	
16,500.00	7,252.00	14,465.14	7,153.00	220.17	200.73	-87.84	1,153.42	-7,359.86	2,628.31	2,210.85	417.46	6.296	
16,600.00	7,252.00	14,565.14	7,153.00	222.83	203.42	-87.84	1,152.60	-7,459.85	2,628.25	2,205.41	422.84	6.216	
16,700.00	7,252.00	14,665.14	7,153.00	225.49	206.12	-87.84	1,151.78	-7,559.85	2,628.18	2,199.97	428.22	6.137	
16,800.00	7,252.00	14,765.14	7,153.00	228.16	208.81	-87.84	1,150.96	-7,659.85	2,628.12	2,194.52	433.60	6.061	
16,900.00	7,252.00	14,865.14	7,153.00	230.82	211.50	-87.84	1,150.14	-7,759.84	2,628.06	2,189.07	438.99	5.987	
17,000.00	7,252.00	14,965.14	7,153.00	233.49	214.20	-87.84	1,149.32	-7,859.84	2,628.00	2,183.62	444.37	5.914	
17,100.00	7,252.00	15,065.14	7,153.00	236.16	216.89	-87.84	1,148.50	-7,959.84	2,627.93	2,178.17	449.76	5.843	
17,200.00	7,252.00	15,165.14	7,153.00	238.82	219.59	-87.84	1,147.69	-8,059.83	2,627.87	2,172.72	455.15	5.774	
17,300.00	7,252.00	15,265.14	7,153.00	241.49	222.28	-87.84	1,146.87	-8,159.83	2,627.81	2,167.27	460.54	5.706	
17,395.63	7,252.00	15,360.77	7,153.00	244.05	224.86	-87.84	1,146.08	-8,255.45	2,627.75	2,162.05	465.69	5.643 SF	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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)			
0.00	0.00	0.00	0.00	0.00	0.00	76.63	7.28	30.63	31.48				
100.00	100.00	100.00	100.00	0.14	0.14	76.63	7.28	30.63	31.48	31.20	0.29	109.778	
200.00	200.00	200.00	200.00	0.50	0.50	76.63	7.28	30.63	31.48	30.48	1.00	31.365	
300.00	300.00	300.00	300.00	0.86	0.86	76.63	7.28	30.63	31.48	29.76	1.72	18.296	
400.00	400.00	399.67	399.65	1.22	1.22	73.63	9.01	30.68	31.98	29.55	2.44	13.127	
500.00	500.00	499.10	498.94	1.58	1.58	65.30	14.19	30.85	33.97	30.82	3.15	10.773	
600.00	600.00	598.06	597.52	1.94	1.94	53.82	22.76	31.12	38.64	34.76	3.87	9.974	
700.00	700.00	696.30	695.04	2.29	2.32	42.29	34.63	31.50	47.07	42.48	4.59	10.254	
800.00	800.00	795.01	792.72	2.65	2.71	33.19	48.83	31.95	58.81	53.50	5.31	11.079	
900.00	900.00	893.96	890.63	3.01	3.11	27.17	63.13	32.40	71.58	65.55	6.03	11.880	
1,000.00	1,000.00	992.91	988.54	3.37	3.52	22.99	77.43	32.85	84.89	78.15	6.74	12.590	
1,100.00	1,100.00	1,091.86	1,086.45	3.73	3.93	19.96	91.73	33.31	98.52	91.06	7.46	13.207	
1,200.00	1,200.00	1,190.81	1,184.36	4.09	4.34	17.66	106.03	33.76	112.37	104.19	8.18	13.739	
1,250.00	1,250.00	1,240.28	1,233.31	4.27	4.54	16.72	113.18	33.99	119.34	110.80	8.54	13.977	
1,300.00	1,300.00	1,289.82	1,282.33	4.44	4.75	2.59	120.33	34.22	125.91	117.02	8.90	14.153	
1,400.00	1,399.93	1,389.20	1,380.66	4.80	5.17	1.17	134.70	34.67	136.53	126.91	9.62	14.198	
1,500.00	1,499.68	1,488.89	1,479.31	5.16	5.59	-0.03	149.10	35.13	143.73	133.40	10.34	13.903	
1,600.00	1,599.13	1,588.77	1,578.14	5.52	6.01	-1.15	163.54	35.59	147.51	136.45	11.06	13.333	
1,700.00	1,698.15	1,688.72	1,677.04	5.89	6.43	-2.26	177.98	36.04	147.86	136.07	11.79	12.540	
1,800.00	1,796.63	1,788.63	1,775.89	6.27	6.86	-3.45	192.42	36.50	144.78	132.26	12.52	11.563	
1,900.00	1,894.44	1,888.35	1,874.57	6.67	7.28	-4.82	206.83	36.96	138.29	125.03	13.25	10.435	
2,000.00	1,991.46	1,987.79	1,972.96	7.09	7.70	-6.50	221.20	37.42	128.42	114.44	13.98	9.183	
2,100.00	2,087.58	2,086.80	2,070.94	7.53	8.12	-8.72	235.51	37.87	115.25	100.53	14.72	7.829	
2,200.00	2,182.68	2,185.28	2,168.38	8.01	8.54	-11.93	249.74	38.32	98.91	83.44	15.47	6.396	
2,300.00	2,276.65	2,283.11	2,265.18	8.52	8.96	-17.09	263.87	38.77	79.68	63.44	16.24	4.907	
2,400.00	2,369.36	2,380.15	2,361.21	9.07	9.37	-26.84	277.90	39.21	58.34	41.23	17.12	3.408	
2,500.00	2,460.71	2,476.31	2,456.35	9.67	9.78	-49.62	291.79	39.65	37.94	19.43	18.51	2.049	
2,574.13	2,527.48	2,546.94	2,526.24	10.14	10.08	-84.77	302.00	39.98	30.64	10.50	20.14	1.521 CC, ES, SF	
2,600.00	2,550.59	2,571.45	2,550.49	10.31	10.18	-99.11	305.54	40.09	31.72	11.27	20.45	1.551	
2,700.00	2,638.88	2,665.46	2,643.52	10.99	10.58	-137.19	319.13	40.52	52.11	31.71	20.40	2.554	
2,800.00	2,725.48	2,758.23	2,735.32	11.73	10.98	-152.52	332.53	40.95	85.05	64.43	20.62	4.125	
2,900.00	2,810.28	2,849.65	2,825.77	12.51	11.37	-159.68	345.74	41.37	123.60	102.46	21.13	5.849	
3,000.00	2,893.18	2,939.60	2,914.78	13.34	11.75	-163.70	358.74	41.78	166.15	144.40	21.75	7.638	
3,100.00	2,974.07	3,027.98	3,002.23	14.22	12.13	-166.25	371.51	42.18	212.21	189.79	22.42	9.465	
3,166.85	3,026.99	3,086.12	3,059.76	14.84	12.38	-167.48	379.92	42.45	244.82	221.94	22.88	10.701	
3,200.00	3,052.99	3,114.77	3,088.10	15.15	12.50	-168.06	384.05	42.58	261.36	238.25	23.11	11.311	
3,300.00	3,131.43	3,201.17	3,173.60	16.11	12.87	-169.46	396.54	42.98	311.34	287.54	23.81	13.078	
3,400.00	3,209.87	3,287.57	3,259.09	17.08	13.24	-170.47	409.03	43.37	361.43	336.91	24.52	14.740	
3,500.00	3,288.30	3,373.98	3,344.59	18.07	13.60	-171.23	421.51	43.77	411.58	386.33	25.25	16.303	
3,600.00	3,366.74	3,460.38	3,430.08	19.07	13.97	-171.83	434.00	44.17	461.77	435.79	25.98	17.773	
3,700.00	3,445.18	3,546.78	3,515.58	20.08	14.34	-172.31	446.48	44.56	511.99	485.26	26.72	19.159	
3,800.00	3,523.62	3,633.18	3,601.07	21.10	14.71	-172.70	458.97	44.96	562.23	534.76	27.47	20.465	
3,900.00	3,602.05	3,719.59	3,686.57	22.12	15.08	-173.03	471.46	45.35	612.49	584.26	28.23	21.699	
4,000.00	3,680.49	3,805.99	3,772.06	23.15	15.45	-173.31	483.94	45.75	662.76	633.78	28.99	22.865	
4,100.00	3,758.93	3,892.39	3,857.56	24.19	15.82	-173.55	496.43	46.15	713.05	683.30	29.75	23.969	
4,200.00	3,837.37	3,978.79	3,943.05	25.23	16.18	-173.76	508.91	46.54	763.34	732.82	30.52	25.014	
4,300.00	3,915.80	4,065.20	4,028.55	26.28	16.55	-173.95	521.40	46.94	813.64	782.35	31.29	26.005	
4,400.00	3,994.24	4,151.60	4,114.04	27.33	16.92	-174.11	533.88	47.34	863.94	831.88	32.06	26.946	
4,500.00	4,072.68	4,238.00	4,199.53	28.38	17.29	-174.25	546.37	47.73	914.25	881.41	32.84	27.841	
4,600.00	4,151.12	4,324.40	4,285.03	29.44	17.66	-174.38	558.86	48.13	964.56	930.94	33.62	28.692	
4,700.00	4,229.55	4,410.81	4,370.52	30.50	18.03	-174.50	571.34	48.52	1,014.87	980.47	34.40	29.502	
4,800.00	4,307.99	4,497.21	4,456.02	31.56	18.40	-174.60	583.83	48.92	1,065.19	1,030.01	35.18	30.274	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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	
4,900.00	4,386.43	4,583.61	4,541.51	32.63	18.77	-174.70	596.31	49.32	1,115.51	1,079.54	35.97	31.011	
5,000.00	4,464.87	4,670.01	4,627.01	33.69	19.14	-174.79	608.80	49.71	1,165.83	1,129.07	36.76	31.715	
5,100.00	4,543.31	4,756.42	4,712.50	34.76	19.50	-174.87	621.29	50.11	1,216.16	1,178.61	37.55	32.388	
5,200.00	4,621.74	4,842.82	4,798.00	35.83	19.87	-174.94	633.77	50.50	1,266.48	1,228.14	38.34	33.031	
5,300.00	4,700.18	4,929.22	4,883.49	36.90	20.24	-175.01	646.26	50.90	1,316.81	1,277.68	39.14	33.648	
5,400.00	4,778.62	5,015.62	4,968.99	37.97	20.61	-175.07	658.74	51.30	1,367.14	1,327.21	39.93	34.238	
5,500.00	4,857.06	5,102.03	5,054.48	39.05	20.98	-175.13	671.23	51.69	1,417.47	1,376.74	40.73	34.804	
5,600.00	4,935.49	5,188.43	5,139.98	40.12	21.35	-175.18	683.72	52.09	1,467.80	1,426.28	41.52	35.348	
5,700.00	5,013.93	5,274.83	5,225.47	41.20	21.72	-175.24	696.20	52.48	1,518.13	1,475.81	42.32	35.869	
5,800.00	5,092.37	5,361.23	5,310.96	42.27	22.09	-175.28	708.69	52.88	1,568.46	1,525.34	43.12	36.371	
5,900.00	5,170.81	5,447.64	5,396.46	43.35	22.46	-175.33	721.17	53.28	1,618.80	1,574.87	43.93	36.853	
6,000.00	5,249.24	5,534.04	5,481.95	44.43	22.83	-175.37	733.66	53.67	1,669.13	1,624.40	44.73	37.318	
6,100.00	5,327.68	5,620.44	5,567.45	45.51	23.20	-175.41	746.14	54.07	1,719.47	1,673.94	45.53	37.765	
6,200.00	5,406.12	5,676.61	5,623.09	46.59	23.43	-175.44	753.82	54.31	1,770.49	1,724.43	46.07	38.432	
6,300.00	5,484.56	5,729.60	5,675.71	47.67	23.64	-175.48	760.06	54.51	1,823.06	1,776.50	46.56	39.153	
6,400.00	5,562.99	5,800.00	5,745.78	48.75	23.92	-175.54	766.85	54.73	1,877.27	1,830.06	47.21	39.765	
6,500.00	5,641.43	5,832.06	5,777.75	49.84	24.03	-175.57	769.37	54.81	1,932.63	1,885.15	47.48	40.704	
6,600.00	5,719.87	5,900.00	5,845.55	50.92	24.28	-175.64	773.52	54.94	1,989.68	1,941.59	48.09	41.374	
6,700.00	5,798.31	5,929.88	5,875.40	52.00	24.38	-175.68	774.84	54.98	2,047.79	1,999.48	48.31	42.390	
6,800.00	5,876.75	5,977.08	5,922.58	53.09	24.53	-175.74	776.29	55.03	2,107.35	2,058.66	48.69	43.279	
6,900.00	5,955.18	6,023.15	5,968.64	54.17	24.68	-175.81	776.96	55.05	2,168.18	2,119.12	49.06	44.197	
7,000.00	6,033.62	6,088.13	6,033.62	55.25	24.88	-175.91	777.02	55.05	2,230.00	2,180.39	49.62	44.943	
7,100.00	6,112.06	6,166.56	6,112.06	56.34	25.12	-176.02	777.02	55.05	2,291.94	2,241.61	50.33	45.542	
7,200.00	6,190.50	6,245.00	6,190.50	57.43	25.36	-176.12	777.02	55.05	2,353.88	2,302.84	51.03	46.124	
7,300.00	6,268.93	6,323.44	6,268.93	58.51	25.60	-176.22	777.02	55.05	2,415.82	2,364.08	51.74	46.688	
7,400.00	6,347.37	6,401.88	6,347.37	59.60	25.84	-176.31	777.02	55.05	2,477.77	2,425.31	52.45	47.236	
7,500.00	6,425.81	6,480.31	6,425.81	60.68	26.08	-176.40	777.02	55.05	2,539.72	2,486.55	53.17	47.768	
7,600.00	6,504.25	6,558.75	6,504.25	61.77	26.32	-176.49	777.02	55.05	2,601.67	2,547.79	53.88	48.285	
7,700.00	6,582.68	6,637.19	6,582.68	62.86	26.57	-176.57	777.02	55.05	2,663.63	2,609.04	54.60	48.788	
7,800.00	6,661.12	6,715.63	6,661.12	63.95	26.81	-176.65	777.02	55.05	2,725.59	2,670.28	55.31	49.277	
7,888.30	6,730.38	6,750.00	6,695.49	64.91	26.92	-176.67	777.02	54.75	2,780.61	2,725.03	55.58	50.025	
7,900.00	6,739.57	6,750.00	6,695.49	65.03	26.92	-174.30	777.02	54.75	2,787.97	2,732.40	55.57	50.169	
7,950.00	6,779.07	6,774.43	6,719.88	65.56	26.99	-164.16	777.00	53.44	2,818.90	2,763.13	55.77	50.544	
8,000.00	6,818.72	6,800.00	6,745.33	66.07	27.06	-154.21	776.98	50.96	2,849.11	2,793.13	55.98	50.899	
8,050.00	6,858.20	6,800.00	6,745.33	66.56	27.06	-144.54	776.98	50.96	2,878.27	2,822.38	55.90	51.492	
8,100.00	6,897.22	6,824.36	6,769.45	67.02	27.14	-135.60	776.96	47.55	2,906.24	2,850.16	56.08	51.824	
8,150.00	6,935.48	6,850.00	6,794.65	67.44	27.21	-127.44	776.92	42.85	2,932.88	2,876.61	56.27	52.123	
8,200.00	6,972.69	6,850.00	6,794.65	67.84	27.21	-119.90	776.92	42.85	2,957.96	2,901.80	56.17	52.663	
8,250.00	7,008.57	6,875.07	6,819.07	68.20	27.28	-113.44	776.87	37.17	2,981.34	2,924.99	56.35	52.905	
8,300.00	7,042.85	6,900.00	6,843.08	68.52	27.36	-107.82	776.82	30.46	3,002.96	2,946.42	56.54	53.117	
8,350.00	7,075.25	6,900.00	6,843.08	68.81	27.36	-102.73	776.82	30.46	3,022.62	2,966.18	56.44	53.553	
8,400.00	7,105.55	6,926.64	6,868.38	69.07	27.43	-98.64	776.75	22.16	3,040.21	2,983.54	56.67	53.651	
8,450.00	7,133.50	6,950.00	6,890.24	69.29	27.50	-95.20	776.68	13.91	3,055.71	2,998.82	56.89	53.716	
8,500.00	7,158.89	6,950.00	6,890.24	69.48	27.50	-92.07	776.68	13.91	3,069.02	3,012.16	56.86	53.978	
8,550.00	7,181.54	6,979.00	6,916.87	69.63	27.57	-89.85	776.59	2.44	3,079.99	3,022.78	57.20	53.843	
8,600.00	7,201.26	7,000.00	6,935.78	69.75	27.63	-88.05	776.51	-6.70	3,088.69	3,031.19	57.50	53.719	
8,650.00	7,217.91	7,014.23	6,948.39	69.84	27.67	-86.62	776.46	-13.28	3,095.03	3,037.27	57.76	53.583	
8,700.00	7,231.36	7,031.88	6,963.81	69.90	27.71	-85.68	776.39	-21.88	3,099.02	3,040.90	58.12	53.325	
8,750.00	7,241.51	7,050.00	6,979.35	69.92	27.76	-85.16	776.31	-31.19	3,100.64	3,042.11	58.53	52.978	
8,800.00	7,248.28	7,067.10	6,993.74	69.92	27.80	-85.04	776.23	-40.43	3,099.90	3,040.92	58.98	52.556	
8,850.00	7,251.62	7,084.57	7,008.15	69.89	27.85	-85.31	776.15	-50.31	3,096.83	3,037.34	59.49	52.054	
8,873.35	7,252.00	7,100.00	7,020.62	69.87	27.89	-85.69	776.08	-59.39	3,094.63	3,034.80	59.83	51.726	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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)			
8,900.00	7,252.00	7,100.00	7,020.62	69.84	27.89	-85.69	776.08	-59.39	3,091.89	3,031.86	60.02	51.511	
9,000.00	7,252.00	7,150.00	7,059.27	69.75	28.01	-86.41	775.82	-91.08	3,083.22	3,021.82	61.41	50.211	
9,100.00	7,252.00	7,188.37	7,086.98	69.69	28.10	-86.92	775.60	-117.61	3,076.83	3,014.05	62.78	49.008	
9,200.00	7,252.00	7,244.06	7,123.89	69.66	28.25	-87.61	775.26	-159.28	3,072.51	3,008.05	64.46	47.669	
9,300.00	7,252.00	7,310.00	7,162.12	69.67	28.44	-88.32	774.82	-212.97	3,069.89	3,003.54	66.35	46.265	
9,400.00	7,252.00	7,387.03	7,198.61	69.71	28.73	-89.00	774.26	-280.74	3,068.55	3,000.05	68.50	44.795	
9,500.00	7,252.00	7,474.71	7,228.67	69.80	29.21	-89.56	773.59	-363.01	3,068.03	2,997.09	70.93	43.252	
9,600.00	7,252.00	7,570.56	7,246.76	69.93	29.97	-89.90	772.82	-457.02	3,067.88	2,994.24	73.64	41.661	
9,700.00	7,252.00	7,670.11	7,250.00	70.12	31.03	-89.96	772.00	-556.46	3,067.81	2,991.25	76.56	40.069	
9,800.00	7,252.00	7,770.11	7,250.00	70.37	32.32	-89.96	771.18	-656.45	3,067.75	2,988.00	79.75	38.469	
9,900.00	7,252.00	7,870.11	7,250.00	70.70	33.79	-89.96	770.36	-756.45	3,067.69	2,984.52	83.17	36.884	
10,000.00	7,252.00	7,970.11	7,250.00	71.11	35.42	-89.96	769.54	-856.45	3,067.63	2,980.81	86.82	35.335	
10,100.00	7,252.00	8,070.11	7,250.00	71.62	37.18	-89.96	768.72	-956.44	3,067.57	2,976.91	90.65	33.839	
10,200.00	7,252.00	8,170.11	7,250.00	72.25	39.06	-89.96	767.90	-1,056.44	3,067.51	2,972.85	94.66	32.407	
10,300.00	7,252.00	8,270.11	7,250.00	73.01	41.04	-89.96	767.08	-1,156.44	3,067.44	2,968.64	98.80	31.046	
10,400.00	7,252.00	8,370.11	7,250.00	73.92	43.10	-89.96	766.26	-1,256.43	3,067.38	2,964.31	103.08	29.758	
10,500.00	7,252.00	8,470.11	7,250.00	74.98	45.23	-89.96	765.44	-1,356.43	3,067.32	2,959.86	107.46	28.544	
10,600.00	7,252.00	8,570.11	7,250.00	76.20	47.42	-89.96	764.62	-1,456.43	3,067.26	2,955.32	111.94	27.401	
10,700.00	7,252.00	8,670.11	7,250.00	77.58	49.66	-89.96	763.80	-1,556.42	3,067.20	2,950.69	116.51	26.327	
10,800.00	7,252.00	8,770.11	7,250.00	79.11	51.95	-89.96	762.98	-1,656.42	3,067.14	2,945.99	121.15	25.318	
10,900.00	7,252.00	8,870.11	7,250.00	80.77	54.28	-89.96	762.16	-1,756.42	3,067.08	2,941.23	125.85	24.371	
11,000.00	7,252.00	8,970.11	7,250.00	82.55	56.64	-89.96	761.34	-1,856.41	3,067.02	2,936.40	130.62	23.481	
11,100.00	7,252.00	9,070.11	7,250.00	84.43	59.04	-89.96	760.52	-1,956.41	3,066.96	2,931.52	135.43	22.646	
11,200.00	7,252.00	9,170.11	7,250.00	86.40	61.46	-89.96	759.70	-2,056.41	3,066.89	2,926.60	140.29	21.860	
11,300.00	7,252.00	9,270.11	7,250.00	88.45	63.91	-89.96	758.88	-2,156.40	3,066.83	2,921.63	145.20	21.122	
11,400.00	7,252.00	9,370.11	7,250.00	90.56	66.38	-89.96	758.06	-2,256.40	3,066.77	2,916.63	150.14	20.426	
11,500.00	7,252.00	9,470.11	7,249.99	92.73	68.87	-89.96	757.24	-2,356.40	3,066.71	2,911.59	155.12	19.770	
11,600.00	7,252.00	9,570.11	7,249.99	94.95	71.37	-89.96	756.42	-2,456.39	3,066.65	2,906.53	160.12	19.152	
11,700.00	7,252.00	9,670.11	7,249.99	97.21	73.89	-89.96	755.59	-2,556.39	3,066.59	2,901.43	165.16	18.568	
11,800.00	7,252.00	9,770.11	7,249.99	99.51	76.43	-89.96	754.77	-2,656.38	3,066.53	2,896.31	170.22	18.015	
11,900.00	7,252.00	9,870.11	7,249.99	101.83	78.98	-89.96	753.95	-2,756.38	3,066.47	2,891.17	175.30	17.493	
12,000.00	7,252.00	9,970.11	7,249.99	104.19	81.53	-89.96	753.13	-2,856.38	3,066.41	2,886.00	180.40	16.997	
12,100.00	7,252.00	10,070.11	7,249.99	106.57	84.10	-89.96	752.31	-2,956.37	3,066.34	2,880.82	185.53	16.528	
12,200.00	7,252.00	10,170.11	7,249.99	108.97	86.68	-89.96	751.49	-3,056.37	3,066.28	2,875.61	190.67	16.082	
12,300.00	7,252.00	10,270.11	7,249.99	111.39	89.27	-89.96	750.67	-3,156.37	3,066.22	2,870.40	195.83	15.658	
12,400.00	7,252.00	10,370.11	7,249.99	113.84	91.86	-89.96	749.85	-3,256.36	3,066.16	2,865.16	201.00	15.255	
12,500.00	7,252.00	10,470.11	7,249.99	116.29	94.46	-89.96	749.03	-3,356.36	3,066.10	2,859.92	206.18	14.871	
12,600.00	7,252.00	10,570.11	7,249.99	118.76	97.07	-89.96	748.21	-3,456.36	3,066.04	2,854.66	211.38	14.505	
12,700.00	7,252.00	10,670.11	7,249.99	121.25	99.68	-89.96	747.39	-3,556.35	3,065.98	2,849.38	216.59	14.155	
12,800.00	7,252.00	10,770.11	7,249.99	123.74	102.30	-89.96	746.57	-3,656.35	3,065.92	2,844.10	221.82	13.822	
12,900.00	7,252.00	10,870.11	7,249.99	126.25	104.93	-89.96	745.75	-3,756.35	3,065.86	2,838.81	227.05	13.503	
13,000.00	7,252.00	10,970.11	7,249.99	128.77	107.56	-89.96	744.93	-3,856.34	3,065.79	2,833.50	232.29	13.198	
13,100.00	7,252.00	11,070.11	7,249.99	131.30	110.19	-89.96	744.11	-3,956.34	3,065.73	2,828.19	237.54	12.906	
13,200.00	7,252.00	11,170.11	7,249.99	133.83	112.83	-89.96	743.29	-4,056.34	3,065.67	2,822.87	242.80	12.626	
13,300.00	7,252.00	11,270.11	7,249.99	136.38	115.47	-89.96	742.47	-4,156.33	3,065.61	2,817.54	248.07	12.358	
13,400.00	7,252.00	11,370.11	7,249.99	138.93	118.12	-89.96	741.65	-4,256.33	3,065.55	2,812.21	253.35	12.100	
13,500.00	7,252.00	11,470.11	7,249.99	141.49	120.77	-89.96	740.83	-4,356.33	3,065.49	2,806.86	258.63	11.853	
13,600.00	7,252.00	11,570.11	7,249.99	144.05	123.42	-89.96	740.01	-4,456.32	3,065.43	2,801.51	263.92	11.615	
13,700.00	7,252.00	11,670.11	7,249.99	146.63	126.08	-89.96	739.19	-4,556.32	3,065.37	2,796.16	269.21	11.387	
13,800.00	7,252.00	11,770.11	7,249.99	149.20	128.74	-89.96	738.37	-4,656.32	3,065.31	2,790.80	274.51	11.166	
13,900.00	7,252.00	11,870.11	7,249.99	151.79	131.40	-89.96	737.55	-4,756.31	3,065.24	2,785.43	279.82	10.954	
14,000.00	7,252.00	11,970.11	7,249.99	154.38	134.06	-89.96	736.73	-4,856.31	3,065.18	2,780.06	285.13	10.750	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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)			
14,100.00	7,252.00	12,070.11	7,249.99	156.97	136.72	-89.96	735.91	-4,956.31	3,065.12	2,774.68	290.44	10.553	
14,200.00	7,252.00	12,170.11	7,249.99	159.57	139.39	-89.96	735.09	-5,056.30	3,065.06	2,769.30	295.76	10.363	
14,300.00	7,252.00	12,270.11	7,249.99	162.17	142.06	-89.96	734.27	-5,156.30	3,065.00	2,763.91	301.09	10.180	
14,400.00	7,252.00	12,370.11	7,249.99	164.78	144.73	-89.96	733.45	-5,256.30	3,064.94	2,758.52	306.42	10.003	
14,500.00	7,252.00	12,470.11	7,249.99	167.39	147.41	-89.96	732.63	-5,356.29	3,064.88	2,753.13	311.75	9.831	
14,600.00	7,252.00	12,570.11	7,249.99	170.00	150.08	-89.96	731.81	-5,456.29	3,064.82	2,747.73	317.09	9.666	
14,700.00	7,252.00	12,670.11	7,249.99	172.62	152.76	-89.96	730.98	-5,556.29	3,064.76	2,742.33	322.43	9.505	
14,800.00	7,252.00	12,770.11	7,249.99	175.24	155.44	-89.96	730.16	-5,656.28	3,064.70	2,736.93	327.77	9.350	
14,900.00	7,252.00	12,870.11	7,249.98	177.86	158.12	-89.96	729.34	-5,756.28	3,064.63	2,731.52	333.12	9.200	
15,000.00	7,252.00	12,970.11	7,249.98	180.49	160.80	-89.96	728.52	-5,856.28	3,064.57	2,726.11	338.47	9.054	
15,100.00	7,252.00	13,070.11	7,249.98	183.12	163.48	-89.96	727.70	-5,956.27	3,064.51	2,720.69	343.82	8.913	
15,200.00	7,252.00	13,170.11	7,249.98	185.75	166.17	-89.96	726.88	-6,056.27	3,064.45	2,715.28	349.17	8.776	
15,300.00	7,252.00	13,270.11	7,249.98	188.38	168.85	-89.96	726.06	-6,156.27	3,064.39	2,709.86	354.53	8.643	
15,400.00	7,252.00	13,370.11	7,249.98	191.02	171.54	-89.96	725.24	-6,256.26	3,064.33	2,704.44	359.89	8.515	
15,500.00	7,252.00	13,470.11	7,249.98	193.66	174.23	-89.96	724.42	-6,356.26	3,064.27	2,699.01	365.26	8.389	
15,600.00	7,252.00	13,570.11	7,249.98	196.30	176.91	-89.96	723.60	-6,456.26	3,064.21	2,693.58	370.62	8.268	
15,700.00	7,252.00	13,670.11	7,249.98	198.95	179.60	-89.96	722.78	-6,556.25	3,064.15	2,688.16	375.99	8.150	
15,800.00	7,252.00	13,770.11	7,249.98	201.59	182.29	-89.96	721.96	-6,656.25	3,064.08	2,682.72	381.36	8.035	
15,900.00	7,252.00	13,870.11	7,249.98	204.24	184.98	-89.96	721.14	-6,756.25	3,064.02	2,677.29	386.73	7.923	
16,000.00	7,252.00	13,970.11	7,249.98	206.89	187.68	-89.96	720.32	-6,856.24	3,063.96	2,671.86	392.11	7.814	
16,100.00	7,252.00	14,070.11	7,249.98	209.55	190.37	-89.96	719.50	-6,956.24	3,063.90	2,666.42	397.48	7.708	
16,200.00	7,252.00	14,170.11	7,249.98	212.20	193.06	-89.96	718.68	-7,056.24	3,063.84	2,660.98	402.86	7.605	
16,300.00	7,252.00	14,270.11	7,249.98	214.86	195.76	-89.96	717.86	-7,156.23	3,063.78	2,655.54	408.24	7.505	
16,400.00	7,252.00	14,370.11	7,249.98	217.51	198.45	-89.96	717.04	-7,256.23	3,063.72	2,650.10	413.62	7.407	
16,500.00	7,252.00	14,470.11	7,249.98	220.17	201.15	-89.96	716.22	-7,356.23	3,063.66	2,644.66	419.00	7.312	
16,600.00	7,252.00	14,570.11	7,249.98	222.83	203.85	-89.96	715.40	-7,456.22	3,063.60	2,639.21	424.39	7.219	
16,700.00	7,252.00	14,670.11	7,249.98	225.49	206.54	-89.96	714.58	-7,556.22	3,063.53	2,633.76	429.77	7.128	
16,800.00	7,252.00	14,770.11	7,249.98	228.16	209.24	-89.96	713.76	-7,656.22	3,063.47	2,628.32	435.16	7.040	
16,900.00	7,252.00	14,870.11	7,249.98	230.82	211.94	-89.96	712.94	-7,756.21	3,063.41	2,622.87	440.55	6.954	
17,000.00	7,252.00	14,970.11	7,249.98	233.49	214.64	-89.96	712.12	-7,856.21	3,063.35	2,617.42	445.94	6.869	
17,100.00	7,252.00	15,070.11	7,249.98	236.16	217.34	-89.96	711.30	-7,956.21	3,063.29	2,611.96	451.33	6.787	
17,200.00	7,252.00	15,170.11	7,249.98	238.82	220.04	-89.96	710.48	-8,056.20	3,063.23	2,606.51	456.72	6.707	
17,300.00	7,252.00	15,270.11	7,249.98	241.49	222.74	-89.96	709.66	-8,156.20	3,063.17	2,601.06	462.11	6.629	
17,395.63	7,252.00	15,365.74	7,249.98	244.05	225.32	-89.96	708.87	-8,251.82	3,063.11	2,595.84	467.27	6.555	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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)			
0.00	0.00	0.00	0.00	0.00	0.00	103.40	-7.29	30.63	31.49				
100.00	100.00	100.00	100.00	0.14	0.14	103.40	-7.29	30.63	31.49	31.20	0.29	109.791	
200.00	200.00	200.00	200.00	0.50	0.50	103.40	-7.29	30.63	31.49	30.48	1.00	31.369	
300.00	300.00	300.00	300.00	0.86	0.86	103.40	-7.29	30.63	31.49	29.77	1.72	18.299	
400.00	400.00	400.00	400.00	1.22	1.22	103.40	-7.29	30.63	31.49	29.05	2.44	12.917 CC, ES	
500.00	500.00	499.50	499.48	1.58	1.57	100.61	-5.94	31.70	32.26	29.11	3.15	10.237	
600.00	600.00	598.78	598.63	1.94	1.93	93.10	-1.89	34.90	34.98	31.12	3.86	9.055	
700.00	700.00	698.55	698.16	2.29	2.29	84.98	3.43	39.11	39.31	34.73	4.58	8.583	
800.00	800.00	798.32	797.70	2.65	2.66	78.58	8.75	43.32	44.26	38.96	5.30	8.357	
900.00	900.00	898.09	897.24	3.01	3.02	73.50	14.08	47.53	49.65	43.63	6.01	8.257	
1,000.00	1,000.00	997.86	996.78	3.37	3.39	69.45	19.40	51.74	55.35	48.62	6.73	8.225	
1,100.00	1,100.00	1,097.63	1,096.31	3.73	3.76	66.16	24.72	55.95	61.28	53.83	7.45	8.229	
1,200.00	1,200.00	1,197.40	1,195.85	4.09	4.13	63.46	30.04	60.16	67.37	59.20	8.16	8.252	
1,250.00	1,250.00	1,247.28	1,245.62	4.27	4.32	62.29	32.70	62.26	70.46	61.94	8.52	8.268	
1,300.00	1,300.00	1,297.19	1,295.41	4.44	4.50	48.14	35.36	64.37	73.29	64.41	8.88	8.253	
1,400.00	1,399.93	1,397.11	1,395.10	4.80	4.87	48.03	40.69	68.58	77.22	67.62	9.60	8.046	
1,500.00	1,499.68	1,497.06	1,494.82	5.16	5.24	49.84	46.02	72.80	78.86	68.54	10.32	7.643	
1,600.00	1,599.13	1,596.92	1,594.45	5.52	5.62	53.60	51.35	77.01	78.45	67.41	11.04	7.104	
1,700.00	1,698.15	1,696.57	1,693.87	5.89	5.99	59.59	56.66	81.21	76.56	64.78	11.78	6.499	
1,800.00	1,796.63	1,795.88	1,792.95	6.27	6.36	68.24	61.96	85.40	74.18	61.64	12.54	5.915	
1,900.00	1,894.44	1,894.75	1,891.59	6.67	6.73	79.79	67.23	89.58	72.88	59.55	13.33	5.467	
1,902.51	1,896.88	1,897.22	1,894.05	6.68	6.74	80.12	67.37	89.68	72.88	59.52	13.35	5.459	
2,000.00	1,991.46	1,993.04	1,989.65	7.09	7.09	93.74	72.48	93.72	74.78	60.63	14.15	5.285 SF	
2,100.00	2,087.58	2,090.64	2,087.02	7.53	7.46	108.40	77.68	97.84	81.97	67.01	14.96	5.478	
2,200.00	2,182.68	2,187.42	2,183.58	8.01	7.82	121.69	82.84	101.92	95.56	79.82	15.74	6.072	
2,300.00	2,276.65	2,283.27	2,279.22	8.52	8.18	132.47	87.96	105.97	115.46	98.99	16.47	7.010	
2,400.00	2,369.36	2,378.08	2,373.80	9.07	8.53	140.74	93.01	109.97	141.01	123.83	17.18	8.208	
2,500.00	2,460.71	2,471.72	2,467.23	9.67	8.88	146.96	98.01	113.92	171.49	153.61	17.88	9.593	
2,600.00	2,550.59	2,564.09	2,559.38	10.31	9.22	151.67	102.94	117.81	206.34	187.77	18.57	11.113	
2,700.00	2,638.88	2,655.07	2,650.15	10.99	9.56	155.29	107.79	121.65	245.18	225.92	19.26	12.731	
2,800.00	2,725.48	2,744.55	2,739.42	11.73	9.90	158.10	112.56	125.42	287.72	267.78	19.95	14.424	
2,900.00	2,810.28	2,832.42	2,827.09	12.51	10.23	160.33	117.25	129.13	333.76	313.13	20.64	16.175	
3,000.00	2,893.18	2,918.57	2,913.04	13.34	10.55	162.12	121.84	132.77	383.14	361.82	21.32	17.972	
3,100.00	2,974.07	3,002.90	2,997.18	14.22	10.86	163.57	126.34	136.32	435.71	413.71	22.00	19.807	
3,166.85	3,026.99	3,058.21	3,052.35	14.84	11.07	164.39	129.29	138.66	472.58	450.13	22.45	21.050	
3,200.00	3,052.99	3,085.42	3,079.50	15.15	11.17	164.87	130.74	139.80	491.21	468.54	22.67	21.664	
3,300.00	3,131.43	3,167.49	3,161.39	16.11	11.48	166.13	135.12	143.27	547.54	524.20	23.35	23.453	
3,400.00	3,209.87	3,249.57	3,243.28	17.08	11.78	167.16	139.50	146.73	604.03	580.00	24.03	25.140	
3,500.00	3,288.30	3,331.65	3,325.16	18.07	12.09	168.01	143.87	150.19	660.62	635.90	24.71	26.731	
3,600.00	3,366.74	3,413.73	3,407.05	19.07	12.40	168.73	148.25	153.65	717.29	691.89	25.41	28.232	
3,700.00	3,445.18	3,495.80	3,488.94	20.08	12.70	169.34	152.63	157.12	774.04	747.93	26.11	29.650	
3,800.00	3,523.62	3,577.88	3,570.83	21.10	13.01	169.88	157.01	160.58	830.83	804.02	26.81	30.991	
3,900.00	3,602.05	3,659.96	3,652.71	22.12	13.32	170.34	161.39	164.04	887.67	860.15	27.52	32.258	
4,000.00	3,680.49	3,742.04	3,734.60	23.15	13.62	170.75	165.76	167.50	944.54	916.31	28.23	33.459	
4,100.00	3,758.93	3,824.11	3,816.49	24.19	13.93	171.11	170.14	170.97	1,001.44	972.50	28.95	34.597	
4,200.00	3,837.37	3,906.19	3,898.38	25.23	14.24	171.43	174.52	174.43	1,058.37	1,028.70	29.67	35.676	
4,300.00	3,915.80	3,988.27	3,980.26	26.28	14.54	171.72	178.90	177.89	1,115.31	1,084.92	30.39	36.702	
4,400.00	3,994.24	4,070.35	4,062.15	27.33	14.85	171.98	183.27	181.35	1,172.28	1,141.16	31.11	37.676	
4,500.00	4,072.68	4,152.42	4,144.04	28.38	15.16	172.22	187.65	184.82	1,229.25	1,197.41	31.84	38.603	
4,600.00	4,151.12	4,234.50	4,225.93	29.44	15.46	172.44	192.03	188.28	1,286.25	1,253.67	32.57	39.486	
4,700.00	4,229.55	4,316.58	4,307.81	30.50	15.77	172.64	196.41	191.74	1,343.25	1,309.94	33.31	40.328	
4,800.00	4,307.99	4,398.66	4,389.70	31.56	16.08	172.82	200.79	195.20	1,400.26	1,366.22	34.04	41.131	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 Toolface (°)	Offset Wellbore Centre		Distance			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)		
4,900.00	4,386.43	4,480.73	4,471.59	32.63	16.38	172.99	205.16	198.67	1,457.28	1,422.50	34.78	41.898	
5,000.00	4,464.87	4,562.81	4,553.47	33.69	16.69	173.14	209.54	202.13	1,514.31	1,478.79	35.52	42.631	
5,100.00	4,543.31	4,644.89	4,635.36	34.76	17.00	173.29	213.92	205.59	1,571.35	1,535.09	36.26	43.332	
5,200.00	4,621.74	4,726.97	4,717.25	35.83	17.30	173.42	218.30	209.05	1,628.39	1,591.38	37.01	44.004	
5,300.00	4,700.18	4,809.04	4,799.14	36.90	17.61	173.54	222.67	212.52	1,685.44	1,647.69	37.75	44.646	
5,400.00	4,778.62	4,891.12	4,881.02	37.97	17.92	173.66	227.05	215.98	1,742.49	1,703.99	38.50	45.263	
5,500.00	4,857.06	4,973.20	4,962.91	39.05	18.22	173.77	231.43	219.44	1,799.55	1,760.30	39.24	45.854	
5,600.00	4,935.49	5,055.28	5,044.80	40.12	18.53	173.87	235.81	222.90	1,856.61	1,816.62	39.99	46.422	
5,700.00	5,013.93	5,137.35	5,126.69	41.20	18.84	173.97	240.19	226.37	1,913.68	1,872.93	40.74	46.968	
5,800.00	5,092.37	5,219.43	5,208.57	42.27	19.14	174.06	244.56	229.83	1,970.75	1,929.25	41.50	47.492	
5,900.00	5,170.81	5,301.51	5,290.46	43.35	19.45	174.15	248.94	233.29	2,027.82	1,985.57	42.25	47.997	
6,000.00	5,249.24	5,383.58	5,372.35	44.43	19.76	174.23	253.32	236.75	2,084.89	2,041.89	43.00	48.482	
6,100.00	5,327.68	5,465.66	5,454.24	45.51	20.06	174.30	257.70	240.22	2,141.97	2,098.21	43.76	48.950	
6,200.00	5,406.12	5,547.74	5,536.12	46.59	20.37	174.38	262.08	243.68	2,199.05	2,154.54	44.51	49.401	
6,300.00	5,484.56	5,629.82	5,618.01	47.67	20.68	174.45	266.45	247.14	2,256.13	2,210.86	45.27	49.836	
6,400.00	5,562.99	5,711.89	5,699.90	48.75	20.98	174.51	270.83	250.60	2,313.22	2,267.19	46.03	50.255	
6,500.00	5,641.43	5,793.97	5,781.79	49.84	21.29	174.57	275.21	254.07	2,370.31	2,323.52	46.79	50.660	
6,600.00	5,719.87	5,876.05	5,863.67	50.92	21.60	174.63	279.59	257.53	2,427.39	2,379.85	47.55	51.052	
6,700.00	5,798.31	5,958.13	5,945.56	52.00	21.90	174.69	283.96	260.99	2,484.48	2,436.18	48.31	51.430	
6,800.00	5,876.75	6,040.20	6,027.45	53.09	22.21	174.75	288.34	264.45	2,541.58	2,492.51	49.07	51.795	
6,900.00	5,955.18	6,122.28	6,109.34	54.17	22.52	174.80	292.72	267.92	2,598.67	2,548.84	49.83	52.149	
7,000.00	6,033.62	6,204.36	6,191.22	55.25	22.83	174.85	297.10	271.38	2,655.76	2,605.17	50.59	52.491	
7,100.00	6,112.06	6,286.44	6,273.11	56.34	23.13	174.89	301.48	274.84	2,712.86	2,661.50	51.36	52.822	
7,200.00	6,190.50	6,368.51	6,355.00	57.43	23.44	174.94	305.85	278.30	2,769.96	2,717.83	52.12	53.143	
7,300.00	6,268.93	6,450.59	6,436.88	58.51	23.75	174.98	310.23	281.77	2,827.06	2,774.17	52.89	53.453	
7,400.00	6,347.37	6,500.00	6,486.19	59.60	23.93	175.02	312.86	283.58	2,884.39	2,831.01	53.37	54.040	
7,500.00	6,425.81	6,550.00	6,536.08	60.68	24.10	175.13	315.50	281.96	2,942.65	2,888.81	53.84	54.654	
7,600.00	6,504.25	6,600.00	6,585.64	61.77	24.26	175.34	318.08	275.99	3,002.01	2,947.73	54.28	55.306	
7,700.00	6,582.68	6,634.31	6,619.26	62.86	24.35	175.54	319.81	269.40	3,062.43	3,007.85	54.57	56.115	
7,800.00	6,661.12	6,671.81	6,655.48	63.95	24.45	175.81	321.66	259.91	3,123.94	3,069.07	54.88	56.927	
7,888.30	6,730.38	6,700.00	6,682.26	64.91	24.53	176.04	323.01	251.22	3,179.19	3,124.10	55.09	57.706	
7,900.00	6,739.57	6,700.00	6,682.26	65.03	24.53	178.45	323.01	251.22	3,186.57	3,131.48	55.09	57.841	
7,950.00	6,779.07	6,724.40	6,705.08	65.56	24.58	-171.00	324.15	242.65	3,217.91	3,162.64	55.27	58.221	
8,000.00	6,818.72	6,750.00	6,728.60	66.07	24.64	-160.55	325.31	232.61	3,248.84	3,193.39	55.45	58.589	
8,050.00	6,858.20	6,750.00	6,728.60	66.56	24.64	-150.55	325.31	232.61	3,279.08	3,223.65	55.44	59.150	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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	-180.00	-14.58	0.00	14.58				
100.00	100.00	100.00	100.00	0.14	0.14	-180.00	-14.58	0.00	14.58	14.29	0.29	50.841	
200.00	200.00	200.00	200.00	0.50	0.50	-180.00	-14.58	0.00	14.58	13.58	1.00	14.526	
300.00	300.00	300.00	300.00	0.86	0.86	-180.00	-14.58	0.00	14.58	12.86	1.72	8.474	
400.00	400.00	400.00	400.00	1.22	1.22	-180.00	-14.58	0.00	14.58	12.14	2.44	5.981	
500.00	500.00	500.00	500.00	1.58	1.58	-180.00	-14.58	0.00	14.58	11.43	3.15	4.622	
600.00	600.00	600.00	600.00	1.94	1.94	-180.00	-14.58	0.00	14.58	10.71	3.87	3.766	
700.00	700.00	700.00	700.00	2.29	2.29	-180.00	-14.58	0.00	14.58	9.99	4.59	3.178	
800.00	800.00	800.00	800.00	2.65	2.65	-180.00	-14.58	0.00	14.58	9.27	5.31	2.748	
900.00	900.00	900.00	900.00	3.01	3.01	-180.00	-14.58	0.00	14.58	8.56	6.02	2.421	
1,000.00	1,000.00	1,000.00	1,000.00	3.37	3.37	-180.00	-14.58	0.00	14.58	7.84	6.74	2.163	
1,100.00	1,100.00	1,100.00	1,100.00	3.73	3.73	-180.00	-14.58	0.00	14.58	7.12	7.46	1.955	
1,200.00	1,200.00	1,200.00	1,200.00	4.09	4.09	-180.00	-14.58	0.00	14.58	6.41	8.17	1.784	
1,250.00	1,250.00	1,250.00	1,250.00	4.27	4.27	-180.00	-14.58	0.00	14.58	6.05	8.53	1.709 CC, ES	
1,300.00	1,300.00	1,300.00	1,300.00	4.44	4.45	167.09	-14.58	0.00	15.01	6.12	8.89	1.688	
1,400.00	1,399.93	1,400.24	1,400.24	4.80	4.80	169.22	-14.15	0.11	18.00	8.39	9.61	1.873	
1,500.00	1,499.68	1,500.86	1,500.79	5.16	5.16	170.72	-10.74	1.01	21.43	11.12	10.32	2.078	
1,600.00	1,599.13	1,601.60	1,601.28	5.52	5.53	171.58	-3.90	2.82	24.87	13.85	11.01	2.258	
1,700.00	1,698.15	1,702.47	1,701.58	5.89	5.89	172.04	6.36	5.53	28.29	16.59	11.70	2.418	
1,800.00	1,796.63	1,803.45	1,801.56	6.27	6.26	172.22	20.05	9.14	31.70	19.32	12.38	2.561	
1,900.00	1,894.44	1,904.56	1,901.10	6.67	6.64	172.21	37.16	13.66	35.09	22.04	13.05	2.689	
2,000.00	1,991.46	2,005.78	2,000.07	7.09	7.04	172.06	57.68	19.07	38.45	24.74	13.72	2.804	
2,100.00	2,087.58	2,107.13	2,098.34	7.53	7.47	171.80	81.59	25.39	41.78	27.41	14.37	2.907	
2,200.00	2,182.68	2,208.59	2,195.79	8.01	7.92	171.46	108.89	32.59	45.08	30.05	15.03	3.000	
2,300.00	2,276.65	2,310.17	2,292.29	8.52	8.40	171.04	139.54	40.69	48.34	32.66	15.68	3.083	
2,400.00	2,369.36	2,411.86	2,387.71	9.07	8.92	170.57	173.53	49.66	51.56	35.23	16.33	3.157	
2,500.00	2,460.71	2,513.66	2,481.92	9.67	9.48	170.06	210.80	59.50	54.74	37.75	16.99	3.222	
2,600.00	2,550.59	2,615.57	2,574.80	10.31	10.08	169.50	251.34	70.20	57.88	40.22	17.66	3.278	
2,700.00	2,638.88	2,717.59	2,666.23	10.99	10.73	168.90	295.09	81.75	60.97	42.63	18.34	3.325	
2,800.00	2,725.48	2,819.71	2,756.09	11.73	11.44	168.28	342.01	94.13	64.01	44.98	19.03	3.363	
2,900.00	2,810.28	2,921.94	2,844.24	12.51	12.19	167.63	392.05	107.34	67.01	47.26	19.75	3.393	
3,000.00	2,893.18	3,024.27	2,930.57	13.34	12.99	166.95	445.15	121.36	69.95	49.46	20.49	3.414	
3,100.00	2,974.07	3,126.69	3,014.97	14.22	13.85	166.25	501.25	136.17	72.84	51.58	21.26	3.427	
3,166.85	3,026.99	3,194.97	3,070.07	14.84	14.45	165.77	540.25	146.46	74.75	52.94	21.81	3.427	
3,200.00	3,052.99	3,228.11	3,096.63	15.15	14.74	165.57	559.40	151.52	75.80	53.63	22.16	3.420	
3,300.00	3,131.43	3,328.06	3,176.75	16.11	15.66	164.99	617.17	166.77	78.95	55.71	23.24	3.397	
3,400.00	3,209.87	3,428.00	3,256.87	17.08	16.58	164.45	674.94	182.02	82.11	57.77	24.35	3.373	
3,500.00	3,288.30	3,527.95	3,336.99	18.07	17.53	163.95	732.71	197.27	85.28	59.80	25.47	3.348	
3,600.00	3,366.74	3,627.90	3,417.11	19.07	18.48	163.49	790.49	212.52	88.45	61.82	26.63	3.322	
3,700.00	3,445.18	3,727.85	3,497.23	20.08	19.45	163.05	848.26	227.77	91.63	63.83	27.80	3.296	
3,800.00	3,523.62	3,827.79	3,577.35	21.10	20.43	162.65	906.03	243.02	94.81	65.82	28.99	3.270	
3,900.00	3,602.05	3,927.74	3,657.47	22.12	21.41	162.28	963.80	258.27	98.00	67.80	30.20	3.245	
4,000.00	3,680.49	4,027.69	3,737.59	23.15	22.40	161.92	1,021.57	273.52	101.19	69.77	31.42	3.220	
4,100.00	3,758.93	4,127.63	3,817.72	24.19	23.40	161.59	1,079.34	288.77	104.38	71.72	32.66	3.196	
4,200.00	3,837.37	4,227.58	3,897.84	25.23	24.40	161.28	1,137.11	304.02	107.58	73.67	33.91	3.173	
4,300.00	3,915.80	4,327.53	3,977.96	26.28	25.41	160.99	1,194.88	319.27	110.78	75.61	35.17	3.150	
4,400.00	3,994.24	4,427.48	4,058.08	27.33	26.42	160.71	1,252.66	334.52	113.99	77.54	36.45	3.128	
4,500.00	4,072.68	4,527.42	4,138.20	28.38	27.44	160.45	1,310.43	349.77	117.19	79.47	37.73	3.106	
4,600.00	4,151.12	4,627.37	4,218.32	29.44	28.46	160.20	1,368.20	365.02	120.40	81.39	39.02	3.086	
4,700.00	4,229.55	4,727.32	4,298.44	30.50	29.48	159.97	1,425.97	380.27	123.61	83.30	40.32	3.066	
4,800.00	4,307.99	4,827.26	4,378.56	31.56	30.50	159.75	1,483.74	395.53	126.83	85.20	41.62	3.047	
4,900.00	4,386.43	4,927.21	4,458.68	32.63	31.53	159.53	1,541.51	410.78	130.04	87.10	42.94	3.029	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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	4,464.87	5,027.16	4,538.80	33.69	32.56	159.33	1,599.28	426.03	133.26	89.00	44.26	3.011	
5,100.00	4,543.31	5,127.11	4,618.92	34.76	33.59	159.14	1,657.05	441.28	136.48	90.89	45.59	2.994	
5,200.00	4,621.74	5,227.05	4,699.04	35.83	34.62	158.96	1,714.83	456.53	139.70	92.78	46.92	2.977	
5,300.00	4,700.18	5,327.00	4,779.17	36.90	35.65	158.78	1,772.60	471.78	142.92	94.66	48.26	2.962	
5,400.00	4,778.62	5,426.95	4,859.29	37.97	36.69	158.61	1,830.37	487.03	146.14	96.54	49.60	2.946	
5,500.00	4,857.06	5,526.90	4,939.41	39.05	37.73	158.45	1,888.14	502.28	149.36	98.42	50.94	2.932	
5,600.00	4,935.49	5,626.84	5,019.53	40.12	38.76	158.30	1,945.91	517.53	152.59	100.29	52.30	2.918	
5,700.00	5,013.93	5,726.79	5,099.65	41.20	39.80	158.15	2,003.68	532.78	155.81	102.16	53.65	2.904	
5,800.00	5,092.37	5,826.74	5,179.77	42.27	40.84	158.01	2,061.45	548.03	159.04	104.03	55.01	2.891	
5,900.00	5,170.81	5,926.68	5,259.89	43.35	41.89	157.88	2,119.22	563.28	162.27	105.89	56.37	2.879	
6,000.00	5,249.24	6,026.63	5,340.01	44.43	42.93	157.75	2,177.00	578.53	165.49	107.76	57.74	2.866	
6,100.00	5,327.68	6,126.58	5,420.13	45.51	43.97	157.62	2,234.77	593.78	168.72	109.62	59.10	2.855	
6,200.00	5,406.12	6,226.53	5,500.25	46.59	45.02	157.50	2,292.54	609.03	171.95	111.48	60.48	2.843	
6,300.00	5,484.56	6,326.47	5,580.37	47.67	46.06	157.39	2,350.31	624.28	175.18	113.33	61.85	2.832	
6,400.00	5,562.99	6,426.42	5,660.49	48.75	47.11	157.27	2,408.08	639.53	178.41	115.19	63.23	2.822	
6,500.00	5,641.43	6,526.37	5,740.62	49.84	48.15	157.17	2,465.85	654.78	181.65	117.04	64.60	2.812	
6,600.00	5,719.87	6,626.31	5,820.74	50.92	49.20	157.06	2,523.62	670.03	184.88	118.89	65.99	2.802	
6,700.00	5,798.31	6,726.26	5,900.86	52.00	50.25	156.96	2,581.40	685.28	188.11	120.74	67.37	2.792	
6,800.00	5,876.75	6,826.21	5,980.98	53.09	51.29	156.86	2,639.17	700.53	191.34	122.59	68.75	2.783	
6,900.00	5,955.18	6,926.16	6,061.10	54.17	52.34	156.77	2,696.94	715.78	194.58	124.44	70.14	2.774	
7,000.00	6,033.62	7,026.10	6,141.22	55.25	53.39	156.68	2,754.71	731.03	197.81	126.28	71.53	2.765	
7,100.00	6,112.06	7,126.05	6,221.34	56.34	54.44	156.59	2,812.48	746.28	201.05	128.13	72.92	2.757	
7,200.00	6,190.50	7,226.00	6,301.46	57.43	55.49	156.51	2,870.25	761.53	204.28	129.97	74.31	2.749	
7,300.00	6,268.93	7,325.94	6,381.58	58.51	56.54	156.42	2,928.02	776.79	207.52	131.81	75.71	2.741	
7,400.00	6,347.37	7,425.89	6,461.70	59.60	57.59	156.34	2,985.79	792.04	210.76	133.65	77.10	2.733	
7,500.00	6,425.81	7,528.27	6,543.86	60.68	58.66	156.47	3,045.03	806.87	213.84	135.55	78.29	2.731	
7,600.00	6,504.25	7,634.69	6,630.12	61.77	59.70	160.42	3,107.09	807.67	214.40	138.12	76.28	2.811	
7,636.23	6,532.66	7,671.45	6,659.77	62.16	60.04	162.97	3,128.38	803.37	214.32	139.45	74.86	2.863	
7,700.00	6,582.68	7,732.72	6,708.52	62.86	60.55	168.54	3,163.34	791.02	215.07	142.74	72.33	2.974	
7,800.00	6,661.12	7,818.47	6,774.39	63.95	61.19	178.76	3,210.48	763.17	222.67	152.18	70.49	3.159	
7,888.30	6,730.38	7,883.18	6,821.50	64.91	61.61	-172.29	3,244.11	734.31	240.44	168.64	71.79	3.349	
7,900.00	6,739.57	7,891.06	6,827.05	65.03	61.66	-169.41	3,248.07	730.35	243.68	171.61	72.07	3.381	
7,950.00	6,779.07	7,924.32	6,849.97	65.56	61.85	-157.22	3,264.40	712.64	258.98	185.85	73.12	3.542	
8,000.00	6,818.72	7,956.91	6,871.59	66.07	62.02	-145.47	3,279.79	693.72	275.98	202.28	73.70	3.745	
8,050.00	6,858.20	7,988.95	6,891.97	66.56	62.17	-134.40	3,294.27	673.69	293.98	220.32	73.65	3.991	
8,100.00	6,897.22	8,020.51	6,911.13	67.02	62.31	-124.21	3,307.87	652.62	312.41	239.42	72.99	4.280	
8,150.00	6,935.48	8,050.00	6,928.16	67.44	62.43	-115.09	3,319.94	631.79	330.85	259.37	71.48	4.629	
8,200.00	6,972.69	8,082.46	6,945.87	67.84	62.54	-106.78	3,332.47	607.66	348.93	278.78	70.15	4.974	
8,250.00	7,008.57	8,112.96	6,961.49	68.20	62.64	-99.58	3,343.49	583.90	366.39	298.22	68.17	5.375	
8,300.00	7,042.85	8,150.00	6,979.04	68.52	62.74	-93.08	3,355.85	553.72	383.11	315.93	67.17	5.703	
8,350.00	7,075.25	8,173.21	6,989.22	68.81	62.79	-87.94	3,363.01	534.13	398.63	335.02	63.60	6.267	
8,400.00	7,105.55	8,200.00	7,000.17	69.07	62.85	-83.40	3,370.67	510.91	413.11	352.40	60.71	6.804	
8,450.00	7,133.50	8,232.68	7,012.31	69.29	62.90	-79.41	3,379.15	481.79	426.29	367.46	58.84	7.245	
8,500.00	7,158.89	8,262.19	7,022.10	69.48	62.94	-76.12	3,385.96	454.80	438.14	381.53	56.61	7.739	
8,550.00	7,181.54	8,300.00	7,032.99	69.63	62.98	-73.27	3,393.48	419.38	448.69	393.08	55.61	8.068	
8,600.00	7,201.26	8,320.88	7,038.18	69.75	62.99	-71.14	3,397.03	399.48	457.49	404.55	52.93	8.643	
8,650.00	7,217.91	8,350.00	7,044.43	69.84	63.00	-69.35	3,401.28	371.36	464.87	413.24	51.63	9.003	
8,700.00	7,231.36	8,379.25	7,049.53	69.90	63.00	-67.97	3,404.70	342.77	470.68	419.84	50.84	9.258	
8,750.00	7,241.51	8,400.00	7,052.43	69.92	63.00	-67.01	3,406.61	322.31	475.01	424.62	50.39	9.427	
8,800.00	7,248.28	8,437.43	7,056.13	69.92	62.98	-66.35	3,408.95	285.14	477.46	426.63	50.82	9.394	
8,850.00	7,251.62	8,466.49	7,057.65	69.89	62.95	-66.07	3,409.78	256.14	478.39	426.74	51.65	9.262	
8,873.35	7,252.00	8,480.06	7,057.95	69.87	62.94	-66.06	3,409.87	242.57	478.26	426.05	52.22	9.159	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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)			
8,900.00	7,252.00	8,500.43	7,058.00	69.84	62.91	-66.06	3,409.73	222.20	478.17	425.41	52.75	9.064	
8,906.97	7,252.00	8,507.40	7,058.00	69.83	62.91	-66.06	3,409.67	215.23	478.17	425.32	52.84	9.049	
9,000.00	7,252.00	8,600.43	7,058.00	69.75	62.81	-66.06	3,408.85	122.20	478.17	424.10	54.06	8.845	
9,100.00	7,252.00	8,700.43	7,058.00	69.69	62.74	-66.06	3,407.97	22.21	478.17	422.38	55.79	8.571	
9,200.00	7,252.00	8,800.43	7,058.00	69.66	62.71	-66.06	3,407.09	-77.79	478.17	420.26	57.90	8.258	
9,300.00	7,252.00	8,900.43	7,058.00	69.67	62.71	-66.06	3,406.21	-177.79	478.17	417.81	60.36	7.922	
9,400.00	7,252.00	9,000.43	7,058.00	69.71	62.76	-66.06	3,405.33	-277.78	478.17	415.05	63.12	7.576	
9,500.00	7,252.00	9,100.43	7,058.00	69.80	62.86	-66.06	3,404.44	-377.78	478.17	412.02	66.14	7.229	
9,600.00	7,252.00	9,200.43	7,058.00	69.93	63.01	-66.06	3,403.56	-477.77	478.17	408.77	69.40	6.890	
9,700.00	7,252.00	9,300.43	7,058.00	70.12	63.24	-66.06	3,402.68	-577.77	478.17	405.31	72.85	6.564	
9,800.00	7,252.00	9,400.43	7,058.00	70.37	63.54	-66.06	3,401.80	-677.77	478.17	401.69	76.48	6.252	
9,900.00	7,252.00	9,500.43	7,058.00	70.70	63.95	-66.06	3,400.92	-777.76	478.17	397.91	80.25	5.958	
10,000.00	7,252.00	9,600.43	7,058.00	71.11	64.49	-66.06	3,400.04	-877.76	478.17	394.01	84.16	5.682	
10,100.00	7,252.00	9,700.43	7,058.00	71.62	65.17	-66.06	3,399.16	-977.75	478.17	389.99	88.18	5.423	
10,200.00	7,252.00	9,800.43	7,058.00	72.25	66.03	-66.06	3,398.27	-1,077.75	478.17	385.88	92.29	5.181	
10,300.00	7,252.00	9,900.43	7,058.00	73.01	67.07	-66.06	3,397.39	-1,177.75	478.17	381.68	96.49	4.956	
10,400.00	7,252.00	10,000.43	7,058.00	73.92	68.30	-66.06	3,396.51	-1,277.74	478.17	377.40	100.76	4.745	
10,500.00	7,252.00	10,100.43	7,058.00	74.98	69.71	-66.06	3,395.63	-1,377.74	478.17	373.06	105.10	4.550	
10,600.00	7,252.00	10,200.43	7,058.00	76.20	71.30	-66.06	3,394.75	-1,477.74	478.17	368.67	109.50	4.367	
10,700.00	7,252.00	10,300.43	7,058.00	77.58	73.03	-66.06	3,393.87	-1,577.73	478.17	364.22	113.94	4.197	
10,800.00	7,252.00	10,400.43	7,058.00	79.11	74.89	-66.06	3,392.99	-1,677.73	478.17	359.73	118.44	4.037	
10,900.00	7,252.00	10,500.43	7,058.00	80.77	76.85	-66.06	3,392.11	-1,777.72	478.17	355.20	122.97	3.889	
11,000.00	7,252.00	10,600.43	7,058.00	82.55	78.90	-66.06	3,391.22	-1,877.72	478.17	350.63	127.54	3.749	
11,100.00	7,252.00	10,700.43	7,058.00	84.43	81.03	-66.06	3,390.34	-1,977.72	478.17	346.03	132.14	3.619	
11,200.00	7,252.00	10,800.43	7,058.00	86.40	83.21	-66.06	3,389.46	-2,077.71	478.17	341.40	136.76	3.496	
11,300.00	7,252.00	10,900.43	7,058.00	88.45	85.45	-66.06	3,388.58	-2,177.71	478.17	336.75	141.42	3.381	
11,400.00	7,252.00	11,000.43	7,058.00	90.56	87.72	-66.06	3,387.70	-2,277.70	478.17	332.07	146.10	3.273	
11,500.00	7,252.00	11,100.43	7,058.00	92.73	90.04	-66.06	3,386.82	-2,377.70	478.17	327.37	150.80	3.171	
11,600.00	7,252.00	11,200.43	7,058.00	94.95	92.39	-66.06	3,385.94	-2,477.70	478.17	322.65	155.52	3.075	
11,700.00	7,252.00	11,300.43	7,058.00	97.21	94.76	-66.06	3,385.05	-2,577.69	478.16	317.91	160.25	2.984	
11,800.00	7,252.00	11,400.43	7,058.00	99.51	97.16	-66.06	3,384.17	-2,677.69	478.16	313.16	165.01	2.898	
11,900.00	7,252.00	11,500.43	7,058.00	101.83	99.58	-66.06	3,383.29	-2,777.68	478.16	308.39	169.78	2.816	
12,000.00	7,252.00	11,600.43	7,058.00	104.19	102.02	-66.06	3,382.41	-2,877.68	478.16	303.61	174.56	2.739	
12,100.00	7,252.00	11,700.43	7,058.00	106.57	104.48	-66.06	3,381.53	-2,977.68	478.16	298.81	179.35	2.666	
12,200.00	7,252.00	11,800.43	7,058.00	108.97	106.95	-66.06	3,380.65	-3,077.67	478.16	294.01	184.16	2.596	
12,300.00	7,252.00	11,900.43	7,058.00	111.39	109.44	-66.06	3,379.77	-3,177.67	478.16	289.19	188.97	2.530	
12,400.00	7,252.00	12,000.43	7,058.00	113.84	111.94	-66.06	3,378.89	-3,277.67	478.16	284.36	193.80	2.467	
12,500.00	7,252.00	12,100.43	7,058.00	116.29	114.45	-66.06	3,378.00	-3,377.66	478.16	279.53	198.64	2.407	
12,600.00	7,252.00	12,200.43	7,058.00	118.76	116.97	-66.06	3,377.12	-3,477.66	478.16	274.68	203.48	2.350	
12,700.00	7,252.00	12,300.43	7,058.00	121.25	119.50	-66.06	3,376.24	-3,577.65	478.16	269.83	208.33	2.295	
12,800.00	7,252.00	12,400.43	7,058.00	123.74	122.04	-66.06	3,375.36	-3,677.65	478.16	264.97	213.19	2.243	
12,900.00	7,252.00	12,500.43	7,058.00	126.25	124.59	-66.06	3,374.48	-3,777.65	478.16	260.11	218.06	2.193	
13,000.00	7,252.00	12,600.43	7,058.00	128.77	127.15	-66.06	3,373.60	-3,877.64	478.16	255.23	222.93	2.145	
13,100.00	7,252.00	12,700.43	7,058.00	131.30	129.71	-66.06	3,372.72	-3,977.64	478.16	250.36	227.81	2.099	
13,200.00	7,252.00	12,800.43	7,058.00	133.83	132.29	-66.06	3,371.83	-4,077.63	478.16	245.47	232.69	2.055	
13,300.00	7,252.00	12,900.43	7,058.00	136.38	134.86	-66.06	3,370.95	-4,177.63	478.16	240.58	237.58	2.013	
13,400.00	7,252.00	13,000.43	7,058.00	138.93	137.45	-66.06	3,370.07	-4,277.63	478.16	235.69	242.48	1.972	
13,500.00	7,252.00	13,100.43	7,058.00	141.49	140.03	-66.06	3,369.19	-4,377.62	478.16	230.79	247.38	1.933	
13,600.00	7,252.00	13,200.43	7,058.00	144.05	142.63	-66.06	3,368.31	-4,477.62	478.16	225.88	252.28	1.895	
13,700.00	7,252.00	13,300.43	7,058.00	146.63	145.23	-66.06	3,367.43	-4,577.62	478.16	220.98	257.19	1.859	
13,800.00	7,252.00	13,400.43	7,058.00	149.20	147.83	-66.06	3,366.55	-4,677.61	478.16	216.06	262.10	1.824	
13,900.00	7,252.00	13,500.43	7,058.00	151.79	150.44	-66.06	3,365.66	-4,777.61	478.16	211.15	267.01	1.791	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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
14,000.00	7,252.00	13,600.43	7,058.00	154.38	153.05	-66.06	3,364.78	-4,877.60	478.16	206.23	271.93	1.758	
14,100.00	7,252.00	13,700.43	7,058.00	156.97	155.67	-66.06	3,363.90	-4,977.60	478.16	201.31	276.86	1.727	
14,200.00	7,252.00	13,800.43	7,058.00	159.57	158.29	-66.06	3,363.02	-5,077.60	478.16	196.38	281.78	1.697	
14,300.00	7,252.00	13,900.43	7,058.00	162.17	160.91	-66.06	3,362.14	-5,177.59	478.16	191.45	286.71	1.668	
14,400.00	7,252.00	14,000.43	7,058.00	164.78	163.53	-66.06	3,361.26	-5,277.59	478.16	186.52	291.64	1.640	
14,500.00	7,252.00	14,100.43	7,058.00	167.39	166.16	-66.06	3,360.38	-5,377.58	478.16	181.59	296.57	1.612	
14,600.00	7,252.00	14,200.43	7,058.00	170.00	168.80	-66.06	3,359.50	-5,477.58	478.16	176.65	301.51	1.586	
14,700.00	7,252.00	14,300.43	7,058.00	172.62	171.43	-66.06	3,358.61	-5,577.58	478.16	171.71	306.45	1.560	
14,800.00	7,252.00	14,400.43	7,058.00	175.24	174.07	-66.06	3,357.73	-5,677.57	478.16	166.77	311.39	1.536	
14,900.00	7,252.00	14,500.43	7,058.00	177.86	176.71	-66.06	3,356.85	-5,777.57	478.16	161.83	316.33	1.512	
15,000.00	7,252.00	14,600.43	7,058.00	180.49	179.35	-66.06	3,355.97	-5,877.56	478.16	156.88	321.28	1.488	Level 3
15,100.00	7,252.00	14,700.43	7,058.00	183.12	182.00	-66.06	3,355.09	-5,977.56	478.16	151.94	326.23	1.466	Level 3
15,200.00	7,252.00	14,800.43	7,058.00	185.75	184.64	-66.06	3,354.21	-6,077.56	478.16	146.99	331.18	1.444	Level 3
15,300.00	7,252.00	14,900.43	7,058.00	188.38	187.29	-66.06	3,353.33	-6,177.55	478.16	142.04	336.13	1.423	Level 3
15,400.00	7,252.00	15,000.43	7,058.00	191.02	189.94	-66.06	3,352.44	-6,277.55	478.16	137.08	341.08	1.402	Level 3
15,500.00	7,252.00	15,100.43	7,058.00	193.66	192.60	-66.06	3,351.56	-6,377.55	478.16	132.13	346.04	1.382	Level 3
15,600.00	7,252.00	15,200.43	7,058.00	196.30	195.25	-66.06	3,350.68	-6,477.54	478.16	127.17	350.99	1.362	Level 3
15,700.00	7,252.00	15,300.43	7,058.00	198.95	197.91	-66.06	3,349.80	-6,577.54	478.16	122.21	355.95	1.343	Level 3
15,800.00	7,252.00	15,400.43	7,058.00	201.59	200.57	-66.06	3,348.92	-6,677.53	478.16	117.25	360.91	1.325	Level 3
15,900.00	7,252.00	15,500.43	7,058.00	204.24	203.23	-66.06	3,348.04	-6,777.53	478.16	112.29	365.87	1.307	Level 3
16,000.00	7,252.00	15,600.43	7,058.00	206.89	205.89	-66.06	3,347.16	-6,877.53	478.16	107.33	370.83	1.289	Level 3
16,100.00	7,252.00	15,700.43	7,058.00	209.55	208.55	-66.06	3,346.28	-6,977.52	478.16	102.37	375.79	1.272	Level 3
16,200.00	7,252.00	15,800.43	7,058.00	212.20	211.22	-66.06	3,345.39	-7,077.52	478.16	97.40	380.76	1.256	Level 3
16,300.00	7,252.00	15,900.43	7,058.00	214.86	213.89	-66.06	3,344.51	-7,177.51	478.16	92.44	385.72	1.240	Level 3
16,400.00	7,252.00	16,000.43	7,058.00	217.51	216.55	-66.06	3,343.63	-7,277.51	478.16	87.47	390.69	1.224	Level 3
16,500.00	7,252.00	16,100.43	7,058.00	220.17	219.22	-66.06	3,342.75	-7,377.51	478.16	82.50	395.66	1.209	Level 3
16,600.00	7,252.00	16,200.43	7,058.00	222.83	221.89	-66.06	3,341.87	-7,477.50	478.16	77.53	400.63	1.194	Level 3
16,700.00	7,252.00	16,300.43	7,058.00	225.49	224.56	-66.06	3,340.99	-7,577.50	478.16	72.56	405.60	1.179	Level 3
16,800.00	7,252.00	16,400.43	7,058.00	228.16	227.24	-66.06	3,340.11	-7,677.49	478.16	67.59	410.57	1.165	Level 3
16,900.00	7,252.00	16,500.43	7,058.00	230.82	229.91	-66.06	3,339.22	-7,777.49	478.16	62.62	415.54	1.151	Level 3
17,000.00	7,252.00	16,600.43	7,058.00	233.49	232.59	-66.06	3,338.34	-7,877.49	478.16	57.65	420.52	1.137	Level 3
17,100.00	7,252.00	16,700.43	7,058.00	236.16	235.26	-66.06	3,337.46	-7,977.48	478.16	52.67	425.49	1.124	Level 3
17,200.00	7,252.00	16,800.43	7,058.00	238.82	237.94	-66.06	3,336.58	-8,077.48	478.16	47.70	430.46	1.111	Level 3
17,300.00	7,252.00	16,900.43	7,058.00	241.49	240.62	-66.06	3,335.70	-8,177.48	478.16	42.72	435.44	1.098	Level 3
17,395.63	7,252.00	16,996.06	7,058.00	244.05	243.18	-66.06	3,334.86	-8,273.10	478.16	37.96	440.20	1.086	Level 3, SF

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 Toolface (°)	Offset Wellbore Centre		Distance		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	-180.00	-32.79	0.00	32.79				
100.00	100.00	100.00	100.00	0.14	0.14	-180.00	-32.79	0.00	32.79	32.50	0.29	114.343	
200.00	200.00	200.00	200.00	0.50	0.50	-180.00	-32.79	0.00	32.79	31.79	1.00	32.669	
300.00	300.00	300.00	300.00	0.86	0.86	-180.00	-32.79	0.00	32.79	31.07	1.72	19.057	
400.00	400.00	400.00	400.00	1.22	1.22	-180.00	-32.79	0.00	32.79	30.35	2.44	13.452	
500.00	500.00	500.00	500.00	1.58	1.58	-180.00	-32.79	0.00	32.79	29.64	3.15	10.395	
600.00	600.00	600.00	600.00	1.94	1.94	-180.00	-32.79	0.00	32.79	28.92	3.87	8.470	
700.00	700.00	700.00	700.00	2.29	2.29	-180.00	-32.79	0.00	32.79	28.20	4.59	7.146	
800.00	800.00	800.00	800.00	2.65	2.65	-180.00	-32.79	0.00	32.79	27.49	5.31	6.181	
900.00	900.00	900.00	900.00	3.01	3.01	-180.00	-32.79	0.00	32.79	26.77	6.02	5.445	
1,000.00	1,000.00	1,000.00	1,000.00	3.37	3.37	-180.00	-32.79	0.00	32.79	26.05	6.74	4.866	
1,100.00	1,100.00	1,100.00	1,100.00	3.73	3.73	-180.00	-32.79	0.00	32.79	25.33	7.46	4.398	
1,200.00	1,200.00	1,200.00	1,200.00	4.09	4.09	-180.00	-32.79	0.00	32.79	24.62	8.17	4.012	
1,250.00	1,250.00	1,250.00	1,250.00	4.27	4.27	-180.00	-32.79	0.00	32.79	24.26	8.53	3.843 CC, ES	
1,300.00	1,300.00	1,300.00	1,300.00	4.44	4.45	166.88	-32.79	0.00	33.22	24.33	8.89	3.736	
1,400.00	1,399.93	1,399.93	1,399.93	4.80	4.80	168.11	-32.79	0.00	36.62	27.02	9.61	3.812	
1,500.00	1,499.68	1,499.68	1,499.68	5.16	5.16	169.98	-32.79	0.00	43.47	33.15	10.32	4.211	
1,600.00	1,599.13	1,599.13	1,599.13	5.52	5.52	171.89	-32.79	0.00	53.80	42.76	11.04	4.873	
1,700.00	1,698.15	1,698.15	1,698.15	5.89	5.87	173.52	-32.79	0.00	67.60	55.85	11.75	5.752	
1,800.00	1,796.63	1,796.63	1,796.63	6.27	6.23	174.81	-32.79	0.00	84.88	72.42	12.47	6.809	
1,900.00	1,894.44	1,894.44	1,894.44	6.67	6.58	175.80	-32.79	0.00	105.61	92.43	13.18	8.015	
2,000.00	1,991.46	1,991.46	1,991.46	7.09	6.92	176.55	-32.79	0.00	129.75	115.86	13.88	9.345	
2,100.00	2,087.58	2,092.61	2,092.59	7.53	7.29	177.09	-31.36	0.43	155.86	141.26	14.61	10.670	
2,200.00	2,182.68	2,195.15	2,195.00	8.01	7.65	177.41	-26.43	1.92	181.95	166.62	15.33	11.871	
2,300.00	2,276.65	2,298.72	2,298.18	8.52	8.02	177.58	-17.90	4.50	207.95	191.91	16.04	12.963	
2,400.00	2,369.36	2,403.34	2,402.01	9.07	8.40	177.65	-5.65	8.20	233.83	217.08	16.75	13.960	
2,500.00	2,460.71	2,509.03	2,506.36	9.67	8.79	177.65	10.39	13.04	259.55	242.10	17.45	14.872	
2,600.00	2,550.59	2,615.82	2,611.09	10.31	9.19	177.59	30.33	19.06	285.08	266.93	18.15	15.707	
2,700.00	2,638.88	2,723.73	2,716.05	10.99	9.61	177.50	54.26	26.29	310.37	291.53	18.84	16.471	
2,800.00	2,725.48	2,832.77	2,821.09	11.73	10.07	177.37	82.27	34.75	335.40	315.87	19.53	17.171	
2,900.00	2,810.28	2,942.97	2,926.04	12.51	10.55	177.21	114.44	44.47	360.12	339.90	20.22	17.811	
3,000.00	2,893.18	3,054.35	3,030.71	13.34	11.08	177.03	150.86	55.47	384.48	363.58	20.90	18.394	
3,100.00	2,974.07	3,166.91	3,134.91	14.22	11.65	176.83	191.59	67.77	408.47	386.88	21.59	18.923	
3,166.85	3,026.99	3,242.83	3,204.21	14.84	12.07	176.69	221.26	76.73	424.27	402.22	22.04	19.248	
3,200.00	3,052.99	3,280.73	3,238.49	15.15	12.28	176.62	236.73	81.40	431.84	409.57	22.27	19.392	
3,300.00	3,131.43	3,396.38	3,341.74	16.11	12.97	176.39	286.59	96.46	452.09	429.14	22.95	19.697	
3,400.00	3,209.87	3,513.76	3,444.29	17.08	13.73	176.10	341.24	112.97	468.38	444.74	23.64	19.813	
3,500.00	3,288.30	3,632.51	3,545.57	18.07	14.57	175.76	400.57	130.89	480.63	456.30	24.33	19.754	
3,600.00	3,366.74	3,752.23	3,645.00	19.07	15.49	175.37	464.40	150.17	488.79	463.76	25.02	19.533	
3,700.00	3,445.18	3,866.35	3,737.20	20.08	16.42	174.93	528.77	169.61	493.01	467.20	25.80	19.108	
3,800.00	3,523.62	3,966.24	3,817.26	21.10	17.27	174.54	585.95	186.88	496.23	469.45	26.79	18.525	
3,900.00	3,602.05	4,066.13	3,897.32	22.12	18.15	174.15	643.13	204.15	499.48	471.69	27.79	17.973	
4,000.00	3,680.49	4,166.02	3,977.39	23.15	19.04	173.77	700.32	221.42	502.75	473.94	28.81	17.450	
4,100.00	3,758.93	4,265.91	4,057.45	24.19	19.95	173.39	757.50	238.69	506.05	476.20	29.85	16.954	
4,200.00	3,837.37	4,365.80	4,137.51	25.23	20.88	173.02	814.68	255.96	509.36	478.46	30.90	16.483	
4,300.00	3,915.80	4,465.69	4,217.58	26.28	21.82	172.65	871.86	273.23	512.70	480.73	31.97	16.037	
4,400.00	3,994.24	4,565.58	4,297.64	27.33	22.77	172.29	929.04	290.50	516.06	483.01	33.05	15.613	
4,500.00	4,072.68	4,665.47	4,377.70	28.38	23.73	171.93	986.22	307.78	519.44	485.29	34.15	15.211	
4,600.00	4,151.12	4,765.36	4,457.77	29.44	24.69	171.58	1,043.41	325.05	522.84	487.58	35.26	14.828	
4,700.00	4,229.55	4,865.26	4,537.83	30.50	25.67	171.23	1,100.59	342.32	526.25	489.87	36.38	14.464	
4,800.00	4,307.99	4,965.15	4,617.89	31.56	26.65	170.89	1,157.77	359.59	529.69	492.17	37.52	14.118	
4,900.00	4,386.43	5,065.04	4,697.96	32.63	27.64	170.55	1,214.95	376.86	533.15	494.48	38.67	13.788	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 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	4,464.87	5,164.93	4,778.02	33.69	28.63	170.21	1,272.13	394.13	536.62	496.79	39.83	13.474	
5,100.00	4,543.31	5,264.82	4,858.08	34.76	29.63	169.88	1,329.31	411.40	540.11	499.12	41.00	13.175	
5,200.00	4,621.74	5,364.71	4,938.15	35.83	30.63	169.55	1,386.49	428.67	543.62	501.44	42.18	12.888	
5,300.00	4,700.18	5,464.60	5,018.21	36.90	31.64	169.23	1,443.68	445.94	547.15	503.78	43.37	12.615	
5,400.00	4,778.62	5,564.49	5,098.27	37.97	32.65	168.91	1,500.86	463.21	550.70	506.12	44.58	12.354	
5,500.00	4,857.06	5,664.38	5,178.33	39.05	33.66	168.60	1,558.04	480.48	554.26	508.47	45.79	12.104	
5,600.00	4,935.49	5,764.27	5,258.40	40.12	34.68	168.29	1,615.22	497.75	557.84	510.82	47.02	11.865	
5,700.00	5,013.93	5,864.16	5,338.46	41.20	35.70	167.98	1,672.40	515.02	561.43	513.18	48.25	11.635	
5,800.00	5,092.37	5,964.05	5,418.52	42.27	36.72	167.68	1,729.58	532.29	565.04	515.54	49.50	11.416	
5,900.00	5,170.81	6,063.94	5,498.59	43.35	37.74	167.38	1,786.77	549.56	568.67	517.91	50.75	11.205	
6,000.00	5,249.24	6,163.83	5,578.65	44.43	38.77	167.09	1,843.95	566.84	572.31	520.29	52.02	11.002	
6,100.00	5,327.68	6,263.72	5,658.71	45.51	39.80	166.80	1,901.13	584.11	575.96	522.67	53.29	10.808	
6,200.00	5,406.12	6,363.61	5,738.78	46.59	40.83	166.51	1,958.31	601.38	579.63	525.06	54.57	10.621	
6,300.00	5,484.56	6,463.50	5,818.84	47.67	41.86	166.22	2,015.49	618.65	583.32	527.45	55.87	10.441	
6,400.00	5,562.99	6,563.40	5,898.90	48.75	42.89	165.94	2,072.67	635.92	587.02	529.85	57.17	10.268	
6,500.00	5,641.43	6,663.29	5,978.97	49.84	43.93	165.67	2,129.86	653.19	590.73	532.25	58.48	10.102	
6,600.00	5,719.87	6,763.18	6,059.03	50.92	44.96	165.39	2,187.04	670.46	594.46	534.66	59.80	9.941	
6,700.00	5,798.31	6,863.07	6,139.09	52.00	46.00	165.12	2,244.22	687.73	598.20	537.07	61.12	9.787	
6,800.00	5,876.75	6,962.96	6,219.16	53.09	47.04	164.86	2,301.40	705.00	601.95	539.49	62.46	9.638	
6,900.00	5,955.18	7,062.85	6,299.22	54.17	48.08	164.59	2,358.58	722.27	605.72	541.91	63.80	9.494	
7,000.00	6,033.62	7,162.74	6,379.28	55.25	49.12	164.33	2,415.76	739.54	609.49	544.34	65.15	9.355	
7,100.00	6,112.06	7,262.63	6,459.35	56.34	50.16	164.08	2,472.94	756.81	613.29	546.77	66.51	9.221	
7,200.00	6,190.50	7,362.52	6,539.41	57.43	51.20	163.82	2,530.13	774.08	617.09	549.21	67.88	9.091	
7,300.00	6,268.93	7,463.38	6,620.26	58.51	52.25	163.58	2,587.87	791.44	620.90	551.65	69.25	8.967	
7,400.00	6,347.37	7,573.19	6,709.37	59.60	53.33	164.44	2,651.40	798.11	623.74	553.91	69.84	8.931	
7,500.00	6,425.81	7,675.98	6,792.37	60.68	54.22	166.95	2,710.43	785.35	625.81	556.32	69.49	9.006	
7,600.00	6,504.25	7,766.71	6,863.14	61.77	54.89	170.45	2,760.63	759.13	629.32	560.39	68.93	9.130	
7,700.00	6,582.68	7,843.71	6,919.97	62.86	55.37	174.28	2,800.84	726.37	637.07	568.38	68.69	9.274	
7,800.00	6,661.12	7,907.68	6,964.15	63.95	55.70	177.96	2,832.02	692.25	651.49	582.68	68.81	9.468	
7,888.30	6,730.38	7,950.00	6,991.57	64.91	55.90	-179.40	2,851.34	666.46	671.13	602.20	68.93	9.737	
7,900.00	6,739.57	7,960.52	6,998.13	65.03	55.94	-176.95	2,855.96	659.67	674.20	605.19	69.01	9.769	
7,950.00	6,779.07	7,985.02	7,013.04	65.56	56.04	-167.64	2,866.44	643.29	688.18	619.13	69.05	9.966	
8,000.00	6,818.72	8,009.56	7,027.38	66.07	56.13	-158.25	2,876.52	626.11	703.13	634.12	69.01	10.189	
8,050.00	6,858.20	8,034.14	7,041.14	66.56	56.21	-149.03	2,886.17	608.18	718.71	649.85	68.86	10.437	
8,100.00	6,897.22	8,050.00	7,049.68	67.02	56.26	-140.63	2,892.15	596.23	734.72	666.43	68.29	10.758	
8,150.00	6,935.48	8,083.39	7,066.76	67.44	56.35	-132.02	2,904.10	570.16	750.61	682.38	68.23	11.001	
8,200.00	6,972.69	8,100.00	7,074.80	67.84	56.39	-124.80	2,909.71	556.74	766.48	699.02	67.46	11.363	
8,250.00	7,008.57	8,132.73	7,089.69	68.20	56.46	-117.76	2,920.09	529.52	781.79	714.56	67.23	11.629	
8,300.00	7,042.85	8,150.00	7,097.03	68.52	56.49	-111.97	2,925.20	514.74	796.62	730.26	66.36	12.005	
8,350.00	7,075.25	8,182.14	7,109.71	68.81	56.54	-106.49	2,934.00	486.56	810.55	744.52	66.03	12.275	
8,400.00	7,105.55	8,200.00	7,116.20	69.07	56.57	-102.05	2,938.48	470.53	823.67	758.46	65.21	12.631	
8,450.00	7,133.50	8,231.60	7,126.67	69.29	56.60	-97.95	2,945.70	441.61	835.61	770.71	64.90	12.875	
8,500.00	7,158.89	8,250.00	7,132.17	69.48	56.61	-94.68	2,949.48	424.46	846.48	782.22	64.26	13.173	
8,550.00	7,181.54	8,281.09	7,140.43	69.63	56.62	-91.76	2,955.11	395.02	855.97	791.89	64.08	13.357	
8,600.00	7,201.26	8,300.00	7,144.82	69.75	56.63	-89.48	2,958.09	376.87	864.20	800.44	63.76	13.555	
8,650.00	7,217.91	8,330.62	7,150.88	69.84	56.63	-87.54	2,962.15	347.14	870.92	807.10	63.82	13.647	
8,700.00	7,231.36	8,350.00	7,154.04	69.90	56.62	-86.12	2,964.25	328.14	876.24	812.34	63.90	13.713	
8,750.00	7,241.51	8,380.16	7,157.92	69.92	56.60	-85.05	2,966.76	298.34	879.97	815.70	64.27	13.692	
8,800.00	7,248.28	8,400.00	7,159.78	69.92	56.59	-84.41	2,967.92	278.62	882.21	817.42	64.79	13.616	
8,850.00	7,251.62	8,429.71	7,161.51	69.89	56.56	-84.13	2,968.90	248.98	882.83	817.33	65.50	13.479	
8,873.35	7,252.00	8,450.00	7,161.97	69.87	56.54	-84.14	2,969.07	228.70	882.68	816.87	65.81	13.412	
8,900.00	7,252.00	8,455.97	7,162.00	69.84	56.53	-84.15	2,969.03	222.73	882.34	815.99	66.35	13.298	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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	
8,941.82	7,252.00	8,494.81	7,162.00	69.79	56.48	-84.15	2,968.71	183.89	882.32	815.36	66.96	13.177		
9,000.00	7,252.00	8,552.99	7,162.00	69.75	56.42	-84.15	2,968.22	125.71	882.29	814.45	67.84	13.005		
9,100.00	7,252.00	8,652.99	7,162.00	69.69	56.33	-84.14	2,967.38	25.71	882.25	812.59	69.66	12.665		
9,200.00	7,252.00	8,752.99	7,162.00	69.66	56.29	-84.14	2,966.54	-74.28	882.21	810.37	71.84	12.280		
9,300.00	7,252.00	8,852.99	7,162.00	69.67	56.29	-84.14	2,965.70	-174.28	882.16	807.80	74.36	11.863		
9,400.00	7,252.00	8,952.99	7,162.00	69.71	56.33	-84.14	2,964.87	-274.28	882.12	804.95	77.17	11.430		
9,500.00	7,252.00	9,052.99	7,162.00	69.80	56.44	-84.14	2,964.03	-374.27	882.08	801.82	80.25	10.991		
9,600.00	7,252.00	9,152.99	7,162.00	69.93	56.62	-84.14	2,963.19	-474.27	882.04	798.46	83.57	10.554		
9,700.00	7,252.00	9,252.99	7,162.00	70.12	56.90	-84.14	2,962.35	-574.26	881.99	794.89	87.10	10.126		
9,800.00	7,252.00	9,352.99	7,162.00	70.37	57.31	-84.14	2,961.51	-674.26	881.95	791.13	90.82	9.711		
9,900.00	7,252.00	9,452.99	7,162.00	70.70	57.87	-84.14	2,960.67	-774.26	881.91	787.21	94.70	9.313		
10,000.00	7,252.00	9,552.99	7,162.00	71.11	58.64	-84.14	2,959.83	-874.25	881.86	783.14	98.72	8.933		
10,100.00	7,252.00	9,652.99	7,162.00	71.62	59.63	-84.14	2,959.00	-974.25	881.82	778.95	102.87	8.572		
10,200.00	7,252.00	9,752.99	7,162.00	72.25	60.86	-84.14	2,958.16	-1,074.25	881.78	774.64	107.14	8.230		
10,300.00	7,252.00	9,852.99	7,162.00	73.01	62.32	-84.14	2,957.32	-1,174.24	881.74	770.24	111.50	7.908		
10,400.00	7,252.00	9,952.99	7,162.00	73.92	63.98	-84.14	2,956.48	-1,274.24	881.69	765.74	115.95	7.604		
10,500.00	7,252.00	10,052.99	7,162.00	74.98	65.80	-84.14	2,955.64	-1,374.24	881.65	761.16	120.49	7.317		
10,600.00	7,252.00	10,152.99	7,162.00	76.20	67.75	-84.14	2,954.80	-1,474.23	881.61	756.52	125.09	7.048		
10,700.00	7,252.00	10,252.99	7,162.00	77.58	69.79	-84.14	2,953.96	-1,574.23	881.57	751.81	129.75	6.794		
10,800.00	7,252.00	10,352.99	7,162.00	79.11	71.92	-84.14	2,953.13	-1,674.23	881.52	747.05	134.48	6.555		
10,900.00	7,252.00	10,452.99	7,162.00	80.77	74.12	-84.14	2,952.29	-1,774.22	881.48	742.23	139.25	6.330		
11,000.00	7,252.00	10,552.99	7,162.00	82.55	76.37	-84.14	2,951.45	-1,874.22	881.44	737.37	144.07	6.118		
11,100.00	7,252.00	10,652.99	7,162.00	84.43	78.66	-84.14	2,950.61	-1,974.22	881.40	732.47	148.93	5.918		
11,200.00	7,252.00	10,752.99	7,162.00	86.40	80.98	-84.14	2,949.77	-2,074.21	881.35	727.53	153.82	5.730		
11,300.00	7,252.00	10,852.99	7,162.00	88.45	83.34	-84.14	2,948.93	-2,174.21	881.31	722.56	158.75	5.552		
11,400.00	7,252.00	10,952.99	7,162.00	90.56	85.73	-84.14	2,948.09	-2,274.20	881.27	717.56	163.71	5.383		
11,500.00	7,252.00	11,052.99	7,162.00	92.73	88.14	-84.14	2,947.26	-2,374.20	881.23	712.52	168.70	5.224		
11,600.00	7,252.00	11,152.99	7,162.00	94.95	90.58	-84.14	2,946.42	-2,474.20	881.18	707.47	173.71	5.073		
11,700.00	7,252.00	11,252.99	7,162.00	97.21	93.03	-84.14	2,945.58	-2,574.19	881.14	702.39	178.75	4.929		
11,800.00	7,252.00	11,352.99	7,162.00	99.51	95.50	-84.14	2,944.74	-2,674.19	881.10	697.29	183.81	4.793		
11,900.00	7,252.00	11,452.99	7,162.00	101.83	97.98	-84.14	2,943.90	-2,774.19	881.05	692.16	188.89	4.664		
12,000.00	7,252.00	11,552.99	7,162.00	104.19	100.48	-84.14	2,943.06	-2,874.18	881.01	687.02	193.99	4.542		
12,100.00	7,252.00	11,652.99	7,162.00	106.57	102.99	-84.14	2,942.23	-2,974.18	880.97	681.87	199.10	4.425		
12,200.00	7,252.00	11,752.99	7,162.00	108.97	105.51	-84.14	2,941.39	-3,074.18	880.93	676.70	204.23	4.313		
12,300.00	7,252.00	11,852.99	7,162.00	111.39	108.04	-84.14	2,940.55	-3,174.17	880.88	671.51	209.37	4.207		
12,400.00	7,252.00	11,952.99	7,162.00	113.84	110.58	-84.14	2,939.71	-3,274.17	880.84	666.31	214.53	4.106		
12,500.00	7,252.00	12,052.99	7,162.00	116.29	113.13	-84.14	2,938.87	-3,374.17	880.80	661.10	219.70	4.009		
12,600.00	7,252.00	12,152.99	7,162.00	118.76	115.69	-84.13	2,938.03	-3,474.16	880.76	655.87	224.88	3.917		
12,700.00	7,252.00	12,252.99	7,162.00	121.25	118.25	-84.13	2,937.19	-3,574.16	880.71	650.64	230.07	3.828		
12,800.00	7,252.00	12,352.99	7,162.00	123.74	120.83	-84.13	2,936.36	-3,674.16	880.67	645.39	235.28	3.743		
12,900.00	7,252.00	12,452.99	7,162.00	126.25	123.41	-84.13	2,935.52	-3,774.15	880.63	640.14	240.49	3.662		
13,000.00	7,252.00	12,552.99	7,162.00	128.77	125.99	-84.13	2,934.68	-3,874.15	880.59	634.88	245.71	3.584		
13,100.00	7,252.00	12,652.99	7,162.00	131.30	128.58	-84.13	2,933.84	-3,974.15	880.54	629.60	250.94	3.509		
13,200.00	7,252.00	12,752.99	7,162.00	133.83	131.18	-84.13	2,933.00	-4,074.14	880.50	624.33	256.17	3.437		
13,300.00	7,252.00	12,852.99	7,162.00	136.38	133.78	-84.13	2,932.16	-4,174.14	880.46	619.04	261.42	3.368		
13,400.00	7,252.00	12,952.99	7,162.00	138.93	136.39	-84.13	2,931.32	-4,274.13	880.41	613.75	266.67	3.302		
13,500.00	7,252.00	13,052.99	7,162.00	141.49	139.00	-84.13	2,930.49	-4,374.13	880.37	608.45	271.93	3.238		
13,600.00	7,252.00	13,152.99	7,162.00	144.05	141.61	-84.13	2,929.65	-4,474.13	880.33	603.14	277.19	3.176		
13,700.00	7,252.00	13,252.99	7,162.00	146.63	144.23	-84.13	2,928.81	-4,574.12	880.29	597.83	282.46	3.117		
13,800.00	7,252.00	13,352.99	7,162.00	149.20	146.85	-84.13	2,927.97	-4,674.12	880.24	592.51	287.73	3.059		
13,900.00	7,252.00	13,452.99	7,162.00	151.79	149.48	-84.13	2,927.13	-4,774.12	880.20	587.19	293.01	3.004		
14,000.00	7,252.00	13,552.99	7,162.00	154.38	152.11	-84.13	2,926.29	-4,874.11	880.16	581.86	298.30	2.951		

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 Toolface (°)	Offset Wellbore Centre		Distance		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)			
14,100.00	7,252.00	13,652.99	7,162.00	156.97	154.74	-84.13	2,925.45	-4,974.11	880.12	576.53	303.59	2.899	
14,200.00	7,252.00	13,752.99	7,162.00	159.57	157.38	-84.13	2,924.62	-5,074.11	880.07	571.19	308.88	2.849	
14,300.00	7,252.00	13,852.99	7,162.00	162.17	160.02	-84.13	2,923.78	-5,174.10	880.03	565.85	314.18	2.801	
14,400.00	7,252.00	13,952.99	7,162.00	164.78	162.66	-84.13	2,922.94	-5,274.10	879.99	560.51	319.48	2.754	
14,500.00	7,252.00	14,052.99	7,162.00	167.39	165.30	-84.13	2,922.10	-5,374.10	879.95	555.16	324.79	2.709	
14,600.00	7,252.00	14,152.99	7,162.00	170.00	167.95	-84.13	2,921.26	-5,474.09	879.90	549.81	330.09	2.666	
14,700.00	7,252.00	14,252.99	7,162.00	172.62	170.59	-84.13	2,920.42	-5,574.09	879.86	544.45	335.41	2.623	
14,800.00	7,252.00	14,352.99	7,162.00	175.24	173.25	-84.13	2,919.58	-5,674.09	879.82	539.10	340.72	2.582	
14,900.00	7,252.00	14,452.99	7,162.00	177.86	175.90	-84.13	2,918.75	-5,774.08	879.78	533.73	346.04	2.542	
15,000.00	7,252.00	14,552.99	7,162.00	180.49	178.55	-84.13	2,917.91	-5,874.08	879.73	528.37	351.36	2.504	
15,100.00	7,252.00	14,652.99	7,162.00	183.12	181.21	-84.13	2,917.07	-5,974.07	879.69	523.00	356.69	2.466	
15,200.00	7,252.00	14,752.99	7,162.00	185.75	183.87	-84.13	2,916.23	-6,074.07	879.65	517.63	362.01	2.430	
15,300.00	7,252.00	14,852.99	7,162.00	188.38	186.53	-84.13	2,915.39	-6,174.07	879.60	512.26	367.34	2.394	
15,400.00	7,252.00	14,952.99	7,162.00	191.02	189.19	-84.13	2,914.55	-6,274.06	879.56	506.89	372.68	2.360	
15,500.00	7,252.00	15,052.99	7,162.00	193.66	191.85	-84.13	2,913.71	-6,374.06	879.52	501.51	378.01	2.327	
15,600.00	7,252.00	15,152.99	7,162.00	196.30	194.52	-84.13	2,912.88	-6,474.06	879.48	496.13	383.35	2.294	
15,700.00	7,252.00	15,252.99	7,162.00	198.95	197.19	-84.13	2,912.04	-6,574.05	879.43	490.75	388.69	2.263	
15,800.00	7,252.00	15,352.99	7,162.00	201.59	199.85	-84.13	2,911.20	-6,674.05	879.39	485.36	394.03	2.232	
15,900.00	7,252.00	15,452.99	7,162.00	204.24	202.52	-84.13	2,910.36	-6,774.05	879.35	479.98	399.37	2.202	
16,000.00	7,252.00	15,552.99	7,162.00	206.89	205.20	-84.13	2,909.52	-6,874.04	879.31	474.59	404.72	2.173	
16,100.00	7,252.00	15,652.99	7,162.00	209.55	207.87	-84.13	2,908.68	-6,974.04	879.26	469.20	410.06	2.144	
16,200.00	7,252.00	15,752.99	7,162.00	212.20	210.54	-84.12	2,907.84	-7,074.04	879.22	463.81	415.41	2.116	
16,300.00	7,252.00	15,852.99	7,162.00	214.86	213.22	-84.12	2,907.01	-7,174.03	879.18	458.41	420.76	2.089	
16,400.00	7,252.00	15,952.99	7,162.00	217.51	215.89	-84.12	2,906.17	-7,274.03	879.14	453.02	426.12	2.063	
16,500.00	7,252.00	16,052.99	7,162.00	220.17	218.57	-84.12	2,905.33	-7,374.03	879.09	447.62	431.47	2.037	
16,600.00	7,252.00	16,152.99	7,162.00	222.83	221.25	-84.12	2,904.49	-7,474.02	879.05	442.23	436.82	2.012	
16,700.00	7,252.00	16,252.99	7,162.00	225.49	223.93	-84.12	2,903.65	-7,574.02	879.01	436.83	442.18	1.988	
16,800.00	7,252.00	16,352.99	7,162.00	228.16	226.61	-84.12	2,902.81	-7,674.01	878.97	431.43	447.54	1.964	
16,900.00	7,252.00	16,452.99	7,162.00	230.82	229.29	-84.12	2,901.97	-7,774.01	878.92	426.02	452.90	1.941	
17,000.00	7,252.00	16,552.99	7,162.00	233.49	231.97	-84.12	2,901.14	-7,874.01	878.88	420.62	458.26	1.918	
17,100.00	7,252.00	16,652.99	7,162.00	236.16	234.65	-84.12	2,900.30	-7,974.00	878.84	415.21	463.62	1.896	
17,200.00	7,252.00	16,752.99	7,162.00	238.82	237.34	-84.12	2,899.46	-8,074.00	878.79	409.81	468.99	1.874	
17,300.00	7,252.00	16,852.99	7,162.00	241.49	240.02	-84.12	2,898.62	-8,174.00	878.75	404.40	474.35	1.853	
17,395.63	7,252.00	16,948.62	7,162.00	244.05	242.59	-84.12	2,897.82	-8,269.62	878.71	399.23	479.48	1.833 SF	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	180.00	-47.37	0.00	47.37				
100.00	100.00	100.00	100.00	0.14	0.14	180.00	-47.37	0.00	47.37	47.08	0.29	165.170	
200.00	200.00	200.00	200.00	0.50	0.50	180.00	-47.37	0.00	47.37	46.36	1.00	47.191	
300.00	300.00	300.00	300.00	0.86	0.86	180.00	-47.37	0.00	47.37	45.65	1.72	27.528	
400.00	400.00	400.00	400.00	1.22	1.22	180.00	-47.37	0.00	47.37	44.93	2.44	19.432	
500.00	500.00	500.00	500.00	1.58	1.58	180.00	-47.37	0.00	47.37	44.21	3.15	15.015	
600.00	600.00	600.00	600.00	1.94	1.94	180.00	-47.37	0.00	47.37	43.50	3.87	12.235	
700.00	700.00	700.00	700.00	2.29	2.29	180.00	-47.37	0.00	47.37	42.78	4.59	10.323	
800.00	800.00	800.00	800.00	2.65	2.65	180.00	-47.37	0.00	47.37	42.06	5.31	8.928	
900.00	900.00	900.00	900.00	3.01	3.01	180.00	-47.37	0.00	47.37	41.34	6.02	7.865	
1,000.00	1,000.00	1,000.00	1,000.00	3.37	3.37	180.00	-47.37	0.00	47.37	40.63	6.74	7.028	
1,100.00	1,100.00	1,100.00	1,100.00	3.73	3.73	180.00	-47.37	0.00	47.37	39.91	7.46	6.353	
1,200.00	1,200.00	1,200.00	1,200.00	4.09	4.09	180.00	-47.37	0.00	47.37	39.19	8.17	5.795	
1,250.00	1,250.00	1,250.00	1,250.00	4.27	4.27	180.00	-47.37	0.00	47.37	38.84	8.53	5.552 CC, ES	
1,300.00	1,300.00	1,300.00	1,300.00	4.44	4.45	166.83	-47.37	0.00	47.79	38.90	8.89	5.376	
1,400.00	1,399.93	1,399.93	1,399.93	4.80	4.80	167.70	-47.37	0.00	51.20	41.59	9.61	5.329	
1,500.00	1,499.68	1,499.68	1,499.68	5.16	5.16	169.15	-47.37	0.00	58.03	47.71	10.32	5.621	
1,600.00	1,599.13	1,599.13	1,599.13	5.52	5.52	170.76	-47.37	0.00	68.33	57.29	11.04	6.189	
1,700.00	1,698.15	1,698.15	1,698.15	5.89	5.87	172.28	-47.37	0.00	82.09	70.34	11.75	6.984	
1,800.00	1,796.63	1,796.63	1,796.63	6.27	6.23	173.59	-47.37	0.00	99.33	86.86	12.47	7.968	
1,900.00	1,894.44	1,894.44	1,894.44	6.67	6.58	174.66	-47.37	0.00	120.02	106.84	13.18	9.108	
2,000.00	1,991.46	1,991.46	1,991.46	7.09	6.92	175.52	-47.37	0.00	144.13	130.24	13.88	10.380	
2,100.00	2,087.58	2,087.58	2,087.58	7.53	7.27	176.20	-47.37	0.00	171.62	157.03	14.59	11.763	
2,200.00	2,182.68	2,188.86	2,188.84	8.01	7.63	176.71	-46.07	0.46	201.20	185.89	15.32	13.136	
2,300.00	2,276.65	2,292.07	2,291.92	8.52	8.00	176.99	-41.29	2.13	230.77	214.73	16.04	14.384	
2,400.00	2,369.36	2,396.47	2,395.94	9.07	8.37	177.12	-32.90	5.06	260.25	243.49	16.77	15.522	
2,500.00	2,460.71	2,502.08	2,500.76	9.67	8.75	177.14	-20.78	9.31	289.61	272.12	17.48	16.564	
2,600.00	2,550.59	2,608.95	2,606.27	10.31	9.14	177.07	-4.81	14.89	318.79	300.59	18.20	17.518	
2,700.00	2,638.88	2,717.09	2,712.33	10.99	9.55	176.93	15.12	21.87	347.76	328.85	18.91	18.393	
2,800.00	2,725.48	2,826.55	2,818.79	11.73	9.98	176.75	39.13	30.27	376.47	356.86	19.61	19.195	
2,900.00	2,810.28	2,937.35	2,925.48	12.51	10.44	176.52	67.32	40.14	404.89	384.57	20.32	19.929	
3,000.00	2,893.18	3,049.51	3,032.22	13.34	10.93	176.25	99.80	51.51	432.96	411.94	21.02	20.599	
3,100.00	2,974.07	3,163.06	3,138.83	14.22	11.46	175.95	136.67	64.41	460.66	438.94	21.72	21.208	
3,166.85	3,026.99	3,239.75	3,209.92	14.84	11.85	175.73	163.82	73.91	478.93	456.74	22.19	21.582	
3,200.00	3,052.99	3,278.08	3,245.16	15.15	12.05	175.63	178.06	78.90	487.74	465.31	22.43	21.749	
3,300.00	3,131.43	3,395.28	3,351.60	16.11	12.69	175.29	224.34	95.09	511.72	488.59	23.13	22.122	
3,400.00	3,209.87	3,514.61	3,457.82	17.08	13.41	174.88	275.64	113.05	531.76	507.91	23.85	22.300	
3,500.00	3,288.30	3,635.69	3,563.19	18.07	14.21	174.40	331.92	132.74	547.75	523.18	24.57	22.295	
3,600.00	3,366.74	3,758.13	3,667.09	19.07	15.08	173.85	393.05	154.14	559.64	534.34	25.30	22.120	
3,700.00	3,445.18	3,871.46	3,760.88	20.08	15.94	173.27	453.08	175.15	567.76	541.62	26.14	21.719	
3,800.00	3,523.62	3,971.05	3,842.87	21.10	16.74	172.77	506.46	193.83	575.21	548.07	27.14	21.196	
3,900.00	3,602.05	4,070.65	3,924.85	22.12	17.56	172.27	559.83	212.51	582.70	554.55	28.15	20.697	
4,000.00	3,680.49	4,170.24	4,006.83	23.15	18.40	171.79	613.20	231.19	590.24	561.05	29.19	20.220	
4,100.00	3,758.93	4,269.83	4,088.82	24.19	19.25	171.32	666.58	249.87	597.82	567.57	30.25	19.764	
4,200.00	3,837.37	4,369.43	4,170.80	25.23	20.12	170.86	719.95	268.55	605.43	574.11	31.32	19.330	
4,300.00	3,915.80	4,469.02	4,252.78	26.28	21.01	170.42	773.32	287.23	613.09	580.67	32.41	18.915	
4,400.00	3,994.24	4,568.62	4,334.77	27.33	21.90	169.98	826.69	305.91	620.78	587.26	33.52	18.519	
4,500.00	4,072.68	4,668.21	4,416.75	28.38	22.81	169.55	880.07	324.59	628.50	593.86	34.65	18.141	
4,600.00	4,151.12	4,767.80	4,498.74	29.44	23.72	169.14	933.44	343.27	636.26	600.48	35.79	17.780	
4,700.00	4,229.55	4,867.40	4,580.72	30.50	24.64	168.74	986.81	361.95	644.05	607.11	36.94	17.435	
4,800.00	4,307.99	4,966.99	4,662.70	31.56	25.57	168.34	1,040.18	380.63	651.87	613.77	38.11	17.106	
4,900.00	4,386.43	5,066.59	4,744.69	32.63	26.51	167.95	1,093.56	399.30	659.73	620.44	39.29	16.791	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		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	4,464.87	5,166.18	4,826.67	33.69	27.45	167.58	1,146.93	417.98	667.61	627.12	40.49	16.490	
5,100.00	4,543.31	5,265.77	4,908.66	34.76	28.40	167.21	1,200.30	436.66	675.52	633.82	41.69	16.202	
5,200.00	4,621.74	5,365.37	4,990.64	35.83	29.35	166.85	1,253.68	455.34	683.45	640.54	42.91	15.926	
5,300.00	4,700.18	5,464.96	5,072.62	36.90	30.30	166.50	1,307.05	474.02	691.42	647.27	44.15	15.662	
5,400.00	4,778.62	5,564.56	5,154.61	37.97	31.26	166.16	1,360.42	492.70	699.40	654.01	45.39	15.409	
5,500.00	4,857.06	5,664.15	5,236.59	39.05	32.22	165.82	1,413.79	511.38	707.41	660.77	46.64	15.166	
5,600.00	4,935.49	5,763.74	5,318.58	40.12	33.19	165.49	1,467.17	530.06	715.45	667.54	47.91	14.933	
5,700.00	5,013.93	5,863.34	5,400.56	41.20	34.16	165.17	1,520.54	548.74	723.51	674.32	49.18	14.710	
5,800.00	5,092.37	5,962.93	5,482.54	42.27	35.13	164.86	1,573.91	567.42	731.59	681.12	50.47	14.496	
5,900.00	5,170.81	6,062.52	5,564.53	43.35	36.10	164.55	1,627.28	586.10	739.69	687.93	51.76	14.290	
6,000.00	5,249.24	6,162.12	5,646.51	44.43	37.08	164.25	1,680.66	604.78	747.81	694.75	53.07	14.092	
6,100.00	5,327.68	6,261.71	5,728.50	45.51	38.06	163.96	1,734.03	623.46	755.96	701.58	54.38	13.901	
6,200.00	5,406.12	6,361.31	5,810.48	46.59	39.04	163.67	1,787.40	642.14	764.12	708.42	55.70	13.718	
6,300.00	5,484.56	6,460.90	5,892.46	47.67	40.02	163.39	1,840.78	660.82	772.30	715.27	57.03	13.541	
6,400.00	5,562.99	6,560.49	5,974.45	48.75	41.00	163.12	1,894.15	679.50	780.50	722.13	58.37	13.371	
6,500.00	5,641.43	6,660.09	6,056.43	49.84	41.99	162.85	1,947.52	698.18	788.71	729.00	59.72	13.208	
6,600.00	5,719.87	6,759.68	6,138.42	50.92	42.97	162.58	2,000.89	716.86	796.95	735.88	61.07	13.050	
6,700.00	5,798.31	6,859.28	6,220.40	52.00	43.96	162.32	2,054.27	735.54	805.20	742.77	62.43	12.898	
6,800.00	5,876.75	6,958.87	6,302.38	53.09	44.95	162.07	2,107.64	754.22	813.46	749.66	63.80	12.751	
6,900.00	5,955.18	7,058.46	6,384.37	54.17	45.94	161.82	2,161.01	772.90	821.74	756.57	65.17	12.609	
7,000.00	6,033.62	7,157.02	6,462.29	55.25	47.04	162.27	2,224.67	784.37	829.02	762.94	66.08	12.546	
7,100.00	6,112.06	7,256.61	6,540.27	56.34	47.95	164.19	2,285.20	772.96	834.53	768.51	66.02	12.641	
7,200.00	6,190.50	7,356.20	6,618.25	57.43	48.60	167.02	2,336.39	745.25	840.11	774.54	65.57	12.812	
7,300.00	6,268.93	7,455.79	6,696.23	58.51	49.04	170.14	2,376.72	709.86	848.18	782.96	65.22	13.004	
7,400.00	6,347.37	7,555.38	6,774.21	59.60	49.34	173.12	2,407.33	673.20	860.93	795.81	65.12	13.221	
7,500.00	6,425.81	7,653.97	6,852.19	60.68	49.53	175.79	2,430.31	638.68	879.94	814.80	65.14	13.508	
7,600.00	6,504.25	7,752.56	6,930.17	61.77	49.67	178.09	2,447.60	607.66	906.10	840.98	65.12	13.915	
7,700.00	6,582.68	7,851.15	7,008.15	62.86	49.76	179.95	2,460.78	580.39	939.70	874.79	64.91	14.478	
7,800.00	6,661.12	7,949.74	7,086.13	63.95	49.82	178.46	2,469.96	559.06	980.58	916.19	64.39	15.228	
7,888.30	6,730.38	8,048.33	7,164.11	64.91	49.86	177.03	2,478.10	538.22	1,022.35	958.50	63.85	16.013	
7,900.00	6,739.57	8,057.52	7,173.30	65.03	49.87	174.75	2,478.96	535.90	1,028.23	964.48	63.75	16.128	
7,950.00	6,779.07	8,097.02	7,212.80	65.56	49.90	164.40	2,485.27	518.04	1,053.77	990.23	63.54	16.585	
8,000.00	6,818.72	8,136.51	7,252.29	66.07	49.90	155.09	2,485.27	518.04	1,079.45	1,016.69	62.76	17.200	
8,050.00	6,858.20	8,175.00	7,291.78	66.56	49.92	145.10	2,490.63	501.63	1,105.11	1,042.71	62.40	17.710	
8,100.00	6,897.22	8,214.49	7,331.27	67.02	49.94	135.79	2,494.61	488.57	1,130.46	1,068.57	61.89	18.265	
8,150.00	6,935.48	8,253.98	7,370.76	67.44	49.96	127.14	2,498.56	474.69	1,155.23	1,093.87	61.36	18.826	
8,200.00	6,972.69	8,293.47	7,410.25	67.84	49.97	119.26	2,502.38	460.37	1,179.19	1,118.35	60.83	19.384	
8,250.00	7,008.57	8,332.96	7,449.74	68.20	49.98	112.20	2,506.09	445.34	1,202.12	1,141.81	60.31	19.933	
8,300.00	7,042.85	8,372.45	7,489.23	68.52	49.99	105.94	2,509.74	429.34	1,223.84	1,164.03	59.80	20.464	
8,350.00	7,075.25	8,411.94	7,528.72	68.81	49.99	100.49	2,513.00	413.70	1,244.17	1,184.84	59.33	20.971	
8,400.00	7,105.55	8,451.43	7,568.21	69.07	49.99	95.75	2,516.14	397.17	1,262.98	1,204.07	58.91	21.439	
8,450.00	7,133.50	8,490.92	7,607.70	69.29	50.00	91.72	2,518.70	382.33	1,280.13	1,221.61	58.52	21.877	
8,500.00	7,158.89	8,530.41	7,647.19	69.48	49.99	88.24	2,521.68	367.93	1,295.50	1,237.20	58.30	22.222	
8,550.00	7,181.54	8,569.90	7,686.68	69.63	49.98	85.23	2,525.39	354.02	1,309.13	1,250.84	58.29	22.457	
8,600.00	7,201.26	8,609.39	7,726.17	69.75	49.98	83.01	2,525.39	344.02	1,320.59	1,262.58	58.01	22.764	
8,650.00	7,217.91	8,648.88	7,765.66	69.84	49.96	81.06	2,527.89	339.27	1,330.06	1,271.89	58.17	22.864	
8,700.00	7,231.36	8,688.37	7,805.15	69.90	49.95	79.56	2,529.76	324.77	1,337.54	1,279.12	58.42	22.894	
8,750.00	7,241.51	8,727.86	7,844.64	69.92	49.95	78.56	2,529.76	314.77	1,342.97	1,284.26	58.71	22.876	
8,800.00	7,248.28	8,767.35	7,884.13	69.92	49.91	77.87	2,531.29	304.77	1,345.97	1,286.73	59.24	22.719	
8,850.00	7,251.62	8,806.84	7,923.62	69.89	49.89	77.59	2,531.77	294.77	1,346.96	1,287.09	59.87	22.497	
8,873.35	7,252.00	8,846.33	7,963.11	69.87	49.88	77.59	2,531.87	284.77	1,346.68	1,286.46	60.22	22.364	
8,900.00	7,252.00	8,885.82	7,999.60	69.84	49.85	77.60	2,531.87	274.77	1,346.30	1,285.71	60.60	22.217	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		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)			
8,944.02	7,252.00	8,099.62	6,963.00	69.79	49.82	-77.60	2,531.68	185.35	1,346.13	1,284.83	61.30	21.961	
9,000.00	7,252.00	8,155.60	6,963.00	69.75	49.75	-77.60	2,531.21	129.37	1,346.10	1,283.96	62.14	21.661	
9,100.00	7,252.00	8,255.60	6,963.00	69.69	49.64	-77.60	2,530.37	29.38	1,346.06	1,282.09	63.97	21.042	
9,200.00	7,252.00	8,355.60	6,963.00	69.66	49.58	-77.60	2,529.53	-70.62	1,346.02	1,279.85	66.17	20.340	
9,300.00	7,252.00	8,455.60	6,963.00	69.67	49.57	-77.60	2,528.69	-170.62	1,345.98	1,277.25	68.73	19.584	
9,400.00	7,252.00	8,555.60	6,963.00	69.71	49.62	-77.60	2,527.85	-270.61	1,345.94	1,274.36	71.58	18.803	
9,500.00	7,252.00	8,655.60	6,963.00	69.80	49.75	-77.60	2,527.02	-370.61	1,345.89	1,271.19	74.71	18.016	
9,600.00	7,252.00	8,755.60	6,963.00	69.93	50.00	-77.60	2,526.18	-470.60	1,345.85	1,267.78	78.07	17.239	
9,700.00	7,252.00	8,855.60	6,963.00	70.12	50.42	-77.60	2,525.34	-570.60	1,345.81	1,264.17	81.64	16.484	
9,800.00	7,252.00	8,955.60	6,963.00	70.37	51.07	-77.60	2,524.50	-670.60	1,345.77	1,260.37	85.40	15.759	
9,900.00	7,252.00	9,055.60	6,963.00	70.70	52.02	-77.60	2,523.66	-770.59	1,345.73	1,256.42	89.31	15.068	
10,000.00	7,252.00	9,155.60	6,963.00	71.11	53.29	-77.60	2,522.82	-870.59	1,345.69	1,252.32	93.37	14.413	
10,100.00	7,252.00	9,255.60	6,963.00	71.62	54.84	-77.60	2,521.99	-970.59	1,345.64	1,248.10	97.54	13.796	
10,200.00	7,252.00	9,355.60	6,963.00	72.25	56.61	-77.60	2,521.15	-1,070.58	1,345.60	1,243.78	101.83	13.215	
10,300.00	7,252.00	9,455.60	6,963.00	73.01	58.54	-77.60	2,520.31	-1,170.58	1,345.56	1,239.36	106.20	12.670	
10,400.00	7,252.00	9,555.60	6,963.00	73.92	60.59	-77.60	2,519.47	-1,270.58	1,345.52	1,234.85	110.66	12.159	
10,500.00	7,252.00	9,655.60	6,963.00	74.98	62.73	-77.60	2,518.63	-1,370.57	1,345.48	1,230.28	115.20	11.680	
10,600.00	7,252.00	9,755.60	6,963.00	76.20	64.94	-77.60	2,517.79	-1,470.57	1,345.43	1,225.64	119.80	11.231	
10,700.00	7,252.00	9,855.60	6,963.00	77.58	67.20	-77.60	2,516.95	-1,570.57	1,345.39	1,220.94	124.45	10.810	
10,800.00	7,252.00	9,955.60	6,963.00	79.11	69.50	-77.60	2,516.12	-1,670.56	1,345.35	1,216.19	129.16	10.416	
10,900.00	7,252.00	10,055.60	6,963.00	80.77	71.84	-77.59	2,515.28	-1,770.56	1,345.31	1,211.39	133.92	10.046	
11,000.00	7,252.00	10,155.60	6,963.00	82.55	74.21	-77.59	2,514.44	-1,870.56	1,345.27	1,206.55	138.71	9.698	
11,100.00	7,252.00	10,255.60	6,963.00	84.43	76.61	-77.59	2,513.60	-1,970.55	1,345.22	1,201.68	143.54	9.372	
11,200.00	7,252.00	10,355.60	6,963.00	86.40	79.03	-77.59	2,512.76	-2,070.55	1,345.18	1,196.77	148.41	9.064	
11,300.00	7,252.00	10,455.60	6,963.00	88.45	81.47	-77.59	2,511.92	-2,170.54	1,345.14	1,191.83	153.31	8.774	
11,400.00	7,252.00	10,555.60	6,963.00	90.56	83.93	-77.59	2,511.09	-2,270.54	1,345.10	1,186.87	158.23	8.501	
11,500.00	7,252.00	10,655.60	6,963.00	92.73	86.41	-77.59	2,510.25	-2,370.54	1,345.06	1,181.87	163.18	8.243	
11,600.00	7,252.00	10,755.60	6,963.00	94.95	88.90	-77.59	2,509.41	-2,470.53	1,345.01	1,176.86	168.15	7.999	
11,700.00	7,252.00	10,855.60	6,963.00	97.21	91.41	-77.59	2,508.57	-2,570.53	1,344.97	1,171.82	173.15	7.768	
11,800.00	7,252.00	10,955.60	6,963.00	99.51	93.92	-77.59	2,507.73	-2,670.53	1,344.93	1,166.77	178.16	7.549	
11,900.00	7,252.00	11,055.60	6,963.00	101.83	96.45	-77.59	2,506.89	-2,770.52	1,344.89	1,161.70	183.19	7.341	
12,000.00	7,252.00	11,155.60	6,963.00	104.19	98.99	-77.59	2,506.05	-2,870.52	1,344.85	1,156.61	188.24	7.144	
12,100.00	7,252.00	11,255.60	6,963.00	106.57	101.54	-77.59	2,505.22	-2,970.52	1,344.80	1,151.51	193.30	6.957	
12,200.00	7,252.00	11,355.60	6,963.00	108.97	104.10	-77.59	2,504.38	-3,070.51	1,344.76	1,146.39	198.37	6.779	
12,300.00	7,252.00	11,455.60	6,963.00	111.39	106.67	-77.59	2,503.54	-3,170.51	1,344.72	1,141.26	203.46	6.609	
12,400.00	7,252.00	11,555.60	6,963.00	113.84	109.24	-77.59	2,502.70	-3,270.51	1,344.68	1,136.12	208.56	6.447	
12,500.00	7,252.00	11,655.60	6,963.00	116.29	111.82	-77.59	2,501.86	-3,370.50	1,344.64	1,130.97	213.67	6.293	
12,600.00	7,252.00	11,755.60	6,963.00	118.76	114.41	-77.59	2,501.02	-3,470.50	1,344.59	1,125.80	218.79	6.146	
12,700.00	7,252.00	11,855.60	6,963.00	121.25	117.00	-77.59	2,500.19	-3,570.50	1,344.55	1,120.63	223.92	6.005	
12,800.00	7,252.00	11,955.60	6,963.00	123.74	119.60	-77.59	2,499.35	-3,670.49	1,344.51	1,115.45	229.06	5.870	
12,900.00	7,252.00	12,055.60	6,963.00	126.25	122.20	-77.59	2,498.51	-3,770.49	1,344.47	1,110.26	234.21	5.741	
13,000.00	7,252.00	12,155.60	6,963.00	128.77	124.81	-77.59	2,497.67	-3,870.48	1,344.43	1,105.07	239.36	5.617	
13,100.00	7,252.00	12,255.60	6,963.00	131.30	127.42	-77.59	2,496.83	-3,970.48	1,344.39	1,099.86	244.52	5.498	
13,200.00	7,252.00	12,355.60	6,963.00	133.83	130.04	-77.59	2,495.99	-4,070.48	1,344.34	1,094.65	249.69	5.384	
13,300.00	7,252.00	12,455.60	6,963.00	136.38	132.66	-77.59	2,495.15	-4,170.47	1,344.30	1,089.43	254.87	5.275	
13,400.00	7,252.00	12,555.60	6,963.00	138.93	135.29	-77.59	2,494.32	-4,270.47	1,344.26	1,084.21	260.05	5.169	
13,500.00	7,252.00	12,655.60	6,963.00	141.49	137.92	-77.58	2,493.48	-4,370.47	1,344.22	1,078.98	265.24	5.068	
13,600.00	7,252.00	12,755.60	6,963.00	144.05	140.55	-77.58	2,492.64	-4,470.46	1,344.18	1,073.75	270.43	4.971	
13,700.00	7,252.00	12,855.60	6,963.00	146.63	143.19	-77.58	2,491.80	-4,570.46	1,344.13	1,068.51	275.63	4.877	
13,800.00	7,252.00	12,955.60	6,963.00	149.20	145.82	-77.58	2,490.96	-4,670.46	1,344.09	1,063.26	280.83	4.786	
13,900.00	7,252.00	13,055.60	6,963.00	151.79	148.47	-77.58	2,490.12	-4,770.45	1,344.05	1,058.02	286.03	4.699	
14,000.00	7,252.00	13,155.60	6,963.00	154.38	151.11	-77.58	2,489.29	-4,870.45	1,344.01	1,052.76	291.24	4.615	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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)			Minimum Separation (usft)
14,100.00	7,252.00	13,255.60	6,963.00	156.97	153.76	-77.58	2,488.45	-4,970.45	1,343.97	1,047.51	296.46	4.533	
14,200.00	7,252.00	13,355.60	6,963.00	159.57	156.41	-77.58	2,487.61	-5,070.44	1,343.92	1,042.25	301.68	4.455	
14,300.00	7,252.00	13,455.60	6,963.00	162.17	159.06	-77.58	2,486.77	-5,170.44	1,343.88	1,036.98	306.90	4.379	
14,400.00	7,252.00	13,555.60	6,963.00	164.78	161.71	-77.58	2,485.93	-5,270.44	1,343.84	1,031.71	312.13	4.305	
14,500.00	7,252.00	13,655.60	6,963.00	167.39	164.37	-77.58	2,485.09	-5,370.43	1,343.80	1,026.44	317.35	4.234	
14,600.00	7,252.00	13,755.60	6,963.00	170.00	167.03	-77.58	2,484.25	-5,470.43	1,343.76	1,021.17	322.59	4.166	
14,700.00	7,252.00	13,855.60	6,963.00	172.62	169.69	-77.58	2,483.42	-5,570.42	1,343.71	1,015.89	327.82	4.099	
14,800.00	7,252.00	13,955.60	6,963.00	175.24	172.35	-77.58	2,482.58	-5,670.42	1,343.67	1,010.61	333.06	4.034	
14,900.00	7,252.00	14,055.60	6,963.00	177.86	175.01	-77.58	2,481.74	-5,770.42	1,343.63	1,005.33	338.30	3.972	
15,000.00	7,252.00	14,155.60	6,963.00	180.49	177.68	-77.58	2,480.90	-5,870.41	1,343.59	1,000.05	343.54	3.911	
15,100.00	7,252.00	14,255.60	6,963.00	183.12	180.35	-77.58	2,480.06	-5,970.41	1,343.55	994.76	348.79	3.852	
15,200.00	7,252.00	14,355.60	6,963.00	185.75	183.02	-77.58	2,479.22	-6,070.41	1,343.50	989.47	354.03	3.795	
15,300.00	7,252.00	14,455.60	6,963.00	188.38	185.69	-77.58	2,478.38	-6,170.40	1,343.46	984.18	359.28	3.739	
15,400.00	7,252.00	14,555.60	6,963.00	191.02	188.36	-77.58	2,477.55	-6,270.40	1,343.42	978.88	364.54	3.685	
15,500.00	7,252.00	14,655.60	6,963.00	193.66	191.03	-77.58	2,476.71	-6,370.40	1,343.38	973.59	369.79	3.633	
15,600.00	7,252.00	14,755.60	6,963.00	196.30	193.71	-77.58	2,475.87	-6,470.39	1,343.34	968.29	375.05	3.582	
15,700.00	7,252.00	14,855.60	6,963.00	198.95	196.38	-77.58	2,475.03	-6,570.39	1,343.29	962.99	380.30	3.532	
15,800.00	7,252.00	14,955.60	6,963.00	201.59	199.06	-77.58	2,474.19	-6,670.39	1,343.25	957.69	385.56	3.484	
15,900.00	7,252.00	15,055.60	6,963.00	204.24	201.74	-77.58	2,473.35	-6,770.38	1,343.21	952.39	390.82	3.437	
16,000.00	7,252.00	15,155.60	6,963.00	206.89	204.42	-77.57	2,472.52	-6,870.38	1,343.17	947.08	396.09	3.391	
16,100.00	7,252.00	15,255.60	6,963.00	209.55	207.10	-77.57	2,471.68	-6,970.38	1,343.13	941.77	401.35	3.347	
16,200.00	7,252.00	15,355.60	6,963.00	212.20	209.78	-77.57	2,470.84	-7,070.37	1,343.09	936.47	406.62	3.303	
16,300.00	7,252.00	15,455.60	6,963.00	214.86	212.46	-77.57	2,470.00	-7,170.37	1,343.04	931.16	411.89	3.261	
16,400.00	7,252.00	15,555.60	6,963.00	217.51	215.14	-77.57	2,469.16	-7,270.37	1,343.00	925.85	417.15	3.219	
16,500.00	7,252.00	15,655.60	6,963.00	220.17	217.83	-77.57	2,468.32	-7,370.36	1,342.96	920.53	422.43	3.179	
16,600.00	7,252.00	15,755.60	6,963.00	222.83	220.51	-77.57	2,467.48	-7,470.36	1,342.92	915.22	427.70	3.140	
16,700.00	7,252.00	15,855.60	6,963.00	225.49	223.20	-77.57	2,466.65	-7,570.35	1,342.88	909.91	432.97	3.102	
16,800.00	7,252.00	15,955.60	6,963.00	228.16	225.88	-77.57	2,465.81	-7,670.35	1,342.83	904.59	438.24	3.064	
16,900.00	7,252.00	16,055.60	6,963.00	230.82	228.57	-77.57	2,464.97	-7,770.35	1,342.79	899.27	443.52	3.028	
17,000.00	7,252.00	16,155.60	6,963.00	233.49	231.26	-77.57	2,464.13	-7,870.34	1,342.75	893.95	448.80	2.992	
17,100.00	7,252.00	16,255.60	6,963.00	236.16	233.95	-77.57	2,463.29	-7,970.34	1,342.71	888.63	454.07	2.957	
17,200.00	7,252.00	16,355.60	6,963.00	238.82	236.64	-77.57	2,462.45	-8,070.34	1,342.67	883.31	459.35	2.923	
17,300.00	7,252.00	16,455.60	6,963.00	241.49	239.33	-77.57	2,461.62	-8,170.33	1,342.62	877.99	464.63	2.890	
17,395.63	7,252.00	16,551.23	6,963.00	244.05	241.90	-77.57	2,460.81	-8,265.96	1,342.58	872.90	469.68	2.859 SF	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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)			
0.00	0.00	6.00	6.00	0.00	0.00	24.85	1,779.97	824.42	1,961.62				
100.00	100.00	91.19	91.19	0.14	0.27	24.85	1,780.22	824.56	1,961.96	1,961.54	0.42	4,713.712	
200.00	200.00	190.13	190.12	0.50	0.62	24.84	1,781.19	824.70	1,962.91	1,961.78	1.13	1,743.956	
300.00	300.00	343.54	343.45	0.86	1.17	24.72	1,782.61	820.57	1,962.76	1,960.74	2.03	968.652	
400.00	400.00	499.64	499.13	1.22	1.73	24.43	1,781.45	809.34	1,958.90	1,955.95	2.95	663.963	
500.00	500.00	617.93	616.66	1.58	2.19	24.09	1,780.73	796.02	1,953.69	1,949.93	3.76	520.231	
600.00	600.00	748.40	745.80	1.94	2.72	23.60	1,779.93	777.46	1,947.34	1,942.71	4.63	420.266	
700.00	700.00	883.93	879.16	2.29	3.33	22.96	1,778.46	753.39	1,939.20	1,933.63	5.57	348.024	
800.00	800.00	1,009.27	1,001.48	2.65	3.92	22.23	1,777.06	726.13	1,929.62	1,923.12	6.50	297.054	
900.00	900.00	1,133.21	1,121.93	3.01	4.55	21.44	1,774.83	697.03	1,918.98	1,911.53	7.45	257.570	
1,000.00	1,000.00	1,253.95	1,238.59	3.37	5.20	20.61	1,771.48	666.08	1,906.81	1,898.39	8.42	226.481	
1,100.00	1,100.00	1,341.61	1,322.74	3.73	5.71	19.93	1,769.42	641.63	1,894.60	1,885.33	9.27	204.489	
1,200.00	1,200.00	1,421.39	1,398.99	4.09	6.19	19.26	1,769.03	618.17	1,883.84	1,873.76	10.09	186.787	
1,250.00	1,250.00	1,465.20	1,440.76	4.27	6.45	18.88	1,769.14	604.97	1,878.82	1,868.30	10.53	178.493	
1,300.00	1,300.00	1,512.71	1,486.00	4.44	6.75	5.18	1,769.39	590.46	1,873.54	1,862.55	11.00	170.393	
1,400.00	1,399.93	1,609.60	1,578.10	4.80	7.36	4.31	1,769.99	560.35	1,860.64	1,848.68	11.96	155.571	
1,500.00	1,499.68	1,704.32	1,667.73	5.16	7.98	3.42	1,770.93	529.75	1,844.71	1,831.78	12.93	142.634	
1,600.00	1,599.13	1,799.88	1,758.18	5.52	8.61	2.51	1,771.79	498.95	1,825.79	1,811.87	13.92	131.150	
1,700.00	1,698.15	1,873.04	1,827.53	5.89	9.08	1.81	1,772.64	475.65	1,804.31	1,789.54	14.77	122.161	
1,800.00	1,796.63	1,968.22	1,918.12	6.27	9.70	0.89	1,774.20	446.50	1,780.64	1,764.89	15.75	113.074	
1,900.00	1,894.44	2,060.60	2,006.12	6.67	10.30	-0.03	1,775.29	418.40	1,753.70	1,736.98	16.71	104.934	
2,000.00	1,991.46	2,183.52	2,122.21	7.09	11.13	-1.42	1,776.66	378.04	1,723.37	1,705.47	17.90	96.256	
2,100.00	2,087.58	2,284.25	2,217.04	7.53	11.83	-2.67	1,776.44	344.09	1,688.90	1,669.93	18.97	89.014	
2,200.00	2,182.68	2,373.16	2,300.31	8.01	12.47	-3.91	1,776.08	312.93	1,651.42	1,631.43	19.99	82.629	
2,300.00	2,276.65	2,462.22	2,383.09	8.52	13.14	-5.31	1,775.86	280.09	1,611.27	1,590.24	21.04	76.599	
2,400.00	2,369.36	2,550.62	2,465.16	9.07	13.82	-6.83	1,775.40	247.25	1,568.51	1,546.42	22.09	71.002	
2,500.00	2,460.71	2,632.47	2,541.48	9.67	14.42	-8.35	1,774.68	217.71	1,523.32	1,500.22	23.09	65.971	
2,600.00	2,550.59	2,708.18	2,612.75	10.31	14.96	-9.83	1,773.89	192.16	1,475.99	1,451.96	24.03	61.421	
2,700.00	2,638.88	2,779.56	2,680.35	10.99	15.46	-11.33	1,773.36	169.23	1,426.87	1,401.92	24.94	57.205	
2,800.00	2,725.48	2,847.00	2,743.89	11.73	15.93	-12.96	1,773.41	146.66	1,376.24	1,350.40	25.84	53.250	
2,900.00	2,810.28	2,926.61	2,818.91	12.51	16.49	-15.05	1,773.68	120.03	1,323.95	1,297.11	26.84	49.325	
3,000.00	2,893.18	3,020.91	2,907.98	13.34	17.15	-17.78	1,773.15	89.08	1,269.32	1,241.37	27.94	45.422	
3,100.00	2,974.07	3,105.22	2,987.39	14.22	17.74	-20.66	1,771.44	60.79	1,212.17	1,183.16	29.01	41.784	
3,166.85	3,026.99	3,152.14	3,031.78	14.84	18.07	-22.48	1,770.18	45.66	1,172.97	1,143.29	29.68	39.515	
3,200.00	3,052.99	3,171.67	3,050.23	15.15	18.21	-23.13	1,769.70	39.26	1,153.56	1,123.56	30.00	38.447	
3,300.00	3,131.43	3,230.72	3,105.77	16.11	18.62	-25.21	1,768.48	19.24	1,096.58	1,065.59	30.99	35.381	
3,400.00	3,209.87	3,301.62	3,172.30	17.08	19.14	-27.89	1,767.12	-5.22	1,041.87	1,009.74	32.13	32.430	
3,500.00	3,288.30	3,372.43	3,238.86	18.07	19.65	-30.75	1,765.59	-29.35	989.40	956.09	33.31	29.702	
3,600.00	3,366.74	3,441.76	3,304.25	19.07	20.14	-33.70	1,764.04	-52.32	939.55	905.01	34.54	27.201	
3,700.00	3,445.18	3,507.39	3,366.20	20.08	20.60	-36.66	1,762.69	-73.96	893.03	857.23	35.80	24.945	
3,800.00	3,523.62	3,568.86	3,424.13	21.10	21.04	-39.60	1,761.65	-94.47	850.63	813.54	37.08	22.940	
3,900.00	3,602.05	3,627.36	3,479.09	22.12	21.46	-42.55	1,760.99	-114.49	813.25	774.89	38.36	21.201	
4,000.00	3,680.49	3,681.69	3,529.96	23.15	21.86	-45.39	1,761.07	-133.58	782.04	742.46	39.58	19.759	
4,100.00	3,758.93	3,735.87	3,580.46	24.19	22.27	-48.32	1,761.93	-153.19	757.84	717.11	40.73	18.605	
4,200.00	3,837.37	3,789.30	3,629.89	25.23	22.69	-51.29	1,763.36	-173.44	741.39	699.63	41.76	17.752	
4,300.00	3,915.80	3,855.32	3,690.59	26.28	23.23	-55.04	1,765.51	-199.29	732.79	689.92	42.87	17.094	
4,369.53	3,970.34	3,903.17	3,734.55	27.01	23.61	-57.78	1,766.93	-218.13	731.04	687.44	43.59	16.769 CC, ES	
4,400.00	3,994.24	3,924.23	3,753.90	27.33	23.79	-58.98	1,767.52	-226.44	731.37	687.48	43.89	16.663	
4,500.00	4,072.68	3,994.24	3,818.22	28.38	24.36	-62.99	1,769.43	-254.00	737.17	692.36	44.81	16.450	
4,600.00	4,151.12	4,092.09	3,908.89	29.44	25.13	-68.50	1,771.22	-290.76	748.63	702.49	46.13	16.227	
4,700.00	4,229.55	4,184.76	3,995.74	30.50	25.81	-73.64	1,770.71	-323.05	764.46	717.20	47.26	16.176 SF	
4,800.00	4,307.99	4,244.57	4,051.93	31.56	26.24	-76.90	1,769.80	-343.51	786.19	738.39	47.79	16.450	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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: Reference		16-OWSG (Rev2) MWD Offset		Semi Major Axis		Highside Toolface (°)	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)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,386.43	4,306.94	4,110.40	32.63	26.70	-80.18	1,769.33	-365.24	814.50	766.15	48.35	16.846	
5,000.00	4,464.87	4,372.00	4,171.27	33.69	27.19	-83.45	1,769.40	-388.18	848.58	799.61	48.97	17.329	
5,100.00	4,543.31	4,436.34	4,231.39	34.76	27.67	-86.51	1,769.97	-411.12	887.62	838.01	49.61	17.893	
5,200.00	4,621.74	4,504.66	4,295.14	35.83	28.19	-89.59	1,771.01	-435.65	930.88	880.52	50.36	18.485	
5,300.00	4,700.18	4,576.21	4,361.92	36.90	28.73	-92.60	1,772.46	-461.28	977.48	926.27	51.21	19.089	
5,400.00	4,778.62	4,650.71	4,431.53	37.97	29.29	-95.53	1,774.39	-487.76	1,026.76	974.61	52.15	19.690	
5,500.00	4,857.06	4,728.11	4,504.03	39.05	29.86	-98.37	1,776.28	-514.80	1,078.13	1,024.97	53.15	20.283	
5,600.00	4,935.49	4,791.04	4,563.08	40.12	30.33	-100.57	1,777.30	-536.54	1,131.54	1,077.63	53.91	20.988	
5,700.00	5,013.93	4,847.66	4,615.97	41.20	30.75	-102.41	1,778.37	-556.71	1,187.61	1,133.04	54.57	21.763	
5,800.00	5,092.37	4,918.21	4,681.77	42.27	31.29	-104.58	1,779.59	-582.14	1,245.64	1,190.14	55.50	22.445	
5,900.00	5,170.81	4,990.95	4,749.74	43.35	31.83	-106.68	1,780.28	-608.04	1,305.00	1,248.53	56.47	23.111	
6,000.00	5,249.24	5,075.62	4,829.18	44.43	32.45	-109.01	1,780.04	-637.32	1,365.30	1,307.67	57.63	23.690	
6,100.00	5,327.68	5,170.67	4,919.04	45.51	33.12	-111.46	1,779.57	-668.28	1,425.43	1,366.49	58.95	24.182	
6,200.00	5,406.12	5,255.32	4,999.44	46.59	33.69	-113.47	1,779.30	-694.79	1,485.79	1,425.72	60.07	24.734	
6,300.00	5,484.56	5,336.67	5,076.90	47.67	34.23	-115.27	1,779.50	-719.62	1,546.39	1,485.25	61.13	25.295	
6,400.00	5,562.99	5,398.32	5,135.57	48.75	34.64	-116.53	1,779.83	-738.56	1,607.87	1,545.98	61.89	25.978	
6,500.00	5,641.43	5,477.05	5,210.35	49.84	35.17	-118.03	1,780.72	-763.15	1,670.24	1,607.30	62.93	26.541	
6,600.00	5,719.87	5,569.45	5,298.20	50.92	35.79	-119.63	1,783.02	-791.70	1,732.52	1,668.34	64.18	26.993	
6,700.00	5,798.31	5,655.55	5,386.09	52.00	36.41	-121.23	1,785.47	-820.62	1,764.26	1,702.05	65.49	27.445	
6,800.00	5,876.75	5,741.41	5,471.54	53.09	37.03	-122.83	1,787.97	-849.62	1,736.25	1,670.76	66.84	27.897	
6,900.00	5,955.18	5,832.56	5,556.57	54.17	37.64	-124.43	1,789.33	-878.62	1,713.46	1,644.70	68.24	28.349	
7,000.00	6,033.62	5,903.03	5,641.85	55.25	38.25	-126.03	1,791.24	-907.62	1,696.12	1,624.14	71.98	28.563	
7,100.00	6,112.06	5,984.00	5,726.82	56.34	38.86	-127.63	1,793.26	-936.62	1,684.52	1,609.91	74.61	28.577	
7,200.00	6,190.50	6,064.91	5,811.99	57.43	39.47	-129.23	1,795.07	-962.97	1,678.58	1,600.84	77.73	21.594	
7,250.15	6,229.83	6,104.80	5,851.03	57.97	39.97	-130.43	1,796.01	-967.86	1,677.84	1,598.75	79.08	21.217	
7,300.00	6,268.93	6,143.67	5,890.07	58.51	40.47	-131.63	1,796.99	-970.68	1,678.57	1,598.20	80.37	20.885	
7,400.00	6,347.37	6,222.16	5,975.16	59.60	41.08	-132.83	1,798.79	-1,012.23	1,684.42	1,601.63	82.79	20.346	
7,500.00	6,425.81	6,301.25	6,060.25	60.68	41.69	-134.03	1,798.61	-1,021.62	1,696.09	1,611.12	84.97	19.962	
7,600.00	6,504.25	6,380.34	6,145.34	61.77	42.30	-135.23	1,798.41	-1,030.85	1,713.45	1,626.56	86.89	19.720	
7,700.00	6,582.68	6,459.43	6,230.43	62.86	42.91	-136.43	1,798.19	-1,039.92	1,736.33	1,647.78	88.55	19.609	
7,800.00	6,661.12	6,538.52	6,315.52	63.95	43.52	-137.63	1,797.95	-1,048.85	1,764.52	1,674.57	89.94	19.618	
7,888.30	6,730.38	6,617.61	6,390.61	64.91	44.13	-138.83	1,797.42	-1,057.04	1,793.66	1,702.43	91.23	19.660	
7,900.00	6,739.57	6,626.76	6,400.76	65.03	44.25	-138.95	1,797.42	-1,057.04	1,797.80	1,706.47	91.33	19.685	
7,950.00	6,779.07	6,666.26	6,440.26	65.56	44.78	-139.48	1,797.42	-1,057.04	1,816.22	1,724.51	91.71	19.804	
8,000.00	6,818.72	6,705.76	6,479.76	66.07	45.31	-140.01	1,797.42	-1,057.04	1,835.72	1,743.66	92.06	19.940	
8,050.00	6,858.20	6,745.26	6,519.26	66.56	45.84	-140.54	1,797.42	-1,057.04	1,856.12	1,763.74	92.38	20.093	
8,100.00	6,897.22	6,784.76	6,558.76	67.02	46.37	-141.07	1,797.42	-1,057.04	1,877.23	1,784.57	92.66	20.260	
8,150.00	6,935.48	6,824.26	6,598.26	67.44	46.89	-142.20	1,798.16	-1,057.04	1,898.62	1,806.42	92.20	20.592	
8,200.00	6,972.69	6,863.76	6,637.76	67.84	47.42	-143.41	1,798.44	-1,057.04	1,920.34	1,828.23	92.11	20.848	
8,250.00	7,008.57	6,903.26	6,677.26	68.20	47.94	-143.18	1,798.72	-1,057.04	1,942.03	1,850.10	91.93	21.125	
8,300.00	7,042.85	6,942.76	6,716.76	68.52	48.47	-142.55	1,798.98	-1,057.04	1,963.47	1,871.80	91.67	21.419	
8,350.00	7,075.25	6,982.26	6,756.26	68.81	48.99	-141.27	1,799.26	-1,057.04	1,984.45	1,893.42	91.03	21.800	
8,400.00	7,105.55	7,021.76	6,795.76	69.07	49.52	-140.04	1,799.33	-1,057.04	2,004.57	1,913.72	90.85	22.065	
8,450.00	7,133.50	7,097.96	6,835.26	69.29	50.05	-139.05	1,799.47	-1,057.04	2,023.61	1,933.47	90.15	22.448	
8,500.00	7,158.89	7,161.97	6,874.76	69.48	50.60	-137.67	1,799.56	-1,057.04	2,041.25	1,951.84	89.41	22.830	
8,550.00	7,181.54	7,213.37	6,914.26	69.63	51.11	-136.06	1,799.63	-1,057.04	2,057.23	1,968.61	88.61	23.216	
8,600.00	7,201.26	7,267.45	6,953.76	69.75	51.67	-134.64	1,799.71	-1,057.04	2,071.27	1,983.48	87.79	23.593	
8,650.00	7,217.91	7,315.50	6,993.26	69.84	52.19	-133.02	1,799.79	-1,057.04	2,083.21	1,996.12	87.09	23.919	
8,700.00	7,231.36	7,365.53	7,032.76	69.90	52.65	-131.00	1,799.76	-1,057.04	2,092.98	2,006.46	86.52	24.190	
8,750.00	7,241.51	7,415.24	7,072.26	69.92	53.18	-129.50	1,799.59	-1,057.04	2,100.47	2,014.51	85.96	24.434	
8,800.00	7,248.28	7,468.37	7,111.76	69.92	53.68	-128.50	1,799.39	-1,057.04	2,105.40	2,020.11	85.29	24.684	
8,850.00	7,251.62	7,479.95	7,151.72	69.89	54.18	-127.04	1,799.30	-1,057.04	2,107.62	2,022.80	84.82	24.847	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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)			
8,873.35	7,252.00	8,432.23	7,257.82	69.87	48.43	-90.00	1,739.22	257.36	2,107.81	2,023.08	84.73	24.877		
8,899.13	7,252.00	8,412.66	7,257.88	69.84	48.16	-90.00	1,739.08	237.80	2,107.77	2,023.14	84.64	24.904		
8,900.00	7,252.00	8,412.00	7,257.88	69.84	48.15	-90.00	1,739.07	237.14	2,107.77	2,023.14	84.63	24.905		
9,000.00	7,252.00	8,268.10	7,258.35	69.75	46.30	-90.01	1,738.40	93.25	2,107.63	2,024.25	83.38	25.277		
9,100.00	7,252.00	7,988.00	7,265.89	69.69	43.51	-90.22	1,754.07	-186.13	2,100.92	2,019.28	81.64	25.735		
9,200.00	7,252.00	7,893.00	7,257.44	69.66	42.79	-89.98	1,763.13	-280.22	2,090.44	2,008.33	82.10	25.461		
9,300.00	7,252.00	7,893.00	7,257.44	69.67	42.79	-89.98	1,763.13	-280.22	2,082.44	1,999.17	83.27	25.009		
9,400.00	7,252.00	7,842.44	7,246.97	69.71	42.46	-89.70	1,765.50	-329.60	2,077.44	1,993.26	84.18	24.680		
9,500.00	7,252.00	7,797.00	7,233.83	69.80	42.16	-89.33	1,765.63	-373.09	2,076.00	1,990.86	85.14	24.384		
9,509.76	7,252.00	7,797.00	7,233.83	69.81	42.16	-89.33	1,765.63	-373.09	2,075.98	1,990.71	85.27	24.346		
9,600.00	7,252.00	7,722.39	7,207.83	69.93	41.76	-88.62	1,764.64	-443.01	2,076.91	1,990.91	86.00	24.150		
9,700.00	7,252.00	7,627.91	7,169.41	70.12	41.36	-87.56	1,764.17	-529.29	2,078.09	1,991.23	86.86	23.924		
9,800.00	7,252.00	7,531.03	7,121.01	70.37	41.07	-86.22	1,764.34	-613.14	2,080.13	1,992.36	87.77	23.700		
9,900.00	7,252.00	7,465.88	7,082.78	70.70	40.94	-85.17	1,765.02	-665.86	2,083.54	1,994.71	88.83	23.455		
10,000.00	7,252.00	7,416.00	7,050.70	71.11	40.87	-84.29	1,765.34	-704.05	2,089.63	1,999.68	89.94	23.233		
10,100.00	7,252.00	7,371.10	7,019.67	71.62	40.83	-83.44	1,765.43	-736.49	2,098.79	2,007.72	91.06	23.048		
10,200.00	7,252.00	7,321.00	6,982.56	72.25	40.80	-82.43	1,765.27	-770.13	2,111.37	2,019.28	92.09	22.926		
10,300.00	7,252.00	7,290.96	6,959.25	73.01	40.80	-81.80	1,765.13	-789.08	2,127.27	2,034.08	93.19	22.826		
10,400.00	7,252.00	7,249.26	6,925.90	73.92	40.80	-80.90	1,765.03	-814.10	2,146.52	2,052.36	94.16	22.797		
10,500.00	7,252.00	7,226.00	6,906.81	74.98	40.79	-80.38	1,765.03	-827.39	2,169.23	2,074.06	95.16	22.795		
10,600.00	7,252.00	7,177.00	6,865.44	76.20	40.80	-79.27	1,764.97	-853.64	2,195.47	2,099.55	95.92	22.888		
10,700.00	7,252.00	7,177.00	6,865.44	77.58	40.80	-79.27	1,764.97	-853.64	2,225.32	2,128.38	96.94	22.956		
10,800.00	7,252.00	7,130.00	6,824.35	79.11	40.81	-78.18	1,764.75	-876.43	2,258.68	2,161.14	97.55	23.155		
10,900.00	7,252.00	7,130.00	6,824.35	80.77	40.81	-78.18	1,764.75	-876.43	2,295.44	2,197.04	98.40	23.328		
11,000.00	7,252.00	7,130.00	6,824.35	82.55	40.81	-78.18	1,764.75	-876.43	2,335.90	2,236.73	99.16	23.557		
11,100.00	7,252.00	7,088.78	6,787.34	84.43	40.82	-77.21	1,764.30	-894.59	2,378.93	2,279.36	99.57	23.891		
11,200.00	7,252.00	7,073.37	6,773.32	86.40	40.83	-76.84	1,764.04	-900.97	2,425.37	2,325.29	100.08	24.234		
11,300.00	7,252.00	7,035.00	6,737.98	88.45	40.84	-75.92	1,763.19	-915.89	2,475.06	2,374.70	100.36	24.662		
11,400.00	7,252.00	7,035.00	6,737.98	90.56	40.84	-75.92	1,763.19	-915.89	2,526.94	2,426.10	100.84	25.060		
11,500.00	7,252.00	7,035.00	6,737.98	92.73	40.84	-75.92	1,763.19	-915.89	2,581.65	2,480.41	101.24	25.500		
11,600.00	7,252.00	7,035.00	6,737.98	94.95	40.84	-75.92	1,763.19	-915.89	2,639.01	2,537.43	101.58	25.979		
11,700.00	7,252.00	7,035.00	6,737.98	97.21	40.84	-75.92	1,763.19	-915.89	2,698.87	2,597.00	101.86	26.495		
11,800.00	7,252.00	6,994.65	6,700.18	99.51	40.84	-74.95	1,762.22	-929.95	2,760.19	2,658.32	101.87	27.095		
11,900.00	7,252.00	6,983.85	6,689.95	101.83	40.84	-74.69	1,761.99	-933.42	2,823.99	2,721.99	102.00	27.685		
12,000.00	7,252.00	6,973.81	6,680.41	104.19	40.84	-74.44	1,761.79	-936.52	2,889.74	2,787.64	102.11	28.301		
12,100.00	7,252.00	6,940.00	6,648.00	106.57	40.84	-73.62	1,761.20	-946.14	2,957.64	2,855.61	102.03	28.987		
12,200.00	7,252.00	6,940.00	6,648.00	108.97	40.84	-73.62	1,761.20	-946.14	3,026.73	2,924.59	102.14	29.634		
12,300.00	7,252.00	6,940.00	6,648.00	111.39	40.84	-73.62	1,761.20	-946.14	3,097.50	2,995.29	102.21	30.306		
12,400.00	7,252.00	6,940.00	6,648.00	113.84	40.84	-73.62	1,761.20	-946.14	3,169.85	3,067.60	102.25	31.000		
12,500.00	7,252.00	6,940.00	6,648.00	116.29	40.84	-73.62	1,761.20	-946.14	3,243.67	3,141.39	102.27	31.715		

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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)			
0.00	0.00	6.00	6.00	0.00	0.00	24.49	1,810.57	824.70	1,989.54				
100.00	100.00	100.82	100.82	0.14	0.31	24.48	1,810.74	824.58	1,989.66	1,989.21	0.45	4,409.891	
200.00	200.00	203.72	203.72	0.50	0.68	24.46	1,811.35	823.85	1,989.91	1,988.73	1.18	1,689.313	
300.00	300.00	325.64	325.56	0.86	1.12	24.34	1,812.65	820.08	1,989.63	1,987.65	1.98	1,006.689	
400.00	400.00	490.58	489.95	1.22	1.73	23.98	1,813.84	806.96	1,987.02	1,984.07	2.94	674.779	
500.00	500.00	606.36	604.92	1.58	2.18	23.62	1,813.97	793.31	1,982.32	1,978.57	3.75	528.025	
600.00	600.00	705.25	702.91	1.94	2.59	23.26	1,814.41	780.00	1,977.34	1,972.84	4.51	438.624	
700.00	700.00	799.68	796.26	2.29	2.99	22.87	1,815.60	765.84	1,972.58	1,967.32	5.27	374.646	
800.00	800.00	891.85	886.99	2.65	3.40	22.41	1,818.01	749.80	1,968.23	1,962.20	6.03	326.497	
900.00	900.00	989.20	982.34	3.01	3.85	21.85	1,821.80	730.56	1,964.31	1,957.48	6.83	287.532	
1,000.00	1,000.00	1,114.58	1,104.66	3.37	4.47	21.06	1,826.81	703.53	1,960.08	1,952.28	7.80	251.329	
1,100.00	1,100.00	1,207.93	1,195.26	3.73	4.95	20.42	1,830.42	681.31	1,955.14	1,946.50	8.64	226.350	
1,200.00	1,200.00	1,312.81	1,296.59	4.09	5.52	19.63	1,835.24	654.67	1,950.62	1,941.06	9.56	203.971	
1,250.00	1,250.00	1,385.34	1,366.22	4.27	5.94	19.05	1,838.49	634.68	1,948.07	1,937.92	10.15	191.869	
1,300.00	1,300.00	1,474.06	1,451.17	4.44	6.47	5.03	1,841.27	609.21	1,944.43	1,933.58	10.85	179.220	
1,400.00	1,399.93	1,631.41	1,600.41	4.80	7.46	3.63	1,842.95	559.44	1,931.88	1,919.72	12.17	158.773	
1,500.00	1,499.68	1,700.53	1,665.51	5.16	7.92	2.98	1,843.51	536.24	1,915.71	1,902.71	13.00	147.405	
1,600.00	1,599.13	1,768.67	1,729.72	5.52	8.38	2.32	1,845.03	513.47	1,897.90	1,884.08	13.82	137.306	
1,700.00	1,698.15	1,844.13	1,800.83	5.89	8.89	1.58	1,847.63	488.37	1,878.32	1,863.62	14.70	127.779	
1,800.00	1,796.63	1,944.71	1,895.66	6.27	9.57	0.55	1,851.37	455.03	1,856.17	1,840.42	15.75	117.877	
1,900.00	1,894.44	2,040.35	1,985.72	6.67	10.24	-0.47	1,854.22	422.97	1,830.42	1,813.64	16.77	109.123	
2,000.00	1,991.46	2,125.69	2,065.55	7.09	10.85	-1.48	1,857.47	392.99	1,802.29	1,784.54	17.75	101.525	
2,100.00	2,087.58	2,235.62	2,168.21	7.53	11.65	-2.86	1,861.21	353.87	1,771.07	1,752.16	18.92	93.632	
2,200.00	2,182.68	2,331.32	2,257.55	8.01	12.36	-4.16	1,863.29	319.59	1,736.12	1,716.13	19.99	86.840	
2,300.00	2,276.65	2,411.38	2,331.60	8.52	12.97	-5.39	1,865.47	289.24	1,698.84	1,677.85	20.98	80.960	
2,400.00	2,369.36	2,502.87	2,415.91	9.07	13.69	-6.92	1,868.16	253.83	1,659.59	1,637.22	22.08	75.148	
2,500.00	2,460.71	2,588.72	2,494.98	9.67	14.37	-8.50	1,869.76	220.43	1,616.59	1,593.45	23.14	69.851	
2,600.00	2,550.59	2,637.51	2,539.98	10.31	14.76	-9.53	1,871.30	201.65	1,572.88	1,548.95	23.93	65.720	
2,700.00	2,638.88	2,697.94	2,595.80	10.99	15.23	-10.85	1,874.32	178.69	1,528.56	1,503.75	24.81	61.611	
2,800.00	2,725.48	2,768.29	2,660.84	11.73	15.78	-12.47	1,878.27	152.19	1,482.87	1,457.10	25.77	57.549	
2,900.00	2,810.28	2,837.75	2,725.14	12.51	16.33	-14.22	1,882.55	126.25	1,435.78	1,409.05	26.73	53.723	
3,000.00	2,893.18	2,913.35	2,795.29	13.34	16.91	-16.27	1,887.44	98.50	1,387.27	1,359.54	27.73	50.023	
3,100.00	2,974.07	2,999.78	2,875.98	14.22	17.55	-18.77	1,892.80	68.01	1,337.00	1,308.18	28.82	46.392	
3,166.85	3,026.99	3,057.94	2,930.67	14.84	17.98	-20.58	1,895.87	48.43	1,302.09	1,272.54	29.55	44.062	
3,200.00	3,052.99	3,082.52	2,953.81	15.15	18.15	-21.26	1,897.10	40.24	1,284.66	1,254.77	29.88	42.987	
3,300.00	3,131.43	3,153.07	3,020.21	16.11	18.66	-23.29	1,900.57	16.68	1,233.11	1,202.23	30.88	39.929	
3,400.00	3,209.87	3,213.81	3,077.17	17.08	19.10	-25.15	1,903.86	-4.17	1,183.86	1,152.01	31.85	37.170	
3,500.00	3,288.30	3,300.65	3,158.48	18.07	19.74	-27.98	1,908.61	-34.28	1,136.86	1,103.81	33.05	34.394	
3,600.00	3,366.74	3,373.11	3,226.77	19.07	20.26	-30.44	1,911.89	-58.29	1,091.26	1,057.09	34.18	31.931	
3,700.00	3,445.18	3,439.16	3,289.19	20.08	20.72	-32.76	1,915.55	-79.56	1,048.76	1,013.48	35.28	29.730	
3,800.00	3,523.62	3,514.54	3,360.50	21.10	21.24	-35.53	1,919.90	-103.61	1,009.18	972.70	36.48	27.663	
3,900.00	3,602.05	3,574.44	3,417.10	22.12	21.66	-37.83	1,923.60	-122.88	973.16	935.57	37.58	25.893	
4,000.00	3,680.49	3,632.19	3,471.45	23.15	22.07	-40.13	1,927.89	-141.91	941.79	903.12	38.67	24.354	
4,100.00	3,758.93	3,686.53	3,522.28	24.19	22.47	-42.36	1,932.71	-160.50	915.82	876.11	39.71	23.065	
4,200.00	3,837.37	3,745.32	3,576.90	25.23	22.92	-44.85	1,938.80	-181.38	895.68	854.92	40.76	21.977	
4,300.00	3,915.80	3,808.63	3,635.49	26.28	23.41	-47.57	1,946.18	-204.19	881.26	839.44	41.82	21.073	
4,400.00	3,994.24	3,886.32	3,707.27	27.33	24.02	-50.96	1,955.32	-232.48	872.02	828.96	43.05	20.254	
4,500.00	4,072.68	3,960.97	3,776.21	28.38	24.61	-54.27	1,963.67	-259.86	867.69	823.49	44.21	19.627	
4,533.20	4,098.72	3,985.55	3,798.91	28.73	24.80	-55.36	1,966.40	-268.88	867.41	822.83	44.58	19.458 CC	
4,600.00	4,151.12	4,048.28	3,857.01	29.44	25.28	-58.14	1,973.29	-291.51	868.27	822.75	45.52	19.075 ES	
4,700.00	4,229.55	4,140.91	3,943.55	30.50	25.97	-62.21	1,982.80	-323.16	872.23	825.35	46.88	18.606	
4,800.00	4,307.99	4,214.34	4,012.35	31.56	26.52	-65.45	1,989.00	-348.07	880.41	832.49	47.92	18.371	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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)			
4,900.00	4,386.43	4,282.00	4,075.34	32.63	27.03	-68.45	1,994.19	-372.18	894.61	845.75	48.86	18.310	
5,000.00	4,464.87	4,351.22	4,139.65	33.69	27.57	-71.48	1,999.18	-397.33	914.16	864.35	49.81	18.351	
5,100.00	4,543.31	4,434.90	4,217.68	34.76	28.21	-75.05	2,004.65	-427.03	937.72	886.70	51.02	18.379	
5,200.00	4,621.74	4,516.32	4,293.93	35.83	28.81	-78.44	2,009.21	-455.19	964.85	912.65	52.20	18.482	
5,300.00	4,700.18	4,597.29	4,370.02	36.90	29.40	-81.66	2,014.09	-482.46	995.47	942.07	53.40	18.643	
5,400.00	4,778.62	4,677.24	4,445.38	37.97	29.97	-84.71	2,018.80	-508.73	1,029.13	974.54	54.59	18.852	
5,500.00	4,857.06	4,748.12	4,512.25	39.05	30.47	-87.31	2,022.90	-531.91	1,066.02	1,010.37	55.65	19.156	
5,600.00	4,935.49	4,804.71	4,565.48	40.12	30.89	-89.30	2,026.16	-550.81	1,106.48	1,050.01	56.47	19.594	
5,700.00	5,013.93	4,862.27	4,619.32	41.20	31.31	-91.25	2,029.40	-570.91	1,150.79	1,093.48	57.31	20.082	
5,800.00	5,092.37	4,947.75	4,699.28	42.27	31.95	-93.99	2,034.43	-600.69	1,197.45	1,138.81	58.64	20.420	
5,900.00	5,170.81	5,063.88	4,808.92	43.35	32.77	-97.46	2,041.42	-638.33	1,244.27	1,183.81	60.47	20.578	
6,000.00	5,249.24	5,146.89	4,887.81	44.43	33.33	-99.78	2,046.46	-663.66	1,291.65	1,229.93	61.72	20.929	
6,100.00	5,327.68	5,216.67	4,954.19	45.51	33.80	-101.64	2,050.48	-684.81	1,340.64	1,277.90	62.74	21.367	
6,200.00	5,406.12	5,304.74	5,037.98	46.59	34.38	-103.85	2,055.76	-711.37	1,391.05	1,327.00	64.05	21.717	
6,300.00	5,484.56	5,386.54	5,116.00	47.67	34.91	-105.76	2,061.28	-735.35	1,442.03	1,376.78	65.25	22.101	
6,400.00	5,562.99	5,471.32	5,197.19	48.75	35.45	-107.69	2,065.32	-759.40	1,494.01	1,427.56	66.45	22.482	
6,500.00	5,641.43	5,557.93	5,280.46	49.84	35.97	-109.59	2,068.91	-782.92	1,546.43	1,478.78	67.66	22.858	
6,600.00	5,719.87	5,632.28	5,363.34	50.92	36.49	-111.50	2,072.82	-806.99	1,598.85	1,530.25	68.87	23.239	
6,700.00	5,798.31	5,712.55	5,446.23	52.00	37.00	-113.42	2,076.77	-831.06	1,651.27	1,582.69	70.08	23.620	
6,800.00	5,876.75	5,796.02	5,529.12	53.09	37.50	-115.34	2,078.81	-855.13	1,703.69	1,635.11	71.29	24.001	
6,900.00	5,955.18	5,879.07	5,612.01	54.17	38.00	-117.26	2,078.79	-879.20	1,756.11	1,687.53	72.50	24.382	
7,000.00	6,033.62	5,961.51	5,694.90	55.25	38.50	-119.18	2,078.77	-903.27	1,808.53	1,740.95	73.71	24.763	
7,100.00	6,112.06	6,044.40	5,779.79	56.34	39.00	-121.10	2,078.73	-927.34	1,860.95	1,793.37	74.92	25.144	
7,200.00	6,190.50	6,127.29	5,864.68	57.43	39.50	-123.02	2,078.67	-951.41	1,913.37	1,845.79	76.13	25.525	
7,300.00	6,268.93	6,210.18	5,949.87	58.51	40.00	-124.94	2,078.59	-975.48	1,965.79	1,898.21	77.34	25.906	
7,353.21	6,310.67	6,252.92	6,035.06	59.09	40.50	-126.86	2,078.54	-1,000.00	2,018.21	1,950.63	78.55	26.287	
7,400.00	6,347.37	6,294.61	6,120.15	59.60	41.00	-128.78	2,078.49	-1,024.52	2,070.63	2,002.05	79.76	26.668	
7,500.00	6,425.81	6,373.05	6,205.24	60.68	41.50	-130.70	2,078.36	-1,049.04	2,123.05	2,053.47	80.97	27.049	
7,600.00	6,504.25	6,451.49	6,290.33	61.77	42.00	-132.62	2,078.22	-1,073.56	2,175.47	2,104.89	82.18	27.430	
7,700.00	6,582.68	6,529.92	6,375.42	62.86	42.50	-134.54	2,078.06	-1,098.08	2,227.89	2,156.31	83.39	27.811	
7,800.00	6,661.12	6,607.36	6,460.51	63.95	43.00	-136.46	2,077.87	-1,122.60	2,280.31	2,207.73	84.60	28.192	
7,888.30	6,730.38	6,676.60	6,545.60	64.91	43.50	-138.38	2,077.69	-1,147.12	2,332.73	2,259.15	85.81	28.573	
7,900.00	6,739.57	6,685.79	6,554.79	65.03	43.60	-138.50	2,077.67	-1,148.00	2,332.73	2,259.15	85.81	28.573	
7,950.00	6,779.07	6,725.29	6,595.29	65.56	44.10	-140.42	2,077.60	-1,172.52	2,385.15	2,311.57	87.02	28.954	
8,000.00	6,818.72	6,764.94	6,635.79	66.07	44.60	-142.34	2,077.60	-1,197.04	2,437.57	2,363.99	88.23	29.335	
8,050.00	6,858.20	6,804.42	6,676.29	66.56	45.10	-144.26	2,077.67	-1,221.56	2,490.00	2,416.41	89.44	29.716	
8,100.00	6,897.22	6,843.90	6,716.79	67.02	45.60	-146.18	2,077.79	-1,246.08	2,542.42	2,468.83	90.65	30.097	
8,150.00	6,935.48	6,882.16	6,757.29	67.44	46.10	-148.10	2,077.96	-1,270.60	2,594.84	2,521.25	91.86	30.478	
8,200.00	6,972.69	6,919.37	6,797.79	67.84	46.60	-150.02	2,078.16	-1,295.12	2,647.26	2,573.67	93.07	30.859	
8,250.00	7,008.57	6,955.25	6,838.29	68.20	47.10	-151.94	2,078.36	-1,319.64	2,699.68	2,626.09	94.28	31.240	
8,300.00	7,042.85	6,991.13	6,878.79	68.52	47.60	-153.86	2,078.55	-1,344.16	2,752.10	2,678.51	95.49	31.621	
8,350.00	7,075.25	7,027.53	6,919.19	68.81	48.10	-155.78	2,078.71	-1,368.68	2,804.53	2,730.93	96.70	32.002	
8,400.00	7,105.55	7,057.83	6,959.69	69.07	48.60	-157.70	2,078.79	-1,393.20	2,856.95	2,783.35	97.91	32.383	
8,450.00	7,133.50	7,085.78	6,999.19	69.29	49.10	-159.62	2,078.77	-1,417.72	2,909.37	2,835.77	99.12	32.764	
8,500.00	7,158.89	7,113.17	7,039.69	69.48	49.60	-161.54	2,079.27	-1,442.24	2,961.79	2,888.19	100.33	33.145	
8,550.00	7,181.54	7,135.82	7,062.34	69.63	50.10	-163.46	2,080.49	-1,466.76	3,014.21	2,940.61	101.54	33.526	
8,600.00	7,201.26	7,155.54	7,084.99	69.75	50.60	-165.38	2,082.03	-1,491.28	3,066.63	2,993.03	102.75	33.907	
8,650.00	7,217.91	7,172.19	7,101.64	69.84	51.10	-167.30	2,083.56	-1,515.80	3,119.05	3,045.45	103.96	34.288	
8,700.00	7,231.36	7,185.64	7,115.09	69.90	51.60	-169.22	2,085.00	-1,540.32	3,171.47	3,097.87	105.17	34.669	
8,750.00	7,241.51	7,195.79	7,125.24	69.92	52.10	-171.14	2,087.78	-1,564.84	3,223.89	3,150.29	106.38	35.050	
8,800.00	7,248.28	7,202.56	7,132.01	69.92	52.60	-173.06	2,091.12	-1,589.36	3,275.31	3,202.71	107.59	35.431	
8,850.00	7,251.62	7,205.90	7,135.35	69.89	53.10	-174.98	2,094.52	-1,613.88	3,327.73	3,255.13	108.80	35.812	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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	
8,873.35	7,252.00	8,160.99	7,118.93	69.87	46.15	-85.46	2,095.85	141.36	1,759.71	1,679.42	80.29	21.917	
8,900.00	7,252.00	8,136.16	7,119.28	69.84	45.85	-85.46	2,097.27	116.57	1,757.93	1,677.73	80.19	21.921	
9,000.00	7,252.00	8,089.00	7,119.43	69.75	45.29	-85.46	2,099.96	69.49	1,752.09	1,671.62	80.48	21.771	
9,100.00	7,252.00	8,021.78	7,120.53	69.69	44.57	-85.49	2,102.07	2.33	1,748.42	1,667.69	80.72	21.659	
9,159.49	7,252.00	7,993.00	7,121.83	69.67	44.27	-85.53	2,101.94	-26.42	1,747.91	1,666.85	81.06	21.563	
9,200.00	7,252.00	7,955.67	7,123.95	69.66	43.93	-85.60	2,101.38	-63.69	1,747.98	1,666.80	81.18	21.533	
9,300.00	7,252.00	7,847.03	7,130.38	69.67	43.01	-85.81	2,099.96	-172.12	1,747.97	1,666.39	81.57	21.428	
9,375.45	7,252.00	7,781.31	7,130.67	69.70	42.53	-85.82	2,099.63	-237.83	1,747.69	1,665.59	82.09	21.289	
9,400.00	7,252.00	7,767.45	7,129.68	69.71	42.44	-85.79	2,099.51	-251.65	1,747.82	1,665.54	82.28	21.242	
9,500.00	7,252.00	7,721.88	7,123.11	69.80	42.12	-85.58	2,098.83	-296.73	1,749.91	1,666.80	83.11	21.056	
9,600.00	7,252.00	7,594.22	7,087.64	69.93	41.41	-84.42	2,097.21	-419.30	1,752.79	1,669.27	83.52	20.986	
9,700.00	7,252.00	7,516.00	7,055.92	70.12	41.07	-83.39	2,097.02	-490.72	1,756.72	1,672.53	84.19	20.865	
9,800.00	7,252.00	7,490.52	7,043.23	70.37	40.99	-82.98	2,096.73	-512.81	1,763.38	1,678.24	85.15	20.710	
9,900.00	7,252.00	7,454.00	7,023.00	70.70	40.87	-82.33	2,095.68	-543.18	1,774.13	1,688.14	86.00	20.630	
10,000.00	7,252.00	7,420.01	7,002.08	71.11	40.79	-81.66	2,094.06	-569.91	1,789.06	1,702.22	86.83	20.603	
10,100.00	7,252.00	7,315.20	6,932.51	71.62	40.60	-79.46	2,090.45	-648.18	1,806.84	1,719.71	87.13	20.738	
10,200.00	7,252.00	7,213.00	6,860.22	72.25	40.50	-77.17	2,091.66	-720.39	1,824.55	1,737.18	87.37	20.884	
10,300.00	7,252.00	7,175.56	6,832.36	73.01	40.48	-76.30	2,092.54	-745.38	1,845.43	1,757.38	88.05	20.959	
10,400.00	7,252.00	7,135.00	6,801.20	73.92	40.47	-75.33	2,093.27	-771.33	1,870.18	1,781.54	88.64	21.099	
10,500.00	7,252.00	7,135.00	6,801.20	74.98	40.47	-75.33	2,093.27	-771.33	1,899.09	1,809.57	89.52	21.214	
10,600.00	7,252.00	7,096.40	6,770.54	76.20	40.47	-74.39	2,093.44	-794.78	1,931.61	1,841.60	90.01	21.460	
10,700.00	7,252.00	7,077.02	6,754.78	77.58	40.48	-73.91	2,093.20	-806.05	1,968.32	1,877.73	90.59	21.728	
10,800.00	7,252.00	7,040.00	6,724.00	79.11	40.48	-72.99	2,092.14	-826.58	2,009.07	1,918.12	90.95	22.090	
10,900.00	7,252.00	7,040.00	6,724.00	80.77	40.48	-72.99	2,092.14	-826.58	2,052.88	1,961.32	91.56	22.421	
11,000.00	7,252.00	7,040.00	6,724.00	82.55	40.48	-72.99	2,092.14	-826.58	2,100.53	2,008.44	92.09	22.810	
11,100.00	7,252.00	6,999.02	6,689.12	84.43	40.49	-71.96	2,090.29	-848.02	2,150.81	2,058.55	92.26	23.313	
11,200.00	7,252.00	6,979.11	6,671.94	86.40	40.50	-71.46	2,089.22	-858.02	2,204.22	2,111.69	92.53	23.821	
11,300.00	7,252.00	6,945.00	6,642.16	88.45	40.51	-70.61	2,087.12	-874.52	2,260.51	2,167.85	92.66	24.396	
11,400.00	7,252.00	6,945.00	6,642.16	90.56	40.51	-70.61	2,087.12	-874.52	2,319.11	2,226.13	92.98	24.942	
11,500.00	7,252.00	6,945.00	6,642.16	92.73	40.51	-70.61	2,087.12	-874.52	2,380.46	2,287.21	93.25	25.527	
11,600.00	7,252.00	6,945.00	6,642.16	94.95	40.51	-70.61	2,087.12	-874.52	2,444.36	2,350.89	93.48	26.150	
11,700.00	7,252.00	6,905.66	6,606.98	97.21	40.52	-69.62	2,084.63	-891.92	2,509.46	2,416.03	93.43	26.858	
11,800.00	7,252.00	6,895.19	6,597.42	99.51	40.53	-69.35	2,084.01	-896.15	2,577.17	2,483.63	93.54	27.553	
11,900.00	7,252.00	6,850.00	6,555.36	101.83	40.54	-68.18	2,081.52	-912.45	2,647.75	2,554.37	93.38	28.354	
12,000.00	7,252.00	6,850.00	6,555.36	104.19	40.54	-68.18	2,081.52	-912.45	2,718.70	2,625.18	93.52	29.072	
12,100.00	7,252.00	6,850.00	6,555.36	106.57	40.54	-68.18	2,081.52	-912.45	2,791.43	2,697.80	93.62	29.815	
12,200.00	7,252.00	6,850.00	6,555.36	108.97	40.54	-68.18	2,081.52	-912.45	2,865.80	2,772.09	93.71	30.582	
12,300.00	7,252.00	6,850.00	6,555.36	111.39	40.54	-68.18	2,081.52	-912.45	2,941.69	2,847.91	93.78	31.368	
12,400.00	7,252.00	6,850.00	6,555.36	113.84	40.54	-68.18	2,081.52	-912.45	3,018.99	2,925.16	93.83	32.174	
12,500.00	7,252.00	6,850.00	6,555.36	116.29	40.54	-68.18	2,081.52	-912.45	3,097.58	3,003.71	93.87	32.998	
12,600.00	7,252.00	6,850.00	6,555.36	118.76	40.54	-68.18	2,081.52	-912.45	3,177.38	3,083.48	93.90	33.838	
12,700.00	7,252.00	6,850.00	6,555.36	121.25	40.54	-68.18	2,081.52	-912.45	3,258.30	3,164.37	93.92	34.692	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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	25.98	1,691.44	824.15	1,881.54				
100.00	100.00	105.27	105.27	0.14	0.32	25.98	1,691.41	824.26	1,881.56	1,881.09	0.46	4,060.113	
200.00	200.00	240.52	240.51	0.50	0.80	25.99	1,690.47	824.14	1,880.98	1,879.68	1.30	1,446.386	
300.00	300.00	455.87	455.58	0.86	1.57	25.99	1,681.21	819.66	1,876.35	1,873.91	2.44	769.979	
400.00	400.00	640.04	638.64	1.22	2.28	25.90	1,664.72	808.30	1,865.14	1,861.68	3.46	538.928	
500.00	500.00	798.45	795.53	1.58	2.93	25.78	1,646.98	795.62	1,851.86	1,847.47	4.39	421.663	
600.00	600.00	944.46	938.99	1.94	3.59	25.67	1,624.28	780.78	1,832.70	1,827.42	5.28	347.087	
700.00	700.00	1,120.10	1,110.62	2.29	4.43	25.55	1,592.66	761.20	1,811.00	1,804.72	6.27	288.607	
800.00	800.00	1,309.00	1,293.74	2.65	5.42	25.48	1,551.78	739.54	1,786.84	1,779.53	7.32	244.218	
900.00	900.00	1,435.60	1,415.07	3.01	6.13	25.45	1,519.56	723.21	1,758.19	1,750.05	8.14	216.116	
1,000.00	1,000.00	1,523.43	1,499.18	3.37	6.64	25.41	1,497.24	711.25	1,729.40	1,720.58	8.83	195.942	
1,100.00	1,100.00	1,613.29	1,585.34	3.73	7.16	25.35	1,475.01	698.75	1,701.08	1,691.55	9.53	178.539	
1,200.00	1,200.00	1,704.51	1,672.88	4.09	7.69	25.27	1,452.78	685.94	1,673.04	1,662.80	10.24	163.428	
1,250.00	1,250.00	1,757.25	1,723.51	4.27	8.00	25.23	1,440.02	678.49	1,659.09	1,648.47	10.62	156.284	
1,300.00	1,300.00	1,815.50	1,779.31	4.44	8.35	11.95	1,425.58	670.05	1,644.36	1,633.35	11.01	149.288	
1,400.00	1,399.93	1,913.38	1,873.06	4.80	8.93	12.05	1,400.98	656.45	1,612.45	1,600.70	11.75	137.192	
1,500.00	1,499.68	2,038.88	1,992.65	5.16	9.70	12.16	1,368.14	637.26	1,575.73	1,563.16	12.58	125.305	
1,600.00	1,599.13	2,129.53	2,078.74	5.52	10.27	12.26	1,344.48	621.56	1,535.17	1,521.88	13.29	115.518	
1,700.00	1,698.15	2,227.57	2,171.89	5.89	10.89	12.39	1,319.17	604.41	1,491.70	1,477.68	14.02	106.397	
1,800.00	1,796.63	2,329.95	2,268.72	6.27	11.56	12.54	1,292.03	585.21	1,444.05	1,429.30	14.76	97.857	
1,900.00	1,894.44	2,425.65	2,359.04	6.67	12.19	12.73	1,266.34	566.75	1,392.99	1,377.52	15.47	90.051	
2,000.00	1,991.46	2,519.86	2,447.68	7.09	12.82	12.99	1,240.41	548.15	1,338.29	1,322.12	16.17	82.770	
2,100.00	2,087.58	2,597.66	2,520.78	7.53	13.34	13.32	1,218.69	532.74	1,280.46	1,263.64	16.83	76.099	
2,200.00	2,182.68	2,665.49	2,584.73	8.01	13.80	13.74	1,200.14	519.81	1,220.59	1,203.13	17.46	69.906	
2,300.00	2,276.65	2,737.33	2,652.65	8.52	14.27	14.27	1,180.83	506.55	1,158.62	1,140.53	18.10	64.027	
2,400.00	2,369.36	2,820.43	2,731.21	9.07	14.82	14.94	1,158.64	491.07	1,094.11	1,075.37	18.74	58.389	
2,500.00	2,460.71	2,891.75	2,798.50	9.67	15.29	15.68	1,139.58	477.09	1,026.72	1,007.36	19.36	53.035	
2,600.00	2,550.59	2,954.39	2,857.75	10.31	15.71	16.55	1,123.19	465.03	957.40	937.43	19.97	47.943	
2,700.00	2,638.88	3,010.24	2,910.81	10.99	16.06	17.58	1,109.12	454.77	886.67	866.09	20.58	43.090	
2,800.00	2,725.48	3,074.67	2,972.30	11.73	16.47	18.95	1,093.54	443.44	814.57	793.39	21.18	38.457	
2,900.00	2,810.28	3,143.91	3,038.29	12.51	16.91	20.75	1,076.82	430.85	740.15	718.38	21.77	33.995	
3,000.00	2,893.18	3,206.58	3,098.01	13.34	17.30	22.99	1,061.65	419.38	663.66	641.29	22.37	29.671	
3,100.00	2,974.07	3,267.73	3,156.30	14.22	17.69	25.98	1,046.79	408.38	585.40	562.43	22.97	25.486	
3,166.85	3,026.99	3,307.24	3,193.94	14.84	17.94	28.57	1,037.05	401.41	532.16	508.77	23.39	22.753	
3,200.00	3,052.99	3,326.40	3,212.21	15.15	18.06	29.62	1,032.29	398.08	505.63	482.02	23.61	21.419	
3,300.00	3,131.43	3,383.32	3,266.44	16.11	18.42	33.46	1,018.04	388.36	426.11	401.76	24.34	17.503	
3,400.00	3,209.87	3,440.81	3,321.24	17.08	18.79	38.89	1,003.50	378.77	347.79	322.49	25.30	13.748	
3,500.00	3,288.30	3,499.03	3,376.67	18.07	19.16	46.86	988.65	368.94	271.51	244.80	26.72	10.162	
3,600.00	3,366.74	3,557.05	3,431.84	19.07	19.53	58.72	973.82	358.81	199.74	170.42	29.32	6.813	
3,700.00	3,445.18	3,615.22	3,487.08	20.08	19.91	76.34	959.13	348.02	139.63	105.02	34.61	4.034	
3,800.00	3,523.62	3,673.85	3,542.55	21.10	20.30	99.86	944.31	336.14	111.74	70.81	40.92	2.730	
3,802.01	3,525.19	3,675.01	3,543.64	21.12	20.31	100.35	944.02	335.89	111.73	70.75	40.97	2.727 CC, ES, SF	
3,900.00	3,602.05	3,730.02	3,595.41	22.12	20.68	122.73	929.97	323.71	138.09	99.66	38.42	3.594	
4,000.00	3,680.49	3,784.23	3,646.29	23.15	21.06	139.84	915.89	311.38	199.02	164.85	34.18	5.823	
4,100.00	3,758.93	3,837.60	3,696.27	24.19	21.43	151.39	901.81	299.07	272.58	240.48	32.10	8.492	
4,200.00	3,837.37	3,890.34	3,745.60	25.23	21.80	159.14	887.70	286.85	351.07	319.82	31.25	11.234	
4,300.00	3,915.80	3,942.73	3,794.56	26.28	22.17	164.52	873.49	274.78	431.91	400.92	30.99	13.937	
4,400.00	3,994.24	3,995.74	3,844.11	27.33	22.54	168.42	858.94	262.81	514.05	483.00	31.05	16.555	
4,500.00	4,072.68	4,057.74	3,902.39	28.38	22.97	171.58	842.12	249.98	596.44	564.97	31.47	18.951	
4,600.00	4,151.12	4,125.43	3,966.59	29.44	23.41	173.87	824.41	237.92	678.32	646.24	32.09	21.140	
4,700.00	4,229.55	4,193.66	4,031.85	30.50	23.84	175.43	807.50	227.43	759.27	726.53	32.74	23.193	
4,800.00	4,307.99	4,248.01	4,083.88	31.56	24.17	176.41	794.15	219.17	840.18	807.03	33.15	25.343	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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
4,900.00	4,386.43	4,302.99	4,136.43	32.63	24.52	177.29	780.51	210.41	921.43	887.83	33.60	27.421	
5,000.00	4,464.87	4,358.91	4,189.80	33.69	24.87	178.06	766.59	201.25	1,002.86	968.78	34.09	29.420	
5,100.00	4,543.31	4,405.80	4,234.48	34.76	25.17	178.64	754.76	193.33	1,084.64	1,050.19	34.44	31.489	
5,200.00	4,621.74	4,449.12	4,275.58	35.83	25.45	179.14	743.41	185.71	1,167.10	1,132.34	34.76	33.573	
5,300.00	4,700.18	4,511.09	4,334.26	36.90	25.86	179.77	726.88	174.56	1,249.95	1,214.57	35.38	35.324	
5,400.00	4,778.62	4,585.70	4,405.21	37.97	26.34	-179.59	707.80	161.56	1,332.11	1,295.91	36.20	36.803	
5,500.00	4,857.06	4,659.56	4,475.73	39.05	26.81	-179.07	689.71	149.10	1,413.58	1,376.60	36.98	38.222	
5,600.00	4,935.49	4,707.71	4,521.73	40.12	27.11	-178.77	677.98	141.11	1,494.96	1,457.55	37.41	39.962	
5,700.00	5,013.93	4,751.00	4,563.04	41.20	27.38	-178.54	667.19	133.96	1,576.70	1,538.92	37.78	41.738	
5,800.00	5,092.37	4,803.05	4,612.62	42.27	27.72	-178.28	653.92	125.32	1,658.77	1,620.50	38.27	43.340	
5,900.00	5,170.81	4,849.80	4,657.07	43.35	28.02	-178.06	641.72	117.46	1,741.22	1,702.52	38.70	44.989	
6,000.00	5,249.24	4,906.02	4,710.45	44.43	28.38	-177.82	626.95	107.86	1,823.83	1,784.56	39.27	46.446	
6,100.00	5,327.68	4,980.96	4,781.67	45.51	28.86	-177.52	607.48	94.99	1,906.34	1,866.26	40.08	47.564	
6,200.00	5,406.12	5,075.92	4,872.47	46.59	29.46	-177.22	584.17	79.87	1,987.74	1,946.61	41.14	48.322	
6,300.00	5,484.56	5,148.67	4,942.33	47.67	29.90	-177.04	567.06	68.92	2,068.42	2,026.53	41.90	49.368	
6,400.00	5,562.99	5,202.64	4,994.14	48.75	30.23	-176.90	554.51	60.52	2,149.07	2,106.64	42.43	50.650	
6,500.00	5,641.43	5,260.23	5,049.35	49.84	30.58	-176.74	541.15	51.05	2,229.83	2,186.82	43.01	51.845	
6,600.00	5,719.87	5,320.92	5,107.51	50.92	30.95	-176.57	527.22	40.72	2,310.57	2,266.94	43.63	52.959	
6,700.00	5,798.31	5,373.62	5,157.98	52.00	31.27	-176.42	515.14	31.49	2,391.36	2,347.20	44.16	54.155	
6,800.00	5,876.75	5,430.84	5,212.70	53.09	31.63	-176.26	501.97	21.24	2,472.31	2,427.56	44.74	55.257	
6,900.00	5,955.18	5,509.92	5,288.49	54.17	32.11	-176.07	483.95	7.63	2,552.99	2,507.41	45.59	56.004	
7,000.00	6,033.62	5,577.73	5,353.63	55.25	32.52	-175.94	468.73	-3.51	2,633.35	2,587.06	46.29	56.886	
7,100.00	6,112.06	5,649.25	5,422.39	56.34	32.95	-175.81	452.89	-15.14	2,713.50	2,666.46	47.04	57.685	
7,200.00	6,190.50	5,717.83	5,488.38	57.43	33.36	-175.69	438.10	-26.56	2,793.36	2,745.61	47.76	58.493	
7,300.00	6,268.93	5,772.47	5,540.84	58.51	33.69	-175.56	426.64	-36.65	2,873.24	2,824.92	48.32	59.466	
7,400.00	6,347.37	5,796.00	5,563.37	59.60	33.83	-175.49	421.79	-41.37	2,953.42	2,904.89	48.53	60.862	
7,500.00	6,425.81	5,835.85	5,601.39	60.68	34.09	-175.37	413.36	-49.85	3,034.06	2,985.13	48.93	62.005	
7,600.00	6,504.25	5,860.26	5,624.55	61.77	34.25	-175.29	407.93	-55.32	3,115.44	3,066.28	49.16	63.373	
7,700.00	6,582.68	5,891.00	5,653.58	62.86	34.44	-175.18	400.82	-62.51	3,197.46	3,148.00	49.46	64.642	
7,800.00	6,661.12	5,950.72	5,709.97	63.95	34.84	-175.00	386.67	-76.14	3,279.78	3,229.67	50.11	65.449	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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	25.24	1,750.09	824.98	1,934.79				
100.00	100.00	90.02	90.02	0.14	0.27	25.24	1,750.38	825.10	1,935.16	1,934.75	0.41	4,713.421	
200.00	200.00	189.25	189.25	0.50	0.62	25.24	1,751.36	825.45	1,936.21	1,935.08	1.12	1,723.702	
300.00	300.00	389.08	389.02	0.86	1.31	25.20	1,749.07	822.99	1,934.80	1,932.62	2.18	887.896	
400.00	400.00	553.85	553.38	1.22	1.90	25.03	1,742.41	813.71	1,928.68	1,925.57	3.12	618.713	
500.00	500.00	683.71	682.50	1.58	2.39	24.79	1,735.77	801.70	1,920.10	1,916.16	3.94	487.207	
600.00	600.00	811.00	808.53	1.94	2.91	24.41	1,729.62	785.03	1,910.21	1,905.43	4.78	399.689	
700.00	700.00	930.76	926.39	2.29	3.42	23.91	1,724.23	764.53	1,898.96	1,893.35	5.61	338.585	
800.00	800.00	1,030.75	1,024.41	2.65	3.87	23.42	1,720.49	745.10	1,887.58	1,881.19	6.38	295.637	
900.00	900.00	1,162.10	1,152.62	3.01	4.50	22.70	1,714.74	717.17	1,874.96	1,867.65	7.31	256.318	
1,000.00	1,000.00	1,264.70	1,252.38	3.37	5.02	22.08	1,709.97	693.66	1,861.69	1,853.54	8.15	228.565	
1,100.00	1,100.00	1,410.25	1,393.27	3.73	5.79	21.13	1,702.28	657.98	1,847.49	1,838.29	9.19	200.945	
1,200.00	1,200.00	1,518.23	1,497.07	4.09	6.40	20.36	1,695.33	629.05	1,831.55	1,821.45	10.10	181.319	
1,250.00	1,250.00	1,562.38	1,539.40	4.27	6.66	20.02	1,692.66	616.79	1,823.69	1,813.17	10.52	173.420	
1,300.00	1,300.00	1,619.02	1,593.69	4.44	6.99	6.32	1,689.23	601.00	1,815.47	1,804.47	11.00	165.109	
1,400.00	1,399.93	1,714.86	1,685.71	4.80	7.55	5.65	1,682.42	575.12	1,796.02	1,784.16	11.87	151.312	
1,500.00	1,499.68	1,802.88	1,770.54	5.16	8.06	5.06	1,676.49	552.40	1,774.18	1,761.47	12.70	139.662	
1,600.00	1,599.13	1,897.33	1,861.56	5.52	8.60	4.42	1,670.04	528.00	1,749.13	1,735.55	13.57	128.889	
1,700.00	1,698.15	2,041.71	1,999.51	5.89	9.50	3.26	1,659.17	486.86	1,719.47	1,704.74	14.72	116.778	
1,800.00	1,796.63	2,164.34	2,114.65	6.27	10.33	2.01	1,649.02	445.94	1,684.80	1,668.96	15.83	106.401	
1,900.00	1,894.44	2,260.80	2,204.55	6.67	11.02	0.91	1,640.32	412.09	1,646.21	1,629.37	16.83	97.800	
2,000.00	1,991.46	2,350.62	2,288.61	7.09	11.65	-0.14	1,631.60	381.64	1,604.65	1,586.86	17.79	90.204	
2,100.00	2,087.58	2,446.64	2,378.67	7.53	12.33	-1.34	1,621.67	349.86	1,560.10	1,541.32	18.78	83.090	
2,200.00	2,182.68	2,540.33	2,466.56	8.01	12.99	-2.60	1,611.21	319.14	1,512.30	1,492.55	19.75	76.573	
2,300.00	2,276.65	2,614.82	2,536.67	8.52	13.50	-3.69	1,602.54	295.54	1,461.79	1,441.17	20.62	70.896	
2,400.00	2,369.36	2,685.11	2,603.29	9.07	13.97	-4.78	1,594.61	274.59	1,409.40	1,387.94	21.46	65.674	
2,500.00	2,460.71	2,758.80	2,673.52	9.67	14.45	-5.99	1,586.58	253.77	1,355.08	1,332.77	22.31	60.735	
2,600.00	2,550.59	2,846.00	2,756.43	10.31	15.02	-7.62	1,576.44	228.72	1,297.68	1,274.45	23.23	55.863	
2,700.00	2,638.88	2,903.00	2,810.45	10.99	15.40	-8.94	1,570.16	211.65	1,238.51	1,214.46	24.05	51.496	
2,800.00	2,725.48	2,953.68	2,858.50	11.73	15.74	-10.32	1,565.86	196.14	1,178.94	1,154.08	24.87	47.412	
2,900.00	2,810.28	3,014.78	2,916.08	12.51	16.17	-12.21	1,561.63	176.13	1,118.49	1,092.71	25.78	43.391	
3,000.00	2,893.18	3,080.62	2,977.67	13.34	16.64	-14.62	1,557.75	153.19	1,057.00	1,030.24	26.76	39.500	
3,100.00	2,974.07	3,149.42	3,042.24	14.22	17.13	-17.47	1,553.68	129.79	994.21	966.41	27.80	35.761	
3,166.85	3,026.99	3,194.50	3,084.54	14.84	17.46	-19.61	1,550.96	114.45	951.58	923.06	28.52	33.364	
3,200.00	3,052.99	3,216.46	3,105.12	15.15	17.61	-20.54	1,549.62	106.91	930.43	901.54	28.89	32.209	
3,300.00	3,131.43	3,281.78	3,166.33	16.11	18.08	-23.51	1,545.60	84.46	867.90	837.87	30.03	28.898	
3,400.00	3,209.87	3,347.22	3,227.72	17.08	18.56	-26.76	1,541.55	62.15	807.67	776.39	31.28	25.820	
3,500.00	3,288.30	3,411.48	3,287.69	18.07	19.03	-30.34	1,537.44	39.46	750.33	717.68	32.64	22.986	
3,600.00	3,366.74	3,477.82	3,349.49	19.07	19.52	-34.40	1,533.07	15.75	696.66	662.51	34.15	20.401	
3,700.00	3,445.18	3,546.22	3,413.49	20.08	20.03	-38.91	1,528.46	-7.97	647.32	611.53	35.79	18.088	
3,800.00	3,523.62	3,613.64	3,476.37	21.10	20.53	-43.79	1,523.23	-31.75	603.29	565.77	37.52	16.078	
3,900.00	3,602.05	3,677.94	3,536.20	22.12	21.01	-48.78	1,517.85	-54.64	566.23	526.97	39.26	14.421	
4,000.00	3,680.49	3,741.30	3,595.19	23.15	21.49	-53.98	1,512.44	-77.14	537.81	496.91	40.90	13.151	
4,100.00	3,758.93	3,804.48	3,654.02	24.19	21.97	-59.34	1,507.06	-99.53	519.56	477.28	42.28	12.289	
4,200.00	3,837.37	3,870.88	3,715.89	25.23	22.47	-65.10	1,501.17	-122.89	512.34	468.99	43.35	11.819	
4,213.71	3,848.12	3,879.93	3,724.33	25.38	22.54	-65.89	1,500.34	-126.06	512.23	468.77	43.46	11.786 CC, ES	
4,300.00	3,915.80	3,935.59	3,776.23	26.28	22.95	-70.74	1,495.06	-145.45	516.54	472.57	43.97	11.747 SF	
4,400.00	3,994.24	4,001.22	3,837.49	27.33	23.44	-76.38	1,488.69	-168.14	532.08	487.83	44.25	12.023	
4,500.00	4,072.68	4,077.48	3,909.05	28.38	23.99	-82.69	1,481.00	-193.35	557.19	512.66	44.53	12.513	
4,600.00	4,151.12	4,153.78	3,981.20	29.44	24.52	-88.68	1,472.99	-216.86	590.06	545.35	44.71	13.197	
4,700.00	4,229.55	4,213.58	4,037.97	30.50	24.93	-93.09	1,466.69	-234.54	629.93	585.31	44.61	14.120	
4,800.00	4,307.99	4,263.47	4,085.07	31.56	25.27	-96.53	1,461.78	-250.25	677.38	632.97	44.41	15.254	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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			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
4,900.00	4,386.43	4,325.50	4,143.35	32.63	25.72	-100.48	1,456.01	-270.67	730.73	686.17	44.56	16.399	
5,000.00	4,464.87	4,389.66	4,203.71	33.69	26.18	-104.22	1,450.05	-291.62	787.91	743.05	44.86	17.564	
5,100.00	4,543.31	4,448.52	4,258.99	34.76	26.60	-107.33	1,444.82	-311.13	848.47	803.32	45.15	18.794	
5,200.00	4,621.74	4,505.29	4,312.16	35.83	27.02	-110.06	1,440.03	-330.42	911.93	866.46	45.47	20.054	
5,300.00	4,700.18	4,561.00	4,364.16	36.90	27.43	-112.49	1,435.42	-349.88	977.88	932.04	45.85	21.329	
5,400.00	4,778.62	4,635.74	4,433.96	37.97	27.99	-115.43	1,429.34	-375.90	1,045.31	998.66	46.65	22.407	
5,500.00	4,857.06	4,690.99	4,485.67	39.05	28.41	-117.41	1,424.84	-394.85	1,113.74	1,066.64	47.11	23.643	
5,600.00	4,935.49	4,737.54	4,529.00	40.12	28.76	-118.94	1,420.84	-411.38	1,184.10	1,136.67	47.43	24.966	
5,700.00	5,013.93	4,793.11	4,580.49	41.20	29.19	-120.63	1,415.84	-431.67	1,256.02	1,208.05	47.96	26.188	
5,800.00	5,092.37	4,854.01	4,636.87	42.27	29.67	-122.32	1,410.30	-454.01	1,328.81	1,280.19	48.62	27.328	
5,900.00	5,170.81	4,926.54	4,704.20	43.35	30.23	-124.18	1,403.41	-480.07	1,401.99	1,352.48	49.51	28.316	
6,000.00	5,249.24	5,006.94	4,779.26	44.43	30.83	-126.09	1,395.37	-507.73	1,475.14	1,424.61	50.53	29.194	
6,100.00	5,327.68	5,081.59	4,849.35	45.51	31.37	-127.74	1,387.76	-532.26	1,548.06	1,496.62	51.43	30.100	
6,200.00	5,406.12	5,163.00	4,925.98	46.59	31.95	-129.37	1,379.68	-558.52	1,621.05	1,568.61	52.44	30.912	
6,300.00	5,484.56	5,254.15	5,012.37	47.67	32.57	-131.04	1,371.28	-586.39	1,693.17	1,639.58	53.59	31.594	
6,400.00	5,562.99	5,317.35	5,072.34	48.75	33.00	-132.10	1,365.76	-605.56	1,765.40	1,711.10	54.30	32.511	
6,500.00	5,641.43	5,376.50	5,128.34	49.84	33.41	-132.99	1,360.94	-623.98	1,838.07	1,783.10	54.97	33.439	
6,600.00	5,719.87	5,434.14	5,182.69	50.92	33.82	-133.77	1,356.83	-642.71	1,911.21	1,855.58	55.63	34.356	
6,700.00	5,798.31	5,439.17	5,182.69	52.00	34.28	171.20	1,172.97	581.31	1,935.94	1,863.35	72.58	26.672	
6,800.00	5,876.75	5,455.81	5,182.69	53.09	34.28	170.71	1,172.74	597.94	1,941.28	1,866.35	74.93	25.909	
6,900.00	5,955.18	5,471.72	5,182.69	54.17	34.28	170.25	1,172.51	613.84	1,951.60	1,874.49	77.11	25.309	
7,000.00	6,033.62	5,486.79	5,182.69	55.25	34.28	169.81	1,172.26	628.90	1,966.84	1,887.72	79.12	24.859	
7,100.00	6,112.06	5,501.43	5,182.69	56.34	34.28	169.38	1,172.01	643.53	1,986.87	1,905.93	80.94	24.546	
7,200.00	6,190.50	5,515.67	5,182.69	57.43	34.28	168.96	1,171.74	657.76	2,011.57	1,928.99	82.58	24.358	
7,300.00	6,268.93	5,529.50	5,182.69	58.51	34.28	168.56	1,171.46	671.59	2,040.77	1,956.74	84.04	24.284	
7,400.00	6,347.37	5,542.96	5,182.69	59.60	34.28	168.17	1,171.16	685.04	2,074.29	1,988.98	85.31	24.314	
7,500.00	6,425.81	5,559.00	5,182.69	60.68	34.28	167.70	1,170.79	701.06	2,111.92	2,025.43	86.49	24.417	
7,600.00	6,504.25	5,570.31	5,182.69	61.77	34.28	167.37	1,170.52	712.36	2,153.44	2,066.04	87.40	24.639	
7,700.00	6,582.68	5,584.65	5,182.69	62.86	34.28	166.95	1,170.17	726.70	2,198.64	2,110.39	88.25	24.913	
7,800.00	6,661.12	5,598.65	5,182.69	63.95	34.28	166.54	1,169.81	740.69	2,247.29	2,158.32	88.97	25.260	
7,888.30	6,730.38	5,610.73	5,182.69	64.91	34.28	166.19	1,169.51	752.76	2,292.94	2,203.45	89.49	25.622	
7,900.00	6,739.57	5,612.20	5,182.69	65.03	34.28	168.35	1,169.47	754.23	2,299.18	2,209.63	89.55	25.675	
7,950.00	6,779.07	5,615.87	5,182.69	65.56	34.28	177.88	1,169.37	757.91	2,326.35	2,236.62	89.73	25.927	
8,000.00	6,818.72	5,615.38	5,182.69	66.07	34.28	-172.26	1,169.39	757.42	2,354.21	2,264.43	89.78	26.223	
8,050.00	6,858.20	5,610.80	5,182.69	66.56	34.28	-162.32	1,169.51	752.84	2,382.52	2,292.82	89.70	26.560	
8,100.00	6,897.22	5,602.23	5,182.69	67.02	34.28	-152.57	1,169.72	744.27	2,411.04	2,321.52	89.51	26.935	
8,150.00	6,935.48	5,589.80	5,182.69	67.44	34.28	-143.24	1,170.04	731.85	2,439.48	2,350.28	89.21	27.346	
8,200.00	6,972.69	5,573.68	5,182.69	67.84	34.28	-134.50	1,170.44	715.73	2,467.59	2,378.79	88.80	27.788	
8,250.00	7,008.57	5,559.00	5,182.69	68.20	34.28	-126.55	1,170.79	701.06	2,495.10	2,406.66	88.44	28.212	
8,300.00	7,042.85	5,534.90	5,182.69	68.52	34.28	-119.21	1,171.34	676.98	2,521.73	2,433.88	87.84	28.707	
8,350.00	7,075.25	5,512.41	5,182.69	68.81	34.28	-112.72	1,171.80	654.50	2,547.24	2,459.93	87.31	29.175	
8,400.00	7,105.55	5,487.42	5,182.69	69.07	34.28	-106.98	1,172.25	629.53	2,571.39	2,484.67	86.73	29.649	
8,450.00	7,133.50	5,464.00	5,182.69	69.29	34.28	-102.01	1,172.62	606.13	2,593.95	2,507.73	86.22	30.085	
8,500.00	7,158.89	5,426.16	5,182.69	69.48	34.28	-97.56	1,173.14	568.32	2,614.64	2,529.24	85.40	30.618	
8,550.00	7,181.54	5,390.49	5,182.69	69.63	34.28	-93.82	1,173.56	532.68	2,633.24	2,548.56	84.68	31.098	
8,600.00	7,201.26	5,330.50	5,182.69	69.75	34.28	-90.49	1,174.31	472.74	2,649.48	2,566.03	83.45	31.750	
8,650.00	7,217.91	5,258.91	5,182.69	69.84	34.28	-87.79	1,175.86	401.17	2,662.55	2,580.47	82.08	32.437	
8,700.00	7,231.36	5,220.91	5,182.69	69.90	34.28	-85.90	1,176.73	363.19	2,672.85	2,591.26	81.59	32.759	
8,750.00	7,241.51	5,178.00	5,182.69	69.92	34.28	-84.51	1,177.58	320.29	2,680.45	2,599.39	81.06	33.068	
8,800.00	7,248.28	5,143.71	5,182.69	69.92	34.28	-83.63	1,178.15	286.02	2,685.27	2,604.47	80.81	33.231	
8,850.00	7,251.62	5,105.13	5,182.69	69.89	34.28	-83.21	1,178.65	247.45	2,687.29	2,606.76	80.53	33.371	
8,873.35	7,252.00	5,083.00	5,182.69	69.87	34.28	-83.17	1,178.88	225.34	2,687.26	2,606.92	80.34	33.449	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:	
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
8,900.00	7,252.00	8,065.61	6,937.89	69.84	46.89	-83.16	1,179.02	207.96	2,686.90	2,606.59	80.31	33.457
9,000.00	7,252.00	7,983.71	6,936.59	69.75	45.89	-83.13	1,179.21	126.07	2,685.98	2,605.96	80.02	33.565
9,100.00	7,252.00	7,893.00	6,935.54	69.69	44.89	-83.10	1,179.02	35.36	2,685.46	2,605.59	79.87	33.623
9,200.00	7,252.00	7,797.00	6,933.78	69.66	43.96	-83.07	1,178.59	-60.62	2,685.25	2,605.33	79.92	33.599
9,202.48	7,252.00	7,797.00	6,933.78	69.66	43.96	-83.07	1,178.59	-60.62	2,685.25	2,605.29	79.96	33.584
9,300.00	7,252.00	7,726.82	6,933.24	69.67	43.38	-83.05	1,177.65	-130.79	2,685.77	2,605.21	80.56	33.340
9,400.00	7,252.00	7,656.00	6,932.51	69.71	42.85	-83.04	1,176.02	-201.57	2,687.32	2,605.97	81.34	33.037
9,500.00	7,252.00	7,565.70	6,921.88	69.80	42.27	-82.82	1,174.20	-291.17	2,689.89	2,607.83	82.06	32.781
9,600.00	7,252.00	7,465.25	6,899.23	69.93	41.76	-82.34	1,174.10	-388.97	2,692.11	2,609.28	82.83	32.502
9,700.00	7,252.00	7,395.47	6,876.04	70.12	41.47	-81.85	1,174.65	-454.76	2,695.28	2,611.36	83.93	32.115
9,800.00	7,252.00	7,321.00	6,844.38	70.37	41.23	-81.18	1,175.53	-522.12	2,699.94	2,614.89	85.05	31.744
9,900.00	7,252.00	7,266.97	6,817.53	70.70	41.12	-80.61	1,176.39	-568.99	2,706.13	2,619.73	86.40	31.323
10,000.00	7,252.00	7,225.00	6,794.87	71.11	41.03	-80.13	1,177.22	-604.30	2,714.07	2,626.25	87.82	30.906
10,100.00	7,252.00	7,170.61	6,762.84	71.62	40.97	-79.46	1,178.26	-648.23	2,724.12	2,634.93	89.19	30.542
10,200.00	7,252.00	7,130.00	6,736.83	72.25	40.93	-78.91	1,178.87	-679.40	2,736.79	2,646.16	90.63	30.198
10,300.00	7,252.00	7,130.00	6,736.83	73.01	40.93	-78.91	1,178.87	-679.40	2,752.41	2,660.12	92.29	29.824
10,400.00	7,252.00	7,073.33	6,697.89	73.92	40.92	-78.11	1,179.30	-720.56	2,770.11	2,676.50	93.60	29.594
10,500.00	7,252.00	7,035.00	6,669.99	74.98	40.91	-77.53	1,179.22	-746.83	2,790.95	2,695.99	94.97	29.388
10,600.00	7,252.00	7,005.34	6,647.65	76.20	40.91	-77.07	1,179.14	-766.34	2,814.35	2,718.00	96.35	29.210
10,700.00	7,252.00	6,957.62	6,610.56	77.58	40.93	-76.31	1,179.46	-796.37	2,840.04	2,742.47	97.57	29.107
10,800.00	7,252.00	6,799.10	6,477.08	79.11	41.00	-73.56	1,190.35	-880.48	2,866.95	2,769.05	97.91	29.283
10,900.00	7,252.00	6,749.00	6,431.92	80.77	41.03	-72.62	1,197.73	-900.84	2,895.23	2,796.37	98.86	29.286
11,000.00	7,252.00	6,749.00	6,431.92	82.55	41.03	-72.62	1,197.73	-900.84	2,926.41	2,826.20	100.21	29.203
11,100.00	7,252.00	6,716.16	6,401.66	84.43	41.03	-71.99	1,203.24	-912.33	2,960.17	2,859.02	101.15	29.265
11,200.00	7,252.00	6,704.07	6,390.38	86.40	41.03	-71.75	1,205.32	-916.16	2,996.91	2,894.68	102.22	29.317
11,300.00	7,252.00	6,693.27	6,380.25	88.45	41.02	-71.54	1,207.20	-919.39	3,036.38	2,933.14	103.23	29.413
11,400.00	7,252.00	6,654.00	6,343.00	90.56	41.02	-70.76	1,214.21	-929.64	3,078.91	2,975.05	103.86	29.645
11,500.00	7,252.00	6,654.00	6,343.00	92.73	41.02	-70.76	1,214.21	-929.64	3,123.38	3,018.54	104.84	29.793
11,600.00	7,252.00	6,654.00	6,343.00	94.95	41.02	-70.76	1,214.21	-929.64	3,170.37	3,064.63	105.74	29.984
11,700.00	7,252.00	6,654.00	6,343.00	97.21	41.02	-70.76	1,214.21	-929.64	3,219.79	3,113.22	106.56	30.214
11,800.00	7,252.00	6,654.00	6,343.00	99.51	41.02	-70.76	1,214.21	-929.64	3,271.51	3,164.19	107.32	30.483

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		Highside Toolface (°)	Offset Wellbore Centre		Distance		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	25.60	1,721.32	824.70	1,908.68				
100.00	100.00	99.66	99.66	0.14	0.30	25.59	1,721.54	824.55	1,908.83	1,908.39	0.44	4,303.269	
200.00	200.00	215.89	215.89	0.50	0.71	25.56	1,722.02	823.72	1,908.92	1,907.70	1.22	1,570.093	
300.00	300.00	419.30	419.09	0.86	1.44	25.41	1,718.13	816.27	1,905.53	1,903.23	2.31	825.745	
400.00	400.00	519.60	519.08	1.22	1.82	25.27	1,714.62	809.25	1,899.37	1,896.34	3.03	627.792	
500.00	500.00	659.87	658.68	1.58	2.36	24.97	1,710.44	796.32	1,892.89	1,888.99	3.90	484.762	
600.00	600.00	921.35	916.96	1.94	3.47	24.23	1,691.08	761.06	1,880.34	1,875.07	5.27	356.809	
700.00	700.00	1,135.34	1,125.18	2.29	4.51	23.43	1,663.09	720.64	1,860.35	1,853.88	6.47	287.588	
800.00	800.00	1,307.09	1,290.47	2.65	5.44	22.74	1,633.50	684.61	1,836.22	1,828.71	7.52	244.285	
900.00	900.00	1,395.64	1,375.29	3.01	5.95	22.37	1,616.83	665.41	1,810.29	1,802.04	8.25	219.495	
1,000.00	1,000.00	1,491.26	1,466.85	3.37	6.50	21.96	1,598.79	644.56	1,784.37	1,775.36	9.01	197.958	
1,100.00	1,100.00	1,576.00	1,548.08	3.73	7.00	21.58	1,583.11	626.22	1,758.93	1,749.18	9.74	180.499	
1,200.00	1,200.00	1,664.37	1,632.87	4.09	7.52	21.17	1,567.29	607.00	1,734.09	1,723.60	10.50	165.186	
1,250.00	1,250.00	1,724.12	1,690.15	4.27	7.87	20.88	1,556.63	593.76	1,721.66	1,710.73	10.94	157.400	
1,300.00	1,300.00	1,785.43	1,748.77	4.44	8.24	7.31	1,545.33	579.78	1,708.46	1,697.07	11.39	150.019	
1,400.00	1,399.93	1,880.02	1,838.97	4.80	8.83	6.88	1,527.74	557.40	1,679.15	1,666.96	12.19	137.727	
1,500.00	1,499.68	2,033.74	1,984.60	5.16	9.83	6.01	1,498.10	518.19	1,645.57	1,632.33	13.25	124.237	
1,600.00	1,599.13	2,208.38	2,145.98	5.52	11.11	4.63	1,459.67	463.73	1,604.20	1,589.76	14.44	111.097	
1,700.00	1,698.15	2,317.40	2,244.51	5.89	11.99	3.55	1,433.71	424.97	1,556.93	1,541.52	15.41	101.018	
1,800.00	1,796.63	2,403.33	2,322.06	6.27	12.69	2.63	1,412.86	394.39	1,506.65	1,490.35	16.30	92.437	
1,900.00	1,894.44	2,492.50	2,402.48	6.67	13.43	1.58	1,390.77	362.84	1,453.38	1,436.18	17.20	84.475	
2,000.00	1,991.46	2,575.53	2,477.37	7.09	14.12	0.50	1,369.71	333.82	1,397.19	1,379.10	18.09	77.239	
2,100.00	2,087.58	2,647.36	2,542.40	7.53	14.71	-0.50	1,351.36	309.45	1,338.65	1,319.72	18.93	70.716	
2,200.00	2,182.68	2,719.33	2,607.87	8.01	15.29	-1.61	1,332.99	285.88	1,277.96	1,258.20	19.77	64.658	
2,300.00	2,276.65	2,790.26	2,672.66	8.52	15.86	-2.81	1,314.88	263.38	1,215.14	1,194.54	20.60	58.981	
2,400.00	2,369.36	2,864.83	2,741.00	9.07	16.46	-4.25	1,295.83	240.44	1,150.20	1,128.74	21.46	53.601	
2,500.00	2,460.71	2,955.56	2,823.48	9.67	17.19	-6.42	1,271.95	211.17	1,082.22	1,059.84	22.37	48.368	
2,600.00	2,550.59	3,012.16	2,874.90	10.31	17.65	-8.15	1,256.97	192.84	1,012.10	988.88	23.22	43.581	
2,700.00	2,638.88	3,071.82	2,929.35	10.99	18.13	-10.27	1,241.35	174.11	940.51	916.41	24.11	39.015	
2,800.00	2,725.48	3,132.00	2,984.54	11.73	18.62	-12.81	1,225.79	155.87	867.59	842.57	25.03	34.668	
2,900.00	2,810.28	3,187.12	3,035.34	12.51	19.04	-15.64	1,211.74	139.74	793.51	767.54	25.97	30.556	
3,000.00	2,893.18	3,242.72	3,086.82	13.34	19.47	-19.11	1,197.78	124.04	718.52	691.54	26.98	26.632	
3,100.00	2,974.07	3,297.29	3,137.61	14.22	19.87	-23.30	1,184.28	109.32	642.89	614.81	28.08	22.895	
3,166.85	3,026.99	3,333.30	3,171.25	14.84	20.13	-26.61	1,175.47	100.00	592.19	563.30	28.89	20.495	
3,200.00	3,052.99	3,351.28	3,188.08	15.15	20.25	-28.08	1,171.08	95.42	567.17	537.84	29.33	19.340	
3,300.00	3,131.43	3,405.94	3,239.30	16.11	20.64	-33.12	1,157.82	81.70	493.44	462.63	30.81	16.015	
3,400.00	3,209.87	3,461.23	3,291.21	17.08	21.03	-39.20	1,144.48	68.13	423.32	390.65	32.67	12.958	
3,500.00	3,288.30	3,517.05	3,343.73	18.07	21.42	-46.52	1,131.10	54.74	358.77	323.75	35.02	10.246	
3,600.00	3,366.74	3,571.47	3,394.91	19.07	21.80	-54.93	1,118.13	41.58	303.41	265.55	37.86	8.014	
3,700.00	3,445.18	3,625.21	3,445.35	20.08	22.18	-64.41	1,105.37	28.11	263.33	222.66	40.66	6.476	
3,800.00	3,523.62	3,676.23	3,492.87	21.10	22.56	-74.20	1,092.94	14.35	246.65	204.70	41.95	5.880	
3,808.45	3,530.25	3,680.41	3,496.75	21.18	22.59	-75.02	1,091.90	13.17	246.54	204.61	41.94	5.879 CC, ES, SF	
3,900.00	3,602.05	3,724.95	3,537.86	22.12	22.93	-83.71	1,080.74	0.17	258.81	218.18	40.63	6.370	
4,000.00	3,680.49	3,773.50	3,582.49	23.15	23.31	-92.67	1,068.82	-14.76	296.62	258.56	38.06	7.794	
4,100.00	3,758.93	3,823.67	3,628.46	24.19	23.71	-100.93	1,056.83	-30.91	351.87	315.92	35.96	9.786	
4,200.00	3,837.37	3,875.46	3,675.83	25.23	24.13	-108.27	1,044.39	-47.72	417.39	382.67	34.72	12.021	
4,300.00	3,915.80	3,927.22	3,723.14	26.28	24.55	-114.48	1,031.83	-64.57	489.07	454.94	34.12	14.332	
4,400.00	3,994.24	3,978.98	3,770.42	27.33	24.98	-119.67	1,019.18	-81.40	564.57	530.63	33.94	16.634	
4,500.00	4,072.68	4,036.87	3,823.37	28.38	25.44	-124.48	1,005.11	-100.11	642.37	608.21	34.16	18.803	
4,600.00	4,151.12	4,100.13	3,881.53	29.44	25.94	-128.76	990.29	-120.11	721.20	686.55	34.65	20.814	
4,700.00	4,229.55	4,172.07	3,948.21	30.50	26.49	-132.75	973.94	-141.55	800.15	764.78	35.38	22.619	
4,800.00	4,307.99	4,232.54	4,004.62	31.56	26.94	-135.54	960.64	-158.82	879.16	843.25	35.91	24.481	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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
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
4,900.00	4,386.43	4,277.00	4,046.11	32.63	27.27	-137.28	951.23	-171.73	958.74	922.54	36.20	26.486	
5,000.00	4,464.87	4,330.06	4,095.45	33.69	27.68	-139.07	940.03	-187.74	1,039.14	1,002.44	36.70	28.317	
5,100.00	4,543.31	4,372.00	4,134.17	34.76	28.00	-140.28	930.97	-201.06	1,120.71	1,083.69	37.02	30.270	
5,200.00	4,621.74	4,423.40	4,181.43	35.83	28.41	-141.58	919.84	-217.90	1,202.97	1,165.41	37.56	32.030	
5,300.00	4,700.18	4,478.61	4,232.14	36.90	28.85	-142.79	908.09	-236.33	1,285.49	1,247.31	38.18	33.672	
5,400.00	4,778.62	4,544.11	4,292.41	37.97	29.36	-144.04	894.35	-257.95	1,367.90	1,328.92	38.98	35.092	
5,500.00	4,857.06	4,598.78	4,342.86	39.05	29.80	-144.99	882.96	-275.69	1,450.18	1,410.58	39.60	36.619	
5,600.00	4,935.49	4,648.69	4,388.85	40.12	30.19	-145.76	872.43	-291.94	1,532.75	1,492.60	40.15	38.175	
5,700.00	5,013.93	4,692.90	4,429.55	41.20	30.54	-146.40	862.91	-306.39	1,615.67	1,575.06	40.62	39.779	
5,800.00	5,092.37	4,735.13	4,468.31	42.27	30.88	-146.97	853.51	-320.23	1,699.07	1,658.01	41.06	41.382	
5,900.00	5,170.81	4,789.56	4,518.21	43.35	31.31	-147.65	841.09	-338.07	1,782.80	1,741.10	41.70	42.752	
6,000.00	5,249.24	4,852.71	4,576.22	44.43	31.82	-148.37	826.83	-358.55	1,866.37	1,823.89	42.48	43.934	
6,100.00	5,327.68	4,906.08	4,625.31	45.51	32.25	-148.94	814.81	-375.72	1,949.89	1,906.78	43.11	45.231	
6,200.00	5,406.12	4,965.32	4,679.83	46.59	32.71	-149.52	801.41	-394.62	2,033.44	1,989.61	43.83	46.397	
6,300.00	5,484.56	5,035.41	4,744.55	47.67	33.26	-150.17	785.63	-416.42	2,116.71	2,072.01	44.70	47.354	
6,400.00	5,562.99	5,082.44	4,788.03	48.75	33.63	-150.57	775.05	-430.87	2,199.92	2,154.69	45.23	48.635	
6,500.00	5,641.43	5,132.00	4,833.77	49.84	34.02	-150.97	763.79	-446.28	2,283.38	2,237.57	45.81	49.847	
6,600.00	5,719.87	5,213.82	4,909.46	50.92	34.65	-151.58	745.39	-471.31	2,366.65	2,319.81	46.84	50.528	
6,700.00	5,798.31	5,264.35	4,956.36	52.00	35.04	-151.94	734.23	-486.46	2,449.53	2,402.10	47.43	51.648	
6,800.00	5,876.75	5,306.95	4,995.77	53.09	35.37	-152.21	724.84	-499.62	2,532.71	2,484.80	47.91	52.864	
6,900.00	5,955.18	5,395.71	5,077.93	54.17	36.05	-152.73	705.47	-527.04	2,615.88	2,566.85	49.03	53.350	
7,000.00	6,033.62	8,704.45	7,272.61	55.25	49.36	167.81	541.84	699.54	2,674.52	2,600.16	74.35	35.970	
7,100.00	6,112.06	8,725.14	7,272.64	56.34	49.66	167.36	541.98	720.23	2,693.61	2,617.56	76.05	35.419	
7,200.00	6,190.50	8,745.06	7,272.59	57.43	49.94	166.93	542.12	740.15	2,716.14	2,638.50	77.64	34.982	
7,300.00	6,268.93	8,764.26	7,272.48	58.51	50.22	166.52	542.27	759.35	2,742.04	2,662.90	79.14	34.650	
7,400.00	6,347.37	8,750.00	7,272.57	59.60	50.01	166.83	542.16	745.09	2,771.35	2,691.65	79.70	34.772	
7,500.00	6,425.81	8,775.71	7,272.53	60.68	50.40	166.28	542.32	770.80	2,803.72	2,722.52	81.20	34.529	
7,600.00	6,504.25	8,785.43	7,272.56	61.77	50.55	166.07	542.36	780.52	2,839.27	2,757.07	82.19	34.543	
7,700.00	6,582.68	8,795.36	7,272.62	62.86	50.71	165.85	542.39	790.45	2,877.80	2,794.69	83.11	34.626	
7,800.00	6,661.12	8,805.50	7,272.72	63.95	50.86	165.64	542.41	800.58	2,919.20	2,835.25	83.95	34.772	
7,888.30	6,730.38	8,814.63	7,272.82	64.91	51.00	165.44	542.42	809.71	2,958.04	2,873.40	84.64	34.950	
7,900.00	6,739.57	8,815.77	7,272.84	65.03	51.02	167.47	542.42	810.86	2,963.35	2,878.63	84.72	34.977	
7,950.00	6,779.07	8,818.85	7,272.88	65.56	51.07	176.43	542.42	813.93	2,986.55	2,901.51	85.03	35.121	
8,000.00	6,818.72	8,818.95	7,272.88	66.07	51.07	-174.36	542.42	814.04	3,010.43	2,925.16	85.26	35.307	
8,050.00	6,858.20	8,816.04	7,272.84	66.56	51.03	-165.12	542.42	811.13	3,034.80	2,949.39	85.41	35.533	
8,100.00	6,897.22	8,810.08	7,272.77	67.02	50.93	-156.10	542.41	805.16	3,059.45	2,973.98	85.46	35.798	
8,150.00	6,935.48	8,801.06	7,272.67	67.44	50.79	-147.48	542.40	796.15	3,084.16	2,998.73	85.44	36.099	
8,200.00	6,972.69	8,789.02	7,272.58	67.84	50.61	-139.41	542.37	784.11	3,108.72	3,023.40	85.32	36.434	
8,250.00	7,008.57	8,774.00	7,272.53	68.20	50.38	-131.96	542.31	769.09	3,132.89	3,047.76	85.13	36.800	
8,300.00	7,042.85	8,750.00	7,272.57	68.52	50.01	-125.09	542.16	745.09	3,156.45	3,071.74	84.71	37.262	
8,350.00	7,075.25	8,726.97	7,272.64	68.81	49.68	-118.96	541.99	722.06	3,179.11	3,094.77	84.34	37.694	
8,400.00	7,105.55	8,690.79	7,272.55	69.07	49.17	-113.36	541.75	685.88	3,200.59	3,116.93	83.66	38.259	
8,450.00	7,133.50	8,651.81	7,272.17	69.29	48.63	-108.43	541.53	646.91	3,220.63	3,137.70	82.93	38.836	
8,500.00	7,158.89	8,613.78	7,271.74	69.48	48.14	-104.20	541.33	608.88	3,239.02	3,156.73	82.29	39.361	
8,550.00	7,181.54	8,572.94	7,271.41	69.63	47.62	-100.57	541.12	568.04	3,255.58	3,173.96	81.62	39.886	
8,600.00	7,201.26	8,529.32	7,271.05	69.75	47.11	-97.53	540.90	524.42	3,270.11	3,189.14	80.97	40.389	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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						Rule Assigned:				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
8,750.00	7,241.51	7,273.51	7,273.51	69.92	145.91	-4.76	4,193.23	-2,845.24	3,232.06	3,016.22	215.83	14.975	
8,800.00	7,248.28	7,280.28	7,280.28	69.92	146.05	21.70	4,193.23	-2,845.24	3,182.54	2,966.58	215.96	14.736	
8,850.00	7,251.62	7,283.62	7,283.62	69.89	146.12	71.22	4,193.23	-2,845.24	3,132.78	2,916.79	215.99	14.504	
8,873.35	7,252.00	7,284.00	7,284.00	69.87	146.12	90.00	4,193.23	-2,845.24	3,109.57	2,893.61	215.96	14.399	
8,900.00	7,252.00	7,284.00	7,284.00	69.84	146.12	90.00	4,193.23	-2,845.24	3,083.12	2,867.19	215.92	14.279	
9,000.00	7,252.00	7,284.00	7,284.00	69.75	146.12	90.00	4,193.23	-2,845.24	2,983.88	2,768.12	215.76	13.830	
9,100.00	7,252.00	7,284.00	7,284.00	69.69	146.12	90.00	4,193.23	-2,845.24	2,884.69	2,669.10	215.59	13.381	
9,200.00	7,252.00	7,284.00	7,284.00	69.66	146.12	90.00	4,193.23	-2,845.24	2,785.56	2,570.16	215.41	12.932	
9,300.00	7,252.00	7,284.00	7,284.00	69.67	146.12	90.00	4,193.23	-2,845.24	2,686.50	2,471.29	215.21	12.483	
9,400.00	7,252.00	7,284.00	7,284.00	69.71	146.12	90.00	4,193.23	-2,845.24	2,587.51	2,372.50	215.00	12.035	
9,500.00	7,252.00	7,284.00	7,284.00	69.80	146.12	90.00	4,193.23	-2,845.24	2,488.60	2,273.81	214.78	11.587	
9,600.00	7,252.00	7,284.00	7,284.00	69.93	146.12	90.00	4,193.23	-2,845.24	2,389.78	2,175.23	214.55	11.139	
9,700.00	7,252.00	7,284.00	7,284.00	70.12	146.12	90.00	4,193.23	-2,845.24	2,291.06	2,076.77	214.29	10.691	
9,800.00	7,252.00	7,284.00	7,284.00	70.37	146.12	90.00	4,193.23	-2,845.24	2,192.46	1,978.44	214.02	10.244	
9,900.00	7,252.00	7,284.00	7,284.00	70.70	146.12	90.00	4,193.23	-2,845.24	2,093.99	1,880.26	213.72	9.798	
10,000.00	7,252.00	7,284.00	7,284.00	71.11	146.12	90.00	4,193.23	-2,845.24	1,995.67	1,782.26	213.41	9.352	
10,100.00	7,252.00	7,284.00	7,284.00	71.62	146.12	90.00	4,193.23	-2,845.24	1,897.53	1,684.47	213.06	8.906	
10,200.00	7,252.00	7,284.00	7,284.00	72.25	146.12	90.00	4,193.23	-2,845.24	1,799.59	1,586.90	212.69	8.461	
10,300.00	7,252.00	7,284.00	7,284.00	73.01	146.12	90.00	4,193.23	-2,845.24	1,701.90	1,489.61	212.28	8.017	
10,400.00	7,252.00	7,284.00	7,284.00	73.92	146.12	90.00	4,193.23	-2,845.24	1,604.48	1,392.64	211.84	7.574	
10,500.00	7,252.00	7,284.00	7,284.00	74.98	146.12	90.00	4,193.23	-2,845.24	1,507.41	1,296.04	211.37	7.132	
10,600.00	7,252.00	7,284.00	7,284.00	76.20	146.12	90.00	4,193.23	-2,845.24	1,410.74	1,199.90	210.85	6.691	
10,700.00	7,252.00	7,284.00	7,284.00	77.58	146.12	90.00	4,193.23	-2,845.24	1,314.58	1,104.29	210.29	6.251	
10,800.00	7,252.00	7,284.00	7,284.00	79.11	146.12	90.00	4,193.23	-2,845.24	1,219.03	1,009.34	209.69	5.813	
10,900.00	7,252.00	7,284.00	7,284.00	80.77	146.12	90.00	4,193.23	-2,845.24	1,124.26	915.19	209.07	5.378	
11,000.00	7,252.00	7,284.00	7,284.00	82.55	146.12	90.00	4,193.23	-2,845.24	1,030.47	822.04	208.43	4.944	
11,100.00	7,252.00	7,284.00	7,284.00	84.43	146.12	90.00	4,193.23	-2,845.24	937.97	730.15	207.82	4.513	
11,200.00	7,252.00	7,284.00	7,284.00	86.40	146.12	90.00	4,193.23	-2,845.24	847.17	639.85	207.32	4.086	
11,300.00	7,252.00	7,284.00	7,284.00	88.45	146.12	90.00	4,193.23	-2,845.24	758.70	551.61	207.09	3.664	
11,400.00	7,252.00	7,284.00	7,284.00	90.56	146.12	90.00	4,193.23	-2,845.24	673.45	466.04	207.41	3.247	
11,500.00	7,252.00	7,284.00	7,284.00	92.73	146.12	90.00	4,193.23	-2,845.24	592.84	384.05	208.79	2.839	
11,600.00	7,252.00	7,284.00	7,284.00	94.95	146.12	90.00	4,193.23	-2,845.24	519.01	307.01	212.00	2.448	
11,700.00	7,252.00	7,284.00	7,284.00	97.21	146.12	90.00	4,193.23	-2,845.24	455.29	237.30	218.00	2.089	
11,800.00	7,252.00	7,284.00	7,284.00	99.51	146.12	90.00	4,193.23	-2,845.24	406.46	179.29	227.17	1.789	
11,900.00	7,252.00	7,284.00	7,284.00	101.83	146.12	90.00	4,193.23	-2,845.24	378.32	140.16	238.15	1.589	
11,960.42	7,252.00	7,284.00	7,284.00	103.25	146.12	90.00	4,193.23	-2,845.24	373.46	129.19	244.27	1.529 CC	
12,000.00	7,252.00	7,284.00	7,284.00	104.19	146.12	90.00	4,193.23	-2,845.24	375.56	127.97	247.59	1.517 ES, SF	
12,100.00	7,252.00	7,284.00	7,284.00	106.57	146.12	90.00	4,193.23	-2,845.24	398.70	146.02	252.68	1.578	
12,200.00	7,252.00	7,284.00	7,284.00	108.97	146.12	90.00	4,193.23	-2,845.24	443.71	190.19	253.52	1.750	
12,300.00	7,252.00	7,284.00	7,284.00	111.39	146.12	90.00	4,193.23	-2,845.24	504.77	252.89	251.88	2.004	
12,400.00	7,252.00	7,284.00	7,284.00	113.84	146.12	90.00	4,193.23	-2,845.24	576.81	327.51	249.30	2.314	
12,500.00	7,252.00	7,284.00	7,284.00	116.29	146.12	90.00	4,193.23	-2,845.24	656.22	409.63	246.60	2.661	
12,600.00	7,252.00	7,284.00	7,284.00	118.76	146.12	90.00	4,193.23	-2,845.24	740.64	496.54	244.10	3.034	
12,700.00	7,252.00	7,284.00	7,284.00	121.25	146.12	90.00	4,193.23	-2,845.24	828.53	586.62	241.91	3.425	
12,800.00	7,252.00	7,284.00	7,284.00	123.74	146.12	90.00	4,193.23	-2,845.24	918.90	678.88	240.02	3.828	
12,900.00	7,252.00	7,284.00	7,284.00	126.25	146.12	90.00	4,193.23	-2,845.24	1,011.09	772.69	238.40	4.241	
13,000.00	7,252.00	7,284.00	7,284.00	128.77	146.12	90.00	4,193.23	-2,845.24	1,104.63	867.63	237.00	4.661	
13,100.00	7,252.00	7,284.00	7,284.00	131.30	146.12	90.00	4,193.23	-2,845.24	1,199.22	963.42	235.80	5.086	
13,200.00	7,252.00	7,284.00	7,284.00	133.83	146.12	90.00	4,193.23	-2,845.24	1,294.62	1,059.86	234.76	5.515	
13,300.00	7,252.00	7,284.00	7,284.00	136.38	146.12	90.00	4,193.23	-2,845.24	1,390.67	1,156.82	233.85	5.947	
13,400.00	7,252.00	7,284.00	7,284.00	138.93	146.12	90.00	4,193.23	-2,845.24	1,487.24	1,254.19	233.05	6.382	
13,500.00	7,252.00	7,284.00	7,284.00	141.49	146.12	90.00	4,193.23	-2,845.24	1,584.24	1,351.88	232.35	6.818	

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 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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)			
13,600.00	7,252.00	7,284.00	7,284.00	144.05	146.12	90.00	4,193.23	-2,845.24	1,681.58	1,449.86	231.73	7.257	
13,700.00	7,252.00	7,284.00	7,284.00	146.63	146.12	90.00	4,193.23	-2,845.24	1,779.22	1,548.05	231.17	7.697	
13,800.00	7,252.00	7,284.00	7,284.00	149.20	146.12	90.00	4,193.23	-2,845.24	1,877.11	1,646.44	230.67	8.138	
13,900.00	7,252.00	7,284.00	7,284.00	151.79	146.12	90.00	4,193.23	-2,845.24	1,975.21	1,744.99	230.22	8.580	
14,000.00	7,252.00	7,284.00	7,284.00	154.38	146.12	90.00	4,193.23	-2,845.24	2,073.50	1,843.68	229.82	9.022	
14,100.00	7,252.00	7,284.00	7,284.00	156.97	146.12	90.00	4,193.23	-2,845.24	2,171.94	1,942.49	229.45	9.466	
14,200.00	7,252.00	7,284.00	7,284.00	159.57	146.12	90.00	4,193.23	-2,845.24	2,270.51	2,041.40	229.12	9.910	
14,300.00	7,252.00	7,284.00	7,284.00	162.17	146.12	90.00	4,193.23	-2,845.24	2,369.21	2,140.40	228.81	10.354	
14,400.00	7,252.00	7,284.00	7,284.00	164.78	146.12	90.00	4,193.23	-2,845.24	2,468.01	2,239.48	228.53	10.799	
14,500.00	7,252.00	7,284.00	7,284.00	167.39	146.12	90.00	4,193.23	-2,845.24	2,566.90	2,338.63	228.27	11.245	
14,600.00	7,252.00	7,284.00	7,284.00	170.00	146.12	90.00	4,193.23	-2,845.24	2,665.88	2,437.84	228.04	11.690	
14,700.00	7,252.00	7,284.00	7,284.00	172.62	146.12	90.00	4,193.23	-2,845.24	2,764.92	2,537.10	227.82	12.136	
14,800.00	7,252.00	7,284.00	7,284.00	175.24	146.12	90.00	4,193.23	-2,845.24	2,864.04	2,636.42	227.62	12.583	
14,900.00	7,252.00	7,284.00	7,284.00	177.86	146.12	90.00	4,193.23	-2,845.24	2,963.22	2,735.78	227.43	13.029	
15,000.00	7,252.00	7,284.00	7,284.00	180.49	146.12	90.00	4,193.23	-2,845.24	3,062.44	2,835.18	227.26	13.475	
15,100.00	7,252.00	7,284.00	7,284.00	183.12	146.12	90.00	4,193.23	-2,845.24	3,161.72	2,934.62	227.10	13.922	
15,200.00	7,252.00	7,284.00	7,284.00	185.75	146.12	90.00	4,193.23	-2,845.24	3,261.04	3,034.09	226.95	14.369	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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		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)	
9,900.00	7,252.00	7,251.00	7,251.00	70.70	145.46	-90.00	2,838.19	-3,906.16	3,280.59	3,064.51	15.182
10,000.00	7,252.00	7,251.00	7,251.00	71.11	145.46	-90.00	2,838.19	-3,906.16	3,185.22	2,968.66	14.708
10,100.00	7,252.00	7,251.00	7,251.00	71.62	145.46	-90.00	2,838.19	-3,906.16	3,090.14	2,873.07	14.235
10,200.00	7,252.00	7,251.00	7,251.00	72.25	145.46	-90.00	2,838.19	-3,906.16	2,995.39	2,777.75	13.764
10,300.00	7,252.00	7,251.00	7,251.00	73.01	145.46	-90.00	2,838.19	-3,906.16	2,900.98	2,682.74	13.293
10,400.00	7,252.00	7,251.00	7,251.00	73.92	145.46	-90.00	2,838.19	-3,906.16	2,806.96	2,588.07	12.823
10,500.00	7,252.00	7,251.00	7,251.00	74.98	145.46	-90.00	2,838.19	-3,906.16	2,713.37	2,493.76	12.355
10,600.00	7,252.00	7,251.00	7,251.00	76.20	145.46	-90.00	2,838.19	-3,906.16	2,620.26	2,399.87	11.889
10,700.00	7,252.00	7,251.00	7,251.00	77.58	145.46	-90.00	2,838.19	-3,906.16	2,527.67	2,306.43	11.425
10,800.00	7,252.00	7,251.00	7,251.00	79.11	145.46	-90.00	2,838.19	-3,906.16	2,435.66	2,213.49	10.963
10,900.00	7,252.00	7,251.00	7,251.00	80.77	145.46	-90.00	2,838.19	-3,906.16	2,344.31	2,121.12	10.504
11,000.00	7,252.00	7,251.00	7,251.00	82.55	145.46	-90.00	2,838.19	-3,906.16	2,253.70	2,029.39	10.047
11,100.00	7,252.00	7,251.00	7,251.00	84.43	145.46	-90.00	2,838.19	-3,906.16	2,163.91	1,938.38	9.595
11,200.00	7,252.00	7,251.00	7,251.00	86.40	145.46	-90.00	2,838.19	-3,906.16	2,075.06	1,848.18	9.146
11,300.00	7,252.00	7,251.00	7,251.00	88.45	145.46	-90.00	2,838.19	-3,906.16	1,987.27	1,758.90	8.702
11,400.00	7,252.00	7,251.00	7,251.00	90.56	145.46	-90.00	2,838.19	-3,906.16	1,900.68	1,670.68	8.264
11,500.00	7,252.00	7,251.00	7,251.00	92.73	145.46	-90.00	2,838.19	-3,906.16	1,815.47	1,583.67	7.832
11,600.00	7,252.00	7,251.00	7,251.00	94.95	145.46	-90.00	2,838.19	-3,906.16	1,731.84	1,498.06	7.408
11,700.00	7,252.00	7,251.00	7,251.00	97.21	145.46	-90.00	2,838.19	-3,906.16	1,650.04	1,414.08	6.993
11,800.00	7,252.00	7,251.00	7,251.00	99.51	145.46	-90.00	2,838.19	-3,906.16	1,570.35	1,331.99	6.588
11,900.00	7,252.00	7,251.00	7,251.00	101.83	145.46	-90.00	2,838.19	-3,906.16	1,493.10	1,252.13	6.196
12,000.00	7,252.00	7,251.00	7,251.00	104.19	145.46	-90.00	2,838.19	-3,906.16	1,418.70	1,174.89	5.819
12,100.00	7,252.00	7,251.00	7,251.00	106.57	145.46	-90.00	2,838.19	-3,906.16	1,347.61	1,100.75	5.459
12,200.00	7,252.00	7,251.00	7,251.00	108.97	145.46	-90.00	2,838.19	-3,906.16	1,280.39	1,030.28	5.119
12,300.00	7,252.00	7,251.00	7,251.00	111.39	145.46	-90.00	2,838.19	-3,906.16	1,217.69	964.16	4.803
12,400.00	7,252.00	7,251.00	7,251.00	113.84	145.46	-90.00	2,838.19	-3,906.16	1,160.22	903.21	4.514
12,500.00	7,252.00	7,251.00	7,251.00	116.29	145.46	-90.00	2,838.19	-3,906.16	1,108.81	848.34	4.257
12,600.00	7,252.00	7,251.00	7,251.00	118.76	145.46	-90.00	2,838.19	-3,906.16	1,064.34	800.58	4.035
12,700.00	7,252.00	7,251.00	7,251.00	121.25	145.46	-90.00	2,838.19	-3,906.16	1,027.71	761.02	3.854
12,800.00	7,252.00	7,251.00	7,251.00	123.74	145.46	-90.00	2,838.19	-3,906.16	999.77	730.74	3.716
12,900.00	7,252.00	7,251.00	7,251.00	126.25	145.46	-90.00	2,838.19	-3,906.16	981.27	710.66	3.626
13,000.00	7,252.00	7,251.00	7,251.00	128.77	145.46	-90.00	2,838.19	-3,906.16	972.75	701.48	3.586
13,033.23	7,252.00	7,251.00	7,251.00	129.61	145.46	-90.00	2,838.19	-3,906.16	972.18	700.91	3.584 CC, ES, SF
13,100.00	7,252.00	7,251.00	7,251.00	131.30	145.46	-90.00	2,838.19	-3,906.16	974.47	703.53	3.597
13,200.00	7,252.00	7,251.00	7,251.00	133.83	145.46	-90.00	2,838.19	-3,906.16	986.38	716.75	3.658
13,300.00	7,252.00	7,251.00	7,251.00	136.38	145.46	-90.00	2,838.19	-3,906.16	1,008.12	740.65	3.769
13,400.00	7,252.00	7,251.00	7,251.00	138.93	145.46	-90.00	2,838.19	-3,906.16	1,039.06	774.43	3.926
13,500.00	7,252.00	7,251.00	7,251.00	141.49	145.46	-90.00	2,838.19	-3,906.16	1,078.43	817.09	4.127
13,600.00	7,252.00	7,251.00	7,251.00	144.05	145.46	-90.00	2,838.19	-3,906.16	1,125.33	867.55	4.365
13,700.00	7,252.00	7,251.00	7,251.00	146.63	145.46	-90.00	2,838.19	-3,906.16	1,178.86	924.72	4.639
13,800.00	7,252.00	7,251.00	7,251.00	149.20	145.46	-90.00	2,838.19	-3,906.16	1,238.17	987.62	4.942
13,900.00	7,252.00	7,251.00	7,251.00	151.79	145.46	-90.00	2,838.19	-3,906.16	1,302.47	1,055.37	5.271
14,000.00	7,252.00	7,251.00	7,251.00	154.38	145.46	-90.00	2,838.19	-3,906.16	1,371.05	1,127.20	5.623
14,100.00	7,252.00	7,251.00	7,251.00	156.97	145.46	-90.00	2,838.19	-3,906.16	1,443.31	1,202.47	5.993
14,200.00	7,252.00	7,251.00	7,251.00	159.57	145.46	-90.00	2,838.19	-3,906.16	1,518.71	1,280.65	6.380
14,300.00	7,252.00	7,251.00	7,251.00	162.17	145.46	-90.00	2,838.19	-3,906.16	1,596.82	1,361.29	6.780
14,400.00	7,252.00	7,251.00	7,251.00	164.78	145.46	-90.00	2,838.19	-3,906.16	1,677.26	1,444.02	7.191
14,500.00	7,252.00	7,251.00	7,251.00	167.39	145.46	-90.00	2,838.19	-3,906.16	1,759.70	1,528.54	7.613
14,600.00	7,252.00	7,251.00	7,251.00	170.00	145.46	-90.00	2,838.19	-3,906.16	1,843.88	1,614.60	8.042
14,700.00	7,252.00	7,251.00	7,251.00	172.62	145.46	-90.00	2,838.19	-3,906.16	1,929.57	1,701.99	8.478
14,800.00	7,252.00	7,251.00	7,251.00	175.24	145.46	-90.00	2,838.19	-3,906.16	2,016.58	1,790.52	8.921
14,900.00	7,252.00	7,251.00	7,251.00	177.86	145.46	-90.00	2,838.19	-3,906.16	2,104.75	1,880.06	9.368

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

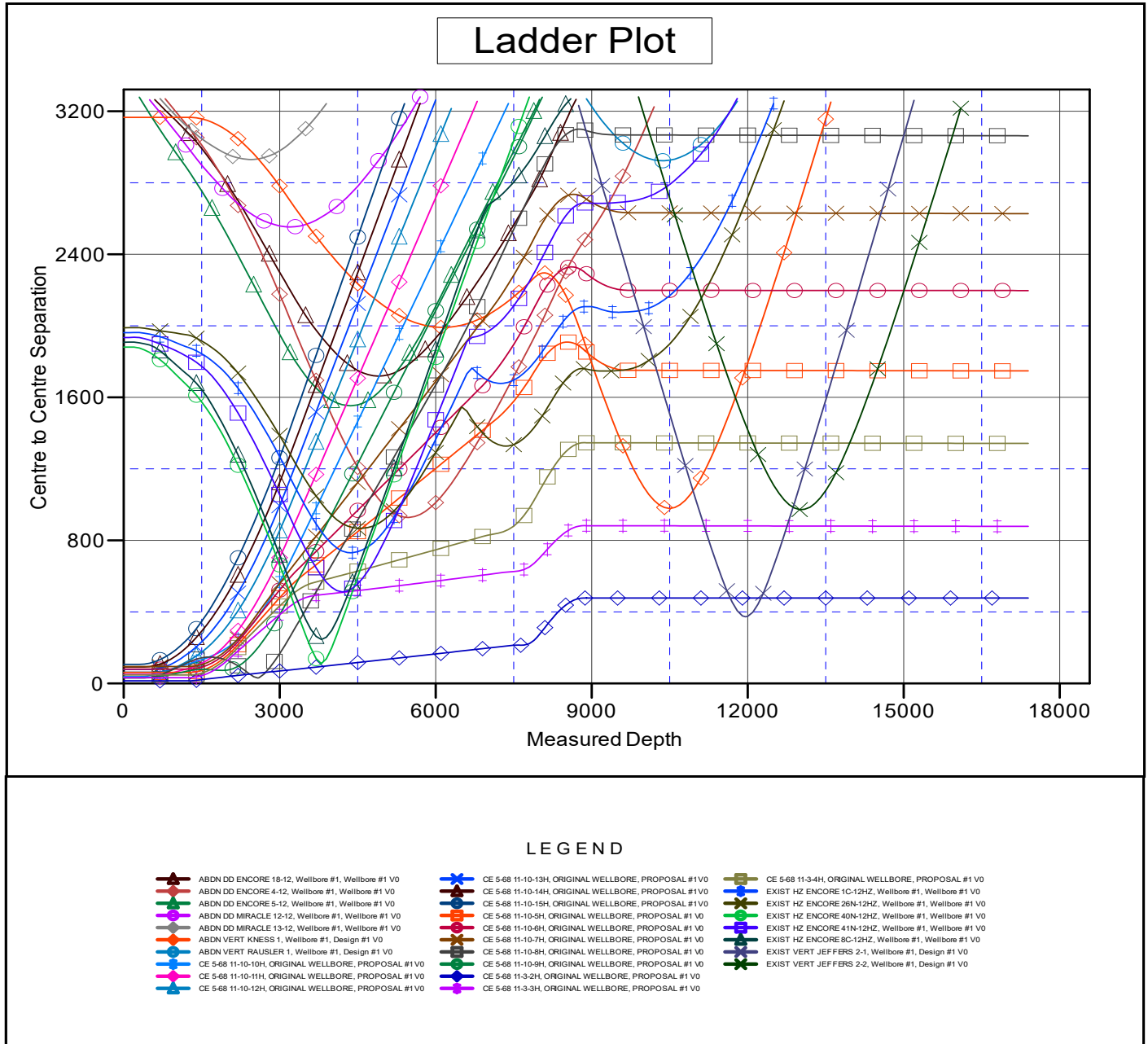
Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
Project:	LARIMER COUNTY, COLORADO (NAD 83)	TVD Reference:	KBE @ 5000.00usft
Reference Site:	SEC. 11 T5N R68W 6th P.M.	MD Reference:	KBE @ 5000.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	CE 5-68 11-3-1H	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)			
15,000.00	7,252.00	7,251.00	7,251.00	180.49	145.46	-90.00	2,838.19	-3,906.16	2,193.93	1,970.49	223.44	9.819	
15,100.00	7,252.00	7,251.00	7,251.00	183.12	145.46	-90.00	2,838.19	-3,906.16	2,284.00	2,061.68	222.32	10.274	
15,200.00	7,252.00	7,251.00	7,251.00	185.75	145.46	-90.00	2,838.19	-3,906.16	2,374.87	2,153.57	221.30	10.731	
15,300.00	7,252.00	7,251.00	7,251.00	188.38	145.46	-90.00	2,838.19	-3,906.16	2,466.45	2,246.06	220.39	11.192	
15,400.00	7,252.00	7,251.00	7,251.00	191.02	145.46	-90.00	2,838.19	-3,906.16	2,558.66	2,339.10	219.55	11.654	
15,500.00	7,252.00	7,251.00	7,251.00	193.66	145.46	-90.00	2,838.19	-3,906.16	2,651.43	2,432.63	218.80	12.118	
15,600.00	7,252.00	7,251.00	7,251.00	196.30	145.46	-90.00	2,838.19	-3,906.16	2,744.71	2,526.60	218.11	12.584	
15,700.00	7,252.00	7,251.00	7,251.00	198.95	145.46	-90.00	2,838.19	-3,906.16	2,838.45	2,620.96	217.49	13.051	
15,800.00	7,252.00	7,251.00	7,251.00	201.59	145.46	-90.00	2,838.19	-3,906.16	2,932.60	2,715.68	216.92	13.519	
15,900.00	7,252.00	7,251.00	7,251.00	204.24	145.46	-90.00	2,838.19	-3,906.16	3,027.13	2,810.73	216.40	13.989	
16,000.00	7,252.00	7,251.00	7,251.00	206.89	145.46	-90.00	2,838.19	-3,906.16	3,121.99	2,906.07	215.93	14.459	
16,100.00	7,252.00	7,251.00	7,251.00	209.55	145.46	-90.00	2,838.19	-3,906.16	3,217.17	3,001.68	215.49	14.929	

Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
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 11-3-1H	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 11-3-1H - Slot CE 5-68 11-3-1H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.35°

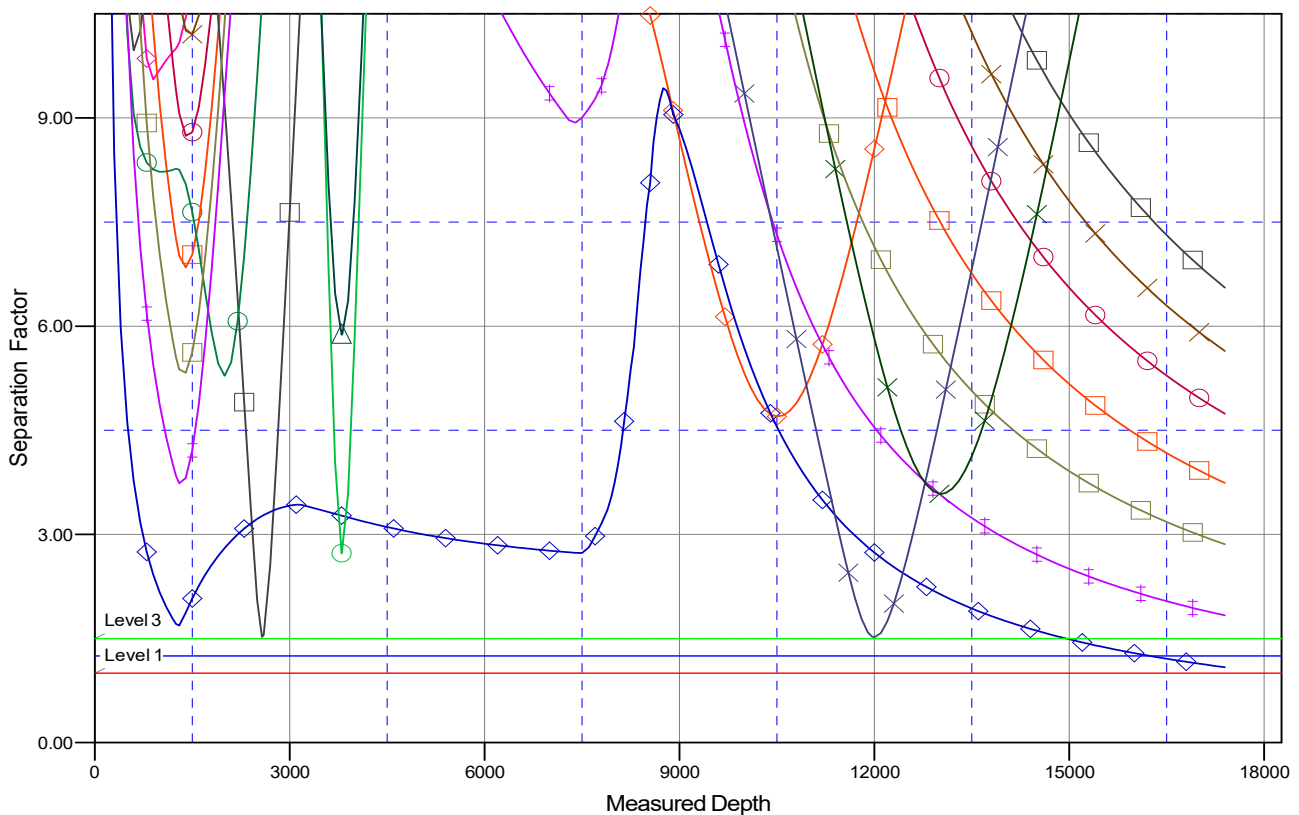


Company:	BISON IV OPERATING	Local Co-ordinate Reference:	Well CE 5-68 11-3-1H - Slot CE 5-68 11-3-1H
Project:	LARIMER COUNTY, COLORADO (NAD 83)	TVD Reference:	KBE @ 5000.00usft
Reference Site:	SEC. 11 T5N R68W 6th P.M.	MD Reference:	KBE @ 5000.00usft
Site Error:	0.00 usft	North Reference:	True
Reference Well:	CE 5-68 11-3-1H	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 11-3-1H - Slot CE 5-68 11-3-1H
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.35°

Separation Factor Plot



LEGEND

ABDN DD ENCORE 18-12, Wellbore #1, Wellbore #1 V0	CE 5-68 11-10-13H, ORIGINAL WELLBORE, PROPOSAL #1 V0	CE 5-68 11-3-4H, ORIGINAL WELLBORE, PROPOSAL #1 V0
ABDN DD ENCORE 4-12, Wellbore #1, Wellbore #1 V0	CE 5-68 11-10-14H, ORIGINAL WELLBORE, PROPOSAL #1 V0	EXIST HZ ENCORE 10-12HZ, Wellbore #1, Wellbore #1 V0
ABDN DD ENCORE 5-12, Wellbore #1, Wellbore #1 V0	CE 5-68 11-10-15H, ORIGINAL WELLBORE, PROPOSAL #1 V0	EXIST HZ ENCORE 26N-12HZ, Wellbore #1, Wellbore #1 V0
ABDN DD ENCORE 12-12, Wellbore #1, Wellbore #1 V0	CE 5-68 11-10-5H, ORIGINAL WELLBORE, PROPOSAL #1 V0	EXIST HZ ENCORE 40N-12HZ, Wellbore #1, Wellbore #1 V0
ABDN DD MIRACLE 13-12, Wellbore #1, Wellbore #1 V0	CE 5-68 11-10-6H, ORIGINAL WELLBORE, PROPOSAL #1 V0	EXIST HZ ENCORE 41N-12HZ, Wellbore #1, Wellbore #1 V0
ABDN VERT KNESS 1, Wellbore #1, Design #1 V0	CE 5-68 11-10-7H, ORIGINAL WELLBORE, PROPOSAL #1 V0	EXIST HZ ENCORE 80-12HZ, Wellbore #1, Wellbore #1 V0
ABDN VERT RAUSLER 1, Wellbore #1, Design #1 V0	CE 5-68 11-10-8H, ORIGINAL WELLBORE, PROPOSAL #1 V0	EXIST VERT JEFFERS 2-1, Wellbore #1, Design #1 V0
CE 5-68 11-10-10H, ORIGINAL WELLBORE, PROPOSAL #1 V0	CE 5-68 11-10-9H, ORIGINAL WELLBORE, PROPOSAL #1 V0	EXIST VERT JEFFERS 2-2, Wellbore #1, Design #1 V0
CE 5-68 11-10-11H, ORIGINAL WELLBORE, PROPOSAL #1 V0	CE 5-68 11-3-2H, ORIGINAL WELLBORE, PROPOSAL #1 V0	
CE 5-68 11-10-12H, ORIGINAL WELLBORE, PROPOSAL #1 V0	CE 5-68 11-3-3H, ORIGINAL WELLBORE, PROPOSAL #1 V0	