

Anticollision Report

Company:	Chesapeake	Local Co-ordinate Reference:	Well Brent 20-8-66 1H
Project:	Weld County, Colorado NAD83	TVD Reference:	RKB @ 5130.00usft (Original Well Elev)
Reference Site:	Brent	MD Reference:	RKB @ 5130.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Brent 20-8-66 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Reference	rev0		
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 center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	10/25/2011		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	6,508.00	rev0 (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s
6,508.00	11,144.04	rev0 (OH)	MWD	MWD - Standard

Summary						
	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Site Name						
Offset Well - Wellbore - Design						
Brent						
Brent 20-S - OH - OH	7,440.83	7,626.20	206.62	126.48	2.578	CC, ES
Brent 20-S - OH - OH	7,500.00	7,593.52	212.37	127.35	2.498	SF

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 505-CB-MAG-MS													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	5.23	5.23	0.00	0.03	-28.97	1,691.55	-936.57	1,933.52					
100.00	100.00	109.91	109.91	0.10	0.71	-28.97	1,691.46	-936.44	1,933.39	1,932.58	0.81	2,379.443		
200.00	200.00	214.58	214.58	0.37	1.39	-28.96	1,691.22	-936.07	1,933.01	1,931.26	1.75	1,102.388		
300.00	300.00	319.25	319.24	0.63	2.06	-28.95	1,690.81	-935.47	1,932.40	1,929.70	2.69	717.191		
400.00	400.00	423.91	423.90	0.90	2.74	-28.94	1,690.25	-934.64	1,931.54	1,927.90	3.64	531.330		
500.00	500.00	533.16	533.15	1.17	3.49	-28.92	1,689.44	-933.54	1,930.41	1,925.76	4.65	414.957		
600.00	600.00	646.68	646.64	1.43	4.42	-28.93	1,687.42	-932.62	1,928.45	1,922.61	5.84	330.072		
700.00	700.00	746.12	746.06	1.70	5.32	-28.92	1,685.62	-931.44	1,926.29	1,919.28	7.01	274.913		
800.00	800.00	840.18	840.09	1.96	6.24	-28.91	1,684.21	-930.05	1,924.26	1,916.07	8.19	234.986		
900.00	900.00	936.39	936.29	2.23	7.16	-28.89	1,683.18	-928.60	1,922.60	1,913.23	9.37	205.111		
1,000.00	1,000.00	1,033.54	1,033.42	2.49	8.06	-28.85	1,682.45	-926.74	1,921.01	1,910.47	10.54	182.292		
1,100.00	1,100.00	1,129.69	1,129.56	2.76	8.98	-28.82	1,681.78	-925.24	1,919.65	1,907.93	11.72	163.761		
1,200.00	1,200.00	1,219.67	1,219.53	3.02	9.89	-28.81	1,681.11	-924.40	1,918.56	1,905.67	12.89	148.866		
1,300.00	1,300.00	1,308.86	1,308.72	3.29	10.41	-28.80	1,680.86	-924.07	1,918.13	1,904.45	13.68	140.222		
1,400.00	1,400.00	1,413.61	1,413.46	3.55	10.40	-28.81	1,680.58	-924.22	1,917.97	1,904.04	13.93	137.666		
1,500.00	1,500.00	1,524.06	1,523.90	3.82	10.46	-28.86	1,679.00	-925.34	1,917.20	1,902.95	14.26	134.475		
1,600.00	1,600.00	1,636.51	1,636.32	4.08	10.85	-28.93	1,676.68	-926.56	1,915.92	1,901.01	14.91	128.507		
1,700.00	1,700.00	1,730.53	1,730.31	4.35	11.27	-28.99	1,674.48	-927.64	1,914.43	1,898.84	15.59	122.825		
1,800.00	1,800.00	1,832.60	1,832.34	4.62	11.73	-29.06	1,672.02	-929.18	1,913.06	1,896.74	16.31	117.280		
1,900.00	1,900.00	1,932.33	1,932.03	4.88	12.25	-29.13	1,669.62	-930.62	1,911.65	1,894.56	17.09	111.829		
2,000.00	2,000.00	2,037.45	2,037.10	5.15	12.90	-29.21	1,666.93	-932.03	1,910.07	1,892.06	18.01	106.041		
2,100.00	2,100.00	2,135.67	2,135.28	5.41	13.57	-29.29	1,664.30	-933.45	1,908.44	1,889.49	18.94	100.739		
2,200.00	2,200.00	2,235.78	2,235.35	5.68	14.32	-29.35	1,661.84	-934.64	1,906.88	1,886.92	19.95	95.562		
2,300.00	2,300.00	2,333.25	2,332.78	5.94	15.11	-29.41	1,659.50	-935.53	1,905.24	1,884.23	21.01	90.689		

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

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Site Error:	0.00 usft	North Reference:	True
Reference Well:	Brent 20-8-66 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 505-CB-MAG-MS													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
2,400.00	2,400.00	2,424.25	2,423.77	6.21	15.85	-29.46	1,657.91	-936.29	1,904.12	1,882.10	22.01	86.503		
2,500.00	2,500.00	2,527.38	2,526.88	6.47	16.75	-29.50	1,656.26	-936.90	1,903.01	1,879.84	23.17	82.119		
2,600.00	2,600.00	2,621.03	2,620.52	6.74	17.57	-29.52	1,654.99	-937.09	1,901.94	1,877.68	24.26	78.393		
2,700.00	2,700.00	2,706.32	2,705.81	7.00	18.12	-29.56	1,654.04	-938.02	1,901.51	1,876.44	25.07	75.836		
2,705.36	2,705.36	2,710.88	2,710.36	7.02	18.13	-29.56	1,654.00	-938.08	1,901.51	1,876.40	25.10	75.743		
2,800.00	2,800.00	2,792.91	2,792.38	7.27	18.39	-29.60	1,653.59	-939.43	1,901.85	1,876.24	25.61	74.259		
2,900.00	2,900.00	2,885.97	2,885.43	7.54	18.51	-29.65	1,653.43	-941.32	1,902.71	1,876.71	26.00	73.180		
3,000.00	3,000.00	2,979.72	2,979.14	7.80	18.61	-29.72	1,653.37	-943.64	1,903.88	1,877.51	26.37	72.192		
3,100.00	3,100.00	3,071.26	3,070.64	8.07	18.71	-29.78	1,653.57	-946.29	1,905.50	1,878.76	26.74	71.265		
3,200.00	3,200.00	3,175.08	3,174.41	8.33	18.94	-29.87	1,653.63	-949.74	1,907.20	1,879.97	27.24	70.020		
3,300.00	3,300.00	3,278.36	3,277.61	8.60	19.22	-29.98	1,653.20	-953.62	1,908.71	1,880.93	27.79	68.687		
3,400.00	3,400.00	3,384.62	3,383.81	8.86	19.68	-30.08	1,652.66	-957.37	1,910.05	1,881.54	28.52	66.976		
3,500.00	3,500.00	3,497.73	3,496.85	9.13	20.35	-30.20	1,651.53	-961.05	1,910.82	1,881.37	29.46	64.869		
3,600.00	3,600.00	3,606.62	3,605.68	9.39	21.16	-30.30	1,649.94	-964.14	1,910.99	1,880.45	30.53	62.585		
3,700.00	3,700.00	3,708.88	3,707.88	9.66	22.00	-30.41	1,648.04	-967.15	1,910.87	1,879.22	31.64	60.385		
3,749.45	3,749.45	3,755.48	3,754.46	9.79	22.37	-30.45	1,647.25	-968.40	1,910.82	1,878.68	32.14	59.446		
3,800.00	3,800.00	3,802.13	3,801.09	9.92	22.73	-30.48	1,646.79	-969.28	1,910.87	1,878.23	32.64	58.545		
3,900.00	3,900.00	3,911.80	3,910.74	10.19	23.61	-30.54	1,645.74	-971.07	1,910.89	1,877.11	33.78	56.566		
4,000.00	4,000.00	4,017.32	4,016.24	10.46	24.60	-30.61	1,644.21	-972.69	1,910.41	1,875.37	35.04	54.520		
4,100.00	4,100.00	4,116.14	4,115.04	10.72	25.55	-30.67	1,642.78	-974.08	1,909.89	1,873.63	36.26	52.675		
4,200.00	4,200.00	4,221.28	4,220.16	10.99	26.58	-30.73	1,641.06	-975.56	1,909.19	1,871.64	37.55	50.839		
4,300.00	4,300.00	4,321.38	4,320.24	11.25	27.59	-30.78	1,639.52	-976.58	1,908.40	1,869.57	38.82	49.155		
4,400.00	4,400.00	4,425.13	4,423.97	11.52	28.63	-30.83	1,637.97	-977.49	1,907.56	1,867.43	40.13	47.539		
4,500.00	4,500.00	4,527.82	4,526.65	11.78	29.63	-30.87	1,636.31	-977.96	1,906.41	1,865.01	41.40	46.049		
4,600.00	4,600.00	4,630.74	4,629.56	12.05	30.63	-30.90	1,634.79	-978.23	1,905.27	1,862.61	42.66	44.660		
4,700.00	4,700.00	4,722.77	4,721.58	12.31	31.54	-30.94	1,633.11	-978.83	1,904.05	1,860.22	43.83	43.437		
4,800.00	4,800.00	4,831.40	4,830.19	12.58	32.60	-30.98	1,631.65	-979.50	1,903.25	1,858.09	45.16	42.144		
4,900.00	4,900.00	5,247.03	5,243.29	12.84	35.26	-30.84	1,599.95	-955.37	1,893.94	1,845.96	47.98	39.475		
5,000.00	5,000.00	5,487.54	5,477.69	13.11	36.65	-30.44	1,561.78	-917.66	1,872.08	1,822.73	49.35	37.936		
5,100.00	5,100.00	5,943.51	5,905.60	13.38	41.00	-29.77	1,438.95	-823.15	1,840.96	1,788.60	52.36	35.162		
5,200.00	5,200.00	6,212.29	6,140.85	13.64	44.81	-29.13	1,335.81	-744.49	1,792.89	1,738.62	54.27	33.036		
5,300.00	5,300.00	6,303.57	6,218.20	13.91	46.32	-28.84	1,297.74	-714.51	1,740.28	1,685.19	55.09	31.590		
5,400.00	5,400.00	6,476.86	6,362.20	14.17	49.51	-28.17	1,222.24	-654.66	1,684.84	1,628.42	56.41	29.865		
5,500.00	5,500.00	6,581.55	6,447.57	14.44	51.64	-27.72	1,174.60	-617.23	1,627.61	1,570.27	57.34	28.387		
5,600.00	5,600.00	6,917.07	6,698.85	14.70	59.98	-25.50	1,002.35	-478.02	1,558.76	1,499.03	59.73	26.098		
5,700.00	5,700.00	7,028.13	6,775.20	14.97	63.24	-24.33	941.13	-425.51	1,487.32	1,426.54	60.78	24.472		
5,800.00	5,800.00	7,083.88	6,813.15	15.23	64.92	-23.66	910.21	-398.83	1,415.60	1,354.12	61.48	23.027		
5,900.00	5,900.00	7,132.00	6,846.51	15.50	66.38	-23.04	884.09	-376.03	1,345.16	1,283.01	62.15	21.644		
6,000.00	6,000.00	7,185.79	6,884.36	15.76	68.01	-22.31	855.25	-350.97	1,275.89	1,212.97	62.92	20.277		
6,100.00	6,100.00	7,261.35	6,937.90	16.03	70.32	-21.25	814.38	-316.73	1,207.16	1,143.21	63.95	18.876		
6,200.00	6,200.00	7,334.21	6,989.19	16.30	72.58	-20.16	774.16	-284.17	1,137.99	1,072.95	65.04	17.497		
6,300.00	6,300.00	7,413.68	7,045.19	16.56	75.08	-18.83	730.11	-248.96	1,069.07	1,002.75	66.33	16.118		
6,400.00	6,400.00	7,479.00	7,091.05	16.83	77.16	-17.60	693.65	-220.07	1,000.13	932.57	67.56	14.803		
6,500.00	6,500.00	7,545.80	7,138.26	16.96	79.30	-16.22	656.42	-190.96	931.86	863.04	68.82	13.540		
6,508.04	6,508.04	7,552.31	7,142.87	16.97	79.51	-16.08	652.77	-188.18	926.40	857.45	68.95	13.435		
6,550.00	6,549.96	7,585.17	7,166.14	16.97	80.56	-18.43	634.26	-174.19	896.79	828.10	68.69	13.055		
6,600.00	6,599.61	7,627.86	7,196.22	16.98	81.95	-19.44	609.86	-156.22	858.77	791.78	66.99	12.819		
6,650.00	6,648.55	7,666.00	7,222.74	16.98	83.20	-21.18	587.48	-140.41	817.77	753.27	64.50	12.679		
6,700.00	6,696.43	7,688.29	7,238.21	17.00	83.93	-24.15	574.29	-131.25	774.51	713.25	61.26	12.643		
6,750.00	6,742.87	7,705.60	7,250.29	17.01	84.49	-28.62	564.13	-124.17	729.55	671.45	58.10	12.556		
6,800.00	6,787.53	7,720.50	7,260.76	17.04	84.98	-35.45	555.45	-118.08	683.15	626.38	56.78	12.032		
6,850.00	6,830.06	7,734.50	7,270.63	17.09	85.44	-46.39	547.32	-112.38	635.63	574.46	61.18	10.390		

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Anticollision Report

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Reference Site:	Brent	MD Reference:	RKB @ 5130.00usft (Original Well Elev)
Site Error:	0.00 usft	North Reference:	True
Reference Well:	Brent 20-8-66 1H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	rev0	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Brent - Brent 20-S - OH - OH													Offset Well Error:	0.00 usft
Survey Program: 505-CB-MAG-MS														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
6,900.00	6,870.14	7,746.92	7,279.39	17.17	85.85	-63.98	540.09	-107.36	587.29	512.13	75.17	7.813		
6,950.00	6,907.46	7,754.88	7,285.00	17.27	86.11	-87.41	535.44	-104.15	538.58	447.32	91.26	5.902		
7,000.00	6,941.74	7,758.43	7,287.50	17.41	86.22	-109.17	533.35	-102.73	490.01	394.45	95.57	5.127		
7,050.00	6,972.72	7,757.70	7,286.98	17.59	86.20	-123.73	533.78	-103.02	442.15	351.69	90.46	4.888		
7,100.00	7,000.17	7,752.83	7,283.55	17.81	86.04	-132.00	536.63	-104.98	395.66	312.07	83.58	4.734		
7,150.00	7,023.87	7,744.00	7,277.33	18.08	85.75	-136.17	541.79	-108.53	351.35	273.46	77.90	4.511		
7,200.00	7,043.64	7,731.43	7,268.47	18.40	85.34	-137.65	549.10	-113.63	310.26	236.21	74.05	4.190		
7,250.00	7,059.34	7,716.56	7,257.98	18.77	84.85	-137.48	557.74	-119.69	273.71	201.86	71.85	3.810		
7,300.00	7,070.84	7,698.31	7,245.20	19.18	84.26	-135.67	568.40	-127.15	243.49	171.95	71.53	3.404		
7,350.00	7,078.06	7,676.33	7,229.90	19.63	83.53	-132.27	581.36	-136.16	221.50	148.46	73.04	3.033		
7,400.00	7,080.94	7,649.66	7,211.42	20.13	82.66	-127.11	597.15	-147.16	209.36	133.15	76.21	2.747		
7,408.04	7,081.00	7,645.01	7,208.19	20.21	82.51	-126.14	599.87	-149.09	208.37	131.55	76.82	2.712		
7,440.83	7,081.00	7,626.20	7,195.05	20.57	81.89	-121.86	610.82	-156.92	206.62	126.48	80.14	2.578 CC, ES		
7,500.00	7,081.00	7,593.52	7,172.04	21.21	80.83	-114.39	629.52	-170.66	212.37	127.35	85.02	2.498 SF		
7,600.00	7,081.00	7,542.00	7,135.56	22.41	79.17	-103.12	658.55	-192.59	245.62	155.52	90.10	2.726		
7,700.00	7,081.00	7,489.16	7,098.20	23.69	77.48	-92.95	688.01	-215.58	299.77	207.70	92.07	3.256		
7,800.00	7,081.00	7,434.31	7,059.66	25.06	75.73	-84.25	718.56	-239.85	365.65	273.93	91.71	3.987		
7,900.00	7,081.00	7,381.48	7,022.56	26.50	74.06	-77.49	748.06	-263.19	437.66	347.41	90.25	4.849		
8,000.00	7,081.00	7,329.53	6,985.89	28.00	72.43	-72.09	776.73	-286.25	513.67	425.27	88.40	5.811		
8,100.00	7,081.00	7,276.83	6,948.81	29.54	70.80	-67.69	805.87	-309.79	591.94	505.48	86.45	6.847		
8,200.00	7,081.00	7,227.00	6,913.56	31.13	69.26	-64.25	833.05	-332.19	672.10	587.30	84.80	7.925		
8,300.00	7,081.00	7,183.14	6,882.49	32.75	67.93	-61.71	856.67	-352.18	753.72	670.02	83.70	9.005		
8,400.00	7,081.00	7,132.00	6,846.51	34.40	66.38	-59.27	884.09	-376.03	836.36	753.97	82.39	10.152		
8,500.00	7,081.00	7,065.81	6,800.81	36.08	64.38	-56.77	920.22	-407.46	919.13	838.48	80.65	11.396		
8,600.00	7,081.00	7,013.37	6,765.17	37.78	62.79	-55.19	949.32	-432.62	1,001.73	921.90	79.83	12.548		
8,700.00	7,081.00	6,961.57	6,729.79	39.50	61.28	-53.82	977.96	-457.33	1,084.68	1,005.48	79.19	13.697		
8,800.00	7,081.00	6,910.14	6,693.99	41.23	59.79	-52.54	1,006.13	-481.20	1,167.93	1,089.31	78.62	14.855		
8,900.00	7,081.00	6,857.12	6,656.81	42.99	58.32	-51.35	1,035.21	-505.36	1,251.24	1,173.14	78.10	16.020		
9,000.00	7,081.00	6,818.51	6,629.28	44.75	57.28	-50.53	1,056.01	-522.68	1,335.17	1,257.02	78.15	17.084		
9,100.00	7,081.00	6,789.00	6,607.92	46.53	56.48	-49.92	1,071.62	-535.74	1,419.83	1,341.29	78.53	18.079		
9,200.00	7,081.00	6,741.59	6,572.89	48.32	55.30	-48.96	1,096.19	-556.17	1,505.00	1,426.68	78.32	19.216		
9,300.00	7,081.00	6,695.00	6,537.58	50.12	54.15	-48.01	1,119.74	-575.37	1,590.75	1,512.64	78.12	20.364		
9,400.00	7,081.00	6,665.54	6,514.77	51.92	53.49	-47.41	1,134.33	-586.96	1,676.92	1,598.41	78.51	21.359		
9,500.00	7,081.00	6,627.96	6,485.06	53.74	52.64	-46.62	1,152.60	-600.97	1,763.54	1,684.95	78.59	22.439		
9,600.00	7,081.00	6,604.00	6,465.78	55.56	52.11	-46.11	1,164.03	-609.43	1,850.63	1,771.50	79.13	23.388		
9,700.00	7,081.00	6,565.80	6,434.78	57.39	51.32	-45.32	1,181.94	-622.76	1,938.16	1,858.96	79.19	24.474		
9,800.00	7,081.00	6,538.40	6,412.47	59.22	50.75	-44.79	1,194.54	-632.47	2,026.26	1,946.60	79.66	25.438		
9,900.00	7,081.00	6,510.00	6,389.30	61.06	50.17	-44.27	1,207.39	-642.68	2,114.85	2,034.75	80.11	26.401		
10,000.00	7,081.00	6,472.13	6,358.33	62.90	49.42	-43.62	1,224.35	-656.37	2,203.77	2,123.47	80.30	27.446		
10,100.00	7,081.00	6,431.56	6,325.10	64.75	48.63	-42.96	1,242.47	-670.99	2,292.83	2,212.40	80.43	28.506		
10,200.00	7,081.00	6,398.63	6,298.04	66.60	48.01	-42.45	1,257.09	-682.76	2,382.06	2,301.24	80.82	29.472		
10,300.00	7,081.00	6,370.70	6,274.85	68.45	47.51	-42.02	1,269.28	-692.43	2,471.61	2,390.26	81.36	30.381		
10,400.00	7,081.00	6,343.71	6,252.21	70.31	47.02	-41.60	1,280.85	-701.49	2,561.49	2,479.59	81.90	31.276		
10,500.00	7,081.00	6,315.50	6,228.33	72.17	46.52	-41.16	1,292.74	-710.65	2,651.67	2,569.27	82.40	32.181		
10,600.00	7,081.00	6,279.70	6,197.96	74.03	45.92	-40.63	1,307.72	-722.27	2,742.04	2,659.34	82.70	33.157		
10,700.00	7,081.00	6,244.10	6,167.80	75.90	45.32	-40.13	1,322.58	-733.97	2,832.54	2,749.50	83.04	34.112		
10,800.00	7,081.00	6,212.23	6,140.79	77.77	44.81	-39.71	1,335.83	-744.51	2,923.18	2,839.69	83.50	35.009		
10,900.00	7,081.00	6,183.57	6,116.34	79.64	44.35	-39.33	1,347.61	-753.73	3,014.02	2,929.98	84.04	35.864		
11,000.00	7,081.00	6,167.00	6,102.13	81.51	44.09	-39.11	1,354.34	-758.92	3,105.09	3,020.19	84.90	36.574		
11,100.00	7,081.00	6,131.81	6,071.79	83.39	43.57	-38.66	1,368.48	-769.80	3,196.33	3,111.06	85.27	37.487		
11,144.04	7,081.00	6,121.06	6,062.49	84.21	43.41	-38.52	1,372.75	-773.10	3,236.59	3,151.04	85.55	37.832		

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