



SRC ENERGY

**SECTION 15, T6N, R66W
HARVESTERS STATE 7-15 PAD
HARVESTERS STATE 33N-16C-M**

**OH
PLAN #1**

Anticollision Report

04 October, 2017





Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Reference	PLAN #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.45 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	10/4/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	15,274.50	PLAN #1 (OH)	MWD+IFR1	OWSG MWD + IFR1	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
BERG 33-15 (AB_150CC) - OH - OH	4,658.97	4,411.77	416.82	371.86	9.270	CC
BERG 33-15 (AB_150CC) - OH - OH	4,700.00	4,450.90	417.02	371.66	9.193	ES
BERG 33-15 (AB_150CC) - OH - OH	4,900.00	4,637.34	424.24	377.07	8.993	SF
BERRY 22-2(PR_75CC) - OH - OH	7,323.02	6,884.33	2,018.51	1,952.39	30.530	CC, ES
BERRY 22-2(PR_75CC) - OH - OH	7,600.00	7,027.70	2,060.42	1,991.40	29.850	SF
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	7,328.61	6,996.96	2,036.86	1,970.33	30.617	CC, ES
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	7,600.00	7,169.94	2,075.91	2,006.56	29.934	SF
BLACKGOLD 3(AB_150CC) - OH - OH	0.00	24.89	2,865.17			
BLACKGOLD 3(AB_150CC) - OH - OH	100.00	122.80	2,865.19	2,858.61	435.474	ES
BLACKGOLD 3(AB_150CC) - OH - OH	11,500.00	7,145.66	5,791.96	5,660.31	43.997	SF
BURBACH 15-22(SI_150CC) - OH - OH	200.00	181.00	2,476.91	2,467.94	276.290	CC
BURBACH 15-22(SI_150CC) - OH - OH	400.00	380.84	2,479.88	2,464.29	159.015	ES
BURBACH 15-22(SI_150CC) - OH - OH	10,000.00	7,112.98	3,555.79	3,228.77	10.873	SF
BURBACH 15-23(SI_150CC) - OH - OH	9,627.28	7,100.10	2,144.56	1,824.49	6.700	CC
BURBACH 15-23(SI_150CC) - OH - OH	9,700.00	7,100.31	2,145.80	1,824.18	6.672	ES
BURBACH 15-23(SI_150CC) - OH - OH	9,900.00	7,101.45	2,161.83	1,836.23	6.639	SF
BURMAN 16-42(PR_75CC) - OH - OH	11,895.97	7,076.21	989.36	609.79	2.607	CC
BURMAN 16-42(PR_75CC) - OH - OH	11,900.00	7,076.18	989.37	609.72	2.606	ES, SF
BURMAN 16-43(PR_75CC) - OH - OH	11,911.03	7,073.12	511.51	131.63	1.346	Level 3, CC, ES, SF
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	10,242.09	7,307.90	1,048.34	923.82	8.419	CC
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	15,274.57	12,354.51	1,186.35	779.72	2.918	ES, SF
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	10,193.73	7,373.76	1,230.71	1,106.91	9.941	CC
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	15,274.57	12,432.64	1,318.37	908.84	3.219	ES, SF
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	6,079.75	15,925.63	4,413.25	4,141.95	16.267	CC
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	6,200.00	15,928.58	4,414.88	4,141.08	16.124	ES
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	11,000.00	19,118.26	4,709.45	4,261.24	10.507	SF
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	6,032.51	15,874.33	4,224.74	3,952.77	15.534	CC
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	6,100.00	15,876.25	4,225.28	3,951.83	15.452	ES
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	11,000.00	19,018.34	4,509.60	4,063.03	10.098	SF
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,179.49	7,141.41	999.26	767.94	4.320	CC
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,200.00	7,142.03	999.47	767.38	4.306	ES
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,300.00	7,145.04	1,006.49	771.77	4.288	SF
FRITZLER 11-21(PR_150CC) - OH - OH	14,777.35	7,038.83	1,666.30	1,207.57	3.632	CC
FRITZLER 11-21(PR_150CC) - OH - OH	14,800.00	7,038.70	1,666.45	1,207.00	3.627	ES
FRITZLER 11-21(PR_150CC) - OH - OH	14,900.00	7,038.13	1,670.81	1,208.64	3.615	SF
FRITZLER 1-17(PR_150CC) - OH - OH	15,274.57	7,051.00	865.03	528.08	2.567	CC, ES, SF
FRITZLER 17-23-18(PR_150CC) - OH - OH	15,274.57	7,389.40	2,851.79	2,762.77	32.036	CC, ES, SF

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

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
FRITZLER 17-32-12(PR_150CC) - OH - OH	15,274.57	7,463.89	2,179.39	1,963.86	10.111	CC, ES, SF
FRITZLER 17-42-11(PR_150CC) - OH - MWD	15,274.57	7,432.93	1,636.36	1,369.73	6.137	CC, ES, SF
FRITZLER 34-17(PR_150CC) - OH - OH	15,274.57	7,171.29	2,122.22	2,033.24	23.849	CC, ES, SF
FRITZLER 43-17(PR_150CC) - OH - OH	15,274.57	7,207.98	1,288.75	1,070.00	5.891	CC, ES, SF
FRITZLER 6-6-17 (PR_150CC) - OH - OH	15,274.57	7,080.25	1,524.73	1,423.72	15.094	CC, ES, SF
FRITZLER 6-8-17(PR_150CC) - OH - OH	15,274.57	7,154.61	1,735.73	1,579.93	11.141	CC, ES, SF
FRITZLER 8-8-17(PR_150CC) - OH - OH	15,274.57	7,127.85	1,013.82	757.09	3.949	CC, ES, SF
GREELEY SWD #1(XX) - OH - OH	10,479.74	7,066.26	728.18	387.31	2.136	CC
GREELEY SWD #1(XX) - OH - OH	10,500.00	7,066.14	728.46	386.88	2.133	ES, SF
HARVESTER 31-15(SI_150CC) - OH - OH	0.00	0.00	1,331.80			
HARVESTER 31-15(SI_150CC) - OH - OH	9,400.00	7,294.45	4,452.06	4,364.72	50.970	SF
HARVESTER 32-15(SI_150CC) - OH - OH	100.00	77.97	554.53	547.96	84.409	CC, ES
HARVESTER 32-15(SI_150CC) - OH - OH	6,900.00	6,542.16	2,336.83	2,275.32	37.992	SF
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,418.92	11,063.97	248.93	150.28	2.523	CC
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,500.00	11,080.73	265.96	146.09	2.219	ES, SF
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,289.23	11,134.89	557.47	445.15	4.963	CC
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,300.00	11,136.73	557.67	444.03	4.908	ES
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,400.00	11,156.91	577.03	453.05	4.654	SF
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	7,140.13	10,997.58	842.68	720.12	6.876	CC, ES
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	7,300.00	11,038.62	875.73	745.35	6.717	SF
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	7,117.68	11,079.28	1,242.22	1,116.98	9.919	CC, ES
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	7,200.00	11,123.01	1,249.84	1,121.07	9.706	SF
HARVESTERS STATE 30C-16-M - OH - PLAN #1	200.00	203.00	439.74	433.06	65.863	CC, ES
HARVESTERS STATE 30C-16-M - OH - PLAN #1	15,274.57	15,216.01	4,191.83	3,734.40	9.164	SF
HARVESTERS STATE 30N-16B-M - OH - PLAN #1	200.00	203.00	420.07	413.39	62.917	CC, ES
HARVESTERS STATE 30N-16B-M - OH - PLAN #1	15,274.57	14,942.37	3,971.29	3,513.86	8.682	SF
HARVESTERS STATE 31C-16-M - OH - PLAN #1	200.00	202.00	339.91	333.24	50.918	CC, ES
HARVESTERS STATE 31C-16-M - OH - PLAN #1	15,274.57	14,996.16	3,092.44	2,635.45	6.767	SF
HARVESTERS STATE 33C-16-M - OH - PLAN #1	990.53	1,002.39	38.43	27.64	3.562	CC
HARVESTERS STATE 33C-16-M - OH - PLAN #1	15,274.57	15,258.04	432.25	-17.01	0.962	Level 1, ES, SF
HARVESTERS STATE 34C-16-M - OH - PLAN #1	1,200.00	1,173.30	75.96	63.67	6.184	CC, ES
HARVESTERS STATE 34C-16-M - OH - PLAN #1	15,274.57	15,783.44	849.12	396.70	1.877	SF
HARVESTERS STATE 5C-16-M - OH - PLAN #1	200.00	202.00	299.84	293.16	44.915	CC, ES
HARVESTERS STATE 5C-16-M - OH - PLAN #1	15,274.57	14,987.41	2,652.63	2,195.78	5.806	SF
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	942.86	959.13	57.74	47.29	5.525	CC, ES
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	15,266.91	14,915.63	655.35	217.65	1.497	Level 3, SF
HARVESTERS STATE 12N-16B-M - OH - PLAN #1	846.75	865.56	77.81	68.05	7.969	CC, ES
HARVESTERS STATE 12N-16B-M - OH - PLAN #1	15,268.44	14,984.07	840.74	385.44	1.847	SF
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	723.71	742.83	98.30	89.35	10.983	CC, ES
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	15,260.30	15,009.62	1,048.00	591.25	2.294	SF
HARVESTERS STATE 13C-16-M - OH - PLAN #1	1,116.78	1,110.52	19.11	7.41	1.634	CC
HARVESTERS STATE 13C-16-M - OH - PLAN #1	15,274.57	15,434.47	236.39	-172.26	0.578	Level 1, ES, SF
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	1,200.00	1,186.49	38.03	25.69	3.082	CC
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	15,274.57	15,337.79	424.68	-31.64	0.931	Level 1, ES, SF
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	200.00	202.00	319.89	313.21	47.918	CC, ES
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	15,274.57	14,817.75	2,876.98	2,420.95	6.309	SF
HARVESTERS STATE 32C-16-M - OH - PLAN #1	667.98	688.45	118.41	109.81	13.756	CC
HARVESTERS STATE 32C-16-M - OH - PLAN #1	700.00	720.46	118.59	109.80	13.490	ES
HARVESTERS STATE 32C-16-M - OH - PLAN #1	15,274.57	15,081.89	1,263.36	767.75	2.549	SF
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	200.00	202.00	239.73	233.06	35.911	CC, ES
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	15,274.57	15,002.44	1,991.81	1,535.18	4.362	SF
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	200.00	201.00	139.91	133.23	20.961	CC, ES
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	15,274.57	14,871.88	1,459.89	1,004.20	3.204	SF

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

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Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	200.00	202.00	220.07	213.39	32.965	CC, ES
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	15,260.39	14,920.96	1,770.77	1,314.06	3.877	SF
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	1,093.28	1,100.38	18.88	7.31	1.632	CC
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	15,274.57	15,147.80	213.35	-228.47	0.483	Level 1, ES, SF
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	1,200.00	1,179.86	56.95	44.64	4.626	CC, ES
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	15,274.57	15,483.20	631.30	173.75	1.380	Level 3, SF
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	200.00	203.00	400.03	396.06	100.903	CC, ES
HARVESTERS STATE 4C-16-M - OH - PLAN #1	15,274.57	15,116.21	3,787.71	3,330.53	8.285	SF
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	200.00	202.00	359.95	353.28	53.920	CC, ES
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	15,274.57	14,732.12	3,316.52	2,860.27	7.269	SF
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	200.00	202.00	380.00	373.32	56.923	CC, ES
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	15,274.57	14,969.16	3,431.92	2,975.28	7.516	SF
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	200.00	202.00	259.78	253.10	38.914	CC, ES
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	15,274.57	14,805.04	2,312.21	1,855.87	5.067	SF
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	200.00	202.00	279.81	273.13	41.914	CC, ES
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	15,274.57	14,872.41	2,431.03	1,974.50	5.325	SF
HOOD 41-20(PR_150CC) - OH - OH	15,274.57	7,043.00	1,878.87	1,432.27	4.207	CC, ES, SF
HOOD 6-2-20(PR_150CC) - OH - OH	15,274.57	7,461.55	2,707.53	2,478.52	11.823	CC, ES, SF
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,126.45	7,039.43	1,639.22	1,468.43	9.598	CC
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,200.00	7,043.33	1,640.87	1,467.83	9.483	ES
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,400.00	7,053.94	1,661.82	1,484.05	9.348	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	7,600.00	10,180.01	1,344.29	1,206.48	9.755	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	7,900.00	9,889.33	1,316.74	1,184.68	9.971	ES
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	10,064.71	7,727.63	1,311.79	1,189.96	10.767	CC
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	7,600.00	10,039.94	1,068.53	929.32	7.676	SF
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	10,069.92	7,588.74	1,028.90	906.43	8.402	CC
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	10,100.00	7,569.10	1,029.05	905.96	8.360	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,460.46	7,048.31	1,854.35	1,432.27	4.393	CC
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,500.00	7,048.09	1,854.77	1,431.47	4.382	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,600.00	7,047.52	1,859.59	1,433.54	4.365	SF
LOVELY 1(AB_150CC) - OH - OH	13,431.21	7,104.52	4,944.63	4,521.41	11.683	CC
LOVELY 1(AB_150CC) - OH - OH	13,600.00	7,105.48	4,947.51	4,519.90	11.570	ES
LOVELY 1(AB_150CC) - OH - OH	14,300.00	7,109.46	5,020.37	4,576.84	11.319	SF
LOVELY 14-9(AB_150CC) - OH - OH	14,927.87	7,089.97	4,888.66	4,423.90	10.519	CC
LOVELY 14-9(AB_150CC) - OH - OH	15,100.00	7,088.99	4,891.69	4,422.51	10.426	ES
LOVELY 14-9(AB_150CC) - OH - OH	15,274.57	7,088.00	4,900.94	4,427.56	10.353	SF
LUCAS SCHOOL 1(TA_150CC) - OH - OH	200.00	203.00	4,520.72	4,511.11	470.664	CC
LUCAS SCHOOL 1(TA_150CC) - OH - OH	400.00	402.84	4,524.49	4,508.16	276.960	ES
LUCAS SCHOOL 1(TA_150CC) - OH - OH	12,000.00	7,123.61	5,144.62	4,766.46	13.604	SF
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,918.16	7,084.08	4,956.87	4,576.41	13.029	CC
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	12,000.00	7,083.61	4,957.55	4,574.99	12.959	ES
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	13,100.00	7,077.36	5,095.81	4,688.85	12.522	SF
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,480.62	4,452.00	3,079.09	2,879.54	15.430	CC
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,500.00	4,452.00	3,079.15	2,879.24	15.402	ES
MAURICE LEFFLER 1(AB_150CC) - OH - OH	14,500.00	4,452.00	3,243.45	3,021.50	14.613	SF
MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH	15,274.57	7,203.28	425.02	190.53	1.813	CC, ES, SF
MCGLOTHLIN 17-11(PR_75CC) - OH - OH	15,274.57	7,074.00	3,889.40	3,420.20	8.289	CC, ES, SF
MONTERA 10-34 (PR_75CC) - OH - OH	225.54	262.88	2,505.96	2,499.19	370.492	CC, ES
MONTERA 10-34 (PR_75CC) - OH - OH	11,100.00	7,237.30	6,301.39	6,184.92	54.105	SF
RUTT-ADAMS HEIRS 2-22 - OH - OH	8,160.40	7,084.44	1,655.93	1,367.65	5.744	CC
RUTT-ADAMS HEIRS 2-22 - OH - OH	8,200.00	7,084.22	1,656.40	1,367.42	5.732	ES
RUTT-ADAMS HEIRS 2-22 - OH - OH	8,400.00	7,083.08	1,673.17	1,380.26	5.712	SF
SENA 15-21(PR_75CC) - OH - OH	200.00	203.00	1,873.18	1,863.58	195.022	CC

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

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
HARVESTERS STATE 7-15 PAD						
SENA 15-21(PR_75CC) - OH - OH	300.00	303.02	1,874.47	1,861.61	145.737	ES
SENA 15-21(PR_75CC) - OH - OH	9,100.00	7,134.10	3,832.27	3,526.03	12.514	SF
SENA 15-24(PR_75CC) - OH - OH	200.00	183.00	1,114.22	1,105.20	123.504	CC
SENA 15-24(PR_75CC) - OH - OH	900.00	876.06	1,124.31	1,090.29	33.047	ES
SENA 15-24(PR_75CC) - OH - OH	8,500.00	7,123.51	2,450.06	2,155.44	8.316	SF
SENA 15-25(PR_75CC) - OH - OH	200.00	210.00	1,705.57	1,695.76	173.781	CC
SENA 15-25(PR_75CC) - OH - OH	400.00	389.84	1,708.63	1,692.73	107.475	ES
SENA 15-25(PR_75CC) - OH - OH	9,200.00	7,126.53	3,177.99	2,869.45	10.300	SF
STATE 1(AB_150CC) - OH - OH	12,071.93	7,073.21	3,643.77	3,259.45	9.481	CC
STATE 1(AB_150CC) - OH - OH	12,200.00	7,072.48	3,646.02	3,258.54	9.410	ES
STATE 1(AB_150CC) - OH - OH	12,700.00	7,069.64	3,697.50	3,299.31	9.286	SF
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,201.68	7,074.47	3,665.35	3,277.40	9.448	CC
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,300.00	7,073.91	3,666.67	3,276.28	9.392	ES
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,800.00	7,071.07	3,713.86	3,312.60	9.256	SF
STATE BEATRICE 32-16(PR_75CC) - OH - OH	12,007.97	7,068.57	2,192.30	1,809.91	5.733	CC
STATE BEATRICE 32-16(PR_75CC) - OH - OH	12,100.00	7,068.05	2,194.23	1,809.76	5.707	ES
STATE BEATRICE 32-16(PR_75CC) - OH - OH	12,200.00	7,067.48	2,200.70	1,814.21	5.694	SF
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,762.32	7,049.91	498.41	39.71	1.087	Level 2, CC, ES, SF
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,617.56	7,069.42	986.47	559.26	2.309	CC, ES, SF
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,820.93	7,077.34	2,149.71	1,903.50	8.731	CC
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,900.00	7,078.59	2,151.16	1,903.14	8.673	ES
STATE-HOPPE 16-3(PR_150CC) - OH - OH	15,100.00	7,081.74	2,167.75	1,916.41	8.625	SF
STOCKOVER 16-1(PR_75CC) - OH - OH	10,665.77	7,068.20	1,014.04	668.16	2.932	CC
STOCKOVER 16-1(PR_75CC) - OH - OH	10,700.00	7,068.00	1,014.62	668.13	2.928	ES, SF
ULRICH PC I 17-07D(PR_75CC) - OH - OH	15,274.57	7,223.59	3,077.66	2,867.32	14.632	CC, ES, SF
ULRICH PC I 17-08(PR_75CC) - OH - OH	15,274.57	7,065.00	2,506.64	2,046.88	5.452	CC, ES, SF
ULRICH PC I17-17D(PR_75CC) - OH - OH	15,274.57	7,331.38	3,542.82	3,304.57	14.870	CC, ES, SF

Offset Design											HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH		Offset Site Error:		0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:		3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
0.00	0.00	0.00	36.00	3.28	3.28	165.07	-1,320.24	352.15	1,366.87						
100.00	100.00	61.17	97.17	3.28	3.28	165.07	-1,320.30	352.15	1,366.46	1,359.89	6.57	208.069			
200.00	200.00	159.87	195.87	3.34	3.31	165.07	-1,320.61	352.13	1,366.76	1,360.11	6.65	205.504			
300.00	299.98	262.04	298.04	3.44	3.40	-18.91	-1,320.92	351.92	1,365.35	1,358.51	6.84	199.509			
400.00	399.84	362.55	398.55	3.59	3.54	-19.01	-1,321.03	351.84	1,360.48	1,353.35	7.13	190.688			
500.00	499.45	461.85	497.84	3.79	3.73	-19.18	-1,321.14	351.87	1,352.36	1,344.84	7.52	179.925			
600.00	598.70	557.76	593.76	4.03	3.94	-19.43	-1,321.30	352.00	1,341.04	1,333.07	7.97	168.270			
700.00	697.47	654.03	690.02	4.31	4.18	-19.74	-1,321.78	352.10	1,326.79	1,318.30	8.49	156.265			
800.00	795.62	754.37	790.37	4.64	4.46	-20.14	-1,322.37	351.95	1,309.33	1,300.25	9.08	144.191			
900.00	893.06	854.61	890.61	5.00	4.76	-20.61	-1,322.81	351.42	1,288.45	1,278.73	9.72	132.561			
1,000.00	989.64	952.81	988.81	5.40	5.07	-21.18	-1,323.09	350.91	1,264.29	1,253.89	10.39	121.631			
1,100.00	1,085.27	1,047.47	1,083.46	5.83	5.39	-21.84	-1,323.34	350.25	1,236.99	1,225.89	11.09	111.497			
1,200.00	1,179.88	1,140.49	1,176.48	6.29	5.71	-22.52	-1,323.76	349.71	1,207.04	1,195.22	11.82	102.098			
1,300.00	1,274.26	1,235.32	1,271.30	6.78	6.05	-23.10	-1,324.21	349.09	1,176.55	1,163.98	12.57	93.605			
1,400.00	1,368.63	1,330.55	1,366.53	7.28	6.39	-23.70	-1,324.70	348.34	1,146.16	1,132.82	13.34	85.916			
1,500.00	1,463.00	1,427.34	1,463.32	7.80	6.75	-24.35	-1,325.05	347.56	1,115.75	1,101.62	14.14	78.932			
1,600.00	1,557.38	1,524.00	1,559.97	8.33	7.12	-25.04	-1,325.14	346.88	1,085.28	1,070.33	14.95	72.611			

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
1,700.00	1,651.75	1,619.17	1,655.14	8.87	7.48	-25.75	-1,325.18	345.92	1,054.80	1,039.03	15.77	66.896		
1,800.00	1,746.12	1,711.34	1,747.30	9.41	7.84	-26.47	-1,325.32	345.00	1,024.58	1,007.98	16.60	61.739		
1,900.00	1,840.49	1,804.54	1,840.50	9.96	8.20	-27.25	-1,325.62	344.12	994.69	977.25	17.44	57.040		
2,000.00	1,934.87	1,899.61	1,935.56	10.52	8.58	-28.08	-1,325.96	343.20	965.01	946.71	18.30	52.742		
2,100.00	2,029.24	1,992.82	2,028.76	11.08	8.95	-28.94	-1,326.39	342.17	935.57	916.40	19.16	48.824		
2,200.00	2,123.61	2,087.34	2,123.27	11.64	9.33	-29.86	-1,326.93	341.06	906.41	886.37	20.04	45.230		
2,300.00	2,217.99	2,180.52	2,216.45	12.21	9.70	-30.84	-1,327.42	340.23	877.56	856.63	20.93	41.937		
2,400.00	2,312.36	2,274.55	2,310.48	12.78	10.08	-31.91	-1,327.95	339.60	849.10	827.27	21.82	38.909		
2,500.00	2,406.73	2,371.77	2,407.70	13.35	10.48	-33.07	-1,328.50	338.73	820.84	798.11	22.73	36.108		
2,600.00	2,501.10	2,467.11	2,503.03	13.93	10.87	-34.30	-1,328.74	337.82	792.62	768.97	23.65	33.514		
2,700.00	2,595.48	2,561.65	2,597.57	14.51	11.25	-35.63	-1,328.82	337.19	764.77	740.19	24.58	31.117		
2,800.00	2,689.85	2,655.11	2,691.02	15.08	11.64	-37.04	-1,328.84	336.70	737.36	711.84	25.52	28.899		
2,900.00	2,784.22	2,748.67	2,784.58	15.66	12.02	-38.56	-1,329.07	336.21	710.59	684.13	26.46	26.850		
3,000.00	2,878.60	2,843.21	2,879.12	16.25	12.41	-40.20	-1,329.33	335.71	684.39	656.96	27.43	24.953		
3,100.00	2,972.97	2,937.46	2,973.37	16.83	12.81	-41.97	-1,329.52	335.30	658.76	630.36	28.40	23.193		
3,200.00	3,067.34	3,031.16	3,067.07	17.41	13.19	-43.85	-1,329.85	334.86	633.89	604.50	29.39	21.565		
3,300.00	3,161.72	3,125.18	3,161.09	18.00	13.59	-45.87	-1,330.34	334.39	609.86	579.47	30.40	20.062		
3,400.00	3,256.09	3,220.34	3,256.25	18.58	13.98	-48.11	-1,330.63	334.19	586.70	555.28	31.42	18.673		
3,500.00	3,350.46	3,318.07	3,353.98	19.17	14.39	-50.58	-1,330.58	333.74	564.08	531.63	32.45	17.381		
3,600.00	3,444.83	3,413.45	3,449.35	19.75	14.79	-53.21	-1,330.17	333.14	542.18	508.67	33.51	16.180		
3,700.00	3,539.21	3,507.14	3,543.04	20.34	15.18	-55.97	-1,329.85	332.45	521.48	486.90	34.58	15.080		
3,800.00	3,633.58	3,600.16	3,636.06	20.93	15.57	-58.88	-1,329.83	331.75	502.31	466.64	35.67	14.082		
3,900.00	3,727.95	3,693.24	3,729.14	21.52	15.96	-61.95	-1,330.27	331.02	484.88	448.11	36.77	13.187		
4,000.00	3,822.33	3,787.44	3,823.33	22.11	16.35	-65.21	-1,331.13	330.25	469.24	431.36	37.87	12.390		
4,100.00	3,916.70	3,882.35	3,918.23	22.70	16.75	-68.70	-1,331.90	329.54	455.36	416.37	38.98	11.681		
4,200.00	4,011.07	3,977.33	4,013.21	23.29	17.15	-72.42	-1,332.40	328.89	443.34	403.25	40.10	11.057		
4,300.00	4,105.44	4,072.24	4,108.11	23.88	17.55	-76.30	-1,332.89	328.15	433.35	392.15	41.20	10.519		
4,400.00	4,199.82	4,166.29	4,202.16	24.47	17.95	-80.30	-1,333.32	327.42	425.61	383.33	42.28	10.066		
4,500.00	4,294.19	4,261.90	4,297.77	25.06	18.35	-84.53	-1,333.37	326.79	420.32	376.97	43.35	9.696		
4,600.00	4,388.56	4,356.45	4,392.31	25.65	18.75	-88.87	-1,332.73	325.96	417.29	372.91	44.38	9.403		
4,658.97	4,444.21	4,411.77	4,447.63	26.00	18.98	-91.42	-1,332.41	325.52	416.82	371.86	44.96	9.270 CC		
4,700.00	4,482.94	4,450.90	4,486.75	26.24	19.15	-93.22	-1,332.20	325.19	417.02	371.66	45.36	9.193 ES		
4,800.00	4,577.31	4,545.86	4,581.71	26.83	19.55	-97.60	-1,331.55	324.21	419.26	372.96	46.30	9.054		
4,900.00	4,671.68	4,637.34	4,673.17	27.43	19.93	-101.83	-1,330.32	323.25	424.24	377.07	47.17	8.993 SF		
5,000.00	4,766.05	4,729.01	4,764.83	28.02	20.32	-105.93	-1,329.11	323.30	432.90	384.91	47.99	9.020		
5,100.00	4,860.43	4,829.12	4,864.94	28.61	20.74	-110.23	-1,328.00	322.51	443.22	394.37	48.84	9.074		
5,200.00	4,954.80	4,924.06	4,959.87	29.20	21.14	-114.01	-1,328.06	321.28	455.02	405.39	49.63	9.168		
5,300.00	5,049.17	5,013.03	5,048.83	29.80	21.51	-117.29	-1,328.53	321.03	469.54	419.20	50.34	9.328		
5,400.00	5,143.55	5,104.63	5,140.43	30.39	21.90	-120.53	-1,328.27	321.25	486.60	435.56	51.04	9.533		
5,500.00	5,237.92	5,195.11	5,230.91	30.99	22.28	-123.60	-1,327.18	321.67	505.93	454.22	51.71	9.783		
5,600.00	5,332.29	5,287.77	5,323.55	31.58	22.67	-126.53	-1,325.75	322.45	527.23	474.83	52.41	10.060		
5,700.00	5,426.66	5,381.69	5,417.46	32.17	23.06	-129.24	-1,324.59	323.57	549.99	496.86	53.13	10.352		
5,800.00	5,521.04	5,482.20	5,517.96	32.77	23.48	-131.84	-1,324.23	324.82	573.41	519.45	53.96	10.627		
5,900.00	5,615.41	5,574.70	5,610.45	33.36	23.87	-134.05	-1,324.25	325.49	597.18	542.50	54.68	10.922		
6,000.00	5,709.78	5,665.88	5,701.62	33.96	24.26	-136.10	-1,323.77	326.41	622.36	566.98	55.38	11.238		
6,100.00	5,804.16	5,764.35	5,800.10	34.55	24.67	-138.12	-1,323.29	327.54	648.38	592.17	56.21	11.536		
6,200.00	5,898.53	5,859.76	5,895.50	35.14	25.07	-140.00	-1,322.91	327.62	674.33	617.34	56.99	11.833		
6,300.00	5,992.90	5,949.42	5,985.15	35.74	25.45	-141.59	-1,322.64	328.29	701.25	643.55	57.70	12.154		
6,400.00	6,087.27	6,042.29	6,078.01	36.33	25.84	-143.06	-1,322.44	330.06	729.33	670.86	58.47	12.474		
6,500.00	6,181.65	6,140.09	6,175.78	36.93	26.25	-144.46	-1,322.80	332.01	757.46	698.14	59.32	12.768		
6,600.00	6,276.02	6,232.64	6,268.33	37.52	26.64	-145.73	-1,322.85	333.25	785.84	725.74	60.10	13.075		
6,700.00	6,370.39	6,323.87	6,359.54	38.12	27.03	-146.89	-1,322.62	334.98	815.11	754.24	60.87	13.391		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
6,800.00	6,464.77	6,426.49	6,462.15	38.71	27.46	-148.09	-1,322.91	336.88	844.27	782.45	61.82	13.657		
6,900.00	6,559.14	6,529.23	6,564.85	39.31	27.90	-149.38	-1,324.54	338.88	872.70	809.93	62.77	13.903		
7,000.00	6,652.92	6,625.37	6,660.97	39.90	28.31	-175.73	-1,326.10	339.76	904.99	841.34	63.65	14.217		
7,100.00	6,744.00	6,714.20	6,749.80	40.44	28.68	165.02	-1,326.74	339.60	945.19	880.71	64.49	14.657		
7,200.00	6,830.13	6,801.80	6,837.40	40.94	29.06	151.82	-1,327.61	339.78	992.33	926.97	65.36	15.182		
7,300.00	6,909.19	6,880.99	6,916.58	41.37	29.39	142.06	-1,328.48	340.03	1,045.88	979.69	66.20	15.799		
7,400.00	6,979.23	6,951.09	6,986.67	41.75	29.69	133.92	-1,329.26	340.26	1,105.45	1,038.47	66.98	16.504		
7,500.00	7,038.53	7,010.37	7,045.95	42.08	29.94	126.19	-1,329.91	340.45	1,170.54	1,102.84	67.70	17.289		
7,600.00	7,085.63	7,057.38	7,092.96	42.37	30.14	118.06	-1,330.43	340.60	1,240.46	1,172.11	68.35	18.148		
7,700.00	7,119.37	7,090.95	7,126.53	42.64	30.29	109.03	-1,330.81	340.71	1,314.22	1,245.31	68.91	19.072		
7,800.00	7,138.92	7,110.26	7,145.84	42.91	30.37	99.06	-1,331.02	340.77	1,390.53	1,321.16	69.37	20.045		
7,900.00	7,143.92	7,114.97	7,150.55	43.25	30.39	90.01	-1,331.07	340.79	1,467.88	1,398.15	69.73	21.051		
8,000.00	7,143.35	7,114.09	7,149.66	43.72	30.39	89.95	-1,331.06	340.79	1,546.84	1,476.79	70.05	22.081		
8,100.00	7,142.78	7,113.20	7,148.78	44.42	30.38	89.90	-1,331.05	340.78	1,628.12	1,557.76	70.36	23.138		
8,200.00	7,142.22	7,112.32	7,147.89	45.39	30.38	89.84	-1,331.04	340.78	1,711.38	1,640.72	70.66	24.220		
8,300.00	7,141.65	7,111.43	7,147.01	46.63	30.37	89.79	-1,331.03	340.78	1,796.35	1,725.42	70.94	25.323		
8,400.00	7,141.08	7,110.55	7,146.12	48.09	30.37	89.73	-1,331.02	340.78	1,882.80	1,811.60	71.20	26.445		
8,500.00	7,140.51	7,109.66	7,145.24	49.74	30.37	89.68	-1,331.01	340.77	1,970.53	1,899.09	71.44	27.583		
8,600.00	7,139.94	7,108.77	7,144.35	51.53	30.36	89.62	-1,331.00	340.77	2,059.38	1,987.71	71.67	28.735		
8,700.00	7,139.37	7,107.89	7,143.47	53.44	30.36	89.57	-1,330.99	340.77	2,149.20	2,077.32	71.88	29.900		
8,800.00	7,138.80	7,107.00	7,142.58	55.45	30.36	89.52	-1,330.98	340.76	2,239.89	2,167.81	72.08	31.075		
8,900.00	7,138.24	7,106.12	7,141.69	57.55	30.35	89.46	-1,330.97	340.76	2,331.34	2,259.08	72.27	32.261		
9,000.00	7,137.67	7,105.23	7,140.81	59.71	30.35	89.41	-1,330.96	340.76	2,423.47	2,351.03	72.44	33.455		
9,100.00	7,137.10	7,104.35	7,139.92	61.94	30.34	89.35	-1,330.95	340.76	2,516.20	2,443.59	72.60	34.657		
9,200.00	7,136.53	7,103.46	7,139.04	64.22	30.34	89.30	-1,330.94	340.75	2,609.46	2,536.70	72.76	35.866		
9,300.00	7,135.96	7,102.58	7,138.15	66.55	30.34	89.24	-1,330.93	340.75	2,703.20	2,630.30	72.90	37.080		
9,400.00	7,135.39	7,101.69	7,137.27	68.92	30.33	89.19	-1,330.92	340.75	2,797.38	2,724.34	73.04	38.300		
9,500.00	7,134.83	7,100.80	7,136.38	71.33	30.33	89.13	-1,330.92	340.74	2,891.95	2,818.78	73.17	39.525		
9,600.00	7,134.26	7,099.92	7,135.50	73.77	30.33	89.08	-1,330.91	340.74	2,986.87	2,913.58	73.29	40.754		
9,700.00	7,133.69	7,099.03	7,134.61	76.24	30.32	89.02	-1,330.90	340.74	3,082.12	3,008.71	73.41	41.986		
9,800.00	7,133.12	7,098.15	7,133.72	78.74	30.32	88.97	-1,330.89	340.74	3,177.65	3,104.13	73.52	43.222		
9,900.00	7,132.55	7,097.26	7,132.84	81.27	30.31	88.91	-1,330.88	340.73	3,273.45	3,199.83	73.63	44.460		
10,000.00	7,131.98	7,096.38	7,131.95	83.81	30.31	88.86	-1,330.87	340.73	3,369.50	3,295.77	73.73	45.701		
10,100.00	7,131.42	7,095.49	7,131.07	86.38	30.31	88.80	-1,330.86	340.73	3,465.77	3,391.94	73.83	46.944		
10,200.00	7,130.85	7,094.61	7,130.18	88.96	30.30	88.75	-1,330.85	340.72	3,562.24	3,488.32	73.92	48.189		
10,300.00	7,130.28	7,093.72	7,129.30	91.56	30.30	88.69	-1,330.84	340.72	3,658.91	3,584.89	74.01	49.435		
10,400.00	7,129.71	7,092.83	7,128.41	94.18	30.30	88.64	-1,330.83	340.72	3,755.74	3,681.64	74.10	50.683		
10,500.00	7,129.14	7,091.95	7,127.53	96.81	30.29	88.58	-1,330.82	340.72	3,852.74	3,778.55	74.19	51.932		
10,600.00	7,128.57	7,091.06	7,126.64	99.45	30.29	88.53	-1,330.81	340.71	3,949.89	3,875.62	74.27	53.182		
10,700.00	7,128.00	7,090.18	7,125.76	102.11	30.28	88.47	-1,330.80	340.71	4,047.18	3,972.83	74.35	54.432		
10,800.00	7,127.44	7,089.29	7,124.87	104.77	30.28	88.42	-1,330.79	340.71	4,144.59	4,070.16	74.43	55.683		
10,900.00	7,126.87	7,088.41	7,123.98	107.45	30.28	88.36	-1,330.78	340.70	4,242.13	4,167.62	74.51	56.934		
11,000.00	7,126.30	7,087.52	7,123.10	110.13	30.27	88.31	-1,330.77	340.70	4,339.78	4,265.19	74.58	58.186		
11,100.00	7,125.73	7,086.64	7,122.21	112.82	30.27	88.25	-1,330.76	340.70	4,437.53	4,362.87	74.66	59.437		
11,200.00	7,125.16	7,085.75	7,121.33	115.53	30.27	88.20	-1,330.75	340.70	4,535.38	4,460.65	74.73	60.689		
11,300.00	7,124.59	7,084.86	7,120.44	118.24	30.26	88.14	-1,330.74	340.69	4,633.33	4,558.52	74.80	61.940		
11,400.00	7,124.03	7,083.98	7,119.56	120.95	30.26	88.09	-1,330.73	340.69	4,731.35	4,656.48	74.87	63.191		
11,500.00	7,123.46	7,083.09	7,118.67	123.67	30.25	88.03	-1,330.72	340.69	4,829.46	4,754.52	74.94	64.442		
11,600.00	7,122.89	7,082.21	7,117.79	126.40	30.25	87.98	-1,330.71	340.68	4,927.65	4,852.64	75.01	65.692		
11,700.00	7,122.32	7,081.32	7,116.90	129.14	30.25	87.93	-1,330.70	340.68	5,025.90	4,950.82	75.08	66.942		
11,800.00	7,121.75	7,080.44	7,116.02	131.88	30.24	87.87	-1,330.69	340.68	5,124.23	5,049.08	75.15	68.191		
11,900.00	7,121.18	7,079.55	7,115.13	134.62	30.24	87.82	-1,330.68	340.67	5,222.61	5,147.40	75.21	69.438		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)					
12,000.00	7,120.61	7,078.67	7,114.24	137.37	30.24	87.76	-1,330.67	340.67	5,321.06	5,245.78	75.28	70.686	
12,100.00	7,120.05	7,077.78	7,113.36	140.12	30.23	87.71	-1,330.66	340.67	5,419.56	5,344.22	75.34	71.932	
12,200.00	7,119.48	7,076.89	7,112.47	142.88	30.23	87.65	-1,330.65	340.67	5,518.12	5,442.71	75.41	73.177	
12,300.00	7,118.91	7,076.01	7,111.59	145.64	30.22	87.60	-1,330.64	340.66	5,616.73	5,541.26	75.47	74.421	
12,400.00	7,118.34	7,075.12	7,110.70	148.41	30.22	87.54	-1,330.63	340.66	5,715.39	5,639.85	75.54	75.663	
12,500.00	7,117.77	7,074.24	7,109.82	151.18	30.22	87.49	-1,330.62	340.66	5,814.09	5,738.49	75.60	76.905	
12,600.00	7,117.20	7,073.35	7,108.93	153.95	30.21	87.43	-1,330.61	340.65	5,912.84	5,837.17	75.66	78.145	
12,700.00	7,116.64	7,072.47	7,108.05	156.73	30.21	87.38	-1,330.60	340.65	6,011.62	5,935.89	75.73	79.384	
12,800.00	7,116.07	7,071.58	7,107.16	159.50	30.21	87.32	-1,330.59	340.65	6,110.45	6,034.66	75.79	80.621	
12,900.00	7,115.50	7,070.70	7,106.27	162.29	30.20	87.27	-1,330.58	340.65	6,209.31	6,133.46	75.86	81.857	
13,000.00	7,114.93	7,069.81	7,105.39	165.07	30.20	87.21	-1,330.57	340.64	6,308.21	6,232.29	75.92	83.091	
13,100.00	7,114.36	7,068.92	7,104.50	167.86	30.19	87.16	-1,330.56	340.64	6,407.15	6,331.16	75.98	84.324	
13,200.00	7,113.79	7,068.04	7,103.62	170.64	30.19	87.10	-1,330.55	340.64	6,506.11	6,430.07	76.05	85.555	
13,300.00	7,113.22	7,067.15	7,102.73	173.44	30.19	87.05	-1,330.54	340.63	6,605.11	6,529.00	76.11	86.784	
13,400.00	7,112.66	7,066.27	7,101.85	176.23	30.18	86.99	-1,330.53	340.63	6,704.14	6,627.96	76.17	88.012	
13,500.00	7,112.09	7,065.38	7,100.96	179.02	30.18	86.94	-1,330.52	340.63	6,803.19	6,726.95	76.24	89.237	
13,600.00	7,111.52	7,064.50	7,100.08	181.82	30.17	86.89	-1,330.51	340.63	6,902.27	6,825.97	76.30	90.461	
13,700.00	7,110.95	7,063.61	7,099.19	184.62	30.17	86.83	-1,330.50	340.62	7,001.38	6,925.02	76.37	91.683	
13,800.00	7,110.38	7,062.73	7,098.31	187.42	30.17	86.78	-1,330.49	340.62	7,100.51	7,024.09	76.43	92.903	
13,900.00	7,109.81	7,061.84	7,097.42	190.22	30.16	86.72	-1,330.48	340.62	7,199.67	7,123.18	76.49	94.121	
14,000.00	7,109.25	7,060.95	7,096.53	193.03	30.16	86.67	-1,330.47	340.61	7,298.85	7,222.29	76.56	95.337	
14,100.00	7,108.68	7,060.07	7,095.65	195.84	30.16	86.61	-1,330.46	340.61	7,398.05	7,321.43	76.62	96.551	
14,200.00	7,108.11	7,059.18	7,094.76	198.64	30.15	86.56	-1,330.45	340.61	7,497.28	7,420.59	76.69	97.762	
14,300.00	7,107.54	7,058.30	7,093.88	201.45	30.15	86.50	-1,330.44	340.61	7,596.52	7,519.77	76.75	98.972	
14,400.00	7,106.97	7,057.41	7,092.99	204.26	30.14	86.45	-1,330.44	340.60	7,695.78	7,618.96	76.82	100.180	
14,500.00	7,106.40	7,056.53	7,092.11	207.07	30.14	86.39	-1,330.43	340.60	7,795.06	7,718.18	76.89	101.385	
14,600.00	7,105.83	7,055.64	7,091.22	209.89	30.14	86.34	-1,330.42	340.60	7,894.36	7,817.41	76.95	102.588	
14,700.00	7,105.27	7,054.76	7,090.34	212.70	30.13	86.28	-1,330.41	340.59	7,993.68	7,916.66	77.02	103.788	
14,800.00	7,104.70	7,053.87	7,089.45	215.52	30.13	86.23	-1,330.40	340.59	8,093.01	8,015.93	77.09	104.987	
14,900.00	7,104.13	7,052.98	7,088.56	218.33	30.13	86.18	-1,330.39	340.59	8,192.36	8,115.21	77.15	106.183	
15,000.00	7,103.56	7,052.10	7,087.68	221.15	30.12	86.12	-1,330.38	340.59	8,291.73	8,214.51	77.22	107.377	
15,100.00	7,102.99	7,051.21	7,086.79	223.97	30.12	86.07	-1,330.37	340.58	8,391.11	8,313.82	77.29	108.568	
15,200.00	7,102.42	7,050.33	7,085.91	226.79	30.11	86.01	-1,330.36	340.58	8,490.50	8,413.15	77.36	109.757	
15,274.57	7,102.00	7,049.67	7,085.25	228.89	30.11	85.97	-1,330.35	340.58	8,564.63	8,487.22	77.41	110.642	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	68.00	3.28	3.28	172.32	-4,059.44	547.75	4,096.79				
100.00	100.00	31.36	99.36	3.28	3.28	172.32	-4,059.44	547.74	4,096.23	4,089.66	6.57	623.913	
200.00	200.00	126.99	194.99	3.34	3.30	172.32	-4,059.52	547.52	4,096.28	4,089.64	6.63	617.508	
300.00	299.98	217.81	285.81	3.44	3.36	-11.64	-4,059.78	547.25	4,094.81	4,088.01	6.80	602.376	
400.00	399.84	312.94	380.94	3.59	3.47	-11.68	-4,060.19	547.17	4,090.10	4,083.04	7.06	579.361	
500.00	499.45	414.94	482.93	3.79	3.63	-11.73	-4,060.62	547.21	4,081.99	4,074.56	7.43	549.741	
600.00	598.70	513.04	581.04	4.03	3.83	-11.82	-4,061.04	547.21	4,070.48	4,062.61	7.87	517.398	
700.00	697.47	615.20	683.20	4.31	4.08	-11.92	-4,061.49	546.96	4,055.55	4,047.17	8.39	483.419	
800.00	795.62	717.13	785.12	4.64	4.35	-12.05	-4,061.84	546.48	4,037.15	4,028.18	8.97	449.975	
900.00	893.06	808.18	876.17	5.00	4.62	-12.19	-4,062.26	545.78	4,015.48	4,005.90	9.57	419.430	
1,000.00	989.64	908.00	975.98	5.40	4.93	-12.37	-4,062.79	544.73	3,990.52	3,980.28	10.24	389.565	
1,100.00	1,085.27	985.84	1,053.81	5.83	5.18	-12.55	-4,063.41	543.66	3,962.48	3,951.60	10.88	364.223	
1,200.00	1,179.88	1,070.76	1,138.72	6.29	5.47	-12.71	-4,064.41	542.24	3,931.72	3,920.15	11.57	339.847	
1,300.00	1,274.26	1,161.24	1,229.17	6.78	5.79	-12.78	-4,065.66	540.64	3,900.44	3,888.15	12.29	317.423	
1,400.00	1,368.63	1,261.54	1,329.44	7.28	6.15	-12.87	-4,067.07	538.78	3,869.17	3,856.11	13.06	296.205	
1,500.00	1,463.00	1,363.46	1,431.33	7.80	6.52	-12.95	-4,068.31	536.63	3,837.70	3,823.84	13.86	276.851	
1,600.00	1,557.38	1,459.38	1,527.22	8.33	6.88	-13.03	-4,069.37	534.64	3,806.14	3,791.48	14.66	259.691	
1,700.00	1,651.75	1,549.65	1,617.47	8.87	7.22	-13.11	-4,070.40	532.84	3,774.62	3,759.18	15.44	244.401	
1,800.00	1,746.12	1,649.80	1,717.60	9.41	7.61	-13.19	-4,071.61	530.97	3,743.21	3,726.93	16.28	229.961	
1,900.00	1,840.49	1,747.28	1,815.06	9.96	7.99	-13.28	-4,072.50	529.13	3,711.51	3,694.40	17.11	216.908	
2,000.00	1,934.87	1,833.27	1,901.03	10.52	8.33	-13.36	-4,073.43	527.73	3,680.02	3,662.11	17.91	205.436	
2,100.00	2,029.24	1,923.82	1,991.56	11.08	8.68	-13.45	-4,074.55	526.23	3,648.67	3,629.94	18.74	194.713	
2,200.00	2,123.61	2,012.27	2,079.99	11.64	9.04	-13.54	-4,075.80	524.63	3,617.48	3,597.92	19.56	184.905	
2,300.00	2,217.99	2,098.77	2,166.46	12.21	9.38	-13.62	-4,077.21	523.00	3,586.49	3,566.10	20.39	175.904	
2,400.00	2,312.36	2,195.43	2,263.09	12.78	9.77	-13.71	-4,078.89	521.13	3,555.60	3,534.35	21.25	167.296	
2,500.00	2,406.73	2,330.27	2,397.90	13.35	10.32	-13.84	-4,080.42	518.69	3,524.18	3,501.93	22.25	158.417	
2,600.00	2,501.10	2,475.92	2,543.53	13.93	10.91	-14.01	-4,080.14	516.51	3,491.60	3,468.33	23.27	150.053	
2,700.00	2,595.48	2,580.54	2,648.13	14.51	11.34	-14.13	-4,078.84	514.96	3,458.01	3,433.85	24.16	143.117	
2,800.00	2,689.85	2,675.48	2,743.05	15.08	11.73	-14.25	-4,077.60	513.46	3,424.38	3,399.35	25.03	136.820	
2,900.00	2,784.22	2,766.43	2,833.98	15.66	12.10	-14.36	-4,076.46	511.90	3,390.78	3,364.90	25.89	130.989	
3,000.00	2,878.60	2,858.51	2,926.04	16.25	12.48	-14.47	-4,075.41	510.24	3,357.29	3,330.54	26.75	125.505	
3,100.00	2,972.97	2,949.25	3,016.76	16.83	12.86	-14.58	-4,074.42	508.56	3,323.85	3,296.24	27.61	120.371	
3,200.00	3,067.34	3,042.63	3,110.11	17.41	13.25	-14.69	-4,073.53	506.74	3,290.54	3,262.05	28.49	115.512	
3,300.00	3,161.72	3,142.47	3,209.93	18.00	13.66	-14.81	-4,072.48	504.72	3,257.12	3,227.74	29.38	110.863	
3,400.00	3,256.09	3,235.34	3,302.78	18.58	14.05	-14.93	-4,071.36	502.92	3,223.60	3,193.34	30.26	106.546	
3,500.00	3,350.46	3,319.34	3,386.76	19.17	14.40	-15.04	-4,070.56	501.26	3,190.31	3,159.20	31.11	102.550	
3,600.00	3,444.83	3,405.39	3,472.78	19.75	14.76	-15.15	-4,070.02	499.35	3,157.30	3,125.33	31.97	98.750	
3,700.00	3,539.21	3,495.31	3,562.68	20.34	15.14	-15.25	-4,069.70	497.05	3,124.49	3,091.64	32.85	95.119	
3,800.00	3,633.58	3,583.99	3,651.32	20.93	15.51	-15.36	-4,069.53	494.71	3,091.84	3,058.12	33.72	91.685	
3,900.00	3,727.95	3,676.86	3,744.16	21.52	15.90	-15.48	-4,069.42	492.57	3,059.32	3,024.71	34.61	88.397	
4,000.00	3,822.33	3,766.79	3,834.08	22.11	16.28	-15.60	-4,069.32	490.81	3,026.88	2,991.39	35.49	85.289	
4,100.00	3,916.70	3,860.34	3,927.61	22.70	16.67	-15.73	-4,069.37	488.85	2,994.58	2,958.20	36.38	82.313	
4,200.00	4,011.07	3,956.42	4,023.67	23.29	17.07	-15.88	-4,069.30	487.17	2,962.25	2,924.97	37.28	79.463	
4,300.00	4,105.44	4,051.12	4,118.36	23.88	17.47	-16.02	-4,069.18	485.65	2,929.90	2,891.73	38.17	76.751	
4,400.00	4,199.82	4,147.08	4,214.32	24.47	17.87	-16.19	-4,068.92	484.70	2,897.56	2,858.49	39.07	74.156	
4,500.00	4,294.19	4,249.23	4,316.46	25.06	18.30	-16.40	-4,068.23	485.03	2,865.11	2,825.12	39.99	71.650	
4,600.00	4,388.56	4,365.60	4,432.82	25.65	18.79	-16.66	-4,066.74	485.92	2,832.23	2,791.30	40.93	69.201	
4,700.00	4,482.94	4,465.62	4,532.82	26.24	19.20	-16.89	-4,064.76	486.63	2,798.71	2,756.88	41.84	66.897	
4,800.00	4,577.31	4,547.69	4,614.87	26.83	19.55	-17.08	-4,063.24	487.34	2,765.39	2,722.67	42.72	64.739	
4,900.00	4,671.68	4,623.25	4,690.42	27.43	19.86	-17.26	-4,062.34	487.76	2,732.65	2,689.06	43.59	62.694	
5,000.00	4,766.05	4,695.73	4,762.90	28.02	20.17	-17.42	-4,062.05	488.10	2,700.65	2,656.20	44.45	60.751	
5,100.00	4,860.43	4,789.23	4,856.40	28.61	20.56	-17.64	-4,062.09	488.59	2,669.11	2,623.75	45.36	58.842	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,884.04	4,951.21	29.20	20.95	-17.87	-4,062.14	488.98	2,637.59	2,591.32	46.27	57.005		
5,300.00	5,049.17	4,977.59	5,044.75	29.80	21.35	-18.09	-4,062.23	489.21	2,606.11	2,558.93	47.18	55.240		
5,400.00	5,143.55	5,073.54	5,140.71	30.39	21.75	-18.34	-4,062.27	489.68	2,574.67	2,526.58	48.09	53.537		
5,500.00	5,237.92	5,173.94	5,241.10	30.99	22.17	-18.60	-4,062.12	490.34	2,543.14	2,494.13	49.01	51.888		
5,600.00	5,332.29	5,288.48	5,355.64	31.58	22.65	-18.92	-4,061.35	491.19	2,511.20	2,461.26	49.95	50.277		
5,700.00	5,426.66	5,394.21	5,461.35	32.17	23.10	-19.24	-4,059.71	492.58	2,478.63	2,427.76	50.87	48.722		
5,800.00	5,521.04	5,525.47	5,592.48	32.77	23.65	-19.71	-4,055.47	496.29	2,444.85	2,393.03	51.81	47.184		
5,900.00	5,615.41	5,600.01	5,666.95	33.36	23.97	-19.98	-4,052.99	498.48	2,411.17	2,358.44	52.72	45.733		
6,000.00	5,709.78	5,673.18	5,740.07	33.96	24.28	-20.25	-4,051.30	500.09	2,378.31	2,324.68	53.63	44.346		
6,100.00	5,804.16	5,753.14	5,820.02	34.55	24.62	-20.52	-4,050.22	501.20	2,346.21	2,291.66	54.54	43.015		
6,200.00	5,898.53	5,839.52	5,906.40	35.14	24.98	-20.79	-4,049.67	501.68	2,314.60	2,259.14	55.46	41.733		
6,300.00	5,992.90	5,935.39	6,002.27	35.74	25.39	-21.10	-4,049.29	501.93	2,283.21	2,226.82	56.39	40.491		
6,400.00	6,087.27	6,035.07	6,101.95	36.33	25.81	-21.42	-4,048.67	501.92	2,251.58	2,194.26	57.31	39.284		
6,500.00	6,181.65	6,129.02	6,195.89	36.93	26.21	-21.73	-4,048.13	501.77	2,220.03	2,161.78	58.24	38.118		
6,600.00	6,276.02	6,230.39	6,297.27	37.52	26.64	-22.07	-4,047.33	501.56	2,188.32	2,129.15	59.17	36.984		
6,700.00	6,370.39	6,326.64	6,393.51	38.12	27.05	-22.41	-4,046.33	501.29	2,156.44	2,096.34	60.10	35.881		
6,800.00	6,464.77	6,415.82	6,482.68	38.71	27.43	-22.73	-4,045.51	501.10	2,124.75	2,063.72	61.03	34.813		
6,900.00	6,559.14	6,510.03	6,576.89	39.31	27.83	-23.31	-4,044.83	500.62	2,093.22	2,031.26	61.97	33.780		
7,000.00	6,652.92	6,603.12	6,669.97	39.90	28.22	-24.64	-4,044.16	500.18	2,064.42	2,001.49	62.92	32.808		
7,100.00	6,744.00	6,698.79	6,765.64	40.44	28.63	-25.68	-4,043.18	500.27	2,041.57	1,977.66	63.91	31.945		
7,200.00	6,830.13	6,789.54	6,856.38	40.94	29.02	-26.32	-4,042.01	500.36	2,025.88	1,960.99	64.89	31.218		
7,300.00	6,909.19	6,867.71	6,934.54	41.37	29.35	-26.98	-4,041.02	500.11	2,018.78	1,952.89	65.88	30.641		
7,323.02	6,926.18	6,884.33	6,951.16	41.45	29.42	-27.03	-4,040.81	500.07	2,018.51	1,952.39	66.12	30.530 CC, ES		
7,400.00	6,979.23	6,934.63	7,001.46	41.75	29.63	-27.45	-4,040.18	500.04	2,021.61	1,954.72	66.89	30.222		
7,500.00	7,038.53	6,989.03	7,055.85	42.08	29.86	-27.76	-4,039.39	500.44	2,035.35	1,967.41	67.94	29.960		
7,600.00	7,085.63	7,027.70	7,094.51	42.37	30.03	-28.54	-4,038.82	500.96	2,060.42	1,991.40	69.03	29.850 SF		
7,700.00	7,119.37	7,054.07	7,120.88	42.64	30.14	-29.33	-4,038.52	501.35	2,096.63	2,026.48	70.15	29.888		
7,800.00	7,138.92	7,068.76	7,135.57	42.91	30.20	-29.41	-4,038.38	501.57	2,143.06	2,071.78	71.28	30.065		
7,900.00	7,143.92	7,071.55	7,138.36	43.25	30.21	-29.59	-4,038.35	501.62	2,198.22	2,125.84	72.37	30.373		
8,000.00	7,143.35	7,069.81	7,136.62	43.72	30.21	-29.53	-4,038.37	501.59	2,258.10	2,184.65	73.45	30.744		
8,100.00	7,142.78	7,068.08	7,134.89	44.42	30.20	-29.48	-4,038.38	501.56	2,320.76	2,246.22	74.53	31.138		
8,200.00	7,142.22	7,066.36	7,133.16	45.39	30.19	-29.42	-4,038.40	501.54	2,385.96	2,310.35	75.60	31.558		
8,300.00	7,141.65	7,064.64	7,131.45	46.63	30.18	-29.37	-4,038.41	501.51	2,453.50	2,376.84	76.65	32.007		
8,400.00	7,141.08	7,062.94	7,129.75	48.09	30.18	-29.31	-4,038.43	501.48	2,523.19	2,445.52	77.67	32.484		
8,500.00	7,140.51	7,061.24	7,128.05	49.74	30.17	-29.26	-4,038.45	501.46	2,594.87	2,516.21	78.66	32.989		
8,600.00	7,139.94	7,059.55	7,126.36	51.53	30.16	-29.20	-4,038.46	501.43	2,668.37	2,588.77	79.60	33.521		
8,700.00	7,139.37	7,057.87	7,124.68	53.44	30.16	-29.15	-4,038.48	501.41	2,743.54	2,663.04	80.51	34.079		
8,800.00	7,138.80	7,056.20	7,123.01	55.45	30.15	-29.09	-4,038.49	501.38	2,820.26	2,738.89	81.37	34.661		
8,900.00	7,138.24	7,054.54	7,121.35	57.55	30.14	-29.04	-4,038.51	501.35	2,898.39	2,816.21	82.18	35.267		
9,000.00	7,137.67	7,052.88	7,119.69	59.71	30.13	-28.99	-4,038.53	501.33	2,977.83	2,894.87	82.96	35.894		
9,100.00	7,137.10	7,051.24	7,118.05	61.94	30.13	-28.93	-4,038.55	501.30	3,058.48	2,974.78	83.70	36.542		
9,200.00	7,136.53	7,049.60	7,116.41	64.22	30.12	-28.88	-4,038.56	501.28	3,140.24	3,055.84	84.40	37.208		
9,300.00	7,135.96	7,047.97	7,114.78	66.55	30.11	-28.83	-4,038.58	501.26	3,223.02	3,137.97	85.06	37.892		
9,400.00	7,135.39	7,046.34	7,113.16	68.92	30.11	-28.78	-4,038.60	501.23	3,306.76	3,221.08	85.69	38.592		
9,500.00	7,134.83	7,044.73	7,111.54	71.33	30.10	-28.73	-4,038.62	501.21	3,391.38	3,305.10	86.28	39.307		
9,600.00	7,134.26	7,043.12	7,109.94	73.77	30.09	-28.67	-4,038.63	501.18	3,476.81	3,389.97	86.84	40.036		
9,700.00	7,133.69	7,041.53	7,108.34	76.24	30.09	-28.62	-4,038.65	501.16	3,563.00	3,475.63	87.38	40.778		
9,800.00	7,133.12	7,039.93	7,106.75	78.74	30.08	-28.57	-4,038.67	501.14	3,649.90	3,562.02	87.88	41.532		
9,900.00	7,132.55	7,038.35	7,105.16	81.27	30.07	-28.52	-4,038.69	501.11	3,737.45	3,649.08	88.36	42.297		
10,000.00	7,131.98	7,036.78	7,103.59	83.81	30.07	-28.47	-4,038.71	501.09	3,825.60	3,736.79	88.82	43.072		
10,100.00	7,131.42	7,035.21	7,102.02	86.38	30.06	-28.42	-4,038.73	501.07	3,914.33	3,825.08	89.25	43.857		
10,200.00	7,130.85	7,033.65	7,100.46	88.96	30.05	-28.37	-4,038.75	501.05	4,003.59	3,913.92	89.66	44.651		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,032.10	7,098.91	91.56	30.05	-88.32	-4,038.76	501.02	4,093.34	4,003.29	90.06	45.453		
10,400.00	7,129.71	7,030.55	7,097.36	94.18	30.04	-88.27	-4,038.78	501.00	4,183.56	4,093.13	90.43	46.263		
10,500.00	7,129.14	7,029.01	7,095.83	96.81	30.03	-88.22	-4,038.80	500.98	4,274.21	4,183.42	90.79	47.079		
10,600.00	7,128.57	7,027.48	7,094.30	99.45	30.03	-88.17	-4,038.82	500.96	4,365.27	4,274.14	91.13	47.903		
10,700.00	7,128.00	7,025.96	7,092.77	102.11	30.02	-88.12	-4,038.84	500.94	4,456.71	4,365.26	91.45	48.732		
10,800.00	7,127.44	7,024.44	7,091.26	104.77	30.01	-88.08	-4,038.86	500.91	4,548.52	4,456.75	91.76	49.567		
10,900.00	7,126.87	7,022.94	7,089.75	107.45	30.01	-88.03	-4,038.88	500.89	4,640.66	4,548.59	92.06	50.408		
11,000.00	7,126.30	7,021.43	7,088.25	110.13	30.00	-87.98	-4,038.90	500.87	4,733.11	4,640.77	92.35	51.254		
11,100.00	7,125.73	7,019.94	7,086.75	112.82	29.99	-87.93	-4,038.92	500.85	4,825.87	4,733.25	92.62	52.104		
11,200.00	7,125.16	7,018.45	7,085.27	115.53	29.99	-87.88	-4,038.94	500.83	4,918.91	4,826.03	92.88	52.958		
11,300.00	7,124.59	7,016.97	7,083.79	118.24	29.98	-87.84	-4,038.96	500.81	5,012.22	4,919.09	93.14	53.817		
11,400.00	7,124.03	7,015.50	7,082.31	120.95	29.98	-87.79	-4,038.99	500.79	5,105.79	5,012.41	93.38	54.679		
11,500.00	7,123.46	7,014.03	7,080.85	123.67	29.97	-87.74	-4,039.01	500.77	5,199.59	5,105.98	93.61	55.545		
11,600.00	7,122.89	7,012.57	7,079.39	126.40	29.96	-87.70	-4,039.03	500.75	5,293.61	5,199.78	93.84	56.414		
11,700.00	7,122.32	7,011.12	7,077.94	129.14	29.96	-87.65	-4,039.05	500.73	5,387.86	5,293.80	94.05	57.286		
11,800.00	7,121.75	7,009.67	7,076.49	131.88	29.95	-87.60	-4,039.07	500.71	5,482.30	5,388.04	94.26	58.161		
11,900.00	7,121.18	7,008.24	7,075.05	134.62	29.94	-87.56	-4,039.09	500.69	5,576.94	5,482.48	94.46	59.038		
12,000.00	7,120.61	7,006.80	7,073.62	137.37	29.94	-87.51	-4,039.11	500.67	5,671.76	5,577.10	94.66	59.918		
12,100.00	7,120.05	7,005.37	7,072.19	140.12	29.91	-87.29	-4,039.22	500.58	5,766.76	5,671.93	94.83	60.813		
12,200.00	7,119.48	7,004.01	7,070.83	142.88	29.91	-87.29	-4,039.22	500.58	5,861.92	5,766.91	95.02	61.694		
12,300.00	7,118.91	7,002.65	7,069.47	145.64	29.91	-87.29	-4,039.22	500.58	5,957.24	5,862.05	95.20	62.577		
12,400.00	7,118.34	7,001.30	7,068.11	148.41	29.91	-87.29	-4,039.22	500.58	6,052.71	5,957.34	95.38	63.462		
12,500.00	7,117.77	7,000.01	7,066.83	151.18	29.91	-87.29	-4,039.22	500.58	6,148.33	6,052.78	95.55	64.348		
12,600.00	7,117.20	7,000.01	7,066.83	153.95	29.91	-87.29	-4,039.22	500.58	6,244.08	6,148.37	95.71	65.236		
12,700.00	7,116.64	7,000.01	7,066.83	156.73	29.91	-87.29	-4,039.22	500.58	6,339.96	6,244.09	95.88	66.126		
12,800.00	7,116.07	7,000.01	7,066.83	159.50	29.91	-87.29	-4,039.22	500.58	6,435.97	6,339.94	96.04	67.016		
12,900.00	7,115.50	7,000.01	7,066.83	162.29	29.91	-87.29	-4,039.22	500.58	6,532.10	6,435.91	96.19	67.908		
13,000.00	7,114.93	7,000.01	7,066.83	165.07	29.91	-87.29	-4,039.22	500.58	6,628.34	6,532.00	96.34	68.800		
13,100.00	7,114.36	7,000.01	7,066.83	167.86	29.91	-87.29	-4,039.22	500.58	6,724.70	6,628.21	96.49	69.694		
13,200.00	7,113.79	7,000.01	7,066.83	170.64	29.91	-87.29	-4,039.22	500.58	6,821.15	6,724.52	96.63	70.589		
13,300.00	7,113.22	7,000.01	7,066.83	173.44	29.91	-87.29	-4,039.22	500.58	6,917.71	6,820.94	96.77	71.484		
13,400.00	7,112.66	7,000.01	7,066.83	176.23	29.91	-87.29	-4,039.22	500.58	7,014.37	6,917.46	96.91	72.380		
13,500.00	7,112.09	7,000.01	7,066.83	179.02	29.91	-87.29	-4,039.22	500.58	7,111.11	7,014.07	97.05	73.276		
13,600.00	7,111.52	7,000.01	7,066.83	181.82	29.91	-87.29	-4,039.22	500.58	7,207.95	7,110.77	97.18	74.173		
13,700.00	7,110.95	7,000.01	7,066.83	184.62	29.91	-87.29	-4,039.22	500.58	7,304.87	7,207.56	97.31	75.071		
13,800.00	7,110.38	7,000.01	7,066.83	187.42	29.91	-87.29	-4,039.22	500.58	7,401.87	7,304.44	97.43	75.969		
13,900.00	7,109.81	7,000.01	7,066.83	190.22	29.91	-87.29	-4,039.22	500.58	7,498.95	7,401.40	97.56	76.867		
14,000.00	7,109.25	7,000.01	7,066.83	193.03	29.91	-87.29	-4,039.22	500.58	7,596.11	7,498.43	97.68	77.766		
14,100.00	7,108.68	7,000.01	7,066.83	195.84	29.91	-87.29	-4,039.22	500.58	7,693.34	7,595.54	97.80	78.664		
14,200.00	7,108.11	7,000.01	7,066.83	198.64	29.91	-87.29	-4,039.22	500.58	7,790.64	7,692.73	97.92	79.563		
14,300.00	7,107.54	7,000.01	7,066.83	201.45	29.91	-87.29	-4,039.22	500.58	7,888.01	7,789.98	98.03	80.462		
14,400.00	7,106.97	7,000.01	7,066.83	204.26	29.91	-87.29	-4,039.22	500.58	7,985.44	7,887.30	98.15	81.361		
14,500.00	7,106.40	7,000.01	7,066.83	207.07	29.91	-87.29	-4,039.22	500.58	8,082.94	7,984.68	98.26	82.260		
14,600.00	7,105.83	7,000.01	7,066.83	209.89	29.91	-87.29	-4,039.22	500.58	8,180.50	8,082.12	98.37	83.159		
14,700.00	7,105.27	7,000.01	7,066.83	212.70	29.91	-87.29	-4,039.22	500.58	8,278.11	8,179.63	98.48	84.058		
14,800.00	7,104.70	7,000.01	7,066.83	215.52	29.91	-87.29	-4,039.22	500.58	8,375.78	8,277.19	98.59	84.956		
14,900.00	7,104.13	7,000.01	7,066.83	218.33	29.91	-87.29	-4,039.22	500.58	8,473.51	8,374.81	98.70	85.855		
15,000.00	7,103.56	7,000.01	7,066.83	221.15	29.91	-87.29	-4,039.22	500.58	8,571.28	8,472.48	98.80	86.753		
15,100.00	7,102.99	7,000.01	7,066.83	223.97	29.91	-87.29	-4,039.22	500.58	8,669.11	8,570.21	98.91	87.651		
15,200.00	7,102.42	7,000.01	7,066.83	226.79	29.91	-87.29	-4,039.22	500.58	8,766.99	8,667.98	99.01	88.548		
15,274.57	7,102.00	7,000.01	7,066.83	228.89	29.91	-87.29	-4,039.22	500.58	8,840.01	8,740.92	99.08	89.217		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	22.19	-1.81	3.28	3.28	172.32	-4,059.44	547.75	4,096.23					
100.00	100.00	115.51	91.50	3.28	3.29	172.32	-4,059.58	547.64	4,096.37	4,089.79	6.58	622.859		
200.00	200.00	214.66	190.66	3.34	3.36	172.32	-4,059.83	547.53	4,096.60	4,089.91	6.69	612.155		
300.00	299.98	320.52	296.52	3.44	3.48	-11.65	-4,060.01	547.32	4,095.03	4,088.11	6.92	591.887		
400.00	399.84	420.71	396.71	3.59	3.65	-11.68	-4,060.15	546.97	4,089.99	4,082.76	7.24	565.257		
500.00	499.45	522.43	498.43	3.79	3.86	-11.73	-4,060.23	546.66	4,081.49	4,073.85	7.64	533.880		
600.00	598.70	620.16	596.16	4.03	4.09	-11.81	-4,060.33	546.30	4,069.61	4,061.49	8.12	501.093		
700.00	697.47	720.51	696.51	4.31	4.36	-11.91	-4,060.40	546.01	4,054.32	4,045.65	8.67	467.677		
800.00	795.62	815.41	791.41	4.64	4.64	-12.04	-4,060.50	545.81	4,035.72	4,026.46	9.26	436.048		
900.00	893.06	914.22	890.21	5.00	4.95	-12.20	-4,060.62	545.49	4,013.78	4,003.88	9.90	405.490		
1,000.00	989.64	1,009.19	985.18	5.40	5.26	-12.39	-4,060.75	545.22	3,988.55	3,977.98	10.57	377.400		
1,100.00	1,085.27	1,108.63	1,084.62	5.83	5.60	-12.61	-4,060.86	544.94	3,960.01	3,948.72	11.29	350.870		
1,200.00	1,179.88	1,198.69	1,174.69	6.29	5.92	-12.79	-4,060.98	544.62	3,928.44	3,916.44	12.00	327.299		
1,300.00	1,274.26	1,285.75	1,261.74	6.78	6.23	-12.89	-4,061.23	544.25	3,896.32	3,883.61	12.72	306.389		
1,400.00	1,368.63	1,380.70	1,356.69	7.28	6.58	-12.99	-4,061.62	543.80	3,864.32	3,850.84	13.48	286.683		
1,500.00	1,463.00	1,481.19	1,457.18	7.80	6.96	-13.10	-4,061.94	543.22	3,832.24	3,817.96	14.28	268.389		
1,600.00	1,557.38	1,575.67	1,551.65	8.33	7.32	-13.20	-4,062.17	542.59	3,800.07	3,785.00	15.07	252.136		
1,700.00	1,651.75	1,669.37	1,645.35	8.87	7.68	-13.30	-4,062.41	541.98	3,767.94	3,752.06	15.87	237.363		
1,800.00	1,746.12	1,761.13	1,737.12	9.41	8.04	-13.41	-4,062.68	541.39	3,735.85	3,719.17	16.68	223.961		
1,900.00	1,840.49	1,851.34	1,827.32	9.96	8.40	-13.51	-4,063.06	540.70	3,703.87	3,686.38	17.49	211.753		
2,000.00	1,934.87	1,943.09	1,919.06	10.52	8.76	-13.61	-4,063.57	539.86	3,672.01	3,653.70	18.32	200.483		
2,100.00	2,029.24	2,040.79	2,016.76	11.08	9.15	-13.71	-4,064.16	538.72	3,640.17	3,621.01	19.17	189.912		
2,200.00	2,123.61	2,142.15	2,118.10	11.64	9.56	-13.83	-4,064.60	537.49	3,608.17	3,588.13	20.04	180.068		
2,300.00	2,217.99	2,243.88	2,219.83	12.21	9.97	-13.94	-4,064.90	536.12	3,576.04	3,555.12	20.91	170.989		
2,400.00	2,312.36	2,347.89	2,323.83	12.78	10.39	-14.06	-4,064.91	534.76	3,543.65	3,521.85	21.80	162.544		
2,500.00	2,406.73	2,445.38	2,421.31	13.35	10.79	-14.17	-4,064.71	533.58	3,511.09	3,488.42	22.67	154.874		
2,600.00	2,501.10	2,540.08	2,516.01	13.93	11.18	-14.29	-4,064.47	532.64	3,478.54	3,455.01	23.53	147.806		
2,700.00	2,595.48	2,636.06	2,611.98	14.51	11.57	-14.42	-4,064.16	531.82	3,445.95	3,421.55	24.41	141.195		
2,800.00	2,689.85	2,728.30	2,704.22	15.08	11.95	-14.54	-4,063.86	531.02	3,413.38	3,388.11	25.27	135.085		
2,900.00	2,784.22	2,818.40	2,794.31	15.66	12.32	-14.66	-4,063.68	530.28	3,380.94	3,354.81	26.13	129.401		
3,000.00	2,878.60	2,914.05	2,889.96	16.25	12.72	-14.79	-4,063.46	529.58	3,348.51	3,321.50	27.01	123.989		
3,100.00	2,972.97	2,995.80	2,971.71	16.83	13.06	-14.91	-4,063.41	529.12	3,316.28	3,288.43	27.85	119.091		
3,200.00	3,067.34	3,084.19	3,060.09	17.41	13.42	-15.04	-4,063.61	528.70	3,284.34	3,255.63	28.71	114.398		
3,300.00	3,161.72	3,180.70	3,156.60	18.00	13.82	-15.18	-4,063.91	528.20	3,252.49	3,222.89	29.60	109.885		
3,400.00	3,256.09	3,268.66	3,244.56	18.58	14.19	-15.32	-4,064.20	527.70	3,220.68	3,190.21	30.47	105.715		
3,500.00	3,350.46	3,355.93	3,331.84	19.17	14.56	-15.45	-4,064.73	527.18	3,189.13	3,157.79	31.33	101.781		
3,600.00	3,444.83	3,469.78	3,445.67	19.75	15.03	-15.63	-4,065.38	526.47	3,157.59	3,125.32	32.28	97.833		
3,700.00	3,539.21	3,588.79	3,564.69	20.34	15.53	-15.83	-4,064.87	526.14	3,125.16	3,091.94	33.23	94.051		
3,800.00	3,633.58	3,692.63	3,668.52	20.93	15.96	-16.01	-4,063.85	526.00	3,092.29	3,058.15	34.14	90.573		
3,900.00	3,727.95	3,794.72	3,770.60	21.52	16.39	-16.20	-4,062.58	525.78	3,059.18	3,024.13	35.05	87.280		
4,000.00	3,822.33	3,880.78	3,856.65	22.11	16.74	-16.36	-4,061.50	525.57	3,026.09	2,990.16	35.92	84.239		
4,100.00	3,916.70	3,968.39	3,944.26	22.70	17.11	-16.52	-4,060.66	525.24	2,993.26	2,956.46	36.80	81.337		
4,200.00	4,011.07	4,058.06	4,033.93	23.29	17.49	-16.69	-4,059.97	524.83	2,960.62	2,922.94	37.69	78.561		
4,300.00	4,105.44	4,143.49	4,119.35	23.88	17.85	-16.84	-4,059.50	524.30	2,928.18	2,889.62	38.56	75.933		
4,400.00	4,199.82	4,229.41	4,205.27	24.47	18.21	-17.01	-4,059.37	523.79	2,896.13	2,856.69	39.44	73.425		
4,500.00	4,294.19	4,324.31	4,300.17	25.06	18.61	-17.19	-4,059.28	523.25	2,864.16	2,823.82	40.35	70.991		
4,600.00	4,388.56	4,415.47	4,391.33	25.65	18.99	-17.37	-4,059.25	522.79	2,832.29	2,791.05	41.24	68.677		
4,700.00	4,482.94	4,510.97	4,486.83	26.24	19.40	-17.57	-4,059.23	522.36	2,800.48	2,758.33	42.15	66.447		
4,800.00	4,577.31	4,607.49	4,583.35	26.83	19.81	-17.77	-4,059.15	521.91	2,768.64	2,725.58	43.05	64.306		
4,900.00	4,671.68	4,695.76	4,671.61	27.43	20.18	-17.95	-4,059.17	521.45	2,736.90	2,692.95	43.95	62.275		
5,000.00	4,766.05	4,782.38	4,758.24	28.02	20.55	-18.14	-4,059.36	521.18	2,705.43	2,660.59	44.84	60.332		
5,100.00	4,860.43	4,875.70	4,851.56	28.61	20.94	-18.36	-4,059.68	521.21	2,674.17	2,628.42	45.75	58.453		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,970.29	4,946.15	29.20	21.34	-18.58	-4,059.99	521.23	2,642.94	2,596.28	46.66	56.643		
5,300.00	5,049.17	5,063.06	5,038.91	29.80	21.73	-18.81	-4,060.32	521.26	2,611.77	2,564.20	47.57	54.905		
5,400.00	5,143.55	5,155.75	5,131.60	30.39	22.12	-19.04	-4,060.72	521.31	2,580.72	2,532.24	48.48	53.233		
5,500.00	5,237.92	5,251.74	5,227.59	30.99	22.52	-19.28	-4,061.15	521.39	2,549.73	2,500.34	49.40	51.618		
5,600.00	5,332.29	5,348.41	5,324.26	31.58	22.93	-19.53	-4,061.52	521.30	2,518.68	2,468.36	50.32	50.058		
5,700.00	5,426.66	5,441.70	5,417.55	32.17	23.33	-19.78	-4,061.85	521.25	2,487.65	2,436.42	51.23	48.557		
5,800.00	5,521.04	5,546.57	5,522.42	32.77	23.77	-20.06	-4,062.20	521.22	2,456.67	2,404.51	52.16	47.098		
5,900.00	5,615.41	5,655.97	5,631.82	33.36	24.23	-20.38	-4,061.55	521.51	2,424.93	2,371.84	53.09	45.673		
6,000.00	5,709.78	5,744.59	5,720.44	33.96	24.60	-20.65	-4,060.92	521.67	2,393.14	2,339.13	54.01	44.310		
6,100.00	5,804.16	5,829.53	5,805.38	34.55	24.96	-20.90	-4,060.74	521.65	2,361.80	2,306.88	54.92	43.001		
6,200.00	5,898.53	5,921.25	5,897.10	35.14	25.35	-21.18	-4,060.80	521.55	2,330.75	2,274.90	55.85	41.735		
6,300.00	5,992.90	6,018.01	5,993.85	35.74	25.76	-21.47	-4,060.88	521.23	2,299.70	2,242.93	56.77	40.507		
6,400.00	6,087.27	6,110.24	6,086.08	36.33	26.16	-21.76	-4,061.02	520.80	2,268.74	2,211.04	57.70	39.321		
6,500.00	6,181.65	6,206.24	6,182.08	36.93	26.57	-22.06	-4,061.21	520.27	2,237.85	2,179.22	58.63	38.171		
6,600.00	6,276.02	6,313.16	6,289.00	37.52	27.02	-22.40	-4,061.12	519.49	2,206.70	2,147.14	59.56	37.051		
6,700.00	6,370.39	6,413.07	6,388.90	38.12	27.45	-22.73	-4,060.69	518.50	2,175.24	2,114.75	60.49	35.961		
6,800.00	6,464.77	6,505.28	6,481.11	38.71	27.84	-23.04	-4,060.25	517.57	2,143.78	2,082.36	61.42	34.904		
6,900.00	6,559.14	6,607.68	6,583.50	39.31	28.27	-23.63	-4,059.61	516.35	2,112.20	2,049.85	62.35	33.877		
7,000.00	6,652.92	6,699.63	6,675.44	39.90	28.67	-24.94	-4,058.97	515.09	2,083.24	2,019.94	63.31	32.907		
7,100.00	6,744.00	6,791.30	6,767.10	40.44	29.06	-26.89	-4,058.41	513.62	2,060.40	1,996.11	64.29	32.049		
7,200.00	6,830.13	6,888.16	6,863.92	40.94	29.47	-28.54	-4,057.81	511.44	2,044.70	1,979.43	65.27	31.329		
7,300.00	6,909.19	6,974.15	6,949.87	41.37	29.83	-29.91	-4,057.10	508.96	2,037.26	1,971.02	66.24	30.754		
7,328.61	6,930.23	6,996.96	6,972.68	41.48	29.93	-29.73	-4,056.88	508.28	2,036.86	1,970.33	66.53	30.617 CC, ES		
7,400.00	6,979.23	7,052.74	7,028.42	41.75	30.17	-29.40	-4,056.31	506.46	2,039.43	1,972.20	67.23	30.333		
7,500.00	7,038.53	7,119.62	7,095.25	42.08	30.46	-29.63	-4,055.60	503.90	2,052.09	1,983.83	68.26	30.062		
7,600.00	7,085.63	7,169.94	7,145.52	42.37	30.67	-29.78	-4,055.05	501.89	2,075.91	2,006.56	69.35	29.934 SF		
7,700.00	7,119.37	7,207.23	7,182.78	42.64	30.83	-29.90	-4,054.64	500.40	2,110.85	2,040.37	70.48	29.949		
7,800.00	7,138.92	7,230.57	7,206.11	42.91	30.93	-29.61	-4,054.39	499.47	2,156.25	2,084.62	71.63	30.104		
7,900.00	7,143.92	7,239.53	7,215.05	43.25	30.97	-29.03	-4,054.29	499.12	2,210.78	2,138.04	72.74	30.393		
8,000.00	7,143.35	7,242.94	7,218.47	43.72	30.98	-29.14	-4,054.26	498.98	2,270.25	2,196.40	73.84	30.745		
8,100.00	7,142.78	7,246.36	7,221.88	44.42	31.00	-29.25	-4,054.22	498.84	2,332.47	2,257.52	74.95	31.120		
8,200.00	7,142.22	7,249.77	7,225.29	45.39	31.01	-29.36	-4,054.18	498.71	2,397.26	2,321.20	76.05	31.521		
8,300.00	7,141.65	7,253.19	7,228.70	46.63	31.03	-29.47	-4,054.14	498.57	2,464.39	2,387.25	77.14	31.949		
8,400.00	7,141.08	7,256.60	7,232.11	48.09	31.04	-29.57	-4,054.11	498.43	2,533.68	2,455.50	78.19	32.404		
8,500.00	7,140.51	7,260.01	7,235.53	49.74	31.06	-29.68	-4,054.07	498.30	2,604.97	2,525.76	79.21	32.887		
8,600.00	7,139.94	7,263.43	7,238.94	51.53	31.07	-29.79	-4,054.03	498.16	2,678.09	2,597.91	80.19	33.397		
8,700.00	7,139.37	7,266.84	7,242.35	53.44	31.08	-29.90	-4,054.00	498.03	2,752.90	2,671.77	81.13	33.933		
8,800.00	7,138.80	7,270.26	7,245.76	55.45	31.10	-29.01	-4,053.96	497.89	2,829.26	2,747.24	82.03	34.493		
8,900.00	7,138.24	7,273.67	7,249.17	57.55	31.11	-29.12	-4,053.92	497.75	2,907.05	2,824.17	82.88	35.075		
9,000.00	7,137.67	7,277.09	7,252.58	59.71	31.13	-29.22	-4,053.88	497.62	2,986.16	2,902.47	83.69	35.679		
9,100.00	7,137.10	7,280.50	7,256.00	61.94	31.14	-29.33	-4,053.85	497.48	3,066.49	2,982.02	84.47	36.303		
9,200.00	7,136.53	7,283.92	7,259.41	64.22	31.16	-29.44	-4,053.81	497.34	3,147.94	3,062.74	85.20	36.946		
9,300.00	7,135.96	7,287.33	7,262.82	66.55	31.17	-29.55	-4,053.77	497.21	3,230.43	3,144.53	85.90	37.606		
9,400.00	7,135.39	7,290.75	7,266.23	68.92	31.19	-29.66	-4,053.74	497.07	3,313.88	3,227.31	86.57	38.282		
9,500.00	7,134.83	7,294.16	7,269.64	71.33	31.20	-29.77	-4,053.70	496.94	3,398.22	3,311.02	87.19	38.973		
9,600.00	7,134.26	7,297.58	7,273.06	73.77	31.22	-29.87	-4,053.66	496.80	3,483.38	3,395.59	87.79	39.677		
9,700.00	7,133.69	7,300.99	7,276.47	76.24	31.23	-29.98	-4,053.62	496.66	3,569.31	3,480.95	88.36	40.394		
9,800.00	7,133.12	7,304.41	7,279.88	78.74	31.25	-29.09	-4,053.59	496.53	3,655.96	3,567.05	88.90	41.123		
9,900.00	7,132.55	7,307.82	7,283.29	81.27	31.26	-29.20	-4,053.55	496.39	3,743.26	3,653.85	89.42	41.863		
10,000.00	7,131.98	7,311.24	7,286.70	83.81	31.27	-29.31	-4,053.51	496.25	3,831.19	3,741.28	89.91	42.613		
10,100.00	7,131.42	7,314.65	7,290.12	86.38	31.29	-29.42	-4,053.48	496.12	3,919.69	3,829.31	90.37	43.372		
10,200.00	7,130.85	7,318.07	7,293.53	88.96	31.30	-29.52	-4,053.44	495.98	4,008.73	3,917.91	90.82	44.140		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,321.48	7,296.94	91.56	31.32	-94.63	-4,053.40	495.85	4,098.27	4,007.02	91.24	44.915		
10,400.00	7,129.71	7,324.90	7,300.35	94.18	31.33	-94.74	-4,053.36	495.71	4,188.28	4,096.63	91.65	45.698		
10,500.00	7,129.14	7,328.31	7,303.76	96.81	31.35	-94.85	-4,053.33	495.57	4,278.73	4,186.69	92.04	46.488		
10,600.00	7,128.57	7,331.73	7,307.18	99.45	31.36	-94.96	-4,053.29	495.44	4,369.60	4,277.19	92.41	47.285		
10,700.00	7,128.00	7,335.14	7,310.59	102.11	31.38	-95.06	-4,053.25	495.30	4,460.85	4,368.08	92.77	48.087		
10,800.00	7,127.44	7,338.56	7,314.00	104.77	31.39	-95.17	-4,053.22	495.16	4,552.47	4,459.36	93.11	48.894		
10,900.00	7,126.87	7,341.97	7,317.41	107.45	31.41	-95.28	-4,053.18	495.03	4,644.43	4,551.00	93.44	49.707		
11,000.00	7,126.30	7,345.39	7,320.82	110.13	31.42	-95.39	-4,053.14	494.89	4,736.72	4,642.97	93.75	50.524		
11,100.00	7,125.73	7,348.80	7,324.24	112.82	31.44	-95.50	-4,053.10	494.76	4,829.31	4,735.25	94.06	51.346		
11,200.00	7,125.16	7,352.22	7,327.65	115.53	31.45	-95.60	-4,053.07	494.62	4,922.19	4,827.84	94.35	52.171		
11,300.00	7,124.59	7,355.63	7,331.06	118.24	31.46	-95.71	-4,053.03	494.48	5,015.34	4,920.71	94.63	53.000		
11,400.00	7,124.03	7,359.05	7,334.47	120.95	31.48	-95.82	-4,052.99	494.35	5,108.74	5,013.84	94.90	53.833		
11,500.00	7,123.46	7,362.46	7,337.88	123.67	31.49	-95.93	-4,052.96	494.21	5,202.39	5,107.23	95.16	54.669		
11,600.00	7,122.89	7,365.88	7,341.30	126.40	31.51	-96.03	-4,052.92	494.07	5,296.27	5,200.85	95.41	55.508		
11,700.00	7,122.32	7,369.29	7,344.71	129.14	31.52	-96.14	-4,052.88	493.94	5,390.37	5,294.71	95.66	56.349		
11,800.00	7,121.75	7,372.71	7,348.12	131.88	31.54	-96.25	-4,052.84	493.80	5,484.67	5,388.77	95.90	57.193		
11,900.00	7,121.18	7,376.12	7,351.53	134.62	31.55	-96.36	-4,052.81	493.67	5,579.17	5,483.04	96.13	58.040		
12,000.00	7,120.61	7,379.54	7,354.94	137.37	31.57	-96.46	-4,052.77	493.53	5,673.86	5,577.51	96.35	58.888		
12,100.00	7,120.05	7,382.95	7,358.36	140.12	31.58	-96.57	-4,052.73	493.39	5,768.72	5,672.16	96.57	59.739		
12,200.00	7,119.48	7,386.37	7,361.77	142.88	31.60	-96.68	-4,052.70	493.26	5,863.75	5,766.98	96.78	60.591		
12,300.00	7,118.91	7,389.78	7,365.18	145.64	31.61	-96.79	-4,052.66	493.12	5,958.95	5,861.97	96.98	61.445		
12,400.00	7,118.34	7,393.20	7,368.59	148.41	31.63	-96.89	-4,052.62	492.98	6,054.29	5,957.11	97.18	62.301		
12,500.00	7,117.77	7,396.61	7,372.00	151.18	31.64	-97.00	-4,052.58	492.85	6,149.79	6,052.41	97.37	63.157		
12,600.00	7,117.20	7,400.03	7,375.42	153.95	31.65	-97.11	-4,052.55	492.71	6,245.42	6,147.86	97.56	64.016		
12,700.00	7,116.64	7,403.44	7,378.83	156.73	31.67	-97.22	-4,052.51	492.58	6,341.18	6,243.44	97.75	64.875		
12,800.00	7,116.07	7,406.86	7,382.24	159.50	31.68	-97.32	-4,052.47	492.44	6,437.07	6,339.15	97.92	65.735		
12,900.00	7,115.50	7,410.27	7,385.65	162.29	31.70	-97.43	-4,052.44	492.30	6,533.09	6,434.99	98.10	66.596		
13,000.00	7,114.93	7,413.68	7,389.06	165.07	31.71	-97.54	-4,052.40	492.17	6,629.21	6,530.94	98.27	67.458		
13,100.00	7,114.36	7,417.10	7,392.48	167.86	31.73	-97.64	-4,052.36	492.03	6,725.45	6,627.02	98.44	68.321		
13,200.00	7,113.79	7,420.51	7,395.89	170.64	31.74	-97.75	-4,052.32	491.89	6,821.80	6,723.20	98.60	69.184		
13,300.00	7,113.22	7,423.93	7,399.30	173.44	31.76	-97.86	-4,052.29	491.76	6,918.25	6,819.49	98.76	70.048		
13,400.00	7,112.66	7,427.34	7,402.71	176.23	31.77	-97.97	-4,052.25	491.62	7,014.80	6,915.87	98.92	70.912		
13,500.00	7,112.09	7,430.75	7,406.12	179.02	31.78	-98.08	-4,052.21	491.48	7,111.50	7,012.54	99.08	71.776		
13,600.00	7,111.52	7,434.16	7,409.53	181.82	31.79	-98.19	-4,052.17	491.34	7,208.25	7,109.15	99.24	72.640		
13,700.00	7,110.95	7,437.57	7,412.94	184.62	31.80	-98.30	-4,052.13	491.20	7,305.08	7,205.85	99.40	73.504		
13,800.00	7,110.38	7,440.98	7,416.35	187.42	31.81	-98.41	-4,052.09	491.06	7,402.00	7,302.63	99.56	74.368		
13,900.00	7,109.81	7,444.39	7,419.76	190.22	31.82	-98.52	-4,052.05	490.92	7,498.99	7,399.50	99.72	75.232		
14,000.00	7,109.25	7,447.80	7,423.17	193.03	31.83	-98.63	-4,052.01	490.78	7,596.07	7,496.45	99.88	76.096		
14,100.00	7,108.68	7,451.21	7,426.58	195.84	31.84	-98.74	-4,051.97	490.64	7,693.22	7,593.47	99.99	76.960		
14,200.00	7,108.11	7,454.62	7,429.99	198.64	31.85	-98.85	-4,051.93	490.50	7,790.44	7,690.57	100.00	77.824		
14,300.00	7,107.54	7,458.03	7,433.40	201.45	31.86	-98.96	-4,051.89	490.36	7,887.73	7,787.74	100.00	78.688		
14,400.00	7,106.97	7,461.44	7,436.81	204.26	31.87	-99.07	-4,051.85	490.22	7,985.09	7,884.98	100.00	79.552		
14,500.00	7,106.40	7,464.85	7,440.22	207.07	31.88	-99.18	-4,051.81	490.08	8,082.52	7,982.29	100.00	80.416		
14,600.00	7,105.83	7,468.26	7,443.63	209.89	31.89	-99.29	-4,051.77	489.94	8,180.00	8,079.66	100.00	81.280		
14,700.00	7,105.27	7,471.67	7,447.04	212.70	31.90	-99.40	-4,051.73	489.80	8,277.55	8,177.09	100.00	82.144		
14,800.00	7,104.70	7,475.08	7,450.45	215.52	31.91	-99.51	-4,051.69	489.66	8,375.15	8,274.58	100.00	83.008		
14,900.00	7,104.13	7,478.49	7,453.86	218.33	31.92	-99.62	-4,051.65	489.52	8,472.81	8,372.13	100.00	83.872		
15,000.00	7,103.56	7,481.90	7,457.27	221.15	31.93	-99.73	-4,051.61	489.38	8,570.52	8,469.73	100.00	84.736		
15,100.00	7,102.99	7,485.31	7,460.68	223.97	31.94	-99.84	-4,051.57	489.24	8,668.29	8,567.39	100.00	85.600		
15,200.00	7,102.42	7,488.72	7,464.09	226.79	31.95	-99.95	-4,051.53	489.10	8,766.10	8,665.10	100.00	86.464		
15,274.57	7,102.00	7,492.13	7,467.50	228.89	31.96	-99.99	-4,051.49	489.00	8,839.08	8,737.99	101.08	87.445		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	24.89	-0.11	3.28	3.28	-23.74	2,622.67	-1,153.62	2,865.17					
100.00	100.00	122.80	97.80	3.28	3.29	-23.75	2,622.60	-1,153.82	2,865.19	2,858.61	6.58	435.474 ES		
200.00	200.00	220.54	195.54	3.34	3.36	-23.75	2,622.76	-1,153.90	2,865.38	2,858.68	6.70	427.851		
300.00	299.98	330.13	305.13	3.44	3.49	152.31	2,622.75	-1,153.55	2,866.77	2,859.84	6.93	413.577		
400.00	399.84	421.65	396.65	3.59	3.64	152.31	2,622.85	-1,153.43	2,871.44	2,864.21	7.24	396.829		
500.00	499.45	530.06	505.06	3.79	3.87	152.33	2,622.78	-1,153.37	2,879.08	2,871.42	7.66	375.869		
600.00	598.70	636.98	611.97	4.03	4.13	152.35	2,622.61	-1,153.09	2,889.66	2,881.49	8.16	354.023		
700.00	697.47	741.60	716.60	4.31	4.42	152.39	2,622.05	-1,152.49	2,902.83	2,894.10	8.73	332.588		
800.00	795.62	837.56	812.55	4.64	4.70	152.41	2,621.76	-1,152.01	2,919.33	2,910.00	9.32	313.067		
900.00	893.06	943.79	918.78	5.00	5.04	152.46	2,621.12	-1,151.20	2,938.53	2,928.53	10.00	293.800		
1,000.00	989.64	1,032.79	1,007.77	5.40	5.33	152.46	2,620.64	-1,150.64	2,960.91	2,950.25	10.66	277.688		
1,100.00	1,085.27	1,123.89	1,098.87	5.83	5.65	152.47	2,620.35	-1,150.16	2,986.59	2,975.23	11.36	262.817		
1,200.00	1,179.88	1,222.32	1,197.30	6.29	5.99	152.59	2,620.00	-1,149.65	3,015.11	3,002.99	12.12	248.719		
1,300.00	1,274.26	1,316.20	1,291.18	6.78	6.33	152.88	2,619.58	-1,149.23	3,044.29	3,031.41	12.88	236.416		
1,400.00	1,368.63	1,404.54	1,379.52	7.28	6.66	153.14	2,619.37	-1,148.68	3,073.66	3,060.04	13.63	225.524		
1,500.00	1,463.00	1,500.76	1,475.73	7.80	7.02	153.43	2,619.22	-1,148.07	3,103.17	3,088.74	14.43	215.072		
1,600.00	1,557.38	1,605.64	1,580.62	8.33	7.42	153.73	2,618.75	-1,147.59	3,132.56	3,117.28	15.28	205.023		
1,700.00	1,651.75	1,696.15	1,671.12	8.87	7.77	153.98	2,618.10	-1,147.61	3,161.93	3,145.85	16.08	196.616		
1,800.00	1,746.12	1,781.00	1,755.97	9.41	8.10	154.20	2,617.58	-1,147.88	3,191.54	3,174.67	16.87	189.199		
1,900.00	1,840.49	1,896.05	1,871.02	9.96	8.56	154.50	2,616.85	-1,148.07	3,221.16	3,203.37	17.80	180.995		
2,000.00	1,934.87	1,979.31	1,954.28	10.52	8.89	154.71	2,616.05	-1,148.31	3,250.58	3,231.99	18.59	174.838		
2,100.00	2,029.24	2,072.35	2,047.31	11.08	9.26	154.94	2,615.33	-1,148.85	3,280.30	3,260.87	19.44	168.773		
2,200.00	2,123.61	2,176.67	2,151.62	11.64	9.67	155.19	2,614.46	-1,149.20	3,309.95	3,289.61	20.34	162.745		
2,300.00	2,217.99	2,268.47	2,243.42	12.21	10.05	155.41	2,613.55	-1,149.43	3,339.46	3,318.27	21.19	157.617		
2,400.00	2,312.36	2,362.83	2,337.77	12.78	10.43	155.63	2,612.66	-1,149.90	3,369.15	3,347.10	22.05	152.783		
2,500.00	2,406.73	2,457.16	2,432.09	13.35	10.81	155.84	2,611.64	-1,150.62	3,398.84	3,375.92	22.92	148.291		
2,600.00	2,501.10	2,548.55	2,523.47	13.93	11.19	156.04	2,610.66	-1,151.48	3,428.64	3,404.87	23.78	144.200		
2,700.00	2,595.48	2,636.50	2,611.42	14.51	11.55	156.22	2,609.83	-1,152.33	3,458.60	3,433.99	24.62	140.485		
2,800.00	2,689.85	2,719.87	2,694.78	15.08	11.89	156.40	2,609.33	-1,153.04	3,488.87	3,463.43	25.44	137.145		
2,900.00	2,784.22	2,801.61	2,776.52	15.66	12.22	156.57	2,609.10	-1,153.84	3,519.50	3,493.25	26.25	134.068		
3,000.00	2,878.60	2,900.99	2,875.90	16.25	12.63	156.78	2,608.92	-1,154.86	3,550.28	3,523.12	27.15	130.742		
3,100.00	2,972.97	2,996.05	2,970.94	16.83	13.03	156.96	2,608.58	-1,156.10	3,581.01	3,552.98	28.04	127.719		
3,200.00	3,067.34	3,089.72	3,064.61	17.41	13.41	157.14	2,608.16	-1,157.60	3,611.79	3,582.87	28.92	124.903		
3,300.00	3,161.72	3,177.42	3,152.28	18.00	13.78	157.30	2,607.85	-1,159.06	3,642.69	3,612.92	29.76	122.382		
3,400.00	3,256.09	3,265.53	3,240.38	18.58	14.14	157.46	2,607.58	-1,160.90	3,673.80	3,643.18	30.62	119.995		
3,500.00	3,350.46	3,356.51	3,331.33	19.17	14.52	157.61	2,607.36	-1,163.12	3,705.07	3,673.59	31.48	117.681		
3,600.00	3,444.83	3,454.70	3,429.49	19.75	14.93	157.77	2,607.12	-1,165.53	3,736.39	3,704.00	32.39	115.349		
3,700.00	3,539.21	3,549.04	3,523.81	20.34	15.33	157.93	2,606.82	-1,167.67	3,767.61	3,734.33	33.28	113.210		
3,800.00	3,633.58	3,676.17	3,650.90	20.93	15.86	158.13	2,606.23	-1,170.49	3,798.78	3,764.43	34.35	110.598		
3,900.00	3,727.95	3,797.31	3,772.00	21.52	16.37	158.32	2,604.32	-1,173.12	3,828.85	3,793.47	35.39	108.205		
4,000.00	3,822.33	3,895.40	3,870.05	22.11	16.78	158.47	2,602.51	-1,175.08	3,858.68	3,822.38	36.30	106.303		
4,100.00	3,916.70	3,989.44	3,964.06	22.70	17.18	158.61	2,600.73	-1,177.01	3,888.51	3,851.32	37.19	104.554		
4,200.00	4,011.07	4,086.99	4,061.57	23.29	17.59	158.75	2,598.84	-1,179.13	3,918.35	3,880.24	38.10	102.833		
4,300.00	4,105.44	4,184.13	4,158.66	23.88	18.00	158.89	2,596.90	-1,181.21	3,948.14	3,909.12	39.02	101.195		
4,400.00	4,199.82	4,282.12	4,256.62	24.47	18.41	159.03	2,594.90	-1,183.26	3,977.90	3,937.96	39.93	99.618		
4,500.00	4,294.19	4,376.19	4,350.64	25.06	18.81	159.16	2,592.95	-1,185.19	4,007.64	3,966.81	40.83	98.162		
4,600.00	4,388.56	4,472.76	4,447.17	25.65	19.22	159.29	2,590.95	-1,187.23	4,037.41	3,995.68	41.74	96.736		
4,700.00	4,482.94	4,570.00	4,544.36	26.24	19.63	159.42	2,588.84	-1,189.38	4,067.15	4,024.50	42.65	95.361		
4,800.00	4,577.31	4,663.48	4,637.80	26.83	20.02	159.54	2,586.81	-1,191.45	4,096.89	4,053.35	43.54	94.087		
4,900.00	4,671.68	4,774.51	4,748.77	27.43	20.49	159.68	2,584.30	-1,193.88	4,126.58	4,082.05	44.54	92.656		
5,000.00	4,766.05	4,879.23	4,853.43	28.02	20.94	159.82	2,581.51	-1,196.02	4,155.87	4,110.37	45.49	91.348		
5,100.00	4,860.43	4,969.08	4,943.23	28.61	21.32	159.93	2,579.09	-1,197.81	4,185.14	4,138.77	46.37	90.258		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	5,057.61	5,031.72	29.20	21.69	160.04	2,576.89	-1,199.52	4,214.60	4,167.36	47.24	89.226		
5,300.00	5,049.17	5,144.55	5,118.63	29.80	22.06	160.15	2,574.90	-1,201.10	4,244.22	4,196.13	48.09	88.252		
5,400.00	5,143.55	5,230.15	5,204.19	30.39	22.42	160.26	2,573.14	-1,202.67	4,274.08	4,225.14	48.94	87.332		
5,500.00	5,237.92	5,315.96	5,289.97	30.99	22.79	160.37	2,571.56	-1,204.16	4,304.14	4,254.35	49.79	86.447		
5,600.00	5,332.29	5,396.76	5,370.76	31.58	23.13	160.47	2,570.41	-1,205.24	4,334.49	4,283.88	50.61	85.649		
5,700.00	5,426.66	5,491.37	5,465.35	32.17	23.53	160.60	2,569.28	-1,206.26	4,365.02	4,313.52	51.51	84.746		
5,800.00	5,521.04	5,577.40	5,551.37	32.77	23.90	160.71	2,568.30	-1,207.30	4,395.65	4,343.30	52.36	83.958		
5,900.00	5,615.41	5,654.95	5,628.91	33.36	24.23	160.81	2,567.64	-1,208.24	4,426.57	4,373.42	53.15	83.283		
6,000.00	5,709.78	5,760.06	5,734.02	33.96	24.67	160.96	2,567.21	-1,208.93	4,457.79	4,403.68	54.11	82.379		
6,100.00	5,804.16	5,871.41	5,845.36	34.55	25.14	161.12	2,566.31	-1,208.71	4,488.44	4,433.33	55.11	81.439		
6,200.00	5,898.53	5,971.29	5,945.24	35.14	25.57	161.26	2,565.40	-1,208.36	4,519.00	4,462.96	56.05	80.631		
6,300.00	5,992.90	6,149.95	6,123.85	35.74	26.33	161.54	2,562.36	-1,205.31	4,548.47	4,491.02	57.45	79.179		
6,400.00	6,087.27	6,337.89	6,311.60	36.33	27.13	161.85	2,556.28	-1,199.77	4,576.40	4,517.51	58.88	77.721		
6,500.00	6,181.65	6,400.00	6,373.62	36.93	27.39	161.94	2,553.55	-1,198.06	4,603.40	4,543.80	59.60	77.236		
6,600.00	6,276.02	6,462.36	6,435.92	37.52	27.66	162.03	2,551.13	-1,196.94	4,631.13	4,570.81	60.32	76.778		
6,700.00	6,370.39	6,500.00	6,473.55	38.12	27.82	162.08	2,550.05	-1,196.61	4,659.97	4,599.09	60.88	76.540		
6,800.00	6,464.77	6,563.48	6,537.02	38.71	28.09	162.16	2,548.76	-1,196.38	4,689.71	4,628.11	61.60	76.137		
6,900.00	6,559.14	6,626.82	6,600.35	39.31	28.36	162.00	2,548.04	-1,196.39	4,720.27	4,657.97	62.30	75.763		
7,000.00	6,652.92	6,709.00	6,682.53	39.90	28.71	136.31	2,547.35	-1,196.62	4,749.33	4,686.20	63.13	75.234		
7,100.00	6,744.00	6,785.45	6,758.97	40.44	29.03	118.25	2,546.88	-1,197.10	4,774.61	4,710.71	63.90	74.716		
7,200.00	6,830.13	6,842.91	6,816.43	40.94	29.28	106.64	2,546.72	-1,197.68	4,795.88	4,731.34	64.53	74.315		
7,300.00	6,909.19	6,900.00	6,873.51	41.37	29.52	99.22	2,546.94	-1,198.46	4,813.11	4,747.96	65.15	73.880		
7,400.00	6,979.23	6,964.13	6,937.63	41.75	29.79	94.55	2,547.37	-1,199.40	4,825.98	4,760.15	65.82	73.318		
7,500.00	7,038.53	7,025.99	6,999.48	42.08	30.05	91.69	2,547.74	-1,200.22	4,834.31	4,767.76	66.55	72.645		
7,600.00	7,085.63	7,071.49	7,044.98	42.37	30.25	90.01	2,548.03	-1,200.80	4,838.42	4,771.14	67.28	71.917		
7,700.00	7,119.37	7,104.45	7,077.94	42.64	30.39	89.22	2,548.25	-1,201.22	4,838.59	4,770.51	68.08	71.070		
7,800.00	7,138.92	7,123.98	7,097.47	42.91	30.47	89.13	2,548.39	-1,201.45	4,835.10	4,766.12	68.98	70.095		
7,900.00	7,143.92	7,129.74	7,103.23	43.25	30.49	89.54	2,548.44	-1,201.52	4,828.25	4,758.28	69.96	69.012		
8,000.00	7,143.35	7,130.26	7,103.75	43.72	30.50	89.55	2,548.44	-1,201.52	4,821.44	4,750.36	71.08	67.832		
8,100.00	7,142.78	7,130.77	7,104.25	44.42	30.50	89.55	2,548.44	-1,201.53	4,816.70	4,744.35	72.35	66.579		
8,200.00	7,142.22	7,131.27	7,104.76	45.39	30.50	89.56	2,548.45	-1,201.53	4,814.03	4,740.28	73.75	65.276		
8,278.47	7,141.77	7,131.66	7,105.15	46.34	30.50	89.56	2,548.45	-1,201.54	4,813.39	4,738.45	74.94	64.227		
8,300.00	7,141.65	7,131.77	7,105.26	46.63	30.50	89.57	2,548.45	-1,201.54	4,813.44	4,738.17	75.27	63.948		
8,400.00	7,141.08	7,132.27	7,105.75	48.09	30.50	89.57	2,548.46	-1,201.55	4,814.92	4,738.03	76.90	62.615		
8,500.00	7,140.51	7,132.76	7,106.24	49.74	30.51	89.58	2,548.46	-1,201.55	4,818.49	4,739.87	78.61	61.293		
8,600.00	7,139.94	7,133.24	7,106.73	51.53	30.51	89.58	2,548.46	-1,201.56	4,824.12	4,743.71	80.41	59.997		
8,700.00	7,139.37	7,133.72	7,107.21	53.44	30.51	89.59	2,548.47	-1,201.56	4,831.81	4,749.55	82.26	58.738		
8,800.00	7,138.80	7,134.20	7,107.69	55.45	30.51	89.59	2,548.47	-1,201.57	4,841.56	4,757.40	84.16	57.525		
8,900.00	7,138.24	7,134.67	7,108.16	57.55	30.51	89.60	2,548.47	-1,201.57	4,853.35	4,767.24	86.11	56.363		
9,000.00	7,137.67	7,135.14	7,108.63	59.71	30.52	89.61	2,548.48	-1,201.58	4,867.17	4,779.09	88.08	55.257		
9,100.00	7,137.10	7,135.61	7,109.10	61.94	30.52	89.61	2,548.48	-1,201.58	4,882.99	4,792.92	90.08	54.210		
9,200.00	7,136.53	7,136.07	7,109.56	64.22	30.52	89.62	2,548.48	-1,201.59	4,900.81	4,808.73	92.08	53.222		
9,300.00	7,135.96	7,136.53	7,110.01	66.55	30.52	89.62	2,548.49	-1,201.59	4,920.59	4,826.50	94.09	52.296		
9,400.00	7,135.39	7,136.98	7,110.47	68.92	30.52	89.63	2,548.49	-1,201.60	4,942.32	4,846.22	96.10	51.429		
9,500.00	7,134.83	7,137.43	7,110.92	71.33	30.53	89.63	2,548.49	-1,201.60	4,965.97	4,867.87	98.10	50.622		
9,600.00	7,134.26	7,137.87	7,111.36	73.77	30.53	89.64	2,548.50	-1,201.61	4,991.51	4,891.42	100.09	49.872		
9,700.00	7,133.69	7,138.32	7,111.80	76.24	30.53	89.64	2,548.50	-1,201.61	5,018.91	4,916.85	102.06	49.178		
9,800.00	7,133.12	7,138.75	7,112.24	78.74	30.53	89.65	2,548.50	-1,201.62	5,048.14	4,944.14	104.00	48.539		
9,900.00	7,132.55	7,139.19	7,112.67	81.27	30.53	89.65	2,548.51	-1,201.62	5,079.18	4,973.25	105.92	47.952		
10,000.00	7,131.98	7,139.62	7,113.10	83.81	30.54	89.66	2,548.51	-1,201.63	5,111.98	5,004.17	107.81	47.415		
10,100.00	7,131.42	7,140.04	7,113.53	86.38	30.54	89.66	2,548.51	-1,201.63	5,146.52	5,036.84	109.67	46.926		
10,200.00	7,130.85	7,140.47	7,113.95	88.96	30.54	89.67	2,548.52	-1,201.63	5,182.75	5,071.25	111.50	46.482		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,140.89	7,114.37	91.56	30.54	89.67	2,548.52	-1,201.64	5,220.65	5,107.36	113.29	46.082		
10,400.00	7,129.71	7,141.30	7,114.79	94.18	30.54	89.68	2,548.52	-1,201.64	5,260.18	5,145.14	115.04	45.723		
10,500.00	7,129.14	7,141.71	7,115.20	96.81	30.54	89.68	2,548.53	-1,201.65	5,301.30	5,184.55	116.76	45.404		
10,600.00	7,128.57	7,142.12	7,115.61	99.45	30.55	89.69	2,548.53	-1,201.65	5,343.98	5,225.55	118.43	45.123		
10,700.00	7,128.00	7,142.53	7,116.02	102.11	30.55	89.69	2,548.53	-1,201.66	5,388.17	5,268.11	120.07	44.877		
10,800.00	7,127.44	7,142.93	7,116.42	104.77	30.55	89.70	2,548.54	-1,201.66	5,433.85	5,312.19	121.66	44.665		
10,900.00	7,126.87	7,143.33	7,116.82	107.45	30.55	89.70	2,548.54	-1,201.67	5,480.97	5,357.76	123.21	44.485		
11,000.00	7,126.30	7,143.73	7,117.21	110.13	30.55	89.71	2,548.54	-1,201.67	5,529.49	5,404.78	124.72	44.336		
11,100.00	7,125.73	7,144.12	7,117.61	112.82	30.55	89.71	2,548.55	-1,201.67	5,579.39	5,453.20	126.19	44.216		
11,200.00	7,125.16	7,144.51	7,118.00	115.53	30.56	89.72	2,548.55	-1,201.68	5,630.62	5,503.01	127.61	44.123		
11,300.00	7,124.59	7,144.90	7,118.38	118.24	30.56	89.72	2,548.55	-1,201.68	5,683.15	5,554.15	129.00	44.057		
11,400.00	7,124.03	7,145.28	7,118.77	120.95	30.56	89.73	2,548.55	-1,201.69	5,736.94	5,606.60	130.34	44.015		
11,500.00	7,123.46	7,145.66	7,119.15	123.67	30.56	89.73	2,548.56	-1,201.69	5,791.96	5,660.31	131.64	43.997 SF		
11,600.00	7,122.89	7,146.04	7,119.52	126.40	30.56	89.74	2,548.56	-1,201.69	5,848.17	5,715.26	132.91	44.002		
11,700.00	7,122.32	7,146.41	7,119.90	129.14	30.56	89.74	2,548.56	-1,201.70	5,905.54	5,771.40	134.13	44.028		
11,800.00	7,121.75	7,146.78	7,120.27	131.88	30.57	89.74	2,548.57	-1,201.70	5,964.03	5,828.71	135.32	44.074		
11,900.00	7,121.18	7,147.15	7,120.64	134.62	30.57	89.75	2,548.57	-1,201.71	6,023.61	5,887.15	136.47	44.140		
12,000.00	7,120.61	7,147.52	7,121.00	137.37	30.57	89.75	2,548.57	-1,201.71	6,084.26	5,946.68	137.58	44.224		
12,100.00	7,120.05	7,147.88	7,121.37	140.12	30.57	89.76	2,548.58	-1,201.71	6,145.93	6,007.28	138.65	44.326		
12,200.00	7,119.48	7,148.24	7,121.73	142.88	30.57	89.76	2,548.58	-1,201.72	6,208.61	6,068.91	139.69	44.444		
12,300.00	7,118.91	7,148.60	7,122.08	145.64	30.57	89.77	2,548.58	-1,201.72	6,272.25	6,131.55	140.70	44.579		
12,400.00	7,118.34	7,148.95	7,122.44	148.41	30.58	89.77	2,548.58	-1,201.72	6,336.83	6,195.15	141.67	44.728		
12,500.00	7,117.77	7,149.30	7,122.79	151.18	30.58	89.77	2,548.59	-1,201.73	6,402.32	6,259.70	142.62	44.892		
12,600.00	7,117.20	7,149.65	7,123.14	153.95	30.58	89.78	2,548.59	-1,201.73	6,468.69	6,325.17	143.52	45.070		
12,700.00	7,116.64	7,150.00	7,123.48	156.73	30.58	89.78	2,548.59	-1,201.73	6,535.92	6,391.52	144.40	45.261		
12,800.00	7,116.07	7,150.34	7,123.83	159.50	30.58	89.79	2,548.59	-1,201.74	6,603.98	6,458.73	145.25	45.465		
12,900.00	7,115.50	7,150.68	7,124.17	162.29	30.58	89.79	2,548.60	-1,201.74	6,672.84	6,526.77	146.07	45.681		
13,000.00	7,114.93	7,151.02	7,124.51	165.07	30.58	89.79	2,548.60	-1,201.74	6,742.49	6,595.62	146.87	45.908		
13,100.00	7,114.36	7,151.36	7,124.84	167.86	30.59	89.80	2,548.60	-1,201.75	6,812.88	6,665.25	147.63	46.147		
13,200.00	7,113.79	7,151.69	7,125.18	170.64	30.59	89.80	2,548.61	-1,201.75	6,884.02	6,735.64	148.38	46.396		
13,300.00	7,113.22	7,152.02	7,125.51	173.44	30.59	89.81	2,548.61	-1,201.76	6,955.86	6,806.77	149.09	46.655		
13,400.00	7,112.66	7,152.35	7,125.84	176.23	30.59	89.81	2,548.61	-1,201.76	7,028.39	6,878.61	149.78	46.924		
13,500.00	7,112.09	7,152.68	7,126.16	179.02	30.59	89.81	2,548.61	-1,201.76	7,101.59	6,951.14	150.45	47.202		
13,600.00	7,111.52	7,153.00	7,126.49	181.82	30.59	89.82	2,548.62	-1,201.76	7,175.43	7,024.34	151.10	47.489		
13,700.00	7,110.95	7,153.32	7,126.81	184.62	30.59	89.82	2,548.62	-1,201.77	7,249.90	7,098.18	151.72	47.784		
13,800.00	7,110.38	7,153.64	7,127.13	187.42	30.59	89.83	2,548.62	-1,201.77	7,324.98	7,172.66	152.32	48.088		
13,900.00	7,109.81	7,153.96	7,127.44	190.22	30.60	89.83	2,548.62	-1,201.77	7,400.65	7,247.75	152.91	48.400		
14,000.00	7,109.25	7,154.27	7,127.76	193.03	30.60	89.83	2,548.63	-1,201.78	7,476.90	7,323.42	153.47	48.719		
14,100.00	7,108.68	7,154.58	7,128.07	195.84	30.60	89.84	2,548.63	-1,201.78	7,553.69	7,399.68	154.02	49.045		
14,200.00	7,108.11	7,154.89	7,128.38	198.64	30.60	89.84	2,548.63	-1,201.78	7,631.03	7,476.48	154.54	49.378		
14,300.00	7,107.54	7,155.20	7,128.69	201.45	30.60	89.84	2,548.63	-1,201.79	7,708.88	7,553.83	155.05	49.718		
14,400.00	7,106.97	7,155.51	7,128.99	204.26	30.60	89.85	2,548.64	-1,201.79	7,787.24	7,631.70	155.54	50.064		
14,500.00	7,106.40	7,155.81	7,129.30	207.07	30.60	89.85	2,548.64	-1,201.79	7,866.09	7,710.07	156.02	50.417		
14,600.00	7,105.83	7,156.11	7,129.60	209.89	30.61	89.86	2,548.64	-1,201.80	7,945.42	7,788.94	156.48	50.775		
14,700.00	7,105.27	7,156.41	7,129.90	212.70	30.61	89.86	2,548.64	-1,201.80	8,025.21	7,868.28	156.93	51.139		
14,800.00	7,104.70	7,156.71	7,130.19	215.52	30.61	89.86	2,548.65	-1,201.80	8,105.45	7,948.09	157.36	51.509		
14,900.00	7,104.13	7,157.00	7,130.49	218.33	30.61	89.87	2,548.65	-1,201.80	8,186.12	8,028.34	157.78	51.884		
15,000.00	7,103.56	7,157.30	7,130.78	221.15	30.61	89.87	2,548.65	-1,201.81	8,267.21	8,109.03	158.18	52.264		
15,100.00	7,102.99	7,157.59	7,131.07	223.97	30.61	89.87	2,548.65	-1,201.81	8,348.72	8,190.14	158.57	52.649		
15,200.00	7,102.42	7,157.87	7,131.36	226.79	30.61	89.88	2,548.65	-1,201.81	8,430.62	8,271.67	158.95	53.039		
15,274.57	7,102.00	7,158.09	7,131.58	228.89	30.61	89.88	2,548.66	-1,201.82	8,491.95	8,332.72	159.23	53.332		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	19.00	3.28	3.28	-60.89	1,204.87	-2,164.11	2,476.98					
100.00	100.00	81.00	100.00	3.28	3.57	-60.89	1,204.87	-2,164.11	2,476.91	2,470.05	6.86	361.252		
200.00	200.00	181.00	200.00	3.34	5.63	-60.89	1,204.87	-2,164.11	2,476.91	2,467.94	8.96	276.290 CC		
300.00	299.98	280.98	299.98	3.44	8.71	115.17	1,204.87	-2,164.11	2,477.65	2,465.51	12.14	204.014		
400.00	399.84	380.84	399.84	3.59	12.01	115.24	1,204.87	-2,164.11	2,479.88	2,464.29	15.60	159.015 ES		
500.00	499.45	480.45	499.45	3.79	15.38	115.36	1,204.87	-2,164.11	2,483.62	2,464.45	19.17	129.569		
600.00	598.70	579.70	598.70	4.03	18.78	115.51	1,204.87	-2,164.11	2,488.88	2,466.07	22.81	109.110		
700.00	697.47	678.47	697.47	4.31	22.18	115.71	1,204.87	-2,164.11	2,495.72	2,469.22	26.50	94.187		
800.00	795.62	776.62	795.62	4.64	25.58	115.95	1,204.87	-2,164.11	2,504.15	2,473.94	30.21	82.885		
900.00	893.06	874.06	893.06	5.00	28.95	116.21	1,204.87	-2,164.11	2,514.25	2,480.31	33.95	74.068		
1,000.00	989.64	970.64	989.64	5.40	32.31	116.51	1,204.87	-2,164.11	2,526.07	2,488.38	37.69	67.029		
1,100.00	1,085.27	1,066.27	1,085.27	5.83	35.63	116.84	1,204.87	-2,164.11	2,539.67	2,498.24	41.43	61.303		
1,200.00	1,179.88	1,160.88	1,179.88	6.29	38.92	117.28	1,204.87	-2,164.11	2,555.03	2,509.86	45.17	56.570		
1,300.00	1,274.26	1,255.26	1,274.26	6.78	42.20	117.91	1,204.87	-2,164.11	2,571.05	2,522.14	48.91	52.562		
1,400.00	1,368.63	1,349.63	1,368.63	7.28	45.49	118.53	1,204.87	-2,164.11	2,587.40	2,534.72	52.68	49.116		
1,500.00	1,463.00	1,444.00	1,463.00	7.80	48.78	119.14	1,204.87	-2,164.11	2,604.06	2,547.61	56.46	46.126		
1,600.00	1,557.38	1,538.38	1,557.38	8.33	52.06	119.74	1,204.87	-2,164.11	2,621.04	2,560.80	60.24	43.508		
1,700.00	1,651.75	1,632.75	1,651.75	8.87	55.35	120.34	1,204.87	-2,164.11	2,638.32	2,574.28	64.04	41.200		
1,800.00	1,746.12	1,727.12	1,746.12	9.41	58.64	120.93	1,204.87	-2,164.11	2,655.90	2,588.06	67.84	39.152		
1,900.00	1,840.49	1,821.49	1,840.49	9.96	61.93	121.51	1,204.87	-2,164.11	2,673.77	2,602.13	71.64	37.322		
2,000.00	1,934.87	1,915.87	1,934.87	10.52	65.22	122.09	1,204.87	-2,164.11	2,691.93	2,616.48	75.45	35.678		
2,100.00	2,029.24	2,010.24	2,029.24	11.08	68.51	122.66	1,204.87	-2,164.11	2,710.38	2,631.12	79.26	34.195		
2,200.00	2,123.61	2,104.61	2,123.61	11.64	71.80	123.22	1,204.87	-2,164.11	2,729.10	2,646.02	83.08	32.851		
2,300.00	2,217.99	2,201.01	2,217.99	12.21	75.16	123.78	1,204.87	-2,164.11	2,748.09	2,661.12	86.96	31.601		
2,400.00	2,312.36	2,306.64	2,312.36	12.78	78.85	124.32	1,204.87	-2,164.11	2,767.34	2,676.17	91.17	30.353		
2,500.00	2,406.73	2,387.73	2,406.73	13.35	81.68	124.86	1,204.87	-2,164.11	2,786.85	2,692.33	94.53	29.483		
2,600.00	2,501.10	2,482.10	2,501.10	13.93	84.97	125.40	1,204.87	-2,164.11	2,806.62	2,708.28	98.34	28.539		
2,700.00	2,595.48	2,576.48	2,595.48	14.51	88.26	125.92	1,204.87	-2,164.11	2,826.64	2,724.48	102.16	27.668		
2,800.00	2,689.85	2,670.85	2,689.85	15.08	91.55	126.44	1,204.87	-2,164.11	2,846.90	2,740.92	105.98	26.862		
2,900.00	2,784.22	2,765.22	2,784.22	15.66	94.85	126.96	1,204.87	-2,164.11	2,867.40	2,757.60	109.80	26.114		
3,000.00	2,878.60	2,859.60	2,878.60	16.25	98.14	127.46	1,204.87	-2,164.11	2,888.13	2,774.51	113.62	25.419		
3,100.00	2,972.97	2,953.97	2,972.97	16.83	101.43	127.96	1,204.87	-2,164.11	2,909.09	2,791.65	117.44	24.771		
3,200.00	3,067.34	3,048.34	3,067.34	17.41	104.72	128.45	1,204.87	-2,164.11	2,930.27	2,809.02	121.26	24.166		
3,300.00	3,161.72	3,142.72	3,161.72	18.00	108.02	128.94	1,204.87	-2,164.11	2,951.68	2,826.60	125.08	23.599		
3,400.00	3,256.09	3,237.09	3,256.09	18.58	111.31	129.42	1,204.87	-2,164.11	2,973.29	2,844.40	128.89	23.068		
3,500.00	3,350.46	3,331.46	3,350.46	19.17	114.60	129.89	1,204.87	-2,164.11	2,995.12	2,862.41	132.71	22.569		
3,600.00	3,444.83	3,425.83	3,444.83	19.75	117.90	130.36	1,204.87	-2,164.11	3,017.15	2,880.62	136.53	22.099		
3,700.00	3,539.21	3,520.21	3,539.21	20.34	121.19	130.82	1,204.87	-2,164.11	3,039.38	2,899.03	140.34	21.657		
3,800.00	3,633.58	3,614.58	3,633.58	20.93	124.48	131.27	1,204.87	-2,164.11	3,061.80	2,917.65	144.16	21.239		
3,900.00	3,727.95	3,708.95	3,727.95	21.52	127.78	131.72	1,204.87	-2,164.11	3,084.42	2,936.45	147.97	20.845		
4,000.00	3,822.33	3,803.33	3,822.33	22.11	131.07	132.16	1,204.87	-2,164.11	3,107.22	2,955.44	151.79	20.471		
4,100.00	3,916.70	3,902.30	3,916.70	22.70	134.52	132.60	1,204.87	-2,164.11	3,130.21	2,974.45	155.76	20.097		
4,200.00	4,011.07	4,007.93	4,011.07	23.29	138.21	133.02	1,204.87	-2,164.11	3,153.38	2,993.42	159.96	19.713		
4,300.00	4,105.44	4,086.44	4,105.44	23.88	140.95	133.45	1,204.87	-2,164.11	3,176.72	3,013.50	163.22	19.463		
4,400.00	4,199.82	4,180.82	4,199.82	24.47	144.24	133.87	1,204.87	-2,164.11	3,200.24	3,033.20	167.03	19.159		
4,500.00	4,294.19	4,275.19	4,294.19	25.06	147.54	134.28	1,204.87	-2,164.11	3,223.92	3,053.07	170.84	18.871		
4,600.00	4,388.56	4,369.56	4,388.56	25.65	150.83	134.68	1,204.87	-2,164.11	3,247.76	3,073.11	174.65	18.596		
4,700.00	4,482.94	4,463.94	4,482.94	26.24	154.13	135.08	1,204.87	-2,164.11	3,271.77	3,093.31	178.46	18.333		
4,800.00	4,577.31	4,558.31	4,577.31	26.83	157.42	135.48	1,204.87	-2,164.11	3,295.93	3,113.66	182.27	18.083		
4,900.00	4,671.68	4,652.68	4,671.68	27.43	160.71	135.87	1,204.87	-2,164.11	3,320.25	3,134.17	186.08	17.843		
5,000.00	4,766.05	4,747.05	4,766.05	28.02	164.01	136.25	1,204.87	-2,164.11	3,344.72	3,154.83	189.88	17.615		
5,100.00	4,860.43	4,841.43	4,860.43	28.61	167.30	136.63	1,204.87	-2,164.11	3,369.33	3,175.64	193.69	17.396		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,935.80	4,954.80	29.20	170.60	137.00	1,204.87	-2,164.11	3,394.09	3,196.60	197.49	17.186		
5,300.00	5,049.17	5,030.17	5,049.17	29.80	173.89	137.37	1,204.87	-2,164.11	3,418.99	3,217.69	201.30	16.985		
5,400.00	5,143.55	5,124.55	5,143.55	30.39	177.18	137.74	1,204.87	-2,164.11	3,444.02	3,238.92	205.10	16.792		
5,500.00	5,237.92	5,218.92	5,237.92	30.99	180.48	138.09	1,204.87	-2,164.11	3,469.20	3,260.29	208.91	16.606		
5,600.00	5,332.29	5,313.29	5,332.29	31.58	183.77	138.45	1,204.87	-2,164.11	3,494.50	3,281.79	212.71	16.428		
5,700.00	5,426.66	5,407.66	5,426.66	32.17	187.07	138.80	1,204.87	-2,164.11	3,519.93	3,303.42	216.51	16.257		
5,800.00	5,521.04	5,502.04	5,521.04	32.77	190.36	139.14	1,204.87	-2,164.11	3,545.49	3,325.17	220.31	16.093		
5,900.00	5,615.41	5,603.59	5,615.41	33.36	193.90	139.48	1,204.87	-2,164.11	3,571.17	3,346.80	224.37	15.917		
6,000.00	5,709.78	5,709.22	5,709.78	33.96	197.59	139.81	1,204.87	-2,164.11	3,596.97	3,368.41	228.56	15.738		
6,100.00	5,804.16	5,785.16	5,804.16	34.55	200.24	140.14	1,204.87	-2,164.11	3,622.89	3,391.17	231.72	15.635		
6,200.00	5,898.53	5,879.53	5,898.53	35.14	203.54	140.47	1,204.87	-2,164.11	3,648.92	3,413.41	235.52	15.493		
6,300.00	5,992.90	5,973.90	5,992.90	35.74	206.83	140.79	1,204.87	-2,164.11	3,675.07	3,435.76	239.32	15.357		
6,400.00	6,087.27	6,068.27	6,087.27	36.33	210.12	141.11	1,204.87	-2,164.11	3,701.33	3,458.22	243.12	15.225		
6,500.00	6,181.65	6,162.65	6,181.65	36.93	213.42	141.42	1,204.87	-2,164.11	3,727.70	3,480.79	246.91	15.097		
6,600.00	6,276.02	6,257.02	6,276.02	37.52	216.71	141.73	1,204.87	-2,164.11	3,754.17	3,503.46	250.71	14.974		
6,700.00	6,370.39	6,351.39	6,370.39	38.12	220.01	142.03	1,204.87	-2,164.11	3,780.75	3,526.24	254.51	14.855		
6,800.00	6,464.77	6,445.77	6,464.77	38.71	223.30	142.33	1,204.87	-2,164.11	3,807.43	3,549.12	258.31	14.740		
6,900.00	6,559.14	6,540.14	6,559.14	39.31	226.59	142.39	1,204.87	-2,164.11	3,834.21	3,572.10	262.10	14.629		
7,000.00	6,652.92	6,633.92	6,652.92	39.90	229.87	117.80	1,204.87	-2,164.11	3,856.81	3,590.93	265.88	14.506		
7,100.00	6,744.00	6,725.00	6,744.00	40.44	233.05	101.16	1,204.87	-2,164.11	3,870.94	3,601.40	269.54	14.361		
7,200.00	6,830.13	6,811.13	6,830.13	40.94	236.05	91.31	1,204.87	-2,164.11	3,876.63	3,603.64	272.99	14.201		
7,300.00	6,909.19	6,909.81	6,909.19	41.37	239.50	85.86	1,204.87	-2,164.11	3,874.16	3,597.32	276.84	13.994		
7,400.00	6,979.23	6,960.23	6,979.23	41.75	241.26	83.23	1,204.87	-2,164.11	3,864.07	3,585.07	279.00	13.850		
7,500.00	7,038.53	7,019.53	7,038.53	42.08	243.33	82.53	1,204.87	-2,164.11	3,847.08	3,565.58	281.51	13.666		
7,600.00	7,085.63	7,066.63	7,085.63	42.37	244.97	83.21	1,204.87	-2,164.11	3,824.06	3,540.40	283.66	13.481		
7,700.00	7,119.37	7,100.37	7,119.37	42.64	246.15	84.93	1,204.87	-2,164.11	3,795.94	3,510.48	285.47	13.297		
7,800.00	7,138.92	7,119.92	7,138.92	42.91	246.83	87.44	1,204.87	-2,164.11	3,763.67	3,476.76	286.91	13.118		
7,900.00	7,143.92	7,124.92	7,143.92	43.25	247.01	90.13	1,204.87	-2,164.11	3,728.22	3,440.23	287.99	12.946		
8,000.00	7,143.35	7,124.35	7,143.35	43.72	246.99	90.12	1,204.87	-2,164.11	3,693.22	3,404.20	289.02	12.778		
8,100.00	7,142.78	7,123.78	7,142.78	44.42	246.97	90.11	1,204.87	-2,164.11	3,660.61	3,370.40	290.21	12.614		
8,200.00	7,142.22	7,123.22	7,142.22	45.39	246.95	90.10	1,204.87	-2,164.11	3,630.46	3,338.91	291.55	12.452		
8,300.00	7,141.65	7,122.65	7,141.65	46.63	246.93	90.09	1,204.87	-2,164.11	3,602.84	3,309.81	293.02	12.295		
8,400.00	7,141.08	7,122.08	7,141.08	48.09	246.91	90.08	1,204.87	-2,164.11	3,577.80	3,283.17	294.62	12.144		
8,500.00	7,140.51	7,121.51	7,140.51	49.74	246.89	90.07	1,204.87	-2,164.11	3,555.39	3,259.05	296.34	11.998		
8,600.00	7,139.94	7,120.94	7,139.94	51.53	246.87	90.06	1,204.87	-2,164.11	3,535.68	3,237.52	298.15	11.859		
8,700.00	7,139.37	7,120.37	7,139.37	53.44	246.85	90.05	1,204.87	-2,164.11	3,518.69	3,218.63	300.06	11.727		
8,800.00	7,138.80	7,119.80	7,138.80	55.45	246.83	90.04	1,204.87	-2,164.11	3,504.48	3,202.45	302.03	11.603		
8,900.00	7,138.24	7,119.24	7,138.24	57.55	246.81	90.03	1,204.87	-2,164.11	3,493.08	3,189.00	304.07	11.488		
9,000.00	7,137.67	7,118.67	7,137.67	59.71	246.79	90.02	1,204.87	-2,164.11	3,484.50	3,178.35	306.15	11.382		
9,100.00	7,137.10	7,118.10	7,137.10	61.94	246.77	90.01	1,204.87	-2,164.11	3,478.79	3,170.52	308.27	11.285		
9,200.00	7,136.53	7,117.53	7,136.53	64.22	246.75	90.00	1,204.87	-2,164.11	3,475.94	3,165.53	310.41	11.198		
9,249.06	7,136.25	7,117.25	7,136.25	65.36	246.74	90.00	1,204.87	-2,164.11	3,475.59	3,164.13	311.47	11.159		
9,300.00	7,135.96	7,116.96	7,135.96	66.55	246.73	90.00	1,204.87	-2,164.11	3,475.96	3,163.41	312.55	11.121		
9,400.00	7,135.39	7,116.39	7,135.39	68.92	246.71	89.99	1,204.87	-2,164.11	3,478.87	3,164.17	314.70	11.055		
9,500.00	7,134.83	7,115.83	7,134.83	71.33	246.69	89.98	1,204.87	-2,164.11	3,484.64	3,167.81	316.83	10.998		
9,600.00	7,134.26	7,115.26	7,134.26	73.77	246.67	89.97	1,204.87	-2,164.11	3,493.26	3,174.32	318.94	10.953		
9,700.00	7,133.69	7,114.69	7,133.69	76.24	246.65	89.96	1,204.87	-2,164.11	3,504.72	3,183.70	321.03	10.917		
9,800.00	7,133.12	7,114.12	7,133.12	78.74	246.63	89.95	1,204.87	-2,164.11	3,518.99	3,195.92	323.07	10.892		
9,900.00	7,132.55	7,113.55	7,132.55	81.27	246.61	89.94	1,204.87	-2,164.11	3,536.02	3,210.95	325.07	10.878		
10,000.00	7,131.98	7,112.98	7,131.98	83.81	246.59	89.93	1,204.87	-2,164.11	3,555.79	3,228.77	327.02	10.873 SF		
10,100.00	7,131.42	7,112.42	7,131.42	86.38	246.57	89.92	1,204.87	-2,164.11	3,578.24	3,249.33	328.91	10.879		
10,200.00	7,130.85	7,111.85	7,130.85	88.96	246.55	89.91	1,204.87	-2,164.11	3,603.33	3,272.59	330.74	10.895		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,111.28	7,130.28	91.56	246.53	89.90	1,204.87	-2,164.11	3,631.00	3,298.50	332.51	10.920		
10,400.00	7,129.71	7,110.71	7,129.71	94.18	246.51	89.89	1,204.87	-2,164.11	3,661.20	3,326.99	334.21	10.955		
10,500.00	7,129.14	7,110.14	7,129.14	96.81	246.49	89.88	1,204.87	-2,164.11	3,693.85	3,358.01	335.84	10.999		
10,600.00	7,128.57	7,109.57	7,128.57	99.45	246.47	89.87	1,204.87	-2,164.11	3,728.90	3,391.50	337.40	11.052		
10,700.00	7,128.00	7,109.00	7,128.00	102.11	246.45	89.86	1,204.87	-2,164.11	3,766.28	3,427.39	338.89	11.114		
10,800.00	7,127.44	7,108.44	7,127.44	104.77	246.43	89.85	1,204.87	-2,164.11	3,805.92	3,465.61	340.31	11.184		
10,900.00	7,126.87	7,107.87	7,126.87	107.45	246.41	89.85	1,204.87	-2,164.11	3,847.76	3,506.10	341.66	11.262		
11,000.00	7,126.30	7,107.30	7,126.30	110.13	246.39	89.84	1,204.87	-2,164.11	3,891.71	3,548.77	342.94	11.348		
11,100.00	7,125.73	7,106.73	7,125.73	112.82	246.37	89.83	1,204.87	-2,164.11	3,937.71	3,593.56	344.16	11.442		
11,200.00	7,125.16	7,106.16	7,125.16	115.53	246.35	89.82	1,204.87	-2,164.11	3,985.70	3,640.39	345.30	11.543		
11,300.00	7,124.59	7,105.59	7,124.59	118.24	246.33	89.81	1,204.87	-2,164.11	4,035.58	3,689.20	346.38	11.651		
11,400.00	7,124.03	7,105.03	7,124.03	120.95	246.31	89.80	1,204.87	-2,164.11	4,087.31	3,739.91	347.40	11.766		
11,500.00	7,123.46	7,104.46	7,123.46	123.67	246.29	89.79	1,204.87	-2,164.11	4,140.81	3,792.45	348.35	11.887		
11,600.00	7,122.89	7,103.89	7,122.89	126.40	246.27	89.78	1,204.87	-2,164.11	4,196.01	3,846.75	349.25	12.014		
11,700.00	7,122.32	7,103.32	7,122.32	129.14	246.25	89.77	1,204.87	-2,164.11	4,252.84	3,902.75	350.09	12.148		
11,800.00	7,121.75	7,102.75	7,121.75	131.88	246.23	89.76	1,204.87	-2,164.11	4,311.24	3,960.36	350.88	12.287		
11,900.00	7,121.18	7,102.18	7,121.18	134.62	246.21	89.75	1,204.87	-2,164.11	4,371.15	4,019.54	351.62	12.432		
12,000.00	7,120.61	7,101.61	7,120.61	137.37	246.19	89.74	1,204.87	-2,164.11	4,432.51	4,080.21	352.30	12.582		
12,100.00	7,120.05	7,101.05	7,120.05	140.12	246.17	89.73	1,204.87	-2,164.11	4,495.25	4,142.31	352.94	12.737		
12,200.00	7,119.48	7,100.48	7,119.48	142.88	246.15	89.72	1,204.87	-2,164.11	4,559.33	4,205.79	353.54	12.896		
12,300.00	7,118.91	7,100.09	7,118.91	145.64	246.14	89.71	1,204.87	-2,164.11	4,624.68	4,270.58	354.10	13.060		
12,400.00	7,118.34	7,100.66	7,118.34	148.41	246.16	89.70	1,204.87	-2,164.11	4,691.25	4,336.60	354.65	13.228		
12,500.00	7,117.77	7,101.23	7,117.77	151.18	246.18	89.70	1,204.87	-2,164.11	4,758.99	4,403.82	355.17	13.399		
12,600.00	7,117.20	7,101.80	7,117.20	153.95	246.20	89.69	1,204.87	-2,164.11	4,827.85	4,472.20	355.65	13.575		
12,700.00	7,116.64	7,102.37	7,116.64	156.73	246.22	89.68	1,204.87	-2,164.11	4,897.79	4,541.68	356.10	13.754		
12,800.00	7,116.07	7,102.93	7,116.07	159.50	246.24	89.67	1,204.87	-2,164.11	4,968.75	4,612.23	356.52	13.937		
12,900.00	7,115.50	7,103.50	7,115.50	162.29	246.26	89.66	1,204.87	-2,164.11	5,040.70	4,683.79	356.91	14.123		
13,000.00	7,114.93	7,104.07	7,114.93	165.07	246.28	89.65	1,204.87	-2,164.11	5,113.59	4,756.32	357.27	14.313		
13,100.00	7,114.36	7,104.64	7,114.36	167.86	246.30	89.64	1,204.87	-2,164.11	5,187.39	4,829.78	357.61	14.506		
13,200.00	7,113.79	7,105.21	7,113.79	170.64	246.32	89.63	1,204.87	-2,164.11	5,262.05	4,904.13	357.92	14.702		
13,300.00	7,113.22	7,105.78	7,113.22	173.44	246.34	89.62	1,204.87	-2,164.11	5,337.54	4,979.33	358.21	14.901		
13,400.00	7,112.66	7,106.34	7,112.66	176.23	246.36	89.61	1,204.87	-2,164.11	5,413.82	5,055.34	358.48	15.102		
13,500.00	7,112.09	7,106.91	7,112.09	179.02	246.38	89.60	1,204.87	-2,164.11	5,490.87	5,132.14	358.72	15.307		
13,600.00	7,111.52	7,107.48	7,111.52	181.82	246.40	89.59	1,204.87	-2,164.11	5,568.64	5,209.69	358.96	15.513		
13,700.00	7,110.95	7,108.05	7,110.95	184.62	246.42	89.58	1,204.87	-2,164.11	5,647.12	5,287.95	359.17	15.723		
13,800.00	7,110.38	7,108.62	7,110.38	187.42	246.44	89.57	1,204.87	-2,164.11	5,726.26	5,366.90	359.37	15.934		
13,900.00	7,109.81	7,109.19	7,109.81	190.22	246.46	89.56	1,204.87	-2,164.11	5,806.05	5,446.50	359.55	16.148		
14,000.00	7,109.25	7,109.75	7,109.25	193.03	246.48	89.55	1,204.87	-2,164.11	5,886.46	5,526.74	359.72	16.364		
14,100.00	7,108.68	7,089.68	7,108.68	195.84	245.78	89.55	1,204.87	-2,164.11	5,967.46	5,608.31	359.15	16.615		
14,200.00	7,108.11	7,089.11	7,108.11	198.64	245.76	89.54	1,204.87	-2,164.11	6,049.03	5,689.77	359.25	16.838		
14,300.00	7,107.54	7,088.54	7,107.54	201.45	245.74	89.53	1,204.87	-2,164.11	6,131.14	5,771.79	359.35	17.062		
14,400.00	7,106.97	7,087.97	7,106.97	204.26	245.72	89.52	1,204.87	-2,164.11	6,213.78	5,854.35	359.43	17.288		
14,500.00	7,106.40	7,087.40	7,106.40	207.07	245.70	89.51	1,204.87	-2,164.11	6,296.92	5,937.42	359.50	17.516		
14,600.00	7,105.83	7,086.83	7,105.83	209.89	245.68	89.50	1,204.87	-2,164.11	6,380.54	6,020.98	359.56	17.745		
14,700.00	7,105.27	7,086.27	7,105.27	212.70	245.66	89.49	1,204.87	-2,164.11	6,464.63	6,105.01	359.62	17.976		
14,800.00	7,104.70	7,085.70	7,104.70	215.52	245.64	89.48	1,204.87	-2,164.11	6,549.17	6,189.50	359.67	18.209		
14,900.00	7,104.13	7,085.13	7,104.13	218.33	245.62	89.47	1,204.87	-2,164.11	6,634.14	6,274.43	359.71	18.443		
15,000.00	7,103.56	7,084.56	7,103.56	221.15	245.60	89.46	1,204.87	-2,164.11	6,719.52	6,359.78	359.74	18.679		
15,100.00	7,102.99	7,083.99	7,102.99	223.97	245.58	89.45	1,204.87	-2,164.11	6,805.30	6,445.53	359.77	18.916		
15,200.00	7,102.42	7,083.42	7,102.42	226.79	245.56	89.44	1,204.87	-2,164.11	6,891.46	6,531.67	359.79	19.154		
15,274.57	7,102.00	7,083.00	7,102.00	228.89	245.54	89.44	1,204.87	-2,164.11	6,955.95	6,596.15	359.80	19.333		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH)													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	34.00	3.28	3.28	-92.90	-128.46	-2,534.16	2,537.64					
100.00	100.00	66.00	100.00	3.28	3.48	-92.90	-128.46	-2,534.16	2,537.41	2,530.65	6.76	375.293		
200.00	200.00	166.00	200.00	3.34	5.21	-92.90	-128.46	-2,534.16	2,537.41	2,528.86	8.55	296.832		
300.00	299.98	265.98	299.98	3.44	8.22	83.18	-128.46	-2,534.16	2,537.20	2,525.54	11.66	217.567		
400.00	399.84	365.84	399.84	3.59	11.50	83.31	-128.46	-2,534.16	2,536.59	2,521.49	15.09	168.077		
500.00	499.45	465.45	499.45	3.79	14.87	83.53	-128.46	-2,534.16	2,535.58	2,516.93	18.66	135.914		
600.00	598.70	564.70	598.70	4.03	18.27	83.83	-128.46	-2,534.16	2,534.23	2,511.94	22.29	113.672		
700.00	697.47	663.47	697.47	4.31	21.67	84.21	-128.46	-2,534.16	2,532.58	2,506.60	25.98	97.484		
800.00	795.62	761.62	795.62	4.64	25.06	84.67	-128.46	-2,534.16	2,530.70	2,501.00	29.70	85.221		
900.00	893.06	859.06	893.06	5.00	28.43	85.20	-128.46	-2,534.16	2,528.66	2,495.23	33.43	75.635		
1,000.00	989.64	955.64	989.64	5.40	31.79	85.81	-128.46	-2,534.16	2,526.56	2,489.38	37.18	67.953		
1,100.00	1,085.27	1,051.27	1,085.27	5.83	35.11	86.48	-128.46	-2,534.16	2,524.51	2,483.57	40.93	61.672		
1,200.00	1,179.88	1,145.88	1,179.88	6.29	38.40	87.20	-128.46	-2,534.16	2,522.63	2,477.94	44.69	56.450		
1,300.00	1,274.26	1,240.26	1,274.26	6.78	41.68	87.91	-128.46	-2,534.16	2,521.13	2,472.67	48.46	52.026		
1,400.00	1,368.63	1,334.63	1,368.63	7.28	44.97	88.62	-128.46	-2,534.16	2,520.07	2,467.82	52.25	48.232		
1,500.00	1,463.00	1,429.00	1,463.00	7.80	48.25	89.33	-128.46	-2,534.16	2,519.44	2,463.39	56.05	44.947		
1,594.45	1,552.14	1,518.14	1,552.14	8.30	51.36	90.00	-128.46	-2,534.16	2,519.25	2,459.59	59.66	42.228		
1,600.00	1,557.38	1,523.38	1,557.38	8.33	51.54	90.04	-128.46	-2,534.16	2,519.25	2,459.38	59.87	42.079		
1,700.00	1,651.75	1,617.75	1,651.75	8.87	54.83	90.75	-128.46	-2,534.16	2,519.49	2,455.80	63.70	39.555		
1,800.00	1,746.12	1,712.12	1,746.12	9.41	58.12	91.46	-128.46	-2,534.16	2,520.17	2,452.64	67.53	37.320		
1,900.00	1,840.49	1,806.49	1,840.49	9.96	61.41	92.17	-128.46	-2,534.16	2,521.28	2,449.91	71.37	35.327		
2,000.00	1,934.87	1,900.87	1,934.87	10.52	64.70	92.88	-128.46	-2,534.16	2,522.82	2,447.60	75.21	33.542		
2,100.00	2,029.24	2,004.76	2,029.24	11.08	68.32	93.58	-128.46	-2,534.16	2,524.79	2,445.40	79.40	31.800		
2,200.00	2,123.61	2,089.61	2,123.61	11.64	71.28	94.29	-128.46	-2,534.16	2,527.20	2,444.28	82.92	30.479		
2,300.00	2,217.99	2,183.99	2,217.99	12.21	74.57	95.00	-128.46	-2,534.16	2,530.03	2,443.26	86.77	29.157		
2,400.00	2,312.36	2,278.36	2,312.36	12.78	77.86	95.70	-128.46	-2,534.16	2,533.30	2,442.67	90.63	27.952		
2,500.00	2,406.73	2,372.73	2,406.73	13.35	81.15	96.40	-128.46	-2,534.16	2,536.99	2,442.50	94.49	26.849		
2,600.00	2,501.10	2,467.10	2,501.10	13.93	84.45	97.10	-128.46	-2,534.16	2,541.11	2,442.75	98.35	25.837		
2,700.00	2,595.48	2,561.48	2,595.48	14.51	87.74	97.80	-128.46	-2,534.16	2,545.64	2,443.43	102.21	24.905		
2,800.00	2,689.85	2,655.85	2,689.85	15.08	91.03	98.49	-128.46	-2,534.16	2,550.60	2,444.53	106.08	24.045		
2,900.00	2,784.22	2,750.22	2,784.22	15.66	94.32	99.19	-128.46	-2,534.16	2,555.98	2,446.04	109.94	23.249		
3,000.00	2,878.60	2,844.60	2,878.60	16.25	97.61	99.88	-128.46	-2,534.16	2,561.78	2,447.98	113.80	22.511		
3,100.00	2,972.97	2,938.97	2,972.97	16.83	100.91	100.57	-128.46	-2,534.16	2,567.98	2,450.32	117.66	21.825		
3,200.00	3,067.34	3,033.34	3,067.34	17.41	104.20	101.25	-128.46	-2,534.16	2,574.60	2,453.07	121.53	21.185		
3,300.00	3,161.72	3,127.72	3,161.72	18.00	107.49	101.93	-128.46	-2,534.16	2,581.62	2,456.23	125.39	20.589		
3,400.00	3,256.09	3,222.09	3,256.09	18.58	110.79	102.61	-128.46	-2,534.16	2,589.05	2,459.80	129.25	20.031		
3,500.00	3,350.46	3,316.46	3,350.46	19.17	114.08	103.28	-128.46	-2,534.16	2,596.88	2,463.77	133.11	19.509		
3,600.00	3,444.83	3,410.83	3,444.83	19.75	117.37	103.95	-128.46	-2,534.16	2,605.10	2,468.13	136.97	19.019		
3,700.00	3,539.21	3,505.21	3,539.21	20.34	120.67	104.62	-128.46	-2,534.16	2,613.72	2,472.89	140.83	18.559		
3,800.00	3,633.58	3,600.42	3,633.58	20.93	123.99	105.28	-128.46	-2,534.16	2,622.72	2,478.00	144.72	18.123		
3,900.00	3,727.95	3,706.05	3,727.95	21.52	127.68	105.94	-128.46	-2,534.16	2,632.11	2,483.14	148.97	17.669		
4,000.00	3,822.33	3,788.33	3,822.33	22.11	130.55	106.60	-128.46	-2,534.16	2,641.88	2,489.48	152.40	17.335		
4,100.00	3,916.70	3,882.70	3,916.70	22.70	133.84	107.24	-128.46	-2,534.16	2,652.03	2,495.77	156.26	16.972		
4,200.00	4,011.07	3,977.07	4,011.07	23.29	137.13	107.89	-128.46	-2,534.16	2,662.55	2,502.44	160.11	16.629		
4,300.00	4,105.44	4,071.44	4,105.44	23.88	140.43	108.53	-128.46	-2,534.16	2,673.43	2,509.47	163.96	16.305		
4,400.00	4,199.82	4,165.82	4,199.82	24.47	143.72	109.17	-128.46	-2,534.16	2,684.68	2,516.87	167.81	15.998		
4,500.00	4,294.19	4,260.19	4,294.19	25.06	147.01	109.80	-128.46	-2,534.16	2,696.29	2,524.63	171.66	15.707		
4,600.00	4,388.56	4,354.56	4,388.56	25.65	150.31	110.42	-128.46	-2,534.16	2,708.26	2,532.75	175.51	15.431		
4,700.00	4,482.94	4,448.94	4,482.94	26.24	153.60	111.04	-128.46	-2,534.16	2,720.57	2,541.21	179.36	15.169		
4,800.00	4,577.31	4,543.31	4,577.31	26.83	156.90	111.66	-128.46	-2,534.16	2,733.23	2,550.03	183.20	14.919		
4,900.00	4,671.68	4,637.68	4,671.68	27.43	160.19	112.27	-128.46	-2,534.16	2,746.22	2,559.18	187.04	14.682		
5,000.00	4,766.05	4,732.05	4,766.05	28.02	163.48	112.88	-128.46	-2,534.16	2,759.55	2,568.67	190.88	14.457		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH)													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	4,826.43	4,860.43	28.61	166.78	113.48	-128.46	-2,534.16	2,773.22	2,578.49	194.72	14.242		
5,200.00	4,954.80	4,920.80	4,954.80	29.20	170.07	114.07	-128.46	-2,534.16	2,787.20	2,588.64	198.56	14.037		
5,300.00	5,049.17	5,015.17	5,049.17	29.80	173.37	114.66	-128.46	-2,534.16	2,801.51	2,599.12	202.40	13.842		
5,400.00	5,143.55	5,109.55	5,143.55	30.39	176.66	115.24	-128.46	-2,534.16	2,816.14	2,609.91	206.23	13.655		
5,500.00	5,237.92	5,203.92	5,237.92	30.99	179.95	115.82	-128.46	-2,534.16	2,831.07	2,621.01	210.06	13.477		
5,600.00	5,332.29	5,301.71	5,332.29	31.58	183.37	116.39	-128.46	-2,534.16	2,846.31	2,632.30	214.01	13.300		
5,700.00	5,426.66	5,407.34	5,426.66	32.17	187.05	116.96	-128.46	-2,534.16	2,861.85	2,643.62	218.24	13.114		
5,800.00	5,521.04	5,487.04	5,521.04	32.77	189.84	117.52	-128.46	-2,534.16	2,877.69	2,656.14	221.55	12.989		
5,900.00	5,615.41	5,581.41	5,615.41	33.36	193.13	118.08	-128.46	-2,534.16	2,893.82	2,668.44	225.38	12.840		
6,000.00	5,709.78	5,675.78	5,709.78	33.96	196.42	118.63	-128.46	-2,534.16	2,910.24	2,681.04	229.20	12.697		
6,100.00	5,804.16	5,770.16	5,804.16	34.55	199.72	119.17	-128.46	-2,534.16	2,926.94	2,693.91	233.03	12.561		
6,200.00	5,898.53	5,864.53	5,898.53	35.14	203.01	119.71	-128.46	-2,534.16	2,943.91	2,707.06	236.85	12.430		
6,300.00	5,992.90	5,958.90	5,992.90	35.74	206.31	120.24	-128.46	-2,534.16	2,961.16	2,720.49	240.67	12.304		
6,400.00	6,087.27	6,053.27	6,087.27	36.33	209.60	120.77	-128.46	-2,534.16	2,978.67	2,734.18	244.49	12.183		
6,500.00	6,181.65	6,147.65	6,181.65	36.93	212.89	121.29	-128.46	-2,534.16	2,996.45	2,748.14	248.30	12.068		
6,600.00	6,276.02	6,242.02	6,276.02	37.52	216.19	121.80	-128.46	-2,534.16	3,014.48	2,762.36	252.12	11.957		
6,700.00	6,370.39	6,336.39	6,370.39	38.12	219.48	122.31	-128.46	-2,534.16	3,032.77	2,776.83	255.93	11.850		
6,800.00	6,464.77	6,430.77	6,464.77	38.71	222.78	122.82	-128.46	-2,534.16	3,051.30	2,791.56	259.75	11.747		
6,900.00	6,559.14	6,525.14	6,559.14	39.31	226.07	123.09	-128.46	-2,534.16	3,070.09	2,806.53	263.56	11.649		
7,000.00	6,652.92	6,618.92	6,652.92	39.90	229.34	99.72	-128.46	-2,534.16	3,082.86	2,815.52	267.35	11.531		
7,100.00	6,744.00	6,710.00	6,744.00	40.44	232.52	84.25	-128.46	-2,534.16	3,083.65	2,812.63	271.02	11.378		
7,200.00	6,830.13	6,803.87	6,830.13	40.94	235.80	75.60	-128.46	-2,534.16	3,072.76	2,798.03	274.74	11.184		
7,300.00	6,909.19	6,875.19	6,909.19	41.37	238.29	71.45	-128.46	-2,534.16	3,050.86	2,773.24	277.62	10.989		
7,400.00	6,979.23	6,945.23	6,979.23	41.75	240.74	70.34	-128.46	-2,534.16	3,018.88	2,738.43	280.45	10.765		
7,500.00	7,038.53	7,004.53	7,038.53	42.08	242.81	71.48	-128.46	-2,534.16	2,977.98	2,695.08	282.90	10.527		
7,600.00	7,085.63	7,051.63	7,085.63	42.37	244.45	74.41	-128.46	-2,534.16	2,929.51	2,644.54	284.97	10.280		
7,700.00	7,119.37	7,085.37	7,119.37	42.64	245.63	78.86	-128.46	-2,534.16	2,874.95	2,588.29	286.66	10.029		
7,800.00	7,138.92	7,104.92	7,138.92	42.91	246.31	84.55	-128.46	-2,534.16	2,815.81	2,527.86	287.95	9.779		
7,900.00	7,143.92	7,109.92	7,143.92	43.25	246.48	90.26	-128.46	-2,534.16	2,753.64	2,464.81	288.84	9.534		
8,000.00	7,143.35	7,109.35	7,143.35	43.72	246.46	90.25	-128.46	-2,534.16	2,692.05	2,402.39	289.65	9.294		
8,100.00	7,142.78	7,108.78	7,142.78	44.42	246.44	90.23	-128.46	-2,534.16	2,632.81	2,342.18	290.62	9.059		
8,200.00	7,142.22	7,108.22	7,142.22	45.39	246.42	90.22	-128.46	-2,534.16	2,576.09	2,284.34	291.75	8.830		
8,300.00	7,141.65	7,107.65	7,141.65	46.63	246.40	90.20	-128.46	-2,534.16	2,522.06	2,229.03	293.03	8.607		
8,400.00	7,141.08	7,107.08	7,141.08	48.09	246.38	90.19	-128.46	-2,534.16	2,470.90	2,176.43	294.46	8.391		
8,500.00	7,140.51	7,106.51	7,140.51	49.74	246.37	90.17	-128.46	-2,534.16	2,422.78	2,126.73	296.05	8.184		
8,600.00	7,139.94	7,105.94	7,139.94	51.53	246.35	90.16	-128.46	-2,534.16	2,377.90	2,080.12	297.79	7.985		
8,700.00	7,139.37	7,105.37	7,139.37	53.44	246.33	90.14	-128.46	-2,534.16	2,336.44	2,036.79	299.65	7.797		
8,800.00	7,138.80	7,104.80	7,138.80	55.45	246.31	90.13	-128.46	-2,534.16	2,298.59	1,996.95	301.64	7.620		
8,900.00	7,138.24	7,104.24	7,138.24	57.55	246.29	90.11	-128.46	-2,534.16	2,264.52	1,960.79	303.74	7.456		
9,000.00	7,137.67	7,103.67	7,137.67	59.71	246.27	90.10	-128.46	-2,534.16	2,234.42	1,928.50	305.92	7.304		
9,100.00	7,137.10	7,103.10	7,137.10	61.94	246.25	90.08	-128.46	-2,534.16	2,208.43	1,900.27	308.16	7.166		
9,200.00	7,136.53	7,102.53	7,136.53	64.22	246.23	90.06	-128.46	-2,534.16	2,186.71	1,876.27	310.45	7.044		
9,300.00	7,135.96	7,101.96	7,135.96	66.55	246.21	90.05	-128.46	-2,534.16	2,169.39	1,856.65	312.74	6.937		
9,400.00	7,135.39	7,101.39	7,135.39	68.92	246.19	90.03	-128.46	-2,534.16	2,156.57	1,841.54	315.03	6.846		
9,500.00	7,134.83	7,100.83	7,134.83	71.33	246.17	90.02	-128.46	-2,534.16	2,148.34	1,831.05	317.29	6.771		
9,600.00	7,134.26	7,100.26	7,134.26	73.77	246.15	90.00	-128.46	-2,534.16	2,144.74	1,825.25	319.48	6.713		
9,627.28	7,134.10	7,100.10	7,134.10	74.44	246.14	90.00	-128.46	-2,534.16	2,144.56	1,824.49	320.07	6.700 CC		
9,700.00	7,133.69	7,100.31	7,133.69	76.24	246.15	89.99	-128.46	-2,534.16	2,145.80	1,824.18	321.62	6.672 ES		
9,800.00	7,133.12	7,100.88	7,133.12	78.74	246.17	89.97	-128.46	-2,534.16	2,151.51	1,827.84	323.67	6.647		
9,900.00	7,132.55	7,101.45	7,132.55	81.27	246.19	89.96	-128.46	-2,534.16	2,161.83	1,836.23	325.60	6.639 SF		
10,000.00	7,131.98	7,102.02	7,131.98	83.81	246.21	89.94	-128.46	-2,534.16	2,176.71	1,849.30	327.41	6.648		
10,100.00	7,131.42	7,102.59	7,131.42	86.38	246.23	89.93	-128.46	-2,534.16	2,196.04	1,866.97	329.07	6.674		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-23(SI_150CC - OH - OH)													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,130.85	7,103.15	7,130.85	88.96	246.25	89.91	-128.46	-2,534.16	2,219.72	1,889.13	330.59	6.714		
10,300.00	7,130.28	7,103.72	7,130.28	91.56	246.27	89.90	-128.46	-2,534.16	2,247.59	1,915.64	331.95	6.771		
10,400.00	7,129.71	7,104.29	7,129.71	94.18	246.29	89.88	-128.46	-2,534.16	2,279.52	1,946.35	333.17	6.842		
10,500.00	7,129.14	7,104.86	7,129.14	96.81	246.31	89.87	-128.46	-2,534.16	2,315.33	1,981.08	334.25	6.927		
10,600.00	7,128.57	7,105.43	7,128.57	99.45	246.33	89.85	-128.46	-2,534.16	2,354.85	2,019.66	335.19	7.025		
10,700.00	7,128.00	7,106.00	7,128.00	102.11	246.35	89.84	-128.46	-2,534.16	2,397.88	2,061.89	335.99	7.137		
10,800.00	7,127.44	7,106.56	7,127.44	104.77	246.37	89.82	-128.46	-2,534.16	2,444.25	2,107.58	336.67	7.260		
10,900.00	7,126.87	7,107.13	7,126.87	107.45	246.39	89.81	-128.46	-2,534.16	2,493.77	2,156.54	337.24	7.395		
11,000.00	7,126.30	7,107.70	7,126.30	110.13	246.41	89.79	-128.46	-2,534.16	2,546.26	2,208.56	337.70	7.540		
11,100.00	7,125.73	7,108.27	7,125.73	112.82	246.43	89.78	-128.46	-2,534.16	2,601.53	2,263.47	338.06	7.695		
11,200.00	7,125.16	7,108.84	7,125.16	115.53	246.45	89.76	-128.46	-2,534.16	2,659.42	2,321.08	338.34	7.860		
11,300.00	7,124.59	7,109.41	7,124.59	118.24	246.47	89.75	-128.46	-2,534.16	2,719.75	2,381.21	338.54	8.034		
11,400.00	7,124.03	7,109.98	7,124.03	120.95	246.49	89.73	-128.46	-2,534.16	2,782.37	2,443.69	338.68	8.215		
11,500.00	7,123.46	7,089.46	7,123.46	123.67	245.77	89.72	-128.46	-2,534.16	2,847.12	2,509.11	338.02	8.423		
11,600.00	7,122.89	7,088.89	7,122.89	126.40	245.75	89.70	-128.46	-2,534.16	2,913.87	2,575.87	338.00	8.621		
11,700.00	7,122.32	7,088.32	7,122.32	129.14	245.73	89.69	-128.46	-2,534.16	2,982.48	2,644.54	337.94	8.826		
11,800.00	7,121.75	7,087.75	7,121.75	131.88	245.71	89.67	-128.46	-2,534.16	3,052.82	2,714.98	337.84	9.036		
11,900.00	7,121.18	7,087.18	7,121.18	134.62	245.69	89.65	-128.46	-2,534.16	3,124.78	2,787.07	337.70	9.253		
12,000.00	7,120.61	7,086.61	7,120.61	137.37	245.67	89.64	-128.46	-2,534.16	3,198.24	2,860.70	337.54	9.475		
12,100.00	7,120.05	7,086.05	7,120.05	140.12	245.65	89.62	-128.46	-2,534.16	3,273.12	2,935.76	337.35	9.702		
12,200.00	7,119.48	7,085.48	7,119.48	142.88	245.63	89.61	-128.46	-2,534.16	3,349.30	3,012.15	337.15	9.934		
12,300.00	7,118.91	7,084.91	7,118.91	145.64	245.61	89.59	-128.46	-2,534.16	3,426.71	3,089.78	336.93	10.171		
12,400.00	7,118.34	7,084.34	7,118.34	148.41	245.59	89.58	-128.46	-2,534.16	3,505.26	3,168.57	336.69	10.411		
12,500.00	7,117.77	7,083.77	7,117.77	151.18	245.57	89.56	-128.46	-2,534.16	3,584.88	3,248.44	336.44	10.655		
12,600.00	7,117.20	7,083.20	7,117.20	153.95	245.55	89.55	-128.46	-2,534.16	3,665.50	3,329.31	336.19	10.903		
12,700.00	7,116.64	7,082.64	7,116.64	156.73	245.53	89.53	-128.46	-2,534.16	3,747.06	3,411.13	335.93	11.154		
12,800.00	7,116.07	7,082.07	7,116.07	159.50	245.51	89.52	-128.46	-2,534.16	3,829.49	3,493.82	335.67	11.409		
12,900.00	7,115.50	7,081.50	7,115.50	162.29	245.49	89.50	-128.46	-2,534.16	3,912.73	3,577.34	335.40	11.666		
13,000.00	7,114.93	7,080.93	7,114.93	165.07	245.47	89.49	-128.46	-2,534.16	3,996.75	3,661.62	335.13	11.926		
13,100.00	7,114.36	7,080.36	7,114.36	167.86	245.45	89.47	-128.46	-2,534.16	4,081.49	3,746.63	334.86	12.189		
13,200.00	7,113.79	7,079.79	7,113.79	170.64	245.43	89.46	-128.46	-2,534.16	4,166.90	3,832.31	334.59	12.454		
13,300.00	7,113.22	7,079.22	7,113.22	173.44	245.41	89.44	-128.46	-2,534.16	4,252.95	3,918.62	334.32	12.721		
13,400.00	7,112.66	7,078.66	7,112.66	176.23	245.39	89.43	-128.46	-2,534.16	4,339.60	4,005.54	334.06	12.991		
13,500.00	7,112.09	7,078.09	7,112.09	179.02	245.37	89.41	-128.46	-2,534.16	4,426.81	4,093.01	333.80	13.262		
13,600.00	7,111.52	7,077.52	7,111.52	181.82	245.35	89.40	-128.46	-2,534.16	4,514.55	4,181.01	333.54	13.535		
13,700.00	7,110.95	7,076.95	7,110.95	184.62	245.33	89.38	-128.46	-2,534.16	4,602.79	4,269.51	333.28	13.811		
13,800.00	7,110.38	7,076.38	7,110.38	187.42	245.31	89.37	-128.46	-2,534.16	4,691.50	4,358.47	333.03	14.087		
13,900.00	7,109.81	7,075.81	7,109.81	190.22	245.29	89.35	-128.46	-2,534.16	4,780.66	4,447.88	332.78	14.366		
14,000.00	7,109.25	7,075.25	7,109.25	193.03	245.27	89.34	-128.46	-2,534.16	4,870.24	4,537.70	332.54	14.646		
14,100.00	7,108.68	7,074.68	7,108.68	195.84	245.25	89.32	-128.46	-2,534.16	4,960.21	4,627.92	332.30	14.927		
14,200.00	7,108.11	7,074.11	7,108.11	198.64	245.23	89.31	-128.46	-2,534.16	5,050.57	4,718.51	332.06	15.210		
14,300.00	7,107.54	7,073.54	7,107.54	201.45	245.21	89.29	-128.46	-2,534.16	5,141.28	4,809.45	331.83	15.494		
14,400.00	7,106.97	7,072.97	7,106.97	204.26	245.19	89.28	-128.46	-2,534.16	5,232.33	4,900.72	331.61	15.779		
14,500.00	7,106.40	7,072.40	7,106.40	207.07	245.17	89.26	-128.46	-2,534.16	5,323.70	4,992.31	331.39	16.065		
14,600.00	7,105.83	7,071.83	7,105.83	209.89	245.15	89.24	-128.46	-2,534.16	5,415.37	5,084.20	331.17	16.352		
14,700.00	7,105.27	7,071.27	7,105.27	212.70	245.13	89.23	-128.46	-2,534.16	5,507.34	5,176.38	330.96	16.640		
14,800.00	7,104.70	7,070.70	7,104.70	215.52	245.11	89.21	-128.46	-2,534.16	5,599.58	5,268.82	330.75	16.930		
14,900.00	7,104.13	7,070.13	7,104.13	218.33	245.10	89.20	-128.46	-2,534.16	5,692.08	5,361.53	330.55	17.220		
15,000.00	7,103.56	7,069.56	7,103.56	221.15	245.08	89.18	-128.46	-2,534.16	5,784.83	5,454.48	330.36	17.511		
15,100.00	7,102.99	7,068.99	7,102.99	223.97	245.06	89.17	-128.46	-2,534.16	5,877.82	5,547.66	330.17	17.803		
15,200.00	7,102.42	7,068.42	7,102.42	226.79	245.04	89.15	-128.46	-2,534.16	5,971.04	5,641.06	329.98	18.095		
15,274.57	7,102.00	7,068.00	7,102.00	228.89	245.02	89.14	-128.46	-2,534.16	6,040.69	5,710.85	329.84	18.314		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-42(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	45.00	3.28	3.28	-105.14	-1,297.54	-4,795.68	4,968.32					
100.00	100.00	55.00	100.00	3.28	3.42	-105.14	-1,297.54	-4,795.68	4,968.12	4,961.41	6.70	741.252		
200.00	200.00	155.00	200.00	3.34	4.92	-105.14	-1,297.54	-4,795.68	4,968.12	4,959.86	8.26	601.770		
300.00	299.98	254.98	299.98	3.44	7.87	70.93	-1,297.54	-4,795.68	4,967.55	4,956.23	11.31	439.173		
400.00	399.84	354.84	399.84	3.59	11.14	71.02	-1,297.54	-4,795.68	4,965.84	4,951.11	14.72	337.248		
500.00	499.45	454.45	499.45	3.79	14.50	71.17	-1,297.54	-4,795.68	4,963.00	4,944.72	18.28	271.468		
600.00	598.70	553.70	598.70	4.03	17.89	71.38	-1,297.54	-4,795.68	4,959.07	4,937.15	21.92	226.266		
700.00	697.47	652.47	697.47	4.31	21.29	71.64	-1,297.54	-4,795.68	4,954.05	4,928.45	25.60	193.520		
800.00	795.62	750.62	795.62	4.64	24.68	71.96	-1,297.54	-4,795.68	4,947.99	4,918.68	29.31	168.796		
900.00	893.06	848.06	893.06	5.00	28.05	72.34	-1,297.54	-4,795.68	4,940.93	4,907.88	33.05	149.514		
1,000.00	989.64	944.64	989.64	5.40	31.40	72.77	-1,297.54	-4,795.68	4,932.92	4,896.13	36.79	134.079		
1,100.00	1,085.27	1,040.27	1,085.27	5.83	34.73	73.26	-1,297.54	-4,795.68	4,924.03	4,883.49	40.54	121.462		
1,200.00	1,179.88	1,134.88	1,179.88	6.29	38.02	73.72	-1,297.54	-4,795.68	4,914.36	4,870.08	44.29	110.967		
1,300.00	1,274.26	1,229.26	1,274.26	6.78	41.30	74.07	-1,297.54	-4,795.68	4,904.69	4,856.64	48.05	102.072		
1,400.00	1,368.63	1,323.63	1,368.63	7.28	44.58	74.42	-1,297.54	-4,795.68	4,895.22	4,843.38	51.83	94.440		
1,500.00	1,463.00	1,418.00	1,463.00	7.80	47.87	74.78	-1,297.54	-4,795.68	4,885.95	4,830.32	55.63	87.826		
1,600.00	1,557.38	1,512.38	1,557.38	8.33	51.16	75.13	-1,297.54	-4,795.68	4,876.89	4,817.45	59.44	82.044		
1,700.00	1,651.75	1,606.75	1,651.75	8.87	54.45	75.49	-1,297.54	-4,795.68	4,868.04	4,804.78	63.26	76.949		
1,800.00	1,746.12	1,701.12	1,746.12	9.41	57.73	75.85	-1,297.54	-4,795.68	4,859.40	4,792.31	67.09	72.428		
1,900.00	1,840.49	1,804.51	1,840.49	9.96	61.34	76.21	-1,297.54	-4,795.68	4,850.97	4,779.73	71.24	68.090		
2,000.00	1,934.87	1,889.87	1,934.87	10.52	64.31	76.57	-1,297.54	-4,795.68	4,842.75	4,767.98	74.77	64.767		
2,100.00	2,029.24	1,984.24	2,029.24	11.08	67.60	76.93	-1,297.54	-4,795.68	4,834.74	4,756.12	78.62	61.495		
2,200.00	2,123.61	2,078.61	2,123.61	11.64	70.89	77.29	-1,297.54	-4,795.68	4,826.94	4,744.47	82.47	58.528		
2,300.00	2,217.99	2,172.99	2,217.99	12.21	74.19	77.65	-1,297.54	-4,795.68	4,819.36	4,733.03	86.33	55.825		
2,400.00	2,312.36	2,267.36	2,312.36	12.78	77.48	78.02	-1,297.54	-4,795.68	4,812.00	4,721.81	90.19	53.354		
2,500.00	2,406.73	2,361.73	2,406.73	13.35	80.77	78.38	-1,297.54	-4,795.68	4,804.85	4,710.80	94.05	51.086		
2,600.00	2,501.10	2,456.10	2,501.10	13.93	84.06	78.75	-1,297.54	-4,795.68	4,797.92	4,700.00	97.92	48.998		
2,700.00	2,595.48	2,550.48	2,595.48	14.51	87.35	79.11	-1,297.54	-4,795.68	4,791.20	4,689.41	101.79	47.069		
2,800.00	2,689.85	2,644.85	2,689.85	15.08	90.65	79.48	-1,297.54	-4,795.68	4,784.71	4,679.05	105.66	45.283		
2,900.00	2,784.22	2,739.22	2,784.22	15.66	93.94	79.85	-1,297.54	-4,795.68	4,778.44	4,668.90	109.53	43.625		
3,000.00	2,878.60	2,833.60	2,878.60	16.25	97.23	80.22	-1,297.54	-4,795.68	4,772.38	4,658.97	113.41	42.081		
3,100.00	2,972.97	2,927.97	2,972.97	16.83	100.52	80.59	-1,297.54	-4,795.68	4,766.55	4,649.26	117.29	40.640		
3,200.00	3,067.34	3,022.34	3,067.34	17.41	103.82	80.96	-1,297.54	-4,795.68	4,760.94	4,639.78	121.16	39.293		
3,300.00	3,161.72	3,116.72	3,161.72	18.00	107.11	81.33	-1,297.54	-4,795.68	4,755.56	4,630.51	125.04	38.031		
3,400.00	3,256.09	3,211.09	3,256.09	18.58	110.40	81.71	-1,297.54	-4,795.68	4,750.40	4,621.47	128.93	36.846		
3,500.00	3,350.46	3,305.46	3,350.46	19.17	113.70	82.08	-1,297.54	-4,795.68	4,745.46	4,612.65	132.81	35.732		
3,600.00	3,444.83	3,400.17	3,444.83	19.75	117.00	82.45	-1,297.54	-4,795.68	4,740.75	4,604.05	136.70	34.680		
3,700.00	3,539.21	3,505.79	3,539.21	20.34	120.69	82.83	-1,297.54	-4,795.68	4,736.26	4,595.29	140.98	33.596		
3,800.00	3,633.58	3,588.58	3,633.58	20.93	123.58	83.20	-1,297.54	-4,795.68	4,732.01	4,587.55	144.46	32.757		
3,900.00	3,727.95	3,682.95	3,727.95	21.52	126.87	83.58	-1,297.54	-4,795.68	4,727.98	4,579.63	148.34	31.872		
4,000.00	3,822.33	3,777.33	3,822.33	22.11	130.16	83.96	-1,297.54	-4,795.68	4,724.17	4,571.94	152.23	31.033		
4,100.00	3,916.70	3,871.70	3,916.70	22.70	133.46	84.33	-1,297.54	-4,795.68	4,720.60	4,564.48	156.12	30.238		
4,200.00	4,011.07	3,966.07	4,011.07	23.29	136.75	84.71	-1,297.54	-4,795.68	4,717.26	4,557.25	160.00	29.482		
4,300.00	4,105.44	4,060.44	4,105.44	23.88	140.04	85.09	-1,297.54	-4,795.68	4,714.14	4,550.25	163.89	28.764		
4,400.00	4,199.82	4,154.82	4,199.82	24.47	143.34	85.47	-1,297.54	-4,795.68	4,711.26	4,543.48	167.78	28.080		
4,500.00	4,294.19	4,249.19	4,294.19	25.06	146.63	85.84	-1,297.54	-4,795.68	4,708.60	4,536.94	171.67	27.429		
4,600.00	4,388.56	4,343.56	4,388.56	25.65	149.92	86.22	-1,297.54	-4,795.68	4,706.18	4,530.62	175.55	26.807		
4,700.00	4,482.94	4,437.94	4,482.94	26.24	153.22	86.60	-1,297.54	-4,795.68	4,703.99	4,524.54	179.44	26.214		
4,800.00	4,577.31	4,532.31	4,577.31	26.83	156.51	86.98	-1,297.54	-4,795.68	4,702.03	4,518.69	183.33	25.648		
4,900.00	4,671.68	4,626.68	4,671.68	27.43	159.81	87.36	-1,297.54	-4,795.68	4,700.30	4,513.08	187.22	25.106		
5,000.00	4,766.05	4,721.05	4,766.05	28.02	163.10	87.74	-1,297.54	-4,795.68	4,698.80	4,507.69	191.11	24.587		
5,100.00	4,860.43	4,815.43	4,860.43	28.61	166.39	88.12	-1,297.54	-4,795.68	4,697.54	4,502.54	195.00	24.090		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-42(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,909.80	4,954.80	29.20	169.69	88.50	-1,297.54	-4,795.68	4,696.51	4,497.62	198.89	23.614		
5,300.00	5,049.17	5,004.17	5,049.17	29.80	172.98	88.88	-1,297.54	-4,795.68	4,695.71	4,492.93	202.78	23.157		
5,400.00	5,143.55	5,101.45	5,143.55	30.39	176.38	89.27	-1,297.54	-4,795.68	4,695.14	4,488.38	206.77	22.707		
5,500.00	5,237.92	5,207.08	5,237.92	30.99	180.06	89.65	-1,297.54	-4,795.68	4,694.81	4,483.76	211.05	22.245		
5,592.88	5,325.57	5,280.57	5,325.57	31.54	182.63	90.00	-1,297.54	-4,795.68	4,694.71	4,480.54	214.17	21.921		
5,600.00	5,332.29	5,287.29	5,332.29	31.58	182.86	90.03	-1,297.54	-4,795.68	4,694.71	4,480.27	214.44	21.893		
5,700.00	5,426.66	5,381.66	5,426.66	32.17	186.16	90.41	-1,297.54	-4,795.68	4,694.84	4,476.51	218.33	21.503		
5,800.00	5,521.04	5,476.04	5,521.04	32.77	189.45	90.79	-1,297.54	-4,795.68	4,695.21	4,472.99	222.22	21.129		
5,900.00	5,615.41	5,570.41	5,615.41	33.36	192.75	91.17	-1,297.54	-4,795.68	4,695.81	4,469.70	226.11	20.768		
6,000.00	5,709.78	5,664.78	5,709.78	33.96	196.04	91.55	-1,297.54	-4,795.68	4,696.64	4,466.65	229.99	20.421		
6,100.00	5,804.16	5,759.16	5,804.16	34.55	199.33	91.93	-1,297.54	-4,795.68	4,697.70	4,463.82	233.88	20.086		
6,200.00	5,898.53	5,853.53	5,898.53	35.14	202.63	92.31	-1,297.54	-4,795.68	4,699.00	4,461.24	237.77	19.763		
6,300.00	5,992.90	5,947.90	5,992.90	35.74	205.92	92.69	-1,297.54	-4,795.68	4,700.53	4,458.88	241.65	19.452		
6,400.00	6,087.27	6,042.27	6,087.27	36.33	209.22	93.07	-1,297.54	-4,795.68	4,702.29	4,456.75	245.54	19.151		
6,500.00	6,181.65	6,136.65	6,181.65	36.93	212.51	93.45	-1,297.54	-4,795.68	4,704.29	4,454.86	249.42	18.861		
6,600.00	6,276.02	6,231.02	6,276.02	37.52	215.80	93.83	-1,297.54	-4,795.68	4,706.51	4,453.20	253.31	18.580		
6,700.00	6,370.39	6,325.39	6,370.39	38.12	219.10	94.21	-1,297.54	-4,795.68	4,708.97	4,451.78	257.19	18.309		
6,800.00	6,464.77	6,419.77	6,464.77	38.71	222.39	94.59	-1,297.54	-4,795.68	4,711.65	4,450.58	261.07	18.047		
6,900.00	6,559.14	6,514.14	6,559.14	39.31	225.69	94.75	-1,297.54	-4,795.68	4,714.57	4,449.61	264.96	17.794		
7,000.00	6,652.92	6,607.92	6,652.92	39.90	228.96	71.97	-1,297.54	-4,795.68	4,709.85	4,441.04	268.81	17.521		
7,100.00	6,744.00	6,701.00	6,744.00	40.44	232.21	56.59	-1,297.54	-4,795.68	4,690.05	4,417.44	272.61	17.204		
7,200.00	6,830.13	6,785.13	6,830.13	40.94	235.15	47.58	-1,297.54	-4,795.68	4,655.69	4,379.65	276.04	16.866		
7,300.00	6,909.19	6,864.19	6,909.19	41.37	237.91	42.76	-1,297.54	-4,795.68	4,607.65	4,328.41	279.24	16.501		
7,400.00	6,979.23	6,934.23	6,979.23	41.75	240.35	40.82	-1,297.54	-4,795.68	4,547.10	4,265.03	282.07	16.121		
7,500.00	7,038.53	7,006.47	7,038.53	42.08	242.87	41.31	-1,297.54	-4,795.68	4,475.53	4,190.60	284.93	15.707		
7,600.00	7,085.63	7,040.63	7,085.63	42.37	244.07	44.54	-1,297.54	-4,795.68	4,394.67	4,108.24	286.43	15.343		
7,700.00	7,119.37	7,074.37	7,119.37	42.64	245.24	51.90	-1,297.54	-4,795.68	4,306.46	4,018.59	287.87	14.960		
7,800.00	7,138.92	7,106.08	7,138.92	42.91	246.35	67.04	-1,297.54	-4,795.68	4,213.01	3,923.80	289.22	14.567		
7,900.00	7,143.92	7,101.08	7,143.92	43.25	246.18	91.32	-1,297.54	-4,795.68	4,116.56	3,827.32	289.25	14.232		
8,000.00	7,143.35	7,101.65	7,143.35	43.72	246.20	91.28	-1,297.54	-4,795.68	4,019.57	3,730.10	289.47	13.886		
8,100.00	7,142.78	7,102.22	7,142.78	44.42	246.22	91.25	-1,297.54	-4,795.68	3,922.72	3,633.01	289.72	13.540		
8,200.00	7,142.22	7,102.78	7,142.22	45.39	246.24	91.22	-1,297.54	-4,795.68	3,826.04	3,536.05	289.99	13.194		
8,300.00	7,141.65	7,103.35	7,141.65	46.63	246.25	91.18	-1,297.54	-4,795.68	3,729.53	3,439.24	290.30	12.847		
8,400.00	7,141.08	7,103.92	7,141.08	48.09	246.27	91.15	-1,297.54	-4,795.68	3,633.21	3,342.58	290.63	12.501		
8,500.00	7,140.51	7,104.49	7,140.51	49.74	246.29	91.12	-1,297.54	-4,795.68	3,537.10	3,246.09	291.01	12.155		
8,600.00	7,139.94	7,105.06	7,139.94	51.53	246.31	91.08	-1,297.54	-4,795.68	3,441.21	3,149.79	291.42	11.808		
8,700.00	7,139.37	7,105.63	7,139.37	53.44	246.33	91.05	-1,297.54	-4,795.68	3,345.55	3,053.68	291.87	11.462		
8,800.00	7,138.80	7,106.20	7,138.80	55.45	246.35	91.02	-1,297.54	-4,795.68	3,250.16	2,957.78	292.38	11.116		
8,900.00	7,138.24	7,106.76	7,138.24	57.55	246.37	90.99	-1,297.54	-4,795.68	3,155.06	2,862.12	292.94	10.770		
9,000.00	7,137.67	7,107.33	7,137.67	59.71	246.39	90.95	-1,297.54	-4,795.68	3,060.26	2,766.70	293.56	10.425		
9,100.00	7,137.10	7,107.90	7,137.10	61.94	246.41	90.92	-1,297.54	-4,795.68	2,965.81	2,671.56	294.25	10.079		
9,200.00	7,136.53	7,108.47	7,136.53	64.22	246.43	90.89	-1,297.54	-4,795.68	2,871.73	2,576.72	295.02	9.734		
9,300.00	7,135.96	7,109.04	7,135.96	66.55	246.45	90.85	-1,297.54	-4,795.68	2,778.07	2,482.21	295.87	9.390		
9,400.00	7,135.39	7,109.61	7,135.39	68.92	246.47	90.82	-1,297.54	-4,795.68	2,684.87	2,388.06	296.81	9.046		
9,500.00	7,134.83	7,089.83	7,134.83	71.33	245.78	90.79	-1,297.54	-4,795.68	2,592.17	2,295.02	297.14	8.724		
9,600.00	7,134.26	7,089.26	7,134.26	73.77	245.76	90.76	-1,297.54	-4,795.68	2,500.03	2,201.76	298.27	8.382		
9,700.00	7,133.69	7,088.69	7,133.69	76.24	245.74	90.72	-1,297.54	-4,795.68	2,408.52	2,109.00	299.52	8.041		
9,800.00	7,133.12	7,088.12	7,133.12	78.74	245.72	90.69	-1,297.54	-4,795.68	2,317.71	2,016.79	300.92	7.702		
9,900.00	7,132.55	7,087.55	7,132.55	81.27	245.70	90.66	-1,297.54	-4,795.68	2,227.69	1,925.20	302.49	7.365		
10,000.00	7,131.98	7,086.98	7,131.98	83.81	245.68	90.62	-1,297.54	-4,795.68	2,138.56	1,834.33	304.23	7.029		
10,100.00	7,131.42	7,086.42	7,131.42	86.38	245.66	90.59	-1,297.54	-4,795.68	2,050.42	1,744.25	306.17	6.697		
10,200.00	7,130.85	7,085.85	7,130.85	88.96	245.64	90.56	-1,297.54	-4,795.68	1,963.43	1,655.09	308.34	6.368		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-42(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.00	7,130.28	7,085.28	7,130.28	91.56	245.62	90.53	-1,297.54	-4,795.68	1,877.73	1,566.98	310.75	6.043	
10,400.00	7,129.71	7,084.71	7,129.71	94.18	245.60	90.49	-1,297.54	-4,795.68	1,793.51	1,480.08	313.44	5.722	
10,500.00	7,129.14	7,084.14	7,129.14	96.81	245.58	90.46	-1,297.54	-4,795.68	1,711.00	1,394.58	316.42	5.407	
10,600.00	7,128.57	7,083.57	7,128.57	99.45	245.56	90.43	-1,297.54	-4,795.68	1,630.44	1,310.71	319.72	5.100	
10,700.00	7,128.00	7,083.00	7,128.00	102.11	245.54	90.39	-1,297.54	-4,795.68	1,552.14	1,228.77	323.37	4.800	
10,800.00	7,127.44	7,082.44	7,127.44	104.77	245.52	90.36	-1,297.54	-4,795.68	1,476.47	1,149.08	327.39	4.510	
10,900.00	7,126.87	7,081.87	7,126.87	107.45	245.50	90.33	-1,297.54	-4,795.68	1,403.84	1,072.06	331.78	4.231	
11,000.00	7,126.30	7,081.30	7,126.30	110.13	245.49	90.29	-1,297.54	-4,795.68	1,334.76	998.21	336.54	3.966	
11,100.00	7,125.73	7,080.73	7,125.73	112.82	245.47	90.26	-1,297.54	-4,795.68	1,269.80	928.14	341.65	3.717	
11,200.00	7,125.16	7,080.16	7,125.16	115.53	245.45	90.23	-1,297.54	-4,795.68	1,209.63	862.57	347.06	3.485	
11,300.00	7,124.59	7,079.59	7,124.59	118.24	245.43	90.20	-1,297.54	-4,795.68	1,154.99	802.33	352.67	3.275	
11,400.00	7,124.03	7,079.03	7,124.03	120.95	245.41	90.16	-1,297.54	-4,795.68	1,106.72	748.39	358.33	3.089	
11,500.00	7,123.46	7,078.46	7,123.46	123.67	245.39	90.13	-1,297.54	-4,795.68	1,065.66	701.80	363.86	2.929	
11,600.00	7,122.89	7,077.89	7,122.89	126.40	245.37	90.10	-1,297.54	-4,795.68	1,032.68	663.67	369.02	2.798	
11,700.00	7,122.32	7,077.32	7,122.32	129.14	245.35	90.06	-1,297.54	-4,795.68	1,008.59	635.06	373.53	2.700	
11,800.00	7,121.75	7,076.75	7,121.75	131.88	245.33	90.03	-1,297.54	-4,795.68	994.01	616.86	377.14	2.636	
11,895.97	7,121.21	7,076.21	7,121.21	134.51	245.31	90.00	-1,297.54	-4,795.68	989.36	609.79	379.57	2.607 CC	
11,900.00	7,121.18	7,076.18	7,121.18	134.62	245.31	90.00	-1,297.54	-4,795.68	989.37	609.72	379.65	2.606 ES, SF	
12,000.00	7,120.61	7,075.61	7,120.61	137.37	245.29	89.97	-1,297.54	-4,795.68	994.82	613.88	380.93	2.612	
12,100.00	7,120.05	7,075.05	7,120.05	140.12	245.27	89.93	-1,297.54	-4,795.68	1,010.18	629.19	380.99	2.651	
12,200.00	7,119.48	7,074.48	7,119.48	142.88	245.25	89.90	-1,297.54	-4,795.68	1,035.02	655.09	379.93	2.724	
12,300.00	7,118.91	7,073.91	7,118.91	145.64	245.23	89.87	-1,297.54	-4,795.68	1,068.68	690.75	377.93	2.828	
12,400.00	7,118.34	7,073.34	7,118.34	148.41	245.21	89.83	-1,297.54	-4,795.68	1,110.35	735.14	375.21	2.959	
12,500.00	7,117.77	7,072.77	7,117.77	151.18	245.19	89.80	-1,297.54	-4,795.68	1,159.17	787.18	372.00	3.116	
12,600.00	7,117.20	7,072.20	7,117.20	153.95	245.17	89.77	-1,297.54	-4,795.68	1,214.28	845.79	368.49	3.295	
12,700.00	7,116.64	7,071.64	7,116.64	156.73	245.15	89.74	-1,297.54	-4,795.68	1,274.87	910.02	364.85	3.494	
12,800.00	7,116.07	7,071.07	7,116.07	159.50	245.13	89.70	-1,297.54	-4,795.68	1,340.18	978.98	361.20	3.710	
12,900.00	7,115.50	7,070.50	7,115.50	162.29	245.11	89.67	-1,297.54	-4,795.68	1,409.57	1,051.94	357.63	3.941	
13,000.00	7,114.93	7,069.93	7,114.93	165.07	245.09	89.64	-1,297.54	-4,795.68	1,482.46	1,128.26	354.19	4.185	
13,100.00	7,114.36	7,069.36	7,114.36	167.86	245.07	89.60	-1,297.54	-4,795.68	1,558.36	1,207.43	350.93	4.441	
13,200.00	7,113.79	7,068.79	7,113.79	170.64	245.05	89.57	-1,297.54	-4,795.68	1,636.85	1,289.00	347.85	4.706	
13,300.00	7,113.22	7,068.22	7,113.22	173.44	245.03	89.54	-1,297.54	-4,795.68	1,717.58	1,372.61	344.97	4.979	
13,400.00	7,112.66	7,067.66	7,112.66	176.23	245.01	89.50	-1,297.54	-4,795.68	1,800.24	1,457.97	342.28	5.260	
13,500.00	7,112.09	7,067.09	7,112.09	179.02	244.99	89.47	-1,297.54	-4,795.68	1,884.59	1,544.82	339.77	5.547	
13,600.00	7,111.52	7,066.52	7,111.52	181.82	244.97	89.44	-1,297.54	-4,795.68	1,970.40	1,632.95	337.45	5.839	
13,700.00	7,110.95	7,065.95	7,110.95	184.62	244.95	89.41	-1,297.54	-4,795.68	2,057.49	1,722.20	335.29	6.136	
13,800.00	7,110.38	7,065.38	7,110.38	187.42	244.93	89.37	-1,297.54	-4,795.68	2,145.71	1,812.42	333.29	6.438	
13,900.00	7,109.81	7,064.81	7,109.81	190.22	244.91	89.34	-1,297.54	-4,795.68	2,234.92	1,903.49	331.43	6.743	
14,000.00	7,109.25	7,064.25	7,109.25	193.03	244.89	89.31	-1,297.54	-4,795.68	2,325.00	1,995.30	329.70	7.052	
14,100.00	7,108.68	7,063.68	7,108.68	195.84	244.87	89.27	-1,297.54	-4,795.68	2,415.87	2,087.77	328.10	7.363	
14,200.00	7,108.11	7,063.11	7,108.11	198.64	244.85	89.24	-1,297.54	-4,795.68	2,507.43	2,180.82	326.61	7.677	
14,300.00	7,107.54	7,062.54	7,107.54	201.45	244.83	89.21	-1,297.54	-4,795.68	2,599.62	2,274.39	325.23	7.993	
14,400.00	7,106.97	7,061.97	7,106.97	204.26	244.81	89.18	-1,297.54	-4,795.68	2,692.36	2,368.42	323.94	8.311	
14,500.00	7,106.40	7,061.40	7,106.40	207.07	244.79	89.14	-1,297.54	-4,795.68	2,785.61	2,462.87	322.73	8.631	
14,600.00	7,105.83	7,060.83	7,105.83	209.89	244.77	89.11	-1,297.54	-4,795.68	2,879.30	2,557.69	321.61	8.953	
14,700.00	7,105.27	7,060.27	7,105.27	212.70	244.75	89.08	-1,297.54	-4,795.68	2,973.41	2,652.85	320.56	9.276	
14,800.00	7,104.70	7,059.70	7,104.70	215.52	244.73	89.04	-1,297.54	-4,795.68	3,067.89	2,748.31	319.58	9.600	
14,900.00	7,104.13	7,059.13	7,104.13	218.33	244.71	89.01	-1,297.54	-4,795.68	3,162.71	2,844.05	318.66	9.925	
15,000.00	7,103.56	7,058.56	7,103.56	221.15	244.69	88.98	-1,297.54	-4,795.68	3,257.84	2,940.04	317.80	10.251	
15,100.00	7,102.99	7,057.99	7,102.99	223.97	244.67	88.95	-1,297.54	-4,795.68	3,353.26	3,036.27	316.99	10.578	
15,200.00	7,102.42	7,057.42	7,102.42	226.79	244.65	88.91	-1,297.54	-4,795.68	3,448.93	3,132.70	316.23	10.906	
15,274.57	7,102.00	7,057.00	7,102.00	228.89	244.64	88.89	-1,297.54	-4,795.68	3,520.43	3,204.73	315.69	11.151	

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-43(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	48.00	3.28	3.28	-120.23	-2,798.48	-4,801.54	5,557.75				
100.00	100.00	52.00	100.00	3.28	3.40	-120.23	-2,798.48	-4,801.54	5,557.54	5,550.85	6.69	830.972	
200.00	200.00	152.00	200.00	3.34	4.84	-120.23	-2,798.48	-4,801.54	5,557.54	5,549.36	8.18	679.547	
300.00	299.98	251.98	299.98	3.44	7.78	55.84	-2,798.48	-4,801.54	5,556.56	5,545.34	11.22	495.404	
400.00	399.84	351.84	399.84	3.59	11.04	55.93	-2,798.48	-4,801.54	5,553.62	5,538.99	14.63	379.725	
500.00	499.45	451.45	499.45	3.79	14.39	56.09	-2,798.48	-4,801.54	5,548.73	5,530.55	18.18	305.187	
600.00	598.70	550.70	598.70	4.03	17.78	56.31	-2,798.48	-4,801.54	5,541.92	5,520.10	21.82	254.040	
700.00	697.47	649.47	697.47	4.31	21.18	56.59	-2,798.48	-4,801.54	5,533.20	5,507.70	25.50	217.024	
800.00	795.62	747.62	795.62	4.64	24.57	56.93	-2,798.48	-4,801.54	5,522.60	5,493.39	29.21	189.092	
900.00	893.06	845.06	893.06	5.00	27.95	57.33	-2,798.48	-4,801.54	5,510.17	5,477.23	32.93	167.312	
1,000.00	989.64	941.64	989.64	5.40	31.30	57.79	-2,798.48	-4,801.54	5,495.94	5,459.27	36.67	149.878	
1,100.00	1,085.27	1,037.27	1,085.27	5.83	34.62	58.32	-2,798.48	-4,801.54	5,479.97	5,439.56	40.41	135.620	
1,200.00	1,179.88	1,131.88	1,179.88	6.29	37.91	58.80	-2,798.48	-4,801.54	5,462.42	5,418.28	44.14	123.751	
1,300.00	1,274.26	1,226.26	1,274.26	6.78	41.19	59.08	-2,798.48	-4,801.54	5,444.63	5,396.74	47.89	113.700	
1,400.00	1,368.63	1,320.63	1,368.63	7.28	44.48	59.37	-2,798.48	-4,801.54	5,426.98	5,375.33	51.65	105.072	
1,500.00	1,463.00	1,415.00	1,463.00	7.80	47.77	59.66	-2,798.48	-4,801.54	5,409.48	5,354.05	55.43	97.593	
1,600.00	1,557.38	1,509.38	1,557.38	8.33	51.05	59.95	-2,798.48	-4,801.54	5,392.12	5,332.90	59.22	91.051	
1,700.00	1,651.75	1,603.75	1,651.75	8.87	54.34	60.24	-2,798.48	-4,801.54	5,374.90	5,311.88	63.02	85.286	
1,800.00	1,746.12	1,701.88	1,746.12	9.41	57.76	60.53	-2,798.48	-4,801.54	5,357.84	5,290.88	66.96	80.011	
1,900.00	1,840.49	1,807.51	1,840.49	9.96	61.44	60.83	-2,798.48	-4,801.54	5,340.93	5,269.75	71.17	75.040	
2,000.00	1,934.87	1,886.87	1,934.87	10.52	64.21	61.13	-2,798.48	-4,801.54	5,324.17	5,249.69	74.48	71.488	
2,100.00	2,029.24	1,981.24	2,029.24	11.08	67.50	61.43	-2,798.48	-4,801.54	5,307.56	5,229.25	78.31	67.779	
2,200.00	2,123.61	2,075.61	2,123.61	11.64	70.79	61.73	-2,798.48	-4,801.54	5,291.11	5,208.96	82.14	64.413	
2,300.00	2,217.99	2,169.99	2,217.99	12.21	74.08	62.03	-2,798.48	-4,801.54	5,274.81	5,188.83	85.98	61.347	
2,400.00	2,312.36	2,264.36	2,312.36	12.78	77.37	62.33	-2,798.48	-4,801.54	5,258.67	5,168.84	89.83	58.542	
2,500.00	2,406.73	2,358.73	2,406.73	13.35	80.66	62.64	-2,798.48	-4,801.54	5,242.69	5,149.01	93.68	55.967	
2,600.00	2,501.10	2,453.10	2,501.10	13.93	83.96	62.95	-2,798.48	-4,801.54	5,226.87	5,129.34	97.53	53.594	
2,700.00	2,595.48	2,547.48	2,595.48	14.51	87.25	63.26	-2,798.48	-4,801.54	5,211.21	5,109.83	101.38	51.402	
2,800.00	2,689.85	2,641.85	2,689.85	15.08	90.54	63.57	-2,798.48	-4,801.54	5,195.72	5,090.48	105.24	49.371	
2,900.00	2,784.22	2,736.22	2,784.22	15.66	93.83	63.88	-2,798.48	-4,801.54	5,180.39	5,071.29	109.10	47.484	
3,000.00	2,878.60	2,830.60	2,878.60	16.25	97.13	64.20	-2,798.48	-4,801.54	5,165.22	5,052.26	112.96	45.726	
3,100.00	2,972.97	2,924.97	2,972.97	16.83	100.42	64.51	-2,798.48	-4,801.54	5,150.22	5,033.40	116.82	44.086	
3,200.00	3,067.34	3,019.34	3,067.34	17.41	103.71	64.83	-2,798.48	-4,801.54	5,135.40	5,014.71	120.69	42.550	
3,300.00	3,161.72	3,113.72	3,161.72	18.00	107.00	65.15	-2,798.48	-4,801.54	5,120.74	4,996.18	124.56	41.111	
3,400.00	3,256.09	3,208.09	3,256.09	18.58	110.30	65.47	-2,798.48	-4,801.54	5,106.26	4,977.83	128.43	39.760	
3,500.00	3,350.46	3,302.46	3,350.46	19.17	113.59	65.79	-2,798.48	-4,801.54	5,091.95	4,959.65	132.30	38.488	
3,600.00	3,444.83	3,403.17	3,444.83	19.75	117.11	66.12	-2,798.48	-4,801.54	5,077.81	4,941.42	136.39	37.229	
3,700.00	3,539.21	3,508.79	3,539.21	20.34	120.79	66.44	-2,798.48	-4,801.54	5,063.85	4,923.19	140.66	36.000	
3,800.00	3,633.58	3,585.58	3,633.58	20.93	123.47	66.77	-2,798.48	-4,801.54	5,050.07	4,906.15	143.93	35.088	
3,900.00	3,727.95	3,679.95	3,727.95	21.52	126.76	67.10	-2,798.48	-4,801.54	5,036.47	4,888.67	147.80	34.076	
4,000.00	3,822.33	3,774.33	3,822.33	22.11	130.06	67.43	-2,798.48	-4,801.54	5,023.05	4,871.37	151.68	33.116	
4,100.00	3,916.70	3,868.70	3,916.70	22.70	133.35	67.76	-2,798.48	-4,801.54	5,009.81	4,854.25	155.56	32.204	
4,200.00	4,011.07	3,963.07	4,011.07	23.29	136.64	68.10	-2,798.48	-4,801.54	4,996.76	4,837.31	159.45	31.338	
4,300.00	4,105.44	4,057.44	4,105.44	23.88	139.94	68.43	-2,798.48	-4,801.54	4,983.89	4,820.56	163.33	30.514	
4,400.00	4,199.82	4,151.82	4,199.82	24.47	143.23	68.77	-2,798.48	-4,801.54	4,971.20	4,803.99	167.21	29.730	
4,500.00	4,294.19	4,246.19	4,294.19	25.06	146.53	69.11	-2,798.48	-4,801.54	4,958.71	4,787.61	171.10	28.982	
4,600.00	4,388.56	4,340.56	4,388.56	25.65	149.82	69.45	-2,798.48	-4,801.54	4,946.40	4,771.42	174.99	28.268	
4,700.00	4,482.94	4,434.94	4,482.94	26.24	153.11	69.79	-2,798.48	-4,801.54	4,934.29	4,755.42	178.87	27.585	
4,800.00	4,577.31	4,529.31	4,577.31	26.83	156.41	70.13	-2,798.48	-4,801.54	4,922.37	4,739.61	182.76	26.933	
4,900.00	4,671.68	4,623.68	4,671.68	27.43	159.70	70.48	-2,798.48	-4,801.54	4,910.64	4,723.99	186.65	26.309	
5,000.00	4,766.05	4,718.05	4,766.05	28.02	163.00	70.83	-2,798.48	-4,801.54	4,899.11	4,708.57	190.54	25.711	
5,100.00	4,860.43	4,812.43	4,860.43	28.61	166.29	71.17	-2,798.48	-4,801.54	4,887.77	4,693.34	194.43	25.139	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-43(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,906.80	4,954.80	29.20	169.58	71.52	-2,798.48	-4,801.54	4,876.63	4,678.31	198.33	24.589		
5,300.00	5,049.17	5,001.17	5,049.17	29.80	172.88	71.87	-2,798.48	-4,801.54	4,865.70	4,663.48	202.22	24.062		
5,400.00	5,143.55	5,104.45	5,143.55	30.39	176.48	72.23	-2,798.48	-4,801.54	4,854.96	4,648.53	206.42	23.519		
5,500.00	5,237.92	5,189.92	5,237.92	30.99	179.46	72.58	-2,798.48	-4,801.54	4,844.42	4,634.41	210.01	23.068		
5,600.00	5,332.29	5,284.29	5,332.29	31.58	182.76	72.93	-2,798.48	-4,801.54	4,834.09	4,620.19	213.90	22.599		
5,700.00	5,426.66	5,378.66	5,426.66	32.17	186.05	73.29	-2,798.48	-4,801.54	4,823.96	4,606.16	217.80	22.149		
5,800.00	5,521.04	5,473.04	5,521.04	32.77	189.35	73.65	-2,798.48	-4,801.54	4,814.04	4,592.34	221.70	21.715		
5,900.00	5,615.41	5,567.41	5,615.41	33.36	192.64	74.01	-2,798.48	-4,801.54	4,804.32	4,578.73	225.59	21.296		
6,000.00	5,709.78	5,661.78	5,709.78	33.96	195.94	74.37	-2,798.48	-4,801.54	4,794.82	4,565.33	229.49	20.893		
6,100.00	5,804.16	5,756.16	5,804.16	34.55	199.23	74.73	-2,798.48	-4,801.54	4,785.52	4,552.13	233.39	20.504		
6,200.00	5,898.53	5,850.53	5,898.53	35.14	202.52	75.09	-2,798.48	-4,801.54	4,776.43	4,539.15	237.29	20.129		
6,300.00	5,992.90	5,944.90	5,992.90	35.74	205.82	75.45	-2,798.48	-4,801.54	4,767.56	4,526.37	241.19	19.767		
6,400.00	6,087.27	6,039.27	6,087.27	36.33	209.11	75.82	-2,798.48	-4,801.54	4,758.90	4,513.81	245.09	19.417		
6,500.00	6,181.65	6,133.65	6,181.65	36.93	212.41	76.19	-2,798.48	-4,801.54	4,750.45	4,501.46	248.99	19.079		
6,600.00	6,276.02	6,228.02	6,276.02	37.52	215.70	76.55	-2,798.48	-4,801.54	4,742.22	4,489.33	252.89	18.752		
6,700.00	6,370.39	6,322.39	6,370.39	38.12	218.99	76.92	-2,798.48	-4,801.54	4,734.21	4,477.42	256.79	18.436		
6,800.00	6,464.77	6,416.77	6,464.77	38.71	222.29	77.29	-2,798.48	-4,801.54	4,726.41	4,465.72	260.69	18.130		
6,900.00	6,559.14	6,511.14	6,559.14	39.31	225.58	77.44	-2,798.48	-4,801.54	4,718.83	4,454.24	264.59	17.834		
7,000.00	6,652.92	6,604.92	6,652.92	39.90	228.86	54.37	-2,798.48	-4,801.54	4,703.63	4,435.17	268.46	17.521		
7,100.00	6,744.00	6,704.00	6,744.00	40.44	232.31	38.20	-2,798.48	-4,801.54	4,673.50	4,401.04	272.46	17.153		
7,200.00	6,830.13	6,782.13	6,830.13	40.94	235.04	27.81	-2,798.48	-4,801.54	4,629.11	4,353.45	275.66	16.793		
7,300.00	6,909.19	6,861.19	6,909.19	41.37	237.80	20.80	-2,798.48	-4,801.54	4,571.52	4,292.69	278.83	16.396		
7,400.00	6,979.23	6,931.23	6,979.23	41.75	240.25	15.49	-2,798.48	-4,801.54	4,502.07	4,220.46	281.60	15.987		
7,500.00	7,038.53	7,009.47	7,038.53	42.08	242.98	10.65	-2,798.48	-4,801.54	4,422.43	4,137.84	284.59	15.539		
7,600.00	7,085.63	7,037.63	7,085.63	42.37	243.96	4.88	-2,798.48	-4,801.54	4,334.53	4,048.77	285.76	15.169		
7,700.00	7,119.37	7,071.37	7,119.37	42.64	245.14	-5.11	-2,798.48	-4,801.54	4,240.50	3,953.46	287.03	14.773		
7,800.00	7,138.92	7,109.08	7,138.92	42.91	246.45	-32.88	-2,798.48	-4,801.54	4,142.66	3,854.29	288.38	14.365		
7,900.00	7,143.92	7,104.08	7,143.92	43.25	246.28	-92.55	-2,798.48	-4,801.54	4,043.44	3,755.28	288.17	14.032		
8,000.00	7,143.35	7,104.65	7,143.35	43.72	246.30	-92.49	-2,798.48	-4,801.54	3,944.27	3,656.14	288.13	13.689		
8,100.00	7,142.78	7,105.22	7,142.78	44.42	246.32	-92.43	-2,798.48	-4,801.54	3,845.14	3,557.04	288.10	13.347		
8,200.00	7,142.22	7,105.78	7,142.22	45.39	246.34	-92.36	-2,798.48	-4,801.54	3,746.05	3,457.99	288.06	13.004		
8,300.00	7,141.65	7,106.35	7,141.65	46.63	246.36	-92.30	-2,798.48	-4,801.54	3,647.02	3,358.98	288.04	12.662		
8,400.00	7,141.08	7,106.92	7,141.08	48.09	246.38	-92.23	-2,798.48	-4,801.54	3,548.03	3,260.02	288.01	12.319		
8,500.00	7,140.51	7,107.49	7,140.51	49.74	246.40	-92.17	-2,798.48	-4,801.54	3,449.11	3,161.12	287.99	11.976		
8,600.00	7,139.94	7,108.06	7,139.94	51.53	246.42	-92.11	-2,798.48	-4,801.54	3,350.25	3,062.27	287.98	11.634		
8,700.00	7,139.37	7,108.63	7,139.37	53.44	246.44	-92.04	-2,798.48	-4,801.54	3,251.46	2,963.49	287.97	11.291		
8,800.00	7,138.80	7,109.20	7,138.80	55.45	246.46	-91.98	-2,798.48	-4,801.54	3,152.75	2,864.78	287.97	10.948		
8,900.00	7,138.24	7,109.76	7,138.24	57.55	246.48	-91.92	-2,798.48	-4,801.54	3,054.11	2,766.14	287.98	10.605		
9,000.00	7,137.67	7,089.67	7,137.67	59.71	245.78	-91.85	-2,798.48	-4,801.54	2,955.58	2,668.30	287.28	10.288		
9,100.00	7,137.10	7,089.10	7,137.10	61.94	245.76	-91.79	-2,798.48	-4,801.54	2,857.14	2,569.86	287.28	9.946		
9,200.00	7,136.53	7,088.53	7,136.53	64.22	245.74	-91.73	-2,798.48	-4,801.54	2,758.81	2,471.52	287.29	9.603		
9,300.00	7,135.96	7,087.96	7,135.96	66.55	245.72	-91.66	-2,798.48	-4,801.54	2,660.61	2,373.29	287.33	9.260		
9,400.00	7,135.39	7,087.39	7,135.39	68.92	245.70	-91.60	-2,798.48	-4,801.54	2,562.55	2,275.17	287.39	8.917		
9,500.00	7,134.83	7,086.83	7,134.83	71.33	245.68	-91.53	-2,798.48	-4,801.54	2,464.65	2,177.17	287.48	8.573		
9,600.00	7,134.26	7,086.26	7,134.26	73.77	245.66	-91.47	-2,798.48	-4,801.54	2,366.92	2,079.31	287.61	8.230		
9,700.00	7,133.69	7,085.69	7,133.69	76.24	245.64	-91.41	-2,798.48	-4,801.54	2,269.39	1,981.60	287.78	7.886		
9,800.00	7,133.12	7,085.12	7,133.12	78.74	245.62	-91.34	-2,798.48	-4,801.54	2,172.08	1,884.06	288.02	7.542		
9,900.00	7,132.55	7,084.55	7,132.55	81.27	245.60	-91.28	-2,798.48	-4,801.54	2,075.03	1,786.71	288.32	7.197		
10,000.00	7,131.98	7,083.98	7,131.98	83.81	245.58	-91.22	-2,798.48	-4,801.54	1,978.27	1,689.56	288.70	6.852		
10,100.00	7,131.42	7,083.42	7,131.42	86.38	245.56	-91.15	-2,798.48	-4,801.54	1,881.85	1,592.65	289.19	6.507		
10,200.00	7,130.85	7,082.85	7,130.85	88.96	245.54	-91.09	-2,798.48	-4,801.54	1,785.82	1,496.01	289.81	6.162		
10,300.00	7,130.28	7,082.28	7,130.28	91.56	245.52	-91.03	-2,798.48	-4,801.54	1,690.25	1,399.66	290.59	5.817		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURMAN 16-43(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,081.71	7,129.71	94.18	245.50	-90.96	-2,798.48	-4,801.54	1,595.23	1,303.67	291.56	5.471		
10,500.00	7,129.14	7,081.14	7,129.14	96.81	245.48	-90.90	-2,798.48	-4,801.54	1,500.86	1,208.07	292.78	5.126		
10,600.00	7,128.57	7,080.57	7,128.57	99.45	245.46	-90.83	-2,798.48	-4,801.54	1,407.26	1,112.95	294.31	4.782		
10,700.00	7,128.00	7,080.00	7,128.00	102.11	245.44	-90.77	-2,798.48	-4,801.54	1,314.60	1,018.38	296.21	4.438		
10,800.00	7,127.44	7,079.44	7,127.44	104.77	245.42	-90.71	-2,798.48	-4,801.54	1,223.10	924.51	298.59	4.096		
10,900.00	7,126.87	7,078.87	7,126.87	107.45	245.40	-90.64	-2,798.48	-4,801.54	1,133.04	831.49	301.55	3.757		
11,000.00	7,126.30	7,078.30	7,126.30	110.13	245.38	-90.58	-2,798.48	-4,801.54	1,044.79	739.55	305.24	3.423		
11,100.00	7,125.73	7,077.73	7,125.73	112.82	245.36	-90.52	-2,798.48	-4,801.54	958.84	649.03	309.81	3.095		
11,200.00	7,125.16	7,077.16	7,125.16	115.53	245.34	-90.45	-2,798.48	-4,801.54	875.89	560.43	315.46	2.777		
11,300.00	7,124.59	7,076.59	7,124.59	118.24	245.32	-90.39	-2,798.48	-4,801.54	796.86	474.48	322.37	2.472		
11,400.00	7,124.03	7,076.03	7,124.03	120.95	245.30	-90.33	-2,798.48	-4,801.54	723.03	392.33	330.70	2.186		
11,500.00	7,123.46	7,075.46	7,123.46	123.67	245.28	-90.26	-2,798.48	-4,801.54	656.18	315.71	340.47	1.927		
11,600.00	7,122.89	7,074.89	7,122.89	126.40	245.26	-90.20	-2,798.48	-4,801.54	598.64	247.26	351.38	1.704		
11,700.00	7,122.32	7,074.32	7,122.32	129.14	245.24	-90.13	-2,798.48	-4,801.54	553.33	190.74	362.58	1.526		
11,800.00	7,121.75	7,073.75	7,121.75	131.88	245.22	-90.07	-2,798.48	-4,801.54	523.42	150.87	372.54	1.405 Level 3		
11,900.00	7,121.18	7,073.18	7,121.18	134.62	245.20	-90.01	-2,798.48	-4,801.54	511.63	132.24	379.38	1.349 Level 3		
11,911.03	7,121.12	7,073.12	7,121.12	134.92	245.20	-90.00	-2,798.48	-4,801.54	511.51	131.63	379.88	1.346 Level 3, CC, ES, SF		
12,000.00	7,120.61	7,072.61	7,120.61	137.37	245.18	-89.94	-2,798.48	-4,801.54	519.19	137.39	381.80	1.360 Level 3		
12,100.00	7,120.05	7,072.05	7,120.05	140.12	245.16	-89.88	-2,798.48	-4,801.54	545.30	165.43	379.87	1.435 Level 3		
12,200.00	7,119.48	7,071.48	7,119.48	142.88	245.14	-89.82	-2,798.48	-4,801.54	587.49	212.63	374.85	1.567		
12,300.00	7,118.91	7,070.91	7,118.91	145.64	245.12	-89.75	-2,798.48	-4,801.54	642.60	274.30	368.30	1.745		
12,400.00	7,118.34	7,070.34	7,118.34	148.41	245.10	-89.69	-2,798.48	-4,801.54	707.62	346.23	361.39	1.958		
12,500.00	7,117.77	7,069.77	7,117.77	151.18	245.08	-89.62	-2,798.48	-4,801.54	780.08	425.29	354.79	2.199		
12,600.00	7,117.20	7,069.20	7,117.20	153.95	245.06	-89.56	-2,798.48	-4,801.54	858.09	509.28	348.80	2.460		
12,700.00	7,116.64	7,068.64	7,116.64	156.73	245.04	-89.50	-2,798.48	-4,801.54	940.27	596.75	343.51	2.737		
12,800.00	7,116.07	7,068.07	7,116.07	159.50	245.02	-89.43	-2,798.48	-4,801.54	1,025.62	686.72	338.90	3.026		
12,900.00	7,115.50	7,067.50	7,115.50	162.29	245.00	-89.37	-2,798.48	-4,801.54	1,113.41	778.52	334.88	3.325		
13,000.00	7,114.93	7,066.93	7,114.93	165.07	244.98	-89.31	-2,798.48	-4,801.54	1,203.11	871.71	331.40	3.630		
13,100.00	7,114.36	7,066.36	7,114.36	167.86	244.96	-89.24	-2,798.48	-4,801.54	1,294.32	965.95	328.36	3.942		
13,200.00	7,113.79	7,065.79	7,113.79	170.64	244.94	-89.18	-2,798.48	-4,801.54	1,386.74	1,061.03	325.71	4.258		
13,300.00	7,113.22	7,065.22	7,113.22	173.44	244.92	-89.12	-2,798.48	-4,801.54	1,480.14	1,156.76	323.38	4.577		
13,400.00	7,112.66	7,064.66	7,112.66	176.23	244.90	-89.05	-2,798.48	-4,801.54	1,574.36	1,253.03	321.33	4.899		
13,500.00	7,112.09	7,064.09	7,112.09	179.02	244.88	-88.99	-2,798.48	-4,801.54	1,669.25	1,349.73	319.52	5.224		
13,600.00	7,111.52	7,063.52	7,111.52	181.82	244.86	-88.92	-2,798.48	-4,801.54	1,764.70	1,446.80	317.91	5.551		
13,700.00	7,110.95	7,062.95	7,110.95	184.62	244.84	-88.86	-2,798.48	-4,801.54	1,860.64	1,544.17	316.47	5.879		
13,800.00	7,110.38	7,062.38	7,110.38	187.42	244.82	-88.80	-2,798.48	-4,801.54	1,956.97	1,641.80	315.18	6.209		
13,900.00	7,109.81	7,061.81	7,109.81	190.22	244.80	-88.73	-2,798.48	-4,801.54	2,053.66	1,739.65	314.01	6.540		
14,000.00	7,109.25	7,061.25	7,109.25	193.03	244.79	-88.67	-2,798.48	-4,801.54	2,150.65	1,837.69	312.97	6.872		
14,100.00	7,108.68	7,060.68	7,108.68	195.84	244.77	-88.61	-2,798.48	-4,801.54	2,247.91	1,935.89	312.02	7.204		
14,200.00	7,108.11	7,060.11	7,108.11	198.64	244.75	-88.54	-2,798.48	-4,801.54	2,345.39	2,034.24	311.15	7.538		
14,300.00	7,107.54	7,059.54	7,107.54	201.45	244.73	-88.48	-2,798.48	-4,801.54	2,443.08	2,132.72	310.37	7.872		
14,400.00	7,106.97	7,058.97	7,106.97	204.26	244.71	-88.42	-2,798.48	-4,801.54	2,540.95	2,231.30	309.65	8.206		
14,500.00	7,106.40	7,058.40	7,106.40	207.07	244.69	-88.35	-2,798.48	-4,801.54	2,638.98	2,329.99	308.99	8.541		
14,600.00	7,105.83	7,057.83	7,105.83	209.89	244.67	-88.29	-2,798.48	-4,801.54	2,737.15	2,428.77	308.38	8.876		
14,700.00	7,105.27	7,057.27	7,105.27	212.70	244.65	-88.22	-2,798.48	-4,801.54	2,835.45	2,527.62	307.83	9.211		
14,800.00	7,104.70	7,056.70	7,104.70	215.52	244.63	-88.16	-2,798.48	-4,801.54	2,933.86	2,626.55	307.31	9.547		
14,900.00	7,104.13	7,056.13	7,104.13	218.33	244.61	-88.10	-2,798.48	-4,801.54	3,032.38	2,725.54	306.84	9.883		
15,000.00	7,103.56	7,055.56	7,103.56	221.15	244.59	-88.03	-2,798.48	-4,801.54	3,130.99	2,824.59	306.40	10.219		
15,100.00	7,102.99	7,054.99	7,102.99	223.97	244.57	-87.97	-2,798.48	-4,801.54	3,229.69	2,923.70	305.99	10.555		
15,200.00	7,102.42	7,054.42	7,102.42	226.79	244.55	-87.91	-2,798.48	-4,801.54	3,328.46	3,022.85	305.61	10.891		
15,274.57	7,102.00	7,054.00	7,102.00	228.89	244.53	-87.86	-2,798.48	-4,801.54	3,402.16	3,096.81	305.35	11.142		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	25.00	66.00	3.28	3.28	-140.55	-3,969.59	-3,266.18	5,141.01					
100.00	100.00	886.64	922.62	3.28	5.09	-140.71	-3,922.78	-3,209.06	5,134.49	5,126.07	8.41	610.245		
200.00	200.00	985.30	1,019.96	3.34	5.50	-140.75	-3,912.57	-3,196.59	5,118.47	5,109.67	8.80	581.694		
300.00	299.98	1,083.74	1,117.08	3.44	5.94	35.47	-3,902.37	-3,184.16	5,101.05	5,091.79	9.25	551.332		
400.00	399.84	1,181.67	1,213.69	3.59	6.38	35.71	-3,892.23	-3,171.78	5,080.83	5,071.07	9.77	520.278		
500.00	499.45	1,278.97	1,309.68	3.79	6.84	36.01	-3,882.16	-3,159.49	5,057.85	5,047.52	10.33	489.571		
600.00	598.70	1,375.52	1,404.94	4.03	7.30	36.37	-3,872.16	-3,147.29	5,032.14	5,021.20	10.94	459.912		
700.00	697.47	1,471.21	1,499.34	4.31	7.77	36.79	-3,862.26	-3,135.21	5,003.72	4,992.13	11.59	431.733		
800.00	795.62	1,565.91	1,592.77	4.64	8.24	37.28	-3,852.45	-3,123.24	4,972.64	4,960.37	12.27	405.252		
900.00	893.06	1,659.51	1,685.12	5.00	8.71	37.84	-3,842.76	-3,111.42	4,938.96	4,925.98	12.98	380.545		
1,000.00	989.64	1,751.90	1,776.27	5.40	9.18	38.48	-3,833.19	-3,099.74	4,902.72	4,889.01	13.71	357.592		
1,100.00	1,085.27	1,842.97	1,866.11	5.83	9.65	39.18	-3,823.77	-3,088.24	4,863.98	4,849.52	14.46	336.316		
1,200.00	1,179.88	1,932.69	1,954.63	6.29	10.11	39.76	-3,814.48	-3,076.90	4,822.95	4,807.72	15.23	316.589		
1,300.00	1,274.26	2,027.92	2,042.83	6.78	10.60	39.98	-3,805.22	-3,065.61	4,781.45	4,765.42	16.04	298.169		
1,400.00	1,368.63	2,111.49	2,131.03	7.28	11.04	40.20	-3,795.96	-3,054.31	4,740.02	4,723.21	16.81	282.049		
1,500.00	1,463.00	2,200.89	2,219.23	7.80	11.51	40.43	-3,786.71	-3,043.02	4,698.64	4,681.03	17.62	266.726		
1,600.00	1,557.38	2,290.29	2,307.43	8.33	11.98	40.66	-3,777.45	-3,031.72	4,657.33	4,638.89	18.44	252.572		
1,700.00	1,651.75	2,379.70	2,395.63	8.87	12.45	40.89	-3,768.19	-3,020.43	4,616.08	4,596.81	19.27	239.491		
1,800.00	1,746.12	2,469.10	2,483.83	9.41	12.92	41.13	-3,758.94	-3,009.13	4,574.90	4,554.79	20.12	227.388		
1,900.00	1,840.49	2,558.50	2,572.03	9.96	13.40	41.37	-3,749.68	-2,997.84	4,533.79	4,512.82	20.97	216.176		
2,000.00	1,934.87	2,647.90	2,660.23	10.52	13.87	41.61	-3,740.43	-2,986.54	4,492.75	4,470.92	21.83	205.772		
2,100.00	2,029.24	2,737.30	2,748.43	11.08	14.35	41.86	-3,731.17	-2,975.25	4,451.79	4,429.09	22.70	196.102		
2,200.00	2,123.61	2,826.70	2,836.63	11.64	14.83	42.12	-3,721.91	-2,963.96	4,410.89	4,387.32	23.58	187.100		
2,300.00	2,217.99	2,916.10	2,924.83	12.21	15.30	42.38	-3,712.66	-2,952.66	4,370.08	4,345.62	24.45	178.705		
2,400.00	2,312.36	3,005.50	3,013.03	12.78	15.78	42.64	-3,703.40	-2,941.37	4,329.34	4,304.00	25.34	170.862		
2,500.00	2,406.73	3,094.90	3,101.23	13.35	16.26	42.91	-3,694.14	-2,930.07	4,288.68	4,262.46	26.23	163.523		
2,600.00	2,501.10	3,184.31	3,189.43	13.93	16.74	43.18	-3,684.89	-2,918.78	4,248.11	4,220.99	27.12	156.644		
2,700.00	2,595.48	3,273.71	3,277.63	14.51	17.23	43.46	-3,675.63	-2,907.48	4,207.62	4,179.61	28.02	150.186		
2,800.00	2,689.85	3,363.11	3,365.83	15.08	17.71	43.74	-3,666.38	-2,896.19	4,167.23	4,138.31	28.92	144.113		
2,900.00	2,784.22	3,452.51	3,454.03	15.66	18.19	44.03	-3,657.12	-2,884.89	4,126.92	4,097.10	29.82	138.394		
3,000.00	2,878.60	3,541.91	3,542.23	16.25	18.67	44.32	-3,647.86	-2,873.60	4,086.70	4,055.98	30.73	133.000		
3,100.00	2,972.97	3,631.31	3,630.43	16.83	19.16	44.62	-3,638.61	-2,862.30	4,046.59	4,014.95	31.64	127.905		
3,200.00	3,067.34	3,720.71	3,718.63	17.41	19.64	44.93	-3,629.35	-2,851.01	4,006.57	3,974.02	32.55	123.088		
3,300.00	3,161.72	3,810.11	3,806.83	18.00	20.12	45.24	-3,620.09	-2,839.71	3,966.65	3,933.19	33.47	118.525		
3,400.00	3,256.09	3,900.49	3,895.03	18.58	20.61	45.56	-3,610.84	-2,828.42	3,926.84	3,892.45	34.39	114.185		
3,500.00	3,350.46	3,988.91	3,983.23	19.17	21.09	45.88	-3,601.58	-2,817.12	3,887.14	3,851.83	35.31	110.094		
3,600.00	3,444.83	4,078.32	4,071.43	19.75	21.58	46.21	-3,592.33	-2,805.83	3,847.55	3,811.32	36.23	106.191		
3,700.00	3,539.21	4,167.72	4,159.63	20.34	22.06	46.55	-3,583.07	-2,794.53	3,808.08	3,770.92	37.16	102.479		
3,800.00	3,633.58	4,257.12	4,247.84	20.93	22.55	46.89	-3,573.81	-2,783.24	3,768.72	3,730.63	38.09	98.943		
3,900.00	3,727.95	4,346.52	4,336.04	21.52	23.03	47.24	-3,564.56	-2,771.95	3,729.49	3,690.47	39.02	95.572		
4,000.00	3,822.33	4,435.92	4,424.24	22.11	23.52	47.59	-3,555.30	-2,760.65	3,690.39	3,650.43	39.96	92.355		
4,100.00	3,916.70	4,525.32	4,512.44	22.70	24.01	47.96	-3,546.04	-2,749.36	3,651.41	3,610.52	40.90	89.283		
4,200.00	4,011.07	4,614.72	4,600.64	23.29	24.49	48.33	-3,536.79	-2,738.06	3,612.57	3,570.74	41.84	86.346		
4,300.00	4,105.44	4,704.12	4,688.84	23.88	24.98	48.71	-3,527.53	-2,726.77	3,573.88	3,531.09	42.78	83.535		
4,400.00	4,199.82	4,793.52	4,777.04	24.47	25.47	49.09	-3,518.28	-2,715.47	3,535.32	3,491.59	43.73	80.844		
4,500.00	4,294.19	4,882.93	4,865.24	25.06	25.95	49.49	-3,509.02	-2,704.18	3,496.92	3,452.23	44.68	78.265		
4,600.00	4,388.56	4,972.33	4,953.44	25.65	26.44	49.89	-3,499.76	-2,692.88	3,458.66	3,413.03	45.63	75.792		
4,700.00	4,482.94	5,061.73	5,041.64	26.24	26.93	50.30	-3,490.51	-2,681.59	3,420.57	3,373.98	46.59	73.418		
4,800.00	4,577.31	5,151.13	5,129.84	26.83	27.41	50.72	-3,481.25	-2,670.29	3,382.64	3,335.09	47.55	71.139		
4,900.00	4,671.68	5,240.53	5,218.04	27.43	27.90	51.15	-3,471.99	-2,659.00	3,344.88	3,296.37	48.51	68.948		
5,000.00	4,766.05	5,329.93	5,306.24	28.02	28.39	51.59	-3,462.74	-2,647.70	3,307.30	3,257.82	49.48	66.842		
5,100.00	4,860.43	5,419.33	5,394.44	28.61	28.88	52.03	-3,453.48	-2,636.41	3,269.90	3,219.45	50.45	64.815		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	5,508.73	5,482.64	29.20	29.37	52.49	-3,444.22	-2,625.11	3,232.69	3,181.27	51.42	62.864		
5,300.00	5,049.17	5,598.13	5,570.84	29.80	29.85	52.96	-3,434.97	-2,613.82	3,195.67	3,143.27	52.40	60.985		
5,400.00	5,143.55	5,687.54	5,659.04	30.39	30.34	53.43	-3,425.71	-2,602.52	3,158.86	3,105.48	53.38	59.174		
5,500.00	5,237.92	5,776.94	5,747.24	30.99	30.83	53.92	-3,416.46	-2,591.23	3,122.25	3,067.88	54.37	57.428		
5,600.00	5,332.29	5,866.34	5,835.44	31.58	31.32	54.42	-3,407.20	-2,579.94	3,085.86	3,030.50	55.36	55.743		
5,700.00	5,426.66	5,955.74	5,923.64	32.17	31.81	54.92	-3,397.94	-2,568.64	3,049.70	2,993.34	56.35	54.118		
5,800.00	5,521.04	6,045.14	6,011.84	32.77	32.30	55.44	-3,388.69	-2,557.35	3,013.76	2,956.41	57.35	52.549		
5,900.00	5,615.41	6,134.54	6,100.04	33.36	32.78	55.97	-3,379.43	-2,546.05	2,978.07	2,919.71	58.35	51.034		
6,000.00	5,709.78	6,226.08	6,188.24	33.96	33.28	56.52	-3,370.17	-2,534.76	2,942.62	2,883.25	59.37	49.561		
6,100.00	5,804.16	6,260.38	6,224.19	34.55	33.47	56.74	-3,366.40	-2,530.15	2,907.92	2,847.61	60.31	48.219		
6,200.00	5,898.53	6,300.00	6,263.41	35.14	33.68	57.00	-3,362.31	-2,526.37	2,875.40	2,814.16	61.25	46.947		
6,300.00	5,992.90	6,300.00	6,263.41	35.74	33.68	57.00	-3,362.31	-2,526.37	2,845.43	2,783.34	62.09	45.826		
6,400.00	6,087.27	6,325.01	6,288.27	36.33	33.79	57.18	-3,359.75	-2,525.25	2,818.06	2,755.10	62.96	44.760		
6,500.00	6,181.65	6,350.00	6,313.12	36.93	33.90	57.37	-3,357.21	-2,525.11	2,793.46	2,729.66	63.80	43.785		
6,600.00	6,276.02	6,350.00	6,313.12	37.52	33.90	57.37	-3,357.21	-2,525.11	2,771.80	2,707.29	64.51	42.965		
6,700.00	6,370.39	6,400.00	6,362.79	38.12	34.08	57.78	-3,352.21	-2,527.78	2,752.85	2,687.47	65.38	42.103		
6,800.00	6,464.77	6,400.00	6,362.79	38.71	34.08	57.78	-3,352.21	-2,527.78	2,736.53	2,670.53	66.00	41.463		
6,900.00	6,559.14	6,425.01	6,387.52	39.31	34.16	57.77	-3,349.75	-2,530.58	2,723.40	2,656.72	66.68	40.841		
7,000.00	6,652.92	6,440.04	6,402.32	39.90	34.20	33.92	-3,348.29	-2,532.73	2,706.26	2,639.03	67.23	40.251		
7,100.00	6,744.00	6,450.00	6,412.10	40.44	34.23	16.62	-3,347.33	-2,534.35	2,678.64	2,611.02	67.62	39.610		
7,200.00	6,830.13	6,477.44	6,438.91	40.94	34.29	4.85	-3,344.71	-2,539.60	2,640.69	2,572.67	68.02	38.825		
7,300.00	6,909.19	6,500.00	6,460.76	41.37	34.34	-4.02	-3,342.60	-2,544.79	2,593.19	2,524.92	68.27	37.983		
7,400.00	6,979.23	6,513.18	6,473.43	41.75	34.37	-11.70	-3,341.39	-2,548.17	2,536.77	2,468.41	68.36	37.111		
7,500.00	7,038.53	6,525.01	6,484.76	42.08	34.39	-19.28	-3,340.31	-2,551.44	2,472.43	2,404.09	68.35	36.175		
7,600.00	7,085.63	6,550.00	6,508.46	42.37	34.44	-27.73	-3,338.06	-2,559.03	2,401.27	2,332.87	68.40	35.107		
7,700.00	7,119.37	6,550.00	6,508.46	42.64	34.44	-37.43	-3,338.06	-2,559.03	2,324.72	2,256.53	68.19	34.092		
7,800.00	7,138.92	6,571.26	6,528.37	42.91	34.47	-49.30	-3,336.19	-2,566.21	2,244.18	2,175.98	68.20	32.906		
7,900.00	7,143.92	6,581.09	6,537.51	43.25	34.48	-60.69	-3,335.34	-2,569.76	2,161.72	2,093.56	68.16	31.714		
8,000.00	7,143.35	6,600.00	6,554.91	43.72	34.51	-61.37	-3,333.73	-2,576.98	2,079.87	2,011.57	68.30	30.450		
8,100.00	7,142.78	6,600.00	6,554.91	44.42	34.51	-61.37	-3,333.73	-2,576.98	1,999.32	1,930.96	68.36	29.247		
8,200.00	7,142.22	6,611.27	6,565.17	45.39	34.52	-61.78	-3,332.79	-2,581.53	1,920.47	1,851.81	68.66	27.972		
8,300.00	7,141.65	6,625.01	6,577.58	46.63	34.53	-62.28	-3,331.66	-2,587.32	1,843.43	1,774.30	69.13	26.667		
8,400.00	7,141.08	6,635.74	6,587.18	48.09	34.54	-62.67	-3,330.78	-2,592.03	1,768.39	1,698.64	69.75	25.352		
8,500.00	7,140.51	6,650.00	6,599.82	49.74	34.55	-63.19	-3,329.64	-2,598.54	1,695.59	1,624.96	70.62	24.009		
8,600.00	7,139.94	6,650.00	6,599.82	51.53	34.55	-63.19	-3,329.64	-2,598.54	1,625.47	1,553.85	71.62	22.696		
8,700.00	7,139.37	6,681.34	6,627.06	53.44	34.57	-64.33	-3,327.21	-2,613.83	1,557.70	1,484.55	73.15	21.294		
8,800.00	7,138.80	6,700.00	6,642.92	55.45	34.58	-65.00	-3,325.82	-2,623.57	1,493.19	1,418.32	74.88	19.942		
8,900.00	7,138.24	6,725.01	6,663.72	57.55	34.59	-65.91	-3,324.01	-2,637.35	1,432.09	1,355.12	76.97	18.607		
9,000.00	7,137.67	6,741.73	6,677.31	59.71	34.59	-66.51	-3,322.84	-2,647.00	1,374.64	1,295.29	79.35	17.324		
9,100.00	7,137.10	6,766.23	6,696.77	61.94	34.59	-67.38	-3,321.20	-2,661.80	1,321.26	1,239.15	82.11	16.092		
9,200.00	7,136.53	6,800.00	6,722.63	64.22	34.59	-68.55	-3,319.05	-2,683.40	1,272.31	1,187.10	85.21	14.931		
9,300.00	7,135.96	6,825.01	6,741.03	66.55	34.59	-69.41	-3,317.56	-2,700.28	1,227.96	1,139.36	88.60	13.860		
9,400.00	7,135.39	6,850.00	6,758.75	68.92	34.59	-70.25	-3,316.15	-2,717.84	1,188.63	1,096.38	92.25	12.884		
9,500.00	7,134.83	6,900.00	6,792.07	71.33	34.58	-71.85	-3,313.60	-2,755.01	1,154.35	1,058.28	96.07	12.016		
9,600.00	7,134.26	6,936.36	6,814.43	73.77	34.57	-72.95	-3,311.98	-2,783.63	1,125.25	1,025.23	100.02	11.250		
9,700.00	7,133.69	6,982.50	6,840.41	76.24	34.58	-74.25	-3,310.19	-2,821.71	1,101.31	997.30	104.01	10.589		
9,800.00	7,133.12	7,033.34	6,865.78	78.74	34.60	-75.55	-3,308.61	-2,865.72	1,082.31	974.36	107.95	10.026		
9,900.00	7,132.55	7,088.89	6,889.42	81.27	34.67	-76.78	-3,307.35	-2,915.96	1,067.95	956.11	111.84	9.549		
10,000.00	7,131.98	7,150.00	6,910.27	83.81	34.81	-77.89	-3,306.53	-2,973.37	1,057.83	942.20	115.63	9.149		
10,100.00	7,131.42	7,212.71	6,925.89	86.38	35.06	-78.73	-3,306.32	-3,034.08	1,051.52	932.16	119.35	8.810		
10,200.00	7,130.85	7,279.33	6,935.90	88.96	35.48	-79.29	-3,306.80	-3,099.91	1,048.61	925.61	123.01	8.525		
10,242.09	7,130.61	7,307.90	6,938.08	90.06	35.70	-79.42	-3,307.23	-3,128.38	1,048.34	923.82	124.52	8.419 CC		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,300.00	7,130.28	7,348.47	6,938.99	91.56	36.07	-79.48	-3,308.06	-3,168.93	1,048.85	922.26	126.59	8.285		
10,400.00	7,129.71	7,448.45	6,938.58	94.18	37.25	-79.51	-3,310.39	-3,268.88	1,050.51	920.08	130.42	8.055		
10,500.00	7,129.14	7,548.44	6,938.16	96.81	38.73	-79.53	-3,312.71	-3,368.84	1,052.16	917.67	134.50	7.823		
10,600.00	7,128.57	7,648.42	6,937.74	99.45	40.45	-79.56	-3,315.04	-3,468.80	1,053.82	915.01	138.80	7.592		
10,700.00	7,128.00	7,748.41	6,937.33	102.11	42.39	-79.58	-3,317.36	-3,568.76	1,055.47	912.16	143.31	7.365		
10,800.00	7,127.44	7,848.39	6,936.91	104.77	44.49	-79.61	-3,319.69	-3,668.71	1,057.13	909.13	148.00	7.143		
10,900.00	7,126.87	7,948.38	6,936.49	107.45	46.73	-79.63	-3,322.01	-3,768.67	1,058.79	905.95	152.84	6.927		
11,000.00	7,126.30	8,048.36	6,936.07	110.13	49.10	-79.66	-3,324.34	-3,868.63	1,060.45	902.63	157.82	6.720		
11,100.00	7,125.73	8,148.35	6,935.66	112.82	51.57	-79.68	-3,326.66	-3,968.59	1,062.10	899.20	162.91	6.520		
11,200.00	7,125.16	8,248.33	6,935.24	115.53	54.14	-79.71	-3,328.99	-4,068.54	1,063.76	895.67	168.10	6.328		
11,300.00	7,124.59	8,348.32	6,934.82	118.24	56.78	-79.73	-3,331.31	-4,168.50	1,065.42	892.05	173.37	6.145		
11,400.00	7,124.03	8,448.30	6,934.41	120.95	59.49	-79.76	-3,333.64	-4,268.46	1,067.08	888.35	178.73	5.970		
11,500.00	7,123.46	8,548.29	6,933.99	123.67	62.26	-79.78	-3,335.96	-4,368.42	1,068.74	884.59	184.15	5.804		
11,600.00	7,122.89	8,648.27	6,933.57	126.40	65.08	-79.81	-3,338.29	-4,468.37	1,070.39	880.77	189.63	5.645		
11,700.00	7,122.32	8,748.26	6,933.16	129.14	67.94	-79.83	-3,340.61	-4,568.33	1,072.05	876.90	195.16	5.493		
11,800.00	7,121.75	8,848.25	6,932.74	131.88	70.85	-79.85	-3,342.94	-4,668.29	1,073.71	872.98	200.73	5.349		
11,900.00	7,121.18	8,948.23	6,932.32	134.62	73.79	-79.88	-3,345.26	-4,768.24	1,075.37	869.02	206.35	5.211		
12,000.00	7,120.61	9,048.22	6,931.90	137.37	76.76	-79.90	-3,347.59	-4,868.20	1,077.03	865.03	212.00	5.080		
12,100.00	7,120.05	9,148.20	6,931.49	140.12	79.76	-79.93	-3,349.91	-4,968.16	1,078.69	861.00	217.69	4.955		
12,200.00	7,119.48	9,248.19	6,931.07	142.88	82.78	-79.95	-3,352.24	-5,068.12	1,080.35	856.95	223.40	4.836		
12,300.00	7,118.91	9,348.17	6,930.65	145.64	85.83	-79.97	-3,354.56	-5,168.07	1,082.01	852.87	229.14	4.722		
12,400.00	7,118.34	9,448.16	6,930.24	148.41	88.89	-80.00	-3,356.89	-5,268.03	1,083.67	848.76	234.91	4.613		
12,500.00	7,117.77	9,548.14	6,929.82	151.18	91.98	-80.02	-3,359.21	-5,367.99	1,085.33	844.64	240.69	4.509		
12,600.00	7,117.20	9,648.13	6,929.40	153.95	95.08	-80.04	-3,361.54	-5,467.95	1,086.99	840.49	246.50	4.410		
12,700.00	7,116.64	9,748.11	6,928.98	156.73	98.19	-80.07	-3,363.86	-5,567.90	1,088.65	836.33	252.33	4.314		
12,800.00	7,116.07	9,848.10	6,928.57	159.50	101.32	-80.09	-3,366.19	-5,667.86	1,090.31	832.14	258.17	4.223		
12,900.00	7,115.50	9,948.08	6,928.15	162.29	104.46	-80.11	-3,368.51	-5,767.82	1,091.97	827.95	264.02	4.136		
13,000.00	7,114.93	10,048.07	6,927.73	165.07	107.61	-80.14	-3,370.84	-5,867.77	1,093.63	823.74	269.89	4.052		
13,100.00	7,114.36	10,148.05	6,927.32	167.86	110.77	-80.16	-3,373.16	-5,967.73	1,095.30	819.52	275.78	3.972		
13,200.00	7,113.79	10,248.04	6,926.90	170.64	113.94	-80.18	-3,375.49	-6,067.69	1,096.96	815.28	281.67	3.894		
13,300.00	7,113.22	10,348.02	6,926.48	173.44	117.12	-80.21	-3,377.81	-6,167.65	1,098.62	811.04	287.58	3.820		
13,400.00	7,112.66	10,448.01	6,926.07	176.23	120.31	-80.23	-3,380.14	-6,267.60	1,100.28	806.78	293.50	3.749		
13,500.00	7,112.09	10,548.00	6,925.65	179.02	122.60	-80.25	-3,382.45	-6,339.33	1,102.94	804.50	298.44	3.696		
13,600.00	7,111.52	10,616.40	6,925.36	181.82	125.67	-80.30	-3,387.48	-6,435.82	1,107.44	803.19	304.25	3.640		
13,700.00	7,110.95	10,716.30	6,924.95	184.62	128.86	-80.35	-3,392.70	-6,535.58	1,111.96	801.77	310.19	3.585		
13,800.00	7,110.38	10,783.02	6,924.67	187.42	130.99	-80.38	-3,397.05	-6,602.16	1,117.82	803.12	314.70	3.552		
13,900.00	7,109.81	10,846.06	6,924.40	190.22	132.98	-80.44	-3,403.27	-6,664.88	1,126.93	808.18	318.75	3.535		
14,000.00	7,109.25	10,908.64	6,924.14	193.03	134.95	-80.51	-3,411.49	-6,726.93	1,139.26	816.80	322.46	3.533		
14,100.00	7,108.68	10,970.65	6,923.88	195.84	136.87	-80.60	-3,421.63	-6,788.09	1,154.79	828.97	325.82	3.544		
14,200.00	7,108.11	11,056.07	6,923.53	198.64	139.51	-80.73	-3,437.80	-6,871.97	1,172.80	842.07	330.73	3.546		
14,300.00	7,107.54	11,253.70	6,922.70	201.45	145.69	-80.97	-3,468.75	-7,067.09	1,188.42	845.34	343.08	3.464		
14,400.00	7,106.97	11,479.96	6,921.75	204.26	152.99	-81.06	-3,479.72	-7,292.94	1,191.97	837.94	354.02	3.367		
14,500.00	7,106.40	11,579.95	6,921.34	207.07	156.24	-81.07	-3,479.71	-7,392.94	1,191.32	831.30	360.02	3.309		
14,600.00	7,105.83	11,679.95	6,920.92	209.89	159.50	-81.07	-3,479.70	-7,492.94	1,190.68	824.65	366.03	3.253		
14,700.00	7,105.27	11,779.95	6,920.50	212.70	162.76	-81.07	-3,479.68	-7,592.94	1,190.04	818.00	372.04	3.199		
14,800.00	7,104.70	11,879.95	6,920.09	215.52	166.02	-81.07	-3,479.67	-7,692.93	1,189.40	811.35	378.05	3.146		
14,900.00	7,104.13	11,979.94	6,919.67	218.33	169.29	-81.08	-3,479.66	-7,792.93	1,188.76	804.69	384.07	3.095		
15,000.00	7,103.56	12,079.94	6,919.25	221.15	172.56	-81.08	-3,479.64	-7,892.93	1,188.11	798.03	390.09	3.046		
15,100.00	7,102.99	12,179.94	6,918.83	223.97	175.83	-81.08	-3,479.63	-7,992.92	1,187.47	791.36	396.11	2.998		
15,200.00	7,102.42	12,279.94	6,918.42	226.79	179.10	-81.08	-3,479.62	-8,092.92	1,186.83	784.69	402.14	2.951		
15,274.57	7,102.00	12,354.51	6,918.11	228.89	181.55	-81.08	-3,479.61	-8,167.49	1,186.35	779.72	406.63	2.918 ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWVD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	25.00	66.00	3.28	0.00	-140.69	-3,989.63	-3,266.18	5,156.50					
100.00	100.00	59.00	100.00	3.28	0.07	-140.69	-3,989.63	-3,266.18	5,156.07	5,152.72	3.36	1,534.812		
200.00	200.00	874.97	912.79	3.34	3.71	-140.90	-3,962.00	-3,220.40	5,155.24	5,148.12	7.12	724.276		
300.00	299.98	973.72	1,010.47	3.44	4.21	35.28	-3,954.51	-3,207.99	5,140.00	5,132.34	7.66	671.061		
400.00	399.84	1,072.05	1,107.74	3.59	4.71	35.47	-3,947.06	-3,195.64	5,121.96	5,113.71	8.25	620.771		
500.00	499.45	1,169.85	1,204.48	3.79	5.22	35.72	-3,939.64	-3,183.35	5,101.13	5,092.24	8.89	574.004		
600.00	598.70	1,267.00	1,300.57	4.03	5.72	36.03	-3,932.27	-3,171.14	5,077.54	5,067.98	9.56	531.062		
700.00	697.47	1,363.38	1,395.91	4.31	6.22	36.40	-3,924.97	-3,159.03	5,051.21	5,040.94	10.27	491.949		
800.00	795.62	1,458.86	1,490.36	4.64	6.72	36.84	-3,917.73	-3,147.03	5,022.19	5,011.19	11.00	456.484		
900.00	893.06	1,553.34	1,583.82	5.00	7.22	37.34	-3,910.56	-3,135.16	4,990.53	4,978.77	11.76	424.383		
1,000.00	989.64	1,646.70	1,676.17	5.40	7.71	37.92	-3,903.48	-3,123.43	4,956.25	4,943.72	12.54	395.326		
1,100.00	1,085.27	1,738.83	1,767.29	5.83	8.19	38.56	-3,896.50	-3,111.86	4,919.44	4,906.11	13.33	368.992		
1,200.00	1,179.88	1,829.69	1,857.17	6.29	8.67	39.09	-3,889.61	-3,100.44	4,880.28	4,866.14	14.14	345.048		
1,300.00	1,274.26	1,929.76	1,946.75	6.78	9.19	39.28	-3,882.74	-3,089.06	4,840.63	4,825.63	15.00	322.658		
1,400.00	1,368.63	2,010.82	2,036.34	7.28	9.62	39.47	-3,875.87	-3,077.68	4,801.03	4,785.24	15.79	304.079		
1,500.00	1,463.00	2,101.38	2,125.92	7.80	10.10	39.67	-3,869.01	-3,066.30	4,761.47	4,744.84	16.63	286.275		
1,600.00	1,557.38	2,191.94	2,215.50	8.33	10.58	39.87	-3,862.14	-3,054.92	4,721.97	4,704.48	17.49	270.020		
1,700.00	1,651.75	2,282.50	2,305.08	8.87	11.05	40.07	-3,855.27	-3,043.54	4,682.51	4,664.16	18.35	255.151		
1,800.00	1,746.12	2,373.07	2,394.66	9.41	11.53	40.28	-3,848.40	-3,032.17	4,643.11	4,623.89	19.22	241.520		
1,900.00	1,840.49	2,463.63	2,484.25	9.96	12.01	40.49	-3,841.54	-3,020.79	4,603.76	4,583.66	20.10	228.995		
2,000.00	1,934.87	2,554.19	2,575.83	10.52	12.49	40.70	-3,834.67	-3,009.41	4,564.47	4,543.48	20.99	217.459		
2,100.00	2,029.24	2,644.75	2,663.41	11.08	12.97	40.92	-3,827.80	-2,998.03	4,525.23	4,503.35	21.88	206.809		
2,200.00	2,123.61	2,735.32	2,752.99	11.64	13.45	41.14	-3,820.94	-2,986.65	4,486.05	4,463.27	22.78	196.955		
2,300.00	2,217.99	2,825.88	2,842.57	12.21	13.92	41.37	-3,814.07	-2,975.27	4,446.93	4,423.25	23.68	187.815		
2,400.00	2,312.36	2,916.44	2,932.16	12.78	14.40	41.59	-3,807.20	-2,963.89	4,407.87	4,383.29	24.58	179.319		
2,500.00	2,406.73	3,007.00	3,021.74	13.35	14.88	41.83	-3,800.33	-2,952.51	4,368.87	4,343.38	25.49	171.406		
2,600.00	2,501.10	3,102.43	3,111.32	13.93	15.39	42.06	-3,793.47	-2,941.13	4,329.94	4,303.52	26.42	163.879		
2,700.00	2,595.48	3,188.13	3,200.90	14.51	15.84	42.30	-3,786.60	-2,929.75	4,291.07	4,263.76	27.31	157.111		
2,800.00	2,689.85	3,278.69	3,290.48	15.08	16.32	42.55	-3,779.73	-2,918.37	4,252.27	4,224.04	28.23	150.638		
2,900.00	2,784.22	3,369.25	3,380.07	15.66	16.80	42.80	-3,772.87	-2,907.00	4,213.54	4,184.39	29.15	144.562		
3,000.00	2,878.60	3,459.82	3,469.65	16.25	17.28	43.05	-3,766.00	-2,895.62	4,174.88	4,144.81	30.07	138.848		
3,100.00	2,972.97	3,550.38	3,559.23	16.83	17.76	43.31	-3,759.13	-2,884.24	4,136.29	4,105.30	30.99	133.468		
3,200.00	3,067.34	3,640.94	3,648.81	17.41	18.24	43.57	-3,752.26	-2,872.86	4,097.78	4,065.87	31.92	128.392		
3,300.00	3,161.72	3,731.50	3,738.39	18.00	18.72	43.84	-3,745.40	-2,861.48	4,059.35	4,026.51	32.84	123.597		
3,400.00	3,256.09	3,822.06	3,827.98	18.58	19.23	44.11	-3,738.53	-2,850.10	4,021.00	3,987.20	33.80	118.965		
3,500.00	3,350.46	3,912.63	3,917.56	19.17	19.68	44.39	-3,731.66	-2,838.72	3,982.73	3,948.03	34.70	114.763		
3,600.00	3,444.83	4,003.19	4,007.14	19.75	20.15	44.67	-3,724.80	-2,827.34	3,944.54	3,908.91	35.64	110.687		
3,700.00	3,539.21	4,093.75	4,096.72	20.34	20.63	44.96	-3,717.93	-2,815.96	3,906.45	3,869.87	36.57	106.816		
3,800.00	3,633.58	4,184.32	4,186.30	20.93	21.11	45.25	-3,711.06	-2,804.58	3,868.44	3,830.93	37.51	103.135		
3,900.00	3,727.95	4,274.88	4,275.89	21.52	21.59	45.55	-3,704.19	-2,793.20	3,830.52	3,792.07	38.45	99.631		
4,000.00	3,822.33	4,365.44	4,365.47	22.11	22.07	45.86	-3,697.33	-2,781.83	3,792.70	3,753.31	39.39	96.293		
4,100.00	3,916.70	4,456.00	4,455.05	22.70	22.55	46.17	-3,690.46	-2,770.45	3,754.98	3,714.65	40.33	93.108		
4,200.00	4,011.07	4,546.57	4,544.63	23.29	23.03	46.48	-3,683.59	-2,759.07	3,717.35	3,676.08	41.27	90.067		
4,300.00	4,105.44	4,637.13	4,634.21	23.88	23.51	46.81	-3,676.73	-2,747.69	3,679.84	3,637.62	42.22	87.161		
4,400.00	4,199.82	4,727.69	4,723.80	24.47	23.99	47.14	-3,669.86	-2,736.31	3,642.42	3,599.26	43.17	84.381		
4,500.00	4,294.19	4,818.25	4,813.38	25.06	24.47	47.47	-3,662.99	-2,724.93	3,605.12	3,561.01	44.12	81.719		
4,600.00	4,388.56	4,908.82	4,902.96	25.65	24.95	47.81	-3,656.12	-2,713.55	3,567.94	3,522.87	45.07	79.169		
4,700.00	4,482.94	5,000.62	4,992.54	26.24	25.44	48.16	-3,649.26	-2,702.17	3,530.87	3,484.84	46.03	76.714		
4,800.00	4,577.31	5,089.94	5,082.12	26.83	25.91	48.52	-3,642.39	-2,690.79	3,493.92	3,446.95	46.98	74.377		
4,900.00	4,671.68	5,180.50	5,171.71	27.43	26.39	48.88	-3,635.52	-2,679.41	3,457.10	3,409.17	47.93	72.123		
5,000.00	4,766.05	5,271.07	5,261.29	28.02	26.87	49.25	-3,628.66	-2,668.03	3,420.41	3,371.52	48.89	69.957		
5,100.00	4,860.43	5,361.63	5,350.87	28.61	27.35	49.63	-3,621.79	-2,656.66	3,383.85	3,334.00	49.85	67.875		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	5,452.19	5,440.45	29.20	27.83	50.02	-3,614.92	-2,645.28	3,347.43	3,296.61	50.82	65.870		
5,300.00	5,049.17	5,542.75	5,530.03	29.80	28.31	50.41	-3,608.05	-2,633.90	3,311.15	3,259.37	51.78	63.941		
5,400.00	5,143.55	5,633.32	5,619.62	30.39	28.79	50.82	-3,601.19	-2,622.52	3,275.02	3,222.27	52.75	62.082		
5,500.00	5,237.92	5,726.14	5,709.20	30.99	29.28	51.23	-3,594.32	-2,611.14	3,239.04	3,185.31	53.73	60.278		
5,600.00	5,332.29	5,814.44	5,798.78	31.58	29.75	51.65	-3,587.45	-2,599.76	3,203.22	3,148.52	54.70	58.562		
5,700.00	5,426.66	5,905.00	5,888.36	32.17	30.23	52.07	-3,580.59	-2,588.38	3,167.56	3,111.89	55.67	56.895		
5,800.00	5,521.04	5,995.57	5,977.94	32.77	30.71	52.51	-3,573.72	-2,577.00	3,132.07	3,075.42	56.65	55.285		
5,900.00	5,615.41	6,086.13	6,067.53	33.36	31.19	52.96	-3,566.85	-2,565.62	3,096.76	3,039.12	57.63	53.731		
6,000.00	5,709.78	6,176.69	6,157.11	33.96	31.67	53.41	-3,559.98	-2,554.24	3,061.62	3,003.00	58.62	52.229		
6,100.00	5,804.16	6,267.25	6,246.69	34.55	32.15	53.88	-3,553.12	-2,542.86	3,026.67	2,967.06	59.61	50.777		
6,200.00	5,898.53	6,357.82	6,336.27	35.14	32.63	54.36	-3,546.25	-2,531.49	2,991.91	2,931.31	60.60	49.373		
6,300.00	5,992.90	6,390.12	6,368.25	35.74	32.80	54.53	-3,543.80	-2,527.61	2,958.08	2,896.56	61.52	48.087		
6,400.00	6,087.27	6,400.00	6,378.05	36.33	32.85	54.59	-3,543.06	-2,526.67	2,926.71	2,864.34	62.38	46.920		
6,500.00	6,181.65	6,425.01	6,402.94	36.93	32.97	54.74	-3,541.19	-2,525.00	2,897.74	2,834.50	63.24	45.823		
6,600.00	6,276.02	6,450.00	6,427.85	37.52	33.08	54.90	-3,539.33	-2,524.30	2,871.42	2,807.34	64.07	44.814		
6,700.00	6,370.39	6,450.00	6,427.85	38.12	33.08	54.90	-3,539.33	-2,524.30	2,847.96	2,783.16	64.80	43.951		
6,800.00	6,464.77	6,500.00	6,477.68	38.71	33.26	55.26	-3,535.70	-2,525.86	2,826.99	2,761.34	65.65	43.062		
6,900.00	6,559.14	6,500.00	6,477.68	39.31	33.26	55.03	-3,535.70	-2,525.86	2,808.64	2,742.36	66.28	42.373		
7,000.00	6,652.92	6,525.01	6,502.52	39.90	33.34	30.93	-3,533.92	-2,528.10	2,786.56	2,719.62	66.94	41.627		
7,100.00	6,744.00	6,550.00	6,527.24	40.44	33.41	13.31	-3,532.17	-2,531.32	2,754.35	2,686.86	67.49	40.811		
7,200.00	6,830.13	6,550.00	6,527.24	40.94	33.41	0.91	-3,532.17	-2,531.32	2,712.44	2,644.65	67.79	40.013		
7,300.00	6,909.19	6,579.07	6,555.81	41.37	33.48	-8.56	-3,530.18	-2,536.29	2,661.33	2,593.18	68.15	39.053		
7,400.00	6,979.23	6,600.00	6,576.23	41.75	33.53	-16.99	-3,528.77	-2,540.67	2,602.14	2,533.77	68.37	38.059		
7,500.00	7,038.53	6,612.77	6,588.61	42.08	33.56	-25.48	-3,527.93	-2,543.68	2,535.80	2,467.33	68.46	37.038		
7,600.00	7,085.63	6,625.01	6,600.42	42.37	33.58	-34.82	-3,527.13	-2,546.79	2,463.60	2,395.10	68.50	35.965		
7,700.00	7,119.37	6,650.00	6,624.34	42.64	33.63	-45.74	-3,525.53	-2,553.84	2,387.07	2,318.46	68.61	34.791		
7,800.00	7,138.92	6,650.00	6,624.34	42.91	33.63	-57.44	-3,525.53	-2,553.84	2,307.74	2,239.17	68.56	33.659		
7,900.00	7,143.92	6,650.00	6,624.34	43.25	33.63	-67.86	-3,525.53	-2,553.84	2,227.84	2,159.26	68.59	32.483		
8,000.00	7,143.35	6,669.30	6,642.61	43.72	33.65	-68.56	-3,524.33	-2,559.93	2,148.89	2,080.02	68.86	31.204		
8,100.00	7,142.78	6,678.13	6,650.91	44.42	33.67	-68.89	-3,523.78	-2,562.90	2,071.74	2,002.53	69.21	29.936		
8,200.00	7,142.22	6,700.00	6,671.28	45.39	33.70	-69.68	-3,522.46	-2,570.76	1,996.60	1,926.80	69.80	28.606		
8,300.00	7,141.65	6,700.00	6,671.28	46.63	33.70	-69.68	-3,522.46	-2,570.76	1,923.26	1,852.82	70.44	27.305		
8,400.00	7,141.08	6,709.46	6,680.00	48.09	33.71	-70.03	-3,521.90	-2,574.37	1,852.34	1,780.99	71.36	25.959		
8,500.00	7,140.51	6,725.01	6,694.23	49.74	33.73	-70.59	-3,521.00	-2,580.59	1,783.97	1,711.41	72.56	24.587		
8,600.00	7,139.94	6,735.50	6,703.73	51.53	33.74	-70.98	-3,520.40	-2,584.98	1,718.38	1,644.38	74.01	23.220		
8,700.00	7,139.37	6,750.00	6,716.75	53.44	33.75	-71.50	-3,519.59	-2,591.31	1,655.88	1,580.12	75.76	21.856		
8,800.00	7,138.80	6,767.12	6,731.94	55.45	33.77	-72.12	-3,518.65	-2,599.16	1,596.76	1,518.92	77.84	20.514		
8,900.00	7,138.24	6,785.55	6,748.05	57.55	33.78	-72.78	-3,517.67	-2,608.06	1,541.33	1,461.11	80.22	19.213		
9,000.00	7,137.67	6,800.00	6,760.49	59.71	33.79	-73.30	-3,516.92	-2,615.37	1,489.95	1,407.04	82.91	17.970		
9,100.00	7,137.10	6,825.01	6,781.63	61.94	33.81	-74.18	-3,515.67	-2,628.68	1,442.85	1,356.95	85.90	16.797		
9,200.00	7,136.53	6,850.00	6,802.21	64.22	33.82	-75.06	-3,514.48	-2,642.79	1,400.38	1,311.24	89.14	15.710		
9,300.00	7,135.96	6,884.06	6,829.35	66.55	33.83	-76.22	-3,512.95	-2,663.31	1,362.73	1,270.17	92.56	14.723		
9,400.00	7,135.39	6,917.01	6,854.53	68.92	33.84	-77.31	-3,511.59	-2,684.52	1,330.11	1,233.98	96.13	13.837		
9,500.00	7,134.83	6,950.00	6,878.60	71.33	33.85	-78.37	-3,510.33	-2,707.03	1,302.60	1,202.82	99.78	13.054		
9,600.00	7,134.26	7,000.00	6,912.80	73.77	33.88	-79.89	-3,508.65	-2,743.45	1,280.12	1,176.73	103.38	12.382		
9,700.00	7,133.69	7,044.89	6,941.00	76.24	33.91	-81.17	-3,507.38	-2,778.34	1,262.48	1,155.50	106.98	11.801		
9,800.00	7,133.12	7,100.00	6,972.16	78.74	33.98	-82.59	-3,506.14	-2,823.76	1,249.35	1,138.88	110.47	11.309		
9,900.00	7,132.55	7,160.13	7,001.55	81.27	34.11	-83.94	-3,505.18	-2,876.18	1,240.23	1,126.35	113.88	10.891		
10,000.00	7,131.98	7,227.57	7,028.48	83.81	34.34	-85.20	-3,504.63	-2,937.97	1,234.50	1,117.28	117.22	10.531		
10,100.00	7,131.42	7,300.89	7,050.20	86.38	34.73	-86.22	-3,504.64	-3,007.96	1,231.53	1,110.95	120.58	10.214		
10,193.73	7,130.88	7,373.76	7,063.69	88.80	35.27	-86.87	-3,505.30	-3,079.53	1,230.71	1,106.91	123.80	9.941 CC		
10,200.00	7,130.85	7,378.74	7,064.31	88.96	35.32	-86.90	-3,505.37	-3,084.46	1,230.72	1,106.70	124.02	9.923		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN												Offset Site Error:	0.00 ft
Survey Program: 25-MWD												Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.00	7,130.28	7,461.45	7,069.02	91.56	36.11	-87.14	-3,506.87	-3,164.35	1,231.65	1,104.04	127.60	9.652	
10,400.00	7,129.71	7,558.81	7,068.41	94.18	37.31	-87.15	-3,509.23	-3,264.30	1,233.39	1,101.93	131.46	9.382	
10,500.00	7,129.14	7,658.79	7,067.81	96.81	38.80	-87.15	-3,511.59	-3,364.26	1,235.13	1,099.55	135.58	9.110	
10,600.00	7,128.57	7,758.78	7,067.21	99.45	40.51	-87.15	-3,513.94	-3,464.21	1,236.88	1,096.93	139.94	8.839	
10,700.00	7,128.00	7,858.76	7,066.61	102.11	42.43	-87.15	-3,516.30	-3,564.17	1,238.62	1,094.12	144.50	8.572	
10,800.00	7,127.44	7,958.75	7,066.01	104.77	44.51	-87.16	-3,518.66	-3,664.12	1,240.36	1,091.12	149.24	8.311	
10,900.00	7,126.87	8,058.73	7,065.40	107.45	46.74	-87.16	-3,521.01	-3,764.08	1,242.11	1,087.97	154.14	8.058	
11,000.00	7,126.30	8,158.72	7,064.80	110.13	49.09	-87.16	-3,523.37	-3,864.03	1,243.85	1,084.68	159.17	7.815	
11,100.00	7,125.73	8,258.70	7,064.20	112.82	51.55	-87.16	-3,525.72	-3,963.99	1,245.59	1,081.28	164.31	7.581	
11,200.00	7,125.16	8,358.69	7,063.60	115.53	54.10	-87.16	-3,528.08	-4,063.94	1,247.34	1,077.78	169.56	7.356	
11,300.00	7,124.59	8,458.67	7,063.00	118.24	56.73	-87.17	-3,530.44	-4,163.90	1,249.08	1,074.18	174.90	7.142	
11,400.00	7,124.03	8,558.66	7,062.39	120.95	59.43	-87.17	-3,532.79	-4,263.85	1,250.82	1,070.51	180.31	6.937	
11,500.00	7,123.46	8,658.64	7,061.79	123.67	62.19	-87.17	-3,535.15	-4,363.81	1,252.57	1,066.78	185.79	6.742	
11,600.00	7,122.89	8,758.63	7,061.19	126.40	65.00	-87.17	-3,537.51	-4,463.76	1,254.31	1,062.98	191.33	6.556	
11,700.00	7,122.32	8,858.61	7,060.59	129.14	67.86	-87.18	-3,539.86	-4,563.72	1,256.05	1,059.14	196.92	6.379	
11,800.00	7,121.75	8,958.60	7,059.99	131.88	70.76	-87.18	-3,542.22	-4,663.67	1,257.80	1,055.24	202.55	6.210	
11,900.00	7,121.18	9,058.58	7,059.38	134.62	73.70	-87.18	-3,544.58	-4,763.63	1,259.54	1,051.31	208.23	6.049	
12,000.00	7,120.61	9,158.57	7,058.78	137.37	76.67	-87.18	-3,546.93	-4,863.58	1,261.28	1,047.34	213.94	5.895	
12,100.00	7,120.05	9,258.55	7,058.18	140.12	79.66	-87.19	-3,549.29	-4,963.54	1,263.03	1,043.33	219.69	5.749	
12,200.00	7,119.48	9,358.53	7,057.58	142.88	82.68	-87.19	-3,551.64	-5,063.49	1,264.77	1,039.30	225.47	5.610	
12,300.00	7,118.91	9,458.52	7,056.98	145.64	85.73	-87.19	-3,554.00	-5,163.45	1,266.51	1,035.24	231.27	5.476	
12,400.00	7,118.34	9,558.50	7,056.37	148.41	88.79	-87.19	-3,556.36	-5,263.41	1,268.26	1,031.16	237.10	5.349	
12,500.00	7,117.77	9,658.49	7,055.77	151.18	91.87	-87.20	-3,558.71	-5,363.36	1,270.00	1,027.06	242.94	5.228	
12,600.00	7,117.20	9,758.47	7,055.17	153.95	94.97	-87.20	-3,561.07	-5,463.32	1,271.74	1,022.93	248.81	5.111	
12,700.00	7,116.64	9,858.46	7,054.57	156.73	98.08	-87.20	-3,563.43	-5,563.27	1,273.49	1,018.79	254.70	5.000	
12,800.00	7,116.07	9,958.44	7,053.97	159.50	101.21	-87.20	-3,565.78	-5,663.23	1,275.23	1,014.63	260.60	4.893	
12,900.00	7,115.50	10,058.43	7,053.36	162.29	104.35	-87.20	-3,568.14	-5,763.18	1,276.97	1,010.46	266.51	4.791	
13,000.00	7,114.93	10,158.41	7,052.76	165.07	107.50	-87.21	-3,570.49	-5,863.14	1,278.72	1,006.27	272.45	4.693	
13,100.00	7,114.36	10,258.40	7,052.16	167.86	110.66	-87.21	-3,572.85	-5,963.09	1,280.46	1,002.07	278.39	4.600	
13,200.00	7,113.79	10,358.38	7,051.56	170.64	113.83	-87.21	-3,575.21	-6,063.05	1,282.20	997.86	284.34	4.509	
13,300.00	7,113.22	10,458.37	7,050.95	173.44	117.01	-87.21	-3,577.56	-6,163.00	1,283.95	993.64	290.31	4.423	
13,400.00	7,112.66	10,558.35	7,050.35	176.23	120.20	-87.22	-3,579.92	-6,262.96	1,285.69	989.41	296.28	4.339	
13,500.00	7,112.09	10,658.34	7,049.75	179.02	123.39	-87.22	-3,582.28	-6,362.91	1,287.43	985.16	302.27	4.259	
13,600.00	7,111.52	10,758.32	7,049.15	181.82	126.59	-87.22	-3,584.63	-6,462.87	1,289.18	980.91	308.26	4.182	
13,700.00	7,110.95	10,858.31	7,048.55	184.62	129.80	-87.22	-3,586.99	-6,562.82	1,290.92	976.65	314.27	4.108	
13,800.00	7,110.38	10,958.29	7,047.94	187.42	133.01	-87.23	-3,589.34	-6,662.78	1,292.66	972.39	320.28	4.036	
13,900.00	7,109.81	11,058.28	7,047.34	190.22	136.23	-87.23	-3,591.70	-6,762.73	1,294.41	968.11	326.29	3.967	
14,000.00	7,109.25	11,158.26	7,046.74	193.03	139.45	-87.23	-3,594.06	-6,862.69	1,296.15	963.83	332.32	3.900	
14,100.00	7,108.68	11,258.25	7,046.14	195.84	142.68	-87.23	-3,596.41	-6,962.64	1,297.89	959.55	338.35	3.836	
14,200.00	7,108.11	11,358.23	7,045.54	198.64	145.91	-87.23	-3,598.77	-7,062.60	1,299.64	955.26	344.38	3.774	
14,300.00	7,107.54	11,458.22	7,044.93	201.45	149.15	-87.24	-3,601.13	-7,162.55	1,301.38	950.96	350.42	3.714	
14,400.00	7,106.97	11,558.20	7,044.33	204.26	152.39	-87.24	-3,603.48	-7,262.51	1,303.12	946.66	356.47	3.656	
14,500.00	7,106.40	11,658.19	7,043.73	207.07	155.63	-87.24	-3,605.84	-7,362.46	1,304.87	942.35	362.52	3.599	
14,600.00	7,105.83	11,758.17	7,043.13	209.89	158.88	-87.24	-3,608.20	-7,462.42	1,306.61	938.04	368.57	3.545	
14,700.00	7,105.27	11,858.15	7,042.53	212.70	162.13	-87.25	-3,610.55	-7,562.37	1,308.35	933.72	374.63	3.492	
14,800.00	7,104.70	11,958.14	7,041.92	215.52	165.39	-87.25	-3,612.91	-7,662.33	1,310.10	929.40	380.70	3.441	
14,900.00	7,104.13	12,058.12	7,041.32	218.33	168.64	-87.25	-3,615.26	-7,762.29	1,311.84	925.07	386.77	3.392	
15,000.00	7,103.56	12,158.11	7,040.72	221.15	171.90	-87.25	-3,617.62	-7,862.24	1,313.58	920.75	392.84	3.344	
15,100.00	7,102.99	12,258.09	7,040.12	223.97	175.16	-87.25	-3,619.98	-7,962.20	1,315.33	916.41	398.91	3.297	
15,200.00	7,102.42	12,358.08	7,039.52	226.79	178.43	-87.26	-3,622.33	-8,062.15	1,317.07	912.08	404.99	3.252	
15,274.57	7,102.00	12,432.64	7,039.07	228.89	180.86	-87.26	-3,624.09	-8,136.69	1,318.37	908.84	409.53	3.219 ES, SF	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	15,808.65	7,241.41	3.28	248.32	0.53	2,383.51	21.97	7,623.62					
100.00	100.00	15,808.40	7,241.41	3.28	248.32	0.52	2,383.51	21.73	7,528.70	7,405.50	123.19	61.114		
200.00	200.00	15,808.16	7,241.41	3.34	248.31	0.52	2,383.51	21.48	7,433.91	7,310.21	123.70	60.098		
300.00	299.98	15,807.80	7,241.41	3.44	248.30	176.87	2,383.51	21.12	7,339.84	7,215.59	124.25	59.073		
400.00	399.84	15,807.20	7,241.41	3.59	248.28	177.12	2,383.51	20.53	7,247.20	7,122.31	124.89	58.030		
500.00	499.45	15,806.37	7,241.41	3.79	248.26	177.31	2,383.51	19.70	7,156.15	7,030.53	125.62	56.966		
600.00	598.70	15,805.31	7,241.41	4.03	248.23	177.47	2,383.51	18.64	7,066.86	6,940.40	126.46	55.883		
700.00	697.47	15,804.02	7,241.42	4.31	248.19	177.61	2,383.52	17.34	6,979.52	6,852.12	127.40	54.784		
800.00	795.62	15,802.50	7,241.42	4.64	248.15	177.72	2,383.52	15.82	6,894.31	6,765.85	128.46	53.670		
900.00	893.06	15,800.75	7,241.42	5.00	248.10	177.81	2,383.52	14.07	6,811.41	6,681.77	129.63	52.544		
1,000.00	989.64	15,801.29	7,241.43	5.40	248.12	177.88	2,383.53	12.09	6,731.01	6,600.04	130.97	51.393		
1,100.00	1,085.27	15,803.49	7,241.43	5.83	248.18	177.94	2,383.53	9.90	6,653.30	6,520.83	132.47	50.226		
1,200.00	1,179.88	15,805.90	7,241.44	6.29	248.25	177.96	2,383.53	7.49	6,578.33	6,444.22	134.11	49.053		
1,300.00	1,274.26	15,808.35	7,241.45	6.78	248.32	177.93	2,383.54	5.04	6,504.54	6,368.68	135.86	47.875		
1,400.00	1,368.63	15,810.81	7,241.45	7.28	248.38	177.90	2,383.54	2.58	6,431.46	6,293.76	137.70	46.706		
1,500.00	1,463.00	15,813.26	7,241.46	7.80	248.45	177.87	2,383.55	0.13	6,359.11	6,219.49	139.62	45.547		
1,600.00	1,557.38	15,815.71	7,241.46	8.33	248.52	177.83	2,383.55	-2.33	6,287.52	6,145.91	141.61	44.400		
1,700.00	1,651.75	15,818.17	7,241.47	8.87	248.59	177.80	2,383.56	-4.78	6,216.71	6,073.03	143.68	43.267		
1,800.00	1,746.12	15,820.62	7,241.48	9.41	248.66	177.77	2,383.56	-7.23	6,146.71	6,000.88	145.83	42.149		
1,900.00	1,840.49	15,823.07	7,241.48	9.96	248.73	177.74	2,383.56	-9.69	6,077.55	5,929.49	148.06	41.049		
2,000.00	1,934.87	15,825.53	7,241.49	10.52	248.80	177.71	2,383.57	-12.14	6,009.25	5,858.90	150.36	39.966		
2,100.00	2,029.24	15,827.98	7,241.49	11.08	248.87	177.68	2,383.57	-14.59	5,941.86	5,789.13	152.73	38.904		
2,200.00	2,123.61	15,830.43	7,241.50	11.64	248.94	177.64	2,383.58	-17.05	5,875.39	5,720.21	155.18	37.863		
2,300.00	2,217.99	15,832.89	7,241.51	12.21	249.01	177.61	2,383.58	-19.50	5,809.88	5,652.19	157.69	36.843		
2,400.00	2,312.36	15,835.34	7,241.51	12.78	249.08	177.58	2,383.59	-21.95	5,745.36	5,585.08	160.28	35.846		
2,500.00	2,406.73	15,837.79	7,241.52	13.35	249.15	177.55	2,383.59	-24.41	5,681.87	5,518.94	162.93	34.873		
2,600.00	2,501.10	15,840.25	7,241.52	13.93	249.22	177.52	2,383.60	-26.86	5,619.44	5,453.80	165.65	33.924		
2,700.00	2,595.48	15,842.70	7,241.53	14.51	249.29	177.48	2,383.60	-29.31	5,558.11	5,389.69	168.43	33.000		
2,800.00	2,689.85	15,845.16	7,241.54	15.08	249.36	177.45	2,383.60	-31.77	5,497.91	5,326.65	171.27	32.102		
2,900.00	2,784.22	15,847.61	7,241.54	15.66	249.43	177.42	2,383.61	-34.22	5,438.89	5,264.72	174.16	31.228		
3,000.00	2,878.60	15,850.06	7,241.55	16.25	249.50	177.39	2,383.61	-36.68	5,381.07	5,203.95	177.12	30.381		
3,100.00	2,972.97	15,852.52	7,241.55	16.83	249.56	177.36	2,383.62	-39.13	5,324.50	5,144.38	180.13	29.559		
3,200.00	3,067.34	15,854.97	7,241.56	17.41	249.63	177.33	2,383.62	-41.58	5,269.23	5,086.04	183.19	28.764		
3,300.00	3,161.72	15,857.42	7,241.57	18.00	249.70	177.29	2,383.63	-44.04	5,215.28	5,028.98	186.29	27.995		
3,400.00	3,256.09	15,859.88	7,241.57	18.58	249.77	177.26	2,383.63	-46.49	5,162.70	4,973.26	189.45	27.252		
3,500.00	3,350.46	15,862.33	7,241.58	19.17	249.84	177.23	2,383.63	-48.94	5,111.54	4,918.91	192.64	26.534		
3,600.00	3,444.83	15,864.78	7,241.58	19.75	249.91	177.20	2,383.64	-51.40	5,061.84	4,865.97	195.87	25.843		
3,700.00	3,539.21	15,867.24	7,241.59	20.34	249.98	177.17	2,383.64	-53.85	5,013.64	4,814.51	199.13	25.178		
3,800.00	3,633.58	15,869.69	7,241.60	20.93	250.05	177.13	2,383.65	-56.30	4,966.98	4,764.57	202.42	24.538		
3,900.00	3,727.95	15,872.15	7,241.60	21.52	250.12	177.10	2,383.65	-58.76	4,921.91	4,716.18	205.73	23.924		
4,000.00	3,822.33	15,874.60	7,241.61	22.11	250.19	177.07	2,383.66	-61.21	4,878.48	4,669.42	209.06	23.336		
4,100.00	3,916.70	15,877.05	7,241.61	22.70	250.26	177.04	2,383.66	-63.66	4,836.72	4,624.31	212.40	22.772		
4,200.00	4,011.07	15,879.51	7,241.62	23.29	250.33	177.01	2,383.67	-66.12	4,796.68	4,580.93	215.75	22.233		
4,300.00	4,105.44	15,881.96	7,241.63	23.88	250.40	176.98	2,383.67	-68.57	4,758.40	4,539.30	219.10	21.718		
4,400.00	4,199.82	15,884.41	7,241.63	24.47	250.47	176.94	2,383.67	-71.03	4,721.93	4,499.48	222.45	21.227		
4,500.00	4,294.19	15,886.87	7,241.64	25.06	250.54	176.91	2,383.68	-73.48	4,687.31	4,461.53	225.78	20.761		
4,600.00	4,388.56	15,889.32	7,241.64	25.65	250.61	176.88	2,383.68	-75.93	4,654.58	4,425.49	229.09	20.317		
4,700.00	4,482.94	15,891.78	7,241.65	26.24	251.14	176.85	2,383.69	-78.39	4,623.78	4,391.01	232.77	19.864		
4,800.00	4,577.31	15,894.24	7,241.66	26.83	251.07	176.82	2,383.69	-80.84	4,594.95	4,359.04	235.91	19.477		
4,900.00	4,671.68	15,896.70	7,241.66	27.43	251.00	176.78	2,383.70	-83.29	4,568.12	4,329.11	239.01	19.113		
5,000.00	4,766.05	15,899.16	7,241.67	28.02	250.93	176.75	2,383.70	-85.75	4,543.34	4,301.28	242.06	18.769		
5,100.00	4,860.43	15,901.59	7,241.67	28.61	250.95	176.72	2,383.71	-88.20	4,520.63	4,275.50	245.13	18.442		

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

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	15,904.04	7,241.68	29.20	251.02	176.69	2,383.71	-90.65	4,500.03	4,251.85	248.18	18.132		
5,300.00	5,049.17	15,906.50	7,241.69	29.80	251.09	176.66	2,383.71	-93.11	4,481.56	4,230.40	251.16	17.843		
5,400.00	5,143.55	15,908.95	7,241.69	30.39	251.16	176.62	2,383.72	-95.56	4,465.26	4,211.19	254.07	17.575		
5,500.00	5,237.92	15,911.40	7,241.70	30.99	251.23	176.59	2,383.72	-98.02	4,451.14	4,194.25	256.89	17.327		
5,600.00	5,332.29	15,913.86	7,241.70	31.58	251.30	176.56	2,383.73	-100.47	4,439.23	4,179.61	259.62	17.099		
5,700.00	5,426.66	15,916.31	7,241.71	32.17	251.37	176.53	2,383.73	-102.92	4,429.55	4,167.29	262.26	16.890		
5,800.00	5,521.04	15,918.76	7,241.72	32.77	251.44	176.50	2,383.74	-105.38	4,422.10	4,157.31	264.79	16.700		
5,900.00	5,615.41	15,921.22	7,241.72	33.36	251.51	176.47	2,383.74	-107.83	4,416.90	4,149.69	267.22	16.529		
6,000.00	5,709.78	15,923.67	7,241.73	33.96	251.58	176.43	2,383.74	-110.28	4,413.97	4,144.44	269.53	16.377		
6,079.75	5,785.05	15,925.63	7,241.73	34.43	251.63	176.41	2,383.75	-112.24	4,413.25	4,141.95	271.29	16.267 CC		
6,100.00	5,804.16	15,926.12	7,241.73	34.55	251.65	176.40	2,383.75	-112.74	4,413.29	4,141.57	271.73	16.242		
6,200.00	5,898.53	15,928.58	7,241.74	35.14	251.72	176.37	2,383.75	-115.19	4,414.88	4,141.08	273.80	16.124 ES		
6,300.00	5,992.90	15,931.03	7,241.75	35.74	251.79	176.34	2,383.76	-117.64	4,418.74	4,142.98	275.76	16.024		
6,400.00	6,087.27	15,933.49	7,241.75	36.33	251.85	176.31	2,383.76	-120.10	4,424.84	4,147.26	277.58	15.941		
6,500.00	6,181.65	15,935.94	7,241.76	36.93	251.92	176.27	2,383.77	-122.55	4,433.20	4,153.92	279.28	15.874		
6,600.00	6,276.02	15,938.39	7,241.76	37.52	251.99	176.24	2,383.77	-125.00	4,443.79	4,162.94	280.85	15.823		
6,700.00	6,370.39	15,940.85	7,241.77	38.12	252.06	176.21	2,383.78	-127.46	4,456.59	4,174.30	282.29	15.787		
6,800.00	6,464.77	15,943.30	7,241.78	38.71	252.13	176.18	2,383.78	-129.91	4,471.60	4,188.00	283.60	15.767		
6,900.00	6,559.14	15,945.75	7,241.78	39.31	252.20	175.92	2,383.78	-132.37	4,488.78	4,204.00	284.78	15.762		
7,000.00	6,652.92	15,956.16	7,241.81	39.90	252.50	150.78	2,383.80	-142.78	4,508.07	4,222.02	286.05	15.760		
7,100.00	6,744.00	15,981.99	7,241.87	40.44	253.23	132.42	2,383.85	-168.60	4,528.97	4,241.36	287.61	15.747		
7,200.00	6,830.13	16,022.59	7,241.97	40.94	254.38	119.87	2,383.92	-209.20	4,550.69	4,261.25	289.43	15.723		
7,300.00	6,909.19	16,076.97	7,242.10	41.37	255.91	110.97	2,384.02	-263.58	4,572.31	4,280.78	291.52	15.684		
7,400.00	6,979.23	16,143.79	7,242.27	41.75	257.81	104.36	2,384.14	-330.40	4,592.85	4,298.96	293.89	15.628		
7,500.00	7,038.53	16,221.40	7,242.46	42.08	260.00	99.37	2,384.28	-408.01	4,611.31	4,314.77	296.54	15.550		
7,600.00	7,085.63	16,307.89	7,242.67	42.37	262.45	95.68	2,384.43	-494.50	4,626.77	4,327.27	299.50	15.448		
7,700.00	7,119.37	16,401.14	7,242.90	42.64	265.09	93.12	2,384.60	-587.75	4,638.47	4,335.68	302.79	15.319		
7,800.00	7,138.92	16,501.23	7,243.13	42.91	267.93	91.65	2,384.78	-685.45	4,645.79	4,339.35	306.44	15.161		
7,900.00	7,143.92	16,601.47	7,243.38	43.25	270.77	91.22	2,384.96	-785.20	4,648.42	4,338.14	310.28	14.981		
8,000.00	7,143.35	16,701.48	7,243.62	43.72	273.60	91.23	2,385.14	-885.20	4,649.23	4,334.94	314.29	14.793		
8,100.00	7,142.78	16,801.49	7,243.87	44.42	276.44	91.24	2,385.32	-985.19	4,650.04	4,331.57	318.47	14.601		
8,200.00	7,142.22	16,901.49	7,244.11	45.39	279.27	91.25	2,385.49	-1,085.18	4,650.85	4,328.06	322.79	14.408		
8,300.00	7,141.65	17,001.50	7,244.35	46.63	282.11	91.26	2,385.67	-1,185.18	4,651.66	4,324.41	327.25	14.214		
8,400.00	7,141.08	17,101.51	7,244.60	48.09	284.94	91.27	2,385.85	-1,285.17	4,652.47	4,320.64	331.83	14.021		
8,500.00	7,140.51	17,201.51	7,244.84	49.74	287.78	91.28	2,386.03	-1,385.16	4,653.28	4,316.77	336.51	13.828		
8,600.00	7,139.94	17,301.52	7,245.09	51.53	290.61	91.29	2,386.21	-1,485.16	4,654.09	4,312.81	341.28	13.637		
8,700.00	7,139.37	17,401.53	7,245.33	53.44	293.45	91.30	2,386.39	-1,585.15	4,654.90	4,308.76	346.14	13.448		
8,800.00	7,138.80	17,501.53	7,245.58	55.45	296.29	91.31	2,386.57	-1,685.14	4,655.71	4,304.63	351.08	13.261		
8,900.00	7,138.24	17,601.54	7,245.82	57.55	299.13	91.32	2,386.75	-1,785.14	4,656.52	4,300.44	356.08	13.077		
9,000.00	7,137.67	17,701.55	7,246.07	59.71	301.97	91.33	2,386.93	-1,885.13	4,657.33	4,296.19	361.14	12.896		
9,100.00	7,137.10	17,801.55	7,246.31	61.94	304.81	91.34	2,387.11	-1,985.12	4,658.15	4,291.89	366.26	12.718		
9,200.00	7,136.53	17,901.56	7,246.55	64.22	307.65	91.35	2,387.29	-2,085.11	4,658.96	4,287.54	371.42	12.544		
9,300.00	7,135.96	18,001.57	7,246.80	66.55	310.49	91.36	2,387.47	-2,185.11	4,659.77	4,283.15	376.62	12.373		
9,400.00	7,135.39	18,101.57	7,247.04	68.92	313.33	91.37	2,387.65	-2,285.10	4,660.58	4,278.72	381.86	12.205		
9,500.00	7,134.83	18,201.58	7,247.29	71.33	316.17	91.38	2,387.83	-2,385.09	4,661.39	4,274.25	387.14	12.041		
9,600.00	7,134.26	18,301.59	7,247.53	73.77	319.01	91.39	2,388.01	-2,485.09	4,662.20	4,269.76	392.45	11.880		
9,700.00	7,133.69	18,401.59	7,247.78	76.24	321.85	91.40	2,388.19	-2,585.08	4,663.02	4,265.24	397.78	11.723		
9,800.00	7,133.12	18,501.60	7,248.02	78.74	324.69	91.41	2,388.37	-2,685.07	4,663.83	4,260.69	403.14	11.569		
9,900.00	7,132.55	18,601.61	7,248.26	81.27	327.53	91.42	2,388.55	-2,785.07	4,664.64	4,256.12	408.52	11.418		
10,000.00	7,131.98	18,701.62	7,248.51	83.81	330.38	91.43	2,388.73	-2,885.06	4,665.45	4,251.53	413.93	11.271		
10,100.00	7,131.42	18,801.62	7,248.75	86.38	333.22	91.44	2,388.90	-2,985.05	4,666.27	4,246.92	419.35	11.127		
10,200.00	7,130.85	18,901.63	7,249.00	88.96	336.06	91.45	2,389.08	-3,085.05	4,667.08	4,242.29	424.79	10.987		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,300.00	7,130.28	19,001.64	7,249.24	91.56	338.90	91.46	2,389.26	-3,185.04	4,667.89	4,237.65	430.24	10.849	
10,400.00	7,129.71	19,101.64	7,249.49	94.18	341.75	91.47	2,389.44	-3,285.03	4,668.70	4,232.99	435.71	10.715	
10,500.00	7,129.14	19,118.26	7,249.53	96.81	342.22	91.47	2,389.48	-3,304.86	4,670.21	4,231.54	438.67	10.646	
10,600.00	7,128.57	19,118.26	7,249.53	99.45	342.22	91.47	2,389.48	-3,304.86	4,673.80	4,232.85	440.95	10.599	
10,700.00	7,128.00	19,118.26	7,249.53	102.11	342.22	91.47	2,389.48	-3,304.86	4,679.54	4,236.48	443.05	10.562	
10,800.00	7,127.44	19,118.26	7,249.53	104.77	342.22	91.47	2,389.48	-3,304.86	4,687.40	4,242.43	444.96	10.534	
10,900.00	7,126.87	19,118.26	7,249.53	107.45	342.22	91.47	2,389.48	-3,304.86	4,697.37	4,250.69	446.69	10.516	
11,000.00	7,126.30	19,118.26	7,249.53	110.13	342.22	91.47	2,389.48	-3,304.86	4,709.45	4,261.24	448.22	10.507 SF	
11,100.00	7,125.73	19,118.26	7,249.53	112.82	342.22	91.47	2,389.48	-3,304.86	4,723.62	4,274.07	449.55	10.507	
11,200.00	7,125.16	19,118.26	7,249.53	115.53	342.22	91.47	2,389.48	-3,304.86	4,739.85	4,289.15	450.70	10.517	
11,300.00	7,124.59	19,118.26	7,249.53	118.24	342.22	91.47	2,389.48	-3,304.86	4,758.13	4,306.47	451.66	10.535	
11,400.00	7,124.03	19,118.26	7,249.53	120.95	342.22	91.47	2,389.48	-3,304.86	4,778.44	4,326.00	452.44	10.562	
11,500.00	7,123.46	19,118.26	7,249.53	123.67	342.22	91.47	2,389.48	-3,304.86	4,800.74	4,347.71	453.03	10.597	
11,600.00	7,122.89	19,118.26	7,249.53	126.40	342.22	91.47	2,389.48	-3,304.86	4,825.01	4,371.57	453.44	10.641	
11,700.00	7,122.32	19,118.26	7,249.53	129.14	342.22	91.47	2,389.48	-3,304.86	4,851.22	4,397.54	453.68	10.693	
11,800.00	7,121.75	19,118.26	7,249.53	131.88	342.22	91.47	2,389.48	-3,304.86	4,879.34	4,425.59	453.75	10.753	
11,900.00	7,121.18	19,118.26	7,249.53	134.62	342.22	91.47	2,389.48	-3,304.86	4,909.34	4,455.68	453.65	10.822	
12,000.00	7,120.61	19,118.26	7,249.53	137.37	342.22	91.47	2,389.48	-3,304.86	4,941.18	4,487.78	453.40	10.898	
12,100.00	7,120.05	19,118.26	7,249.53	140.12	342.22	91.47	2,389.48	-3,304.86	4,974.82	4,521.83	452.99	10.982	
12,200.00	7,119.48	19,118.26	7,249.53	142.88	342.22	91.47	2,389.48	-3,304.86	5,010.24	4,557.80	452.44	11.074	
12,300.00	7,118.91	19,118.26	7,249.53	145.64	342.22	91.47	2,389.48	-3,304.86	5,047.39	4,595.64	451.75	11.173	
12,400.00	7,118.34	19,118.26	7,249.53	148.41	342.22	91.47	2,389.48	-3,304.86	5,086.23	4,635.30	450.93	11.280	
12,500.00	7,117.77	19,118.26	7,249.53	151.18	342.22	91.47	2,389.48	-3,304.86	5,126.73	4,676.75	449.98	11.393	
12,600.00	7,117.20	19,118.26	7,249.53	153.95	342.22	91.47	2,389.48	-3,304.86	5,168.85	4,719.94	448.91	11.514	
12,700.00	7,116.64	19,118.26	7,249.53	156.73	342.22	91.47	2,389.48	-3,304.86	5,212.54	4,764.81	447.73	11.642	
12,800.00	7,116.07	19,118.26	7,249.53	159.50	342.22	91.47	2,389.48	-3,304.86	5,257.78	4,811.33	446.45	11.777	
12,900.00	7,115.50	19,118.26	7,249.53	162.29	342.22	91.47	2,389.48	-3,304.86	5,304.51	4,859.45	445.07	11.918	
13,000.00	7,114.93	19,118.26	7,249.53	165.07	342.22	91.47	2,389.48	-3,304.86	5,352.71	4,909.11	443.60	12.067	
13,100.00	7,114.36	19,118.26	7,249.53	167.86	342.22	91.47	2,389.48	-3,304.86	5,402.33	4,960.29	442.04	12.221	
13,200.00	7,113.79	19,118.26	7,249.53	170.64	342.22	91.47	2,389.48	-3,304.86	5,453.32	5,012.92	440.41	12.382	
13,300.00	7,113.22	19,118.26	7,249.53	173.44	342.22	91.47	2,389.48	-3,304.86	5,505.67	5,066.96	438.70	12.550	
13,400.00	7,112.66	19,118.26	7,249.53	176.23	342.22	91.47	2,389.48	-3,304.86	5,559.32	5,122.38	436.93	12.723	
13,500.00	7,112.09	19,118.26	7,249.53	179.02	342.22	91.47	2,389.48	-3,304.86	5,614.23	5,179.13	435.10	12.903	
13,600.00	7,111.52	19,118.26	7,249.53	181.82	342.22	91.47	2,389.48	-3,304.86	5,670.38	5,237.16	433.22	13.089	
13,700.00	7,110.95	19,118.26	7,249.53	184.62	342.22	91.47	2,389.48	-3,304.86	5,727.73	5,296.44	431.29	13.280	
13,800.00	7,110.38	19,118.26	7,249.53	187.42	342.22	91.47	2,389.48	-3,304.86	5,786.23	5,356.92	429.32	13.478	
13,900.00	7,109.81	19,118.26	7,249.53	190.22	342.22	91.47	2,389.48	-3,304.86	5,845.87	5,418.56	427.31	13.681	
14,000.00	7,109.25	19,118.26	7,249.53	193.03	342.22	91.47	2,389.48	-3,304.86	5,906.59	5,481.33	425.26	13.889	
14,100.00	7,108.68	19,118.26	7,249.53	195.84	342.22	91.47	2,389.48	-3,304.86	5,968.37	5,545.18	423.19	14.103	
14,200.00	7,108.11	19,118.26	7,249.53	198.64	342.22	91.47	2,389.48	-3,304.86	6,031.17	5,610.08	421.09	14.323	
14,300.00	7,107.54	19,118.26	7,249.53	201.45	342.22	91.47	2,389.48	-3,304.86	6,094.97	5,676.00	418.97	14.548	
14,400.00	7,106.97	19,118.26	7,249.53	204.26	342.22	91.47	2,389.48	-3,304.86	6,159.73	5,742.90	416.83	14.778	
14,500.00	7,106.40	19,118.26	7,249.53	207.07	342.22	91.47	2,389.48	-3,304.86	6,225.42	5,810.74	414.68	15.013	
14,600.00	7,105.83	19,118.26	7,249.53	209.89	342.22	91.47	2,389.48	-3,304.86	6,292.02	5,879.50	412.52	15.253	
14,700.00	7,105.27	19,118.26	7,249.53	212.70	342.22	91.47	2,389.48	-3,304.86	6,359.49	5,949.14	410.35	15.498	
14,800.00	7,104.70	19,118.26	7,249.53	215.52	342.22	91.47	2,389.48	-3,304.86	6,427.81	6,019.64	408.18	15.748	
14,900.00	7,104.13	19,118.26	7,249.53	218.33	342.22	91.47	2,389.48	-3,304.86	6,496.95	6,090.95	406.00	16.002	
15,000.00	7,103.56	19,118.26	7,249.53	221.15	342.22	91.47	2,389.48	-3,304.86	6,566.89	6,163.06	403.83	16.262	
15,100.00	7,102.99	19,118.26	7,249.53	223.97	342.22	91.47	2,389.48	-3,304.86	6,637.59	6,235.94	401.65	16.526	
15,200.00	7,102.42	19,118.26	7,249.53	226.79	342.22	91.47	2,389.48	-3,304.86	6,709.05	6,309.56	399.49	16.794	
15,274.57	7,102.00	19,118.26	7,249.53	228.89	342.22	91.47	2,389.48	-3,304.86	6,762.80	6,364.92	397.88	16.997	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	15,720.01	7,133.46	3.28	248.13	-0.14	2,223.20	-5.35	7,471.87					
100.00	100.00	15,720.25	7,133.46	3.28	248.14	-0.14	2,223.19	-5.60	7,376.46	7,255.30	121.16	60.882		
200.00	200.00	15,720.49	7,133.46	3.34	248.15	-0.15	2,223.19	-5.84	7,281.17	7,159.53	121.64	59.859		
300.00	299.98	15,720.88	7,133.46	3.44	248.16	176.28	2,223.19	-6.22	7,186.57	7,064.40	122.17	58.824		
400.00	399.84	15,721.54	7,133.46	3.59	248.18	176.59	2,223.18	-6.88	7,093.33	6,970.53	122.79	57.766		
500.00	499.45	15,722.47	7,133.47	3.79	248.20	176.83	2,223.17	-7.82	7,001.61	6,878.09	123.52	56.685		
600.00	598.70	15,723.68	7,133.47	4.03	248.24	177.03	2,223.16	-9.02	6,911.59	6,787.24	124.35	55.581		
700.00	697.47	15,725.16	7,133.47	4.31	248.28	177.19	2,223.14	-10.50	6,823.46	6,698.15	125.30	54.456		
800.00	795.62	15,726.91	7,133.48	4.64	248.33	177.33	2,223.12	-12.26	6,737.38	6,611.01	126.37	53.314		
900.00	893.06	15,728.93	7,133.48	5.00	248.39	177.44	2,223.10	-14.28	6,653.56	6,525.99	127.57	52.155		
1,000.00	989.64	15,731.22	7,133.49	5.40	248.45	177.52	2,223.08	-16.56	6,572.18	6,443.27	128.91	50.983		
1,100.00	1,085.27	15,733.77	7,133.49	5.83	248.52	177.60	2,223.05	-19.11	6,493.42	6,363.03	130.39	49.800		
1,200.00	1,179.88	15,736.56	7,133.50	6.29	248.60	177.62	2,223.03	-21.91	6,417.36	6,285.35	132.02	48.611		
1,300.00	1,274.26	15,739.41	7,133.51	6.78	248.68	177.59	2,223.00	-24.76	6,342.46	6,208.70	133.76	47.415		
1,400.00	1,368.63	15,742.26	7,133.51	7.28	248.76	177.55	2,222.97	-27.61	6,268.26	6,132.67	135.59	46.228		
1,500.00	1,463.00	15,745.11	7,133.52	7.80	248.84	177.51	2,222.94	-30.46	6,194.78	6,057.28	137.51	45.051		
1,600.00	1,557.38	15,747.96	7,133.53	8.33	248.92	177.47	2,222.91	-33.31	6,122.06	5,982.56	139.50	43.886		
1,700.00	1,651.75	15,750.82	7,133.53	8.87	249.00	177.43	2,222.88	-36.16	6,050.11	5,908.53	141.58	42.734		
1,800.00	1,746.12	15,753.67	7,133.54	9.41	249.09	177.39	2,222.85	-39.01	5,978.96	5,835.23	143.73	41.597		
1,900.00	1,840.49	15,756.52	7,133.55	9.96	249.17	177.35	2,222.82	-41.86	5,908.65	5,762.68	145.97	40.477		
2,000.00	1,934.87	15,759.37	7,133.56	10.52	249.25	177.31	2,222.79	-44.71	5,839.21	5,690.91	148.29	39.376		
2,100.00	2,029.24	15,762.22	7,133.56	11.08	249.33	177.28	2,222.76	-47.56	5,770.66	5,619.96	150.69	38.295		
2,200.00	2,123.61	15,765.07	7,133.57	11.64	249.41	177.24	2,222.73	-50.41	5,703.03	5,549.87	153.17	37.234		
2,300.00	2,217.99	15,767.92	7,133.58	12.21	249.49	177.20	2,222.70	-53.26	5,636.37	5,480.66	155.72	36.196		
2,400.00	2,312.36	15,770.77	7,133.58	12.78	249.57	177.16	2,222.68	-56.12	5,570.71	5,412.37	158.34	35.181		
2,500.00	2,406.73	15,773.62	7,133.59	13.35	249.65	177.12	2,222.65	-58.97	5,506.08	5,345.04	161.04	34.191		
2,600.00	2,501.10	15,776.47	7,133.60	13.93	249.73	177.08	2,222.62	-61.82	5,442.51	5,278.70	163.81	33.225		
2,700.00	2,595.48	15,779.32	7,133.60	14.51	249.81	177.04	2,222.59	-64.67	5,380.06	5,213.41	166.65	32.284		
2,800.00	2,689.85	15,782.17	7,133.61	15.08	249.89	177.01	2,222.56	-67.52	5,318.74	5,149.19	169.55	31.369		
2,900.00	2,784.22	15,785.03	7,133.62	15.66	249.97	176.97	2,222.53	-70.37	5,258.62	5,086.09	172.52	30.481		
3,000.00	2,878.60	15,787.88	7,133.63	16.25	250.05	176.93	2,222.50	-73.22	5,199.72	5,024.16	175.56	29.619		
3,100.00	2,972.97	15,809.34	7,133.63	16.83	250.66	176.89	2,222.47	-76.07	5,142.08	4,963.10	178.99	28.729		
3,200.00	3,067.34	15,806.49	7,133.64	17.41	250.58	176.85	2,222.44	-78.92	5,085.76	4,903.73	182.04	27.938		
3,300.00	3,161.72	15,803.64	7,133.65	18.00	250.50	176.81	2,222.41	-81.77	5,030.80	4,845.67	185.14	27.174		
3,400.00	3,256.09	15,800.78	7,133.65	18.58	250.42	176.77	2,222.38	-84.62	4,977.24	4,788.96	188.28	26.435		
3,500.00	3,350.46	15,802.13	7,133.66	19.17	250.45	176.74	2,222.35	-87.47	4,925.12	4,733.57	191.55	25.712		
3,600.00	3,444.83	15,804.98	7,133.67	19.75	250.54	176.70	2,222.32	-90.32	4,874.50	4,679.60	194.89	25.011		
3,700.00	3,539.21	15,807.83	7,133.67	20.34	250.62	176.66	2,222.30	-93.17	4,825.41	4,627.14	198.27	24.337		
3,800.00	3,633.58	15,810.68	7,133.68	20.93	250.70	176.62	2,222.27	-96.02	4,777.91	4,576.23	201.68	23.690		
3,900.00	3,727.95	15,813.53	7,133.69	21.52	250.78	176.58	2,222.24	-98.87	4,732.05	4,526.93	205.12	23.070		
4,000.00	3,822.33	15,816.38	7,133.70	22.11	250.86	176.54	2,222.21	-101.73	4,687.87	4,479.29	208.58	22.475		
4,100.00	3,916.70	15,819.23	7,133.70	22.70	250.94	176.50	2,222.18	-104.58	4,645.43	4,433.37	212.06	21.906		
4,200.00	4,011.07	15,822.09	7,133.71	23.29	251.02	176.46	2,222.15	-107.43	4,604.76	4,389.21	215.54	21.363		
4,300.00	4,105.44	15,824.94	7,133.72	23.88	251.10	176.43	2,222.12	-110.28	4,565.91	4,346.88	219.03	20.846		
4,400.00	4,199.82	15,827.79	7,133.72	24.47	251.18	176.39	2,222.09	-113.13	4,528.95	4,306.43	222.52	20.353		
4,500.00	4,294.19	15,830.64	7,133.73	25.06	251.26	176.35	2,222.06	-115.98	4,493.90	4,267.91	225.99	19.885		
4,600.00	4,388.56	15,833.49	7,133.74	25.65	251.34	176.31	2,222.03	-118.83	4,460.81	4,231.37	229.44	19.442		
4,700.00	4,482.94	15,836.34	7,133.74	26.24	251.42	176.27	2,222.00	-121.68	4,429.74	4,196.87	232.87	19.022		
4,800.00	4,577.31	15,839.19	7,133.75	26.83	251.50	176.23	2,221.97	-124.53	4,400.71	4,164.45	236.26	18.627		
4,900.00	4,671.68	15,842.04	7,133.76	27.43	251.58	176.19	2,221.95	-127.38	4,373.78	4,134.18	239.61	18.254		
5,000.00	4,766.05	15,844.89	7,133.76	28.02	251.66	176.16	2,221.92	-130.23	4,348.98	4,106.08	242.90	17.904		
5,100.00	4,860.43	15,847.74	7,133.77	28.61	251.74	176.12	2,221.89	-133.08	4,326.35	4,080.21	246.13	17.577		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	15,850.59	7,133.78	29.20	251.82	176.08	2,221.86	-135.93	4,305.92	4,056.62	249.30	17.272		
5,300.00	5,049.17	15,853.44	7,133.79	29.80	251.90	176.04	2,221.83	-138.78	4,287.72	4,035.33	252.39	16.989		
5,400.00	5,143.55	15,856.30	7,133.79	30.39	251.98	176.00	2,221.80	-141.63	4,271.79	4,016.39	255.39	16.726		
5,500.00	5,237.92	15,859.15	7,133.80	30.99	252.07	175.96	2,221.77	-144.49	4,258.14	3,999.84	258.31	16.485		
5,600.00	5,332.29	15,862.00	7,133.81	31.58	252.15	175.92	2,221.74	-147.34	4,246.80	3,985.69	261.12	16.264		
5,700.00	5,426.66	15,864.85	7,133.81	32.17	252.23	175.89	2,221.71	-150.19	4,237.79	3,973.97	263.82	16.063		
5,800.00	5,521.04	15,867.70	7,133.82	32.77	252.31	175.85	2,221.68	-153.04	4,231.13	3,964.72	266.41	15.882		
5,900.00	5,615.41	15,870.55	7,133.83	33.36	252.39	175.81	2,221.65	-155.89	4,226.82	3,957.93	268.89	15.720		
6,000.00	5,709.78	15,873.40	7,133.83	33.96	252.47	175.77	2,221.62	-158.74	4,224.87	3,953.63	271.23	15.577		
6,032.51	5,740.46	15,874.33	7,133.84	34.15	252.49	175.76	2,221.61	-159.67	4,224.74	3,952.77	271.97	15.534 CC		
6,100.00	5,804.16	15,876.25	7,133.84	34.55	252.55	175.73	2,221.59	-161.59	4,225.28	3,951.83	273.45	15.452 ES		
6,200.00	5,898.53	15,879.10	7,133.85	35.14	252.63	175.69	2,221.57	-164.44	4,228.06	3,952.52	275.54	15.345		
6,300.00	5,992.90	15,881.95	7,133.86	35.74	252.71	175.65	2,221.54	-167.29	4,233.19	3,955.71	277.48	15.256		
6,400.00	6,087.27	15,884.80	7,133.86	36.33	252.79	175.61	2,221.51	-170.14	4,240.68	3,961.39	279.29	15.184		
6,500.00	6,181.65	15,887.65	7,133.87	36.93	252.87	175.58	2,221.48	-172.99	4,250.51	3,969.55	280.96	15.129		
6,600.00	6,276.02	15,909.56	7,133.88	37.52	253.49	175.54	2,221.45	-175.84	4,262.65	3,979.64	283.01	15.062		
6,700.00	6,370.39	15,906.71	7,133.88	38.12	253.41	175.50	2,221.42	-178.69	4,277.10	3,992.86	284.24	15.047		
6,800.00	6,464.77	15,903.86	7,133.89	38.71	253.33	175.46	2,221.39	-181.54	4,293.83	4,008.51	285.33	15.049		
6,900.00	6,559.14	15,899.06	7,133.90	39.31	253.19	175.19	2,221.36	-184.39	4,312.81	4,026.60	286.21	15.069		
7,000.00	6,652.92	15,909.86	7,133.92	39.90	253.50	149.87	2,221.25	-195.20	4,333.87	4,046.47	287.40	15.080		
7,100.00	6,744.00	15,936.07	7,133.99	40.44	254.24	131.34	2,220.98	-221.41	4,356.35	4,067.48	288.87	15.081		
7,200.00	6,830.13	15,977.04	7,134.09	40.94	255.40	118.64	2,220.56	-262.37	4,379.42	4,088.83	290.60	15.070		
7,300.00	6,909.19	16,031.75	7,134.22	41.37	256.94	109.62	2,220.00	-317.08	4,402.13	4,109.53	292.60	15.045		
7,400.00	6,979.23	16,098.87	7,134.39	41.75	258.84	102.92	2,219.31	-384.19	4,423.42	4,128.55	294.87	15.001		
7,500.00	7,038.53	16,176.73	7,134.58	42.08	261.04	97.89	2,218.52	-462.05	4,442.29	4,144.85	297.44	14.935		
7,600.00	7,085.63	16,263.43	7,134.79	42.37	263.49	94.18	2,217.63	-548.74	4,457.80	4,157.45	300.34	14.842		
7,700.00	7,119.37	16,356.82	7,135.02	42.64	266.14	91.65	2,216.67	-642.13	4,469.14	4,165.56	303.58	14.722		
7,800.00	7,138.92	16,454.61	7,135.25	42.91	268.90	90.24	2,215.67	-739.92	4,475.74	4,168.60	307.13	14.573		
7,900.00	7,143.92	16,554.39	7,135.50	43.25	271.73	89.89	2,214.65	-839.69	4,477.28	4,166.33	310.95	14.399		
8,000.00	7,143.35	16,654.39	7,135.74	43.72	274.56	89.90	2,213.62	-939.68	4,476.87	4,161.90	314.97	14.214		
8,100.00	7,142.78	16,754.38	7,135.99	44.42	277.39	89.91	2,212.60	-1,039.67	4,476.45	4,157.30	319.15	14.026		
8,200.00	7,142.22	16,854.38	7,136.23	45.39	280.22	89.92	2,211.57	-1,139.66	4,476.04	4,152.56	323.48	13.837		
8,300.00	7,141.65	16,954.37	7,136.48	46.63	283.05	89.94	2,210.55	-1,239.65	4,475.63	4,147.69	327.94	13.648		
8,400.00	7,141.08	17,054.37	7,136.72	48.09	285.88	89.95	2,209.52	-1,339.64	4,475.22	4,142.70	332.52	13.459		
8,500.00	7,140.51	17,154.37	7,136.96	49.74	288.72	89.96	2,208.50	-1,439.63	4,474.80	4,137.60	337.20	13.270		
8,600.00	7,139.94	17,254.36	7,137.21	51.53	291.55	89.97	2,207.47	-1,539.62	4,474.39	4,132.41	341.99	13.084		
8,700.00	7,139.37	17,354.36	7,137.45	53.44	294.38	89.98	2,206.45	-1,639.61	4,473.98	4,127.13	346.85	12.899		
8,800.00	7,138.80	17,454.35	7,137.70	55.45	297.22	89.99	2,205.42	-1,739.60	4,473.57	4,121.78	351.79	12.717		
8,900.00	7,138.24	17,554.35	7,137.94	57.55	300.05	90.00	2,204.40	-1,839.59	4,473.15	4,116.36	356.80	12.537		
9,000.00	7,137.67	17,654.35	7,138.19	59.71	302.89	90.01	2,203.37	-1,939.58	4,472.74	4,110.88	361.86	12.360		
9,100.00	7,137.10	17,754.34	7,138.43	61.94	305.72	90.02	2,202.35	-2,039.58	4,472.33	4,105.35	366.98	12.187		
9,200.00	7,136.53	17,854.34	7,138.67	64.22	308.56	90.03	2,201.32	-2,139.57	4,471.92	4,099.77	372.14	12.017		
9,300.00	7,135.96	17,954.33	7,138.92	66.55	311.40	90.04	2,200.30	-2,239.56	4,471.51	4,094.16	377.35	11.850		
9,400.00	7,135.39	18,054.33	7,139.16	68.92	314.23	90.05	2,199.27	-2,339.55	4,471.10	4,088.50	382.60	11.686		
9,500.00	7,134.83	18,154.32	7,139.41	71.33	317.07	90.06	2,198.25	-2,439.54	4,470.69	4,082.81	387.88	11.526		
9,600.00	7,134.26	18,254.32	7,139.65	73.77	319.91	90.07	2,197.22	-2,539.53	4,470.27	4,077.09	393.19	11.369		
9,700.00	7,133.69	18,354.32	7,139.90	76.24	322.74	90.08	2,196.20	-2,639.52	4,469.86	4,071.34	398.52	11.216		
9,800.00	7,133.12	18,454.31	7,140.14	78.74	325.58	90.09	2,195.18	-2,739.51	4,469.45	4,065.57	403.89	11.066		
9,900.00	7,132.55	18,554.31	7,140.39	81.27	328.42	90.10	2,194.15	-2,839.50	4,469.04	4,059.77	409.27	10.919		
10,000.00	7,131.98	18,654.30	7,140.63	83.81	331.26	90.11	2,193.13	-2,939.49	4,468.63	4,053.95	414.68	10.776		
10,100.00	7,131.42	18,754.30	7,140.87	86.38	334.10	90.12	2,192.10	-3,039.48	4,468.22	4,048.12	420.10	10.636		
10,200.00	7,130.85	18,854.30	7,141.12	88.96	336.94	90.13	2,191.08	-3,139.47	4,467.81	4,042.27	425.54	10.499		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	18,954.29	7,141.36	91.56	339.78	90.14	2,190.05	-3,239.46	4,467.40	4,036.40	431.00	10.365		
10,382.35	7,129.81	19,018.34	7,141.52	93.72	341.60	90.15	2,189.39	-3,303.50	4,467.10	4,032.14	434.97	10.270		
10,400.00	7,129.71	19,018.34	7,141.52	94.18	341.60	90.15	2,189.39	-3,303.50	4,467.14	4,031.73	435.40	10.260		
10,500.00	7,129.14	19,018.34	7,141.52	96.81	341.60	90.15	2,189.39	-3,303.50	4,468.65	4,030.88	437.77	10.208		
10,600.00	7,128.57	19,018.34	7,141.52	99.45	341.60	90.15	2,189.39	-3,303.50	4,472.40	4,032.46	439.94	10.166		
10,700.00	7,128.00	19,018.34	7,141.52	102.11	341.60	90.15	2,189.39	-3,303.50	4,478.38	4,036.48	441.91	10.134		
10,800.00	7,127.44	19,018.34	7,141.52	104.77	341.60	90.15	2,189.39	-3,303.50	4,486.58	4,042.92	443.67	10.112		
10,900.00	7,126.87	19,018.34	7,141.52	107.45	341.60	90.15	2,189.39	-3,303.50	4,497.00	4,051.77	445.22	10.101		
11,000.00	7,126.30	19,018.34	7,141.52	110.13	341.60	90.15	2,189.39	-3,303.50	4,509.60	4,063.03	446.57	10.098 SF		
11,100.00	7,125.73	19,018.34	7,141.52	112.82	341.60	90.15	2,189.39	-3,303.50	4,524.38	4,076.67	447.71	10.106		
11,200.00	7,125.16	19,018.34	7,141.52	115.53	341.60	90.15	2,189.39	-3,303.50	4,541.32	4,092.67	448.64	10.122		
11,300.00	7,124.59	19,018.34	7,141.52	118.24	341.60	90.15	2,189.39	-3,303.50	4,560.38	4,111.01	449.37	10.148		
11,400.00	7,124.03	19,018.34	7,141.52	120.95	341.60	90.15	2,189.39	-3,303.50	4,581.55	4,131.64	449.91	10.183		
11,500.00	7,123.46	19,018.34	7,141.52	123.67	341.60	90.15	2,189.39	-3,303.50	4,604.80	4,154.55	450.25	10.227		
11,600.00	7,122.89	19,018.34	7,141.52	126.40	341.60	90.15	2,189.39	-3,303.50	4,630.08	4,179.69	450.39	10.280		
11,700.00	7,122.32	19,018.34	7,141.52	129.14	341.60	90.15	2,189.39	-3,303.50	4,657.38	4,207.02	450.36	10.342		
11,800.00	7,121.75	19,018.34	7,141.52	131.88	341.60	90.15	2,189.39	-3,303.50	4,686.65	4,236.51	450.14	10.411		
11,900.00	7,121.18	19,018.34	7,141.52	134.62	341.60	90.15	2,189.39	-3,303.50	4,717.87	4,268.11	449.76	10.490		
12,000.00	7,120.61	19,018.34	7,141.52	137.37	341.60	90.15	2,189.39	-3,303.50	4,750.98	4,301.77	449.21	10.576		
12,100.00	7,120.05	19,018.34	7,141.52	140.12	341.60	90.15	2,189.39	-3,303.50	4,785.95	4,337.45	448.50	10.671		
12,200.00	7,119.48	19,018.34	7,141.52	142.88	341.60	90.15	2,189.39	-3,303.50	4,822.74	4,375.10	447.64	10.774		
12,300.00	7,118.91	19,018.34	7,141.52	145.64	341.60	90.15	2,189.39	-3,303.50	4,861.32	4,414.68	446.64	10.884		
12,400.00	7,118.34	19,018.34	7,141.52	148.41	341.60	90.15	2,189.39	-3,303.50	4,901.62	4,456.12	445.51	11.002		
12,500.00	7,117.77	19,018.34	7,141.52	151.18	341.60	90.15	2,189.39	-3,303.50	4,943.63	4,499.38	444.25	11.128		
12,600.00	7,117.20	19,018.34	7,141.52	153.95	341.60	90.15	2,189.39	-3,303.50	4,987.28	4,544.41	442.87	11.261		
12,700.00	7,116.64	19,018.34	7,141.52	156.73	341.60	90.15	2,189.39	-3,303.50	5,032.54	4,591.16	441.38	11.402		
12,800.00	7,116.07	19,018.34	7,141.52	159.50	341.60	90.15	2,189.39	-3,303.50	5,079.37	4,639.58	439.79	11.549		
12,900.00	7,115.50	19,018.34	7,141.52	162.29	341.60	90.15	2,189.39	-3,303.50	5,127.72	4,689.62	438.11	11.704		
13,000.00	7,114.93	19,018.34	7,141.52	165.07	341.60	90.15	2,189.39	-3,303.50	5,177.56	4,741.22	436.34	11.866		
13,100.00	7,114.36	19,018.34	7,141.52	167.86	341.60	90.15	2,189.39	-3,303.50	5,228.83	4,794.34	434.49	12.034		
13,200.00	7,113.79	19,018.34	7,141.52	170.64	341.60	90.15	2,189.39	-3,303.50	5,281.49	4,848.93	432.57	12.210		
13,300.00	7,113.22	19,018.34	7,141.52	173.44	341.60	90.15	2,189.39	-3,303.50	5,335.51	4,904.93	430.58	12.392		
13,400.00	7,112.66	19,018.34	7,141.52	176.23	341.60	90.15	2,189.39	-3,303.50	5,390.85	4,962.31	428.53	12.580		
13,500.00	7,112.09	19,018.34	7,141.52	179.02	341.60	90.15	2,189.39	-3,303.50	5,447.45	5,021.02	426.43	12.775		
13,600.00	7,111.52	19,018.34	7,141.52	181.82	341.60	90.15	2,189.39	-3,303.50	5,505.29	5,081.01	424.29	12.975		
13,700.00	7,110.95	19,018.34	7,141.52	184.62	341.60	90.15	2,189.39	-3,303.50	5,564.33	5,142.23	422.10	13.183		
13,800.00	7,110.38	19,018.34	7,141.52	187.42	341.60	90.15	2,189.39	-3,303.50	5,624.53	5,204.65	419.88	13.396		
13,900.00	7,109.81	19,018.34	7,141.52	190.22	341.60	90.15	2,189.39	-3,303.50	5,685.85	5,268.22	417.62	13.615		
14,000.00	7,109.25	19,018.34	7,141.52	193.03	341.60	90.15	2,189.39	-3,303.50	5,748.25	5,332.91	415.34	13.840		
14,100.00	7,108.68	19,018.34	7,141.52	195.84	341.60	90.15	2,189.39	-3,303.50	5,811.71	5,398.66	413.05	14.070		
14,200.00	7,108.11	19,018.34	7,141.52	198.64	341.60	90.15	2,189.39	-3,303.50	5,876.18	5,465.45	410.73	14.307		
14,300.00	7,107.54	19,018.34	7,141.52	201.45	341.60	90.15	2,189.39	-3,303.50	5,941.63	5,533.23	408.40	14.549		
14,400.00	7,106.97	19,018.34	7,141.52	204.26	341.60	90.15	2,189.39	-3,303.50	6,008.04	5,601.98	406.06	14.796		
14,500.00	7,106.40	19,018.34	7,141.52	207.07	341.60	90.15	2,189.39	-3,303.50	6,075.36	5,671.65	403.72	15.049		
14,600.00	7,105.83	19,018.34	7,141.52	209.89	341.60	90.15	2,189.39	-3,303.50	6,143.58	5,742.21	401.37	15.307		
14,700.00	7,105.27	19,018.34	7,141.52	212.70	341.60	90.15	2,189.39	-3,303.50	6,212.66	5,813.63	399.02	15.570		
14,800.00	7,104.70	19,018.34	7,141.52	215.52	341.60	90.15	2,189.39	-3,303.50	6,282.57	5,885.89	396.68	15.838		
14,900.00	7,104.13	19,018.34	7,141.52	218.33	341.60	90.15	2,189.39	-3,303.50	6,353.28	5,958.94	394.34	16.111		
15,000.00	7,103.56	19,018.34	7,141.52	221.15	341.60	90.15	2,189.39	-3,303.50	6,424.77	6,032.76	392.01	16.389		
15,100.00	7,102.99	19,018.34	7,141.52	223.97	341.60	90.15	2,189.39	-3,303.50	6,497.02	6,107.33	389.69	16.672		
15,200.00	7,102.42	19,018.34	7,141.52	226.79	341.60	90.15	2,189.39	-3,303.50	6,569.99	6,182.61	387.38	16.960		
15,274.57	7,102.00	19,018.34	7,141.52	228.89	341.60	90.15	2,189.39	-3,303.50	6,624.86	6,239.20	385.66	17.178		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1,490.88	1,537.44	3.28	8.02	-116.92	-3,817.08	-7,518.72	8,571.17					
100.00	100.00	1,522.16	1,568.16	3.28	8.18	-116.90	-3,812.73	-7,514.78	8,553.62	8,542.79	10.83	790.022		
200.00	200.00	1,584.00	1,629.02	3.34	8.51	-116.87	-3,804.42	-7,507.65	8,537.01	8,525.89	11.12	767.458		
300.00	299.98	1,589.78	1,634.72	3.44	8.54	59.47	-3,803.66	-7,507.03	8,519.96	8,508.74	11.22	759.259		
400.00	399.84	1,707.60	1,750.69	3.59	9.15	59.89	-3,787.22	-7,494.33	8,501.35	8,489.47	11.87	715.959		
500.00	499.45	1,773.00	1,815.12	3.79	9.49	60.31	-3,778.36	-7,487.44	8,481.42	8,469.08	12.34	687.310		
600.00	598.70	1,857.23	1,898.18	4.03	9.93	60.80	-3,767.67	-7,478.44	8,460.11	8,447.18	12.93	654.136		
700.00	697.47	1,915.68	1,955.84	4.31	10.23	61.29	-3,760.36	-7,472.19	8,437.29	8,423.84	13.45	627.191		
800.00	795.62	2,111.32	2,148.75	4.64	11.25	62.06	-3,735.30	-7,451.49	8,413.15	8,398.52	14.63	575.008		
900.00	893.06	2,297.93	2,332.41	5.00	12.26	62.91	-3,711.80	-7,428.26	8,385.59	8,369.78	15.81	530.519		
1,000.00	989.64	2,503.55	2,534.26	5.40	13.41	63.90	-3,684.37	-7,400.31	8,355.13	8,338.02	17.11	488.413		
1,100.00	1,085.27	2,556.05	2,585.79	5.83	13.71	64.63	-3,677.48	-7,393.01	8,323.45	8,305.71	17.74	469.171		
1,200.00	1,179.88	2,875.96	2,898.93	6.29	15.58	65.90	-3,631.67	-7,346.51	8,289.74	8,270.10	19.63	422.208		
1,300.00	1,274.26	2,918.49	2,940.44	6.78	15.84	66.02	-3,625.11	-7,340.01	8,254.68	8,234.41	20.28	407.100		
1,400.00	1,368.63	2,961.33	2,982.32	7.28	16.09	66.14	-3,618.74	-7,333.59	8,220.25	8,199.31	20.94	392.519		
1,500.00	1,463.00	1,500.00	3,104.17	7.80	7.67	66.48	-3,601.20	-7,314.59	8,186.09	8,171.36	14.73	555.844		
1,600.00	1,557.38	3,156.98	3,173.65	8.33	17.26	66.67	-3,591.45	-7,303.17	8,151.57	8,128.76	22.81	357.291		
1,700.00	1,651.75	3,200.00	3,215.79	8.87	17.52	66.79	-3,585.82	-7,296.61	8,117.94	8,094.41	23.52	345.103		
1,800.00	1,746.12	3,309.52	3,323.08	9.41	18.16	67.09	-3,571.47	-7,279.96	8,084.62	8,060.08	24.54	329.505		
1,900.00	1,840.49	3,363.93	3,376.37	9.96	18.48	67.24	-3,564.30	-7,271.66	8,051.35	8,026.04	25.32	318.046		
2,000.00	1,934.87	3,391.00	3,402.90	10.52	18.64	67.32	-3,560.76	-7,267.61	8,018.68	7,992.69	25.98	308.606		
2,100.00	2,029.24	3,425.49	3,436.75	11.08	18.83	67.41	-3,556.27	-7,262.70	7,986.76	7,960.06	26.69	299.215		
2,200.00	2,123.61	3,448.52	3,459.38	11.64	18.96	67.48	-3,553.28	-7,259.68	7,955.75	7,928.39	27.36	290.800		
2,300.00	2,217.99	3,486.00	3,496.27	12.21	19.18	67.59	-3,548.41	-7,255.19	7,925.67	7,897.57	28.09	282.114		
2,400.00	2,312.36	2,400.00	3,567.34	12.78	13.18	67.80	-3,538.77	-7,246.79	7,896.07	7,872.51	23.56	335.138		
2,500.00	2,406.73	3,581.00	3,589.77	13.35	19.70	67.86	-3,535.72	-7,244.14	7,866.93	7,837.26	29.67	265.125		
2,600.00	2,501.10	3,631.29	3,639.26	13.93	19.98	68.01	-3,528.73	-7,238.63	7,838.31	7,807.83	30.48	257.131		
2,700.00	2,595.48	2,700.00	4,050.12	14.51	14.32	69.34	-3,461.36	-7,193.14	7,810.48	7,784.14	26.34	296.572		
2,800.00	2,689.85	4,113.38	4,111.95	15.08	22.76	69.54	-3,451.97	-7,184.23	7,779.15	7,745.29	33.86	229.747		
2,900.00	2,784.22	4,248.00	4,243.85	15.66	23.56	69.94	-3,434.10	-7,164.14	7,747.72	7,712.68	35.05	221.076		
3,000.00	2,878.60	4,296.98	4,291.79	16.25	23.84	70.08	-3,427.53	-7,156.58	7,716.33	7,680.46	35.87	215.121		
3,100.00	2,972.97	4,343.00	4,336.99	16.83	24.11	70.22	-3,421.63	-7,150.23	7,686.16	7,649.47	36.69	209.515		
3,200.00	3,067.34	4,343.00	4,336.99	17.41	24.11	70.22	-3,421.63	-7,150.23	7,656.64	7,619.33	37.31	205.220		
3,300.00	3,161.72	4,454.16	4,446.24	18.00	24.75	70.56	-3,407.03	-7,135.84	7,627.69	7,589.28	38.41	198.591		
3,400.00	3,256.09	4,487.28	4,478.80	18.58	24.93	70.66	-3,402.60	-7,131.71	7,599.15	7,559.97	39.18	193.948		
3,500.00	3,350.46	4,534.00	4,524.77	19.17	25.20	70.81	-3,396.44	-7,126.11	7,571.33	7,531.32	40.01	189.214		
3,600.00	3,444.83	4,599.18	4,588.98	19.75	25.56	71.01	-3,388.31	-7,118.42	7,544.09	7,503.17	40.92	184.340		
3,700.00	3,539.21	4,629.00	4,618.39	20.34	25.72	71.10	-3,384.85	-7,114.85	7,517.38	7,475.69	41.69	180.324		
3,800.00	3,633.58	4,672.81	4,661.64	20.93	25.96	71.23	-3,380.01	-7,109.84	7,491.42	7,448.91	42.51	176.236		
3,900.00	3,727.95	4,724.00	4,712.28	21.52	26.23	71.39	-3,374.61	-7,104.66	7,466.55	7,423.19	43.36	172.197		
4,000.00	3,822.33	4,758.03	4,745.98	22.11	26.40	71.49	-3,371.18	-7,101.39	7,442.35	7,398.20	44.14	168.604		
4,100.00	3,916.70	4,819.00	4,806.35	22.70	26.71	71.67	-3,365.26	-7,095.22	7,418.39	7,373.36	45.03	164.729		
4,200.00	4,011.07	4,878.36	4,865.17	23.29	27.01	71.84	-3,359.79	-7,089.37	7,394.99	7,349.07	45.92	161.045		
4,300.00	4,105.44	4,915.00	4,901.51	23.88	27.19	71.95	-3,356.55	-7,086.11	7,372.55	7,325.84	46.71	157.830		
4,400.00	4,199.82	4,958.64	4,944.85	24.47	27.40	72.08	-3,352.79	-7,082.50	7,350.91	7,303.38	47.53	154.651		
4,500.00	4,294.19	5,004.76	4,990.66	25.06	27.62	72.22	-3,348.88	-7,078.96	7,330.00	7,281.64	48.36	151.561		
4,600.00	4,388.56	5,051.00	5,036.62	25.65	27.84	72.36	-3,345.05	-7,075.67	7,309.83	7,260.63	49.20	148.586		
4,700.00	4,482.94	5,104.00	5,089.34	26.24	28.09	72.51	-3,340.74	-7,072.24	7,290.40	7,240.34	50.06	145.641		
4,800.00	4,577.31	5,104.00	5,089.34	26.83	28.09	72.51	-3,340.74	-7,072.24	7,271.91	7,221.22	50.70	143.443		
4,900.00	4,671.68	5,179.02	5,164.03	27.43	28.42	72.74	-3,335.22	-7,068.00	7,253.88	7,202.25	51.64	140.475		
5,000.00	4,766.05	5,219.83	5,204.71	28.02	28.60	72.85	-3,332.64	-7,066.00	7,236.86	7,184.42	52.44	138.000		
5,100.00	4,860.43	5,294.00	5,278.71	28.61	28.92	73.07	-3,328.70	-7,062.91	7,220.83	7,167.45	53.38	135.270		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	5,294.00	5,278.71	29.20	28.92	73.07	-3,328.70	-7,062.91	7,205.30	7,151.29	54.01	133.401		
5,300.00	5,049.17	5,367.31	5,351.91	29.80	29.21	73.27	-3,325.49	-7,060.35	7,190.55	7,135.62	54.93	130.894		
5,400.00	5,143.55	5,428.69	5,413.21	30.39	29.46	73.44	-3,323.11	-7,058.44	7,176.40	7,120.59	55.81	128.591		
5,500.00	5,237.92	5,490.30	5,474.76	30.99	29.70	73.61	-3,321.00	-7,056.73	7,162.81	7,106.13	56.68	126.367		
5,600.00	5,332.29	5,579.00	5,563.40	31.58	30.05	73.85	-3,318.45	-7,054.63	7,149.87	7,092.20	57.67	123.986		
5,700.00	5,426.66	5,613.91	5,598.29	32.17	30.18	73.95	-3,317.59	-7,053.92	7,137.34	7,078.91	58.43	122.157		
5,800.00	5,521.04	5,675.60	5,659.96	32.77	30.41	74.12	-3,316.25	-7,052.86	7,125.46	7,066.17	59.29	120.174		
5,900.00	5,615.41	5,737.47	5,721.80	33.36	30.64	74.28	-3,315.10	-7,052.04	7,114.15	7,054.00	60.16	118.257		
6,000.00	5,709.78	5,799.50	5,783.83	33.96	30.87	74.45	-3,314.17	-7,051.44	7,103.42	7,042.40	61.02	116.404		
6,100.00	5,804.16	5,864.00	5,848.32	34.55	31.11	74.62	-3,313.43	-7,051.07	7,093.26	7,031.36	61.90	114.595		
6,200.00	5,898.53	5,932.37	5,916.69	35.14	31.34	74.80	-3,312.77	-7,050.92	7,083.61	7,020.83	62.78	112.833		
6,300.00	5,992.90	6,003.39	5,987.71	35.74	31.59	74.99	-3,312.13	-7,051.00	7,074.42	7,010.75	63.67	111.110		
6,400.00	6,087.27	6,074.44	6,058.76	36.33	31.84	75.18	-3,311.51	-7,051.30	7,065.69	7,001.13	64.56	109.442		
6,500.00	6,181.65	6,151.00	6,135.31	36.93	32.11	75.39	-3,310.89	-7,051.88	7,057.42	6,991.95	65.47	107.791		
6,600.00	6,276.02	6,246.41	6,230.71	37.52	32.45	75.64	-3,310.07	-7,052.72	7,049.42	6,982.96	66.46	106.067		
6,700.00	6,370.39	6,349.66	6,333.95	38.12	32.81	75.92	-3,309.01	-7,053.54	7,041.46	6,973.97	67.48	104.346		
6,800.00	6,464.77	6,452.78	6,437.07	38.71	33.17	76.20	-3,307.80	-7,054.24	7,033.53	6,965.02	68.50	102.677		
6,900.00	6,559.14	6,531.72	6,516.00	39.31	33.45	76.20	-3,306.79	-7,054.86	7,025.81	6,956.38	69.43	101.191		
7,000.00	6,652.92	6,613.39	6,597.66	39.90	33.75	76.20	-3,305.71	-7,055.63	7,010.60	6,940.25	70.35	99.647		
7,100.00	6,744.00	6,692.87	6,677.12	40.44	34.03	76.57	-3,304.61	-7,056.53	6,980.61	6,909.40	71.21	98.022		
7,200.00	6,830.13	6,759.20	6,743.44	40.94	34.27	76.90	-3,303.69	-7,057.41	6,936.55	6,864.60	71.95	96.407		
7,300.00	6,909.19	6,814.96	6,799.19	41.37	34.46	77.20	-3,303.01	-7,058.33	6,879.56	6,806.98	72.57	94.796		
7,400.00	6,979.23	6,864.90	6,849.12	41.75	34.63	77.50	-3,302.48	-7,059.30	6,810.92	6,737.82	73.10	93.176		
7,500.00	7,038.53	6,907.78	6,891.99	42.08	34.78	77.80	-3,302.10	-7,060.25	6,732.22	6,658.70	73.52	91.572		
7,600.00	7,085.63	6,942.51	6,926.70	42.37	34.91	78.10	-3,301.83	-7,061.10	6,645.27	6,571.45	73.83	90.012		
7,700.00	7,119.37	6,968.14	6,952.32	42.64	35.00	78.40	-3,301.66	-7,061.77	6,552.14	6,478.13	74.02	88.520		
7,800.00	7,138.92	6,983.95	6,968.13	42.91	35.05	78.70	-3,301.56	-7,062.20	6,455.06	6,380.96	74.10	87.116		
7,900.00	7,143.92	6,989.52	6,973.69	43.25	35.07	79.00	-3,301.53	-7,062.35	6,356.39	6,282.32	74.07	85.812		
8,000.00	7,143.35	7,010.00	6,994.17	43.72	35.14	79.30	-3,301.42	-7,062.94	6,257.72	6,183.63	74.09	84.463		
8,100.00	7,142.78	7,010.00	6,994.17	44.42	35.14	79.60	-3,301.42	-7,062.94	6,159.04	6,085.02	74.03	83.199		
8,200.00	7,142.22	7,010.00	6,994.17	45.39	35.14	79.90	-3,301.42	-7,062.94	6,060.41	5,986.44	73.97	81.928		
8,300.00	7,141.65	7,010.00	6,994.17	46.63	35.14	80.20	-3,301.42	-7,062.94	5,961.83	5,887.90	73.92	80.649		
8,400.00	7,141.08	7,010.00	6,994.17	48.09	35.14	80.50	-3,301.42	-7,062.94	5,863.29	5,789.41	73.88	79.362		
8,500.00	7,140.51	7,010.00	6,994.17	49.74	35.14	80.80	-3,301.42	-7,062.94	5,764.80	5,690.95	73.84	78.067		
8,600.00	7,139.94	7,010.00	6,994.17	51.53	35.14	81.10	-3,301.42	-7,062.94	5,666.36	5,592.55	73.82	76.763		
8,700.00	7,139.37	7,010.00	6,994.17	53.44	35.14	81.40	-3,301.42	-7,062.94	5,567.98	5,494.19	73.80	75.450		
8,800.00	7,138.80	7,010.00	6,994.17	55.45	35.14	81.70	-3,301.42	-7,062.94	5,469.66	5,395.88	73.79	74.128		
8,900.00	7,138.24	7,010.00	6,994.17	57.55	35.14	82.00	-3,301.42	-7,062.94	5,371.40	5,297.62	73.79	72.795		
9,000.00	7,137.67	7,010.00	6,994.17	59.71	35.14	82.30	-3,301.42	-7,062.94	5,273.21	5,199.41	73.80	71.452		
9,100.00	7,137.10	7,010.00	6,994.17	61.94	35.14	82.60	-3,301.42	-7,062.94	5,175.09	5,101.26	73.83	70.098		
9,200.00	7,136.53	7,011.97	6,996.14	64.22	35.15	82.90	-3,301.41	-7,063.00	5,077.04	5,003.16	73.87	68.725		
9,300.00	7,135.96	7,014.23	6,998.39	66.55	35.16	83.20	-3,301.40	-7,063.07	4,979.06	4,905.12	73.94	67.341		
9,400.00	7,135.39	7,016.50	7,000.66	68.92	35.17	83.50	-3,301.39	-7,063.13	4,881.17	4,807.15	74.02	65.944		
9,500.00	7,134.83	7,018.78	7,002.94	71.33	35.17	83.80	-3,301.37	-7,063.20	4,783.36	4,709.24	74.12	64.535		
9,600.00	7,134.26	7,021.08	7,005.24	73.77	35.18	84.10	-3,301.36	-7,063.27	4,685.64	4,611.40	74.24	63.112		
9,700.00	7,133.69	7,023.38	7,007.54	76.24	35.19	84.40	-3,301.35	-7,063.34	4,588.02	4,513.63	74.39	61.676		
9,800.00	7,133.12	7,025.70	7,009.86	78.74	35.20	84.70	-3,301.33	-7,063.40	4,490.51	4,415.95	74.56	60.225		
9,900.00	7,132.55	7,028.03	7,012.19	81.27	35.21	85.00	-3,301.32	-7,063.47	4,393.10	4,318.34	74.76	58.760		
10,000.00	7,131.98	7,030.38	7,014.53	83.81	35.21	85.30	-3,301.30	-7,063.54	4,295.81	4,220.82	75.00	57.280		
10,100.00	7,131.42	7,032.74	7,016.89	86.38	35.22	85.60	-3,301.29	-7,063.61	4,198.65	4,123.39	75.26	55.785		
10,200.00	7,130.85	7,035.11	7,019.26	88.96	35.23	85.90	-3,301.27	-7,063.69	4,101.63	4,026.05	75.57	54.274		
10,300.00	7,130.28	7,037.49	7,021.64	91.56	35.24	86.20	-3,301.25	-7,063.76	4,004.74	3,928.82	75.92	52.747		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21-4(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 172-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,129.71	7,039.89	7,024.04	94.18	35.25	-85.19	-3,301.23	-7,063.83	3,908.02	3,831.70	76.32	51.205	
10,500.00	7,129.14	7,042.30	7,026.45	96.81	35.26	-85.33	-3,301.21	-7,063.90	3,811.46	3,734.69	76.77	49.646	
10,600.00	7,128.57	7,044.72	7,028.87	99.45	35.26	-85.46	-3,301.19	-7,063.97	3,715.08	3,637.80	77.28	48.072	
10,700.00	7,128.00	7,047.16	7,031.31	102.11	35.27	-85.60	-3,301.17	-7,064.05	3,618.90	3,541.04	77.86	46.482	
10,800.00	7,127.44	7,049.61	7,033.76	104.77	35.28	-85.74	-3,301.15	-7,064.12	3,522.93	3,444.43	78.50	44.878	
10,900.00	7,126.87	7,052.08	7,036.22	107.45	35.29	-85.88	-3,301.13	-7,064.20	3,427.18	3,347.96	79.22	43.260	
11,000.00	7,126.30	7,054.56	7,038.70	110.13	35.30	-86.02	-3,301.11	-7,064.27	3,331.69	3,251.66	80.03	41.630	
11,100.00	7,125.73	7,057.05	7,041.19	112.82	35.31	-86.17	-3,301.09	-7,064.35	3,236.46	3,155.53	80.93	39.989	
11,200.00	7,125.16	7,059.56	7,043.70	115.53	35.32	-86.31	-3,301.06	-7,064.43	3,141.53	3,059.59	81.94	38.339	
11,300.00	7,124.59	7,062.08	7,046.22	118.24	35.33	-86.45	-3,301.04	-7,064.50	3,046.93	2,963.86	83.07	36.681	
11,400.00	7,124.03	7,064.61	7,048.75	120.95	35.33	-86.60	-3,301.01	-7,064.58	2,952.67	2,868.36	84.32	35.019	
11,500.00	7,123.46	7,067.17	7,051.30	123.67	35.34	-86.74	-3,300.99	-7,064.66	2,858.81	2,773.10	85.71	33.356	
11,600.00	7,122.89	7,069.73	7,053.87	126.40	35.35	-86.89	-3,300.96	-7,064.74	2,765.37	2,678.12	87.25	31.695	
11,700.00	7,122.32	7,072.31	7,056.45	129.14	35.36	-87.04	-3,300.93	-7,064.82	2,672.40	2,583.44	88.96	30.040	
11,800.00	7,121.75	7,074.91	7,059.04	131.88	35.37	-87.18	-3,300.91	-7,064.90	2,579.96	2,489.09	90.86	28.394	
11,900.00	7,121.18	7,077.52	7,061.65	134.62	35.38	-87.33	-3,300.88	-7,064.98	2,488.10	2,395.13	92.97	26.762	
12,000.00	7,120.61	7,080.14	7,064.27	137.37	35.39	-87.48	-3,300.85	-7,065.06	2,396.89	2,301.58	95.30	25.150	
12,100.00	7,120.05	7,082.78	7,066.91	140.12	35.40	-87.63	-3,300.82	-7,065.15	2,306.40	2,208.51	97.89	23.562	
12,200.00	7,119.48	7,085.44	7,069.57	142.88	35.41	-87.79	-3,300.79	-7,065.23	2,216.73	2,115.98	100.74	22.004	
12,300.00	7,118.91	7,088.11	7,072.24	145.64	35.42	-87.94	-3,300.75	-7,065.31	2,127.97	2,024.07	103.90	20.480	
12,400.00	7,118.34	7,090.80	7,074.92	148.41	35.43	-88.09	-3,300.72	-7,065.40	2,040.26	1,932.86	107.40	18.997	
12,500.00	7,117.77	7,093.50	7,077.62	151.18	35.44	-88.25	-3,300.69	-7,065.48	1,953.72	1,842.46	111.26	17.560	
12,600.00	7,117.20	7,096.22	7,080.34	153.95	35.45	-88.40	-3,300.65	-7,065.57	1,868.52	1,753.00	115.52	16.175	
12,700.00	7,116.64	7,098.96	7,083.08	156.73	35.46	-88.56	-3,300.62	-7,065.66	1,784.85	1,664.63	120.22	14.846	
12,800.00	7,116.07	7,101.71	7,085.83	159.50	35.46	-88.72	-3,300.58	-7,065.75	1,702.94	1,577.55	125.40	13.580	
12,900.00	7,115.50	7,104.48	7,088.59	162.29	35.47	-88.87	-3,300.54	-7,065.83	1,623.06	1,491.97	131.09	12.381	
13,000.00	7,114.93	7,107.26	7,091.37	165.07	35.48	-89.03	-3,300.50	-7,065.92	1,545.52	1,408.18	137.33	11.254	
13,100.00	7,114.36	7,110.06	7,094.17	167.86	35.49	-89.19	-3,300.46	-7,066.01	1,470.68	1,326.53	144.15	10.202	
13,200.00	7,113.79	7,112.88	7,096.99	170.64	35.50	-89.36	-3,300.42	-7,066.10	1,398.98	1,247.42	151.56	9.231	
13,300.00	7,113.22	7,115.72	7,099.83	173.44	35.51	-89.52	-3,300.38	-7,066.19	1,330.94	1,171.38	159.56	8.341	
13,400.00	7,112.66	7,118.57	7,102.68	176.23	35.52	-89.68	-3,300.34	-7,066.29	1,267.14	1,099.04	168.10	7.538	
13,500.00	7,112.09	7,121.44	7,105.54	179.02	35.53	-89.85	-3,300.30	-7,066.38	1,208.24	1,031.14	177.10	6.822	
13,600.00	7,111.52	7,124.33	7,108.43	181.82	35.54	-90.01	-3,300.25	-7,066.47	1,155.01	968.59	186.42	6.196	
13,700.00	7,110.95	7,127.23	7,111.33	184.62	35.55	-90.18	-3,300.21	-7,066.57	1,108.26	912.42	195.84	5.659	
13,800.00	7,110.38	7,130.15	7,114.25	187.42	35.56	-90.35	-3,300.16	-7,066.66	1,068.84	863.79	205.05	5.213	
13,900.00	7,109.81	7,133.09	7,117.19	190.22	35.58	-90.51	-3,300.11	-7,066.76	1,037.58	823.90	213.68	4.856	
14,000.00	7,109.25	7,136.05	7,120.15	193.03	35.59	-90.68	-3,300.06	-7,066.86	1,015.24	793.92	221.32	4.587	
14,100.00	7,108.68	7,139.03	7,123.13	195.84	35.60	-90.85	-3,300.01	-7,066.96	1,002.41	774.85	227.56	4.405	
14,179.49	7,108.23	7,141.41	7,125.50	198.07	35.60	-90.99	-3,299.97	-7,067.03	999.26	767.94	231.31	4.320 CC	
14,200.00	7,108.11	7,142.03	7,126.12	198.64	35.61	-91.03	-3,299.96	-7,067.05	999.47	767.38	232.09	4.306 ES	
14,300.00	7,107.54	7,145.04	7,129.13	201.45	35.62	-91.20	-3,299.91	-7,067.15	1,006.49	771.77	234.73	4.288 SF	
14,400.00	7,106.97	7,148.08	7,132.16	204.26	35.63	-91.37	-3,299.86	-7,067.25	1,023.28	787.83	235.45	4.346	
14,500.00	7,106.40	7,151.13	7,135.21	207.07	35.64	-91.55	-3,299.80	-7,067.36	1,049.36	814.94	234.42	4.476	
14,600.00	7,105.83	7,154.20	7,138.28	209.89	35.65	-91.72	-3,299.75	-7,067.46	1,084.07	852.18	231.89	4.675	
14,700.00	7,105.27	7,157.29	7,141.37	212.70	35.66	-91.90	-3,299.69	-7,067.56	1,126.60	898.40	228.20	4.937	
14,800.00	7,104.70	7,160.40	7,144.48	215.52	35.67	-92.08	-3,299.63	-7,067.67	1,176.11	952.43	223.68	5.258	
14,900.00	7,104.13	7,163.53	7,147.61	218.33	35.68	-92.26	-3,299.57	-7,067.77	1,231.75	1,013.12	218.63	5.634	
15,000.00	7,103.56	7,166.68	7,150.76	221.15	35.69	-92.44	-3,299.51	-7,067.88	1,292.74	1,079.43	213.31	6.060	
15,100.00	7,102.99	7,169.85	7,153.93	223.97	35.70	-92.62	-3,299.45	-7,067.98	1,358.36	1,150.45	207.90	6.534	
15,200.00	7,102.42	7,173.04	7,157.11	226.79	35.72	-92.80	-3,299.39	-7,068.09	1,427.96	1,225.41	202.55	7.050	
15,274.57	7,102.00	7,175.44	7,159.51	228.89	35.72	-92.94	-3,299.34	-7,068.17	1,482.13	1,283.47	198.66	7.461	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	66.00	3.28	3.28	-117.40	-3,970.82	-7,660.68	8,628.89					
100.00	100.00	34.00	100.00	3.28	3.33	-117.40	-3,970.82	-7,660.68	8,628.64	8,622.02	6.62	1,303.818		
200.00	200.00	134.00	200.00	3.34	4.40	-117.40	-3,970.82	-7,660.68	8,628.64	8,620.90	7.74	1,115.279		
300.00	299.98	233.98	299.98	3.44	7.21	58.67	-3,970.82	-7,660.68	8,627.73	8,617.08	10.65	810.017		
400.00	399.84	333.84	399.84	3.59	10.44	58.75	-3,970.82	-7,660.68	8,625.01	8,610.98	14.03	614.891		
500.00	499.45	433.45	499.45	3.79	13.78	58.87	-3,970.82	-7,660.68	8,620.49	8,602.91	17.57	490.635		
600.00	598.70	532.70	598.70	4.03	17.17	59.05	-3,970.82	-7,660.68	8,614.17	8,592.97	21.20	406.373		
700.00	697.47	631.47	697.47	4.31	20.56	59.28	-3,970.82	-7,660.68	8,606.07	8,581.20	24.88	345.969		
800.00	795.62	729.62	795.62	4.64	23.95	59.56	-3,970.82	-7,660.68	8,596.23	8,567.65	28.58	300.736		
900.00	893.06	827.06	893.06	5.00	27.32	59.88	-3,970.82	-7,660.68	8,584.67	8,552.36	32.31	265.687		
1,000.00	989.64	923.64	989.64	5.40	30.67	60.26	-3,970.82	-7,660.68	8,571.42	8,535.37	36.05	237.779		
1,100.00	1,085.27	1,019.27	1,085.27	5.83	34.00	60.69	-3,970.82	-7,660.68	8,556.52	8,516.73	39.79	215.061		
1,200.00	1,179.88	1,113.88	1,179.88	6.29	37.28	61.06	-3,970.82	-7,660.68	8,540.11	8,496.59	43.52	196.226		
1,300.00	1,274.26	1,208.26	1,274.26	6.78	40.57	61.25	-3,970.82	-7,660.68	8,523.44	8,476.17	47.27	180.314		
1,400.00	1,368.63	1,302.63	1,368.63	7.28	43.85	61.43	-3,970.82	-7,660.68	8,506.86	8,455.83	51.04	166.682		
1,500.00	1,463.00	1,403.00	1,463.00	7.80	47.35	61.62	-3,970.82	-7,660.68	8,490.39	8,435.36	55.03	154.297		
1,600.00	1,557.38	1,508.62	1,557.38	8.33	51.03	61.81	-3,970.82	-7,660.68	8,474.00	8,414.79	59.21	143.114		
1,700.00	1,651.75	1,585.75	1,651.75	8.87	53.71	62.00	-3,970.82	-7,660.68	8,457.72	8,395.30	62.41	135.510		
1,800.00	1,746.12	1,680.12	1,746.12	9.41	57.00	62.19	-3,970.82	-7,660.68	8,441.53	8,375.31	66.23	127.465		
1,900.00	1,840.49	1,774.49	1,840.49	9.96	60.29	62.38	-3,970.82	-7,660.68	8,425.44	8,355.40	70.05	120.286		
2,000.00	1,934.87	1,868.87	1,934.87	10.52	63.58	62.57	-3,970.82	-7,660.68	8,409.46	8,335.58	73.87	113.840		
2,100.00	2,029.24	1,963.24	2,029.24	11.08	66.87	62.76	-3,970.82	-7,660.68	8,393.57	8,315.87	77.70	108.023		
2,200.00	2,123.61	2,057.61	2,123.61	11.64	70.16	62.95	-3,970.82	-7,660.68	8,377.78	8,296.24	81.54	102.748		
2,300.00	2,217.99	2,151.99	2,217.99	12.21	73.45	63.14	-3,970.82	-7,660.68	8,362.09	8,276.71	85.38	97.943		
2,400.00	2,312.36	2,246.36	2,312.36	12.78	76.75	63.34	-3,970.82	-7,660.68	8,346.51	8,257.28	89.22	93.549		
2,500.00	2,406.73	2,340.73	2,406.73	13.35	80.04	63.53	-3,970.82	-7,660.68	8,331.02	8,237.95	93.07	89.516		
2,600.00	2,501.10	2,435.10	2,501.10	13.93	83.33	63.73	-3,970.82	-7,660.68	8,315.64	8,218.72	96.92	85.802		
2,700.00	2,595.48	2,529.48	2,595.48	14.51	86.62	63.92	-3,970.82	-7,660.68	8,300.36	8,199.59	100.77	82.370		
2,800.00	2,689.85	2,623.85	2,689.85	15.08	89.91	64.12	-3,970.82	-7,660.68	8,285.19	8,180.57	104.62	79.190		
2,900.00	2,784.22	2,718.22	2,784.22	15.66	93.21	64.31	-3,970.82	-7,660.68	8,270.12	8,161.64	108.48	76.235		
3,000.00	2,878.60	2,812.60	2,878.60	16.25	96.50	64.51	-3,970.82	-7,660.68	8,255.16	8,142.82	112.34	73.483		
3,100.00	2,972.97	2,906.97	2,972.97	16.83	99.79	64.71	-3,970.82	-7,660.68	8,240.30	8,124.10	116.20	70.914		
3,200.00	3,067.34	3,001.34	3,067.34	17.41	103.08	64.91	-3,970.82	-7,660.68	8,225.54	8,105.48	120.06	68.510		
3,300.00	3,161.72	3,104.29	3,161.72	18.00	106.68	65.11	-3,970.82	-7,660.68	8,210.90	8,086.67	124.23	66.096		
3,400.00	3,256.09	3,209.91	3,256.09	18.58	110.36	65.31	-3,970.82	-7,660.68	8,196.36	8,067.87	128.49	63.792		
3,500.00	3,350.46	3,284.46	3,350.46	19.17	112.96	65.51	-3,970.82	-7,660.68	8,181.93	8,050.27	131.66	62.143		
3,600.00	3,444.83	3,378.83	3,444.83	19.75	116.26	65.71	-3,970.82	-7,660.68	8,167.61	8,032.08	135.53	60.264		
3,700.00	3,539.21	3,473.21	3,539.21	20.34	119.55	65.91	-3,970.82	-7,660.68	8,153.39	8,013.99	139.40	58.489		
3,800.00	3,633.58	3,567.58	3,633.58	20.93	122.84	66.11	-3,970.82	-7,660.68	8,139.29	7,996.02	143.27	56.810		
3,900.00	3,727.95	3,661.95	3,727.95	21.52	126.14	66.32	-3,970.82	-7,660.68	8,125.30	7,978.15	147.14	55.220		
4,000.00	3,822.33	3,756.33	3,822.33	22.11	129.43	66.52	-3,970.82	-7,660.68	8,111.41	7,960.39	151.02	53.712		
4,100.00	3,916.70	3,850.70	3,916.70	22.70	132.72	66.73	-3,970.82	-7,660.68	8,097.64	7,942.75	154.89	52.279		
4,200.00	4,011.07	3,945.07	4,011.07	23.29	136.02	66.93	-3,970.82	-7,660.68	8,083.98	7,925.21	158.77	50.917		
4,300.00	4,105.44	4,039.44	4,105.44	23.88	139.31	67.14	-3,970.82	-7,660.68	8,070.43	7,907.79	162.64	49.620		
4,400.00	4,199.82	4,133.82	4,199.82	24.47	142.60	67.34	-3,970.82	-7,660.68	8,057.00	7,890.48	166.52	48.384		
4,500.00	4,294.19	4,228.19	4,294.19	25.06	145.90	67.55	-3,970.82	-7,660.68	8,043.68	7,873.28	170.40	47.205		
4,600.00	4,388.56	4,322.56	4,388.56	25.65	149.19	67.76	-3,970.82	-7,660.68	8,030.47	7,856.19	174.28	46.078		
4,700.00	4,482.94	4,416.94	4,482.94	26.24	152.49	67.97	-3,970.82	-7,660.68	8,017.38	7,839.22	178.16	45.001		
4,800.00	4,577.31	4,511.31	4,577.31	26.83	155.78	68.18	-3,970.82	-7,660.68	8,004.40	7,822.36	182.04	43.970		
4,900.00	4,671.68	4,605.68	4,671.68	27.43	159.07	68.38	-3,970.82	-7,660.68	7,991.54	7,805.62	185.92	42.983		
5,000.00	4,766.05	4,700.05	4,766.05	28.02	162.37	68.59	-3,970.82	-7,660.68	7,978.79	7,788.99	189.81	42.037		
5,100.00	4,860.43	4,805.57	4,860.43	28.61	166.05	68.81	-3,970.82	-7,660.68	7,966.17	7,772.09	194.08	41.046		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,888.80	4,954.80	29.20	168.95	69.02	-3,970.82	-7,660.68	7,953.66	7,756.08	197.57	40.257		
5,300.00	5,049.17	4,983.17	5,049.17	29.80	172.25	69.23	-3,970.82	-7,660.68	7,941.26	7,739.81	201.46	39.419		
5,400.00	5,143.55	5,077.55	5,143.55	30.39	175.54	69.44	-3,970.82	-7,660.68	7,928.99	7,723.65	205.34	38.613		
5,500.00	5,237.92	5,171.92	5,237.92	30.99	178.84	69.65	-3,970.82	-7,660.68	7,916.84	7,707.61	209.23	37.838		
5,600.00	5,332.29	5,266.29	5,332.29	31.58	182.13	69.87	-3,970.82	-7,660.68	7,904.80	7,691.68	213.12	37.092		
5,700.00	5,426.66	5,360.66	5,426.66	32.17	185.42	70.08	-3,970.82	-7,660.68	7,892.89	7,675.88	217.00	36.372		
5,800.00	5,521.04	5,455.04	5,521.04	32.77	188.72	70.30	-3,970.82	-7,660.68	7,881.09	7,660.20	220.89	35.679		
5,900.00	5,615.41	5,549.41	5,615.41	33.36	192.01	70.51	-3,970.82	-7,660.68	7,869.42	7,644.64	224.78	35.010		
6,000.00	5,709.78	5,643.78	5,709.78	33.96	195.31	70.73	-3,970.82	-7,660.68	7,857.87	7,629.20	228.67	34.364		
6,100.00	5,804.16	5,738.16	5,804.16	34.55	198.60	70.94	-3,970.82	-7,660.68	7,846.44	7,613.88	232.56	33.740		
6,200.00	5,898.53	5,832.53	5,898.53	35.14	201.90	71.16	-3,970.82	-7,660.68	7,835.13	7,598.69	236.45	33.137		
6,300.00	5,992.90	5,926.90	5,992.90	35.74	205.19	71.38	-3,970.82	-7,660.68	7,823.95	7,583.61	240.34	32.554		
6,400.00	6,087.27	6,021.27	6,087.27	36.33	208.48	71.60	-3,970.82	-7,660.68	7,812.89	7,568.66	244.23	31.990		
6,500.00	6,181.65	6,115.65	6,181.65	36.93	211.78	71.82	-3,970.82	-7,660.68	7,801.96	7,553.84	248.12	31.444		
6,600.00	6,276.02	6,210.02	6,276.02	37.52	215.07	72.04	-3,970.82	-7,660.68	7,791.15	7,539.14	252.01	30.916		
6,700.00	6,370.39	6,304.39	6,370.39	38.12	218.37	72.26	-3,970.82	-7,660.68	7,780.47	7,524.56	255.91	30.403		
6,800.00	6,464.77	6,401.23	6,464.77	38.71	221.75	72.48	-3,970.82	-7,660.68	7,769.91	7,510.02	259.89	29.897		
6,900.00	6,559.14	6,506.86	6,559.14	39.31	225.43	72.48	-3,970.82	-7,660.68	7,759.48	7,495.31	264.17	29.373		
7,000.00	6,652.92	6,586.92	6,652.92	39.90	228.23	49.07	-3,970.82	-7,660.68	7,741.49	7,473.94	267.55	28.935		
7,100.00	6,744.00	6,678.00	6,744.00	40.44	231.41	32.41	-3,970.82	-7,660.68	7,708.85	7,437.59	271.26	28.419		
7,200.00	6,830.13	6,764.13	6,830.13	40.94	234.41	21.33	-3,970.82	-7,660.68	7,662.30	7,387.58	274.72	27.891		
7,300.00	6,909.19	6,843.19	6,909.19	41.37	237.17	13.31	-3,970.82	-7,660.68	7,602.96	7,325.09	277.86	27.362		
7,400.00	6,979.23	6,913.23	6,979.23	41.75	239.62	6.51	-3,970.82	-7,660.68	7,532.25	7,251.63	280.62	26.842		
7,500.00	7,038.53	6,972.53	7,038.53	42.08	241.69	-0.65	-3,970.82	-7,660.68	7,451.90	7,168.98	282.92	26.339		
7,600.00	7,085.63	7,019.63	7,085.63	42.37	243.33	-10.27	-3,970.82	-7,660.68	7,363.88	7,079.17	284.71	25.865		
7,700.00	7,119.37	7,053.37	7,119.37	42.64	244.51	-26.63	-3,970.82	-7,660.68	7,270.36	6,984.40	285.95	25.425		
7,800.00	7,138.92	7,072.92	7,138.92	42.91	245.19	-57.42	-3,970.82	-7,660.68	7,173.67	6,887.04	286.63	25.027		
7,900.00	7,143.92	7,077.92	7,143.92	43.25	245.37	-91.34	-3,970.82	-7,660.68	7,076.22	6,789.48	286.75	24.678		
8,000.00	7,143.35	7,077.35	7,143.35	43.72	245.35	-91.32	-3,970.82	-7,660.68	6,979.08	6,692.42	286.66	24.346		
8,100.00	7,142.78	7,076.78	7,142.78	44.42	245.33	-91.30	-3,970.82	-7,660.68	6,882.01	6,595.43	286.58	24.014		
8,200.00	7,142.22	7,076.22	7,142.22	45.39	245.31	-91.29	-3,970.82	-7,660.68	6,785.03	6,498.51	286.52	23.681		
8,300.00	7,141.65	7,075.65	7,141.65	46.63	245.29	-91.27	-3,970.82	-7,660.68	6,688.14	6,401.67	286.47	23.346		
8,400.00	7,141.08	7,075.08	7,141.08	48.09	245.27	-91.25	-3,970.82	-7,660.68	6,591.34	6,304.90	286.44	23.011		
8,500.00	7,140.51	7,074.51	7,140.51	49.74	245.25	-91.23	-3,970.82	-7,660.68	6,494.64	6,208.21	286.43	22.675		
8,600.00	7,139.94	7,073.94	7,139.94	51.53	245.23	-91.21	-3,970.82	-7,660.68	6,398.04	6,111.61	286.43	22.337		
8,700.00	7,139.37	7,073.37	7,139.37	53.44	245.21	-91.19	-3,970.82	-7,660.68	6,301.55	6,015.09	286.46	21.998		
8,800.00	7,138.80	7,072.80	7,138.80	55.45	245.19	-91.17	-3,970.82	-7,660.68	6,205.17	5,918.66	286.51	21.658		
8,900.00	7,138.24	7,072.24	7,138.24	57.55	245.17	-91.15	-3,970.82	-7,660.68	6,108.90	5,822.32	286.58	21.317		
9,000.00	7,137.67	7,071.67	7,137.67	59.71	245.15	-91.13	-3,970.82	-7,660.68	6,012.76	5,726.08	286.68	20.974		
9,100.00	7,137.10	7,071.10	7,137.10	61.94	245.13	-91.11	-3,970.82	-7,660.68	5,916.74	5,629.93	286.80	20.630		
9,200.00	7,136.53	7,070.53	7,136.53	64.22	245.11	-91.09	-3,970.82	-7,660.68	5,820.86	5,533.89	286.96	20.284		
9,300.00	7,135.96	7,069.96	7,135.96	66.55	245.09	-91.07	-3,970.82	-7,660.68	5,725.11	5,437.96	287.15	19.938		
9,400.00	7,135.39	7,069.39	7,135.39	68.92	245.07	-91.05	-3,970.82	-7,660.68	5,629.52	5,342.14	287.38	19.589		
9,500.00	7,134.83	7,068.83	7,134.83	71.33	245.05	-91.03	-3,970.82	-7,660.68	5,534.08	5,246.44	287.64	19.240		
9,600.00	7,134.26	7,068.26	7,134.26	73.77	245.03	-91.01	-3,970.82	-7,660.68	5,438.81	5,150.86	287.95	18.888		
9,700.00	7,133.69	7,067.69	7,133.69	76.24	245.01	-90.99	-3,970.82	-7,660.68	5,343.71	5,055.41	288.30	18.535		
9,800.00	7,133.12	7,067.12	7,133.12	78.74	244.99	-90.97	-3,970.82	-7,660.68	5,248.79	4,960.09	288.69	18.181		
9,900.00	7,132.55	7,066.55	7,132.55	81.27	244.97	-90.95	-3,970.82	-7,660.68	5,154.06	4,864.92	289.14	17.825		
10,000.00	7,131.98	7,065.98	7,131.98	83.81	244.95	-90.93	-3,970.82	-7,660.68	5,059.53	4,769.89	289.64	17.468		
10,100.00	7,131.42	7,065.42	7,131.42	86.38	244.93	-90.91	-3,970.82	-7,660.68	4,965.22	4,675.02	290.20	17.109		
10,200.00	7,130.85	7,064.85	7,130.85	88.96	244.91	-90.89	-3,970.82	-7,660.68	4,871.14	4,580.31	290.83	16.749		
10,300.00	7,130.28	7,064.28	7,130.28	91.56	244.89	-90.88	-3,970.82	-7,660.68	4,777.30	4,485.78	291.51	16.388		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,063.71	7,129.71	94.18	244.87	-90.86	-3,970.82	-7,660.68	4,683.71	4,391.43	292.27	16.025		
10,500.00	7,129.14	7,063.14	7,129.14	96.81	244.85	-90.84	-3,970.82	-7,660.68	4,590.39	4,297.28	293.11	15.661		
10,600.00	7,128.57	7,062.57	7,128.57	99.45	244.83	-90.82	-3,970.82	-7,660.68	4,497.36	4,203.34	294.02	15.296		
10,700.00	7,128.00	7,062.00	7,128.00	102.11	244.81	-90.80	-3,970.82	-7,660.68	4,404.63	4,109.62	295.01	14.930		
10,800.00	7,127.44	7,061.44	7,127.44	104.77	244.79	-90.78	-3,970.82	-7,660.68	4,312.23	4,016.13	296.10	14.563		
10,900.00	7,126.87	7,060.87	7,126.87	107.45	244.77	-90.76	-3,970.82	-7,660.68	4,220.18	3,922.90	297.28	14.196		
11,000.00	7,126.30	7,060.30	7,126.30	110.13	244.75	-90.74	-3,970.82	-7,660.68	4,128.49	3,829.93	298.56	13.828		
11,100.00	7,125.73	7,059.73	7,125.73	112.82	244.73	-90.72	-3,970.82	-7,660.68	4,037.20	3,737.26	299.94	13.460		
11,200.00	7,125.16	7,059.16	7,125.16	115.53	244.71	-90.70	-3,970.82	-7,660.68	3,946.34	3,644.90	301.44	13.092		
11,300.00	7,124.59	7,058.59	7,124.59	118.24	244.69	-90.68	-3,970.82	-7,660.68	3,855.92	3,552.87	303.05	12.724		
11,400.00	7,124.03	7,058.03	7,124.03	120.95	244.67	-90.66	-3,970.82	-7,660.68	3,765.99	3,461.20	304.79	12.356		
11,500.00	7,123.46	7,057.46	7,123.46	123.67	244.65	-90.64	-3,970.82	-7,660.68	3,676.58	3,369.92	306.66	11.989		
11,600.00	7,122.89	7,056.89	7,122.89	126.40	244.63	-90.62	-3,970.82	-7,660.68	3,587.73	3,279.06	308.67	11.623		
11,700.00	7,122.32	7,056.32	7,122.32	129.14	244.61	-90.60	-3,970.82	-7,660.68	3,499.47	3,188.65	310.82	11.259		
11,800.00	7,121.75	7,055.75	7,121.75	131.88	244.59	-90.58	-3,970.82	-7,660.68	3,411.87	3,098.75	313.13	10.896		
11,900.00	7,121.18	7,055.18	7,121.18	134.62	244.57	-90.56	-3,970.82	-7,660.68	3,324.97	3,009.37	315.59	10.536		
12,000.00	7,120.61	7,054.61	7,120.61	137.37	244.55	-90.54	-3,970.82	-7,660.68	3,238.82	2,920.59	318.23	10.177		
12,100.00	7,120.05	7,054.05	7,120.05	140.12	244.53	-90.52	-3,970.82	-7,660.68	3,153.49	2,832.44	321.05	9.822		
12,200.00	7,119.48	7,053.48	7,119.48	142.88	244.51	-90.50	-3,970.82	-7,660.68	3,069.05	2,744.99	324.06	9.471		
12,300.00	7,118.91	7,052.91	7,118.91	145.64	244.49	-90.48	-3,970.82	-7,660.68	2,985.57	2,658.30	327.26	9.123		
12,400.00	7,118.34	7,052.34	7,118.34	148.41	244.47	-90.46	-3,970.82	-7,660.68	2,903.13	2,572.45	330.67	8.779		
12,500.00	7,117.77	7,051.77	7,117.77	151.18	244.45	-90.45	-3,970.82	-7,660.68	2,821.83	2,487.52	334.30	8.441		
12,600.00	7,117.20	7,051.20	7,117.20	153.95	244.43	-90.43	-3,970.82	-7,660.68	2,741.76	2,403.60	338.16	8.108		
12,700.00	7,116.64	7,050.64	7,116.64	156.73	244.41	-90.41	-3,970.82	-7,660.68	2,663.04	2,320.79	342.25	7.781		
12,800.00	7,116.07	7,050.07	7,116.07	159.50	244.39	-90.39	-3,970.82	-7,660.68	2,585.80	2,239.21	346.58	7.461		
12,900.00	7,115.50	7,049.50	7,115.50	162.29	244.37	-90.37	-3,970.82	-7,660.68	2,510.16	2,158.99	351.16	7.148		
13,000.00	7,114.93	7,048.93	7,114.93	165.07	244.36	-90.35	-3,970.82	-7,660.68	2,436.27	2,080.27	356.00	6.843		
13,100.00	7,114.36	7,048.36	7,114.36	167.86	244.34	-90.33	-3,970.82	-7,660.68	2,364.31	2,003.21	361.10	6.548		
13,200.00	7,113.79	7,047.79	7,113.79	170.64	244.32	-90.31	-3,970.82	-7,660.68	2,294.45	1,928.00	366.46	6.261		
13,300.00	7,113.22	7,047.22	7,113.22	173.44	244.30	-90.29	-3,970.82	-7,660.68	2,226.89	1,854.83	372.06	5.985		
13,400.00	7,112.66	7,046.66	7,112.66	176.23	244.28	-90.27	-3,970.82	-7,660.68	2,161.85	1,783.93	377.92	5.720		
13,500.00	7,112.09	7,046.09	7,112.09	179.02	244.26	-90.25	-3,970.82	-7,660.68	2,099.55	1,715.55	384.00	5.468		
13,600.00	7,111.52	7,045.52	7,111.52	181.82	244.24	-90.23	-3,970.82	-7,660.68	2,040.26	1,649.97	390.28	5.228		
13,700.00	7,110.95	7,044.95	7,110.95	184.62	244.22	-90.21	-3,970.82	-7,660.68	1,984.24	1,587.50	396.74	5.001		
13,800.00	7,110.38	7,044.38	7,110.38	187.42	244.20	-90.19	-3,970.82	-7,660.68	1,931.77	1,528.44	403.33	4.790		
13,900.00	7,109.81	7,043.81	7,109.81	190.22	244.18	-90.17	-3,970.82	-7,660.68	1,883.15	1,473.17	409.99	4.593		
14,000.00	7,109.25	7,043.25	7,109.25	193.03	244.16	-90.15	-3,970.82	-7,660.68	1,838.70	1,422.05	416.65	4.413		
14,100.00	7,108.68	7,042.68	7,108.68	195.84	244.14	-90.13	-3,970.82	-7,660.68	1,798.71	1,375.46	423.25	4.250		
14,200.00	7,108.11	7,042.11	7,108.11	198.64	244.12	-90.11	-3,970.82	-7,660.68	1,763.48	1,333.81	429.68	4.104		
14,300.00	7,107.54	7,041.54	7,107.54	201.45	244.10	-90.09	-3,970.82	-7,660.68	1,733.32	1,297.47	435.85	3.977		
14,400.00	7,106.97	7,040.97	7,106.97	204.26	244.08	-90.07	-3,970.82	-7,660.68	1,708.49	1,266.82	441.67	3.868		
14,500.00	7,106.40	7,040.40	7,106.40	207.07	244.06	-90.05	-3,970.82	-7,660.68	1,689.22	1,242.20	447.03	3.779		
14,600.00	7,105.83	7,039.83	7,105.83	209.89	244.04	-90.03	-3,970.82	-7,660.68	1,675.71	1,223.88	451.83	3.709		
14,700.00	7,105.27	7,039.27	7,105.27	212.70	244.02	-90.02	-3,970.82	-7,660.68	1,668.09	1,212.10	455.99	3.658		
14,777.35	7,104.83	7,038.83	7,104.83	214.88	244.00	-90.00	-3,970.82	-7,660.68	1,666.30	1,207.57	458.73	3.632 CC		
14,800.00	7,104.70	7,038.70	7,104.70	215.52	244.00	-90.00	-3,970.82	-7,660.68	1,666.45	1,207.00	459.45	3.627 ES		
14,900.00	7,104.13	7,038.13	7,104.13	218.33	243.98	-89.98	-3,970.82	-7,660.68	1,670.81	1,208.64	462.17	3.615 SF		
15,000.00	7,103.56	7,037.56	7,103.56	221.15	243.96	-89.96	-3,970.82	-7,660.68	1,681.11	1,216.98	464.13	3.622		
15,100.00	7,102.99	7,036.99	7,102.99	223.97	243.94	-89.94	-3,970.82	-7,660.68	1,697.25	1,231.93	465.32	3.647		
15,200.00	7,102.42	7,036.42	7,102.42	226.79	243.92	-89.92	-3,970.82	-7,660.68	1,719.07	1,253.28	465.79	3.691		
15,274.57	7,102.00	7,036.00	7,102.00	228.89	243.90	-89.90	-3,970.82	-7,660.68	1,738.90	1,273.21	465.69	3.734		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 1-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	51.00	3.28	3.28	-106.49	-2,653.41	-8,961.00	9,345.73					
100.00	100.00	49.00	100.00	3.28	3.39	-106.49	-2,653.41	-8,961.00	9,345.60	9,338.92	6.67	1,400.214		
200.00	200.00	149.00	200.00	3.34	4.76	-106.49	-2,653.41	-8,961.00	9,345.60	9,337.49	8.10	1,153.522		
300.00	299.98	248.98	299.98	3.44	7.68	69.57	-2,653.41	-8,961.00	9,344.99	9,333.86	11.12	840.283		
400.00	399.84	348.84	399.84	3.59	10.94	69.63	-2,653.41	-8,961.00	9,343.16	9,328.63	14.52	643.261		
500.00	499.45	448.45	499.45	3.79	14.29	69.74	-2,653.41	-8,961.00	9,340.12	9,322.04	18.08	516.649		
600.00	598.70	547.70	598.70	4.03	17.68	69.89	-2,653.41	-8,961.00	9,335.89	9,314.18	21.71	430.004		
700.00	697.47	646.47	697.47	4.31	21.08	70.08	-2,653.41	-8,961.00	9,330.48	9,305.08	25.39	367.447		
800.00	795.62	744.62	795.62	4.64	24.47	70.31	-2,653.41	-8,961.00	9,323.91	9,294.80	29.11	320.349		
900.00	893.06	842.06	893.06	5.00	27.84	70.59	-2,653.41	-8,961.00	9,316.20	9,283.36	32.84	283.704		
1,000.00	989.64	938.64	989.64	5.40	31.20	70.90	-2,653.41	-8,961.00	9,307.40	9,270.82	36.58	254.433		
1,100.00	1,085.27	1,034.27	1,085.27	5.83	34.52	71.25	-2,653.41	-8,961.00	9,297.53	9,257.20	40.33	230.547		
1,200.00	1,179.88	1,128.88	1,179.88	6.29	37.81	71.56	-2,653.41	-8,961.00	9,286.70	9,242.63	44.07	210.711		
1,300.00	1,274.26	1,223.26	1,274.26	6.78	41.09	71.75	-2,653.41	-8,961.00	9,275.74	9,227.91	47.83	193.912		
1,400.00	1,368.63	1,317.63	1,368.63	7.28	44.37	71.93	-2,653.41	-8,961.00	9,264.88	9,213.27	51.61	179.501		
1,500.00	1,463.00	1,412.00	1,463.00	7.80	47.66	72.12	-2,653.41	-8,961.00	9,254.13	9,198.72	55.41	167.014		
1,600.00	1,557.38	1,506.38	1,557.38	8.33	50.95	72.30	-2,653.41	-8,961.00	9,243.49	9,184.27	59.22	156.097		
1,700.00	1,651.75	1,600.75	1,651.75	8.87	54.24	72.49	-2,653.41	-8,961.00	9,232.95	9,169.91	63.03	146.478		
1,800.00	1,746.12	1,704.88	1,746.12	9.41	57.86	72.67	-2,653.41	-8,961.00	9,222.51	9,155.32	67.20	137.243		
1,900.00	1,840.49	1,789.49	1,840.49	9.96	60.81	72.86	-2,653.41	-8,961.00	9,212.19	9,141.50	70.69	130.317		
2,000.00	1,934.87	1,883.87	1,934.87	10.52	64.10	73.05	-2,653.41	-8,961.00	9,201.97	9,127.44	74.53	123.468		
2,100.00	2,029.24	1,978.24	2,029.24	11.08	67.39	73.23	-2,653.41	-8,961.00	9,191.86	9,113.49	78.37	117.284		
2,200.00	2,123.61	2,072.61	2,123.61	11.64	70.69	73.42	-2,653.41	-8,961.00	9,181.86	9,099.63	82.22	111.673		
2,300.00	2,217.99	2,166.99	2,217.99	12.21	73.98	73.61	-2,653.41	-8,961.00	9,171.96	9,085.89	86.07	106.560		
2,400.00	2,312.36	2,261.36	2,312.36	12.78	77.27	73.80	-2,653.41	-8,961.00	9,162.17	9,072.25	89.93	101.883		
2,500.00	2,406.73	2,355.73	2,406.73	13.35	80.56	73.99	-2,653.41	-8,961.00	9,152.50	9,058.71	93.79	97.588		
2,600.00	2,501.10	2,450.10	2,501.10	13.93	83.85	74.18	-2,653.41	-8,961.00	9,142.93	9,045.28	97.65	93.631		
2,700.00	2,595.48	2,544.48	2,595.48	14.51	87.14	74.36	-2,653.41	-8,961.00	9,133.47	9,031.96	101.51	89.974		
2,800.00	2,689.85	2,638.85	2,689.85	15.08	90.44	74.55	-2,653.41	-8,961.00	9,124.12	9,018.75	105.38	86.585		
2,900.00	2,784.22	2,733.22	2,784.22	15.66	93.73	74.74	-2,653.41	-8,961.00	9,114.89	9,005.64	109.25	83.435		
3,000.00	2,878.60	2,827.60	2,878.60	16.25	97.02	74.93	-2,653.41	-8,961.00	9,105.76	8,992.64	113.12	80.499		
3,100.00	2,972.97	2,921.97	2,972.97	16.83	100.31	75.12	-2,653.41	-8,961.00	9,096.74	8,979.76	116.99	77.758		
3,200.00	3,067.34	3,016.34	3,067.34	17.41	103.61	75.32	-2,653.41	-8,961.00	9,087.84	8,966.98	120.86	75.193		
3,300.00	3,161.72	3,110.72	3,161.72	18.00	106.90	75.51	-2,653.41	-8,961.00	9,079.05	8,954.31	124.73	72.787		
3,400.00	3,256.09	3,205.09	3,256.09	18.58	110.19	75.70	-2,653.41	-8,961.00	9,070.37	8,941.76	128.61	70.526		
3,500.00	3,350.46	3,300.54	3,350.46	19.17	113.52	75.89	-2,653.41	-8,961.00	9,061.80	8,929.27	132.52	68.378		
3,600.00	3,444.83	3,406.17	3,444.83	19.75	117.21	76.08	-2,653.41	-8,961.00	9,053.34	8,916.55	136.80	66.182		
3,700.00	3,539.21	3,488.21	3,539.21	20.34	120.07	76.28	-2,653.41	-8,961.00	9,045.00	8,904.76	140.24	64.495		
3,800.00	3,633.58	3,582.58	3,633.58	20.93	123.37	76.47	-2,653.41	-8,961.00	9,036.77	8,892.65	144.12	62.702		
3,900.00	3,727.95	3,676.95	3,727.95	21.52	126.66	76.66	-2,653.41	-8,961.00	9,028.66	8,880.65	148.00	61.003		
4,000.00	3,822.33	3,771.33	3,822.33	22.11	129.95	76.86	-2,653.41	-8,961.00	9,020.66	8,868.77	151.89	59.391		
4,100.00	3,916.70	3,865.70	3,916.70	22.70	133.25	77.05	-2,653.41	-8,961.00	9,012.77	8,857.00	155.77	57.860		
4,200.00	4,011.07	3,960.07	4,011.07	23.29	136.54	77.24	-2,653.41	-8,961.00	9,005.00	8,845.34	159.65	56.404		
4,300.00	4,105.44	4,054.44	4,105.44	23.88	139.83	77.44	-2,653.41	-8,961.00	8,997.34	8,833.80	163.54	55.018		
4,400.00	4,199.82	4,148.82	4,199.82	24.47	143.13	77.63	-2,653.41	-8,961.00	8,989.80	8,822.38	167.42	53.696		
4,500.00	4,294.19	4,243.19	4,294.19	25.06	146.42	77.83	-2,653.41	-8,961.00	8,982.37	8,811.06	171.31	52.435		
4,600.00	4,388.56	4,337.56	4,388.56	25.65	149.72	78.02	-2,653.41	-8,961.00	8,975.06	8,799.87	175.19	51.230		
4,700.00	4,482.94	4,431.94	4,482.94	26.24	153.01	78.22	-2,653.41	-8,961.00	8,967.86	8,788.78	179.08	50.078		
4,800.00	4,577.31	4,526.31	4,577.31	26.83	156.30	78.41	-2,653.41	-8,961.00	8,960.78	8,777.82	182.96	48.976		
4,900.00	4,671.68	4,620.68	4,671.68	27.43	159.60	78.61	-2,653.41	-8,961.00	8,953.82	8,766.97	186.85	47.919		
5,000.00	4,766.05	4,715.05	4,766.05	28.02	162.89	78.81	-2,653.41	-8,961.00	8,946.97	8,756.23	190.74	46.907		
5,100.00	4,860.43	4,809.43	4,860.43	28.61	166.18	79.00	-2,653.41	-8,961.00	8,940.25	8,745.62	194.63	45.935		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 1-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,903.80	4,954.80	29.20	169.48	79.20	-2,653.41	-8,961.00	8,933.63	8,735.12	198.52	45.002		
5,300.00	5,049.17	5,001.83	5,049.17	29.80	172.90	79.40	-2,653.41	-8,961.00	8,927.14	8,724.61	202.53	44.077		
5,400.00	5,143.55	5,107.45	5,143.55	30.39	176.59	79.59	-2,653.41	-8,961.00	8,920.76	8,713.95	206.82	43.134		
5,500.00	5,237.92	5,186.92	5,237.92	30.99	179.36	79.79	-2,653.41	-8,961.00	8,914.51	8,704.32	210.19	42.413		
5,600.00	5,332.29	5,281.29	5,332.29	31.58	182.65	79.99	-2,653.41	-8,961.00	8,908.37	8,694.29	214.08	41.613		
5,700.00	5,426.66	5,375.66	5,426.66	32.17	185.95	80.19	-2,653.41	-8,961.00	8,902.35	8,684.38	217.97	40.843		
5,800.00	5,521.04	5,470.04	5,521.04	32.77	189.24	80.39	-2,653.41	-8,961.00	8,896.45	8,674.59	221.86	40.100		
5,900.00	5,615.41	5,564.41	5,615.41	33.36	192.54	80.59	-2,653.41	-8,961.00	8,890.66	8,664.91	225.75	39.383		
6,000.00	5,709.78	5,658.78	5,709.78	33.96	195.83	80.78	-2,653.41	-8,961.00	8,885.00	8,655.36	229.64	38.691		
6,100.00	5,804.16	5,753.16	5,804.16	34.55	199.12	80.98	-2,653.41	-8,961.00	8,879.46	8,645.92	233.53	38.022		
6,200.00	5,898.53	5,847.53	5,898.53	35.14	202.42	81.18	-2,653.41	-8,961.00	8,874.03	8,636.61	237.42	37.376		
6,300.00	5,992.90	5,941.90	5,992.90	35.74	205.71	81.38	-2,653.41	-8,961.00	8,868.73	8,627.41	241.32	36.751		
6,400.00	6,087.27	6,036.27	6,087.27	36.33	209.01	81.58	-2,653.41	-8,961.00	8,863.54	8,618.33	245.21	36.147		
6,500.00	6,181.65	6,130.65	6,181.65	36.93	212.30	81.78	-2,653.41	-8,961.00	8,858.48	8,609.38	249.10	35.562		
6,600.00	6,276.02	6,225.02	6,276.02	37.52	215.60	81.98	-2,653.41	-8,961.00	8,853.54	8,600.54	252.99	34.995		
6,700.00	6,370.39	6,319.39	6,370.39	38.12	218.89	82.18	-2,653.41	-8,961.00	8,848.72	8,591.83	256.89	34.446		
6,800.00	6,464.77	6,413.77	6,464.77	38.71	222.18	82.38	-2,653.41	-8,961.00	8,844.02	8,583.23	260.78	33.914		
6,900.00	6,559.14	6,508.14	6,559.14	39.31	225.48	82.37	-2,653.41	-8,961.00	8,839.43	8,574.76	264.67	33.397		
7,000.00	6,652.92	6,601.92	6,652.92	39.90	228.75	59.27	-2,653.41	-8,961.00	8,827.04	8,558.51	268.54	32.871		
7,100.00	6,744.00	6,707.00	6,744.00	40.44	232.42	43.20	-2,653.41	-8,961.00	8,799.43	8,526.69	272.74	32.263		
7,200.00	6,830.13	6,779.13	6,830.13	40.94	234.94	33.10	-2,653.41	-8,961.00	8,757.25	8,481.51	275.74	31.759		
7,300.00	6,909.19	6,858.19	6,909.19	41.37	237.70	26.61	-2,653.41	-8,961.00	8,701.52	8,422.61	278.91	31.198		
7,400.00	6,979.23	6,928.23	6,979.23	41.75	240.14	22.17	-2,653.41	-8,961.00	8,633.58	8,351.88	281.70	30.648		
7,500.00	7,038.53	6,987.53	7,038.53	42.08	242.21	18.85	-2,653.41	-8,961.00	8,555.08	8,271.04	284.05	30.119		
7,600.00	7,085.63	7,034.63	7,085.63	42.37	243.86	15.89	-2,653.41	-8,961.00	8,467.93	8,182.04	285.89	29.619		
7,700.00	7,119.37	7,068.37	7,119.37	42.64	245.03	12.11	-2,653.41	-8,961.00	8,374.25	8,087.04	287.20	29.158		
7,800.00	7,138.92	7,087.92	7,138.92	42.91	245.72	1.74	-2,653.41	-8,961.00	8,276.32	7,988.37	287.95	28.742		
7,900.00	7,143.92	7,107.08	7,143.92	43.25	246.38	-97.76	-2,653.41	-8,961.00	8,176.57	7,887.94	288.62	28.330		
8,000.00	7,143.35	7,107.65	7,143.35	43.72	246.40	-97.66	-2,653.41	-8,961.00	8,076.66	7,788.03	288.63	27.983		
8,100.00	7,142.78	7,108.22	7,142.78	44.42	246.42	-97.57	-2,653.41	-8,961.00	7,976.75	7,688.12	288.63	27.636		
8,200.00	7,142.22	7,108.78	7,142.22	45.39	246.44	-97.47	-2,653.41	-8,961.00	7,876.84	7,588.20	288.64	27.290		
8,300.00	7,141.65	7,109.35	7,141.65	46.63	246.46	-97.38	-2,653.41	-8,961.00	7,776.94	7,488.29	288.65	26.943		
8,400.00	7,141.08	7,109.92	7,141.08	48.09	246.48	-97.29	-2,653.41	-8,961.00	7,677.04	7,388.38	288.65	26.596		
8,500.00	7,140.51	7,089.51	7,140.51	49.74	245.77	-97.19	-2,653.41	-8,961.00	7,577.14	7,289.21	287.93	26.316		
8,600.00	7,139.94	7,088.94	7,139.94	51.53	245.75	-97.10	-2,653.41	-8,961.00	7,477.24	7,189.35	287.90	25.972		
8,700.00	7,139.37	7,088.37	7,139.37	53.44	245.73	-97.00	-2,653.41	-8,961.00	7,377.35	7,089.48	287.87	25.627		
8,800.00	7,138.80	7,087.80	7,138.80	55.45	245.71	-96.91	-2,653.41	-8,961.00	7,277.46	6,989.62	287.84	25.283		
8,900.00	7,138.24	7,087.24	7,138.24	57.55	245.69	-96.82	-2,653.41	-8,961.00	7,177.57	6,889.76	287.81	24.938		
9,000.00	7,137.67	7,086.67	7,137.67	59.71	245.67	-96.72	-2,653.41	-8,961.00	7,077.69	6,789.91	287.79	24.594		
9,100.00	7,137.10	7,086.10	7,137.10	61.94	245.65	-96.63	-2,653.41	-8,961.00	6,977.81	6,690.05	287.76	24.249		
9,200.00	7,136.53	7,085.53	7,136.53	64.22	245.63	-96.53	-2,653.41	-8,961.00	6,877.93	6,590.20	287.73	23.904		
9,300.00	7,135.96	7,084.96	7,135.96	66.55	245.61	-96.44	-2,653.41	-8,961.00	6,778.06	6,490.35	287.71	23.559		
9,400.00	7,135.39	7,084.39	7,135.39	68.92	245.59	-96.35	-2,653.41	-8,961.00	6,678.19	6,390.50	287.69	23.214		
9,500.00	7,134.83	7,083.83	7,134.83	71.33	245.57	-96.25	-2,653.41	-8,961.00	6,578.32	6,290.66	287.66	22.868		
9,600.00	7,134.26	7,083.26	7,134.26	73.77	245.55	-96.16	-2,653.41	-8,961.00	6,478.46	6,190.82	287.64	22.523		
9,700.00	7,133.69	7,082.69	7,133.69	76.24	245.53	-96.06	-2,653.41	-8,961.00	6,378.60	6,090.98	287.62	22.177		
9,800.00	7,133.12	7,082.12	7,133.12	78.74	245.51	-95.97	-2,653.41	-8,961.00	6,278.75	5,991.15	287.60	21.831		
9,900.00	7,132.55	7,081.55	7,132.55	81.27	245.49	-95.87	-2,653.41	-8,961.00	6,178.90	5,891.32	287.58	21.486		
10,000.00	7,131.98	7,080.98	7,131.98	83.81	245.47	-95.78	-2,653.41	-8,961.00	6,079.06	5,791.49	287.57	21.140		
10,100.00	7,131.42	7,080.42	7,131.42	86.38	245.45	-95.68	-2,653.41	-8,961.00	5,979.22	5,691.67	287.55	20.793		
10,200.00	7,130.85	7,079.85	7,130.85	88.96	245.43	-95.59	-2,653.41	-8,961.00	5,879.39	5,591.85	287.54	20.447		
10,300.00	7,130.28	7,079.28	7,130.28	91.56	245.41	-95.49	-2,653.41	-8,961.00	5,779.56	5,492.03	287.53	20.101		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 1-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,078.71	7,129.71	94.18	245.39	-95.40	-2,653.41	-8,961.00	5,679.74	5,392.22	287.52	19.754		
10,500.00	7,129.14	7,078.14	7,129.14	96.81	245.37	-95.31	-2,653.41	-8,961.00	5,579.92	5,292.41	287.51	19.408		
10,600.00	7,128.57	7,077.57	7,128.57	99.45	245.35	-95.21	-2,653.41	-8,961.00	5,480.12	5,192.61	287.50	19.061		
10,700.00	7,128.00	7,077.00	7,128.00	102.11	245.34	-95.12	-2,653.41	-8,961.00	5,380.32	5,092.82	287.50	18.714		
10,800.00	7,127.44	7,076.44	7,127.44	104.77	245.32	-95.02	-2,653.41	-8,961.00	5,280.52	4,993.02	287.50	18.367		
10,900.00	7,126.87	7,075.87	7,126.87	107.45	245.30	-94.93	-2,653.41	-8,961.00	5,180.74	4,893.24	287.50	18.020		
11,000.00	7,126.30	7,075.30	7,126.30	110.13	245.28	-94.83	-2,653.41	-8,961.00	5,080.96	4,793.46	287.50	17.673		
11,100.00	7,125.73	7,074.73	7,125.73	112.82	245.26	-94.74	-2,653.41	-8,961.00	4,981.19	4,693.68	287.51	17.325		
11,200.00	7,125.16	7,074.16	7,125.16	115.53	245.24	-94.64	-2,653.41	-8,961.00	4,881.43	4,593.91	287.52	16.978		
11,300.00	7,124.59	7,073.59	7,124.59	118.24	245.22	-94.55	-2,653.41	-8,961.00	4,781.68	4,494.15	287.53	16.630		
11,400.00	7,124.03	7,073.03	7,124.03	120.95	245.20	-94.45	-2,653.41	-8,961.00	4,681.94	4,394.39	287.55	16.282		
11,500.00	7,123.46	7,072.46	7,123.46	123.67	245.18	-94.36	-2,653.41	-8,961.00	4,582.22	4,294.64	287.57	15.934		
11,600.00	7,122.89	7,071.89	7,122.89	126.40	245.16	-94.26	-2,653.41	-8,961.00	4,482.50	4,194.90	287.60	15.586		
11,700.00	7,122.32	7,071.32	7,122.32	129.14	245.14	-94.17	-2,653.41	-8,961.00	4,382.80	4,095.17	287.63	15.237		
11,800.00	7,121.75	7,070.75	7,121.75	131.88	245.12	-94.07	-2,653.41	-8,961.00	4,283.11	3,995.44	287.67	14.889		
11,900.00	7,121.18	7,070.18	7,121.18	134.62	245.10	-93.98	-2,653.41	-8,961.00	4,183.44	3,895.72	287.72	14.540		
12,000.00	7,120.61	7,069.61	7,120.61	137.37	245.08	-93.88	-2,653.41	-8,961.00	4,083.78	3,796.01	287.77	14.191		
12,100.00	7,120.05	7,069.05	7,120.05	140.12	245.06	-93.79	-2,653.41	-8,961.00	3,984.14	3,696.31	287.83	13.842		
12,200.00	7,119.48	7,068.48	7,119.48	142.88	245.04	-93.69	-2,653.41	-8,961.00	3,884.52	3,596.61	287.91	13.492		
12,300.00	7,118.91	7,067.91	7,118.91	145.64	245.02	-93.60	-2,653.41	-8,961.00	3,784.91	3,496.93	287.99	13.143		
12,400.00	7,118.34	7,067.34	7,118.34	148.41	245.00	-93.50	-2,653.41	-8,961.00	3,685.33	3,397.25	288.08	12.793		
12,500.00	7,117.77	7,066.77	7,117.77	151.18	244.98	-93.41	-2,653.41	-8,961.00	3,585.78	3,297.59	288.19	12.442		
12,600.00	7,117.20	7,066.20	7,117.20	153.95	244.96	-93.31	-2,653.41	-8,961.00	3,486.24	3,197.93	288.31	12.092		
12,700.00	7,116.64	7,065.64	7,116.64	156.73	244.94	-93.22	-2,653.41	-8,961.00	3,386.74	3,098.29	288.45	11.741		
12,800.00	7,116.07	7,065.07	7,116.07	159.50	244.92	-93.12	-2,653.41	-8,961.00	3,287.26	2,998.65	288.61	11.390		
12,900.00	7,115.50	7,064.50	7,115.50	162.29	244.90	-93.02	-2,653.41	-8,961.00	3,187.82	2,899.03	288.80	11.038		
13,000.00	7,114.93	7,063.93	7,114.93	165.07	244.88	-92.93	-2,653.41	-8,961.00	3,088.42	2,799.41	289.01	10.686		
13,100.00	7,114.36	7,063.36	7,114.36	167.86	244.86	-92.83	-2,653.41	-8,961.00	2,989.05	2,699.80	289.25	10.334		
13,200.00	7,113.79	7,062.79	7,113.79	170.64	244.84	-92.74	-2,653.41	-8,961.00	2,889.73	2,600.21	289.52	9.981		
13,300.00	7,113.22	7,062.22	7,113.22	173.44	244.82	-92.64	-2,653.41	-8,961.00	2,790.45	2,500.62	289.83	9.628		
13,400.00	7,112.66	7,061.66	7,112.66	176.23	244.80	-92.55	-2,653.41	-8,961.00	2,691.23	2,401.04	290.19	9.274		
13,500.00	7,112.09	7,061.09	7,112.09	179.02	244.78	-92.45	-2,653.41	-8,961.00	2,592.07	2,301.46	290.60	8.920		
13,600.00	7,111.52	7,060.52	7,111.52	181.82	244.76	-92.36	-2,653.41	-8,961.00	2,492.97	2,201.90	291.08	8.565		
13,700.00	7,110.95	7,059.95	7,110.95	184.62	244.74	-92.26	-2,653.41	-8,961.00	2,393.95	2,102.33	291.62	8.209		
13,800.00	7,110.38	7,059.38	7,110.38	187.42	244.72	-92.17	-2,653.41	-8,961.00	2,295.02	2,002.76	292.26	7.853		
13,900.00	7,109.81	7,058.81	7,109.81	190.22	244.70	-92.07	-2,653.41	-8,961.00	2,196.18	1,903.19	292.99	7.496		
14,000.00	7,109.25	7,058.25	7,109.25	193.03	244.68	-91.98	-2,653.41	-8,961.00	2,097.45	1,803.61	293.84	7.138		
14,100.00	7,108.68	7,057.68	7,108.68	195.84	244.66	-91.88	-2,653.41	-8,961.00	1,998.85	1,704.02	294.83	6.780		
14,200.00	7,108.11	7,057.11	7,108.11	198.64	244.64	-91.79	-2,653.41	-8,961.00	1,900.39	1,604.41	295.99	6.421		
14,300.00	7,107.54	7,056.54	7,107.54	201.45	244.62	-91.69	-2,653.41	-8,961.00	1,802.11	1,504.76	297.35	6.061		
14,400.00	7,106.97	7,055.97	7,106.97	204.26	244.60	-91.59	-2,653.41	-8,961.00	1,704.02	1,405.07	298.94	5.700		
14,500.00	7,106.40	7,055.40	7,106.40	207.07	244.58	-91.50	-2,653.41	-8,961.00	1,606.17	1,305.33	300.84	5.339		
14,600.00	7,105.83	7,054.83	7,105.83	209.89	244.56	-91.40	-2,653.41	-8,961.00	1,508.60	1,205.51	303.08	4.978		
14,700.00	7,105.27	7,054.27	7,105.27	212.70	244.54	-91.31	-2,653.41	-8,961.00	1,411.37	1,105.60	305.76	4.616		
14,800.00	7,104.70	7,053.70	7,104.70	215.52	244.52	-91.21	-2,653.41	-8,961.00	1,314.55	1,005.57	308.98	4.254		
14,900.00	7,104.13	7,053.13	7,104.13	218.33	244.50	-91.12	-2,653.41	-8,961.00	1,218.25	905.38	312.87	3.894		
15,000.00	7,103.56	7,052.56	7,103.56	221.15	244.48	-91.02	-2,653.41	-8,961.00	1,122.60	805.01	317.59	3.535		
15,100.00	7,102.99	7,051.99	7,102.99	223.97	244.46	-90.93	-2,653.41	-8,961.00	1,027.77	704.40	323.38	3.178		
15,200.00	7,102.42	7,051.42	7,102.42	226.79	244.44	-90.83	-2,653.41	-8,961.00	934.03	603.51	330.52	2.826		
15,274.57	7,102.00	7,051.00	7,102.00	228.89	244.43	-90.76	-2,653.41	-8,961.00	865.03	528.08	336.96	2.567	CC, ES, SF	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-23-18(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 121-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	34.00	3.28	3.28	-106.24	-2,620.26	-8,993.26	9,367.26					
100.00	100.00	30.10	64.10	3.28	3.28	-106.24	-2,620.33	-8,993.30	9,367.33	9,360.76	6.57	1,426.784		
200.00	200.00	75.70	109.70	3.34	3.28	-106.25	-2,620.68	-8,993.51	9,368.00	9,361.38	6.62	1,414.935		
300.00	299.98	121.00	154.99	3.44	3.29	69.79	-2,621.34	-8,993.91	9,368.65	9,361.92	6.73	1,392.389		
400.00	399.84	166.48	200.46	3.59	3.31	69.80	-2,622.13	-8,994.55	9,368.68	9,361.78	6.90	1,358.052		
500.00	499.45	208.00	241.97	3.79	3.34	69.82	-2,622.80	-8,995.39	9,368.09	9,360.96	7.13	1,314.628		
600.00	598.70	208.00	241.97	4.03	3.34	69.84	-2,622.80	-8,995.39	9,367.16	9,359.79	7.37	1,270.746		
700.00	697.47	257.17	291.10	4.31	3.39	69.91	-2,623.40	-8,997.01	9,365.55	9,357.85	7.70	1,215.889		
800.00	795.62	300.00	333.88	4.64	3.44	70.00	-2,623.69	-8,999.19	9,363.80	9,355.72	8.08	1,159.250		
900.00	893.06	300.00	333.88	5.00	3.44	70.04	-2,623.69	-8,999.19	9,361.51	9,353.07	8.44	1,109.192		
1,000.00	989.64	300.00	333.88	5.40	3.44	70.08	-2,623.69	-8,999.19	9,359.10	9,350.26	8.84	1,058.986		
1,100.00	1,085.27	351.56	385.32	5.83	3.52	70.23	-2,623.63	-9,002.76	9,355.99	9,346.65	9.34	1,001.787		
1,200.00	1,179.88	391.00	424.60	6.29	3.59	70.35	-2,623.22	-9,006.19	9,352.82	9,342.96	9.86	948.283		
1,300.00	1,274.26	391.00	424.60	6.78	3.59	70.35	-2,623.22	-9,006.19	9,350.14	9,339.79	10.35	903.524		
1,400.00	1,368.63	391.00	424.60	7.28	3.59	70.35	-2,623.22	-9,006.19	9,348.52	9,337.67	10.85	861.555		
1,500.00	1,463.00	445.39	478.68	7.80	3.70	70.47	-2,622.10	-9,011.92	9,347.34	9,335.88	11.46	815.386		
1,585.04	1,543.25	481.00	514.00	8.25	3.78	70.55	-2,621.00	-9,016.28	9,347.23	9,335.24	11.98	780.178		
1,600.00	1,557.38	481.00	514.00	8.33	3.78	70.55	-2,621.00	-9,016.28	9,347.24	9,335.18	12.06	775.070		
1,700.00	1,651.75	481.00	514.00	8.87	3.78	70.55	-2,621.00	-9,016.28	9,347.93	9,335.34	12.59	742.294		
1,800.00	1,746.12	518.46	551.09	9.41	3.87	70.64	-2,619.60	-9,021.35	9,349.42	9,336.21	13.22	707.417		
1,900.00	1,840.49	572.00	603.97	9.96	4.02	70.77	-2,617.30	-9,029.37	9,351.92	9,338.03	13.89	673.313		
2,000.00	1,934.87	572.00	603.97	10.52	4.02	70.77	-2,617.30	-9,029.37	9,354.92	9,340.48	14.44	647.911		
2,100.00	2,029.24	572.00	603.97	11.08	4.02	70.77	-2,617.30	-9,029.37	9,358.99	9,344.00	14.99	624.305		
2,200.00	2,123.61	572.00	603.97	11.64	4.02	70.77	-2,617.30	-9,029.37	9,364.13	9,348.59	15.55	602.348		
2,300.00	2,217.99	631.36	662.40	12.21	4.22	70.91	-2,614.45	-9,039.45	9,369.50	9,353.23	16.26	576.097		
2,400.00	2,312.36	693.00	722.80	12.78	4.44	71.06	-2,611.31	-9,051.34	9,376.48	9,359.48	17.00	551.510		
2,500.00	2,406.73	693.00	722.80	13.35	4.44	71.06	-2,611.31	-9,051.34	9,383.63	9,366.07	17.56	534.395		
2,600.00	2,501.10	693.00	722.80	13.93	4.44	71.06	-2,611.31	-9,051.34	9,391.83	9,373.72	18.12	518.389		
2,700.00	2,595.48	716.84	746.09	14.51	4.54	71.12	-2,610.10	-9,056.30	9,400.98	9,382.23	18.75	501.367		
2,800.00	2,689.85	761.00	789.15	15.08	4.72	71.23	-2,608.07	-9,065.87	9,411.03	9,391.58	19.45	483.791		
2,900.00	2,784.22	761.00	789.15	15.66	4.72	71.23	-2,608.07	-9,065.87	9,421.74	9,401.73	20.01	470.893		
3,000.00	2,878.60	798.58	825.70	16.25	4.89	71.33	-2,606.27	-9,074.41	9,433.28	9,412.58	20.70	455.681		
3,100.00	2,972.97	855.00	880.38	16.83	5.16	71.47	-2,602.80	-9,087.89	9,445.67	9,424.21	21.45	440.283		
3,200.00	3,067.34	855.00	880.38	17.41	5.16	71.47	-2,602.80	-9,087.89	9,458.61	9,436.61	22.00	429.853		
3,300.00	3,161.72	855.00	880.38	18.00	5.16	71.47	-2,602.80	-9,087.89	9,472.60	9,450.04	22.55	420.021		
3,400.00	3,256.09	901.86	925.58	18.58	5.41	71.59	-2,599.48	-9,099.78	9,487.12	9,463.85	23.28	407.529		
3,500.00	3,350.46	949.00	970.84	19.17	5.67	71.72	-2,596.05	-9,112.49	9,502.78	9,478.76	24.02	395.604		
3,600.00	3,444.83	949.00	970.84	19.75	5.67	71.72	-2,596.05	-9,112.49	9,518.97	9,494.41	24.56	387.556		
3,700.00	3,539.21	982.10	1,002.51	20.34	5.87	71.81	-2,593.46	-9,121.76	9,536.07	9,510.83	25.24	377.783		
3,800.00	3,633.58	1,044.00	1,061.55	20.93	6.25	71.98	-2,587.85	-9,139.51	9,553.83	9,527.77	26.06	366.668		
3,900.00	3,727.95	1,044.00	1,061.55	21.52	6.25	71.98	-2,587.85	-9,139.51	9,572.19	9,545.61	26.59	360.033		
4,000.00	3,822.33	1,078.75	1,094.55	22.11	6.49	72.08	-2,584.37	-9,149.81	9,591.32	9,564.04	27.28	351.586		
4,100.00	3,916.70	1,100.87	1,115.50	22.70	6.64	72.14	-2,582.10	-9,156.55	9,611.28	9,583.37	27.91	344.346		
4,200.00	4,011.07	1,139.00	1,151.47	23.29	6.90	72.25	-2,578.10	-9,168.53	9,632.10	9,603.48	28.62	336.541		
4,300.00	4,105.44	1,139.00	1,151.47	23.88	6.90	72.25	-2,578.10	-9,168.53	9,653.60	9,624.47	29.14	331.317		
4,400.00	4,199.82	1,139.00	1,151.47	24.47	6.90	72.25	-2,578.10	-9,168.53	9,676.10	9,646.45	29.65	326.355		
4,500.00	4,294.19	1,189.36	1,198.72	25.06	7.28	72.40	-2,572.44	-9,185.02	9,699.07	9,668.65	30.42	318.824		
4,600.00	4,388.56	1,234.00	1,240.31	25.65	7.62	72.53	-2,566.94	-9,200.28	9,723.08	9,691.91	31.17	311.983		
4,700.00	4,482.94	1,234.00	1,240.31	26.24	7.62	72.53	-2,566.94	-9,200.28	9,747.66	9,716.00	31.66	307.842		
4,800.00	4,577.31	1,234.00	1,240.31	26.83	7.62	72.53	-2,566.94	-9,200.28	9,773.20	9,741.04	32.16	303.904		
4,900.00	4,671.68	1,273.60	1,276.98	27.43	7.95	72.65	-2,561.78	-9,214.32	9,799.37	9,766.49	32.87	298.081		
5,000.00	4,766.05	1,293.70	1,295.50	28.02	8.12	72.71	-2,559.10	-9,221.63	9,826.39	9,792.91	33.48	293.534		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-23-18(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 121-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	1,329.00	1,327.91	28.61	8.42	72.82	-2,554.31	-9,234.77	9,854.23	9,820.07	34.16	288.444		
5,200.00	4,954.80	1,329.00	1,327.91	29.20	8.42	72.82	-2,554.31	-9,234.77	9,882.75	9,848.11	34.64	285.308		
5,300.00	5,049.17	1,329.00	1,327.91	29.80	8.42	72.82	-2,554.31	-9,234.77	9,912.19	9,877.08	35.11	282.325		
5,400.00	5,143.55	1,374.60	1,369.52	30.39	8.84	72.96	-2,547.88	-9,252.29	9,942.12	9,906.27	35.86	277.278		
5,500.00	5,237.92	1,423.00	1,413.34	30.99	9.29	73.11	-2,540.72	-9,271.54	9,973.10	9,936.48	36.62	272.336		
8,000.00	7,143.35	3,414.00	3,219.47	43.72	30.15	0.23	-2,303.40	-10,074.21	9,983.93	9,924.72	59.21	168.618		
8,100.00	7,142.78	3,438.69	3,242.01	44.42	30.41	0.28	-2,300.57	-10,083.89	9,991.79	9,932.37	59.42	166.476		
8,200.00	7,142.22	3,469.33	3,269.97	45.39	30.73	0.33	-2,297.13	-10,095.92	9,999.69	9,940.01	59.67	164.221		
8,300.00	7,141.65	3,500.10	3,298.06	46.63	31.05	0.39	-2,293.78	-10,108.03	9,970.62	9,947.68	59.93	161.970		
8,400.00	7,141.08	3,538.78	3,333.36	48.09	31.46	0.46	-2,289.58	-10,123.27	9,915.57	9,955.32	60.26	159.577		
8,500.00	7,140.51	3,580.51	3,371.43	49.74	31.90	0.54	-2,284.78	-10,139.69	9,923.52	9,962.92	60.60	157.141		
8,600.00	7,139.94	3,616.47	3,404.20	51.53	32.28	0.61	-2,280.42	-10,153.82	9,931.46	9,970.55	60.92	154.826		
8,700.00	7,139.37	3,831.73	3,601.19	53.44	34.51	1.06	-2,255.43	-10,236.92	9,339.33	9,276.84	62.49	149.460		
8,800.00	7,138.80	3,848.03	3,616.17	55.45	34.68	1.10	-2,253.53	-10,243.07	9,246.61	9,183.95	62.67	147.556		
8,900.00	7,138.24	3,864.51	3,631.29	57.55	34.84	1.14	-2,251.58	-10,249.31	9,153.99	9,091.14	62.85	145.650		
9,000.00	7,137.67	3,887.00	3,651.90	59.71	35.07	1.19	-2,248.86	-10,257.89	9,061.45	8,998.37	63.08	143.652		
9,100.00	7,137.10	3,887.00	3,651.90	61.94	35.07	1.19	-2,248.86	-10,257.89	8,969.01	8,905.85	63.16	142.004		
9,200.00	7,136.53	3,887.00	3,651.90	64.22	35.07	1.19	-2,248.86	-10,257.89	8,876.74	8,813.49	63.25	140.350		
9,300.00	7,135.96	3,924.78	3,686.44	66.55	35.47	1.28	-2,244.28	-10,272.48	8,784.42	8,720.82	63.60	138.119		
9,400.00	7,135.39	3,939.37	3,699.76	68.92	35.62	1.32	-2,242.53	-10,278.18	8,692.29	8,628.49	63.80	136.246		
9,500.00	7,134.83	3,954.16	3,713.24	71.33	35.78	1.35	-2,240.77	-10,284.00	8,600.27	8,536.26	64.00	134.371		
9,600.00	7,134.26	3,982.00	3,738.58	73.77	36.07	1.42	-2,237.49	-10,295.06	8,508.38	8,444.08	64.30	132.315		
9,700.00	7,133.69	3,982.00	3,738.58	76.24	36.07	1.42	-2,237.49	-10,295.06	8,416.56	8,352.14	64.42	130.650		
9,800.00	7,133.12	7,300.59	6,919.36	78.74	57.62	58.94	-2,048.53	-11,004.01	8,316.09	8,236.85	79.25	104.938		
9,900.00	7,132.55	7,301.69	6,920.46	81.27	57.62	59.10	-2,048.56	-11,004.04	8,216.17	8,136.87	79.30	103.608		
10,000.00	7,131.98	7,302.80	6,921.58	83.81	57.62	59.27	-2,048.59	-11,004.07	8,116.25	8,036.89	79.35	102.278		
10,100.00	7,131.42	7,303.93	6,922.70	86.38	57.63	59.44	-2,048.62	-11,004.10	8,016.33	7,936.92	79.41	100.947		
10,200.00	7,130.85	7,305.08	6,923.85	88.96	57.63	59.61	-2,048.65	-11,004.13	7,916.41	7,836.94	79.47	99.616		
10,300.00	7,130.28	7,306.23	6,925.00	91.56	57.63	59.79	-2,048.68	-11,004.16	7,816.49	7,736.96	79.53	98.284		
10,400.00	7,129.71	7,307.40	6,926.17	94.18	57.63	59.97	-2,048.72	-11,004.19	7,716.57	7,636.98	79.59	96.952		
10,500.00	7,129.14	7,308.59	6,927.36	96.81	57.64	60.15	-2,048.75	-11,004.22	7,616.66	7,537.01	79.66	95.620		
10,600.00	7,128.57	7,309.79	6,928.55	99.45	57.64	60.33	-2,048.78	-11,004.26	7,516.75	7,437.03	79.72	94.287		
10,700.00	7,128.00	7,311.00	6,929.77	102.11	57.64	60.52	-2,048.81	-11,004.29	7,416.84	7,337.05	79.79	92.954		
10,800.00	7,127.44	7,312.23	6,931.00	104.77	57.65	60.71	-2,048.85	-11,004.32	7,316.93	7,237.07	79.86	91.621		
10,900.00	7,126.87	7,313.48	6,932.24	107.45	57.65	60.91	-2,048.88	-11,004.36	7,217.03	7,137.09	79.93	90.287		
11,000.00	7,126.30	7,314.74	6,933.50	110.13	57.65	61.10	-2,048.92	-11,004.39	7,117.12	7,037.12	80.01	88.954		
11,100.00	7,125.73	7,316.02	6,934.78	112.82	57.66	61.30	-2,048.95	-11,004.43	7,017.22	6,937.14	80.09	87.620		
11,200.00	7,125.16	7,317.31	6,936.07	115.53	57.66	61.51	-2,048.99	-11,004.47	6,917.33	6,837.16	80.17	86.286		
11,300.00	7,124.59	7,318.62	6,937.38	118.24	57.66	61.71	-2,049.03	-11,004.50	6,817.43	6,737.18	80.25	84.952		
11,400.00	7,124.03	7,319.95	6,938.71	120.95	57.66	61.92	-2,049.06	-11,004.54	6,717.54	6,637.20	80.34	83.618		
11,500.00	7,123.46	7,321.30	6,940.05	123.67	57.67	62.14	-2,049.10	-11,004.58	6,617.65	6,537.22	80.42	82.285		
11,600.00	7,122.89	7,322.66	6,941.42	126.40	57.67	62.36	-2,049.14	-11,004.62	6,517.76	6,437.24	80.52	80.951		
11,700.00	7,122.32	7,324.04	6,942.80	129.14	57.67	62.58	-2,049.18	-11,004.66	6,417.88	6,337.27	80.61	79.617		
11,800.00	7,121.75	7,325.44	6,944.19	131.88	57.68	62.81	-2,049.22	-11,004.70	6,317.99	6,237.29	80.71	78.283		
11,900.00	7,121.18	7,326.86	6,945.61	134.62	57.68	63.04	-2,049.26	-11,004.74	6,218.12	6,137.31	80.81	76.949		
12,000.00	7,120.61	7,328.30	6,947.05	137.37	57.69	63.27	-2,049.30	-11,004.78	6,118.24	6,037.33	80.91	75.615		
12,100.00	7,120.05	7,329.76	6,948.51	140.12	57.69	63.51	-2,049.35	-11,004.83	6,018.37	5,937.35	81.02	74.282		
12,200.00	7,119.48	7,331.23	6,949.98	142.88	57.69	63.75	-2,049.39	-11,004.87	5,918.50	5,837.37	81.13	72.949		
12,300.00	7,118.91	7,332.73	6,951.48	145.64	57.70	64.00	-2,049.43	-11,004.92	5,818.64	5,737.39	81.25	71.615		
12,400.00	7,118.34	7,334.25	6,953.00	148.41	57.70	64.25	-2,049.48	-11,004.96	5,718.78	5,637.41	81.37	70.282		
12,500.00	7,117.77	7,335.79	6,954.54	151.18	57.70	64.51	-2,049.53	-11,005.01	5,618.93	5,537.43	81.49	68.949		
12,600.00	7,117.20	7,337.35	6,956.10	153.95	57.71	64.77	-2,049.57	-11,005.06	5,519.08	5,437.45	81.62	67.617		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-23-18(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 121-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
12,700.00	7,116.64	7,338.94	6,957.68	156.73	57.71	65.03	-2,049.62	-11,005.10	5,419.23	5,337.47	81.76	66.284		
12,800.00	7,116.07	7,340.54	6,959.28	159.50	57.71	65.31	-2,049.67	-11,005.15	5,319.39	5,237.49	81.90	64.952		
12,900.00	7,115.50	7,342.17	6,960.91	162.29	57.72	65.58	-2,049.72	-11,005.20	5,219.56	5,137.51	82.04	63.620		
13,000.00	7,114.93	7,343.83	6,962.57	165.07	57.72	65.86	-2,049.77	-11,005.26	5,119.73	5,037.53	82.19	62.288		
13,100.00	7,114.36	7,345.51	6,964.24	167.86	57.73	66.15	-2,049.82	-11,005.31	5,019.90	4,937.55	82.35	60.956		
13,200.00	7,113.79	7,347.21	6,965.94	170.64	57.73	66.44	-2,049.88	-11,005.36	4,920.09	4,837.57	82.52	59.625		
13,300.00	7,113.22	7,348.94	6,967.67	173.44	57.73	66.74	-2,049.93	-11,005.42	4,820.28	4,737.59	82.69	58.294		
13,400.00	7,112.66	7,350.69	6,969.42	176.23	57.74	67.05	-2,049.99	-11,005.47	4,720.47	4,637.60	82.87	56.963		
13,500.00	7,112.09	7,352.47	6,971.20	179.02	57.74	67.36	-2,050.04	-11,005.53	4,620.68	4,537.62	83.06	55.632		
13,600.00	7,111.52	7,354.28	6,973.01	181.82	57.75	67.68	-2,050.10	-11,005.59	4,520.89	4,437.63	83.26	54.302		
13,700.00	7,110.95	7,356.12	6,974.84	184.62	57.75	68.00	-2,050.16	-11,005.65	4,421.11	4,337.65	83.46	52.971		
13,800.00	7,110.38	7,357.98	6,976.71	187.42	57.76	68.33	-2,050.22	-11,005.71	4,321.34	4,237.66	83.68	51.641		
13,900.00	7,109.81	7,359.88	6,978.60	190.22	57.76	68.67	-2,050.28	-11,005.77	4,221.58	4,137.67	83.91	50.311		
14,000.00	7,109.25	7,361.80	6,980.52	193.03	57.77	69.01	-2,050.35	-11,005.84	4,121.83	4,037.68	84.15	48.981		
14,100.00	7,108.68	7,363.75	6,982.47	195.84	57.77	69.36	-2,050.41	-11,005.90	4,022.09	3,937.68	84.41	47.652		
14,200.00	7,108.11	7,365.74	6,984.45	198.64	57.78	69.72	-2,050.48	-11,005.97	3,922.36	3,837.69	84.68	46.322		
14,300.00	7,107.54	7,367.75	6,986.47	201.45	57.78	70.09	-2,050.54	-11,006.04	3,822.65	3,737.69	84.96	44.993		
14,400.00	7,106.97	7,369.80	6,988.51	204.26	57.79	70.46	-2,050.61	-11,006.11	3,722.95	3,637.68	85.27	43.663		
14,500.00	7,106.40	7,371.89	6,990.59	207.07	57.79	70.84	-2,050.68	-11,006.18	3,623.26	3,537.67	85.59	42.334		
14,600.00	7,105.83	7,374.00	6,992.71	209.89	57.80	71.24	-2,050.76	-11,006.25	3,523.59	3,437.66	85.93	41.004		
14,700.00	7,105.27	7,386.00	7,004.69	212.70	57.82	73.49	-2,051.18	-11,006.67	3,423.96	3,337.67	86.28	39.683		
14,800.00	7,104.70	7,386.00	7,004.69	215.52	57.82	73.49	-2,051.18	-11,006.67	3,324.32	3,237.64	86.68	38.353		
14,900.00	7,104.13	7,386.00	7,004.69	218.33	57.82	73.49	-2,051.18	-11,006.67	3,224.70	3,137.59	87.10	37.021		
15,000.00	7,103.56	7,386.00	7,004.69	221.15	57.82	73.49	-2,051.18	-11,006.67	3,125.10	3,037.54	87.56	35.690		
15,100.00	7,102.99	7,386.00	7,004.69	223.97	57.82	73.49	-2,051.18	-11,006.67	3,025.53	2,937.48	88.06	34.358		
15,200.00	7,102.42	7,386.00	7,004.69	226.79	57.82	73.49	-2,051.18	-11,006.67	2,926.00	2,837.40	88.60	33.026		
15,274.57	7,102.00	7,389.40	7,008.08	228.89	57.83	74.13	-2,051.30	-11,006.80	2,851.79	2,762.77	89.02	32.036 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 120-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	34.00	3.28	3.28	-106.25	-2,611.16	-8,960.71	9,333.47					
100.00	100.00	0.00	34.00	3.28	3.28	-106.25	-2,611.16	-8,960.71	9,333.64	9,327.07	6.56	1,421.747		
200.00	200.00	58.85	92.85	3.34	3.28	-106.25	-2,611.55	-8,960.95	9,334.36	9,327.74	6.62	1,410.065		
300.00	299.98	577.00	610.23	3.44	3.96	69.96	-2,596.96	-8,959.80	9,333.13	9,325.72	7.41	1,259.492		
400.00	399.84	577.00	610.23	3.59	3.96	70.05	-2,596.96	-8,959.80	9,328.54	9,320.99	7.55	1,235.104		
500.00	499.45	624.51	657.37	3.79	4.08	70.20	-2,591.06	-8,960.41	9,323.48	9,315.60	7.88	1,183.801		
600.00	598.70	667.00	699.45	4.03	4.21	70.37	-2,585.31	-8,961.53	9,318.01	9,309.78	8.24	1,131.233		
700.00	697.47	747.50	779.00	4.31	4.46	70.64	-2,573.29	-8,964.26	9,311.88	9,303.10	8.78	1,060.898		
800.00	795.62	924.07	952.80	4.64	5.13	71.16	-2,542.73	-8,970.30	9,304.05	9,294.28	9.77	952.324		
900.00	893.06	1,007.76	1,034.68	5.00	5.50	71.55	-2,525.75	-8,973.57	9,295.02	9,284.53	10.50	885.659		
1,000.00	989.64	1,092.54	1,117.11	5.40	5.91	71.98	-2,506.37	-8,977.58	9,285.20	9,273.90	11.30	821.977		
1,100.00	1,085.27	1,162.88	1,185.09	5.83	6.28	72.41	-2,488.68	-8,981.36	9,274.58	9,262.49	12.09	767.131		
1,200.00	1,179.88	1,215.91	1,236.05	6.29	6.57	72.73	-2,474.43	-8,984.61	9,263.52	9,250.68	12.84	721.440		
1,300.00	1,274.26	1,281.09	1,298.34	6.78	6.96	72.97	-2,455.75	-8,989.08	9,252.80	9,239.09	13.71	674.933		
1,400.00	1,368.63	1,346.04	1,359.94	7.28	7.37	73.21	-2,435.74	-8,993.97	9,242.56	9,227.95	14.62	632.374		
1,500.00	1,463.00	1,405.64	1,416.04	7.80	7.77	73.44	-2,416.24	-8,998.86	9,232.87	9,217.35	15.52	594.714		
1,600.00	1,557.38	1,417.00	1,426.69	8.33	7.85	73.48	-2,412.40	-8,999.84	9,223.92	9,207.80	16.12	572.057		
1,700.00	1,651.75	1,466.97	1,473.40	8.87	8.20	73.68	-2,395.28	-9,004.44	9,215.65	9,198.64	17.01	541.660		
1,800.00	1,746.12	1,512.00	1,515.35	9.41	8.53	73.86	-2,379.57	-9,009.08	9,208.36	9,190.48	17.88	515.046		
1,900.00	1,840.49	1,530.39	1,532.44	9.96	8.67	73.94	-2,373.07	-9,011.08	9,201.81	9,183.25	18.56	495.695		
2,000.00	1,934.87	1,582.33	1,580.59	10.52	9.06	74.15	-2,354.48	-9,016.87	9,196.01	9,176.50	19.51	471.349		
2,100.00	2,029.24	1,626.85	1,621.72	11.08	9.41	74.33	-2,338.25	-9,022.02	9,190.88	9,170.46	20.41	450.251		
2,200.00	2,123.61	1,664.62	1,656.50	11.64	9.71	74.48	-2,324.22	-9,026.59	9,186.51	9,165.23	21.27	431.814		
2,300.00	2,217.99	1,701.00	1,689.87	12.21	10.01	74.64	-2,310.48	-9,031.18	9,182.92	9,160.79	22.13	414.985		
2,400.00	2,312.36	1,738.35	1,724.00	12.78	10.32	74.79	-2,296.13	-9,036.09	9,180.12	9,157.12	23.01	399.017		
2,500.00	2,406.73	1,774.29	1,756.72	13.35	10.63	74.94	-2,282.08	-9,041.00	9,178.13	9,154.25	23.88	384.410		
2,600.00	2,501.10	1,877.21	1,849.84	13.93	11.54	75.39	-2,240.71	-9,055.45	9,176.83	9,151.48	25.35	362.003		
2,700.00	2,595.48	1,948.45	1,913.96	14.51	12.19	75.70	-2,211.27	-9,065.30	9,175.74	9,149.17	26.57	345.370		
2,800.00	2,689.85	1,989.00	1,950.35	15.08	12.57	75.88	-2,194.30	-9,070.97	9,175.29	9,147.78	27.51	333.559		
2,817.83	2,706.68	2,008.15	1,967.51	15.19	12.75	75.96	-2,186.26	-9,073.67	9,175.26	9,147.48	27.79	330.182		
2,900.00	2,784.22	2,038.82	1,995.00	15.66	13.04	76.09	-2,173.39	-9,078.08	9,175.56	9,147.02	28.54	321.485		
3,000.00	2,878.60	2,085.00	2,036.37	16.25	13.47	76.30	-2,154.04	-9,084.89	9,176.66	9,147.12	29.54	310.639		
3,100.00	2,972.97	2,197.18	2,136.75	16.83	14.55	76.79	-2,106.74	-9,101.37	9,178.30	9,147.12	31.18	294.347		
3,200.00	3,067.34	2,234.59	2,170.18	17.41	14.92	76.96	-2,090.87	-9,106.87	9,180.40	9,148.29	32.11	285.915		
3,300.00	3,161.72	2,274.00	2,205.37	18.00	15.30	77.13	-2,074.12	-9,112.73	9,183.21	9,150.16	33.05	277.838		
3,400.00	3,256.09	2,327.18	2,252.86	18.58	15.83	77.37	-2,051.58	-9,120.77	9,186.75	9,152.62	34.13	269.157		
3,500.00	3,350.46	2,369.00	2,290.24	19.17	16.24	77.55	-2,033.97	-9,127.21	9,191.03	9,155.93	35.10	261.870		
3,600.00	3,444.83	2,403.60	2,321.18	19.75	16.58	77.70	-2,019.47	-9,132.65	9,196.11	9,160.12	35.99	255.520		
3,700.00	3,539.21	2,436.11	2,350.27	20.34	16.90	77.84	-2,005.93	-9,137.90	9,202.02	9,165.16	36.86	249.656		
3,800.00	3,633.58	2,475.75	2,385.74	20.93	17.30	78.02	-1,989.50	-9,144.47	9,208.76	9,170.96	37.80	243.646		
3,900.00	3,727.95	2,557.18	2,458.65	21.52	18.10	78.37	-1,955.86	-9,158.01	9,216.08	9,176.94	39.14	235.441		
4,000.00	3,822.33	2,612.63	2,508.37	22.11	18.65	78.61	-1,933.13	-9,167.24	9,223.96	9,183.73	40.23	229.283		
4,100.00	3,916.70	2,745.26	2,627.48	22.70	19.97	79.19	-1,879.08	-9,189.21	9,232.40	9,190.32	42.08	219.413		
4,200.00	4,011.07	2,853.81	2,724.06	23.29	21.08	79.67	-1,832.61	-9,206.40	9,240.69	9,196.97	43.72	211.363		
4,300.00	4,105.44	2,897.66	2,762.84	23.88	21.54	79.86	-1,813.35	-9,213.34	9,249.56	9,204.85	44.71	206.892		
4,400.00	4,199.82	2,948.98	2,808.21	24.47	22.08	80.09	-1,790.84	-9,221.61	9,259.17	9,213.40	45.77	202.315		
4,500.00	4,294.19	3,163.91	3,000.54	25.06	24.26	81.03	-1,700.79	-9,254.66	9,268.71	9,220.24	48.47	191.242		
4,600.00	4,388.56	3,211.37	3,042.83	25.65	24.75	81.24	-1,680.43	-9,261.66	9,278.41	9,228.94	49.47	187.547		
4,700.00	4,482.94	3,257.41	3,083.81	26.24	25.22	81.44	-1,660.61	-9,268.57	9,288.82	9,238.36	50.46	184.085		
4,800.00	4,577.31	3,304.06	3,125.52	26.83	25.70	81.64	-1,640.97	-9,275.71	9,299.95	9,248.50	51.45	180.762		
4,900.00	4,671.68	3,435.49	3,243.62	27.43	27.03	82.21	-1,586.80	-9,295.48	9,311.33	9,258.06	53.27	174.780		
5,000.00	4,766.05	3,479.11	3,282.91	28.02	27.46	82.39	-1,569.01	-9,302.02	9,323.22	9,269.01	54.21	171.970		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 120-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	3,526.39	3,325.53	28.61	27.94	82.60	-1,549.88	-9,309.26	9,335.83	9,280.64	55.19	169.170		
5,200.00	4,954.80	3,577.55	3,371.59	29.20	28.45	82.81	-1,529.07	-9,317.20	9,349.10	9,292.91	56.19	166.378		
5,300.00	5,049.17	3,682.66	3,466.10	29.80	29.51	83.26	-1,486.05	-9,333.50	9,362.90	9,305.17	57.74	162.169		
5,400.00	5,143.55	3,769.39	3,544.26	30.39	30.38	83.63	-1,450.85	-9,346.68	9,376.93	9,317.84	59.08	158.703		
5,500.00	5,237.92	3,848.44	3,615.60	30.99	31.17	83.96	-1,418.96	-9,358.62	9,391.36	9,331.01	60.35	155.602		
5,600.00	5,332.29	3,881.00	3,644.87	31.58	31.49	84.10	-1,405.57	-9,363.51	9,406.35	9,345.19	61.16	153.804		
5,700.00	5,426.66	3,921.47	3,681.10	32.17	31.92	84.28	-1,388.62	-9,369.69	9,422.07	9,360.02	62.05	151.850		
5,800.00	5,521.04	3,946.64	3,703.50	32.77	32.18	84.38	-1,377.86	-9,373.66	9,438.68	9,375.90	62.78	150.357		
5,900.00	5,615.41	3,976.00	3,729.52	33.36	32.49	84.51	-1,365.11	-9,378.43	9,456.13	9,392.59	63.54	148.824		
6,000.00	5,709.78	3,976.00	3,729.52	33.96	32.49	84.51	-1,365.11	-9,378.43	9,474.47	9,410.48	63.99	148.058		
6,100.00	5,804.16	4,022.64	3,770.58	34.55	33.00	84.72	-1,344.43	-9,386.25	9,493.53	9,428.58	64.94	146.184		
6,200.00	5,898.53	4,071.00	3,812.84	35.14	33.53	84.93	-1,322.49	-9,394.69	9,513.55	9,447.65	65.91	144.352		
6,300.00	5,992.90	4,071.00	3,812.84	35.74	33.53	84.93	-1,322.49	-9,394.69	9,534.25	9,467.91	66.34	143.723		
6,400.00	6,087.27	4,105.47	3,842.78	36.33	33.92	85.08	-1,306.54	-9,400.87	9,555.83	9,488.68	67.15	142.306		
6,500.00	6,181.65	6,451.60	6,066.44	36.93	50.51	92.93	-704.93	-9,620.51	9,565.92	9,481.90	84.02	113.851		
6,600.00	6,276.02	6,528.66	6,143.46	37.52	50.72	93.09	-702.72	-9,621.23	9,569.14	9,484.37	84.78	112.876		
6,700.00	6,370.39	6,607.43	6,222.21	38.12	50.93	93.26	-700.92	-9,622.16	9,572.64	9,487.10	85.54	111.914		
6,800.00	6,464.77	6,704.04	6,318.80	38.71	51.18	93.46	-699.27	-9,623.45	9,576.35	9,490.01	86.33	110.924		
6,900.00	6,559.14	6,808.93	6,423.66	39.31	51.44	93.45	-698.00	-9,624.83	9,580.08	9,492.94	87.15	109.932		
7,000.00	6,652.92	6,905.35	6,520.07	39.90	51.68	93.45	-697.20	-9,626.08	9,575.96	9,488.03	87.93	108.910		
7,100.00	6,744.00	6,998.29	6,613.01	40.44	51.91	93.45	-696.64	-9,627.29	9,565.54	9,467.88	88.66	107.790		
7,200.00	6,830.13	7,085.02	6,699.73	40.94	52.12	93.45	-696.22	-9,628.43	9,522.32	9,433.00	89.32	106.606		
7,300.00	6,909.19	7,164.65	6,779.35	41.37	52.31	93.45	-695.84	-9,629.47	9,474.15	9,384.24	89.91	105.371		
7,400.00	6,979.23	7,235.44	6,850.13	41.75	52.49	93.45	-695.50	-9,630.40	9,413.22	9,322.79	90.43	104.094		
7,500.00	7,038.53	7,295.65	6,910.34	42.08	52.64	93.45	-695.21	-9,631.19	9,341.01	9,250.14	90.87	102.792		
7,600.00	7,085.63	7,343.80	6,958.48	42.37	52.76	93.45	-694.98	-9,631.82	9,259.28	9,168.04	91.24	101.484		
7,700.00	7,119.37	7,378.70	6,993.38	42.64	52.85	93.45	-694.82	-9,632.28	9,170.00	9,078.48	91.53	100.189		
7,800.00	7,138.92	7,403.30	7,017.97	42.91	52.91	93.45	-694.70	-9,632.60	9,075.36	8,983.61	91.75	98.917		
7,900.00	7,143.92	7,411.80	7,026.47	43.25	52.93	93.45	-694.66	-9,632.71	8,977.64	8,885.75	91.89	97.701		
8,000.00	7,143.35	7,412.71	7,027.38	43.72	52.93	93.45	-694.65	-9,632.72	8,879.31	8,787.31	92.00	96.513		
8,100.00	7,142.78	7,413.61	7,028.29	44.42	52.93	93.45	-694.65	-9,632.73	8,781.01	8,688.89	92.12	95.319		
8,200.00	7,142.22	7,414.51	7,029.18	45.39	52.94	93.45	-694.65	-9,632.74	8,682.76	8,590.50	92.25	94.117		
8,300.00	7,141.65	7,415.40	7,030.07	46.63	52.94	93.45	-694.64	-9,632.75	8,584.54	8,492.14	92.40	92.909		
8,400.00	7,141.08	7,416.28	7,030.95	48.09	52.94	93.45	-694.64	-9,632.76	8,486.36	8,393.81	92.55	91.694		
8,500.00	7,140.51	7,417.15	7,031.83	49.74	52.94	93.45	-694.63	-9,632.77	8,388.23	8,295.52	92.72	90.472		
8,600.00	7,139.94	7,418.02	7,032.70	51.53	52.95	93.45	-694.63	-9,632.78	8,290.14	8,197.25	92.89	89.244		
8,700.00	7,139.37	7,418.89	7,033.56	53.44	52.95	93.45	-694.63	-9,632.79	8,192.10	8,099.02	93.08	88.008		
8,800.00	7,138.80	7,419.74	7,034.42	55.45	52.95	93.45	-694.62	-9,632.80	8,094.11	8,000.82	93.29	86.766		
8,900.00	7,138.24	7,420.59	7,035.27	57.55	52.95	93.45	-694.62	-9,632.81	7,996.16	7,902.66	93.50	85.517		
9,000.00	7,137.67	7,421.43	7,036.11	59.71	52.95	93.45	-694.61	-9,632.82	7,898.27	7,804.54	93.74	84.261		
9,100.00	7,137.10	7,422.27	7,036.94	61.94	52.96	93.45	-694.61	-9,632.83	7,800.43	7,706.45	93.98	82.999		
9,200.00	7,136.53	7,423.10	7,037.77	64.22	52.96	93.45	-694.61	-9,632.85	7,702.65	7,608.40	94.24	81.730		
9,300.00	7,135.96	7,423.92	7,038.60	66.55	52.96	93.45	-694.60	-9,632.85	7,604.92	7,510.40	94.52	80.455		
9,400.00	7,135.39	7,424.74	7,039.41	68.92	52.96	93.45	-694.60	-9,632.86	7,507.26	7,412.44	94.82	79.173		
9,500.00	7,134.83	7,425.55	7,040.22	71.33	52.96	93.45	-694.59	-9,632.87	7,409.65	7,314.52	95.14	77.885		
9,600.00	7,134.26	7,426.35	7,041.03	73.77	52.97	93.45	-694.59	-9,632.88	7,312.11	7,216.64	95.47	76.591		
9,700.00	7,133.69	7,427.15	7,041.83	76.24	52.97	93.45	-694.59	-9,632.89	7,214.64	7,118.82	95.82	75.290		
9,800.00	7,133.12	7,427.95	7,042.62	78.74	52.97	93.45	-694.58	-9,632.90	7,117.24	7,021.04	96.20	73.985		
9,900.00	7,132.55	7,428.73	7,043.41	81.27	52.97	93.45	-694.58	-9,632.91	7,019.91	6,923.32	96.60	72.673		
10,000.00	7,131.98	7,429.51	7,044.19	83.81	52.97	93.45	-694.58	-9,632.92	6,922.66	6,825.64	97.01	71.357		
10,100.00	7,131.42	7,430.29	7,044.96	86.38	52.98	93.45	-694.57	-9,632.93	6,825.48	6,728.03	97.46	70.035		
10,200.00	7,130.85	7,431.06	7,045.73	88.96	52.98	93.45	-694.57	-9,632.94	6,728.39	6,630.47	97.93	68.709		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 120-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,431.82	7,046.50	91.56	52.98	88.33	-694.56	-9,632.95	6,631.39	6,532.97	98.42	67.378		
10,400.00	7,129.71	7,432.58	7,047.26	94.18	52.98	88.36	-694.56	-9,632.96	6,534.47	6,435.53	98.94	66.043		
10,500.00	7,129.14	7,433.34	7,048.01	96.81	52.98	88.39	-694.56	-9,632.97	6,437.65	6,338.16	99.49	64.705		
10,600.00	7,128.57	7,434.08	7,048.76	99.45	52.99	88.41	-694.55	-9,632.98	6,340.93	6,240.86	100.07	63.363		
10,700.00	7,128.00	7,434.83	7,049.50	102.11	52.99	88.44	-694.55	-9,632.99	6,244.32	6,143.63	100.68	62.018		
10,800.00	7,127.44	7,435.56	7,050.24	104.77	52.99	88.46	-694.55	-9,632.99	6,147.81	6,046.48	101.33	60.671		
10,900.00	7,126.87	7,436.29	7,050.97	107.45	52.99	88.49	-694.54	-9,633.00	6,051.41	5,949.40	102.01	59.322		
11,000.00	7,126.30	7,437.02	7,051.70	110.13	52.99	88.52	-694.54	-9,633.01	5,955.13	5,852.41	102.72	57.972		
11,100.00	7,125.73	7,437.74	7,052.42	112.82	53.00	88.54	-694.54	-9,633.02	5,858.98	5,755.50	103.48	56.621		
11,200.00	7,125.16	7,438.46	7,053.13	115.53	53.00	88.57	-694.53	-9,633.03	5,762.96	5,658.69	104.27	55.270		
11,300.00	7,124.59	7,439.17	7,053.84	118.24	53.00	88.59	-694.53	-9,633.04	5,667.07	5,561.97	105.10	53.919		
11,400.00	7,124.03	7,439.88	7,054.55	120.95	53.00	88.62	-694.53	-9,633.04	5,571.33	5,465.35	105.98	52.569		
11,500.00	7,123.46	7,440.58	7,055.25	123.67	53.00	88.64	-694.52	-9,633.05	5,475.74	5,368.84	106.90	51.221		
11,600.00	7,122.89	7,441.27	7,055.95	126.40	53.00	88.67	-694.52	-9,633.06	5,380.31	5,272.44	107.88	49.875		
11,700.00	7,122.32	7,441.97	7,056.64	129.14	53.01	88.69	-694.52	-9,633.07	5,285.05	5,176.16	108.90	48.533		
11,800.00	7,121.75	7,442.65	7,057.33	131.88	53.01	88.71	-694.51	-9,633.08	5,189.97	5,080.00	109.97	47.194		
11,900.00	7,121.18	7,443.34	7,058.01	134.62	53.01	88.74	-694.51	-9,633.08	5,095.08	4,983.98	111.10	45.860		
12,000.00	7,120.61	7,444.01	7,058.69	137.37	53.01	88.76	-694.51	-9,633.09	5,000.39	4,888.10	112.29	44.531		
12,100.00	7,120.05	7,444.69	7,059.36	140.12	53.01	88.79	-694.50	-9,633.10	4,905.91	4,792.37	113.54	43.209		
12,200.00	7,119.48	7,445.35	7,060.03	142.88	53.02	88.81	-694.50	-9,633.11	4,811.65	4,696.79	114.85	41.894		
12,300.00	7,118.91	7,446.02	7,060.69	145.64	53.02	88.83	-694.50	-9,633.11	4,717.62	4,601.39	116.23	40.587		
12,400.00	7,118.34	7,446.68	7,061.35	148.41	53.02	88.86	-694.50	-9,633.12	4,623.85	4,506.16	117.69	39.289		
12,500.00	7,117.77	7,447.33	7,062.01	151.18	53.02	88.88	-694.49	-9,633.13	4,530.34	4,411.13	119.22	38.001		
12,600.00	7,117.20	7,447.98	7,062.66	153.95	53.02	88.90	-694.49	-9,633.14	4,437.12	4,316.30	120.82	36.724		
12,700.00	7,116.64	7,448.63	7,063.30	156.73	53.02	88.93	-694.49	-9,633.14	4,344.20	4,221.68	122.51	35.459		
12,800.00	7,116.07	7,449.27	7,063.94	159.50	53.03	88.95	-694.48	-9,633.15	4,251.60	4,127.30	124.29	34.206		
12,900.00	7,115.50	7,449.91	7,064.58	162.29	53.03	88.97	-694.48	-9,633.16	4,159.34	4,033.17	126.17	32.967		
13,000.00	7,114.93	7,450.54	7,065.21	165.07	53.03	88.99	-694.48	-9,633.17	4,067.45	3,939.31	128.14	31.743		
13,100.00	7,114.36	7,451.17	7,065.84	167.86	53.03	89.02	-694.47	-9,633.17	3,975.94	3,845.74	130.21	30.535		
13,200.00	7,113.79	7,451.79	7,066.47	170.64	53.03	89.04	-694.47	-9,633.18	3,884.86	3,752.47	132.39	29.344		
13,300.00	7,113.22	7,452.42	7,067.09	173.44	53.03	89.06	-694.47	-9,633.19	3,794.23	3,659.54	134.69	28.170		
13,400.00	7,112.66	7,453.03	7,067.70	176.23	53.03	89.08	-694.47	-9,633.19	3,704.08	3,566.97	137.11	27.016		
13,500.00	7,112.09	7,453.64	7,068.32	179.02	53.04	89.10	-694.46	-9,633.20	3,614.44	3,474.78	139.66	25.881		
13,600.00	7,111.52	7,454.25	7,068.93	181.82	53.04	89.12	-694.46	-9,633.21	3,525.37	3,383.02	142.34	24.767		
13,700.00	7,110.95	7,454.86	7,069.53	184.62	53.04	89.15	-694.46	-9,633.21	3,436.89	3,291.72	145.17	23.674		
13,800.00	7,110.38	7,455.46	7,070.13	187.42	53.04	89.17	-694.45	-9,633.22	3,349.07	3,200.91	148.15	22.605		
13,900.00	7,109.81	7,456.06	7,070.73	190.22	53.04	89.19	-694.45	-9,633.23	3,261.94	3,110.64	151.30	21.560		
14,000.00	7,109.25	7,456.65	7,071.32	193.03	53.04	89.21	-694.45	-9,633.23	3,175.57	3,020.96	154.61	20.539		
14,100.00	7,108.68	7,457.24	7,071.91	195.84	53.05	89.23	-694.45	-9,633.24	3,090.03	2,931.93	158.10	19.545		
14,200.00	7,108.11	7,457.82	7,072.50	198.64	53.05	89.25	-694.44	-9,633.25	3,005.38	2,843.60	161.78	18.577		
14,300.00	7,107.54	7,458.41	7,073.08	201.45	53.05	89.27	-694.44	-9,633.25	2,921.70	2,756.04	165.66	17.637		
14,400.00	7,106.97	7,458.98	7,073.66	204.26	53.05	89.29	-694.44	-9,633.26	2,839.07	2,669.33	169.74	16.726		
14,500.00	7,106.40	7,459.56	7,074.23	207.07	53.05	89.31	-694.44	-9,633.27	2,757.59	2,583.55	174.04	15.844		
14,600.00	7,105.83	7,460.13	7,074.80	209.89	53.05	89.33	-694.43	-9,633.27	2,677.37	2,498.80	178.57	14.993		
14,700.00	7,105.27	7,460.70	7,075.37	212.70	53.05	89.35	-694.43	-9,633.28	2,598.53	2,415.19	183.34	14.173		
14,800.00	7,104.70	7,461.26	7,075.93	215.52	53.06	89.37	-694.43	-9,633.29	2,521.18	2,332.84	188.34	13.386		
14,900.00	7,104.13	7,461.82	7,076.49	218.33	53.06	89.39	-694.43	-9,633.29	2,445.48	2,251.88	193.60	12.632		
15,000.00	7,103.56	7,462.38	7,077.05	221.15	53.06	89.41	-694.42	-9,633.30	2,371.57	2,172.46	199.11	11.911		
15,100.00	7,102.99	7,462.93	7,077.60	223.97	53.06	89.43	-694.42	-9,633.30	2,299.64	2,094.77	204.88	11.225		
15,200.00	7,102.42	7,463.48	7,078.15	226.79	53.06	89.45	-694.42	-9,633.31	2,229.88	2,018.99	210.89	10.574		
15,274.57	7,102.00	7,463.89	7,078.56	228.89	53.06	89.46	-694.42	-9,633.31	2,179.39	1,963.86	215.54	10.111 CC, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-42-11(PR_150CC) - OH - MWD													Offset Site Error:	0.00 ft
Survey Program: 57-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2,173.31	2,108.11	3.28	15.09	-103.31	-2,070.30	-8,752.75	9,238.01					
100.00	100.00	2,207.00	2,138.89	3.28	15.40	-103.23	-2,057.29	-8,748.44	9,215.46	9,197.70	17.76	518.936		
200.00	200.00	2,261.06	2,188.34	3.34	15.88	-103.11	-2,036.48	-8,741.78	9,193.45	9,175.22	18.23	504.416		
300.00	299.98	2,302.00	2,225.88	3.44	16.24	73.45	-2,020.85	-8,737.03	9,171.67	9,153.03	18.64	492.097		
400.00	399.84	400.00	2,366.57	3.59	3.54	74.29	-1,962.53	-8,719.19	9,149.22	9,142.21	7.01	1,304.805		
500.00	499.45	2,548.60	2,451.75	3.79	18.45	75.02	-1,926.31	-8,707.83	9,125.21	9,104.25	20.97	435.245		
600.00	598.70	2,588.94	2,488.45	4.03	18.82	75.63	-1,910.22	-8,703.25	9,100.97	9,079.44	21.53	422.712		
700.00	697.47	2,666.01	2,558.55	4.31	19.53	76.37	-1,879.35	-8,694.73	9,076.36	9,053.91	22.46	404.192		
800.00	795.62	800.00	2,726.63	4.64	4.38	77.55	-1,804.18	-8,673.34	9,050.65	9,042.33	8.33	1,087.137		
900.00	893.06	2,928.51	2,796.43	5.00	21.99	78.37	-1,772.69	-8,664.00	9,024.11	8,998.73	25.38	355.540		
1,000.00	989.64	2,981.33	2,844.46	5.40	22.48	79.12	-1,751.66	-8,657.64	8,997.51	8,971.28	26.23	343.045		
1,100.00	1,085.27	3,051.62	2,908.81	5.83	23.12	79.96	-1,724.74	-8,648.97	8,970.76	8,943.51	27.25	329.217		
1,200.00	1,179.88	3,121.71	2,973.19	6.29	23.75	80.61	-1,698.45	-8,640.22	8,943.90	8,915.60	28.30	316.059		
1,300.00	1,274.26	3,198.35	3,043.38	6.78	24.45	80.94	-1,669.17	-8,630.81	8,917.36	8,887.93	29.43	302.966		
1,400.00	1,368.63	3,248.00	3,088.85	7.28	24.90	81.16	-1,650.18	-8,624.69	8,891.25	8,860.88	30.37	292.750		
1,500.00	1,463.00	3,303.45	3,139.82	7.80	25.39	81.39	-1,629.43	-8,617.87	8,865.75	8,834.38	31.36	282.680		
1,600.00	1,557.38	3,346.00	3,179.19	8.33	25.77	81.57	-1,614.14	-8,612.70	8,840.99	8,808.72	32.27	273.998		
1,700.00	1,651.75	3,375.63	3,206.71	8.87	26.03	81.70	-1,603.74	-8,609.18	8,816.98	8,783.91	33.07	266.618		
1,800.00	1,746.12	3,406.91	3,235.82	9.41	26.29	81.83	-1,592.87	-8,605.59	8,793.78	8,759.88	33.90	259.430		
1,900.00	1,840.49	3,440.00	3,266.68	9.96	26.57	81.96	-1,581.50	-8,601.94	8,771.38	8,736.63	34.75	252.437		
2,000.00	1,934.87	3,555.23	3,374.47	10.52	27.53	82.44	-1,542.92	-8,588.91	8,749.26	8,713.04	36.22	241.550		
2,100.00	2,029.24	3,811.70	3,614.70	11.08	29.65	83.49	-1,459.09	-8,556.84	8,726.91	8,688.18	38.74	225.297		
2,200.00	2,123.61	3,918.51	3,714.13	11.64	30.57	83.94	-1,422.85	-8,542.43	8,703.93	8,663.76	40.17	216.680		
2,300.00	2,217.99	3,953.23	3,746.26	12.21	30.87	84.08	-1,410.51	-8,537.84	8,681.36	8,640.28	41.08	211.346		
2,400.00	2,312.36	3,987.37	3,777.81	12.78	31.17	84.23	-1,398.21	-8,533.51	8,659.58	8,617.60	41.98	206.257		
2,500.00	2,406.73	4,026.59	3,814.01	13.35	31.52	84.40	-1,383.86	-8,528.77	8,638.61	8,595.67	42.94	201.179		
2,600.00	2,501.10	4,088.94	3,871.46	13.93	32.08	84.68	-1,360.81	-8,521.41	8,618.29	8,574.20	44.09	195.452		
2,700.00	2,595.48	4,146.07	3,924.07	14.51	32.59	84.93	-1,339.55	-8,514.78	8,598.56	8,553.35	45.21	190.187		
2,800.00	2,689.85	4,204.00	3,977.48	15.08	33.11	85.19	-1,318.10	-8,508.18	8,579.48	8,533.14	46.34	185.145		
2,900.00	2,784.22	4,576.74	4,317.64	15.66	36.57	86.88	-1,173.83	-8,460.25	8,559.56	8,509.40	50.16	170.637		
3,000.00	2,878.60	4,665.74	4,396.56	16.25	37.48	87.31	-1,134.61	-8,447.81	8,538.92	8,487.25	51.67	165.268		
3,100.00	2,972.97	4,704.64	4,431.15	16.83	37.87	87.50	-1,117.68	-8,442.34	8,518.85	8,466.14	52.70	161.636		
3,200.00	3,067.34	4,735.08	4,458.32	17.41	38.18	87.65	-1,104.59	-8,438.18	8,499.65	8,445.99	53.66	158.391		
3,300.00	3,161.72	4,774.00	4,493.17	18.00	38.57	87.84	-1,088.05	-8,433.05	8,481.35	8,426.65	54.70	155.049		
3,400.00	3,256.09	4,798.54	4,515.24	18.58	38.80	87.95	-1,077.79	-8,429.91	8,463.91	8,408.31	55.60	152.234		
3,500.00	3,350.46	4,832.49	4,545.94	19.17	39.13	88.11	-1,063.92	-8,425.67	8,447.35	8,390.77	56.58	149.303		
3,600.00	3,444.83	4,869.00	4,579.16	19.75	39.48	88.28	-1,049.44	-8,421.24	8,431.64	8,374.06	57.58	146.427		
3,700.00	3,539.21	4,949.77	4,653.16	20.34	40.22	88.66	-1,018.58	-8,411.49	8,416.60	8,357.65	58.95	142.776		
3,800.00	3,633.58	5,032.80	4,729.40	20.93	40.98	89.04	-987.31	-8,401.34	8,401.97	8,341.63	60.34	139.250		
3,900.00	3,727.95	5,083.84	4,776.09	21.52	41.44	89.27	-967.63	-8,395.13	8,387.89	8,326.44	61.45	136.493		
4,000.00	3,822.33	5,122.65	4,811.72	22.11	41.80	89.45	-952.93	-8,390.55	8,374.62	8,312.16	62.46	134.073		
4,100.00	3,916.70	5,152.00	4,838.75	22.70	42.06	89.58	-942.02	-8,387.20	8,362.19	8,298.80	63.39	131.914		
4,200.00	4,011.07	5,202.18	4,885.18	23.29	42.50	89.81	-923.80	-8,381.65	8,350.57	8,286.09	64.48	129.507		
4,300.00	4,105.44	5,247.00	4,926.86	23.88	42.89	90.01	-908.03	-8,376.92	8,339.77	8,274.25	65.52	127.281		
4,400.00	4,199.82	5,284.67	4,962.07	24.47	43.20	90.18	-895.17	-8,373.09	8,329.78	8,263.29	66.49	125.283		
4,500.00	4,294.19	5,342.00	5,015.93	25.06	43.68	90.43	-876.35	-8,367.55	8,320.61	8,253.00	67.61	123.073		
4,600.00	4,388.56	5,342.00	5,015.93	25.65	43.68	90.43	-876.35	-8,367.55	8,312.28	8,244.01	68.27	121.759		
4,700.00	4,482.94	5,395.35	5,066.46	26.24	44.08	90.65	-859.93	-8,362.81	8,304.72	8,235.40	69.32	119.806		
4,800.00	4,577.31	5,437.00	5,106.25	26.83	44.40	90.82	-848.05	-8,359.48	8,298.12	8,227.84	70.28	118.075		
4,900.00	4,671.68	5,468.32	5,136.32	27.43	44.61	90.95	-839.62	-8,357.17	8,292.35	8,221.22	71.14	116.571		
5,000.00	4,766.05	5,510.80	5,177.31	28.02	44.90	91.11	-828.83	-8,354.24	8,287.38	8,215.32	72.06	115.001		
5,100.00	4,860.43	5,624.76	5,288.03	28.61	45.62	91.54	-802.94	-8,346.82	8,283.00	8,209.58	73.42	112.821		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-42-11(PR_150CC) - OH - MWD													Offset Site Error:	0.00 ft
Survey Program: 57-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	5,697.52	5,359.21	29.20	46.04	91.80	-788.66	-8,342.05	8,278.69	8,204.23	74.46	111.178		
5,300.00	5,049.17	5,300.00	5,474.18	29.80	43.95	92.19	-769.20	-8,334.41	8,274.48	8,201.44	73.04	113.283		
5,400.00	5,143.55	5,862.46	5,521.64	30.39	46.90	92.35	-762.09	-8,331.33	8,270.63	8,194.06	76.57	108.013		
5,500.00	5,237.92	5,909.00	5,567.71	30.99	47.12	92.50	-756.04	-8,328.82	8,267.65	8,190.23	77.42	106.786		
5,600.00	5,332.29	5,965.96	5,624.21	31.58	47.37	92.67	-749.35	-8,326.09	8,265.34	8,187.04	78.30	105.566		
5,700.00	5,426.66	6,037.44	5,695.19	32.17	47.67	92.89	-741.58	-8,322.79	8,263.42	8,184.20	79.22	104.309		
5,800.00	5,521.04	6,097.00	5,754.41	32.77	47.92	93.06	-735.74	-8,320.30	8,262.00	8,181.91	80.09	103.163		
5,900.00	5,615.41	6,145.21	5,802.39	33.36	48.10	93.20	-731.37	-8,318.54	8,261.21	8,180.31	80.89	102.125		
5,957.67	5,669.84	6,171.74	5,828.80	33.70	48.20	93.28	-729.04	-8,317.69	8,261.07	8,179.72	81.35	101.548		
6,000.00	5,709.78	6,192.00	5,848.98	33.96	48.28	93.34	-727.31	-8,317.11	8,261.12	8,179.43	81.69	101.127		
6,100.00	5,804.16	6,247.46	5,904.22	34.55	48.49	93.49	-722.53	-8,315.70	8,261.67	8,179.16	82.52	100.121		
6,200.00	5,898.53	6,313.41	5,969.90	35.14	48.74	93.68	-716.70	-8,314.28	8,262.81	8,179.42	83.38	99.097		
6,300.00	5,992.90	6,400.73	6,056.92	35.74	49.06	93.93	-709.73	-8,312.60	8,264.26	8,179.94	84.32	98.011		
6,400.00	6,087.27	6,487.92	6,143.89	36.33	49.37	94.17	-703.69	-8,311.10	8,265.97	8,180.73	85.24	96.971		
6,500.00	6,181.65	6,570.00	6,225.81	36.93	49.65	94.39	-698.75	-8,309.83	8,267.89	8,181.76	86.13	95.991		
6,600.00	6,276.02	6,629.01	6,284.73	37.52	49.84	94.54	-695.66	-8,309.14	8,270.25	8,183.32	86.93	95.140		
6,700.00	6,370.39	6,695.49	6,351.14	38.12	50.04	94.72	-692.65	-8,308.75	8,273.19	8,185.45	87.74	94.292		
6,800.00	6,464.77	6,801.60	6,457.18	38.71	50.35	94.98	-688.82	-8,308.37	8,276.38	8,187.71	88.67	93.340		
6,900.00	6,559.14	6,914.02	6,569.56	39.31	50.67	95.04	-685.84	-8,307.80	8,279.43	8,189.83	89.60	92.402		
7,000.00	6,652.92	7,010.24	6,665.76	39.90	50.94	95.12	-683.58	-8,307.28	8,274.70	8,184.22	90.48	91.456		
7,100.00	6,744.00	7,105.44	6,760.93	40.44	51.21	95.58	-681.55	-8,306.76	8,254.76	8,163.45	91.31	90.402		
7,200.00	6,830.13	7,196.46	6,851.94	40.94	51.46	95.74	-679.92	-8,306.25	8,220.11	8,128.03	92.08	89.273		
7,300.00	6,909.19	7,278.16	6,933.62	41.37	51.68	95.89	-678.73	-8,305.79	8,171.62	8,078.86	92.76	88.093		
7,400.00	6,979.23	7,349.29	7,004.75	41.75	51.87	96.04	-677.86	-8,305.41	8,110.51	8,017.15	93.36	86.874		
7,500.00	7,038.53	7,409.51	7,064.97	42.08	52.03	96.19	-677.24	-8,305.09	8,038.29	7,944.41	93.88	85.622		
7,600.00	7,085.63	7,466.45	7,121.90	42.37	52.19	96.34	-676.71	-8,304.76	7,956.68	7,862.33	94.35	84.333		
7,700.00	7,119.37	7,509.03	7,164.48	42.64	52.30	96.49	-676.31	-8,304.46	7,867.66	7,772.93	94.73	83.052		
7,800.00	7,138.92	7,533.08	7,188.52	42.91	52.37	96.64	-676.08	-8,304.26	7,773.43	7,678.41	95.02	81.805		
7,900.00	7,143.92	7,538.36	7,193.81	43.25	52.38	96.79	-676.03	-8,304.22	7,676.30	7,581.07	95.23	80.612		
8,000.00	7,143.35	7,536.52	7,191.97	43.72	52.37	96.94	-676.05	-8,304.23	7,578.62	7,483.22	95.40	79.441		
8,100.00	7,142.78	7,534.70	7,190.14	44.42	52.37	97.09	-676.07	-8,304.25	7,481.01	7,385.42	95.59	78.263		
8,200.00	7,142.22	7,532.89	7,188.33	45.39	52.36	97.24	-676.08	-8,304.26	7,383.46	7,287.67	95.79	77.078		
8,300.00	7,141.65	7,531.09	7,186.54	46.63	52.36	97.39	-676.10	-8,304.28	7,285.97	7,189.96	96.01	75.887		
8,400.00	7,141.08	7,529.31	7,184.75	48.09	52.36	97.54	-676.12	-8,304.30	7,188.56	7,092.31	96.25	74.688		
8,500.00	7,140.51	7,527.54	7,182.98	49.74	52.35	97.69	-676.14	-8,304.31	7,091.21	6,994.71	96.50	73.482		
8,600.00	7,139.94	7,525.78	7,181.23	51.53	52.35	97.84	-676.15	-8,304.32	6,993.94	6,897.17	96.78	72.270		
8,700.00	7,139.37	7,524.04	7,179.49	53.44	52.34	97.99	-676.17	-8,304.34	6,896.75	6,799.68	97.07	71.051		
8,800.00	7,138.80	7,522.31	7,177.76	55.45	52.34	98.14	-676.19	-8,304.35	6,799.64	6,702.26	97.38	69.825		
8,900.00	7,138.24	7,520.59	7,176.04	57.55	52.33	98.29	-676.20	-8,304.37	6,702.61	6,604.89	97.72	68.592		
9,000.00	7,137.67	7,518.89	7,174.33	59.71	52.33	98.44	-676.22	-8,304.38	6,605.67	6,507.60	98.08	67.353		
9,100.00	7,137.10	7,517.19	7,172.64	61.94	52.32	98.59	-676.23	-8,304.39	6,508.83	6,410.37	98.46	66.108		
9,200.00	7,136.53	7,515.51	7,170.96	64.22	52.32	98.74	-676.25	-8,304.41	6,412.08	6,313.21	98.87	64.856		
9,300.00	7,135.96	7,513.85	7,169.29	66.55	52.31	98.89	-676.27	-8,304.42	6,315.43	6,216.13	99.30	63.599		
9,400.00	7,135.39	7,512.19	7,167.64	68.92	52.31	99.04	-676.28	-8,304.43	6,218.89	6,119.12	99.76	62.336		
9,500.00	7,134.83	7,510.55	7,166.00	71.33	52.30	99.19	-676.30	-8,304.45	6,122.45	6,022.20	100.26	61.068		
9,600.00	7,134.26	7,508.92	7,164.36	73.77	52.30	99.34	-676.31	-8,304.46	6,026.14	5,925.36	100.78	59.795		
9,700.00	7,133.69	7,507.30	7,162.74	76.24	52.30	99.49	-676.33	-8,304.47	5,929.94	5,828.60	101.34	58.518		
9,800.00	7,133.12	7,505.69	7,161.14	78.74	52.29	99.64	-676.34	-8,304.49	5,833.87	5,731.95	101.93	57.236		
9,900.00	7,132.55	7,504.09	7,159.54	81.27	52.29	99.79	-676.36	-8,304.50	5,737.94	5,635.39	102.55	55.950		
10,000.00	7,131.98	7,502.51	7,157.96	83.81	52.28	99.94	-676.37	-8,304.51	5,642.15	5,538.93	103.22	54.661		
10,100.00	7,131.42	7,500.93	7,156.38	86.38	52.28	100.09	-676.39	-8,304.52	5,546.50	5,442.58	103.93	53.370		
10,200.00	7,130.85	7,499.37	7,154.82	88.96	52.27	100.24	-676.40	-8,304.53	5,451.01	5,346.34	104.67	52.076		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-42-11(PR_150CC) - OH - MWD													Offset Site Error:	0.00 ft
Survey Program: 57-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,497.82	7,153.27	91.56	52.27	91.82	-676.42	-8,304.54	5,355.69	5,250.22	105.47	50.781		
10,400.00	7,129.71	7,496.28	7,151.73	94.18	52.27	91.77	-676.43	-8,304.56	5,260.54	5,154.23	106.31	49.485		
10,500.00	7,129.14	7,494.75	7,150.20	96.81	52.26	91.72	-676.45	-8,304.57	5,165.57	5,058.38	107.19	48.189		
10,600.00	7,128.57	7,493.23	7,148.68	99.45	52.26	91.66	-676.46	-8,304.58	5,070.79	4,962.66	108.13	46.893		
10,700.00	7,128.00	7,491.72	7,147.17	102.11	52.25	91.61	-676.48	-8,304.59	4,976.22	4,867.09	109.13	45.599		
10,800.00	7,127.44	7,490.22	7,145.67	104.77	52.25	91.56	-676.49	-8,304.60	4,881.87	4,771.69	110.18	44.307		
10,900.00	7,126.87	7,488.73	7,144.18	107.45	52.25	91.51	-676.50	-8,304.61	4,787.74	4,676.45	111.30	43.018		
11,000.00	7,126.30	7,487.26	7,142.70	110.13	52.24	91.45	-676.52	-8,304.62	4,693.86	4,581.38	112.47	41.733		
11,100.00	7,125.73	7,485.79	7,141.24	112.82	52.24	91.40	-676.53	-8,304.63	4,600.23	4,486.51	113.72	40.453		
11,200.00	7,125.16	7,484.33	7,139.78	115.53	52.23	91.35	-676.55	-8,304.64	4,506.88	4,391.85	115.03	39.179		
11,300.00	7,124.59	7,482.88	7,138.33	118.24	52.23	91.30	-676.56	-8,304.65	4,413.82	4,297.39	116.42	37.912		
11,400.00	7,124.03	7,481.44	7,136.89	120.95	52.23	91.25	-676.57	-8,304.66	4,321.06	4,203.17	117.89	36.653		
11,500.00	7,123.46	7,480.02	7,135.47	123.67	52.22	91.20	-676.59	-8,304.67	4,228.64	4,109.20	119.44	35.403		
11,600.00	7,122.89	7,478.60	7,134.05	126.40	52.22	91.15	-676.60	-8,304.68	4,136.57	4,015.49	121.08	34.163		
11,700.00	7,122.32	7,477.19	7,132.64	129.14	52.21	91.10	-676.61	-8,304.69	4,044.87	3,922.06	122.81	32.935		
11,800.00	7,121.75	7,475.79	7,131.24	131.88	52.21	91.05	-676.63	-8,304.70	3,953.58	3,828.94	124.64	31.720		
11,900.00	7,121.18	7,474.40	7,129.85	134.62	52.21	91.00	-676.64	-8,304.71	3,862.72	3,736.15	126.57	30.518		
12,000.00	7,120.61	7,473.02	7,128.47	137.37	52.20	90.95	-676.65	-8,304.72	3,772.32	3,643.71	128.61	29.331		
12,100.00	7,120.05	7,471.65	7,127.10	140.12	52.20	90.91	-676.66	-8,304.73	3,682.42	3,551.65	130.77	28.161		
12,200.00	7,119.48	7,470.28	7,125.73	142.88	52.20	90.86	-676.68	-8,304.74	3,593.05	3,460.01	133.04	27.007		
12,300.00	7,118.91	7,468.93	7,124.38	145.64	52.19	90.81	-676.69	-8,304.75	3,504.25	3,368.81	135.44	25.873		
12,400.00	7,118.34	7,467.59	7,123.04	148.41	52.19	90.76	-676.70	-8,304.76	3,416.07	3,278.10	137.97	24.759		
12,500.00	7,117.77	7,466.25	7,121.70	151.18	52.19	90.72	-676.71	-8,304.77	3,328.56	3,187.91	140.65	23.666		
12,600.00	7,117.20	7,464.92	7,120.37	153.95	52.18	90.67	-676.73	-8,304.77	3,241.77	3,098.30	143.47	22.595		
12,700.00	7,116.64	7,463.60	7,119.05	156.73	52.18	90.62	-676.74	-8,304.78	3,155.77	3,009.32	146.45	21.548		
12,800.00	7,116.07	7,462.29	7,117.74	159.50	52.17	90.58	-676.75	-8,304.79	3,070.61	2,921.02	149.59	20.527		
12,900.00	7,115.50	7,460.99	7,116.44	162.29	52.17	90.53	-676.76	-8,304.80	2,986.37	2,833.47	152.90	19.531		
13,000.00	7,114.93	7,459.70	7,115.15	165.07	52.17	90.49	-676.77	-8,304.81	2,903.13	2,746.73	156.40	18.563		
13,100.00	7,114.36	7,458.41	7,113.86	167.86	52.16	90.44	-676.79	-8,304.82	2,820.98	2,660.91	160.07	17.623		
13,200.00	7,113.79	7,457.14	7,112.59	170.64	52.16	90.40	-676.80	-8,304.82	2,740.01	2,576.07	163.94	16.713		
13,300.00	7,113.22	7,455.87	7,111.32	173.44	52.16	90.35	-676.81	-8,304.83	2,660.34	2,492.33	168.01	15.834		
13,400.00	7,112.66	7,454.61	7,110.06	176.23	52.15	90.31	-676.82	-8,304.84	2,582.09	2,409.80	172.29	14.987		
13,500.00	7,112.09	7,453.36	7,108.81	179.02	52.15	90.26	-676.83	-8,304.85	2,505.38	2,328.61	176.77	14.173		
13,600.00	7,111.52	7,452.11	7,107.56	181.82	52.15	90.22	-676.85	-8,304.85	2,430.36	2,248.91	181.45	13.394		
13,700.00	7,110.95	7,450.87	7,106.33	184.62	52.14	90.18	-676.86	-8,304.86	2,357.20	2,170.85	186.35	12.649		
13,800.00	7,110.38	7,449.64	7,105.10	187.42	52.14	90.13	-676.87	-8,304.87	2,286.08	2,094.63	191.45	11.941		
13,900.00	7,109.81	7,448.42	7,103.87	190.22	52.14	90.09	-676.88	-8,304.88	2,217.18	2,020.44	196.74	11.270		
14,000.00	7,109.25	7,447.21	7,102.66	193.03	52.13	90.05	-676.89	-8,304.88	2,150.72	1,948.52	202.20	10.636		
14,100.00	7,108.68	7,446.00	7,101.46	195.84	52.13	90.01	-676.90	-8,304.89	2,086.95	1,879.12	207.83	10.042		
14,200.00	7,108.11	7,445.17	7,100.63	198.64	52.13	89.98	-676.92	-8,304.90	2,026.10	1,812.52	213.57	9.487		
14,300.00	7,107.54	7,444.04	7,099.49	201.45	52.13	89.94	-676.93	-8,304.91	1,968.45	1,749.04	219.41	8.972		
14,400.00	7,106.97	7,442.90	7,098.35	204.26	52.12	89.90	-676.94	-8,304.92	1,914.29	1,689.01	225.28	8.498		
14,500.00	7,106.40	7,441.76	7,097.22	207.07	52.12	89.86	-676.95	-8,304.92	1,863.93	1,632.80	231.12	8.065		
14,600.00	7,105.83	7,440.63	7,096.08	209.89	52.12	89.82	-676.96	-8,304.93	1,817.67	1,580.80	236.88	7.674		
14,700.00	7,105.27	7,439.49	7,094.94	212.70	52.11	89.78	-676.97	-8,304.93	1,775.85	1,533.40	242.45	7.325		
14,800.00	7,104.70	7,438.35	7,093.80	215.52	52.11	89.74	-676.98	-8,304.94	1,738.78	1,491.01	247.77	7.018		
14,900.00	7,104.13	7,437.21	7,092.66	218.33	52.11	89.70	-676.99	-8,304.95	1,706.77	1,454.04	252.73	6.753		
15,000.00	7,103.56	7,436.07	7,091.52	221.15	52.10	89.66	-677.00	-8,304.95	1,680.11	1,422.87	257.24	6.531		
15,100.00	7,102.99	7,434.92	7,090.38	223.97	52.10	89.62	-677.01	-8,304.96	1,659.06	1,397.85	261.21	6.351		
15,200.00	7,102.42	7,433.78	7,089.23	226.79	52.10	89.58	-677.02	-8,304.96	1,643.83	1,379.26	264.57	6.213		
15,274.57	7,102.00	7,432.93	7,088.38	228.89	52.10	89.55	-677.02	-8,304.97	1,636.36	1,369.73	266.64	6.137 CC, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 34-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 168-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	34.00	3.28	3.28	-106.56	-2,677.08	-9,001.90	9,391.60					
100.00	100.00	37.51	71.51	3.28	3.28	-106.56	-2,677.00	-9,001.98	9,391.64	9,385.07	6.57	1,430.420		
200.00	200.00	94.33	128.33	3.34	3.29	-106.56	-2,676.57	-9,002.43	9,392.17	9,385.55	6.62	1,418.142		
300.00	299.98	168.00	201.98	3.44	3.30	69.50	-2,675.44	-9,003.58	9,392.58	9,385.84	6.74	1,394.131		
400.00	399.84	168.00	201.98	3.59	3.30	69.50	-2,675.44	-9,003.58	9,392.32	9,385.43	6.89	1,363.718		
500.00	499.45	211.71	245.67	3.79	3.33	69.54	-2,674.60	-9,004.76	9,391.51	9,384.40	7.11	1,320.540		
600.00	598.70	259.00	292.90	4.03	3.37	69.61	-2,673.70	-9,006.71	9,390.44	9,383.05	7.39	1,269.863		
700.00	697.47	259.00	292.90	4.31	3.37	69.64	-2,673.70	-9,006.71	9,388.76	9,381.08	7.68	1,222.201		
800.00	795.62	290.83	324.69	4.64	3.40	69.72	-2,673.18	-9,008.38	9,386.73	9,378.69	8.04	1,167.465		
900.00	893.06	318.50	352.30	5.00	3.44	69.80	-2,672.88	-9,010.02	9,384.28	9,375.85	8.44	1,112.538		
1,000.00	989.64	350.00	383.74	5.40	3.48	69.91	-2,672.68	-9,012.10	9,381.41	9,372.53	8.87	1,057.236		
1,100.00	1,085.27	401.54	435.15	5.83	3.57	70.07	-2,672.53	-9,015.77	9,377.99	9,368.61	9.38	999.481		
1,200.00	1,179.88	470.26	503.68	6.29	3.70	70.25	-2,672.40	-9,020.88	9,373.90	9,363.94	9.97	940.428		
1,300.00	1,274.26	532.00	565.24	6.78	3.84	70.38	-2,672.21	-9,025.58	9,369.85	9,359.27	10.58	885.554		
1,400.00	1,368.63	577.16	610.25	7.28	3.96	70.47	-2,672.15	-9,029.19	9,366.36	9,355.17	11.19	837.384		
1,500.00	1,463.00	612.60	645.56	7.80	4.05	70.54	-2,672.26	-9,032.25	9,363.58	9,351.80	11.79	794.514		
1,600.00	1,557.38	651.39	684.19	8.33	4.16	70.62	-2,672.56	-9,035.81	9,361.52	9,349.11	12.41	754.437		
1,700.00	1,651.75	720.00	752.48	8.87	4.37	70.76	-2,673.30	-9,042.35	9,359.99	9,346.86	13.13	712.954		
1,800.00	1,746.12	834.14	866.10	9.41	4.75	70.99	-2,674.77	-9,053.17	9,358.57	9,344.56	14.01	668.078		
1,900.00	1,840.49	917.09	948.66	9.96	5.04	71.15	-2,675.43	-9,061.12	9,357.25	9,342.43	14.82	631.426		
2,000.00	1,934.87	2,000.00	1,135.64	10.52	9.56	71.54	-2,675.62	-9,078.30	9,355.36	9,335.75	19.62	476.942		
2,100.00	2,029.24	1,137.37	1,168.02	11.08	5.88	71.60	-2,675.54	-9,081.19	9,353.60	9,336.91	16.69	560.447		
2,200.00	2,123.61	1,190.00	1,220.36	11.64	6.09	71.72	-2,675.25	-9,086.68	9,352.87	9,335.43	17.44	536.268		
2,271.16	2,190.76	1,190.00	1,220.36	12.05	6.09	71.72	-2,675.25	-9,086.68	9,352.60	9,334.76	17.84	524.287		
2,300.00	2,217.99	1,190.00	1,220.36	12.21	6.09	71.72	-2,675.25	-9,086.68	9,352.65	9,334.65	18.00	519.586		
2,400.00	2,312.36	1,190.00	1,220.36	12.78	6.09	71.72	-2,675.25	-9,086.68	9,353.49	9,334.93	18.56	503.931		
2,500.00	2,406.73	1,246.45	1,276.40	13.35	6.33	71.84	-2,674.87	-9,093.40	9,354.88	9,335.54	19.34	483.757		
2,600.00	2,501.10	1,285.00	1,314.63	13.93	6.50	71.92	-2,674.62	-9,098.40	9,357.15	9,337.10	20.05	466.694		
2,700.00	2,595.48	1,285.00	1,314.63	14.51	6.50	71.92	-2,674.62	-9,098.40	9,360.25	9,339.64	20.61	454.104		
2,800.00	2,689.85	1,344.73	1,373.79	15.08	6.77	72.04	-2,674.65	-9,106.65	9,363.89	9,342.48	21.41	437.329		
2,900.00	2,784.22	1,379.00	1,407.70	15.66	6.92	72.12	-2,675.02	-9,111.61	9,368.35	9,346.24	22.11	423.687		
3,000.00	2,878.60	1,413.21	1,441.51	16.25	7.08	72.19	-2,675.43	-9,116.77	9,373.53	9,350.72	22.81	410.890		
3,100.00	2,972.97	1,447.12	1,474.99	16.83	7.24	72.26	-2,675.64	-9,122.14	9,379.43	9,355.92	23.51	398.897		
3,200.00	3,067.34	1,475.00	1,502.49	17.41	7.38	72.32	-2,675.68	-9,126.75	9,386.07	9,361.88	24.19	388.030		
3,300.00	3,161.72	1,518.54	1,545.38	18.00	7.59	72.41	-2,675.73	-9,134.23	9,393.39	9,368.46	24.93	376.763		
3,400.00	3,256.09	1,570.00	1,596.02	18.58	7.85	72.52	-2,676.04	-9,143.40	9,401.44	9,375.73	25.71	365.678		
3,500.00	3,350.46	1,596.83	1,622.39	19.17	7.99	72.58	-2,676.26	-9,148.33	9,410.10	9,383.72	26.38	356.693		
3,600.00	3,444.83	1,640.35	1,665.13	19.75	8.21	72.67	-2,676.56	-9,156.53	9,419.42	9,392.29	27.13	347.245		
3,700.00	3,539.21	1,665.00	1,689.32	20.34	8.34	72.72	-2,676.70	-9,161.27	9,429.40	9,401.61	27.79	339.351		
3,800.00	3,633.58	1,706.63	1,730.11	20.93	8.57	72.81	-2,676.90	-9,169.56	9,440.07	9,411.54	28.52	330.961		
3,900.00	3,727.95	1,759.00	1,781.31	21.52	8.85	72.92	-2,677.09	-9,180.57	9,451.61	9,422.30	29.31	322.484		
4,000.00	3,822.33	1,759.00	1,781.31	22.11	8.85	72.92	-2,677.09	-9,180.57	9,463.74	9,433.89	29.85	317.021		
4,100.00	3,916.70	1,800.63	1,821.93	22.70	9.09	73.01	-2,677.47	-9,189.69	9,476.66	9,446.07	30.59	309.831		
4,200.00	4,011.07	1,853.00	1,872.94	23.29	9.39	73.12	-2,678.67	-9,201.46	9,490.32	9,458.95	31.37	302.518		
4,300.00	4,105.44	1,881.25	1,900.43	23.88	9.55	73.18	-2,679.54	-9,207.93	9,504.56	9,472.52	32.04	296.640		
4,400.00	4,199.82	1,947.00	1,964.35	24.47	9.94	73.31	-2,681.53	-9,223.22	9,519.37	9,486.48	32.89	289.434		
4,500.00	4,294.19	1,996.04	2,011.97	25.06	10.24	73.41	-2,682.99	-9,234.80	9,534.62	9,500.96	33.66	283.272		
4,600.00	4,388.56	2,042.00	2,056.58	25.65	10.52	73.50	-2,684.35	-9,245.78	9,550.33	9,515.92	34.41	277.527		
4,700.00	4,482.94	2,042.00	2,056.58	26.24	10.52	73.50	-2,684.35	-9,245.78	9,566.89	9,531.96	34.94	273.847		
4,800.00	4,577.31	2,042.00	2,056.58	26.83	10.52	73.50	-2,684.35	-9,245.78	9,584.47	9,549.02	35.45	270.342		
4,900.00	4,671.68	2,083.52	2,096.73	27.43	10.79	73.59	-2,685.50	-9,256.31	9,602.40	9,566.22	36.18	265.408		
5,000.00	4,766.05	2,096.17	2,108.90	28.02	10.87	73.62	-2,685.82	-9,259.75	9,621.53	9,584.78	36.75	261.776		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 34-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 168-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	2,137.00	2,147.98	28.61	11.14	73.70	-2,686.77	-9,271.53	9,641.84	9,604.37	37.47	257.300		
5,200.00	4,954.80	2,475.87	2,474.50	29.20	13.40	74.42	-2,691.19	-9,361.74	9,659.75	9,619.98	39.77	242.876		
5,300.00	5,049.17	2,513.00	2,510.26	29.80	13.64	74.50	-2,690.59	-9,371.71	9,678.22	9,637.74	40.48	239.082		
5,400.00	5,143.55	2,513.00	2,510.26	30.39	13.64	74.50	-2,690.59	-9,371.71	9,697.32	9,656.33	40.99	236.593		
5,500.00	5,237.92	2,549.46	2,545.27	30.99	13.90	74.59	-2,689.93	-9,381.87	9,717.25	9,675.56	41.69	233.092		
5,600.00	5,332.29	2,609.00	2,602.36	31.58	14.31	74.72	-2,689.15	-9,398.77	9,737.83	9,695.32	42.51	229.047		
5,700.00	5,426.66	2,609.00	2,602.36	32.17	14.31	74.72	-2,689.15	-9,398.77	9,759.00	9,715.99	43.01	226.910		
5,800.00	5,521.04	2,609.00	2,602.36	32.77	14.31	74.72	-2,689.15	-9,398.77	9,781.13	9,737.64	43.50	224.874		
5,900.00	5,615.41	2,655.72	2,646.99	33.36	14.66	74.83	-2,688.86	-9,412.59	9,803.69	9,759.45	44.25	221.576		
6,000.00	5,709.78	2,704.00	2,692.83	33.96	15.02	74.93	-2,688.95	-9,427.72	9,827.48	9,782.47	45.00	218.380		
6,100.00	5,804.16	2,704.00	2,692.83	34.55	15.02	74.93	-2,688.95	-9,427.72	9,851.63	9,806.16	45.48	216.634		
6,200.00	5,898.53	2,704.00	2,692.83	35.14	15.02	74.93	-2,688.95	-9,427.72	9,876.74	9,830.80	45.94	214.973		
6,300.00	5,992.90	3,332.50	3,292.39	35.74	19.72	76.30	-2,684.96	-9,614.81	9,898.27	9,848.18	50.08	197.640		
6,400.00	6,087.27	3,391.10	3,348.73	36.33	20.15	76.41	-2,687.60	-9,630.72	9,919.27	9,868.36	50.91	194.852		
6,500.00	6,181.65	3,453.00	3,408.16	36.93	20.59	76.52	-2,691.18	-9,647.67	9,940.68	9,888.93	51.75	192.095		
6,600.00	6,276.02	6,600.00	3,647.35	37.52	43.10	76.98	-2,701.65	-9,714.82	9,961.90	9,894.16	67.73	147.075		
6,700.00	6,370.39	3,772.83	3,715.99	38.12	22.89	77.12	-2,703.08	-9,733.43	9,982.08	9,927.52	54.57	182.932		
7,300.00	6,909.19	4,343.83	4,266.51	41.37	26.98	21.64	-2,711.37	-9,884.45	9,982.90	9,922.35	60.55	164.863		
7,400.00	6,979.23	6,928.75	6,811.50	41.75	40.40	21.82	-2,713.85	-10,245.33	9,920.74	9,847.87	72.86	136.154		
7,500.00	7,038.53	6,979.64	6,862.38	42.08	40.57	18.39	-2,714.69	-10,246.18	9,843.29	9,769.94	73.36	134.185		
7,600.00	7,085.63	7,031.30	6,914.02	42.37	40.74	15.32	-2,715.79	-10,247.04	9,756.99	9,683.22	73.77	132.263		
7,700.00	7,119.37	7,068.91	6,951.61	42.64	40.86	11.38	-2,716.81	-10,247.65	9,663.91	9,589.86	74.05	130.497		
7,800.00	7,138.92	7,091.44	6,974.13	42.91	40.94	1.41	-2,717.50	-10,248.01	9,566.34	9,492.13	74.21	128.906		
7,900.00	7,143.92	7,098.47	6,981.15	43.25	40.96	-74.66	-2,717.72	-10,248.12	9,466.69	9,392.44	74.25	127.503		
8,000.00	7,143.35	7,099.54	6,982.22	43.72	40.96	-74.80	-2,717.76	-10,248.13	9,366.78	9,292.54	74.24	126.172		
8,100.00	7,142.78	7,100.60	6,983.29	44.42	40.97	-74.95	-2,717.79	-10,248.15	9,266.88	9,192.65	74.23	124.840		
8,200.00	7,142.22	7,101.67	6,984.35	45.39	40.97	-75.09	-2,717.83	-10,248.17	9,166.98	9,092.76	74.22	123.507		
8,300.00	7,141.65	7,102.73	6,985.42	46.63	40.97	-75.24	-2,717.87	-10,248.18	9,067.08	8,992.86	74.22	122.172		
8,400.00	7,141.08	7,103.79	6,986.47	48.09	40.98	-75.38	-2,717.90	-10,248.20	8,967.18	8,892.97	74.21	120.835		
8,500.00	7,140.51	7,104.85	6,987.53	49.74	40.98	-75.53	-2,717.94	-10,248.22	8,867.29	8,793.09	74.21	119.497		
8,600.00	7,139.94	7,105.91	6,988.59	51.53	40.98	-75.67	-2,717.97	-10,248.23	8,767.40	8,693.20	74.20	118.157		
8,700.00	7,139.37	7,106.96	6,989.64	53.44	40.99	-75.81	-2,718.01	-10,248.25	8,667.51	8,593.31	74.20	116.816		
8,800.00	7,138.80	7,108.01	6,990.69	55.45	40.99	-75.96	-2,718.04	-10,248.26	8,567.62	8,493.43	74.20	115.473		
8,900.00	7,138.24	7,109.06	6,991.74	57.55	41.00	-76.10	-2,718.08	-10,248.28	8,467.74	8,393.54	74.19	114.129		
9,000.00	7,137.67	7,110.10	6,992.78	59.71	41.00	-76.24	-2,718.12	-10,248.30	8,367.86	8,293.66	74.19	112.783		
9,100.00	7,137.10	7,111.15	6,993.82	61.94	41.00	-76.39	-2,718.15	-10,248.31	8,267.98	8,193.78	74.19	111.436		
9,200.00	7,136.53	7,112.19	6,994.86	64.22	41.01	-76.53	-2,718.19	-10,248.33	8,168.10	8,093.91	74.20	110.088		
9,300.00	7,135.96	7,113.23	6,995.90	66.55	41.01	-76.67	-2,718.22	-10,248.35	8,068.23	7,994.03	74.20	108.738		
9,400.00	7,135.39	7,114.26	6,996.94	68.92	41.01	-76.81	-2,718.26	-10,248.36	7,968.36	7,894.16	74.20	107.387		
9,500.00	7,134.83	7,115.30	6,997.97	71.33	41.02	-76.96	-2,718.30	-10,248.38	7,868.49	7,794.29	74.21	106.034		
9,600.00	7,134.26	7,116.33	6,999.00	73.77	41.02	-77.10	-2,718.33	-10,248.39	7,768.63	7,694.42	74.21	104.680		
9,700.00	7,133.69	7,117.36	7,000.03	76.24	41.02	-77.24	-2,718.37	-10,248.41	7,668.77	7,594.55	74.22	103.325		
9,800.00	7,133.12	7,118.38	7,001.06	78.74	41.03	-77.38	-2,718.40	-10,248.43	7,568.91	7,494.68	74.23	101.968		
9,900.00	7,132.55	7,119.41	7,002.08	81.27	41.03	-77.52	-2,718.44	-10,248.44	7,469.06	7,394.82	74.24	100.610		
10,000.00	7,131.98	7,120.43	7,003.10	83.81	41.03	-77.67	-2,718.48	-10,248.46	7,369.21	7,294.96	74.25	99.250		
10,100.00	7,131.42	7,121.45	7,004.12	86.38	41.04	-77.81	-2,718.51	-10,248.47	7,269.37	7,195.10	74.26	97.889		
10,200.00	7,130.85	7,122.47	7,005.14	88.96	41.04	-77.95	-2,718.55	-10,248.49	7,169.53	7,095.25	74.28	96.527		
10,300.00	7,130.28	7,123.49	7,006.15	91.56	41.04	-78.09	-2,718.59	-10,248.50	7,069.69	6,995.40	74.29	95.163		
10,400.00	7,129.71	7,124.50	7,007.17	94.18	41.05	-78.23	-2,718.62	-10,248.52	6,969.86	6,895.55	74.31	93.797		
10,500.00	7,129.14	7,125.51	7,008.18	96.81	41.05	-78.37	-2,718.66	-10,248.53	6,870.03	6,795.70	74.33	92.431		
10,600.00	7,128.57	7,126.52	7,009.18	99.45	41.05	-78.51	-2,718.70	-10,248.55	6,770.21	6,695.86	74.35	91.063		
10,700.00	7,128.00	7,127.53	7,010.19	102.11	41.06	-78.65	-2,718.73	-10,248.57	6,670.39	6,596.02	74.37	89.693		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 34-17(PR_150CC) - OH - OH													Offset Site Error: 0.00 ft	
Survey Program: 168-MWD													Offset Well Error: 3.28 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,800.00	7,127.44	7,128.53	7,011.19	104.77	41.06	-78.79	-2,718.77	-10,248.58	6,570.58	6,496.19	74.39	88.322		
10,900.00	7,126.87	7,129.53	7,012.20	107.45	41.06	-78.93	-2,718.81	-10,248.60	6,470.77	6,396.35	74.42	86.949		
11,000.00	7,126.30	7,130.53	7,013.19	110.13	41.07	-79.07	-2,718.84	-10,248.61	6,370.97	6,296.52	74.45	85.575		
11,100.00	7,125.73	7,131.53	7,014.19	112.82	41.07	-79.21	-2,718.88	-10,248.63	6,271.18	6,196.70	74.48	84.199		
11,200.00	7,125.16	7,132.52	7,015.19	115.53	41.07	-79.35	-2,718.92	-10,248.64	6,171.39	6,096.88	74.51	82.821		
11,300.00	7,124.59	7,133.52	7,016.18	118.24	41.08	-79.49	-2,718.95	-10,248.66	6,071.61	5,997.06	74.55	81.442		
11,400.00	7,124.03	7,134.51	7,017.17	120.95	41.08	-79.62	-2,718.99	-10,248.67	5,971.84	5,897.25	74.59	80.061		
11,500.00	7,123.46	7,135.50	7,018.16	123.67	41.08	-79.76	-2,719.03	-10,248.69	5,872.07	5,797.44	74.63	78.678		
11,600.00	7,122.89	7,136.48	7,019.14	126.40	41.09	-79.90	-2,719.06	-10,248.70	5,772.32	5,697.63	74.68	77.293		
11,700.00	7,122.32	7,137.47	7,020.13	129.14	41.09	-80.04	-2,719.10	-10,248.72	5,672.57	5,597.83	74.73	75.906		
11,800.00	7,121.75	7,138.45	7,021.11	131.88	41.09	-80.18	-2,719.14	-10,248.73	5,572.83	5,498.04	74.79	74.517		
11,900.00	7,121.18	7,139.43	7,022.09	134.62	41.10	-80.31	-2,719.17	-10,248.75	5,473.09	5,398.25	74.84	73.126		
12,000.00	7,120.61	7,140.41	7,023.06	137.37	41.10	-80.45	-2,719.21	-10,248.76	5,373.37	5,298.47	74.91	71.733		
12,100.00	7,120.05	7,141.39	7,024.04	140.12	41.10	-80.59	-2,719.25	-10,248.78	5,273.66	5,198.69	74.98	70.337		
12,200.00	7,119.48	7,142.36	7,025.01	142.88	41.11	-80.73	-2,719.29	-10,248.79	5,173.96	5,098.91	75.05	68.939		
12,300.00	7,118.91	7,143.33	7,025.98	145.64	41.11	-80.86	-2,719.32	-10,248.81	5,074.27	4,999.14	75.13	67.539		
12,400.00	7,118.34	7,144.30	7,026.95	148.41	41.11	-81.00	-2,719.36	-10,248.82	4,974.60	4,899.38	75.22	66.135		
12,500.00	7,117.77	7,145.27	7,027.92	151.18	41.12	-81.13	-2,719.40	-10,248.83	4,874.93	4,799.62	75.31	64.729		
12,600.00	7,117.20	7,146.23	7,028.88	153.95	41.12	-81.27	-2,719.44	-10,248.85	4,775.29	4,699.87	75.42	63.320		
12,700.00	7,116.64	7,147.20	7,029.85	156.73	41.12	-81.41	-2,719.47	-10,248.86	4,675.65	4,600.12	75.53	61.907		
12,800.00	7,116.07	7,148.16	7,030.81	159.50	41.12	-81.54	-2,719.51	-10,248.88	4,576.03	4,500.38	75.65	60.491		
12,900.00	7,115.50	7,149.12	7,031.76	162.29	41.13	-81.68	-2,719.55	-10,248.89	4,476.43	4,400.65	75.78	59.072		
13,000.00	7,114.93	7,150.07	7,032.72	165.07	41.13	-81.81	-2,719.59	-10,248.91	4,376.85	4,300.92	75.92	57.649		
13,100.00	7,114.36	7,151.03	7,033.67	167.86	41.13	-81.95	-2,719.62	-10,248.92	4,277.28	4,201.20	76.08	56.222		
13,200.00	7,113.79	7,151.98	7,034.63	170.64	41.14	-82.08	-2,719.66	-10,248.94	4,177.74	4,101.49	76.25	54.791		
13,300.00	7,113.22	7,152.93	7,035.58	173.44	41.14	-82.22	-2,719.70	-10,248.95	4,078.22	4,001.78	76.44	53.355		
13,400.00	7,112.66	7,153.88	7,036.52	176.23	41.14	-82.35	-2,719.74	-10,248.96	3,978.72	3,902.08	76.64	51.915		
13,500.00	7,112.09	7,154.83	7,037.47	179.02	41.15	-82.49	-2,719.77	-10,248.98	3,879.24	3,802.38	76.86	50.470		
13,600.00	7,111.52	7,155.77	7,038.41	181.82	41.15	-82.62	-2,719.81	-10,248.99	3,779.80	3,702.69	77.11	49.020		
13,700.00	7,110.95	7,156.71	7,039.35	184.62	41.15	-82.75	-2,719.85	-10,249.01	3,680.38	3,603.01	77.38	47.564		
13,800.00	7,110.38	7,157.65	7,040.29	187.42	41.16	-82.89	-2,719.89	-10,249.02	3,581.00	3,503.33	77.67	46.103		
13,900.00	7,109.81	7,158.59	7,041.23	190.22	41.16	-83.02	-2,719.92	-10,249.03	3,481.65	3,403.65	78.00	44.636		
14,000.00	7,109.25	7,159.53	7,042.17	193.03	41.16	-83.15	-2,719.96	-10,249.05	3,382.34	3,303.98	78.36	43.163		
14,100.00	7,108.68	7,160.46	7,043.10	195.84	41.17	-83.28	-2,720.00	-10,249.06	3,283.08	3,204.31	78.76	41.684		
14,200.00	7,108.11	7,161.40	7,044.03	198.64	41.17	-83.42	-2,720.04	-10,249.08	3,183.85	3,104.65	79.20	40.198		
14,300.00	7,107.54	7,162.33	7,044.96	201.45	41.17	-83.55	-2,720.08	-10,249.09	3,084.68	3,004.98	79.70	38.706		
14,400.00	7,106.97	7,163.25	7,045.89	204.26	41.17	-83.68	-2,720.11	-10,249.10	2,985.56	2,905.32	80.24	37.206		
14,500.00	7,106.40	7,164.18	7,046.81	207.07	41.18	-83.81	-2,720.15	-10,249.12	2,886.51	2,805.65	80.85	35.701		
14,600.00	7,105.83	7,165.11	7,047.74	209.89	41.18	-83.94	-2,720.19	-10,249.13	2,787.52	2,705.98	81.53	34.188		
14,700.00	7,105.27	7,166.03	7,048.66	212.70	41.18	-84.08	-2,720.23	-10,249.15	2,688.60	2,606.30	82.30	32.669		
14,800.00	7,104.70	7,166.95	7,049.58	215.52	41.19	-84.21	-2,720.27	-10,249.16	2,589.77	2,506.61	83.15	31.144		
14,900.00	7,104.13	7,167.87	7,050.50	218.33	41.19	-84.34	-2,720.30	-10,249.17	2,491.03	2,406.91	84.12	29.614		
15,000.00	7,103.56	7,168.78	7,051.41	221.15	41.19	-84.47	-2,720.34	-10,249.19	2,392.39	2,307.19	85.20	28.078		
15,100.00	7,102.99	7,169.70	7,052.33	223.97	41.20	-84.60	-2,720.38	-10,249.20	2,293.87	2,207.44	86.43	26.540		
15,200.00	7,102.42	7,170.61	7,053.24	226.79	41.20	-84.73	-2,720.42	-10,249.21	2,195.49	2,107.66	87.82	24.999		
15,274.57	7,102.00	7,171.29	7,053.92	228.89	41.20	-84.82	-2,720.45	-10,249.22	2,122.22	2,033.24	88.98	23.849 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 43-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 118-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	34.00	3.28	3.28	-106.26	-2,609.34	-8,945.96	9,318.80					
100.00	100.00	37.53	71.53	3.28	3.28	-106.26	-2,609.26	-8,946.05	9,318.84	9,312.28	6.57	1,419.350		
200.00	200.00	94.39	128.39	3.34	3.29	-106.26	-2,608.84	-8,946.49	9,319.38	9,312.76	6.62	1,407.258		
300.00	299.98	462.98	496.82	3.44	3.71	69.90	-2,599.36	-8,945.50	9,316.98	9,309.82	7.16	1,301.574		
400.00	399.84	717.20	750.86	3.59	4.35	70.11	-2,591.36	-8,940.45	9,312.65	9,304.70	7.95	1,171.328		
500.00	499.45	788.57	822.14	3.79	4.57	70.28	-2,588.49	-8,938.47	9,305.94	9,297.58	8.36	1,113.278		
600.00	598.70	850.00	883.47	4.03	4.76	70.48	-2,585.14	-8,937.50	9,298.68	9,289.89	8.79	1,057.590		
700.00	697.47	876.22	909.63	4.31	4.85	70.67	-2,583.43	-8,937.32	9,290.78	9,281.62	9.16	1,014.408		
800.00	795.62	922.67	955.96	4.64	5.00	70.90	-2,580.03	-8,937.31	9,282.36	9,272.73	9.63	963.438		
900.00	893.06	981.97	1,015.03	5.00	5.21	71.18	-2,574.90	-8,937.85	9,273.37	9,263.17	10.20	909.277		
1,000.00	989.64	1,082.10	1,114.49	5.40	5.58	71.59	-2,563.47	-8,939.76	9,263.59	9,252.63	10.96	845.137		
1,100.00	1,085.27	1,183.26	1,214.67	5.83	5.98	72.05	-2,549.62	-8,941.96	9,252.53	9,240.75	11.79	784.983		
1,200.00	1,179.88	1,555.75	1,580.36	6.29	7.70	73.33	-2,479.73	-8,949.22	9,239.09	9,225.14	13.95	662.197		
1,300.00	1,274.26	1,851.80	1,866.68	6.78	9.35	74.34	-2,404.69	-8,952.25	9,223.77	9,207.71	16.06	574.348		
1,400.00	1,368.63	2,017.03	2,025.32	7.28	10.37	74.93	-2,358.52	-8,952.12	9,207.22	9,189.67	17.55	524.660		
1,500.00	1,463.00	2,050.51	2,057.41	7.80	10.58	75.05	-2,348.92	-8,952.13	9,191.06	9,172.79	18.27	503.068		
1,600.00	1,557.38	2,081.00	2,086.61	8.33	10.77	75.16	-2,340.18	-8,952.29	9,175.67	9,156.68	18.99	483.297		
1,700.00	1,651.75	2,121.21	2,125.09	8.87	11.03	75.31	-2,328.52	-8,952.74	9,161.02	9,141.24	19.78	463.167		
1,800.00	1,746.12	2,175.00	2,176.46	9.41	11.38	75.51	-2,312.58	-8,953.77	9,147.16	9,126.49	20.67	442.552		
1,900.00	1,840.49	2,345.20	2,338.47	9.96	12.54	76.14	-2,260.52	-8,956.66	9,133.51	9,111.15	22.35	408.572		
2,000.00	1,934.87	2,428.80	2,417.99	10.52	13.12	76.46	-2,234.73	-8,957.52	9,119.54	9,096.06	23.48	388.356		
2,100.00	2,029.24	2,545.46	2,528.99	11.08	13.93	76.90	-2,198.86	-8,958.59	9,105.92	9,081.07	24.84	366.525		
2,200.00	2,123.61	2,618.32	2,598.45	11.64	14.44	77.17	-2,176.85	-8,958.97	9,092.43	9,066.52	25.91	350.859		
2,300.00	2,217.99	2,750.59	2,723.86	12.21	15.39	77.68	-2,134.85	-8,959.91	9,079.28	9,051.86	27.42	331.101		
2,400.00	2,312.36	2,804.57	2,774.83	12.78	15.79	77.89	-2,117.09	-8,960.30	9,066.30	9,037.90	28.40	319.286		
2,500.00	2,406.73	2,863.21	2,830.29	13.35	16.22	78.12	-2,098.04	-8,960.80	9,053.89	9,024.49	29.40	307.963		
2,600.00	2,501.10	2,922.97	2,887.29	13.93	16.64	78.34	-2,080.10	-8,961.18	9,042.05	9,011.65	30.40	297.391		
2,700.00	2,595.48	2,975.85	2,938.00	14.51	17.01	78.54	-2,065.11	-8,961.49	9,030.80	8,999.44	31.36	288.003		
2,800.00	2,689.85	2,800.00	3,043.63	15.08	15.79	78.95	-2,033.21	-8,962.32	9,019.98	8,989.26	30.72	293.646		
2,900.00	2,784.22	3,210.11	3,162.52	15.66	18.64	79.41	-1,998.30	-8,962.32	9,008.93	8,974.80	34.14	263.920		
3,000.00	2,878.60	3,311.00	3,259.44	16.25	19.33	79.78	-1,970.26	-8,961.84	8,997.93	8,962.52	35.41	254.104		
3,100.00	2,972.97	3,367.88	3,314.00	16.83	19.73	79.99	-1,954.19	-8,961.60	8,987.40	8,951.01	36.40	246.919		
3,200.00	3,067.34	3,409.00	3,353.40	17.41	20.02	80.14	-1,942.43	-8,961.74	8,977.71	8,940.43	37.28	240.820		
3,300.00	3,161.72	3,499.27	3,439.97	18.00	20.65	80.47	-1,916.86	-8,962.16	8,968.57	8,930.07	38.50	232.952		
3,400.00	3,256.09	3,560.66	3,498.87	18.58	21.08	80.70	-1,899.56	-8,962.43	8,959.77	8,920.25	39.52	226.690		
3,500.00	3,350.46	3,620.58	3,556.25	19.17	21.50	80.93	-1,882.31	-8,962.87	8,951.55	8,911.00	40.54	220.795		
3,600.00	3,444.83	3,682.21	3,615.22	19.75	21.94	81.16	-1,864.39	-8,963.49	8,943.88	8,902.30	41.58	215.115		
3,700.00	3,539.21	3,749.42	3,679.37	20.34	22.43	81.42	-1,844.37	-8,964.34	8,936.75	8,894.08	42.66	209.472		
3,800.00	3,633.58	3,820.63	3,746.99	20.93	22.95	81.69	-1,822.08	-8,965.44	8,930.12	8,886.33	43.79	203.941		
3,900.00	3,727.95	3,900.37	3,822.55	21.52	23.56	82.01	-1,796.64	-8,966.75	8,923.94	8,878.95	44.99	198.373		
4,000.00	3,822.33	3,993.98	3,911.22	22.11	24.26	82.38	-1,766.67	-8,968.20	8,918.09	8,871.80	46.29	192.651		
4,100.00	3,916.70	4,049.91	3,964.28	22.70	24.69	82.60	-1,748.99	-8,969.11	8,912.74	8,865.43	47.31	188.389		
4,200.00	4,011.07	4,100.24	4,012.11	23.29	25.06	82.79	-1,733.34	-8,970.01	8,907.98	8,859.70	48.28	184.494		
4,300.00	4,105.44	4,144.89	4,054.62	23.88	25.39	82.97	-1,719.75	-8,970.97	8,903.94	8,854.73	49.21	180.937		
4,400.00	4,199.82	4,514.23	4,405.04	24.47	28.19	84.42	-1,603.25	-8,975.12	8,900.46	8,847.88	52.58	169.263		
4,500.00	4,294.19	4,572.52	4,459.89	25.06	28.64	84.65	-1,583.50	-8,974.69	8,894.87	8,841.23	53.64	165.827		
4,600.00	4,388.56	4,613.69	4,498.67	25.65	28.96	84.82	-1,569.70	-8,974.56	8,890.01	8,835.45	54.56	162.926		
4,700.00	4,482.94	4,660.75	4,543.12	26.24	29.33	85.01	-1,554.26	-8,974.58	8,885.91	8,830.38	55.53	160.027		
4,800.00	4,577.31	4,717.68	4,597.20	26.83	29.76	85.23	-1,536.46	-8,974.75	8,882.45	8,825.90	56.55	157.059		
4,900.00	4,671.68	4,769.16	4,646.36	27.43	30.13	85.43	-1,521.17	-8,975.02	8,879.63	8,822.10	57.53	154.349		
5,000.00	4,766.05	4,830.00	4,704.59	28.02	30.57	85.66	-1,503.57	-8,975.57	8,877.49	8,818.93	58.56	151.584		
5,100.00	4,860.43	5,100.00	4,785.16	28.61	32.43	85.97	-1,481.39	-8,976.31	8,875.74	8,814.74	61.01	145.483		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 43-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 118-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,999.71	4,868.70	29.20	31.71	86.27	-1,460.44	-8,976.97	8,874.25	8,813.36	60.88	145.756		
5,300.00	5,049.17	5,071.89	4,938.97	29.80	32.16	86.52	-1,443.93	-8,977.65	8,873.23	8,811.30	61.93	143.278		
5,400.00	5,143.55	5,164.46	5,029.42	30.39	32.72	86.84	-1,424.33	-8,978.61	8,872.58	8,809.50	63.08	140.657		
5,500.00	5,237.92	5,281.53	5,144.60	30.99	33.37	87.21	-1,403.40	-8,979.58	8,872.01	8,807.68	64.32	137.929		
5,600.00	5,332.29	5,369.44	5,231.53	31.58	33.82	87.47	-1,390.39	-8,980.19	8,871.51	8,806.15	65.36	135.725		
5,700.00	5,426.66	5,481.67	5,342.91	32.17	34.35	87.80	-1,376.58	-8,981.01	8,871.23	8,804.74	66.48	133.434		
5,800.00	5,521.04	5,562.79	5,423.68	32.77	34.70	88.01	-1,369.15	-8,981.56	8,871.01	8,803.58	67.42	131.578		
5,900.00	5,615.41	5,611.08	5,671.38	33.36	35.67	88.64	-1,352.37	-8,981.19	8,869.93	8,800.96	68.98	128.592		
6,000.00	5,709.78	5,872.00	5,732.24	33.96	35.89	88.79	-1,349.72	-8,980.88	8,868.76	8,798.97	69.79	127.077		
6,100.00	5,804.16	5,915.80	5,776.02	34.55	36.04	88.89	-1,348.13	-8,980.88	8,868.14	8,797.61	70.53	125.729		
6,161.53	5,862.23	5,951.54	5,811.74	34.92	36.16	88.98	-1,347.08	-8,980.98	8,868.03	8,797.01	71.02	124.867		
6,200.00	5,898.53	5,976.94	5,837.12	35.14	36.25	89.03	-1,346.46	-8,981.11	8,868.06	8,796.72	71.33	124.320		
6,300.00	5,992.90	6,057.10	5,917.27	35.74	36.51	89.22	-1,344.65	-8,981.63	8,868.34	8,796.15	72.19	122.853		
6,400.00	6,087.27	6,166.01	6,026.16	36.33	36.87	89.46	-1,342.41	-8,982.35	8,868.76	8,795.62	73.14	121.265		
6,500.00	6,181.65	6,256.82	6,116.94	36.93	37.17	89.67	-1,340.68	-8,982.83	8,869.19	8,795.17	74.02	119.814		
6,600.00	6,276.02	6,327.33	6,187.44	37.52	37.41	89.83	-1,339.26	-8,983.34	8,869.95	8,795.10	74.85	118.506		
6,700.00	6,370.39	6,399.78	6,259.87	38.12	37.65	89.99	-1,337.69	-8,984.06	8,871.09	8,795.42	75.68	117.222		
6,800.00	6,464.77	6,477.79	6,337.86	38.71	37.91	90.17	-1,336.03	-8,984.98	8,872.56	8,796.03	76.53	115.939		
6,900.00	6,559.14	6,562.39	6,422.42	39.31	38.20	90.14	-1,334.32	-8,986.13	8,874.32	8,796.92	77.40	114.656		
7,000.00	6,652.92	6,666.95	6,526.96	39.90	38.55	90.19	-1,332.28	-8,987.51	8,868.23	8,789.90	78.33	113.213		
7,100.00	6,744.00	6,748.11	6,608.10	40.44	38.83	91.44	-1,330.74	-8,988.55	8,846.77	8,767.63	79.15	111.778		
7,200.00	6,830.13	6,817.74	6,677.71	40.94	39.06	41.88	-1,329.46	-8,989.58	8,810.67	8,730.81	79.86	110.320		
7,300.00	6,909.19	6,885.21	6,745.16	41.37	39.29	36.29	-1,328.22	-8,990.69	8,760.78	8,680.26	80.52	108.801		
7,400.00	6,979.23	6,948.47	6,808.39	41.75	39.51	33.27	-1,326.88	-8,991.77	8,698.24	8,617.13	81.11	107.241		
7,500.00	7,038.53	7,002.29	6,862.19	42.08	39.70	32.21	-1,325.59	-8,992.72	8,624.53	8,542.92	81.61	105.681		
7,600.00	7,085.63	7,058.43	6,918.30	42.37	39.90	33.24	-1,324.16	-8,993.71	8,541.38	8,459.31	82.07	104.079		
7,700.00	7,119.37	7,101.15	6,961.01	42.64	40.05	37.42	-1,323.10	-8,994.42	8,450.77	8,368.35	82.42	102.532		
7,800.00	7,138.92	7,126.65	6,986.50	42.91	40.14	49.53	-1,322.48	-8,994.82	8,354.93	8,272.27	82.66	101.074		
7,900.00	7,143.92	7,134.55	6,994.39	43.25	40.17	84.07	-1,322.29	-8,994.94	8,256.22	8,173.42	82.79	99.723		
8,000.00	7,143.35	7,135.72	6,995.56	43.72	40.17	84.13	-1,322.26	-8,994.96	8,156.95	8,074.07	82.88	98.417		
8,100.00	7,142.78	7,136.88	6,996.72	44.42	40.18	84.20	-1,322.23	-8,994.98	8,057.71	7,974.73	82.98	97.108		
8,200.00	7,142.22	7,138.04	6,997.88	45.39	40.18	84.27	-1,322.20	-8,995.00	7,958.49	7,875.41	83.08	95.794		
8,300.00	7,141.65	7,139.19	6,999.03	46.63	40.18	84.33	-1,322.17	-8,995.02	7,859.28	7,776.10	83.19	94.478		
8,400.00	7,141.08	7,140.33	7,000.17	48.09	40.19	84.40	-1,322.15	-8,995.03	7,760.10	7,676.80	83.30	93.157		
8,500.00	7,140.51	7,141.47	7,001.31	49.74	40.19	84.46	-1,322.12	-8,995.05	7,660.93	7,577.51	83.42	91.833		
8,600.00	7,139.94	7,142.61	7,002.44	51.53	40.20	84.53	-1,322.09	-8,995.07	7,561.79	7,478.24	83.55	90.505		
8,700.00	7,139.37	7,143.73	7,003.57	53.44	40.20	84.59	-1,322.07	-8,995.09	7,462.67	7,378.99	83.69	89.173		
8,800.00	7,138.80	7,144.86	7,004.70	55.45	40.20	84.66	-1,322.04	-8,995.10	7,363.58	7,279.75	83.83	87.837		
8,900.00	7,138.24	7,145.98	7,005.81	57.55	40.21	84.72	-1,322.01	-8,995.12	7,264.51	7,180.52	83.98	86.498		
9,000.00	7,137.67	7,147.09	7,006.93	59.71	40.21	84.79	-1,321.98	-8,995.14	7,165.46	7,081.32	84.15	85.155		
9,100.00	7,137.10	7,148.20	7,008.03	61.94	40.22	84.85	-1,321.96	-8,995.15	7,066.45	6,982.13	84.32	83.808		
9,200.00	7,136.53	7,149.30	7,009.13	64.22	40.22	84.91	-1,321.93	-8,995.17	6,967.46	6,882.96	84.50	82.457		
9,300.00	7,135.96	7,150.40	7,010.23	66.55	40.22	84.98	-1,321.91	-8,995.19	6,868.49	6,783.80	84.69	81.102		
9,400.00	7,135.39	7,151.49	7,011.32	68.92	40.23	85.04	-1,321.88	-8,995.20	6,769.56	6,684.67	84.89	79.744		
9,500.00	7,134.83	7,152.58	7,012.41	71.33	40.23	85.10	-1,321.85	-8,995.22	6,670.66	6,585.56	85.11	78.381		
9,600.00	7,134.26	7,153.66	7,013.49	73.77	40.23	85.16	-1,321.83	-8,995.24	6,571.80	6,486.47	85.33	77.015		
9,700.00	7,133.69	7,154.73	7,014.57	76.24	40.24	85.23	-1,321.80	-8,995.25	6,472.97	6,387.40	85.57	75.645		
9,800.00	7,133.12	7,155.81	7,015.64	78.74	40.24	85.29	-1,321.78	-8,995.27	6,374.17	6,288.35	85.82	74.272		
9,900.00	7,132.55	7,156.87	7,016.70	81.27	40.25	85.35	-1,321.75	-8,995.28	6,275.42	6,189.33	86.09	72.894		
10,000.00	7,131.98	7,157.93	7,017.77	83.81	40.25	85.41	-1,321.73	-8,995.30	6,176.70	6,090.33	86.37	71.513		
10,100.00	7,131.42	7,158.99	7,018.82	86.38	40.25	85.47	-1,321.70	-8,995.32	6,078.02	5,991.35	86.67	70.129		
10,200.00	7,130.85	7,160.04	7,019.87	88.96	40.26	85.53	-1,321.68	-8,995.33	5,979.39	5,892.41	86.98	68.741		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 43-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 118-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,161.09	7,020.92	91.56	40.26	85.59	-1,321.65	-8,995.35	5,880.81	5,793.49	87.32	67.349		
10,400.00	7,129.71	7,162.13	7,021.96	94.18	40.26	85.65	-1,321.63	-8,995.36	5,782.27	5,694.60	87.67	65.955		
10,500.00	7,129.14	7,163.17	7,023.00	96.81	40.27	85.71	-1,321.60	-8,995.38	5,683.79	5,595.74	88.04	64.557		
10,600.00	7,128.57	7,164.20	7,024.03	99.45	40.27	85.77	-1,321.58	-8,995.39	5,585.35	5,496.92	88.44	63.156		
10,700.00	7,128.00	7,165.23	7,025.06	102.11	40.28	85.83	-1,321.55	-8,995.41	5,486.98	5,398.12	88.86	61.752		
10,800.00	7,127.44	7,166.26	7,026.08	104.77	40.28	85.89	-1,321.53	-8,995.42	5,388.66	5,299.36	89.30	60.345		
10,900.00	7,126.87	7,167.27	7,027.10	107.45	40.28	85.95	-1,321.50	-8,995.44	5,290.41	5,200.64	89.77	58.936		
11,000.00	7,126.30	7,168.29	7,028.12	110.13	40.29	86.01	-1,321.48	-8,995.45	5,192.22	5,101.96	90.26	57.525		
11,100.00	7,125.73	7,169.30	7,029.13	112.82	40.29	86.06	-1,321.46	-8,995.47	5,094.11	5,003.32	90.79	56.111		
11,200.00	7,125.16	7,170.30	7,030.13	115.53	40.29	86.12	-1,321.43	-8,995.48	4,996.06	4,904.72	91.34	54.696		
11,300.00	7,124.59	7,171.30	7,031.13	118.24	40.30	86.18	-1,321.41	-8,995.50	4,898.10	4,806.17	91.93	53.279		
11,400.00	7,124.03	7,172.30	7,032.13	120.95	40.30	86.24	-1,321.39	-8,995.51	4,800.22	4,707.66	92.56	51.861		
11,500.00	7,123.46	7,173.29	7,033.12	123.67	40.30	86.29	-1,321.36	-8,995.53	4,702.43	4,609.21	93.22	50.443		
11,600.00	7,122.89	7,174.28	7,034.10	126.40	40.31	86.35	-1,321.34	-8,995.54	4,604.74	4,510.81	93.93	49.024		
11,700.00	7,122.32	7,175.26	7,035.09	129.14	40.31	86.41	-1,321.32	-8,995.56	4,507.14	4,412.47	94.68	47.606		
11,800.00	7,121.75	7,176.24	7,036.06	131.88	40.31	86.46	-1,321.29	-8,995.57	4,409.66	4,314.19	95.47	46.188		
11,900.00	7,121.18	7,177.21	7,037.04	134.62	40.32	86.52	-1,321.27	-8,995.59	4,312.29	4,215.97	96.32	44.771		
12,000.00	7,120.61	7,178.18	7,038.01	137.37	40.32	86.58	-1,321.25	-8,995.60	4,215.04	4,117.82	97.22	43.356		
12,100.00	7,120.05	7,179.15	7,038.97	140.12	40.32	86.63	-1,321.22	-8,995.61	4,117.92	4,019.74	98.18	41.944		
12,200.00	7,119.48	7,180.11	7,039.93	142.88	40.33	86.69	-1,321.20	-8,995.63	4,020.94	3,921.75	99.20	40.535		
12,300.00	7,118.91	7,181.07	7,040.89	145.64	40.33	86.74	-1,321.18	-8,995.64	3,924.12	3,823.84	100.28	39.131		
12,400.00	7,118.34	7,182.02	7,041.84	148.41	40.33	86.80	-1,321.16	-8,995.66	3,827.46	3,726.02	101.44	37.731		
12,500.00	7,117.77	7,182.97	7,042.79	151.18	40.34	86.85	-1,321.13	-8,995.67	3,730.97	3,628.30	102.68	36.337		
12,600.00	7,117.20	7,183.91	7,043.74	153.95	40.34	86.91	-1,321.11	-8,995.68	3,634.68	3,530.68	104.00	34.950		
12,700.00	7,116.64	7,184.86	7,044.68	156.73	40.34	86.96	-1,321.09	-8,995.70	3,538.59	3,433.18	105.41	33.571		
12,800.00	7,116.07	7,185.79	7,045.61	159.50	40.35	87.01	-1,321.07	-8,995.71	3,442.72	3,335.80	106.91	32.201		
12,900.00	7,115.50	7,186.72	7,046.54	162.29	40.35	87.07	-1,321.05	-8,995.72	3,347.09	3,238.57	108.53	30.841		
13,000.00	7,114.93	7,187.65	7,047.47	165.07	40.35	87.12	-1,321.02	-8,995.74	3,251.73	3,141.47	110.26	29.493		
13,100.00	7,114.36	7,188.58	7,048.40	167.86	40.36	87.18	-1,321.00	-8,995.75	3,156.65	3,044.55	112.11	28.157		
13,200.00	7,113.79	7,189.50	7,049.32	170.64	40.36	87.23	-1,320.98	-8,995.76	3,061.89	2,947.80	114.09	26.836		
13,300.00	7,113.22	7,190.41	7,050.23	173.44	40.36	87.28	-1,320.96	-8,995.78	2,967.47	2,851.24	116.23	25.532		
13,400.00	7,112.66	7,190.03	7,049.84	176.23	40.36	87.26	-1,320.98	-8,995.78	2,873.43	2,754.92	118.51	24.246		
13,500.00	7,112.09	7,190.96	7,050.78	179.02	40.37	87.31	-1,320.96	-8,995.79	2,779.80	2,658.83	120.98	22.978		
13,600.00	7,111.52	7,191.90	7,051.72	181.82	40.37	87.37	-1,320.93	-8,995.81	2,686.64	2,563.00	123.64	21.730		
13,700.00	7,110.95	7,192.84	7,052.66	184.62	40.37	87.42	-1,320.91	-8,995.82	2,593.98	2,467.48	126.50	20.506		
13,800.00	7,110.38	7,193.78	7,053.60	187.42	40.38	87.48	-1,320.89	-8,995.84	2,501.88	2,372.29	129.59	19.306		
13,900.00	7,109.81	7,194.73	7,054.55	190.22	40.38	87.53	-1,320.87	-8,995.85	2,410.42	2,277.49	132.93	18.133		
14,000.00	7,109.25	7,195.68	7,055.50	193.03	40.38	87.58	-1,320.85	-8,995.86	2,319.66	2,183.12	136.54	16.989		
14,100.00	7,108.68	7,196.63	7,056.45	195.84	40.39	87.64	-1,320.83	-8,995.88	2,229.69	2,089.25	140.44	15.876		
14,200.00	7,108.11	7,197.58	7,057.40	198.64	40.39	87.69	-1,320.81	-8,995.89	2,140.61	1,995.93	144.67	14.796		
14,300.00	7,107.54	7,198.54	7,058.35	201.45	40.39	87.75	-1,320.79	-8,995.91	2,052.53	1,903.27	149.26	13.751		
14,400.00	7,106.97	7,199.50	7,059.31	204.26	40.40	87.81	-1,320.76	-8,995.92	1,965.60	1,811.37	154.23	12.744		
14,500.00	7,106.40	7,200.46	7,060.27	207.07	40.40	87.86	-1,320.74	-8,995.94	1,879.97	1,720.34	159.63	11.777		
14,600.00	7,105.83	7,201.42	7,061.24	209.89	40.40	87.92	-1,320.72	-8,995.95	1,795.82	1,630.34	165.48	10.852		
14,700.00	7,105.27	7,202.39	7,062.20	212.70	40.41	87.97	-1,320.70	-8,995.97	1,713.37	1,541.55	171.82	9.972		
14,800.00	7,104.70	7,203.35	7,063.17	215.52	40.41	88.03	-1,320.68	-8,995.98	1,632.89	1,454.20	178.69	9.138		
14,900.00	7,104.13	7,204.32	7,064.14	218.33	40.41	88.08	-1,320.66	-8,996.00	1,554.67	1,368.57	186.10	8.354		
15,000.00	7,103.56	7,205.30	7,065.11	221.15	40.42	88.14	-1,320.64	-8,996.01	1,479.08	1,285.00	194.08	7.621		
15,100.00	7,102.99	7,206.27	7,066.09	223.97	40.42	88.20	-1,320.61	-8,996.02	1,406.54	1,203.93	202.62	6.942		
15,200.00	7,102.42	7,207.25	7,067.06	226.79	40.42	88.25	-1,320.59	-8,996.04	1,337.55	1,125.87	211.68	6.319		
15,274.57	7,102.00	7,207.98	7,067.80	228.89	40.42	88.29	-1,320.58	-8,996.05	1,288.75	1,070.00	218.75	5.891 CC, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 89-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	34.00	3.28	3.28	-106.24	-2,615.16	-8,976.84	9,350.08					
100.00	100.00	172.38	206.35	3.28	3.33	-106.23	-2,612.53	-8,976.56	9,349.62	9,343.01	6.61	1,414.841		
200.00	200.00	304.69	338.62	3.34	3.47	-106.21	-2,609.42	-8,975.56	9,348.21	9,341.41	6.80	1,374.296		
300.00	299.98	406.82	440.71	3.44	3.64	69.90	-2,606.35	-8,974.91	9,346.16	9,339.08	7.07	1,321.102		
400.00	399.84	492.61	526.43	3.59	3.81	70.00	-2,603.22	-8,974.47	9,342.86	9,335.46	7.40	1,262.131		
500.00	499.45	542.00	575.78	3.79	3.93	70.12	-2,601.10	-8,974.46	9,338.72	9,331.01	7.72	1,210.340		
600.00	598.70	587.88	621.62	4.03	4.05	70.25	-2,599.04	-8,974.74	9,333.97	9,325.90	8.07	1,156.101		
700.00	697.47	648.00	681.67	4.31	4.21	70.42	-2,596.37	-8,975.68	9,328.81	9,320.29	8.52	1,095.071		
800.00	795.62	661.94	695.59	4.64	4.25	70.55	-2,595.77	-8,975.99	9,323.01	9,314.13	8.88	1,049.835		
900.00	893.06	706.04	739.64	5.00	4.37	70.74	-2,594.02	-8,977.13	9,316.80	9,307.43	9.37	994.821		
1,000.00	989.64	791.32	824.83	5.40	4.63	71.02	-2,590.89	-8,979.51	9,309.81	9,299.80	10.02	929.580		
1,100.00	1,085.27	829.30	862.76	5.83	4.75	71.24	-2,589.39	-8,980.75	9,302.14	9,291.57	10.56	880.658		
1,200.00	1,179.88	884.00	917.35	6.29	4.93	71.47	-2,586.77	-8,983.06	9,294.13	9,282.93	11.20	829.933		
1,300.00	1,274.26	884.00	917.35	6.78	4.93	71.47	-2,586.77	-8,983.06	9,286.55	9,274.87	11.68	795.011		
1,400.00	1,368.63	923.72	956.95	7.28	5.06	71.56	-2,584.67	-8,985.19	9,279.74	9,267.43	12.31	753.645		
1,500.00	1,463.00	979.00	1,012.03	7.80	5.25	71.69	-2,581.74	-8,988.94	9,273.96	9,260.95	13.02	712.554		
1,600.00	1,557.38	979.00	1,012.03	8.33	5.25	71.69	-2,581.74	-8,988.94	9,268.66	9,255.12	13.54	684.623		
1,700.00	1,651.75	1,015.98	1,048.83	8.87	5.39	71.78	-2,579.64	-8,991.85	9,264.28	9,250.08	14.20	652.341		
1,800.00	1,746.12	1,074.00	1,106.50	9.41	5.60	71.92	-2,575.71	-8,996.92	9,260.57	9,245.62	14.95	619.397		
1,900.00	1,840.49	1,123.80	1,155.92	9.96	5.80	72.05	-2,571.69	-9,001.62	9,257.39	9,241.71	15.69	590.191		
2,000.00	1,934.87	1,168.00	1,199.70	10.52	5.97	72.16	-2,567.58	-9,005.98	9,254.67	9,238.26	16.41	564.107		
2,100.00	2,029.24	1,212.27	1,243.48	11.08	6.16	72.28	-2,563.01	-9,010.68	9,252.59	9,235.46	17.14	539.873		
2,200.00	2,123.61	1,263.00	1,293.53	11.64	6.37	72.42	-2,557.25	-9,016.66	9,251.37	9,233.47	17.90	516.724		
2,299.68	2,217.68	1,263.00	1,293.53	12.21	6.37	72.42	-2,557.25	-9,016.66	9,250.83	9,232.37	18.46	501.126		
2,300.00	2,217.99	1,263.00	1,293.53	12.21	6.37	72.42	-2,557.25	-9,016.66	9,250.83	9,232.37	18.46	501.077		
2,400.00	2,312.36	1,301.98	1,331.87	12.78	6.55	72.53	-2,552.42	-9,021.73	9,251.11	9,231.92	19.19	482.054		
2,500.00	2,406.73	1,358.00	1,386.78	13.35	6.80	72.69	-2,544.76	-9,029.80	9,252.37	9,232.37	20.00	462.634		
2,600.00	2,501.10	1,358.00	1,386.78	13.93	6.80	72.69	-2,544.76	-9,029.80	9,254.17	9,233.61	20.56	450.098		
2,700.00	2,595.48	1,446.29	1,473.12	14.51	7.23	72.95	-2,532.11	-9,043.21	9,256.64	9,235.11	21.53	429.904		
2,800.00	2,689.85	1,565.13	1,589.55	15.08	7.82	73.30	-2,516.16	-9,060.85	9,259.20	9,236.54	22.66	408.629		
2,900.00	2,784.22	1,593.32	1,617.18	15.66	7.97	73.38	-2,512.49	-9,065.13	9,262.19	9,238.83	23.36	396.539		
3,000.00	2,878.60	1,642.00	1,664.84	16.25	8.21	73.52	-2,506.14	-9,072.71	9,265.88	9,241.72	24.16	383.581		
3,100.00	2,972.97	1,730.63	1,751.66	16.83	8.68	73.77	-2,494.99	-9,086.64	9,270.03	9,244.87	25.15	368.521		
3,200.00	3,067.34	1,862.66	1,881.06	17.41	9.38	74.15	-2,478.07	-9,106.61	9,273.74	9,247.36	26.38	351.535		
3,300.00	3,161.72	1,899.41	1,917.04	18.00	9.58	74.25	-2,473.17	-9,112.32	9,278.09	9,250.96	27.13	341.982		
3,400.00	3,256.09	2,044.11	2,058.79	18.58	10.37	74.67	-2,454.77	-9,134.75	9,282.76	9,254.32	28.44	326.438		
3,500.00	3,350.46	2,086.40	2,100.26	19.17	10.60	74.78	-2,449.58	-9,141.22	9,287.50	9,258.29	29.22	317.900		
3,600.00	3,444.83	2,336.29	2,344.66	19.75	12.02	75.52	-2,414.17	-9,179.22	9,292.56	9,261.45	31.11	298.690		
3,700.00	3,539.21	2,374.62	2,382.18	20.34	12.23	75.63	-2,408.59	-9,184.74	9,296.71	9,264.83	31.88	291.609		
3,800.00	3,633.58	2,422.32	2,428.96	20.93	12.50	75.76	-2,402.50	-9,191.76	9,301.54	9,268.84	32.70	284.470		
3,900.00	3,727.95	2,488.18	2,493.52	21.52	12.88	75.95	-2,394.05	-9,201.64	9,306.88	9,273.27	33.61	276.924		
4,000.00	3,822.33	2,532.72	2,537.14	22.11	13.14	76.08	-2,388.13	-9,208.50	9,312.75	9,278.35	34.41	270.666		
4,100.00	3,916.70	2,590.00	2,593.13	22.70	13.47	76.24	-2,380.31	-9,217.68	9,319.32	9,284.05	35.27	264.191		
4,200.00	4,011.07	2,677.78	2,678.90	23.29	13.99	76.50	-2,368.17	-9,231.92	9,326.33	9,290.02	36.31	256.822		
4,300.00	4,105.44	2,746.39	2,745.95	23.88	14.39	76.70	-2,358.74	-9,242.98	9,333.50	9,296.25	37.25	250.584		
4,400.00	4,199.82	2,874.00	2,870.84	24.47	15.14	77.06	-2,342.12	-9,263.23	9,340.70	9,302.20	38.50	242.607		
4,500.00	4,294.19	2,923.94	2,919.83	25.06	15.42	77.20	-2,336.34	-9,270.99	9,348.10	9,308.78	39.32	237.753		
4,600.00	4,388.56	2,969.00	2,964.02	25.65	15.68	77.32	-2,331.48	-9,278.38	9,356.35	9,316.24	40.11	233.279		
4,700.00	4,482.94	3,008.30	3,002.52	26.24	15.91	77.43	-2,327.24	-9,285.02	9,365.24	9,324.37	40.87	229.172		
4,800.00	4,577.31	3,234.57	3,224.56	26.83	17.21	78.04	-2,303.08	-9,321.05	9,373.19	9,330.56	42.63	219.889		
4,900.00	4,671.68	4,900.00	3,567.59	27.43	26.16	78.93	-2,273.23	-9,370.12	9,380.66	9,329.29	51.37	182.620		
5,000.00	4,766.05	3,721.68	3,705.14	28.02	19.84	79.30	-2,259.53	-9,387.30	9,386.15	9,339.92	46.23	203.042		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 89-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	3,729.00	3,712.36	28.61	19.88	79.32	-2,258.77	-9,388.19	9,392.09	9,345.27	46.82	200.599		
5,200.00	4,954.80	3,781.23	3,763.85	29.20	20.18	79.46	-2,253.07	-9,394.92	9,398.61	9,350.96	47.65	197.244		
5,300.00	5,049.17	3,824.00	3,805.87	29.80	20.41	79.57	-2,247.94	-9,400.95	9,406.08	9,357.66	48.43	194.234		
5,400.00	5,143.55	3,824.00	3,805.87	30.39	20.41	79.57	-2,247.94	-9,400.95	9,414.30	9,365.33	48.97	192.250		
5,500.00	5,237.92	3,872.91	3,853.83	30.99	20.70	79.71	-2,241.76	-9,408.32	9,423.23	9,373.45	49.78	189.292		
5,600.00	5,332.29	3,916.00	3,896.01	31.58	20.96	79.83	-2,236.20	-9,415.15	9,432.94	9,382.38	50.56	186.575		
5,700.00	5,426.66	3,968.34	3,947.21	32.17	21.27	79.98	-2,229.42	-9,423.66	9,443.26	9,391.87	51.39	183.766		
5,800.00	5,521.04	4,174.82	4,149.65	32.77	22.49	80.54	-2,204.35	-9,455.58	9,452.85	9,399.78	53.08	178.095		
5,900.00	5,615.41	4,240.71	4,214.25	33.36	22.88	80.72	-2,196.15	-9,465.62	9,462.74	9,408.76	53.98	175.299		
6,000.00	5,709.78	4,322.28	4,294.07	33.96	23.37	80.95	-2,184.98	-9,478.20	9,472.96	9,417.98	54.98	172.305		
6,100.00	5,804.16	4,403.01	4,372.89	34.55	23.86	81.19	-2,172.76	-9,490.68	9,483.43	9,427.46	55.98	169.411		
6,200.00	5,898.53	4,455.87	4,424.36	35.14	24.19	81.34	-2,164.12	-9,498.99	9,494.37	9,437.54	56.82	167.093		
6,300.00	5,992.90	4,504.84	4,471.95	35.74	24.50	81.49	-2,155.69	-9,506.88	9,505.86	9,448.23	57.64	164.922		
6,400.00	6,087.27	4,549.45	4,515.26	36.33	24.79	81.62	-2,147.89	-9,514.25	9,517.98	9,459.55	58.43	162.896		
6,500.00	6,181.65	4,626.24	4,612.99	36.93	32.96	85.73	-2,026.56	-9,649.64	9,517.41	9,450.42	66.99	142.070		
6,600.00	6,276.02	4,600.00	4,623.22	37.52	34.16	85.95	-2,025.22	-9,648.72	9,513.96	9,445.10	68.86	138.160		
6,700.00	6,370.39	4,650.40	4,601.13	38.12	33.63	86.11	-2,024.07	-9,648.10	9,510.79	9,441.91	68.88	138.078		
6,800.00	6,464.77	4,691.47	4,642.19	38.71	33.78	86.20	-2,023.40	-9,648.08	9,508.39	9,438.75	69.64	136.535		
6,900.00	6,559.14	4,666.00	4,616.71	39.31	34.06	86.14	-2,022.06	-9,648.63	9,506.78	9,436.26	70.52	134.810		
7,000.00	6,652.92	4,666.00	4,616.71	39.90	34.06	62.91	-2,022.06	-9,648.63	9,497.58	9,426.47	71.12	133.547		
7,100.00	6,744.00	4,630.38	4,581.08	40.44	34.30	46.96	-2,020.93	-9,649.58	9,473.58	9,401.67	71.91	131.738		
7,200.00	6,830.13	4,682.19	4,632.87	40.94	34.50	37.05	-2,020.16	-9,650.56	9,435.15	9,362.55	72.60	129.961		
7,300.00	6,909.19	4,755.00	4,705.65	41.37	34.79	30.98	-2,019.28	-9,652.26	9,383.20	9,309.89	73.31	128.001		
7,400.00	6,979.23	4,778.12	4,728.77	41.75	34.88	27.09	-2,019.04	-9,652.86	9,318.74	9,244.98	73.76	126.339		
7,500.00	7,038.53	4,824.81	4,775.44	42.08	35.06	24.80	-2,018.59	-9,654.15	9,243.37	9,169.13	74.24	124.506		
7,600.00	7,085.63	4,862.61	4,813.21	42.37	35.21	23.70	-2,018.25	-9,655.24	9,158.78	9,084.16	74.62	122.735		
7,700.00	7,119.37	4,890.52	4,841.11	42.64	35.32	23.92	-2,018.01	-9,656.08	9,067.00	8,992.10	74.90	121.054		
7,800.00	7,138.92	4,907.80	4,858.38	42.91	35.38	27.03	-2,017.87	-9,656.61	8,970.22	8,895.15	75.07	119.486		
7,900.00	7,143.92	4,914.03	4,864.61	43.25	35.41	52.55	-2,017.82	-9,656.80	8,870.79	8,795.64	75.15	118.046		
8,000.00	7,143.35	4,916.01	4,866.59	43.72	35.42	52.79	-2,017.80	-9,656.86	8,770.88	8,695.70	75.18	116.662		
8,100.00	7,142.78	4,917.99	4,868.57	44.42	35.42	53.04	-2,017.78	-9,656.93	8,670.97	8,595.75	75.22	115.276		
8,200.00	7,142.22	4,919.99	4,870.57	45.39	35.43	53.28	-2,017.77	-9,656.99	8,571.06	8,495.81	75.26	113.890		
8,300.00	7,141.65	4,922.00	4,872.58	46.63	35.44	53.53	-2,017.75	-9,657.05	8,471.16	8,395.86	75.30	112.502		
8,400.00	7,141.08	4,924.02	4,874.59	48.09	35.45	53.78	-2,017.74	-9,657.12	8,371.26	8,295.92	75.34	111.114		
8,500.00	7,140.51	4,926.05	4,876.62	49.74	35.45	54.04	-2,017.72	-9,657.18	8,271.36	8,195.97	75.38	109.724		
8,600.00	7,139.94	4,928.09	4,878.66	51.53	35.46	54.30	-2,017.70	-9,657.25	8,171.46	8,096.03	75.43	108.334		
8,700.00	7,139.37	4,930.14	4,880.71	53.44	35.47	54.56	-2,017.69	-9,657.31	8,071.56	7,996.08	75.48	106.943		
8,800.00	7,138.80	4,932.20	4,882.77	55.45	35.48	54.82	-2,017.67	-9,657.38	7,971.66	7,896.14	75.52	105.551		
8,900.00	7,138.24	4,934.27	4,884.84	57.55	35.49	55.09	-2,017.66	-9,657.44	7,871.77	7,796.19	75.58	104.158		
9,000.00	7,137.67	4,936.36	4,886.93	59.71	35.50	55.36	-2,017.64	-9,657.51	7,771.88	7,696.25	75.63	102.765		
9,100.00	7,137.10	4,938.45	4,889.02	61.94	35.50	55.64	-2,017.63	-9,657.58	7,671.99	7,596.31	75.68	101.371		
9,200.00	7,136.53	4,940.00	4,891.57	64.22	35.52	56.37	-2,017.58	-9,657.76	7,572.10	7,496.35	75.75	99.960		
9,300.00	7,135.96	4,942.00	4,894.57	66.55	35.52	56.37	-2,017.58	-9,657.76	7,472.22	7,396.41	75.80	98.575		
9,400.00	7,135.39	4,944.00	4,894.57	68.92	35.52	56.37	-2,017.58	-9,657.76	7,372.33	7,296.48	75.86	97.189		
9,500.00	7,134.83	4,946.00	4,894.57	71.33	35.52	56.37	-2,017.58	-9,657.76	7,272.45	7,196.54	75.91	95.802		
9,600.00	7,134.26	4,948.00	4,894.57	73.77	35.52	56.37	-2,017.58	-9,657.76	7,172.58	7,096.61	75.97	94.415		
9,700.00	7,133.69	4,950.00	4,894.57	76.24	35.52	56.37	-2,017.58	-9,657.76	7,072.70	6,996.68	76.03	93.026		
9,800.00	7,133.12	4,952.00	4,894.57	78.74	35.52	56.37	-2,017.58	-9,657.76	6,972.84	6,896.74	76.09	91.637		
9,900.00	7,132.55	4,954.00	4,894.57	81.27	35.52	56.37	-2,017.58	-9,657.76	6,872.97	6,796.81	76.16	90.248		
10,000.00	7,131.98	4,956.00	4,894.57	83.81	35.52	56.37	-2,017.58	-9,657.76	6,773.11	6,696.88	76.22	88.857		
10,100.00	7,131.42	4,958.00	4,894.57	86.38	35.52	56.37	-2,017.58	-9,657.76	6,673.25	6,596.96	76.30	87.466		
10,200.00	7,130.85	4,960.00	4,894.57	88.96	35.52	56.37	-2,017.58	-9,657.76	6,573.40	6,497.03	76.37	86.075		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 89-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	6,944.00	6,894.57	91.56	35.52	56.37	-2,017.58	-9,657.76	6,473.55	6,397.11	76.44	84.683		
10,400.00	7,129.71	6,944.00	6,894.57	94.18	35.52	56.37	-2,017.58	-9,657.76	6,373.71	6,297.18	76.52	83.290		
10,500.00	7,129.14	6,944.00	6,894.57	96.81	35.52	56.37	-2,017.58	-9,657.76	6,273.87	6,197.26	76.61	81.897		
10,600.00	7,128.57	6,944.00	6,894.57	99.45	35.52	56.37	-2,017.58	-9,657.76	6,174.04	6,097.34	76.69	80.503		
10,700.00	7,128.00	6,944.00	6,894.57	102.11	35.52	56.37	-2,017.58	-9,657.76	6,074.21	5,997.43	76.78	79.109		
10,800.00	7,127.44	6,968.31	6,918.87	104.77	35.62	59.74	-2,017.39	-9,658.57	5,974.31	5,897.35	76.96	77.632		
10,900.00	7,126.87	6,970.16	6,920.71	107.45	35.63	60.00	-2,017.37	-9,658.63	5,874.48	5,797.42	77.06	76.233		
11,000.00	7,126.30	6,972.03	6,922.58	110.13	35.64	60.27	-2,017.36	-9,658.70	5,774.66	5,697.49	77.17	74.834		
11,100.00	7,125.73	6,973.92	6,924.47	112.82	35.65	60.55	-2,017.34	-9,658.76	5,674.84	5,597.56	77.28	73.435		
11,200.00	7,125.16	6,975.84	6,926.38	115.53	35.65	60.83	-2,017.32	-9,658.83	5,575.02	5,497.63	77.39	72.036		
11,300.00	7,124.59	6,977.77	6,928.32	118.24	35.66	61.11	-2,017.30	-9,658.90	5,475.21	5,397.70	77.51	70.636		
11,400.00	7,124.03	6,979.74	6,930.28	120.95	35.67	61.40	-2,017.29	-9,658.97	5,375.41	5,297.77	77.64	69.237		
11,500.00	7,123.46	6,981.72	6,932.27	123.67	35.68	61.70	-2,017.27	-9,659.04	5,275.62	5,197.85	77.77	67.837		
11,600.00	7,122.89	6,983.73	6,934.28	126.40	35.69	62.00	-2,017.25	-9,659.11	5,175.83	5,097.92	77.91	66.437		
11,700.00	7,122.32	6,985.77	6,936.31	129.14	35.69	62.30	-2,017.23	-9,659.19	5,076.05	4,998.00	78.05	65.037		
11,800.00	7,121.75	6,987.83	6,938.37	131.88	35.70	62.61	-2,017.21	-9,659.26	4,976.27	4,898.08	78.20	63.638		
11,900.00	7,121.18	6,989.92	6,940.46	134.62	35.71	62.93	-2,017.19	-9,659.34	4,876.51	4,798.16	78.35	62.238		
12,000.00	7,120.61	6,992.04	6,942.57	137.37	35.72	63.25	-2,017.17	-9,659.41	4,776.75	4,698.23	78.52	60.838		
12,100.00	7,120.05	6,994.18	6,944.71	140.12	35.73	63.58	-2,017.15	-9,659.49	4,677.00	4,598.31	78.69	59.438		
12,200.00	7,119.48	6,996.35	6,946.88	142.88	35.74	63.92	-2,017.13	-9,659.57	4,577.26	4,498.40	78.87	58.038		
12,300.00	7,118.91	6,998.55	6,949.08	145.64	35.75	64.26	-2,017.11	-9,659.66	4,477.53	4,398.48	79.06	56.638		
12,400.00	7,118.34	7,000.78	6,951.31	148.41	35.75	64.61	-2,017.09	-9,659.74	4,377.82	4,298.56	79.25	55.238		
12,500.00	7,117.77	7,003.03	6,953.56	151.18	35.76	64.96	-2,017.07	-9,659.82	4,278.11	4,198.65	79.46	53.838		
12,600.00	7,117.20	7,005.32	6,955.85	153.95	35.77	65.33	-2,017.04	-9,659.91	4,178.41	4,098.73	79.68	52.437		
12,700.00	7,116.64	7,007.64	6,958.16	156.73	35.78	65.69	-2,017.02	-9,660.00	4,078.73	3,998.82	79.92	51.037		
12,800.00	7,116.07	7,009.99	6,960.51	159.50	35.79	66.07	-2,016.99	-9,660.09	3,979.07	3,898.90	80.16	49.637		
12,900.00	7,115.50	7,012.37	6,962.89	162.29	35.80	66.45	-2,016.97	-9,660.18	3,879.41	3,798.99	80.43	48.236		
13,000.00	7,114.93	7,014.78	6,965.30	165.07	35.81	66.84	-2,016.94	-9,660.28	3,779.78	3,699.08	80.70	46.836		
13,100.00	7,114.36	7,017.23	6,967.75	167.86	35.82	67.24	-2,016.92	-9,660.37	3,680.16	3,599.16	81.00	45.435		
13,200.00	7,113.79	7,019.71	6,970.22	170.64	35.83	67.65	-2,016.89	-9,660.47	3,580.56	3,499.25	81.31	44.034		
13,300.00	7,113.22	7,022.23	6,972.74	173.44	35.84	68.06	-2,016.87	-9,660.57	3,480.98	3,399.33	81.65	42.633		
13,400.00	7,112.66	7,024.78	6,975.29	176.23	35.85	68.48	-2,016.84	-9,660.67	3,381.43	3,299.42	82.01	41.231		
13,500.00	7,112.09	7,027.36	6,977.87	179.02	35.86	68.91	-2,016.81	-9,660.77	3,281.89	3,199.50	82.40	39.830		
13,600.00	7,111.52	7,029.99	6,980.49	181.82	35.87	69.35	-2,016.78	-9,660.88	3,182.39	3,099.57	82.81	38.428		
13,700.00	7,110.95	7,032.65	6,983.15	184.62	35.88	69.80	-2,016.75	-9,660.99	3,082.91	2,999.65	83.26	37.026		
13,800.00	7,110.38	7,035.35	6,985.85	187.42	35.89	70.26	-2,016.72	-9,661.10	2,983.47	2,899.72	83.75	35.624		
13,900.00	7,109.81	7,038.09	6,988.59	190.22	35.91	70.72	-2,016.69	-9,661.21	2,884.06	2,799.78	84.27	34.222		
14,000.00	7,109.25	7,040.87	6,991.37	193.03	35.92	71.20	-2,016.66	-9,661.32	2,784.69	2,699.84	84.85	32.820		
14,100.00	7,108.68	7,043.69	6,994.18	195.84	35.93	71.69	-2,016.62	-9,661.44	2,685.36	2,599.89	85.47	31.418		
14,200.00	7,108.11	7,046.55	6,997.04	198.64	35.94	72.18	-2,016.59	-9,661.56	2,586.08	2,499.92	86.16	30.016		
14,300.00	7,107.54	7,049.46	6,999.95	201.45	35.95	72.69	-2,016.55	-9,661.68	2,486.85	2,399.94	86.91	28.614		
14,400.00	7,106.97	7,052.41	7,002.90	204.26	35.96	73.20	-2,016.52	-9,661.81	2,387.69	2,299.95	87.74	27.213		
14,500.00	7,106.40	7,055.41	7,005.89	207.07	35.98	73.73	-2,016.48	-9,661.93	2,288.59	2,199.93	88.66	25.814		
14,600.00	7,105.83	7,058.45	7,008.93	209.89	35.99	74.27	-2,016.45	-9,662.06	2,189.57	2,099.89	89.68	24.415		
14,700.00	7,105.27	7,061.54	7,012.01	212.70	36.00	74.82	-2,016.41	-9,662.20	2,090.63	1,999.81	90.82	23.019		
14,800.00	7,104.70	7,064.67	7,015.14	215.52	36.01	75.38	-2,016.37	-9,662.33	1,991.80	1,899.70	92.10	21.626		
14,900.00	7,104.13	7,067.86	7,018.33	218.33	36.03	75.95	-2,016.33	-9,662.47	1,893.08	1,799.54	93.55	20.237		
15,000.00	7,103.56	7,071.09	7,021.56	221.15	36.04	76.53	-2,016.29	-9,662.62	1,794.50	1,699.32	95.19	18.853		
15,100.00	7,102.99	7,074.38	7,024.84	223.97	36.05	77.13	-2,016.24	-9,662.76	1,696.08	1,599.02	97.06	17.475		
15,200.00	7,102.42	7,077.72	7,028.18	226.79	36.07	77.74	-2,016.20	-9,662.91	1,597.84	1,498.64	99.20	16.107		
15,274.57	7,102.00	7,080.25	7,030.71	228.89	36.08	78.20	-2,016.17	-9,663.02	1,524.73	1,423.72	101.02	15.094 CC, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	34.00	3.28	3.28	-106.57	-2,673.45	-8,985.21	9,374.56					
100.00	100.00	43.52	77.52	3.28	3.28	-106.57	-2,673.34	-8,985.30	9,374.58	9,368.02	6.57	1,427.815		
200.00	200.00	112.36	146.36	3.34	3.29	-106.56	-2,672.71	-8,985.78	9,375.00	9,368.37	6.63	1,414.134		
300.00	299.98	171.00	204.98	3.44	3.33	69.49	-2,671.74	-8,986.49	9,375.12	9,368.35	6.76	1,386.025		
400.00	399.84	208.94	242.91	3.59	3.36	69.51	-2,671.07	-8,987.18	9,374.59	9,367.64	6.95	1,349.765		
500.00	499.45	263.00	296.94	3.79	3.41	69.57	-2,670.36	-8,988.68	9,373.66	9,366.46	7.20	1,301.556		
600.00	598.70	263.00	296.94	4.03	3.41	69.60	-2,670.36	-8,988.68	9,372.09	9,364.64	7.45	1,258.399		
700.00	697.47	263.00	296.94	4.31	3.41	69.63	-2,670.36	-8,988.68	9,370.36	9,362.63	7.74	1,211.296		
800.00	795.62	305.07	338.97	4.64	3.47	69.72	-2,670.25	-8,990.42	9,367.99	9,359.87	8.12	1,154.378		
900.00	893.06	354.00	387.82	5.00	3.55	69.83	-2,670.92	-8,993.29	9,365.71	9,357.16	8.55	1,095.388		
1,000.00	989.64	354.00	387.82	5.40	3.55	69.89	-2,670.92	-8,993.29	9,362.61	9,353.66	8.95	1,046.330		
1,100.00	1,085.27	354.00	387.82	5.83	3.55	69.95	-2,670.92	-8,993.29	9,359.38	9,350.00	9.38	997.791		
1,200.00	1,179.88	386.10	419.83	6.29	3.61	70.05	-2,671.88	-8,995.57	9,355.88	9,345.98	9.89	945.550		
1,300.00	1,274.26	410.83	444.45	6.78	3.65	70.10	-2,672.93	-8,997.46	9,352.94	9,342.52	10.42	897.251		
1,400.00	1,368.63	445.00	478.46	7.28	3.73	70.16	-2,674.83	-9,000.26	9,350.84	9,339.85	10.99	850.842		
1,500.00	1,463.00	554.49	587.29	7.80	3.99	70.33	-2,683.10	-9,008.85	9,349.13	9,337.39	11.74	796.083		
1,600.00	1,557.38	625.83	658.14	8.33	4.19	70.44	-2,689.63	-9,014.10	9,347.43	9,334.98	12.45	750.778		
1,700.00	1,651.75	744.69	776.06	8.87	4.58	70.61	-2,702.04	-9,022.45	9,345.80	9,332.47	13.33	701.241		
1,800.00	1,746.12	819.00	849.81	9.41	4.84	70.72	-2,709.36	-9,027.81	9,344.26	9,330.15	14.10	662.500		
1,900.00	1,840.49	1,383.00	1,411.90	9.96	7.01	71.68	-2,740.10	-9,058.87	9,338.30	9,321.61	16.69	559.594		
2,000.00	1,934.87	1,383.00	1,411.90	10.52	7.01	71.68	-2,740.10	-9,058.87	9,332.70	9,315.46	17.24	541.278		
2,100.00	2,029.24	1,383.00	1,411.90	11.08	7.01	71.68	-2,740.10	-9,058.87	9,328.17	9,310.37	17.80	524.054		
2,200.00	2,123.61	1,383.00	1,411.90	11.64	7.01	71.68	-2,740.10	-9,058.87	9,324.71	9,306.35	18.36	507.857		
2,300.00	2,217.99	1,383.00	1,411.90	12.21	7.01	71.68	-2,740.10	-9,058.87	9,322.32	9,303.40	18.92	492.622		
2,400.00	2,312.36	1,414.23	1,443.03	12.78	7.14	71.74	-2,740.80	-9,061.18	9,320.45	9,300.84	19.61	475.314		
2,500.00	2,406.73	1,445.00	1,473.62	13.35	7.27	71.80	-2,741.81	-9,064.39	9,320.11	9,299.82	20.29	459.246		
2,531.62	2,436.57	1,445.00	1,473.62	13.54	7.27	71.80	-2,741.81	-9,064.39	9,320.06	9,299.59	20.47	455.228		
2,600.00	2,501.10	1,445.00	1,473.62	13.93	7.27	71.80	-2,741.81	-9,064.39	9,320.31	9,299.45	20.86	446.794		
2,700.00	2,595.48	1,445.00	1,473.62	14.51	7.27	71.80	-2,741.81	-9,064.39	9,321.58	9,300.15	21.43	435.053		
2,800.00	2,689.85	1,482.51	1,510.83	15.08	7.44	71.87	-2,743.37	-9,068.86	9,323.82	9,301.67	22.14	421.045		
2,900.00	2,784.22	1,550.93	1,578.67	15.66	7.75	71.99	-2,746.86	-9,077.05	9,326.50	9,303.51	22.99	405.651		
3,000.00	2,878.60	1,569.00	1,596.58	16.25	7.83	72.02	-2,747.92	-9,079.21	9,329.74	9,306.11	23.63	394.797		
3,100.00	2,972.97	1,624.25	1,651.26	16.83	8.09	72.11	-2,751.92	-9,086.00	9,333.53	9,309.10	24.43	381.981		
3,200.00	3,067.34	1,665.00	1,691.49	17.41	8.29	72.18	-2,755.75	-9,091.25	9,338.17	9,312.99	25.18	370.917		
3,300.00	3,161.72	1,665.00	1,691.49	18.00	8.29	72.18	-2,755.75	-9,091.25	9,343.60	9,317.86	25.74	363.025		
3,400.00	3,256.09	1,700.43	1,726.37	18.58	8.47	72.23	-2,759.61	-9,096.10	9,349.78	9,323.32	26.46	353.353		
3,500.00	3,350.46	3,500.00	1,775.71	19.17	18.40	72.30	-2,765.74	-9,103.66	9,357.05	9,321.68	35.36	264.599		
3,600.00	3,444.83	1,899.04	1,921.37	19.75	9.51	72.51	-2,783.87	-9,124.89	9,363.98	9,335.47	28.51	328.457		
3,700.00	3,539.21	3,700.00	2,049.41	20.34	19.55	72.69	-2,800.97	-9,142.86	9,370.67	9,333.03	37.63	249.008		
3,800.00	3,633.58	2,090.30	2,109.21	20.93	10.54	72.78	-2,808.67	-9,150.95	9,377.02	9,346.47	30.55	306.905		
3,900.00	3,727.95	2,136.00	2,154.05	21.52	10.79	72.84	-2,814.45	-9,157.67	9,384.38	9,353.04	31.34	299.469		
4,000.00	3,822.33	2,154.18	2,171.86	22.11	10.89	72.87	-2,816.76	-9,160.47	9,392.35	9,360.36	31.98	293.656		
4,100.00	3,916.70	2,358.40	2,372.00	22.70	12.04	73.14	-2,843.80	-9,190.79	9,400.42	9,366.85	33.57	280.034		
4,200.00	4,011.07	2,419.00	2,431.42	23.29	12.38	73.22	-2,852.13	-9,199.30	9,407.81	9,373.37	34.44	273.195		
4,300.00	4,105.44	2,475.10	2,486.34	23.88	12.71	73.29	-2,860.24	-9,207.34	9,415.65	9,380.36	35.29	266.840		
4,400.00	4,199.82	2,517.00	2,527.27	24.47	12.95	73.35	-2,866.69	-9,213.55	9,424.14	9,388.08	36.06	261.343		
4,500.00	4,294.19	2,592.55	2,600.99	25.06	13.40	73.44	-2,878.61	-9,225.01	9,433.08	9,396.06	37.02	254.826		
4,600.00	4,388.56	2,607.00	2,615.09	25.65	13.49	73.45	-2,880.88	-9,227.22	9,442.54	9,404.89	37.65	250.822		
4,700.00	4,482.94	4,700.00	3,420.10	26.24	25.03	74.51	-2,994.46	-9,330.01	9,447.49	9,398.71	48.78	193.664		
4,800.00	4,577.31	3,516.76	3,508.79	26.83	18.65	74.62	-3,006.16	-9,337.86	9,449.85	9,406.32	43.53	217.088		
4,900.00	4,671.68	3,550.00	3,541.56	27.43	18.83	74.66	-3,010.79	-9,340.92	9,452.87	9,408.58	44.28	213.469		
5,000.00	4,766.05	3,589.44	3,580.42	28.02	19.05	74.71	-3,016.34	-9,344.79	9,456.56	9,411.50	45.07	209.835		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWDD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	3,644.00	3,634.14	28.61	19.35	74.78	-3,023.83	-9,350.69	9,461.03	9,415.10	45.93	205.994		
5,200.00	4,954.80	3,644.00	3,634.14	29.20	19.35	74.78	-3,023.83	-9,350.69	9,466.10	9,419.60	46.50	203.562		
5,300.00	5,049.17	3,644.00	3,634.14	29.80	19.35	74.78	-3,023.83	-9,350.69	9,472.22	9,425.15	47.07	201.235		
5,400.00	5,143.55	3,700.83	3,689.96	30.39	19.68	74.85	-3,031.90	-9,357.63	9,478.70	9,430.75	47.94	197.704		
5,500.00	5,237.92	3,739.00	3,727.32	30.99	19.91	74.90	-3,037.73	-9,362.82	9,486.26	9,437.54	48.71	194.733		
5,600.00	5,332.29	3,739.00	3,727.32	31.58	19.91	74.90	-3,037.73	-9,362.82	9,494.55	9,445.28	49.27	192.703		
5,700.00	5,426.66	3,795.10	3,782.09	32.17	20.25	74.96	-3,046.79	-9,370.95	9,503.49	9,453.34	50.14	189.524		
5,800.00	5,521.04	4,305.00	4,281.41	32.77	23.29	75.55	-3,126.32	-9,435.34	9,509.66	9,456.10	53.55	177.569		
5,900.00	5,615.41	4,343.99	4,319.80	33.36	23.52	75.60	-3,131.50	-9,439.72	9,515.02	9,460.68	54.34	175.108		
6,000.00	5,709.78	4,399.00	4,373.88	33.96	23.83	75.67	-3,139.04	-9,446.44	9,521.20	9,465.99	55.21	172.467		
6,100.00	5,804.16	4,399.00	4,373.88	34.55	23.83	75.67	-3,139.04	-9,446.44	9,527.93	9,472.16	55.77	170.836		
6,200.00	5,898.53	4,461.43	4,435.19	35.14	24.20	75.75	-3,147.45	-9,454.65	9,535.30	9,478.63	56.68	168.241		
6,300.00	5,992.90	4,495.00	4,468.16	35.74	24.40	75.80	-3,151.72	-9,459.28	9,543.26	9,485.84	57.42	166.200		
6,400.00	6,087.27	4,555.56	4,527.58	36.33	24.76	75.88	-3,159.59	-9,467.91	9,551.74	9,493.43	58.31	163.800		
6,500.00	6,181.65	4,620.57	4,591.24	36.93	25.15	75.96	-3,168.67	-9,477.49	9,560.78	9,501.55	59.23	161.410		
6,600.00	6,276.02	4,629.92	4,591.24	37.52	32.94	78.59	-3,274.05	-9,610.70	9,567.50	9,500.34	67.17	142.447		
6,700.00	6,370.39	6,319.46	6,276.31	38.12	33.26	78.76	-3,274.08	-9,611.56	9,561.65	9,493.52	68.13	140.340		
6,800.00	6,464.77	6,411.31	6,368.15	38.71	33.60	78.94	-3,273.99	-9,612.51	9,555.95	9,486.85	69.10	138.284		
6,900.00	6,559.14	6,507.76	6,464.59	39.31	33.95	78.92	-3,273.68	-9,613.52	9,550.36	9,480.27	70.09	136.266		
7,000.00	6,652.92	6,603.51	6,560.34	39.90	34.29	55.73	-3,273.11	-9,614.54	9,536.97	9,465.92	71.05	134.225		
7,100.00	6,744.00	6,731.08	6,687.90	40.44	34.74	39.54	-3,271.90	-9,615.79	9,508.38	9,436.32	72.06	131.950		
7,200.00	6,830.13	6,903.27	6,860.06	40.94	35.32	29.30	-3,269.08	-9,616.37	9,464.70	9,391.57	73.13	129.426		
7,300.00	6,909.19	6,988.97	6,945.74	41.37	35.61	22.34	-3,267.23	-9,616.20	9,407.19	9,333.34	73.85	127.384		
7,400.00	6,979.23	7,041.50	6,998.26	41.75	35.79	17.11	-3,266.17	-9,616.17	9,337.85	9,263.46	74.39	125.525		
7,500.00	7,038.53	7,086.17	7,042.93	42.08	35.94	12.51	-3,265.35	-9,616.21	9,258.35	9,183.53	74.83	123.731		
7,600.00	7,085.63	7,121.86	7,078.61	42.37	36.06	7.28	-3,264.75	-9,616.28	9,170.57	9,095.42	75.15	122.031		
7,700.00	7,119.37	7,147.61	7,104.35	42.64	36.15	-1.38	-3,264.33	-9,616.36	9,076.61	9,001.25	75.36	120.449		
7,800.00	7,138.92	7,162.71	7,119.46	42.91	36.20	-6.00	-3,264.10	-9,616.41	8,978.74	8,903.29	75.45	119.004		
7,900.00	7,143.92	7,166.81	7,123.55	43.25	36.22	-11.80	-3,264.04	-9,616.43	8,879.34	8,803.91	75.44	117.705		
8,000.00	7,143.35	7,166.67	7,123.42	43.72	36.22	-17.79	-3,264.05	-9,616.43	8,779.92	8,704.53	75.39	116.460		
8,100.00	7,142.78	7,166.54	7,123.28	44.42	36.22	-23.79	-3,264.05	-9,616.43	8,680.51	8,605.17	75.35	115.210		
8,200.00	7,142.22	7,166.40	7,123.14	45.39	36.22	-29.78	-3,264.05	-9,616.43	8,581.12	8,505.82	75.30	113.956		
8,300.00	7,141.65	7,166.26	7,123.00	46.63	36.22	-35.77	-3,264.05	-9,616.43	8,481.74	8,406.47	75.26	112.696		
8,400.00	7,141.08	7,166.12	7,122.86	48.09	36.22	-41.76	-3,264.05	-9,616.43	8,382.37	8,307.15	75.22	111.431		
8,500.00	7,140.51	7,165.98	7,122.72	49.74	36.21	-47.75	-3,264.06	-9,616.43	8,283.02	8,207.83	75.19	110.162		
8,600.00	7,139.94	7,165.84	7,122.58	51.53	36.21	-53.74	-3,264.06	-9,616.43	8,183.69	8,108.53	75.16	108.886		
8,700.00	7,139.37	7,165.70	7,122.44	53.44	36.21	-59.74	-3,264.06	-9,616.43	8,084.37	8,009.24	75.13	107.605		
8,800.00	7,138.80	7,165.55	7,122.30	55.45	36.21	-65.73	-3,264.06	-9,616.43	7,985.07	7,909.96	75.10	106.319		
8,900.00	7,138.24	7,165.41	7,122.15	57.55	36.21	-71.72	-3,264.06	-9,616.42	7,885.78	7,810.70	75.08	105.026		
9,000.00	7,137.67	7,165.27	7,122.01	59.71	36.21	-77.71	-3,264.07	-9,616.42	7,786.52	7,711.45	75.07	103.728		
9,100.00	7,137.10	7,165.12	7,121.87	61.94	36.21	-83.70	-3,264.07	-9,616.42	7,687.27	7,612.22	75.05	102.423		
9,200.00	7,136.53	7,164.98	7,121.72	64.22	36.21	-89.69	-3,264.07	-9,616.42	7,588.04	7,513.00	75.05	101.112		
9,300.00	7,135.96	7,164.83	7,121.58	66.55	36.21	-95.68	-3,264.07	-9,616.42	7,488.84	7,413.79	75.04	99.794		
9,400.00	7,135.39	7,164.69	7,121.43	68.92	36.21	-101.67	-3,264.08	-9,616.42	7,389.65	7,314.61	75.04	98.470		
9,500.00	7,134.83	7,164.54	7,121.28	71.33	36.21	-107.67	-3,264.08	-9,616.42	7,290.49	7,215.44	75.05	97.139		
9,600.00	7,134.26	7,164.39	7,121.13	73.77	36.21	-113.66	-3,264.08	-9,616.42	7,191.35	7,116.28	75.07	95.800		
9,700.00	7,133.69	7,164.24	7,120.99	76.24	36.21	-119.65	-3,264.08	-9,616.42	7,092.24	7,017.15	75.09	94.454		
9,800.00	7,133.12	7,164.09	7,120.84	78.74	36.21	-125.64	-3,264.08	-9,616.42	6,993.15	6,918.03	75.11	93.100		
9,900.00	7,132.55	7,163.94	7,120.69	81.27	36.21	-131.63	-3,264.09	-9,616.42	6,894.08	6,818.93	75.15	91.739		
10,000.00	7,131.98	7,163.79	7,120.53	83.81	36.21	-137.62	-3,264.09	-9,616.42	6,795.05	6,719.85	75.19	90.369		
10,100.00	7,131.42	7,163.64	7,120.38	86.38	36.21	-143.61	-3,264.09	-9,616.42	6,696.04	6,620.79	75.24	88.991		
10,200.00	7,130.85	7,163.49	7,120.23	88.96	36.21	-149.60	-3,264.09	-9,616.42	6,597.06	6,521.76	75.30	87.605		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,163.33	7,120.08	91.56	36.21	-91.59	-3,264.10	-9,616.42	6,498.11	6,422.74	75.38	86.210		
10,400.00	7,129.71	7,163.18	7,119.92	94.18	36.21	-91.58	-3,264.10	-9,616.42	6,399.20	6,323.74	75.46	84.805		
10,500.00	7,129.14	7,163.03	7,119.77	96.81	36.20	-91.57	-3,264.10	-9,616.42	6,300.32	6,224.77	75.55	83.391		
10,600.00	7,128.57	7,162.87	7,119.61	99.45	36.20	-91.56	-3,264.10	-9,616.41	6,201.48	6,125.82	75.66	81.968		
10,700.00	7,128.00	7,162.71	7,119.46	102.11	36.20	-91.55	-3,264.10	-9,616.41	6,102.67	6,026.90	75.78	80.535		
10,800.00	7,127.44	7,162.56	7,119.30	104.77	36.20	-91.55	-3,264.11	-9,616.41	6,003.91	5,928.00	75.91	79.092		
10,900.00	7,126.87	7,162.40	7,119.14	107.45	36.20	-91.54	-3,264.11	-9,616.41	5,905.18	5,829.12	76.06	77.638		
11,000.00	7,126.30	7,162.24	7,118.98	110.13	36.20	-91.53	-3,264.11	-9,616.41	5,806.50	5,730.27	76.23	76.174		
11,100.00	7,125.73	7,162.08	7,118.82	112.82	36.20	-91.52	-3,264.11	-9,616.41	5,707.87	5,631.45	76.41	74.700		
11,200.00	7,125.16	7,161.92	7,118.66	115.53	36.20	-91.51	-3,264.12	-9,616.41	5,609.28	5,532.66	76.61	73.214		
11,300.00	7,124.59	7,161.76	7,118.50	118.24	36.20	-91.50	-3,264.12	-9,616.41	5,510.74	5,433.90	76.84	71.718		
11,400.00	7,124.03	7,161.60	7,118.34	120.95	36.20	-91.49	-3,264.12	-9,616.41	5,412.26	5,335.17	77.09	70.210		
11,500.00	7,123.46	7,161.43	7,118.18	123.67	36.20	-91.48	-3,264.12	-9,616.41	5,313.84	5,236.48	77.36	68.691		
11,600.00	7,122.89	7,161.27	7,118.01	126.40	36.20	-91.47	-3,264.13	-9,616.41	5,215.47	5,137.81	77.66	67.160		
11,700.00	7,122.32	7,161.11	7,117.85	129.14	36.20	-91.46	-3,264.13	-9,616.41	5,117.17	5,039.18	77.98	65.619		
11,800.00	7,121.75	7,160.94	7,117.68	131.88	36.20	-91.45	-3,264.13	-9,616.41	5,018.93	4,940.59	78.34	64.066		
11,900.00	7,121.18	7,160.77	7,117.52	134.62	36.20	-91.44	-3,264.13	-9,616.41	4,920.77	4,842.04	78.73	62.501		
12,000.00	7,120.61	7,160.61	7,117.35	137.37	36.20	-91.43	-3,264.14	-9,616.41	4,822.68	4,743.52	79.16	60.926		
12,100.00	7,120.05	7,160.44	7,117.18	140.12	36.20	-91.42	-3,264.14	-9,616.41	4,724.67	4,645.05	79.62	59.340		
12,200.00	7,119.48	7,160.27	7,117.01	142.88	36.20	-91.41	-3,264.14	-9,616.40	4,626.75	4,546.62	80.13	57.744		
12,300.00	7,118.91	7,160.10	7,116.84	145.64	36.19	-91.40	-3,264.14	-9,616.40	4,528.92	4,448.24	80.68	56.137		
12,400.00	7,118.34	7,159.93	7,116.67	148.41	36.19	-91.39	-3,264.15	-9,616.40	4,431.18	4,349.91	81.27	54.521		
12,500.00	7,117.77	7,159.76	7,116.50	151.18	36.19	-91.38	-3,264.15	-9,616.40	4,333.55	4,251.62	81.93	52.896		
12,600.00	7,117.20	7,159.59	7,116.33	153.95	36.19	-91.37	-3,264.15	-9,616.40	4,236.03	4,153.39	82.63	51.263		
12,700.00	7,116.64	7,159.41	7,116.16	156.73	36.19	-91.36	-3,264.15	-9,616.40	4,138.62	4,055.22	83.40	49.623		
12,800.00	7,116.07	7,159.24	7,115.98	159.50	36.19	-91.34	-3,264.16	-9,616.40	4,041.35	3,957.11	84.24	47.977		
12,900.00	7,115.50	7,159.06	7,115.81	162.29	36.19	-91.33	-3,264.16	-9,616.40	3,944.21	3,859.07	85.14	46.326		
13,000.00	7,114.93	7,158.89	7,115.63	165.07	36.19	-91.32	-3,264.16	-9,616.40	3,847.21	3,761.09	86.12	44.671		
13,100.00	7,114.36	7,158.71	7,115.45	167.86	36.19	-91.31	-3,264.16	-9,616.40	3,750.38	3,663.19	87.19	43.014		
13,200.00	7,113.79	7,158.53	7,115.27	170.64	36.19	-91.30	-3,264.17	-9,616.40	3,653.71	3,565.36	88.35	41.357		
13,300.00	7,113.22	7,158.35	7,115.10	173.44	36.19	-91.29	-3,264.17	-9,616.40	3,557.23	3,467.63	89.60	39.701		
13,400.00	7,112.66	7,158.17	7,114.92	176.23	36.19	-91.28	-3,264.17	-9,616.40	3,460.95	3,369.99	90.96	38.048		
13,500.00	7,112.09	7,157.99	7,114.73	179.02	36.19	-91.27	-3,264.18	-9,616.40	3,364.88	3,272.44	92.44	36.401		
13,600.00	7,111.52	7,157.81	7,114.55	181.82	36.19	-91.26	-3,264.18	-9,616.40	3,269.05	3,175.01	94.04	34.762		
13,700.00	7,110.95	7,157.63	7,114.37	184.62	36.19	-91.25	-3,264.18	-9,616.39	3,173.48	3,077.70	95.78	33.133		
13,800.00	7,110.38	7,157.44	7,114.19	187.42	36.19	-91.24	-3,264.18	-9,616.39	3,078.19	2,980.53	97.67	31.517		
13,900.00	7,109.81	7,157.26	7,114.00	190.22	36.19	-91.23	-3,264.19	-9,616.39	2,983.21	2,883.49	99.72	29.917		
14,000.00	7,109.25	7,157.07	7,113.81	193.03	36.18	-91.21	-3,264.19	-9,616.39	2,888.57	2,786.63	101.94	28.335		
14,100.00	7,108.68	7,156.88	7,113.63	195.84	36.18	-91.20	-3,264.19	-9,616.39	2,794.30	2,689.94	104.36	26.775		
14,200.00	7,108.11	7,156.70	7,113.44	198.64	36.18	-91.19	-3,264.20	-9,616.39	2,700.44	2,593.45	106.99	25.239		
14,300.00	7,107.54	7,156.51	7,113.25	201.45	36.18	-91.18	-3,264.20	-9,616.39	2,607.04	2,497.19	109.86	23.731		
14,400.00	7,106.97	7,156.32	7,113.06	204.26	36.18	-91.17	-3,264.20	-9,616.39	2,514.15	2,401.18	112.97	22.255		
14,500.00	7,106.40	7,156.12	7,112.87	207.07	36.18	-91.16	-3,264.20	-9,616.39	2,421.82	2,305.46	116.37	20.812		
14,600.00	7,105.83	7,155.93	7,112.68	209.89	36.18	-91.15	-3,264.21	-9,616.39	2,330.13	2,210.06	120.07	19.407		
14,700.00	7,105.27	7,155.74	7,112.48	212.70	36.18	-91.13	-3,264.21	-9,616.39	2,239.15	2,115.04	124.11	18.042		
14,800.00	7,104.70	7,155.54	7,112.29	215.52	36.18	-91.12	-3,264.21	-9,616.39	2,148.97	2,020.45	128.52	16.721		
14,900.00	7,104.13	7,155.35	7,112.09	218.33	36.18	-91.11	-3,264.22	-9,616.39	2,059.69	1,926.35	133.34	15.447		
15,000.00	7,103.56	7,155.15	7,111.90	221.15	36.18	-91.10	-3,264.22	-9,616.39	1,971.45	1,832.83	138.62	14.222		
15,100.00	7,102.99	7,154.95	7,111.70	223.97	36.18	-91.09	-3,264.22	-9,616.39	1,884.38	1,739.99	144.39	13.051		
15,200.00	7,102.42	7,154.75	7,111.50	226.79	36.18	-91.07	-3,264.22	-9,616.38	1,798.66	1,647.95	150.71	11.935		
15,274.57	7,102.00	7,154.61	7,111.35	228.89	36.18	-91.06	-3,264.23	-9,616.38	1,735.73	1,579.93	155.80	11.141 CC, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 8-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	953.33	977.52	3.28	5.66	-107.31	-2,754.98	-8,838.68	9,309.55					
100.00	100.00	1,003.00	1,025.88	3.28	5.92	-107.38	-2,763.18	-8,830.80	9,299.22	9,290.06	9.15	1,015.808		
200.00	200.00	1,067.27	1,088.48	3.34	6.26	-107.46	-2,773.84	-8,820.88	9,289.32	9,279.79	9.53	975.184		
300.00	299.98	1,098.00	1,118.48	3.44	6.43	68.74	-2,778.73	-8,816.38	9,279.44	9,269.66	9.78	949.162		
400.00	399.84	1,144.00	1,163.50	3.59	6.67	68.89	-2,785.77	-8,810.04	9,268.94	9,258.79	10.15	913.246		
500.00	499.45	1,193.00	1,211.58	3.79	6.93	69.07	-2,792.85	-8,803.88	9,257.93	9,247.34	10.59	874.240		
600.00	598.70	1,238.01	1,255.78	4.03	7.17	69.28	-2,799.43	-8,798.47	9,246.24	9,235.18	11.06	836.269		
700.00	697.47	1,312.89	1,329.12	4.31	7.58	69.49	-2,811.46	-8,789.31	9,233.64	9,221.91	11.73	787.334		
800.00	795.62	1,386.39	1,401.17	4.64	7.98	69.75	-2,823.09	-8,780.57	9,220.10	9,207.67	12.44	741.375		
900.00	893.06	1,704.94	1,714.72	5.00	9.68	70.15	-2,864.29	-8,742.70	9,205.02	9,190.57	14.44	637.365		
1,000.00	989.64	1,757.00	1,765.95	5.40	9.97	70.52	-2,870.86	-8,736.13	9,187.34	9,172.25	15.10	608.492		
1,100.00	1,085.27	1,776.40	1,785.04	5.83	10.08	70.89	-2,873.36	-8,733.80	9,169.08	9,153.46	15.62	587.118		
1,200.00	1,179.88	1,838.61	1,846.23	6.29	10.42	71.19	-2,881.75	-8,726.39	9,150.31	9,133.91	16.40	558.109		
1,300.00	1,274.26	2,248.83	2,248.69	6.78	12.78	71.58	-2,936.80	-8,669.72	9,128.50	9,109.40	19.10	477.961		
1,400.00	1,368.63	2,308.79	2,307.62	7.28	13.12	71.64	-2,943.63	-8,661.05	9,106.60	9,086.69	19.90	457.591		
1,500.00	1,463.00	2,348.41	2,346.65	7.80	13.34	71.69	-2,947.77	-8,655.63	9,085.19	9,064.58	20.61	440.866		
1,600.00	1,557.38	2,382.99	2,380.72	8.33	13.53	71.73	-2,951.55	-8,651.09	9,064.46	9,043.17	21.30	425.579		
1,700.00	1,651.75	2,512.09	2,507.69	8.87	14.27	71.86	-2,967.70	-8,634.28	9,044.40	9,021.90	22.51	401.823		
1,800.00	1,746.12	2,574.13	2,568.61	9.41	14.62	71.93	-2,975.94	-8,625.84	9,023.91	9,000.53	23.38	386.032		
1,900.00	1,840.49	2,750.45	2,741.52	9.96	15.67	72.10	-3,000.02	-8,601.28	9,003.27	8,978.38	24.89	361.723		
2,000.00	1,934.87	2,840.98	2,829.86	10.52	16.23	72.17	-3,014.35	-8,587.65	8,982.14	8,956.18	25.96	346.047		
2,100.00	2,029.24	2,890.00	2,877.83	11.08	16.53	72.21	-3,021.47	-8,580.52	8,961.26	8,934.47	26.79	334.503		
2,200.00	2,123.61	2,938.96	2,925.87	11.64	16.82	72.26	-3,028.10	-8,573.81	8,940.93	8,913.31	27.61	323.798		
2,300.00	2,217.99	2,984.00	2,970.18	12.21	17.08	72.31	-3,033.88	-8,568.14	8,921.31	8,892.89	28.42	313.924		
2,400.00	2,312.36	3,052.93	3,037.95	12.78	17.48	72.38	-3,043.16	-8,559.66	8,902.19	8,872.83	29.36	303.217		
2,500.00	2,406.73	3,106.78	3,090.80	13.35	17.79	72.43	-3,051.01	-8,552.95	8,883.33	8,853.12	30.22	293.986		
2,600.00	2,501.10	3,169.00	3,152.18	13.93	18.14	72.50	-3,058.61	-8,546.16	8,865.18	8,834.07	31.12	284.898		
2,700.00	2,595.48	3,169.00	3,152.18	14.51	18.14	72.50	-3,058.61	-8,546.16	8,847.59	8,815.89	31.69	279.172		
2,800.00	2,689.85	3,231.90	3,214.45	15.08	18.46	72.58	-3,065.17	-8,540.22	8,830.60	8,798.03	32.57	271.088		
2,900.00	2,784.22	3,284.59	3,266.67	15.66	18.73	72.65	-3,070.49	-8,535.68	8,814.26	8,780.85	33.41	263.821		
3,000.00	2,878.60	3,357.00	3,338.37	16.25	19.10	72.74	-3,078.53	-8,529.50	8,798.31	8,763.97	34.35	256.173		
3,100.00	2,972.97	3,100.00	3,465.46	16.83	17.79	72.91	-3,092.58	-8,518.91	8,782.72	8,749.11	33.61	261.303		
3,200.00	3,067.34	3,587.88	3,567.03	17.41	20.29	73.04	-3,103.58	-8,509.81	8,766.43	8,729.79	36.64	239.247		
3,300.00	3,161.72	4,074.81	4,046.07	18.00	23.07	73.57	-3,168.55	-8,453.93	8,749.24	8,709.46	39.78	219.951		
3,400.00	3,256.09	4,112.00	4,082.51	18.58	23.30	73.60	-3,173.94	-8,448.73	8,729.15	8,688.57	40.59	215.081		
3,500.00	3,350.46	4,162.14	4,131.75	19.17	23.59	73.66	-3,180.70	-8,442.17	8,709.68	8,668.24	41.45	210.139		
3,600.00	3,444.83	4,211.30	4,180.14	19.75	23.88	73.71	-3,186.87	-8,436.15	8,690.79	8,648.48	42.31	205.431		
3,700.00	3,539.21	4,285.39	4,252.97	20.34	24.31	73.79	-3,197.12	-8,427.13	8,672.31	8,629.01	43.30	200.283		
3,800.00	3,633.58	4,334.09	4,300.69	20.93	24.60	73.84	-3,204.75	-8,421.16	8,654.23	8,610.06	44.16	195.953		
3,900.00	3,727.95	4,396.00	4,361.53	21.52	24.96	73.90	-3,213.90	-8,414.22	8,636.84	8,591.74	45.10	191.494		
4,000.00	3,822.33	4,428.88	4,393.90	22.11	25.15	73.94	-3,218.53	-8,410.79	8,619.96	8,574.08	45.88	187.896		
4,100.00	3,916.70	4,491.00	4,455.11	22.70	25.50	74.01	-3,227.05	-8,404.54	8,603.58	8,556.78	46.80	183.827		
4,200.00	4,011.07	4,532.88	4,496.45	23.29	25.73	74.05	-3,232.57	-8,400.61	8,587.74	8,540.13	47.62	180.357		
4,300.00	4,105.44	4,585.00	4,547.97	23.88	26.01	74.12	-3,239.07	-8,396.21	8,572.60	8,524.12	48.48	176.829		
4,400.00	4,199.82	4,585.00	4,547.97	24.47	26.01	74.12	-3,239.07	-8,396.21	8,558.22	8,509.14	49.08	174.384		
4,500.00	4,294.19	4,644.16	4,606.59	25.06	26.31	74.20	-3,245.83	-8,392.00	8,544.40	8,494.44	49.96	171.033		
4,600.00	4,388.56	4,680.00	4,642.17	25.65	26.49	74.25	-3,249.55	-8,389.92	8,531.45	8,480.72	50.72	168.191		
4,700.00	4,482.94	4,716.04	4,678.00	26.24	26.66	74.30	-3,253.09	-8,388.13	8,519.24	8,467.76	51.48	165.483		
4,800.00	4,577.31	4,800.00	4,761.60	26.83	27.04	74.43	-3,260.59	-8,384.78	8,507.78	8,455.33	52.45	162.197		
4,900.00	4,671.68	4,928.53	4,889.63	27.43	27.61	74.64	-3,269.81	-8,379.43	8,495.86	8,442.25	53.60	158.500		
5,000.00	4,766.05	4,964.00	4,925.00	28.02	27.76	74.70	-3,272.01	-8,378.05	8,484.23	8,429.89	54.34	156.122		
5,100.00	4,860.43	5,028.89	4,989.75	28.61	28.03	74.81	-3,275.79	-8,375.96	8,473.14	8,417.94	55.20	153.491		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 8-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	5,083.66	5,044.43	29.20	28.25	74.91	-3,278.54	-8,374.66	8,462.70	8,406.69	56.01	151.097		
5,300.00	5,049.17	5,154.00	5,114.75	29.80	28.52	75.06	-3,279.89	-8,373.74	8,452.72	8,395.86	56.86	148.661		
5,400.00	5,143.55	5,213.00	5,173.75	30.39	28.71	75.19	-3,279.84	-8,373.43	8,443.18	8,385.54	57.64	146.478		
5,500.00	5,237.92	5,276.83	5,237.58	30.99	28.92	75.32	-3,279.79	-8,373.32	8,434.11	8,375.67	58.44	144.323		
5,600.00	5,332.29	5,343.00	5,303.75	31.58	29.14	75.47	-3,279.95	-8,373.42	8,425.50	8,366.26	59.24	142.219		
5,700.00	5,426.66	5,427.90	5,388.65	32.17	29.42	75.65	-3,280.36	-8,373.70	8,417.23	8,357.11	60.12	140.012		
5,800.00	5,521.04	5,515.76	5,476.50	32.77	29.71	75.84	-3,280.85	-8,374.04	8,409.15	8,348.15	61.00	137.846		
5,900.00	5,615.41	5,603.67	5,564.41	33.36	30.00	76.03	-3,281.42	-8,374.44	8,401.26	8,339.37	61.89	135.744		
6,000.00	5,709.78	5,703.97	5,664.71	33.96	30.33	76.25	-3,282.05	-8,374.92	8,393.51	8,330.70	62.82	133.621		
6,100.00	5,804.16	5,807.36	5,768.10	34.55	30.67	76.47	-3,282.41	-8,375.36	8,385.79	8,322.04	63.75	131.538		
6,200.00	5,898.53	5,910.71	5,871.44	35.14	31.00	76.70	-3,282.49	-8,375.75	8,378.08	8,313.39	64.69	129.513		
6,300.00	5,992.90	6,016.59	5,977.33	35.74	31.37	76.93	-3,282.72	-8,375.98	8,370.39	8,304.73	65.65	127.496		
6,400.00	6,087.27	6,122.81	6,083.54	36.33	31.74	77.17	-3,283.44	-8,375.98	8,362.68	8,296.06	66.62	125.533		
6,500.00	6,181.65	6,244.39	6,205.11	36.93	32.18	77.43	-3,284.81	-8,375.66	8,354.92	8,287.26	67.66	123.490		
6,600.00	6,276.02	6,388.87	6,349.58	37.52	32.73	77.73	-3,286.59	-8,374.52	8,346.79	8,277.99	68.80	121.312		
6,700.00	6,370.39	6,503.85	6,464.54	38.12	33.17	77.98	-3,288.08	-8,373.01	8,338.29	8,268.45	69.84	119.387		
6,800.00	6,464.77	6,581.26	6,541.93	38.71	33.48	78.14	-3,289.41	-8,372.00	8,329.98	8,259.23	70.74	117.751		
6,900.00	6,559.14	6,658.91	6,619.55	39.31	33.78	78.09	-3,291.10	-8,371.10	8,321.97	8,250.33	71.64	116.158		
7,000.00	6,652.92	6,736.25	6,696.87	39.90	34.09	54.82	-3,293.16	-8,370.30	8,306.42	8,233.89	72.53	114.524		
7,100.00	6,744.00	6,823.51	6,784.09	40.44	34.43	38.49	-3,295.65	-8,369.51	8,275.97	8,202.57	73.41	112.741		
7,200.00	6,830.13	6,909.26	6,869.81	40.94	34.77	27.95	-3,297.74	-8,368.79	8,231.23	8,157.01	74.21	110.912		
7,300.00	6,909.19	6,987.68	6,948.21	41.37	35.08	20.79	-3,299.32	-8,368.19	8,173.25	8,098.32	74.92	109.086		
7,400.00	6,979.23	7,068.86	7,029.38	41.75	35.41	15.34	-3,300.67	-8,367.59	8,103.41	8,027.84	75.57	107.224		
7,500.00	7,038.53	7,155.93	7,116.44	42.08	35.75	10.35	-3,302.06	-8,366.70	8,023.27	7,947.10	76.17	105.334		
7,600.00	7,085.63	7,223.98	7,184.46	42.37	36.02	4.27	-3,303.13	-8,365.79	7,934.82	7,858.21	76.61	103.572		
7,700.00	7,119.37	7,271.53	7,232.00	42.64	36.21	-6.58	-3,303.88	-8,365.05	7,840.35	7,763.45	76.90	101.961		
7,800.00	7,138.92	7,297.72	7,258.19	42.91	36.32	-38.14	-3,304.30	-8,364.60	7,742.26	7,665.24	77.03	100.516		
7,900.00	7,143.92	7,302.45	7,262.92	43.25	36.34	-99.25	-3,304.37	-8,364.52	7,643.02	7,566.01	77.01	99.243		
8,000.00	7,143.35	7,299.09	7,259.56	43.72	36.32	-99.06	-3,304.32	-8,364.58	7,543.91	7,466.95	76.95	98.031		
8,100.00	7,142.78	7,295.76	7,256.23	44.42	36.31	-98.87	-3,304.26	-8,364.63	7,444.82	7,367.92	76.90	96.813		
8,200.00	7,142.22	7,292.47	7,252.94	45.39	36.30	-98.69	-3,304.21	-8,364.69	7,345.75	7,268.90	76.85	95.589		
8,300.00	7,141.65	7,289.22	7,249.69	46.63	36.29	-98.50	-3,304.16	-8,364.75	7,246.70	7,169.90	76.80	94.358		
8,400.00	7,141.08	7,286.00	7,246.47	48.09	36.27	-98.32	-3,304.11	-8,364.80	7,147.69	7,070.93	76.76	93.120		
8,500.00	7,140.51	7,282.82	7,243.29	49.74	36.26	-98.15	-3,304.06	-8,364.86	7,048.69	6,971.97	76.72	91.875		
8,600.00	7,139.94	7,279.68	7,240.15	51.53	36.25	-97.97	-3,304.01	-8,364.91	6,949.73	6,873.04	76.69	90.624		
8,700.00	7,139.37	7,276.57	7,237.04	53.44	36.23	-97.79	-3,303.96	-8,364.96	6,850.80	6,774.14	76.66	89.364		
8,800.00	7,138.80	7,273.49	7,233.97	55.45	36.22	-97.62	-3,303.91	-8,365.02	6,751.89	6,675.25	76.64	88.097		
8,900.00	7,138.24	7,270.45	7,230.93	57.55	36.21	-97.45	-3,303.87	-8,365.07	6,653.02	6,576.39	76.63	86.823		
9,000.00	7,137.67	7,267.45	7,227.92	59.71	36.20	-97.28	-3,303.82	-8,365.12	6,554.18	6,477.56	76.62	85.540		
9,100.00	7,137.10	7,264.47	7,224.95	61.94	36.19	-97.11	-3,303.77	-8,365.17	6,455.38	6,378.75	76.62	84.248		
9,200.00	7,136.53	7,261.53	7,222.01	64.22	36.17	-96.94	-3,303.73	-8,365.21	6,356.61	6,279.98	76.63	82.948		
9,300.00	7,135.96	7,258.62	7,219.10	66.55	36.16	-96.78	-3,303.68	-8,365.26	6,257.88	6,181.23	76.65	81.639		
9,400.00	7,135.39	7,255.74	7,216.22	68.92	36.15	-96.62	-3,303.64	-8,365.31	6,159.19	6,082.51	76.68	80.320		
9,500.00	7,134.83	7,252.89	7,213.37	71.33	36.14	-96.45	-3,303.59	-8,365.35	6,060.54	5,983.82	76.72	78.992		
9,600.00	7,134.26	7,250.08	7,210.56	73.77	36.13	-96.29	-3,303.55	-8,365.40	5,961.94	5,885.16	76.78	77.654		
9,700.00	7,133.69	7,247.29	7,207.77	76.24	36.12	-96.14	-3,303.50	-8,365.44	5,863.38	5,786.54	76.84	76.306		
9,800.00	7,133.12	7,244.53	7,205.01	78.74	36.11	-95.98	-3,303.46	-8,365.48	5,764.87	5,687.95	76.92	74.947		
9,900.00	7,132.55	7,241.80	7,202.28	81.27	36.10	-95.82	-3,303.42	-8,365.53	5,666.41	5,589.40	77.01	73.578		
10,000.00	7,131.98	7,239.10	7,199.58	83.81	36.09	-95.67	-3,303.37	-8,365.57	5,568.01	5,490.89	77.12	72.197		
10,100.00	7,131.42	7,236.42	7,196.91	86.38	36.07	-95.52	-3,303.33	-8,365.61	5,469.66	5,392.41	77.25	70.804		
10,200.00	7,130.85	7,233.78	7,194.26	88.96	36.06	-95.37	-3,303.29	-8,365.65	5,371.38	5,293.98	77.40	69.400		
10,300.00	7,130.28	7,231.16	7,191.64	91.56	36.05	-95.22	-3,303.25	-8,365.69	5,273.15	5,195.59	77.56	67.984		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 8-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 172-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,228.56	7,189.05	94.18	36.04	-95.07	-3,303.21	-8,365.73	5,175.00	5,097.24	77.76	66.555		
10,500.00	7,129.14	7,226.00	7,186.49	96.81	36.03	-94.92	-3,303.17	-8,365.76	5,076.91	4,998.94	77.97	65.114		
10,600.00	7,128.57	7,223.46	7,183.95	99.45	36.02	-94.78	-3,303.13	-8,365.80	4,978.90	4,900.69	78.21	63.659		
10,700.00	7,128.00	7,220.94	7,181.43	102.11	36.01	-94.63	-3,303.09	-8,365.84	4,880.97	4,802.49	78.48	62.192		
10,800.00	7,127.44	7,218.45	7,178.94	104.77	36.00	-94.49	-3,303.05	-8,365.87	4,783.12	4,704.34	78.78	60.712		
10,900.00	7,126.87	7,215.99	7,176.48	107.45	35.99	-94.35	-3,303.01	-8,365.91	4,685.37	4,606.25	79.12	59.218		
11,000.00	7,126.30	7,213.55	7,174.04	110.13	35.98	-94.21	-3,302.97	-8,365.94	4,587.71	4,508.21	79.49	57.712		
11,100.00	7,125.73	7,211.13	7,171.62	112.82	35.97	-94.07	-3,302.93	-8,365.98	4,490.15	4,410.24	79.91	56.192		
11,200.00	7,125.16	7,208.74	7,169.23	115.53	35.96	-93.94	-3,302.89	-8,366.01	4,392.70	4,312.33	80.37	54.659		
11,300.00	7,124.59	7,206.37	7,166.86	118.24	35.95	-93.80	-3,302.86	-8,366.05	4,295.36	4,214.49	80.87	53.114		
11,400.00	7,124.03	7,204.02	7,164.51	120.95	35.95	-93.67	-3,302.82	-8,366.08	4,198.15	4,116.72	81.43	51.557		
11,500.00	7,123.46	7,201.70	7,162.19	123.67	35.94	-93.53	-3,302.78	-8,366.11	4,101.08	4,019.03	82.04	49.988		
11,600.00	7,122.89	7,199.40	7,159.89	126.40	35.93	-93.40	-3,302.75	-8,366.14	4,004.14	3,921.43	82.72	48.408		
11,700.00	7,122.32	7,197.12	7,157.61	129.14	35.92	-93.27	-3,302.71	-8,366.17	3,907.36	3,823.90	83.46	46.818		
11,800.00	7,121.75	7,194.86	7,155.35	131.88	35.91	-93.14	-3,302.67	-8,366.20	3,810.75	3,726.47	84.27	45.219		
11,900.00	7,121.18	7,192.62	7,153.12	134.62	35.90	-93.01	-3,302.64	-8,366.23	3,714.31	3,629.14	85.17	43.612		
12,000.00	7,120.61	7,190.41	7,150.90	137.37	35.89	-92.88	-3,302.60	-8,366.26	3,618.06	3,531.92	86.15	42.000		
12,100.00	7,120.05	7,188.21	7,148.71	140.12	35.88	-92.76	-3,302.57	-8,366.29	3,522.03	3,434.81	87.22	40.382		
12,200.00	7,119.48	7,186.04	7,146.53	142.88	35.87	-92.63	-3,302.53	-8,366.32	3,426.22	3,337.82	88.39	38.762		
12,300.00	7,118.91	7,183.88	7,144.38	145.64	35.86	-92.51	-3,302.50	-8,366.35	3,330.65	3,240.97	89.68	37.141		
12,400.00	7,118.34	7,181.75	7,142.25	148.41	35.86	-92.39	-3,302.47	-8,366.38	3,235.35	3,144.27	91.08	35.522		
12,500.00	7,117.77	7,179.63	7,140.13	151.18	35.85	-92.26	-3,302.43	-8,366.41	3,140.34	3,047.73	92.62	33.907		
12,600.00	7,117.20	7,177.54	7,138.04	153.95	35.84	-92.14	-3,302.40	-8,366.43	3,045.65	2,951.36	94.29	32.300		
12,700.00	7,116.64	7,175.46	7,135.96	156.73	35.83	-92.02	-3,302.37	-8,366.46	2,951.31	2,855.18	96.13	30.702		
12,800.00	7,116.07	7,173.41	7,133.90	159.50	35.82	-91.91	-3,302.33	-8,366.49	2,857.35	2,759.22	98.13	29.118		
12,900.00	7,115.50	7,171.37	7,131.87	162.29	35.82	-91.79	-3,302.30	-8,366.51	2,763.82	2,663.50	100.32	27.550		
13,000.00	7,114.93	7,169.35	7,129.85	165.07	35.81	-91.67	-3,302.27	-8,366.54	2,670.75	2,568.04	102.71	26.002		
13,100.00	7,114.36	7,167.34	7,127.84	167.86	35.80	-91.56	-3,302.24	-8,366.56	2,578.20	2,472.87	105.33	24.478		
13,200.00	7,113.79	7,165.36	7,125.86	170.64	35.79	-91.44	-3,302.21	-8,366.59	2,486.22	2,378.04	108.18	22.982		
13,300.00	7,113.22	7,163.39	7,123.89	173.44	35.78	-91.33	-3,302.18	-8,366.61	2,394.89	2,283.58	111.31	21.516		
13,400.00	7,112.66	7,161.44	7,121.95	176.23	35.78	-91.22	-3,302.14	-8,366.63	2,304.28	2,189.56	114.72	20.086		
13,500.00	7,112.09	7,159.51	7,120.01	179.02	35.77	-91.11	-3,302.11	-8,366.66	2,214.47	2,096.02	118.45	18.695		
13,600.00	7,111.52	7,157.60	7,118.10	181.82	35.76	-91.00	-3,302.08	-8,366.68	2,125.57	2,003.04	122.53	17.347		
13,700.00	7,110.95	7,155.70	7,116.20	184.62	35.75	-90.89	-3,302.05	-8,366.70	2,037.70	1,910.70	127.00	16.045		
13,800.00	7,110.38	7,153.82	7,114.32	187.42	35.75	-90.78	-3,302.02	-8,366.73	1,950.99	1,819.11	131.88	14.794		
13,900.00	7,109.81	7,151.95	7,112.45	190.22	35.74	-90.67	-3,301.99	-8,366.75	1,865.62	1,728.40	137.22	13.596		
14,000.00	7,109.25	7,150.10	7,110.60	193.03	35.73	-90.56	-3,301.97	-8,366.77	1,781.76	1,638.71	143.05	12.455		
14,100.00	7,108.68	7,148.27	7,108.77	195.84	35.72	-90.46	-3,301.94	-8,366.79	1,699.65	1,550.23	149.42	11.375		
14,200.00	7,108.11	7,146.45	7,106.95	198.64	35.72	-90.35	-3,301.91	-8,366.81	1,619.55	1,463.19	156.36	10.358		
14,300.00	7,107.54	7,144.64	7,105.15	201.45	35.71	-90.25	-3,301.88	-8,366.83	1,541.78	1,377.87	163.90	9.407		
14,400.00	7,106.97	7,142.86	7,103.36	204.26	35.70	-90.15	-3,301.85	-8,366.85	1,466.70	1,294.62	172.07	8.524		
14,500.00	7,106.40	7,141.08	7,101.59	207.07	35.69	-90.04	-3,301.82	-8,366.87	1,394.75	1,213.87	180.87	7.711		
14,600.00	7,105.83	7,139.33	7,099.83	209.89	35.69	-89.94	-3,301.79	-8,366.89	1,326.43	1,136.16	190.27	6.971		
14,700.00	7,105.27	7,137.58	7,098.09	212.70	35.68	-89.84	-3,301.77	-8,366.91	1,262.35	1,062.15	200.20	6.305		
14,800.00	7,104.70	7,135.86	7,096.36	215.52	35.67	-89.74	-3,301.74	-8,366.93	1,203.17	992.62	210.55	5.714		
14,900.00	7,104.13	7,134.14	7,094.65	218.33	35.67	-89.64	-3,301.71	-8,366.95	1,149.66	928.55	221.11	5.200		
15,000.00	7,103.56	7,132.44	7,092.95	221.15	35.66	-89.54	-3,301.68	-8,366.97	1,102.64	871.04	231.59	4.761		
15,100.00	7,102.99	7,130.76	7,091.26	223.97	35.65	-89.45	-3,301.66	-8,366.99	1,062.96	821.33	241.63	4.399		
15,200.00	7,102.42	7,129.08	7,089.59	226.79	35.65	-89.35	-3,301.63	-8,367.01	1,031.49	780.71	250.78	4.113		
15,274.57	7,102.00	7,127.85	7,088.35	228.89	35.64	-89.28	-3,301.61	-8,367.02	1,013.82	757.09	256.73	3.949 CC, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - GREELEY SWD #1(XX) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	63.00	3.28	3.28	-131.74	-3,006.37	-3,368.98	4,515.78				
100.00	100.00	37.00	100.00	3.28	3.34	-131.74	-3,006.37	-3,368.98	4,515.34	4,508.71	6.63	681.283	
200.00	200.00	137.00	200.00	3.34	4.47	-131.74	-3,006.37	-3,368.98	4,515.34	4,507.53	7.81	578.353	
300.00	299.98	236.98	299.98	3.44	7.31	44.33	-3,006.37	-3,368.98	4,514.09	4,503.35	10.74	420.114	
400.00	399.84	336.84	399.84	3.59	10.54	44.43	-3,006.37	-3,368.98	4,510.35	4,496.22	14.13	319.264	
500.00	499.45	436.45	499.45	3.79	13.88	44.60	-3,006.37	-3,368.98	4,504.12	4,486.45	17.67	254.854	
600.00	598.70	535.70	598.70	4.03	17.27	44.83	-3,006.37	-3,368.98	4,495.43	4,474.13	21.30	211.035	
700.00	697.47	634.47	697.47	4.31	20.67	45.13	-3,006.37	-3,368.98	4,484.29	4,459.31	24.98	179.527	
800.00	795.62	732.62	795.62	4.64	24.06	45.49	-3,006.37	-3,368.98	4,470.75	4,442.06	28.68	155.864	
900.00	893.06	830.06	893.06	5.00	27.43	45.93	-3,006.37	-3,368.98	4,454.83	4,422.43	32.40	137.474	
1,000.00	989.64	926.64	989.64	5.40	30.78	46.43	-3,006.37	-3,368.98	4,436.59	4,400.46	36.13	122.787	
1,100.00	1,085.27	1,022.27	1,085.27	5.83	34.10	47.00	-3,006.37	-3,368.98	4,416.07	4,376.21	39.86	110.793	
1,200.00	1,179.88	1,116.88	1,179.88	6.29	37.39	47.53	-3,006.37	-3,368.98	4,393.48	4,349.90	43.58	100.816	
1,300.00	1,274.26	1,211.26	1,274.26	6.78	40.67	47.84	-3,006.37	-3,368.98	4,370.52	4,323.21	47.31	92.386	
1,400.00	1,368.63	1,305.63	1,368.63	7.28	43.96	48.15	-3,006.37	-3,368.98	4,347.68	4,296.63	51.05	85.161	
1,500.00	1,463.00	1,400.00	1,463.00	7.80	47.24	48.47	-3,006.37	-3,368.98	4,324.98	4,270.17	54.81	78.904	
1,600.00	1,557.38	1,505.62	1,557.38	8.33	50.92	48.78	-3,006.37	-3,368.98	4,302.42	4,243.44	58.98	72.949	
1,700.00	1,651.75	1,588.75	1,651.75	8.87	53.82	49.11	-3,006.37	-3,368.98	4,279.99	4,217.62	62.37	68.623	
1,800.00	1,746.12	1,683.12	1,746.12	9.41	57.11	49.43	-3,006.37	-3,368.98	4,257.70	4,191.53	66.16	64.352	
1,900.00	1,840.49	1,777.49	1,840.49	9.96	60.40	49.76	-3,006.37	-3,368.98	4,235.55	4,165.58	69.96	60.540	
2,000.00	1,934.87	1,871.87	1,934.87	10.52	63.69	50.09	-3,006.37	-3,368.98	4,213.54	4,139.77	73.77	57.117	
2,100.00	2,029.24	1,966.24	2,029.24	11.08	66.98	50.43	-3,006.37	-3,368.98	4,191.68	4,114.10	77.58	54.028	
2,200.00	2,123.61	2,060.61	2,123.61	11.64	70.27	50.77	-3,006.37	-3,368.98	4,169.97	4,088.56	81.40	51.227	
2,300.00	2,217.99	2,154.99	2,217.99	12.21	73.56	51.11	-3,006.37	-3,368.98	4,148.40	4,063.18	85.23	48.676	
2,400.00	2,312.36	2,249.36	2,312.36	12.78	76.85	51.45	-3,006.37	-3,368.98	4,126.99	4,037.94	89.05	46.343	
2,500.00	2,406.73	2,343.73	2,406.73	13.35	80.14	51.80	-3,006.37	-3,368.98	4,105.73	4,012.85	92.89	44.202	
2,600.00	2,501.10	2,438.10	2,501.10	13.93	83.43	52.16	-3,006.37	-3,368.98	4,084.64	3,987.91	96.72	42.231	
2,700.00	2,595.48	2,532.48	2,595.48	14.51	86.73	52.51	-3,006.37	-3,368.98	4,063.70	3,963.14	100.56	40.411	
2,800.00	2,689.85	2,626.85	2,689.85	15.08	90.02	52.87	-3,006.37	-3,368.98	4,042.92	3,938.52	104.40	38.725	
2,900.00	2,784.22	2,721.22	2,784.22	15.66	93.31	53.23	-3,006.37	-3,368.98	4,022.30	3,914.06	108.25	37.159	
3,000.00	2,878.60	2,815.60	2,878.60	16.25	96.60	53.60	-3,006.37	-3,368.98	4,001.86	3,889.76	112.10	35.700	
3,100.00	2,972.97	2,909.97	2,972.97	16.83	99.90	53.97	-3,006.37	-3,368.98	3,981.58	3,865.64	115.95	34.340	
3,200.00	3,067.34	3,004.34	3,067.34	17.41	103.19	54.34	-3,006.37	-3,368.98	3,961.48	3,841.68	119.80	33.068	
3,300.00	3,161.72	3,101.29	3,161.72	18.00	106.57	54.72	-3,006.37	-3,368.98	3,941.55	3,817.81	123.75	31.852	
3,400.00	3,256.09	3,206.91	3,256.09	18.58	110.26	55.09	-3,006.37	-3,368.98	3,921.80	3,793.80	128.00	30.640	
3,500.00	3,350.46	3,287.46	3,350.46	19.17	113.07	55.48	-3,006.37	-3,368.98	3,902.23	3,770.85	131.37	29.703	
3,600.00	3,444.83	3,381.83	3,444.83	19.75	116.36	55.86	-3,006.37	-3,368.98	3,882.84	3,747.60	135.24	28.711	
3,700.00	3,539.21	3,476.21	3,539.21	20.34	119.65	56.25	-3,006.37	-3,368.98	3,863.64	3,724.54	139.10	27.776	
3,800.00	3,633.58	3,570.58	3,633.58	20.93	122.95	56.65	-3,006.37	-3,368.98	3,844.62	3,701.66	142.97	26.891	
3,900.00	3,727.95	3,664.95	3,727.95	21.52	126.24	57.05	-3,006.37	-3,368.98	3,825.80	3,678.96	146.84	26.055	
4,000.00	3,822.33	3,759.33	3,822.33	22.11	129.53	57.45	-3,006.37	-3,368.98	3,807.17	3,656.47	150.71	25.262	
4,100.00	3,916.70	3,853.70	3,916.70	22.70	132.83	57.85	-3,006.37	-3,368.98	3,788.74	3,634.16	154.58	24.510	
4,200.00	4,011.07	3,948.07	4,011.07	23.29	136.12	58.26	-3,006.37	-3,368.98	3,770.51	3,612.06	158.46	23.795	
4,300.00	4,105.44	4,042.44	4,105.44	23.88	139.42	58.67	-3,006.37	-3,368.98	3,752.49	3,590.15	162.33	23.116	
4,400.00	4,199.82	4,136.82	4,199.82	24.47	142.71	59.09	-3,006.37	-3,368.98	3,734.66	3,568.45	166.21	22.469	
4,500.00	4,294.19	4,231.19	4,294.19	25.06	146.00	59.51	-3,006.37	-3,368.98	3,717.05	3,546.96	170.09	21.853	
4,600.00	4,388.56	4,325.56	4,388.56	25.65	149.30	59.93	-3,006.37	-3,368.98	3,699.65	3,525.67	173.98	21.265	
4,700.00	4,482.94	4,419.94	4,482.94	26.24	152.59	60.36	-3,006.37	-3,368.98	3,682.46	3,504.60	177.86	20.704	
4,800.00	4,577.31	4,514.31	4,577.31	26.83	155.88	60.79	-3,006.37	-3,368.98	3,665.49	3,483.75	181.74	20.168	
4,900.00	4,671.68	4,608.68	4,671.68	27.43	159.18	61.22	-3,006.37	-3,368.98	3,648.75	3,463.11	185.63	19.656	
5,000.00	4,766.05	4,703.05	4,766.05	28.02	162.47	61.66	-3,006.37	-3,368.98	3,632.22	3,442.70	189.52	19.165	
5,100.00	4,860.43	4,802.57	4,860.43	28.61	165.95	62.10	-3,006.37	-3,368.98	3,615.92	3,422.33	193.59	18.678	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	4,954.80	4,908.20	4,954.80	29.20	169.63	62.54	-3,006.37	-3,368.98	3,599.86	3,401.98	197.87	18.193	
5,300.00	5,049.17	4,986.17	5,049.17	29.80	172.35	62.99	-3,006.37	-3,368.98	3,584.02	3,382.83	201.20	17.814	
5,400.00	5,143.55	5,080.55	5,143.55	30.39	175.65	63.44	-3,006.37	-3,368.98	3,568.43	3,363.34	205.09	17.399	
5,500.00	5,237.92	5,174.92	5,237.92	30.99	178.94	63.90	-3,006.37	-3,368.98	3,553.07	3,344.08	208.99	17.001	
5,600.00	5,332.29	5,269.29	5,332.29	31.58	182.24	64.36	-3,006.37	-3,368.98	3,537.95	3,325.07	212.88	16.619	
5,700.00	5,426.66	5,363.66	5,426.66	32.17	185.53	64.82	-3,006.37	-3,368.98	3,523.08	3,306.30	216.78	16.252	
5,800.00	5,521.04	5,458.04	5,521.04	32.77	188.82	65.29	-3,006.37	-3,368.98	3,508.46	3,287.78	220.68	15.898	
5,900.00	5,615.41	5,552.41	5,615.41	33.36	192.12	65.76	-3,006.37	-3,368.98	3,494.09	3,269.51	224.59	15.558	
6,000.00	5,709.78	5,646.78	5,709.78	33.96	195.41	66.23	-3,006.37	-3,368.98	3,479.98	3,251.49	228.49	15.230	
6,100.00	5,804.16	5,741.16	5,804.16	34.55	198.71	66.71	-3,006.37	-3,368.98	3,466.12	3,233.73	232.39	14.915	
6,200.00	5,898.53	5,835.53	5,898.53	35.14	202.00	67.19	-3,006.37	-3,368.98	3,452.53	3,216.23	236.30	14.611	
6,300.00	5,992.90	5,929.90	5,992.90	35.74	205.29	67.67	-3,006.37	-3,368.98	3,439.19	3,198.99	240.21	14.318	
6,400.00	6,087.27	6,024.27	6,087.27	36.33	208.59	68.16	-3,006.37	-3,368.98	3,426.13	3,182.02	244.11	14.035	
6,500.00	6,181.65	6,118.65	6,181.65	36.93	211.88	68.65	-3,006.37	-3,368.98	3,413.34	3,165.32	248.02	13.762	
6,600.00	6,276.02	6,213.02	6,276.02	37.52	215.18	69.14	-3,006.37	-3,368.98	3,400.82	3,148.89	251.93	13.499	
6,700.00	6,370.39	6,307.39	6,370.39	38.12	218.47	69.64	-3,006.37	-3,368.98	3,388.58	3,132.73	255.84	13.245	
6,800.00	6,464.77	6,401.77	6,464.77	38.71	221.76	70.14	-3,006.37	-3,368.98	3,376.61	3,116.86	259.75	12.999	
6,900.00	6,559.14	6,503.86	6,559.14	39.31	225.33	70.42	-3,006.37	-3,368.98	3,364.93	3,101.00	263.93	12.749	
7,000.00	6,652.92	6,589.92	6,652.92	39.90	228.33	70.71	-3,006.37	-3,368.98	3,353.92	3,087.39	267.54	12.506	
7,100.00	6,744.00	6,681.00	6,744.00	40.44	231.51	71.00	-3,006.37	-3,368.98	3,343.52	3,074.27	271.25	12.212	
7,200.00	6,830.13	6,767.13	6,830.13	40.94	234.52	71.30	-3,006.37	-3,368.98	3,333.65	3,061.72	274.73	11.886	
7,300.00	6,909.19	6,846.19	6,909.19	41.37	237.28	71.59	-3,006.37	-3,368.98	3,324.31	3,049.89	277.88	11.537	
7,400.00	6,979.23	6,916.23	6,979.23	41.75	239.72	71.88	-3,006.37	-3,368.98	3,315.50	3,038.66	280.63	11.171	
7,500.00	7,038.53	6,975.53	7,038.53	42.08	241.79	72.17	-3,006.37	-3,368.98	3,307.21	3,028.02	282.93	10.796	
7,600.00	7,085.63	7,022.63	7,085.63	42.37	243.44	72.46	-3,006.37	-3,368.98	3,299.43	3,017.97	284.71	10.420	
7,700.00	7,119.37	7,056.37	7,119.37	42.64	244.61	72.75	-3,006.37	-3,368.98	3,292.15	3,008.41	285.93	10.049	
7,800.00	7,138.92	7,075.92	7,138.92	42.91	245.30	73.04	-3,006.37	-3,368.98	3,285.36	3,000.00	286.59	9.690	
7,900.00	7,143.92	7,080.92	7,143.92	43.25	245.47	73.33	-3,006.37	-3,368.98	3,279.05	2,992.59	286.67	9.350	
8,000.00	7,143.35	7,080.35	7,143.35	43.72	245.45	73.62	-3,006.37	-3,368.98	3,273.22	2,985.76	286.55	9.019	
8,100.00	7,142.78	7,079.78	7,142.78	44.42	245.43	73.91	-3,006.37	-3,368.98	3,267.87	2,979.45	286.45	8.688	
8,200.00	7,142.22	7,079.22	7,142.22	45.39	245.41	74.20	-3,006.37	-3,368.98	3,261.98	2,973.56	286.38	8.357	
8,300.00	7,141.65	7,078.65	7,141.65	46.63	245.39	74.49	-3,006.37	-3,368.98	3,256.59	2,968.17	286.33	8.026	
8,400.00	7,141.08	7,078.08	7,141.08	48.09	245.37	74.78	-3,006.37	-3,368.98	3,251.70	2,963.28	286.32	7.696	
8,500.00	7,140.51	7,077.51	7,140.51	49.74	245.35	75.07	-3,006.37	-3,368.98	3,247.31	2,958.89	286.36	7.366	
8,600.00	7,139.94	7,076.94	7,139.94	51.53	245.33	75.36	-3,006.37	-3,368.98	3,243.42	2,955.00	286.46	7.037	
8,700.00	7,139.37	7,076.37	7,139.37	53.44	245.31	75.65	-3,006.37	-3,368.98	3,239.93	2,951.61	286.64	6.708	
8,800.00	7,138.80	7,075.80	7,138.80	55.45	245.29	75.94	-3,006.37	-3,368.98	3,236.94	2,948.72	286.92	6.381	
8,900.00	7,138.24	7,075.24	7,138.24	57.55	245.27	76.23	-3,006.37	-3,368.98	3,234.55	2,946.33	287.33	6.054	
9,000.00	7,137.67	7,074.67	7,137.67	59.71	245.25	76.52	-3,006.37	-3,368.98	3,232.76	2,944.54	287.90	5.728	
9,100.00	7,137.10	7,074.10	7,137.10	61.94	245.23	76.81	-3,006.37	-3,368.98	3,231.57	2,943.35	288.67	5.404	
9,200.00	7,136.53	7,073.53	7,136.53	64.22	245.21	77.10	-3,006.37	-3,368.98	3,230.98	2,942.76	289.68	5.083	
9,300.00	7,135.96	7,072.96	7,135.96	66.55	245.19	77.39	-3,006.37	-3,368.98	3,230.99	2,942.77	291.00	4.764	
9,400.00	7,135.39	7,072.39	7,135.39	68.92	245.17	77.68	-3,006.37	-3,368.98	3,231.60	2,943.38	292.69	4.450	
9,500.00	7,134.83	7,071.83	7,134.83	71.33	245.15	77.97	-3,006.37	-3,368.98	3,232.81	2,945.59	294.82	4.140	
9,600.00	7,134.26	7,071.26	7,134.26	73.77	245.13	78.26	-3,006.37	-3,368.98	3,234.62	2,948.40	297.48	3.839	
9,700.00	7,133.69	7,070.69	7,133.69	76.24	245.11	78.55	-3,006.37	-3,368.98	3,237.03	2,951.81	300.75	3.547	
9,800.00	7,133.12	7,070.12	7,133.12	78.74	245.09	78.84	-3,006.37	-3,368.98	3,240.04	2,955.82	304.68	3.269	
9,900.00	7,132.55	7,069.55	7,132.55	81.27	245.07	79.13	-3,006.37	-3,368.98	3,243.65	2,960.43	309.30	3.009	
10,000.00	7,131.98	7,068.98	7,131.98	83.81	245.06	79.42	-3,006.37	-3,368.98	3,247.86	2,965.64	314.58	2.772	
10,100.00	7,131.42	7,068.42	7,131.42	86.38	245.04	79.71	-3,006.37	-3,368.98	3,252.67	2,971.45	320.38	2.563	
10,200.00	7,130.85	7,067.85	7,130.85	88.96	245.02	80.00	-3,006.37	-3,368.98	3,258.08	2,977.86	326.42	2.390	
10,300.00	7,130.28	7,067.28	7,130.28	91.56	245.00	80.29	-3,006.37	-3,368.98	3,264.09	2,984.87	332.30	2.257	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - GREELEY SWD #1(XX) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,066.71	7,129.71	94.18	244.98	-90.04	-3,006.37	-3,368.98	732.54	395.02	337.52	2.170		
10,479.74	7,129.26	7,066.26	7,129.26	96.27	244.96	-90.00	-3,006.37	-3,368.98	728.18	387.31	340.87	2.136 CC		
10,500.00	7,129.14	7,066.14	7,129.14	96.81	244.96	-89.99	-3,006.37	-3,368.98	728.46	386.88	341.58	2.133 ES, SF		
10,600.00	7,128.57	7,065.57	7,128.57	99.45	244.94	-89.95	-3,006.37	-3,368.98	738.05	393.86	344.18	2.144		
10,700.00	7,128.00	7,065.00	7,128.00	102.11	244.92	-89.90	-3,006.37	-3,368.98	760.76	415.50	345.26	2.203		
10,800.00	7,127.44	7,064.44	7,127.44	104.77	244.90	-89.86	-3,006.37	-3,368.98	795.49	450.48	345.01	2.306		
10,900.00	7,126.87	7,063.87	7,126.87	107.45	244.88	-89.81	-3,006.37	-3,368.98	840.75	497.00	343.75	2.446		
11,000.00	7,126.30	7,063.30	7,126.30	110.13	244.86	-89.77	-3,006.37	-3,368.98	894.94	553.12	341.81	2.618		
11,100.00	7,125.73	7,062.73	7,125.73	112.82	244.84	-89.72	-3,006.37	-3,368.98	956.53	617.02	339.51	2.817		
11,200.00	7,125.16	7,062.16	7,125.16	115.53	244.82	-89.68	-3,006.37	-3,368.98	1,024.21	687.15	337.06	3.039		
11,300.00	7,124.59	7,061.59	7,124.59	118.24	244.80	-89.63	-3,006.37	-3,368.98	1,096.84	762.23	334.61	3.278		
11,400.00	7,124.03	7,061.03	7,124.03	120.95	244.78	-89.59	-3,006.37	-3,368.98	1,173.50	841.25	332.25	3.532		
11,500.00	7,123.46	7,060.46	7,123.46	123.67	244.76	-89.54	-3,006.37	-3,368.98	1,253.45	923.44	330.02	3.798		
11,600.00	7,122.89	7,059.89	7,122.89	126.40	244.74	-89.50	-3,006.37	-3,368.98	1,336.11	1,008.17	327.94	4.074		
11,700.00	7,122.32	7,059.32	7,122.32	129.14	244.72	-89.45	-3,006.37	-3,368.98	1,421.00	1,094.96	326.03	4.358		
11,800.00	7,121.75	7,058.75	7,121.75	131.88	244.70	-89.41	-3,006.37	-3,368.98	1,507.74	1,183.46	324.28	4.649		
11,900.00	7,121.18	7,058.18	7,121.18	134.62	244.68	-89.36	-3,006.37	-3,368.98	1,596.03	1,273.35	322.68	4.946		
12,000.00	7,120.61	7,057.61	7,120.61	137.37	244.66	-89.32	-3,006.37	-3,368.98	1,685.63	1,364.41	321.22	5.248		
12,100.00	7,120.05	7,057.05	7,120.05	140.12	244.64	-89.28	-3,006.37	-3,368.98	1,776.34	1,456.46	319.88	5.553		
12,200.00	7,119.48	7,056.48	7,119.48	142.88	244.62	-89.23	-3,006.37	-3,368.98	1,868.00	1,549.34	318.66	5.862		
12,300.00	7,118.91	7,055.91	7,118.91	145.64	244.60	-89.19	-3,006.37	-3,368.98	1,960.48	1,642.93	317.55	6.174		
12,400.00	7,118.34	7,055.34	7,118.34	148.41	244.58	-89.14	-3,006.37	-3,368.98	2,053.66	1,737.14	316.52	6.488		
12,500.00	7,117.77	7,054.77	7,117.77	151.18	244.56	-89.10	-3,006.37	-3,368.98	2,147.45	1,831.87	315.58	6.805		
12,600.00	7,117.20	7,054.20	7,117.20	153.95	244.54	-89.05	-3,006.37	-3,368.98	2,241.78	1,927.06	314.72	7.123		
12,700.00	7,116.64	7,053.64	7,116.64	156.73	244.52	-89.01	-3,006.37	-3,368.98	2,336.59	2,022.66	313.93	7.443		
12,800.00	7,116.07	7,053.07	7,116.07	159.50	244.50	-88.96	-3,006.37	-3,368.98	2,431.80	2,118.61	313.19	7.765		
12,900.00	7,115.50	7,052.50	7,115.50	162.29	244.48	-88.92	-3,006.37	-3,368.98	2,527.39	2,214.88	312.51	8.087		
13,000.00	7,114.93	7,051.93	7,114.93	165.07	244.46	-88.87	-3,006.37	-3,368.98	2,623.31	2,311.42	311.88	8.411		
13,100.00	7,114.36	7,051.36	7,114.36	167.86	244.44	-88.83	-3,006.37	-3,368.98	2,719.52	2,408.22	311.30	8.736		
13,200.00	7,113.79	7,050.79	7,113.79	170.64	244.42	-88.78	-3,006.37	-3,368.98	2,815.99	2,505.23	310.76	9.062		
13,300.00	7,113.22	7,050.22	7,113.22	173.44	244.40	-88.74	-3,006.37	-3,368.98	2,912.70	2,602.45	310.25	9.388		
13,400.00	7,112.66	7,049.66	7,112.66	176.23	244.38	-88.69	-3,006.37	-3,368.98	3,009.63	2,699.85	309.78	9.715		
13,500.00	7,112.09	7,049.09	7,112.09	179.02	244.36	-88.65	-3,006.37	-3,368.98	3,106.75	2,797.41	309.35	10.043		
13,600.00	7,111.52	7,048.52	7,111.52	181.82	244.34	-88.60	-3,006.37	-3,368.98	3,204.05	2,895.12	308.94	10.371		
13,700.00	7,110.95	7,047.95	7,110.95	184.62	244.32	-88.56	-3,006.37	-3,368.98	3,301.51	2,992.96	308.55	10.700		
13,800.00	7,110.38	7,047.38	7,110.38	187.42	244.30	-88.52	-3,006.37	-3,368.98	3,399.12	3,090.93	308.19	11.029		
13,900.00	7,109.81	7,046.81	7,109.81	190.22	244.28	-88.47	-3,006.37	-3,368.98	3,496.86	3,189.01	307.85	11.359		
14,000.00	7,109.25	7,046.25	7,109.25	193.03	244.26	-88.43	-3,006.37	-3,368.98	3,594.73	3,287.19	307.54	11.689		
14,100.00	7,108.68	7,045.68	7,108.68	195.84	244.24	-88.38	-3,006.37	-3,368.98	3,692.71	3,385.47	307.24	12.019		
14,200.00	7,108.11	7,045.11	7,108.11	198.64	244.22	-88.34	-3,006.37	-3,368.98	3,790.79	3,483.83	306.96	12.349		
14,300.00	7,107.54	7,044.54	7,107.54	201.45	244.20	-88.29	-3,006.37	-3,368.98	3,888.98	3,582.28	306.70	12.680		
14,400.00	7,106.97	7,043.97	7,106.97	204.26	244.18	-88.25	-3,006.37	-3,368.98	3,987.25	3,680.80	306.45	13.011		
14,500.00	7,106.40	7,043.40	7,106.40	207.07	244.16	-88.20	-3,006.37	-3,368.98	4,085.61	3,779.39	306.21	13.342		
14,600.00	7,105.83	7,042.83	7,105.83	209.89	244.14	-88.16	-3,006.37	-3,368.98	4,184.04	3,878.05	305.99	13.674		
14,700.00	7,105.27	7,042.27	7,105.27	212.70	244.12	-88.11	-3,006.37	-3,368.98	4,282.55	3,976.77	305.78	14.005		
14,800.00	7,104.70	7,041.70	7,104.70	215.52	244.10	-88.07	-3,006.37	-3,368.98	4,381.13	4,075.54	305.59	14.337		
14,900.00	7,104.13	7,041.13	7,104.13	218.33	244.08	-88.02	-3,006.37	-3,368.98	4,479.77	4,174.36	305.40	14.668		
15,000.00	7,103.56	7,040.56	7,103.56	221.15	244.06	-87.98	-3,006.37	-3,368.98	4,578.46	4,273.24	305.23	15.000		
15,100.00	7,102.99	7,039.99	7,102.99	223.97	244.04	-87.93	-3,006.37	-3,368.98	4,677.22	4,372.15	305.06	15.332		
15,200.00	7,102.42	7,039.42	7,102.42	226.79	244.02	-87.89	-3,006.37	-3,368.98	4,776.02	4,471.12	304.90	15.664		
15,274.57	7,102.00	7,039.00	7,102.00	228.89	244.01	-87.86	-3,006.37	-3,368.98	4,849.73	4,544.94	304.79	15.912		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 31-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	9.00	3.28	3.28	21.68	1,237.55	492.01	1,331.80					
100.00	100.00	88.04	97.04	3.28	3.29	21.68	1,237.64	492.07	1,331.87	1,325.30	6.57	202.715		
200.00	200.00	188.38	197.38	3.34	3.33	21.69	1,237.80	492.27	1,332.10	1,325.43	6.67	199.706		
300.00	299.98	291.75	300.75	3.44	3.44	-162.27	1,237.81	492.47	1,333.84	1,326.96	6.88	193.894		
400.00	399.84	384.16	393.16	3.59	3.58	-162.29	1,237.82	492.92	1,339.01	1,331.84	7.17	186.742		
500.00	499.45	487.27	496.26	3.79	3.78	-162.31	1,237.91	493.93	1,347.76	1,340.19	7.57	178.075		
600.00	598.70	581.40	590.39	4.03	3.99	-162.35	1,237.92	494.86	1,359.75	1,351.73	8.03	169.406		
700.00	697.47	685.24	694.22	4.31	4.26	-162.40	1,237.88	496.40	1,375.18	1,366.61	8.57	160.382		
800.00	795.62	784.98	793.95	4.64	4.55	-162.48	1,237.54	497.68	1,393.55	1,384.38	9.17	151.989		
900.00	893.06	879.20	888.16	5.00	4.84	-162.56	1,237.32	498.80	1,415.26	1,405.47	9.79	144.509		
1,000.00	989.64	978.64	987.59	5.40	5.16	-162.67	1,237.07	500.28	1,440.32	1,429.85	10.47	137.503		
1,100.00	1,085.27	1,068.63	1,077.57	5.83	5.46	-162.77	1,236.94	501.30	1,468.59	1,457.44	11.16	131.628		
1,200.00	1,179.88	1,163.28	1,172.22	6.29	5.79	-162.96	1,237.07	502.63	1,500.25	1,488.36	11.89	126.215		
1,300.00	1,274.26	1,266.80	1,275.72	6.78	6.16	-163.30	1,236.80	504.15	1,532.29	1,519.63	12.66	121.026		
1,400.00	1,368.63	1,363.63	1,372.54	7.28	6.52	-163.61	1,236.19	505.10	1,563.88	1,550.45	13.43	116.443		
1,500.00	1,463.00	1,459.27	1,468.18	7.80	6.88	-163.92	1,235.70	505.77	1,595.53	1,581.32	14.21	112.263		
1,600.00	1,557.38	1,554.28	1,563.18	8.33	7.24	-164.20	1,234.96	506.83	1,627.11	1,612.10	15.01	108.426		
1,700.00	1,651.75	1,646.00	1,654.89	8.87	7.59	-164.45	1,234.32	507.85	1,658.80	1,643.00	15.80	105.001		
1,800.00	1,746.12	1,739.69	1,748.58	9.41	7.96	-164.72	1,233.97	508.61	1,690.70	1,674.10	16.61	101.802		
1,900.00	1,840.49	1,841.48	1,850.37	9.96	8.35	-165.00	1,233.40	509.32	1,722.46	1,704.99	17.47	98.618		
2,000.00	1,934.87	1,938.62	1,947.50	10.52	8.74	-165.28	1,232.58	509.34	1,753.78	1,735.47	18.31	95.785		
2,100.00	2,029.24	2,028.61	2,037.49	11.08	9.09	-165.54	1,232.22	509.02	1,785.43	1,766.30	19.12	93.362		
2,200.00	2,123.61	2,124.90	2,133.78	11.64	9.48	-165.81	1,231.66	508.77	1,816.98	1,797.00	19.98	90.961		
2,300.00	2,217.99	2,207.86	2,216.74	12.21	9.81	-166.04	1,231.55	508.53	1,848.95	1,828.19	20.76	89.058		
2,400.00	2,312.36	2,302.08	2,310.96	12.78	10.19	-166.28	1,231.63	508.51	1,881.23	1,859.62	21.61	87.052		
2,500.00	2,406.73	2,393.69	2,402.56	13.35	10.56	-166.50	1,231.71	508.72	1,913.61	1,891.17	22.45	85.242		
2,600.00	2,501.10	2,495.51	2,504.39	13.93	10.97	-166.75	1,231.79	508.59	1,945.92	1,922.58	23.35	83.343		
2,700.00	2,595.48	2,582.06	2,590.93	14.51	11.32	-166.96	1,231.91	508.19	1,978.23	1,954.07	24.16	81.865		
2,800.00	2,689.85	2,674.32	2,683.19	15.08	11.70	-167.19	1,232.33	507.81	2,010.86	1,985.84	25.02	80.385		
2,900.00	2,784.22	2,772.40	2,781.27	15.66	12.10	-167.42	1,232.75	507.28	2,043.45	2,017.55	25.90	78.891		
3,000.00	2,878.60	2,880.44	2,889.31	16.25	12.54	-167.67	1,232.87	506.31	2,075.71	2,048.86	26.85	77.307		
3,100.00	2,972.97	2,970.42	2,979.28	16.83	12.91	-167.88	1,232.67	505.32	2,107.64	2,079.94	27.69	76.102		
3,200.00	3,067.34	3,068.07	3,076.92	17.41	13.31	-168.11	1,232.79	503.89	2,139.80	2,111.22	28.59	74.853		
3,300.00	3,161.72	3,160.14	3,168.98	18.00	13.70	-168.33	1,232.81	502.10	2,171.80	2,142.35	29.45	73.753		
3,400.00	3,256.09	3,259.26	3,268.08	18.58	14.11	-168.56	1,232.89	500.59	2,203.98	2,173.63	30.35	72.616		
3,500.00	3,350.46	3,359.80	3,368.62	19.17	14.53	-168.77	1,232.46	499.23	2,235.76	2,204.49	31.27	71.507		
3,600.00	3,444.83	3,452.97	3,461.77	19.75	14.91	-168.96	1,232.07	497.80	2,267.52	2,235.38	32.14	70.557		
3,700.00	3,539.21	3,542.51	3,551.30	20.34	15.29	-169.14	1,231.76	496.62	2,299.42	2,266.44	32.99	69.708		
3,800.00	3,633.58	3,626.57	3,635.36	20.93	15.64	-169.29	1,231.60	496.04	2,331.65	2,297.85	33.80	68.980		
3,900.00	3,727.95	3,705.77	3,714.56	21.52	15.97	-169.42	1,231.86	495.89	2,364.47	2,329.88	34.58	68.367		
4,000.00	3,822.33	3,804.19	3,812.98	22.11	16.38	-169.58	1,232.38	495.77	2,397.50	2,362.01	35.49	67.550		
4,100.00	3,916.70	3,903.50	3,912.29	22.70	16.80	-169.74	1,232.78	495.32	2,430.36	2,393.95	36.41	66.757		
4,200.00	4,011.07	3,994.63	4,003.41	23.29	17.18	-169.89	1,233.16	494.71	2,463.21	2,425.94	37.27	66.094		
4,300.00	4,105.44	4,094.11	4,102.90	23.88	17.60	-170.04	1,233.52	494.14	2,496.03	2,457.85	38.19	65.366		
4,400.00	4,199.82	4,190.78	4,199.56	24.47	18.00	-170.19	1,233.69	493.63	2,528.71	2,489.63	39.09	64.697		
4,500.00	4,294.19	4,281.95	4,290.73	25.06	18.38	-170.32	1,233.88	493.07	2,561.42	2,521.47	39.95	64.117		
4,600.00	4,388.56	4,375.49	4,384.27	25.65	18.78	-170.46	1,234.14	492.63	2,594.23	2,553.40	40.83	63.538		
4,700.00	4,482.94	4,467.21	4,475.99	26.24	19.16	-170.58	1,234.42	492.24	2,627.09	2,585.39	41.70	63.002		
4,800.00	4,577.31	4,555.56	4,564.34	26.83	19.54	-170.70	1,234.78	492.08	2,660.11	2,617.57	42.54	62.526		
4,900.00	4,671.68	4,648.24	4,657.01	27.43	19.93	-170.81	1,235.30	492.17	2,693.34	2,649.92	43.42	62.030		
5,000.00	4,766.05	4,739.57	4,748.34	28.02	20.31	-170.92	1,235.79	492.18	2,726.53	2,682.25	44.29	61.565		
5,100.00	4,860.43	4,821.42	4,830.19	28.61	20.66	-171.01	1,236.42	492.56	2,760.05	2,714.96	45.09	61.214		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 31-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,900.09	4,908.85	29.20	20.99	-171.09	1,237.37	493.26	2,794.06	2,748.19	45.87	60.918		
5,300.00	5,049.17	4,999.43	5,008.18	29.80	21.41	-171.19	1,238.80	493.93	2,828.24	2,781.45	46.79	60.445		
5,400.00	5,143.55	5,121.86	5,130.60	30.39	21.92	-171.32	1,239.92	494.16	2,861.84	2,813.96	47.88	59.773		
5,500.00	5,237.92	5,228.60	5,237.34	30.99	22.38	-171.44	1,240.15	493.81	2,894.71	2,845.85	48.86	59.251		
5,600.00	5,332.29	5,323.49	5,332.22	31.58	22.78	-171.55	1,240.42	493.04	2,927.55	2,877.80	49.75	58.846		
5,700.00	5,426.66	5,437.39	5,446.12	32.17	23.26	-171.69	1,240.17	491.85	2,959.89	2,909.12	50.78	58.293		
5,800.00	5,521.04	5,531.37	5,540.08	32.77	23.66	-171.81	1,239.85	490.29	2,992.02	2,940.36	51.66	57.912		
5,900.00	5,615.41	5,622.21	5,630.92	33.36	24.04	-171.92	1,239.59	489.06	3,024.27	2,971.74	52.53	57.570		
6,000.00	5,709.78	5,717.40	5,726.10	33.96	24.44	-172.03	1,239.33	487.83	3,056.55	3,003.12	53.43	57.206		
6,100.00	5,804.16	5,809.97	5,818.66	34.55	24.84	-172.14	1,239.19	486.13	3,088.86	3,034.55	54.31	56.874		
6,200.00	5,898.53	5,898.44	5,907.11	35.14	25.21	-172.25	1,239.20	484.43	3,121.31	3,066.15	55.16	56.585		
6,300.00	5,992.90	5,989.84	5,998.49	35.74	25.60	-172.36	1,239.32	482.78	3,153.90	3,097.87	56.03	56.286		
6,400.00	6,087.27	6,085.14	6,093.77	36.33	26.00	-172.48	1,239.52	480.84	3,186.54	3,129.61	56.93	55.970		
6,500.00	6,181.65	6,198.08	6,206.68	36.93	26.48	-172.62	1,239.48	478.35	3,218.94	3,160.98	57.96	55.538		
6,600.00	6,276.02	6,279.14	6,287.72	37.52	26.83	-172.72	1,239.34	476.55	3,251.22	3,192.46	58.76	55.332		
6,700.00	6,370.39	6,382.11	6,390.66	38.12	27.26	-172.84	1,239.44	473.79	3,283.68	3,223.97	59.71	54.990		
6,800.00	6,464.77	6,464.49	6,473.00	38.71	27.61	-172.95	1,239.50	471.24	3,316.05	3,255.53	60.52	54.790		
6,900.00	6,559.14	6,548.98	6,557.45	39.31	27.97	-173.31	1,239.96	468.57	3,348.87	3,287.52	61.35	54.590		
7,000.00	6,652.92	6,645.46	6,653.85	39.90	28.38	160.24	1,240.70	464.87	3,383.09	3,320.83	62.26	54.342		
7,100.00	6,744.00	6,746.67	6,754.97	40.44	28.82	140.96	1,241.30	460.73	3,419.15	3,355.96	63.19	54.112		
7,200.00	6,830.13	6,836.17	6,844.41	40.94	29.20	127.81	1,241.59	457.29	3,456.37	3,392.36	64.02	53.991		
7,300.00	6,909.19	6,911.85	6,920.01	41.37	29.52	118.39	1,242.00	453.97	3,494.52	3,429.78	64.74	53.976		
7,400.00	6,979.23	6,980.68	6,988.75	41.75	29.82	111.24	1,242.53	450.62	3,533.13	3,467.70	65.43	53.998		
7,500.00	7,038.53	7,050.49	7,058.47	42.08	30.11	105.64	1,243.13	447.03	3,571.72	3,505.54	66.18	53.973		
7,600.00	7,085.63	7,111.67	7,119.57	42.37	30.38	101.05	1,243.49	443.82	3,609.76	3,542.81	66.95	53.921		
7,700.00	7,119.37	7,148.37	7,156.21	42.64	30.53	96.94	1,243.75	441.64	3,647.00	3,579.34	67.65	53.906		
7,800.00	7,138.92	7,174.47	7,182.24	42.91	30.65	93.39	1,243.99	439.93	3,683.00	3,614.58	68.43	53.824		
7,900.00	7,143.92	7,186.73	7,194.47	43.25	30.70	90.71	1,244.11	439.08	3,717.27	3,648.03	69.23	53.691		
8,000.00	7,143.35	7,193.64	7,201.37	43.72	30.73	90.82	1,244.18	438.59	3,752.19	3,682.06	70.13	53.501		
8,100.00	7,142.78	7,200.97	7,208.68	44.42	30.76	90.94	1,244.27	438.05	3,789.42	3,718.29	71.14	53.269		
8,200.00	7,142.22	7,209.19	7,216.87	45.39	30.79	91.08	1,244.35	437.45	3,828.89	3,756.66	72.23	53.008		
8,300.00	7,141.65	7,217.26	7,224.93	46.63	30.83	91.21	1,244.44	436.87	3,870.53	3,797.13	73.40	52.735		
8,400.00	7,141.08	7,225.21	7,232.85	48.09	30.86	91.34	1,244.51	436.30	3,914.26	3,839.65	74.61	52.463		
8,500.00	7,140.51	7,233.03	7,240.65	49.74	30.90	91.47	1,244.58	435.74	3,960.03	3,884.16	75.86	52.199		
8,600.00	7,139.94	7,240.72	7,248.32	51.53	30.93	91.59	1,244.65	435.19	4,007.75	3,930.61	77.14	51.952		
8,700.00	7,139.37	7,248.29	7,255.87	53.44	30.96	91.72	1,244.71	434.66	4,057.37	3,978.93	78.44	51.726		
8,800.00	7,138.80	7,255.73	7,263.30	55.45	30.99	91.84	1,244.76	434.14	4,108.80	4,029.06	79.74	51.526		
8,900.00	7,138.24	7,263.06	7,270.61	57.55	31.03	91.96	1,244.81	433.63	4,162.00	4,080.95	81.05	51.353		
9,000.00	7,137.67	7,270.28	7,277.81	59.71	31.06	92.07	1,244.85	433.14	4,216.88	4,134.54	82.34	51.212		
9,100.00	7,137.10	7,275.38	7,282.90	61.94	31.08	92.16	1,244.89	432.78	4,273.40	4,189.78	83.61	51.109		
9,200.00	7,136.53	7,281.74	7,289.24	64.22	31.11	92.26	1,244.93	432.34	4,331.47	4,246.59	84.88	51.032		
9,300.00	7,135.96	7,288.10	7,295.58	66.55	31.13	92.37	1,244.97	431.90	4,391.05	4,304.92	86.12	50.986		
9,400.00	7,135.39	7,294.45	7,301.92	68.92	31.16	92.47	1,245.01	431.46	4,452.06	4,364.72	87.35	50.970 SF		
9,500.00	7,134.83	7,300.81	7,308.27	71.33	31.19	92.57	1,245.05	431.02	4,514.46	4,425.91	88.54	50.985		
9,600.00	7,134.26	7,307.17	7,314.61	73.77	31.22	92.68	1,245.09	430.58	4,578.18	4,488.46	89.72	51.029		
9,700.00	7,133.69	7,313.53	7,320.95	76.24	31.25	92.78	1,245.13	430.14	4,643.17	4,552.31	90.86	51.101		
9,800.00	7,133.12	7,319.88	7,327.29	78.74	31.27	92.88	1,245.17	429.70	4,709.38	4,617.40	91.98	51.200		
9,900.00	7,132.55	7,326.24	7,333.63	81.27	31.30	92.99	1,245.21	429.26	4,776.76	4,683.69	93.07	51.325		
10,000.00	7,131.98	7,332.60	7,339.97	83.81	31.33	93.09	1,245.25	428.81	4,845.26	4,751.13	94.13	51.475		
10,100.00	7,131.42	7,338.95	7,346.32	86.38	31.36	93.19	1,245.30	428.37	4,914.83	4,819.67	95.16	51.648		
10,200.00	7,130.85	7,345.31	7,352.66	88.96	31.38	93.30	1,245.34	427.93	4,985.42	4,889.26	96.16	51.845		
10,300.00	7,130.28	7,351.67	7,359.00	91.56	31.41	93.40	1,245.38	427.49	5,057.00	4,959.87	97.13	52.062		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 31-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,358.02	7,365.34	94.18	31.44	93.50	1,245.42	427.05	5,129.52	5,031.45	98.08	52.300		
10,500.00	7,129.14	7,364.38	7,371.68	96.81	31.47	93.61	1,245.46	426.61	5,202.95	5,103.95	98.99	52.558		
10,600.00	7,128.57	7,370.74	7,378.02	99.45	31.50	93.71	1,245.50	426.17	5,277.24	5,177.36	99.88	52.834		
10,700.00	7,128.00	7,377.10	7,384.36	102.11	31.52	93.81	1,245.54	425.73	5,352.36	5,251.62	100.75	53.127		
10,800.00	7,127.44	7,383.45	7,390.71	104.77	31.55	93.92	1,245.58	425.29	5,428.28	5,326.70	101.58	53.437		
10,900.00	7,126.87	7,389.81	7,397.05	107.45	31.58	94.02	1,245.62	424.85	5,504.96	5,402.56	102.39	53.762		
11,000.00	7,126.30	7,396.17	7,403.39	110.13	31.61	94.12	1,245.66	424.41	5,582.37	5,479.19	103.18	54.103		
11,100.00	7,125.73	7,402.52	7,409.73	112.82	31.63	94.23	1,245.71	423.97	5,660.48	5,556.54	103.94	54.457		
11,200.00	7,125.16	7,408.88	7,416.07	115.53	31.66	94.33	1,245.75	423.53	5,739.26	5,634.58	104.68	54.825		
11,300.00	7,124.59	7,415.24	7,422.41	118.24	31.69	94.43	1,245.79	423.09	5,818.69	5,713.29	105.40	55.206		
11,400.00	7,124.03	7,421.59	7,428.76	120.95	31.72	94.54	1,245.83	422.65	5,898.74	5,792.64	106.10	55.598		
11,500.00	7,123.46	7,427.95	7,435.10	123.67	31.74	94.64	1,245.87	422.21	5,979.38	5,872.61	106.77	56.002		
11,600.00	7,122.89	7,434.31	7,441.44	126.40	31.77	94.74	1,245.91	421.77	6,060.59	5,953.16	107.43	56.417		
11,700.00	7,122.32	7,440.67	7,447.78	129.14	31.80	94.85	1,245.95	421.33	6,142.35	6,034.29	108.06	56.842		
11,800.00	7,121.75	7,447.02	7,454.12	131.88	31.83	94.95	1,245.99	420.89	6,224.63	6,115.96	108.68	57.276		
11,900.00	7,121.18	7,453.38	7,460.46	134.62	31.86	95.05	1,246.03	420.45	6,307.42	6,198.15	109.28	57.720		
12,000.00	7,120.61	7,459.74	7,466.81	137.37	31.88	95.16	1,246.07	420.01	6,390.70	6,280.84	109.86	58.173		
12,100.00	7,120.05	7,466.10	7,473.88	140.12	31.91	95.27	1,246.11	419.57	6,474.49	6,364.21	110.43	58.627		
12,200.00	7,119.48	7,472.46	7,480.00	142.88	31.94	95.38	1,246.15	419.13	6,558.70	6,447.91	111.00	59.081		
12,300.00	7,118.91	7,478.82	7,487.08	145.64	31.97	95.49	1,246.19	418.69	6,643.36	6,532.07	111.57	59.535		
12,400.00	7,118.34	7,485.18	7,494.14	148.41	32.00	95.60	1,246.23	418.25	6,728.44	6,616.67	112.14	60.000		
12,500.00	7,117.77	7,491.54	7,501.20	151.18	32.03	95.71	1,246.27	417.81	6,813.92	6,701.69	112.71	60.465		
12,600.00	7,117.20	7,497.90	7,507.56	153.95	32.06	95.82	1,246.31	417.37	6,899.79	6,787.11	113.28	60.930		
12,700.00	7,116.64	7,504.26	7,513.92	156.73	32.09	95.93	1,246.35	416.93	6,986.04	6,872.92	113.85	61.395		
12,800.00	7,116.07	7,510.62	7,520.28	159.50	32.12	96.04	1,246.39	416.49	7,072.65	6,959.10	114.42	61.860		
12,900.00	7,115.50	7,517.00	7,526.64	162.29	32.15	96.15	1,246.43	416.05	7,159.61	7,045.65	114.99	62.325		
13,000.00	7,114.93	7,523.36	7,533.00	165.07	32.18	96.26	1,246.47	415.61	7,246.91	7,132.54	115.56	62.790		
13,100.00	7,114.36	7,529.72	7,539.36	167.86	32.21	96.37	1,246.51	415.17	7,334.53	7,219.77	116.13	63.255		
13,200.00	7,113.79	7,536.08	7,545.72	170.64	32.24	96.48	1,246.55	414.73	7,422.46	7,307.32	116.70	63.720		
13,300.00	7,113.22	7,542.44	7,552.08	173.44	32.27	96.59	1,246.59	414.29	7,510.70	7,395.19	117.27	64.185		
13,400.00	7,112.66	7,548.80	7,558.44	176.23	32.30	96.70	1,246.63	413.85	7,599.22	7,483.35	117.84	64.650		
13,500.00	7,112.09	7,555.16	7,564.80	179.02	32.33	96.81	1,246.67	413.41	7,688.03	7,571.81	118.41	65.115		
13,600.00	7,111.52	7,561.52	7,571.16	181.82	32.36	96.92	1,246.71	412.97	7,777.11	7,660.55	118.98	65.580		
13,700.00	7,110.95	7,567.88	7,577.52	184.62	32.39	97.03	1,246.75	412.53	7,866.45	7,749.56	119.55	66.045		
13,800.00	7,110.38	7,574.24	7,583.88	187.42	32.42	97.14	1,246.79	412.09	7,956.05	7,838.83	120.12	66.510		
13,900.00	7,109.81	7,580.60	7,590.24	190.22	32.45	97.25	1,246.83	411.65	8,045.89	7,928.35	120.69	66.975		
14,000.00	7,109.25	7,586.96	7,596.60	193.03	32.48	97.36	1,246.87	411.21	8,135.97	8,018.12	121.26	67.440		
14,100.00	7,108.68	7,593.32	7,602.96	195.84	32.51	97.47	1,246.91	410.77	8,226.28	8,108.13	121.83	67.905		
14,200.00	7,108.11	7,599.68	7,609.32	198.64	32.54	97.58	1,246.95	410.33	8,316.80	8,198.36	122.40	68.370		
14,300.00	7,107.54	7,606.04	7,615.68	201.45	32.57	97.69	1,246.99	409.89	8,407.55	8,288.82	122.97	68.835		
14,400.00	7,106.97	7,612.40	7,622.04	204.26	32.60	97.80	1,247.03	409.45	8,498.50	8,379.49	123.54	69.300		
14,500.00	7,106.40	7,618.76	7,628.40	207.07	32.63	97.91	1,247.07	409.01	8,589.65	8,470.37	124.11	69.765		
14,600.00	7,105.83	7,625.12	7,634.76	209.89	32.66	98.02	1,247.11	408.57	8,681.00	8,561.45	124.68	70.230		
14,700.00	7,105.27	7,631.48	7,641.12	212.70	32.69	98.13	1,247.15	408.13	8,772.54	8,652.73	125.25	70.695		
14,800.00	7,104.70	7,637.84	7,647.48	215.52	32.72	98.24	1,247.19	407.69	8,864.26	8,744.19	125.82	71.160		
14,900.00	7,104.13	7,644.20	7,653.84	218.33	32.75	98.35	1,247.23	407.25	8,956.15	8,835.84	126.39	71.625		
15,000.00	7,103.56	7,650.56	7,660.20	221.15	32.78	98.46	1,247.27	406.81	9,048.22	8,927.66	126.96	72.090		
15,100.00	7,102.99	7,656.92	7,666.56	223.97	32.81	98.57	1,247.31	406.37	9,140.46	9,019.66	127.53	72.555		
15,200.00	7,102.42	7,663.28	7,672.92	226.79	32.84	98.68	1,247.35	405.93	9,232.85	9,111.82	128.10	73.020		
15,274.57	7,102.00	7,669.64	7,679.28	228.89	32.87	98.79	1,247.39	405.49	9,301.85	9,180.65	128.67	73.485		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 32-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	19.00	3.28	3.28	70.53	184.72	522.62	554.63					
100.00	100.00	77.97	96.97	3.28	3.28	70.48	185.24	522.66	554.53	547.96	6.57	84.409 CC, ES		
200.00	200.00	180.12	199.11	3.34	3.33	70.33	186.84	522.61	555.00	548.34	6.67	83.249		
300.00	299.98	281.42	300.39	3.44	3.43	-113.93	188.15	522.13	555.71	548.83	6.87	80.881		
400.00	399.84	378.84	397.80	3.59	3.58	-114.49	189.29	521.81	557.95	550.78	7.16	77.880		
500.00	499.45	476.31	495.27	3.79	3.76	-115.30	190.46	521.96	562.21	554.66	7.55	74.490		
600.00	598.70	573.75	592.70	4.03	3.98	-116.38	191.74	522.39	568.46	560.44	8.01	70.964		
700.00	697.47	672.18	691.12	4.31	4.23	-117.73	193.30	522.91	576.77	568.22	8.55	67.488		
800.00	795.62	768.88	787.81	4.64	4.51	-119.24	194.64	523.53	587.18	578.04	9.14	64.252		
900.00	893.06	864.94	883.85	5.00	4.80	-120.94	196.26	524.28	600.16	590.38	9.78	61.352		
1,000.00	989.64	961.59	980.48	5.40	5.11	-122.78	197.72	525.17	615.73	605.26	10.47	58.788		
1,100.00	1,085.27	1,056.91	1,075.79	5.83	5.43	-124.70	199.09	525.97	633.96	622.76	11.20	56.600		
1,200.00	1,179.88	1,151.96	1,170.83	6.29	5.76	-126.82	200.56	526.69	655.06	643.10	11.96	54.768		
1,300.00	1,274.26	1,246.95	1,265.80	6.78	6.10	-129.07	201.87	527.24	677.41	664.68	12.74	53.177		
1,400.00	1,368.63	1,340.40	1,359.24	7.28	6.44	-131.17	203.39	527.58	700.74	687.21	13.53	51.802		
1,500.00	1,463.00	1,435.71	1,454.54	7.80	6.79	-133.17	204.84	528.03	724.99	710.65	14.34	50.568		
1,600.00	1,557.38	1,532.70	1,551.52	8.33	7.16	-135.08	206.00	528.13	749.58	734.41	15.17	49.426		
1,700.00	1,651.75	1,627.38	1,646.20	8.87	7.52	-136.85	207.28	528.01	774.84	758.85	15.99	48.454		
1,800.00	1,746.12	1,725.32	1,744.12	9.41	7.90	-138.57	208.31	527.51	800.32	783.48	16.84	47.524		
1,900.00	1,840.49	1,817.79	1,836.60	9.96	8.27	-140.07	209.05	527.20	826.37	808.70	17.67	46.776		
2,000.00	1,934.87	1,910.94	1,929.74	10.52	8.63	-141.50	209.92	527.03	853.14	834.64	18.50	46.114		
2,100.00	2,029.24	2,010.80	2,029.60	11.08	9.03	-142.95	210.71	526.53	880.11	860.74	19.38	45.419		
2,200.00	2,123.61	2,111.08	2,129.87	11.64	9.43	-144.31	210.90	525.71	906.91	886.65	20.26	44.766		
2,300.00	2,217.99	2,202.20	2,220.99	12.21	9.80	-145.47	210.93	525.02	934.04	912.95	21.09	44.288		
2,400.00	2,312.36	2,300.66	2,319.45	12.78	10.19	-146.64	210.77	524.35	961.44	939.47	21.97	43.765		
2,500.00	2,406.73	2,397.11	2,415.90	13.35	10.58	-147.72	210.36	523.55	988.88	966.04	22.84	43.303		
2,600.00	2,501.10	2,493.55	2,512.33	13.93	10.97	-148.73	209.73	522.74	1,016.44	992.73	23.71	42.875		
2,700.00	2,595.48	2,589.33	2,608.10	14.51	11.36	-149.67	208.80	522.14	1,044.14	1,019.56	24.58	42.485		
2,800.00	2,689.85	2,680.85	2,699.61	15.08	11.73	-150.51	207.86	521.76	1,072.16	1,046.73	25.42	42.176		
2,900.00	2,784.22	2,778.67	2,797.43	15.66	12.13	-151.36	206.83	521.59	1,100.48	1,074.17	26.31	41.830		
3,000.00	2,878.60	2,871.10	2,889.85	16.25	12.51	-152.12	205.83	521.16	1,128.85	1,101.68	27.16	41.560		
3,100.00	2,972.97	2,963.54	2,982.29	16.83	12.89	-152.87	205.20	520.63	1,157.69	1,129.67	28.02	41.322		
3,200.00	3,067.34	3,055.79	3,074.54	17.41	13.28	-153.58	204.74	520.09	1,186.85	1,157.98	28.87	41.110		
3,300.00	3,161.72	3,149.46	3,168.20	18.00	13.66	-154.29	204.58	519.36	1,216.37	1,186.63	29.73	40.908		
3,400.00	3,256.09	3,244.49	3,263.23	18.58	14.06	-154.98	204.40	518.54	1,246.01	1,215.40	30.61	40.706		
3,500.00	3,350.46	3,337.42	3,356.16	19.17	14.44	-155.62	204.23	517.79	1,275.83	1,244.36	31.47	40.540		
3,600.00	3,444.83	3,430.29	3,449.03	19.75	14.83	-156.21	203.99	517.57	1,305.97	1,273.64	32.33	40.391		
3,700.00	3,539.21	3,526.77	3,545.51	20.34	15.23	-156.79	203.66	517.38	1,336.19	1,302.96	33.22	40.217		
3,800.00	3,633.58	3,623.32	3,642.06	20.93	15.64	-157.34	203.23	517.06	1,366.38	1,332.26	34.12	40.050		
3,900.00	3,727.95	3,719.94	3,738.67	21.52	16.04	-157.88	202.70	516.60	1,396.53	1,361.52	35.01	39.890		
4,000.00	3,822.33	3,816.63	3,835.36	22.11	16.45	-158.40	202.08	516.00	1,426.66	1,390.75	35.90	39.734		
4,100.00	3,916.70	3,913.39	3,932.11	22.70	16.86	-158.90	201.37	515.26	1,456.74	1,419.94	36.80	39.584		
4,200.00	4,011.07	4,010.22	4,028.93	23.29	17.26	-159.39	200.56	514.38	1,486.78	1,449.08	37.70	39.438		
4,300.00	4,105.44	4,107.11	4,125.82	23.88	17.67	-159.86	199.66	513.36	1,516.77	1,478.17	38.60	39.297		
4,400.00	4,199.82	4,204.08	4,222.77	24.47	18.08	-160.31	198.66	512.19	1,546.71	1,507.21	39.50	39.160		
4,500.00	4,294.19	4,296.55	4,315.23	25.06	18.47	-160.73	197.69	511.15	1,576.73	1,536.37	40.36	39.062		
4,600.00	4,388.56	4,386.38	4,405.06	25.65	18.84	-161.11	196.84	510.43	1,607.04	1,565.83	41.21	38.994		
4,700.00	4,482.94	4,473.83	4,492.50	26.24	19.21	-161.46	196.28	509.90	1,637.76	1,595.72	42.04	38.956		
4,800.00	4,577.31	4,566.71	4,585.38	26.83	19.60	-161.83	196.09	509.18	1,668.87	1,625.96	42.91	38.891		
4,900.00	4,671.68	4,659.48	4,678.15	27.43	20.00	-162.20	195.91	508.45	1,700.05	1,656.27	43.78	38.829		
5,000.00	4,766.05	4,754.00	4,772.66	28.02	20.39	-162.54	195.75	507.97	1,731.40	1,686.74	44.67	38.762		
5,100.00	4,860.43	4,845.23	4,863.90	28.61	20.78	-162.86	195.48	507.70	1,762.78	1,717.26	45.53	38.719		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 32-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,933.89	4,952.56	29.20	21.15	-163.15	195.56	507.55	1,794.58	1,748.21	46.37	38.705		
5,300.00	5,049.17	5,028.80	5,047.46	29.80	21.55	-163.47	195.82	507.19	1,826.52	1,779.27	47.26	38.652		
5,400.00	5,143.55	5,124.92	5,143.58	30.39	21.96	-163.78	195.99	506.75	1,858.41	1,810.25	48.16	38.592		
5,500.00	5,237.92	5,218.48	5,237.14	30.99	22.36	-164.07	196.19	506.31	1,890.37	1,841.33	49.04	38.551		
5,600.00	5,332.29	5,318.20	5,336.86	31.58	22.78	-164.38	196.37	505.51	1,922.23	1,872.27	49.97	38.471		
5,700.00	5,426.66	5,416.81	5,435.46	32.17	23.20	-164.68	196.32	504.46	1,953.87	1,902.98	50.89	38.396		
5,800.00	5,521.04	5,507.44	5,526.09	32.77	23.58	-164.95	196.28	503.62	1,985.58	1,933.83	51.74	38.373		
5,900.00	5,615.41	5,602.20	5,620.84	33.36	23.98	-165.21	196.22	502.99	2,017.41	1,964.77	52.64	38.328		
6,000.00	5,709.78	5,705.84	5,724.48	33.96	24.42	-165.48	195.87	502.42	2,049.05	1,995.45	53.60	38.228		
6,100.00	5,804.16	5,800.57	5,819.21	34.55	24.82	-165.72	195.34	501.88	2,080.51	2,026.02	54.49	38.179		
6,200.00	5,898.53	5,884.21	5,902.85	35.14	25.18	-165.92	195.05	501.49	2,112.25	2,056.95	55.29	38.200		
6,300.00	5,992.90	5,977.41	5,996.05	35.74	25.57	-166.14	195.04	501.12	2,144.32	2,088.14	56.17	38.173		
6,400.00	6,087.27	6,077.74	6,096.37	36.33	26.00	-166.38	194.98	500.43	2,176.30	2,119.18	57.11	38.104		
6,500.00	6,181.65	6,171.80	6,190.43	36.93	26.40	-166.60	194.76	499.72	2,208.13	2,150.12	58.00	38.070		
6,600.00	6,276.02	6,261.71	6,280.34	37.52	26.78	-166.80	194.62	499.21	2,240.11	2,181.26	58.86	38.061		
6,700.00	6,370.39	6,353.69	6,372.32	38.12	27.17	-166.99	194.60	498.93	2,272.31	2,212.58	59.73	38.045		
6,800.00	6,464.77	6,447.93	6,466.55	38.71	27.57	-167.18	194.59	498.69	2,304.56	2,243.94	60.62	38.018		
6,900.00	6,559.14	6,542.16	6,560.79	39.31	27.97	-167.60	194.58	498.46	2,336.83	2,275.32	61.51	37.992 SF		
7,000.00	6,652.92	6,635.82	6,654.45	39.90	28.37	-166.00	194.57	498.26	2,371.17	2,308.77	62.40	38.002		
7,100.00	6,744.00	6,726.81	6,745.43	40.44	28.76	-146.68	194.56	498.08	2,409.01	2,345.75	63.26	38.084		
7,200.00	6,830.13	6,812.86	6,831.49	40.94	29.13	-133.37	194.56	497.93	2,449.69	2,385.62	64.07	38.236		
7,300.00	6,909.19	6,891.87	6,910.50	41.37	29.46	-123.72	194.55	497.80	2,492.73	2,427.90	64.83	38.452		
7,400.00	6,979.23	6,961.88	6,980.50	41.75	29.76	-116.16	194.55	497.70	2,537.70	2,472.17	65.53	38.725		
7,500.00	7,038.53	7,021.16	7,039.78	42.08	30.01	-109.80	194.55	497.62	2,584.23	2,518.04	66.20	39.038		
7,600.00	7,085.63	7,068.25	7,086.88	42.37	30.21	-104.12	194.54	497.56	2,631.90	2,565.05	66.84	39.375		
7,700.00	7,119.37	7,102.02	7,120.64	42.64	30.36	-98.85	194.54	497.53	2,680.15	2,612.67	67.48	39.717		
7,800.00	7,138.92	7,121.61	7,140.24	42.91	30.44	-93.89	194.54	497.51	2,728.32	2,660.20	68.12	40.050		
7,900.00	7,143.92	7,126.71	7,145.33	43.25	30.46	-89.86	194.54	497.50	2,775.60	2,706.84	68.76	40.367		
8,000.00	7,143.35	7,126.24	7,144.87	43.72	30.46	-89.85	194.54	497.50	2,824.04	2,754.59	69.45	40.662		
8,100.00	7,142.78	7,125.78	7,144.40	44.42	30.46	-89.84	194.54	497.50	2,875.15	2,804.93	70.21	40.950		
8,200.00	7,142.22	7,125.31	7,143.94	45.39	30.46	-89.83	194.54	497.50	2,928.78	2,857.75	71.02	41.237		
8,300.00	7,141.65	7,124.85	7,143.48	46.63	30.46	-89.82	194.54	497.50	2,984.79	2,912.92	71.87	41.531		
8,400.00	7,141.08	7,124.38	7,143.01	48.09	30.45	-89.80	194.54	497.50	3,043.07	2,970.33	72.74	41.835		
8,500.00	7,140.51	7,123.92	7,142.55	49.74	30.45	-89.79	194.54	497.50	3,103.47	3,029.85	73.62	42.154		
8,600.00	7,139.94	7,123.46	7,142.08	51.53	30.45	-89.78	194.54	497.50	3,165.88	3,091.37	74.51	42.491		
8,700.00	7,139.37	7,122.99	7,141.62	53.44	30.45	-89.77	194.54	497.50	3,230.17	3,154.79	75.39	42.847		
8,800.00	7,138.80	7,122.53	7,141.16	55.45	30.45	-89.76	194.54	497.50	3,296.25	3,219.99	76.26	43.223		
8,900.00	7,138.24	7,122.07	7,140.69	57.55	30.44	-89.75	194.54	497.50	3,364.01	3,286.89	77.12	43.621		
9,000.00	7,137.67	7,121.60	7,140.23	59.71	30.44	-89.74	194.54	497.51	3,433.34	3,355.38	77.96	44.041		
9,100.00	7,137.10	7,121.14	7,139.77	61.94	30.44	-89.73	194.54	497.51	3,504.15	3,425.37	78.78	44.482		
9,200.00	7,136.53	7,120.68	7,139.30	64.22	30.44	-89.72	194.54	497.51	3,576.36	3,496.78	79.57	44.944		
9,300.00	7,135.96	7,120.21	7,138.84	66.55	30.44	-89.71	194.54	497.51	3,649.87	3,569.53	80.35	45.426		
9,400.00	7,135.39	7,119.75	7,138.38	68.92	30.43	-89.70	194.54	497.51	3,724.63	3,643.53	81.10	45.929		
9,500.00	7,134.83	7,119.29	7,137.92	71.33	30.43	-89.69	194.54	497.51	3,800.54	3,718.72	81.82	46.451		
9,600.00	7,134.26	7,118.83	7,137.46	73.77	30.43	-89.68	194.54	497.51	3,877.54	3,795.03	82.52	46.991		
9,700.00	7,133.69	7,118.37	7,136.99	76.24	30.43	-89.66	194.54	497.51	3,955.58	3,872.39	83.19	47.549		
9,800.00	7,133.12	7,117.91	7,136.53	78.74	30.43	-89.65	194.54	497.51	4,034.58	3,950.74	83.84	48.123		
9,900.00	7,132.55	7,117.44	7,136.07	81.27	30.42	-89.64	194.54	497.51	4,114.50	4,030.04	84.46	48.713		
10,000.00	7,131.98	7,116.98	7,135.61	83.81	30.42	-89.63	194.54	497.51	4,195.28	4,110.21	85.07	49.318		
10,100.00	7,131.42	7,116.52	7,135.15	86.38	30.42	-89.62	194.54	497.51	4,276.87	4,191.22	85.64	49.937		
10,200.00	7,130.85	7,116.06	7,134.69	88.96	30.42	-89.61	194.54	497.51	4,359.23	4,273.03	86.20	50.570		
10,300.00	7,130.28	7,115.60	7,134.23	91.56	30.42	-89.60	194.54	497.51	4,442.31	4,355.57	86.74	51.215		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTER 32-15(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,115.14	7,133.77	94.18	30.41	89.59	194.54	497.51	4,526.08	4,438.82	87.25	51.873		
10,500.00	7,129.14	7,114.68	7,133.31	96.81	30.41	89.58	194.54	497.51	4,610.49	4,522.74	87.75	52.541		
10,600.00	7,128.57	7,114.22	7,132.85	99.45	30.41	89.57	194.54	497.51	4,695.52	4,607.29	88.23	53.220		
10,700.00	7,128.00	7,113.76	7,132.39	102.11	30.41	89.56	194.54	497.51	4,781.12	4,692.43	88.69	53.910		
10,800.00	7,127.44	7,113.30	7,131.93	104.77	30.41	89.55	194.54	497.51	4,867.28	4,778.14	89.13	54.608		
10,900.00	7,126.87	7,112.84	7,131.47	107.45	30.40	89.53	194.54	497.51	4,953.95	4,864.39	89.56	55.316		
11,000.00	7,126.30	7,112.38	7,131.01	110.13	30.40	89.52	194.54	497.51	5,041.12	4,951.15	89.97	56.032		
11,100.00	7,125.73	7,111.92	7,130.55	112.82	30.40	89.51	194.54	497.52	5,128.75	5,038.39	90.37	56.756		
11,200.00	7,125.16	7,111.47	7,130.09	115.53	30.40	89.50	194.54	497.52	5,216.84	5,126.09	90.75	57.487		
11,300.00	7,124.59	7,111.01	7,129.64	118.24	30.40	89.49	194.54	497.52	5,305.34	5,214.22	91.12	58.226		
11,400.00	7,124.03	7,110.55	7,129.18	120.95	30.40	89.48	194.54	497.52	5,394.24	5,302.77	91.47	58.971		
11,500.00	7,123.46	7,110.09	7,128.72	123.67	30.39	89.47	194.54	497.52	5,483.53	5,391.71	91.82	59.722		
11,600.00	7,122.89	7,109.63	7,128.26	126.40	30.39	89.46	194.54	497.52	5,573.18	5,481.03	92.15	60.479		
11,700.00	7,122.32	7,109.18	7,127.80	129.14	30.39	89.45	194.54	497.52	5,663.18	5,570.71	92.47	61.242		
11,800.00	7,121.75	7,108.72	7,127.35	131.88	30.39	89.44	194.54	497.52	5,753.51	5,660.72	92.78	62.010		
11,900.00	7,121.18	7,108.26	7,126.89	134.62	30.39	89.43	194.54	497.52	5,844.15	5,751.07	93.08	62.784		
12,000.00	7,120.61	7,107.80	7,126.43	137.37	30.38	89.42	194.54	497.52	5,935.09	5,841.72	93.38	63.561		
12,100.00	7,120.05	7,107.35	7,125.97	140.12	30.38	89.41	194.54	497.52	6,026.32	5,932.67	93.66	64.344		
12,200.00	7,119.48	7,106.89	7,125.52	142.88	30.38	89.40	194.54	497.52	6,117.83	6,023.90	93.93	65.130		
12,300.00	7,118.91	7,106.43	7,125.06	145.64	30.38	89.39	194.54	497.52	6,209.60	6,115.40	94.20	65.921		
12,400.00	7,118.34	7,105.98	7,124.60	148.41	30.38	89.37	194.54	497.52	6,301.61	6,207.16	94.46	66.715		
12,500.00	7,117.77	7,105.52	7,124.15	151.18	30.37	89.36	194.54	497.52	6,393.87	6,299.16	94.71	67.512		
12,600.00	7,117.20	7,105.07	7,123.69	153.95	30.37	89.35	194.54	497.52	6,486.36	6,391.40	94.95	68.313		
12,700.00	7,116.64	7,104.61	7,123.24	156.73	30.37	89.34	194.54	497.52	6,579.06	6,483.87	95.19	69.117		
12,800.00	7,116.07	7,104.15	7,122.78	159.50	30.37	89.33	194.54	497.52	6,671.98	6,576.56	95.42	69.924		
12,900.00	7,115.50	7,103.70	7,122.33	162.29	30.37	89.32	194.54	497.52	6,765.10	6,669.45	95.64	70.734		
13,000.00	7,114.93	7,103.24	7,121.87	165.07	30.36	89.31	194.54	497.52	6,858.41	6,762.55	95.86	71.546		
13,100.00	7,114.36	7,102.79	7,121.42	167.86	30.36	89.30	194.54	497.52	6,951.91	6,855.83	96.07	72.361		
13,200.00	7,113.79	7,102.33	7,120.96	170.64	30.36	89.29	194.54	497.53	7,045.58	6,949.30	96.28	73.178		
13,300.00	7,113.22	7,101.88	7,120.51	173.44	30.36	89.28	194.54	497.53	7,139.43	7,042.95	96.48	73.998		
13,400.00	7,112.66	7,101.42	7,120.05	176.23	30.36	89.27	194.54	497.53	7,233.45	7,136.77	96.68	74.819		
13,500.00	7,112.09	7,100.97	7,119.60	179.02	30.35	89.26	194.54	497.53	7,327.62	7,230.74	96.87	75.642		
13,600.00	7,111.52	7,100.52	7,119.14	181.82	30.35	89.25	194.54	497.53	7,421.94	7,324.88	97.06	76.467		
13,700.00	7,110.95	7,100.06	7,118.69	184.62	30.35	89.24	194.54	497.53	7,516.41	7,419.17	97.24	77.294		
13,800.00	7,110.38	7,099.61	7,118.24	187.42	30.35	89.23	194.54	497.53	7,611.02	7,513.60	97.42	78.122		
13,900.00	7,109.81	7,099.15	7,117.78	190.22	30.35	89.21	194.54	497.53	7,705.77	7,608.17	97.60	78.952		
14,000.00	7,109.25	7,098.70	7,117.33	193.03	30.34	89.20	194.54	497.53	7,800.65	7,702.88	97.77	79.783		
14,100.00	7,108.68	7,098.25	7,116.88	195.84	30.34	89.19	194.54	497.53	7,895.66	7,797.71	97.94	80.616		
14,200.00	7,108.11	7,097.80	7,116.42	198.64	30.34	89.18	194.54	497.53	7,990.78	7,892.68	98.11	81.449		
14,300.00	7,107.54	7,097.34	7,115.97	201.45	30.34	89.17	194.54	497.53	8,086.03	7,987.76	98.27	82.284		
14,400.00	7,106.97	7,096.89	7,115.52	204.26	30.34	89.16	194.54	497.53	8,181.39	8,082.96	98.43	83.120		
14,500.00	7,106.40	7,096.44	7,115.07	207.07	30.33	89.15	194.54	497.53	8,276.86	8,178.27	98.59	83.957		
14,600.00	7,105.83	7,095.99	7,114.61	209.89	30.33	89.14	194.54	497.53	8,372.43	8,273.69	98.74	84.794		
14,700.00	7,105.27	7,095.53	7,114.16	212.70	30.33	89.13	194.54	497.53	8,468.10	8,369.22	98.89	85.632		
14,800.00	7,104.70	7,095.08	7,113.71	215.52	30.33	89.12	194.54	497.53	8,563.88	8,464.84	99.04	86.471		
14,900.00	7,104.13	7,094.63	7,113.26	218.33	30.33	89.11	194.54	497.53	8,659.75	8,560.57	99.18	87.311		
15,000.00	7,103.56	7,094.18	7,112.81	221.15	30.33	89.10	194.54	497.53	8,755.71	8,656.39	99.33	88.151		
15,100.00	7,102.99	7,093.73	7,112.36	223.97	30.32	89.09	194.54	497.53	8,851.76	8,752.30	99.47	88.992		
15,200.00	7,102.42	7,093.28	7,111.91	226.79	30.32	89.08	194.54	497.54	8,947.90	8,848.30	99.61	89.833		
15,274.57	7,102.00	7,092.94	7,111.57	228.89	30.32	89.07	194.54	497.54	9,019.65	8,919.94	99.71	90.461		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-303 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.11	0.11	3.28	3.28	8.22	1,710.42	246.97	1,728.16					
100.00	100.00	111.97	110.97	3.28	3.29	8.22	1,710.05	247.04	1,727.84	1,721.27	6.57	262.826		
200.00	200.00	218.28	217.27	3.34	3.34	8.23	1,709.12	247.12	1,726.98	1,720.30	6.68	258.569		
230.00	230.00	249.56	248.55	3.36	3.37	-175.73	1,708.80	247.08	1,726.83	1,720.10	6.73	256.451		
300.00	299.98	321.68	320.67	3.44	3.46	-175.73	1,707.98	247.02	1,727.62	1,720.72	6.90	250.482		
400.00	399.84	412.39	411.37	3.59	3.60	-175.74	1,707.13	246.85	1,731.88	1,724.69	7.19	240.768		
500.00	499.45	507.22	506.20	3.79	3.79	-175.76	1,706.70	246.44	1,740.06	1,732.48	7.58	229.499		
600.00	598.70	615.76	614.74	4.03	4.05	-175.78	1,706.06	246.07	1,751.59	1,743.51	8.08	216.737		
700.00	697.47	709.67	708.64	4.31	4.30	-175.81	1,705.46	245.44	1,766.47	1,757.86	8.61	205.112		
800.00	795.62	807.39	806.36	4.64	4.59	-175.86	1,705.05	244.39	1,784.95	1,775.74	9.21	193.887		
900.00	893.06	909.81	908.77	5.00	4.91	-175.92	1,704.35	243.23	1,806.57	1,796.71	9.86	183.160		
1,000.00	989.64	993.61	992.56	5.40	5.19	-175.97	1,703.97	242.10	1,831.79	1,821.29	10.50	174.513		
1,100.00	1,085.27	1,064.44	1,063.36	5.83	5.43	-176.03	1,704.59	240.25	1,861.45	1,850.34	11.11	167.571		
1,200.00	1,179.88	1,137.88	1,136.71	6.29	5.68	-176.16	1,706.28	237.16	1,895.37	1,883.62	11.75	161.314		
1,300.00	1,274.26	1,205.41	1,204.08	6.78	5.92	-176.34	1,708.78	233.23	1,931.13	1,918.76	12.37	156.136		
1,400.00	1,368.63	1,275.64	1,274.02	7.28	6.17	-176.57	1,712.50	227.98	1,968.18	1,955.17	13.01	151.263		
1,500.00	1,463.00	1,352.99	1,350.84	7.80	6.46	-176.86	1,717.42	220.49	2,006.04	1,992.34	13.70	146.426		
1,600.00	1,557.38	1,422.70	1,419.91	8.33	6.73	-177.16	1,722.64	212.59	2,044.82	2,030.45	14.37	142.308		
1,700.00	1,651.75	1,501.79	1,498.11	8.87	7.05	-177.51	1,729.34	202.86	2,084.48	2,069.39	15.10	138.084		
1,800.00	1,746.12	1,589.27	1,584.54	9.41	7.42	-177.89	1,737.09	191.81	2,124.55	2,108.67	15.88	133.784		
1,900.00	1,840.49	1,699.29	1,693.26	9.96	7.90	-178.36	1,746.54	177.83	2,164.49	2,147.69	16.80	128.811		
2,000.00	1,934.87	1,797.45	1,790.35	10.52	8.34	-178.76	1,754.11	165.47	2,203.68	2,186.00	17.68	124.645		
2,100.00	2,029.24	1,916.92	1,908.62	11.08	8.88	-179.20	1,762.58	150.89	2,242.45	2,223.76	18.69	119.978		
2,200.00	2,123.61	2,019.63	2,010.39	11.64	9.35	-179.56	1,768.86	138.61	2,280.37	2,260.75	19.62	116.238		
2,300.00	2,217.99	2,091.63	2,081.74	12.21	9.69	-179.80	1,773.44	130.12	2,318.57	2,298.20	20.37	113.812		
2,400.00	2,312.36	2,165.76	2,155.15	12.78	10.04	-179.95	1,778.69	121.20	2,357.50	2,336.36	21.14	111.512		
2,500.00	2,406.73	2,255.36	2,243.82	13.35	10.46	-179.66	1,785.54	110.24	2,396.99	2,374.98	22.01	108.907		
2,600.00	2,501.10	2,339.99	2,327.61	13.93	10.87	-179.39	1,791.89	100.21	2,436.42	2,413.57	22.85	106.626		
2,700.00	2,595.48	2,423.83	2,410.60	14.51	11.27	-179.14	1,798.65	90.46	2,476.40	2,452.71	23.69	104.546		
2,800.00	2,689.85	2,514.35	2,500.27	15.08	11.71	-178.89	1,805.83	80.31	2,516.34	2,491.77	24.57	102.416		
2,900.00	2,784.22	2,597.45	2,582.55	15.66	12.12	-178.67	1,812.77	71.03	2,556.69	2,531.28	25.41	100.636		
3,000.00	2,878.60	2,706.72	2,690.79	16.25	12.65	-178.39	1,821.45	58.79	2,596.70	2,570.28	26.42	98.285		
3,100.00	2,972.97	2,797.60	2,780.79	16.83	13.10	-178.15	1,828.39	48.26	2,636.48	2,609.16	27.32	96.513		
3,200.00	3,067.34	2,881.26	2,863.57	17.41	13.51	-177.93	1,834.97	38.13	2,676.48	2,648.31	28.17	95.012		
3,300.00	3,161.72	2,968.48	2,949.83	18.00	13.95	-177.70	1,842.06	27.32	2,716.76	2,687.71	29.05	93.519		
3,400.00	3,256.09	3,078.79	3,059.01	18.58	14.51	-177.42	1,850.49	14.03	2,756.61	2,726.52	30.09	91.600		
3,500.00	3,350.46	3,161.50	3,140.90	19.17	14.92	-177.23	1,856.78	4.25	2,796.49	2,765.54	30.94	90.370		
3,600.00	3,444.83	3,260.78	3,239.11	19.75	15.43	-176.99	1,864.48	-8.05	2,836.55	2,804.64	31.92	88.872		
3,700.00	3,539.21	3,397.58	3,374.67	20.34	16.11	-176.69	1,873.19	-24.23	2,875.25	2,842.09	33.15	86.722		
3,800.00	3,633.58	3,490.73	3,467.08	20.93	16.57	-176.50	1,878.61	-34.62	2,913.58	2,879.50	34.08	85.494		
3,900.00	3,727.95	3,564.98	3,540.83	21.52	16.93	-176.38	1,883.05	-41.96	2,952.13	2,917.26	34.87	84.665		
4,000.00	3,822.33	3,629.53	3,604.91	22.11	17.25	-176.27	1,887.50	-48.37	2,991.50	2,955.92	35.58	84.069		
4,100.00	3,916.70	3,703.65	3,678.44	22.70	17.62	-176.15	1,893.13	-55.74	3,031.56	2,995.19	36.37	83.363		
4,200.00	4,011.07	3,804.66	3,778.65	23.29	18.11	-175.99	1,901.02	-65.68	3,071.82	3,034.47	37.34	82.258		
4,300.00	4,105.44	3,922.73	3,892.11	23.88	18.76	-175.84	-1,140.93	-165.99	3,088.27	3,051.94	36.33	85.006		
4,400.00	4,199.82	4,045.73	4,015.99	24.47	19.47	-175.72	-1,193.91	-167.03	2,994.49	2,957.64	36.85	81.254		
4,500.00	4,294.19	4,171.43	4,141.30	25.06	20.29	-175.62	-1,219.60	-167.52	2,900.52	2,863.21	37.31	77.750		
4,600.00	4,388.56	4,265.21	4,235.11	25.65	21.15	-175.52	-1,273.38	-168.62	2,806.34	2,768.52	37.82	74.203		
4,700.00	4,482.94	4,359.26	4,329.06	26.24	22.07	-175.44	-1,370.91	-170.23	2,711.61	2,673.23	38.38	70.650		
4,800.00	4,577.31	4,453.46	4,423.04	26.83	23.05	-175.37	-1,402.59	-170.82	2,616.71	2,577.88	38.83	67.397		
4,900.00	4,671.68	4,548.52	4,517.90	27.43	24.10	-175.31	-1,438.64	-171.69	2,521.75	2,482.48	39.28	64.207		
5,000.00	4,766.05	4,643.65	4,611.18	28.02	25.23	-175.26	-1,474.44	-172.71	2,426.74	2,387.02	39.72	61.090		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-303 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	10,361.78	7,190.41	28.61	79.02	174.49	-1,509.85	-173.80	2,331.68	2,291.50	40.17	58.042		
5,200.00	4,954.80	10,385.72	7,189.90	29.20	79.49	174.39	-1,533.77	-174.57	2,236.63	2,196.00	40.63	55.043		
5,300.00	5,049.17	10,418.67	7,189.25	29.80	80.15	174.22	-1,566.69	-175.70	2,141.63	2,100.54	41.09	52.118		
5,400.00	5,143.55	10,447.49	7,188.66	30.39	80.72	174.06	-1,595.49	-176.74	2,046.62	2,005.06	41.56	49.242		
5,500.00	5,237.92	10,477.82	7,188.08	30.99	81.32	173.87	-1,625.80	-177.83	1,951.65	1,909.61	42.04	46.429		
5,600.00	5,332.29	10,505.02	7,187.58	31.58	81.87	173.68	-1,652.97	-178.89	1,856.71	1,814.18	42.53	43.658		
5,700.00	5,426.66	10,528.09	7,187.22	32.17	82.33	173.51	-1,676.02	-179.83	1,761.87	1,718.81	43.06	40.919		
5,800.00	5,521.04	10,549.00	7,187.04	32.77	82.74	173.35	-1,696.91	-180.56	1,667.23	1,623.61	43.62	38.219		
5,900.00	5,615.41	10,573.17	7,186.98	33.36	83.23	173.16	-1,721.08	-181.27	1,572.79	1,528.60	44.20	35.587		
6,000.00	5,709.78	10,605.33	7,187.01	33.96	83.87	172.89	-1,753.22	-182.19	1,478.48	1,433.76	44.72	33.061		
6,100.00	5,804.16	10,633.92	7,187.05	34.55	84.44	172.59	-1,781.79	-183.20	1,384.19	1,338.89	45.29	30.561		
6,200.00	5,898.53	10,681.28	7,187.06	35.14	85.39	172.04	-1,829.12	-184.78	1,289.89	1,244.24	45.65	28.258		
6,300.00	5,992.90	10,721.67	7,186.60	35.74	86.21	171.52	-1,869.50	-185.70	1,195.17	1,149.11	46.05	25.952		
6,400.00	6,087.27	10,756.67	7,186.13	36.33	86.92	171.01	-1,904.49	-186.29	1,100.39	1,053.87	46.52	23.654		
6,500.00	6,181.65	10,791.23	7,185.49	36.93	87.61	170.39	-1,939.04	-186.95	1,005.46	958.47	46.99	21.399		
6,600.00	6,276.02	10,820.83	7,184.94	37.52	88.21	169.75	-1,968.63	-187.49	910.54	862.98	47.56	19.144		
6,700.00	6,370.39	10,851.17	7,184.45	38.12	88.83	168.99	-1,998.96	-187.91	815.71	767.57	48.15	16.943		
6,800.00	6,464.77	10,883.88	7,183.92	38.71	89.49	167.96	-2,031.67	-188.31	720.89	672.21	48.68	14.807		
6,900.00	6,559.14	10,917.43	7,183.27	39.31	90.17	166.53	-2,065.21	-188.90	626.01	576.80	49.22	12.720		
7,000.00	6,652.92	10,948.77	7,182.58	39.90	90.81	170.98	-2,096.53	-189.40	531.07	481.43	49.64	10.698		
7,100.00	6,744.00	10,979.30	7,181.92	40.44	91.43	179.57	-2,127.06	-189.88	438.19	388.36	49.83	8.794		
7,200.00	6,830.13	11,007.48	7,181.32	40.94	92.01	-174.42	-2,155.22	-190.33	352.38	300.22	52.16	6.756		
7,300.00	6,909.19	11,033.77	7,180.90	41.37	92.54	-170.85	-2,181.51	-190.79	283.81	219.28	64.53	4.398		
7,400.00	6,979.23	11,059.95	7,180.54	41.75	93.08	-168.05	-2,207.68	-191.37	249.89	157.25	92.63	2.698		
7,418.92	6,991.32	11,063.97	7,180.48	41.81	93.16	-167.74	-2,211.70	-191.46	248.93	150.28	98.65	2.523 CC		
7,500.00	7,038.53	11,080.73	7,180.28	42.08	93.50	-166.37	-2,228.45	-191.81	265.96	146.09	119.87	2.219 ES, SF		
7,600.00	7,085.63	11,097.73	7,180.10	42.37	93.85	-164.99	-2,245.44	-192.11	325.16	193.04	132.11	2.461		
7,700.00	7,119.37	11,110.24	7,179.98	42.64	94.10	-163.79	-2,257.95	-192.28	408.65	273.00	135.65	3.013		
7,800.00	7,138.92	11,118.05	7,179.91	42.91	94.26	-162.77	-2,265.77	-192.38	503.37	366.86	136.51	3.688		
7,900.00	7,143.92	11,121.29	7,179.88	43.25	94.33	-162.43	-2,269.01	-192.41	602.49	465.80	136.69	4.408		
8,000.00	7,143.35	11,123.02	7,179.86	43.72	94.36	-159.70	-2,270.73	-192.43	702.35	565.59	136.76	5.136		
8,100.00	7,142.78	11,124.77	7,179.85	44.42	94.40	-157.03	-2,272.48	-192.45	802.24	665.41	136.82	5.863		
8,200.00	7,142.22	11,126.54	7,179.83	45.39	94.44	-154.44	-2,274.25	-192.47	902.15	765.27	136.88	6.591		
8,300.00	7,141.65	11,128.32	7,179.82	46.63	94.47	-151.91	-2,276.04	-192.49	1,002.08	865.14	136.94	7.318		
8,400.00	7,141.08	11,130.13	7,179.80	48.09	94.51	-149.48	-2,277.85	-192.51	1,102.01	965.02	137.00	8.044		
8,500.00	7,140.51	11,131.96	7,179.79	49.74	94.55	-147.13	-2,279.67	-192.53	1,201.96	1,064.90	137.06	8.770		
8,600.00	7,139.94	11,133.81	7,179.77	51.53	94.59	-144.87	-2,281.53	-192.55	1,301.91	1,164.79	137.12	9.495		
8,700.00	7,139.37	11,135.68	7,179.76	53.44	94.62	-142.71	-2,283.40	-192.57	1,401.87	1,264.69	137.18	10.219		
8,800.00	7,138.80	11,137.58	7,179.74	55.45	94.66	-140.63	-2,285.29	-192.59	1,501.83	1,364.58	137.24	10.943		
8,900.00	7,138.24	11,139.50	7,179.73	57.55	94.70	-138.65	-2,287.21	-192.61	1,601.79	1,464.48	137.31	11.666		
9,000.00	7,137.67	11,141.44	7,179.71	59.71	94.74	-136.76	-2,289.15	-192.63	1,701.75	1,564.38	137.37	12.388		
9,100.00	7,137.10	11,143.40	7,179.70	61.94	94.78	-134.96	-2,291.11	-192.66	1,801.72	1,664.28	137.44	13.109		
9,200.00	7,136.53	11,145.39	7,179.68	64.22	94.82	-133.25	-2,293.10	-192.68	1,901.69	1,764.18	137.51	13.830		
9,300.00	7,135.96	11,147.40	7,179.67	66.55	94.86	-131.61	-2,295.11	-192.70	2,001.66	1,864.08	137.58	14.549		
9,400.00	7,135.39	11,149.43	7,179.65	68.92	94.90	-130.06	-2,297.14	-192.73	2,101.63	1,963.98	137.65	15.268		
9,500.00	7,134.83	11,151.49	7,179.64	71.33	94.95	-128.58	-2,299.20	-192.75	2,201.60	2,063.88	137.72	15.986		
9,600.00	7,134.26	11,153.58	7,179.62	73.77	94.99	-127.17	-2,301.29	-192.78	2,301.57	2,163.78	137.80	16.703		
9,700.00	7,133.69	11,155.69	7,179.61	76.24	95.03	-125.83	-2,303.40	-192.81	2,401.55	2,263.67	137.87	17.419		
9,800.00	7,133.12	11,157.83	7,179.60	78.74	95.08	-124.56	-2,305.54	-192.83	2,501.52	2,363.57	137.95	18.133		
9,900.00	7,132.55	11,158.99	7,179.59	81.27	95.10	-123.90	-2,306.70	-192.85	2,601.50	2,463.49	138.00	18.851		
10,000.00	7,131.98	11,160.82	7,179.58	83.81	95.14	-122.91	-2,308.53	-192.87	2,701.47	2,563.40	138.07	19.565		
10,100.00	7,131.42	11,162.64	7,179.57	86.38	95.18	-121.97	-2,310.35	-192.89	2,801.45	2,663.30	138.15	20.279		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-303 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,130.85	11,164.47	7,179.56	88.96	95.21	-121.07	-2,312.18	-192.91	2,901.42	2,763.20	138.22	20.991		
10,300.00	7,130.28	11,166.30	7,179.55	91.56	95.25	-120.22	-2,314.01	-192.93	3,001.40	2,863.11	138.29	21.703		
10,400.00	7,129.71	11,168.12	7,179.54	94.18	95.29	-119.41	-2,315.83	-192.96	3,101.38	2,963.01	138.37	22.414		
10,500.00	7,129.14	11,169.95	7,179.53	96.81	95.32	-118.64	-2,317.66	-192.98	3,201.36	3,062.91	138.44	23.124		
10,600.00	7,128.57	11,171.77	7,179.52	99.45	95.36	-117.90	-2,319.48	-193.00	3,301.34	3,162.81	138.52	23.833		
10,700.00	7,128.00	11,173.60	7,179.51	102.11	95.40	-117.20	-2,321.31	-193.02	3,401.31	3,262.71	138.60	24.541		
10,800.00	7,127.44	11,175.43	7,179.50	104.77	95.44	-116.53	-2,323.14	-193.05	3,501.29	3,362.61	138.68	25.248		
10,900.00	7,126.87	11,177.25	7,179.49	107.45	95.47	-115.89	-2,324.96	-193.07	3,601.27	3,462.51	138.76	25.954		
11,000.00	7,126.30	11,179.08	7,179.48	110.13	95.51	-115.28	-2,326.79	-193.09	3,701.25	3,562.41	138.84	26.659		
11,100.00	7,125.73	11,180.90	7,179.48	112.82	95.55	-114.70	-2,328.61	-193.11	3,801.23	3,662.31	138.92	27.363		
11,200.00	7,125.16	11,182.73	7,179.47	115.53	95.59	-114.14	-2,330.43	-193.13	3,901.21	3,762.21	139.00	28.066		
11,300.00	7,124.59	11,184.56	7,179.46	118.24	95.62	-113.60	-2,332.26	-193.16	4,001.19	3,862.11	139.08	28.768		
11,400.00	7,124.03	11,186.40	7,179.46	120.95	95.66	-113.08	-2,334.11	-193.18	4,101.17	3,962.00	139.17	29.469		
11,500.00	7,123.46	11,188.24	7,179.45	123.67	95.70	-112.58	-2,335.95	-193.20	4,201.15	4,061.90	139.25	30.169		
11,600.00	7,122.89	11,190.08	7,179.44	126.40	95.74	-112.10	-2,337.79	-193.22	4,301.13	4,161.79	139.34	30.868		
11,700.00	7,122.32	11,191.92	7,179.44	129.14	95.77	-111.64	-2,339.63	-193.25	4,401.11	4,261.68	139.43	31.566		
11,800.00	7,121.75	11,193.76	7,179.43	131.88	95.81	-111.20	-2,341.47	-193.27	4,501.09	4,361.58	139.51	32.263		
11,900.00	7,121.18	11,195.60	7,179.42	134.62	95.85	-110.77	-2,343.31	-193.29	4,601.07	4,461.47	139.60	32.958		
12,000.00	7,120.61	11,197.45	7,179.41	137.37	95.89	-110.36	-2,345.15	-193.31	4,701.05	4,561.36	139.69	33.653		
12,100.00	7,120.05	11,199.29	7,179.41	140.12	95.93	-109.97	-2,347.00	-193.34	4,801.03	4,661.25	139.78	34.347		
12,200.00	7,119.48	11,201.13	7,179.40	142.88	95.96	-109.59	-2,348.84	-193.36	4,901.01	4,761.14	139.87	35.039		
12,300.00	7,118.91	11,202.97	7,179.39	145.64	96.00	-109.22	-2,350.68	-193.38	5,000.99	4,861.03	139.96	35.730		
12,400.00	7,118.34	11,204.81	7,179.38	148.41	96.04	-108.86	-2,352.52	-193.40	5,100.98	4,960.92	140.06	36.421		
12,500.00	7,117.77	11,206.66	7,179.37	151.18	96.08	-108.52	-2,354.36	-193.43	5,200.96	5,060.81	140.15	37.110		
12,600.00	7,117.20	11,208.50	7,179.36	153.95	96.11	-108.19	-2,356.21	-193.45	5,300.94	5,160.69	140.25	37.798		
12,700.00	7,116.64	11,210.34	7,179.36	156.73	96.15	-107.87	-2,358.05	-193.47	5,400.92	5,260.58	140.34	38.484		
12,800.00	7,116.07	11,212.18	7,179.35	159.50	96.19	-107.56	-2,359.89	-193.49	5,500.90	5,360.46	140.44	39.170		
12,900.00	7,115.50	11,214.03	7,179.34	162.29	96.23	-107.26	-2,361.73	-193.52	5,600.88	5,460.35	140.53	39.854		
13,000.00	7,114.93	11,215.87	7,179.33	165.07	96.27	-106.97	-2,363.58	-193.54	5,700.86	5,560.23	140.63	40.538		
13,100.00	7,114.36	11,220.97	7,179.30	167.86	96.37	-106.21	-2,368.68	-193.60	5,800.84	5,660.02	140.82	41.193		
13,200.00	7,113.79	11,226.68	7,179.27	170.64	96.49	-105.44	-2,374.38	-193.68	5,900.82	5,759.79	141.03	41.841		
13,300.00	7,113.22	11,382.91	7,178.32	173.44	99.69	-96.51	-2,530.56	-197.76	6,000.79	5,855.13	145.66	41.196		
13,400.00	7,112.66	11,385.64	7,178.31	176.23	99.75	-96.44	-2,533.28	-197.87	6,100.69	5,954.90	145.79	41.845		
13,500.00	7,112.09	11,388.33	7,178.30	179.02	99.80	-96.38	-2,535.97	-197.97	6,200.59	6,054.67	145.92	42.492		
13,600.00	7,111.52	11,390.98	7,178.30	181.82	99.86	-96.32	-2,538.62	-198.08	6,300.49	6,154.44	146.05	43.138		
13,700.00	7,110.95	11,393.60	7,178.29	184.62	99.91	-96.26	-2,541.24	-198.18	6,400.39	6,254.21	146.18	43.784		
13,800.00	7,110.38	11,396.19	7,178.28	187.42	99.96	-96.20	-2,543.82	-198.27	6,500.29	6,353.98	146.31	44.428		
13,900.00	7,109.81	11,398.75	7,178.28	190.22	100.02	-96.15	-2,546.38	-198.37	6,600.20	6,453.76	146.44	45.071		
14,000.00	7,109.25	11,406.00	7,178.25	193.03	100.16	-95.99	-2,553.63	-198.64	6,700.10	6,553.39	146.71	45.668		
14,100.00	7,108.68	11,406.00	7,178.25	195.84	100.16	-95.99	-2,553.63	-198.64	6,800.01	6,653.24	146.77	46.333		
14,200.00	7,108.11	11,406.38	7,178.25	198.64	100.17	-95.99	-2,554.01	-198.65	6,899.91	6,753.08	146.83	46.993		
14,300.00	7,107.54	11,410.63	7,178.24	201.45	100.26	-95.90	-2,558.25	-198.81	6,999.82	6,852.81	147.01	47.613		
14,400.00	7,106.97	11,414.87	7,178.22	204.26	100.35	-95.81	-2,562.49	-198.96	7,099.73	6,952.53	147.20	48.232		
14,500.00	7,106.40	11,419.12	7,178.22	207.07	100.43	-95.73	-2,566.73	-199.12	7,199.63	7,052.25	147.38	48.850		
14,600.00	7,105.83	11,423.36	7,178.21	209.89	100.52	-95.66	-2,570.97	-199.27	7,299.54	7,151.97	147.57	49.465		
14,700.00	7,105.27	11,427.60	7,178.20	212.70	100.61	-95.58	-2,575.21	-199.43	7,399.45	7,251.69	147.76	50.079		
14,800.00	7,104.70	11,431.84	7,178.20	215.52	100.69	-95.51	-2,579.45	-199.59	7,499.36	7,351.41	147.94	50.690		
14,900.00	7,104.13	11,436.09	7,178.20	218.33	100.78	-95.43	-2,583.69	-199.74	7,599.27	7,451.13	148.13	51.300		
15,000.00	7,103.56	11,454.58	7,178.21	221.15	101.16	-95.15	-2,602.17	-200.43	7,699.17	7,550.40	148.77	51.753		
15,100.00	7,102.99	15,100.00	7,178.23	223.97	176.03	-95.10	-2,605.69	-200.58	7,799.06	7,575.32	223.74	34.858		
15,200.00	7,102.42	11,476.20	7,178.27	226.79	101.60	-94.85	-2,623.78	-201.29	7,898.96	7,749.39	149.56	52.814		
15,274.57	7,102.00	11,479.65	7,178.29	228.89	101.68	-94.81	-2,627.22	-201.43	7,973.44	7,823.73	149.72	53.257		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-423(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.04	0.04	3.28	3.28	9.23	1,711.88	278.12	1,734.33					
100.00	100.00	105.25	104.25	3.28	3.29	9.24	1,711.72	278.33	1,734.20	1,727.63	6.57	263.843		
200.00	200.00	214.29	213.29	3.34	3.34	9.26	1,711.13	278.85	1,733.75	1,727.08	6.68	259.720		
227.61	227.61	245.26	244.25	3.36	3.37	-174.70	1,710.84	278.96	1,733.65	1,726.92	6.73	257.716		
300.00	299.98	317.66	316.65	3.44	3.45	-174.71	1,710.21	278.62	1,734.57	1,727.68	6.89	251.806		
400.00	399.84	421.94	420.92	3.59	3.61	-174.74	1,709.22	277.68	1,738.71	1,731.51	7.20	241.365		
500.00	499.45	525.14	524.11	3.79	3.82	-174.75	1,707.80	277.69	1,746.03	1,738.42	7.61	229.301		
600.00	598.70	617.20	616.16	4.03	4.05	-174.75	1,706.68	277.92	1,757.01	1,748.93	8.08	217.496		
700.00	697.47	720.10	719.05	4.31	4.33	-174.75	1,705.47	278.44	1,771.52	1,762.89	8.64	205.143		
800.00	795.62	822.11	821.05	4.64	4.63	-174.74	1,703.92	279.07	1,789.14	1,779.89	9.25	193.453		
900.00	893.06	915.49	914.42	5.00	4.93	-174.74	1,702.58	279.79	1,810.29	1,800.41	9.88	183.210		
1,000.00	989.64	1,005.38	1,004.30	5.40	5.23	-174.72	1,701.44	280.90	1,835.04	1,824.50	10.54	174.138		
1,100.00	1,085.27	1,091.46	1,090.36	5.83	5.53	-174.71	1,700.89	281.77	1,863.71	1,852.50	11.21	166.248		
1,200.00	1,179.88	1,184.53	1,183.44	6.29	5.86	-174.73	1,700.59	282.44	1,895.74	1,883.81	11.94	158.816		
1,300.00	1,274.26	1,280.58	1,279.48	6.78	6.21	-174.80	1,700.27	283.16	1,928.49	1,915.81	12.68	152.049		
1,400.00	1,368.63	1,374.63	1,373.53	7.28	6.56	-174.87	1,699.86	283.70	1,961.13	1,947.68	13.44	145.879		
1,500.00	1,463.00	1,461.41	1,460.31	7.80	6.89	-174.93	1,699.77	284.26	1,994.07	1,979.88	14.19	140.555		
1,600.00	1,557.38	1,555.76	1,554.65	8.33	7.24	-174.99	1,699.79	284.92	2,027.15	2,012.17	14.98	135.368		
1,700.00	1,651.75	1,649.61	1,648.51	8.87	7.61	-175.05	1,699.83	285.68	2,060.26	2,044.49	15.77	130.611		
1,800.00	1,746.12	1,749.16	1,748.05	9.41	8.00	-175.12	1,699.79	286.32	2,093.29	2,076.67	16.61	126.006		
1,900.00	1,840.49	1,846.49	1,845.38	9.96	8.38	-175.17	1,699.40	287.01	2,125.97	2,108.52	17.45	121.835		
2,000.00	1,934.87	1,924.05	1,922.93	10.52	8.68	-175.24	1,699.54	286.89	2,159.08	2,140.90	18.19	118.715		
2,100.00	2,029.24	1,999.29	1,998.16	11.08	8.97	-175.32	1,700.42	285.97	2,192.98	2,174.08	18.91	115.997		
2,200.00	2,123.61	2,068.08	2,066.92	11.64	9.23	-175.42	1,701.98	284.57	2,227.80	2,208.21	19.59	113.697		
2,300.00	2,217.99	2,133.36	2,132.14	12.21	9.48	-175.52	1,704.29	282.87	2,263.74	2,243.48	20.26	111.710		
2,400.00	2,312.36	2,202.00	2,200.66	12.78	9.74	-175.63	1,707.71	280.89	2,300.92	2,279.97	20.95	109.821		
2,500.00	2,406.73	2,269.37	2,267.88	13.35	10.00	-175.74	1,711.79	278.97	2,339.09	2,317.46	21.63	108.133		
2,600.00	2,501.10	2,343.84	2,342.16	13.93	10.30	-175.86	1,716.80	276.97	2,377.98	2,355.62	22.35	106.388		
2,700.00	2,595.48	2,419.81	2,417.89	14.51	10.60	-175.98	1,722.47	274.94	2,417.54	2,394.46	23.08	104.736		
2,800.00	2,689.85	2,498.14	2,495.92	15.08	10.92	-176.11	1,728.82	272.35	2,457.62	2,433.80	23.83	103.141		
2,900.00	2,784.22	2,570.60	2,568.05	15.66	11.21	-176.24	1,735.19	269.77	2,498.33	2,473.79	24.54	101.810		
3,000.00	2,878.60	2,644.74	2,641.81	16.25	11.52	-176.37	1,742.25	267.12	2,539.70	2,514.44	25.26	100.536		
3,100.00	2,972.97	2,715.10	2,711.75	16.83	11.82	-176.49	1,749.44	264.46	2,581.71	2,555.75	25.96	99.450		
3,200.00	3,067.34	2,785.86	2,782.00	17.41	12.12	-176.62	1,757.35	261.42	2,624.51	2,597.85	26.66	98.442		
3,300.00	3,161.72	2,884.71	2,880.09	18.00	12.54	-176.81	1,768.62	256.74	2,667.51	2,639.96	27.55	96.821		
3,400.00	3,256.09	2,995.37	2,989.98	18.58	13.02	-177.02	1,780.47	251.34	2,709.86	2,681.34	28.53	94.996		
3,500.00	3,350.46	3,087.79	3,081.74	19.17	13.42	-177.20	1,790.18	246.20	2,752.01	2,722.62	29.38	93.660		
3,600.00	3,444.83	3,191.05	3,184.28	19.75	13.88	-177.40	1,800.81	240.24	2,793.97	2,763.65	30.32	92.158		
3,700.00	3,539.21	3,289.19	3,281.83	20.34	14.31	-177.56	1,810.30	235.13	2,835.42	2,804.20	31.22	90.820		
3,800.00	3,633.58	3,369.50	3,361.66	20.93	14.67	-177.69	1,818.16	231.44	2,877.06	2,845.06	32.00	89.902		
3,900.00	3,727.95	3,449.66	3,441.33	21.52	15.03	-177.81	1,826.31	227.75	2,919.06	2,886.28	32.78	89.040		
4,000.00	3,822.33	3,534.99	3,526.11	22.11	15.41	-177.93	1,835.20	223.96	2,961.31	2,927.71	33.60	88.127		
4,100.00	3,916.70	3,629.68	3,620.20	22.70	15.84	-178.07	1,845.07	219.78	3,003.58	2,969.09	34.49	87.084		
4,200.00	4,011.07	3,727.47	3,717.34	23.29	16.29	-178.21	1,855.12	214.95	3,045.69	3,010.29	35.40	86.029		
4,300.00	4,105.44	3,828.68	3,817.91	23.88	16.75	-178.36	1,865.25	209.66	3,087.55	3,051.20	36.34	84.957		
4,400.00	4,199.82	3,929.00	3,918.00	24.47	17.24	-178.51	1,875.47	204.33	3,129.06	3,092.51	37.30	83.864		
4,500.00	4,294.19	4,029.37	4,018.00	25.06	17.73	-178.66	1,885.76	198.96	3,170.33	3,132.56	38.30	82.731		
4,600.00	4,388.56	4,129.74	4,118.00	25.65	18.22	-178.81	1,896.11	193.53	3,211.66	3,173.59	39.30	81.558		
4,700.00	4,482.94	4,229.11	4,217.00	26.24	18.71	-178.96	1,906.51	188.06	3,252.95	3,214.52	40.30	80.345		
4,800.00	4,577.31	4,328.48	4,316.00	26.83	19.20	-179.11	1,916.96	182.53	3,294.19	3,255.45	41.30	79.092		
4,900.00	4,671.68	4,427.85	4,415.00	27.43	19.69	-179.26	1,927.45	176.96	3,335.38	3,296.34	42.30	77.799		
5,000.00	4,766.05	4,527.22	4,514.00	28.02	20.18	-179.41	1,937.98	171.33	3,376.52	3,337.18	43.30	76.466		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-423(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	10,377.64	7,231.42	28.61	77.87	-161.08	-1,448.92	178.61	2,387.43	2,345.26	42.17	56.610		
5,200.00	4,954.80	10,425.19	7,231.47	29.20	78.82	-159.83	-1,496.47	178.91	2,294.09	2,251.21	42.88	53.502		
5,300.00	5,049.17	10,468.56	7,231.23	29.80	79.69	-158.57	-1,539.83	179.13	2,200.59	2,156.99	43.60	50.472		
5,400.00	5,143.55	10,511.16	7,230.79	30.39	80.55	-157.23	-1,582.43	179.14	2,107.01	2,062.67	44.35	47.513		
5,500.00	5,237.92	10,547.75	7,230.33	30.99	81.28	-155.95	-1,619.02	179.39	2,013.52	1,968.39	45.13	44.613		
5,600.00	5,332.29	10,584.75	7,229.77	31.58	82.02	-154.58	-1,656.02	178.99	1,919.98	1,874.03	45.95	41.783		
5,700.00	5,426.66	10,606.32	7,229.49	32.17	82.46	-153.74	-1,677.57	178.67	1,826.64	1,779.79	46.85	38.990		
5,800.00	5,521.04	10,627.00	7,229.35	32.77	82.87	-152.86	-1,698.26	178.70	1,733.72	1,685.88	47.84	36.243		
5,900.00	5,615.41	10,662.46	7,229.12	33.36	83.59	-151.22	-1,733.71	179.04	1,641.07	1,592.18	48.89	33.570		
6,000.00	5,709.78	10,694.44	7,228.87	33.96	84.24	-149.60	-1,765.69	179.42	1,548.63	1,498.58	50.05	30.943		
6,100.00	5,804.16	10,735.48	7,228.22	34.55	85.07	-147.32	-1,806.72	179.70	1,456.14	1,404.84	51.30	28.385		
6,200.00	5,898.53	10,753.00	7,228.03	35.14	85.43	-146.26	-1,824.24	180.00	1,364.26	1,311.46	52.80	25.836		
6,300.00	5,992.90	10,767.89	7,228.01	35.74	85.73	-145.31	-1,839.12	180.39	1,273.20	1,218.66	54.54	23.345		
6,400.00	6,087.27	10,785.00	7,228.22	36.33	86.08	-144.16	-1,856.22	180.97	1,183.14	1,126.61	56.54	20.927		
6,500.00	6,181.65	10,822.29	7,228.87	36.93	86.84	-141.49	-1,893.48	182.19	1,093.93	1,035.16	58.76	18.616		
6,600.00	6,276.02	10,849.00	7,229.42	37.52	87.39	-139.40	-1,920.18	183.10	1,005.68	944.22	61.45	16.365		
6,700.00	6,370.39	10,871.31	7,230.09	38.12	87.85	-137.53	-1,942.46	183.99	918.89	854.19	64.71	14.201		
6,800.00	6,464.77	10,904.81	7,231.49	38.71	88.54	-134.54	-1,975.91	185.25	833.90	765.32	68.58	12.160		
6,900.00	6,559.14	10,951.77	7,233.73	39.31	89.50	-130.16	-2,022.80	185.76	750.60	677.44	73.16	10.259		
7,000.00	6,652.92	11,006.12	7,236.12	39.90	90.60	-142.28	-2,077.07	184.22	673.35	593.90	79.45	8.476		
7,100.00	6,744.00	11,057.24	7,237.49	40.44	91.64	-150.57	-2,128.14	182.06	610.91	522.08	88.83	6.877		
7,200.00	6,830.13	11,107.97	7,237.34	40.94	92.67	-154.58	-2,178.78	179.31	570.00	469.08	100.91	5.648		
7,289.23	6,901.07	11,134.89	7,236.95	41.32	93.21	-157.53	-2,205.65	177.63	557.47	445.15	112.33	4.963 CC		
7,300.00	6,909.19	11,136.73	7,236.93	41.37	93.25	-157.91	-2,207.48	177.53	557.67	444.03	113.63	4.908 ES		
7,400.00	6,979.23	11,156.91	7,236.69	41.75	93.66	-160.23	-2,227.64	176.46	577.03	453.05	123.98	4.654 SF		
7,500.00	7,038.53	11,177.60	7,236.53	42.08	94.08	-161.22	-2,248.30	175.58	625.10	494.42	130.68	4.783		
7,600.00	7,085.63	11,197.24	7,236.40	42.37	94.48	-161.22	-2,267.93	174.78	695.10	560.74	134.36	5.173		
7,700.00	7,119.37	11,211.41	7,236.30	42.64	94.76	-160.74	-2,282.09	174.23	780.00	643.83	136.16	5.728		
7,800.00	7,138.92	11,221.14	7,236.23	42.91	94.96	-159.33	-2,291.82	173.87	873.94	736.95	136.99	6.380		
7,900.00	7,143.92	11,226.40	7,236.19	43.25	95.07	-154.92	-2,297.07	173.68	972.48	835.17	137.31	7.082		
8,000.00	7,143.35	11,230.60	7,236.16	43.72	95.15	-152.68	-2,301.27	173.54	1,072.03	934.53	137.50	7.797		
8,100.00	7,142.78	11,235.45	7,236.12	44.42	95.25	-150.20	-2,306.12	173.37	1,171.64	1,033.96	137.69	8.509		
8,200.00	7,142.22	11,240.43	7,236.08	45.39	95.36	-147.78	-2,311.09	173.19	1,271.30	1,133.44	137.86	9.221		
8,300.00	7,141.65	11,245.54	7,236.03	46.63	95.46	-145.41	-2,316.20	173.00	1,370.99	1,232.96	138.04	9.932		
8,400.00	7,141.08	11,250.79	7,235.97	48.09	95.57	-143.11	-2,321.44	172.81	1,470.71	1,332.50	138.21	10.641		
8,500.00	7,140.51	11,256.18	7,235.90	49.74	95.68	-140.87	-2,326.82	172.60	1,570.45	1,432.07	138.38	11.349		
8,600.00	7,139.94	11,261.98	7,235.82	51.53	95.79	-138.61	-2,332.62	172.38	1,670.20	1,531.65	138.56	12.054		
8,700.00	7,139.37	11,268.64	7,235.72	53.44	95.93	-136.19	-2,339.27	172.12	1,769.97	1,631.22	138.75	12.756		
8,800.00	7,138.80	11,275.64	7,235.59	55.45	96.07	-133.82	-2,346.27	171.84	1,869.75	1,730.79	138.96	13.455		
8,900.00	7,138.24	11,283.02	7,235.45	57.55	96.22	-131.53	-2,353.64	171.53	1,969.53	1,830.35	139.17	14.152		
9,000.00	7,137.67	11,290.79	7,235.28	59.71	96.38	-129.30	-2,361.41	171.20	2,069.31	1,929.91	139.40	14.845		
9,100.00	7,137.10	9,100.00	7,235.30	61.94	51.73	-129.58	-2,360.37	171.24	2,169.10	2,074.27	94.83	22.874		
9,200.00	7,136.53	11,297.10	7,235.14	64.22	96.51	-127.63	-2,367.71	170.93	2,268.90	2,129.28	139.62	16.250		
9,300.00	7,135.96	11,300.04	7,235.07	66.55	96.57	-126.88	-2,370.64	170.80	2,368.72	2,228.98	139.73	16.952		
9,400.00	7,135.39	11,302.88	7,235.00	68.92	96.63	-126.19	-2,373.48	170.69	2,468.54	2,328.70	139.84	17.653		
9,500.00	7,134.83	11,305.64	7,234.94	71.33	96.69	-125.54	-2,376.23	170.58	2,568.37	2,428.43	139.94	18.353		
9,600.00	7,134.26	11,308.30	7,234.88	73.77	96.74	-124.93	-2,378.89	170.47	2,668.21	2,528.17	140.04	19.053		
9,700.00	7,133.69	11,310.88	7,234.82	76.24	96.79	-124.35	-2,381.47	170.37	2,768.06	2,627.92	140.14	19.752		
9,800.00	7,133.12	11,313.38	7,234.76	78.74	96.84	-123.80	-2,383.97	170.28	2,867.91	2,727.67	140.24	20.450		
9,900.00	7,132.55	11,315.81	7,234.70	81.27	96.89	-123.29	-2,386.40	170.19	2,967.77	2,827.44	140.33	21.148		
10,000.00	7,131.98	11,323.00	7,234.52	83.81	97.04	-121.84	-2,393.58	169.93	3,067.64	2,927.09	140.55	21.826		
10,100.00	7,131.42	11,323.00	7,234.52	86.38	97.04	-121.84	-2,393.58	169.93	3,167.51	3,026.92	140.59	22.531		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-423(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,130.85	11,323.00	7,234.52	88.96	97.04	-121.84	-2,393.58	169.93	3,267.38	3,126.76	140.62	23.235		
10,300.00	7,130.28	11,327.34	7,234.42	91.56	97.13	-121.01	-2,397.91	169.78	3,367.26	3,226.50	140.77	23.921		
10,400.00	7,129.71	11,332.51	7,234.29	94.18	97.24	-120.08	-2,403.08	169.60	3,467.14	3,326.20	140.94	24.600		
10,500.00	7,129.14	11,337.76	7,234.15	96.81	97.34	-119.17	-2,408.32	169.41	3,567.02	3,425.91	141.11	25.278		
10,600.00	7,128.57	11,343.08	7,234.01	99.45	97.45	-118.30	-2,413.64	169.22	3,666.91	3,525.62	141.29	25.953		
10,700.00	7,128.00	11,348.47	7,233.87	102.11	97.56	-117.46	-2,419.03	169.02	3,766.79	3,625.32	141.47	26.626		
10,800.00	7,127.44	11,353.94	7,233.72	104.77	97.67	-116.65	-2,424.49	168.83	3,866.67	3,725.02	141.65	27.297		
10,900.00	7,126.87	11,359.49	7,233.56	107.45	97.79	-115.88	-2,430.03	168.62	3,966.55	3,824.71	141.84	27.966		
11,000.00	7,126.30	11,355.00	7,233.69	110.13	97.70	-116.50	-2,425.55	168.79	4,066.44	3,924.69	141.76	28.686		
11,100.00	7,125.73	11,355.00	7,233.69	112.82	97.70	-116.50	-2,425.55	168.79	4,166.34	4,024.54	141.79	29.383		
11,200.00	7,125.16	11,355.00	7,233.69	115.53	97.70	-116.50	-2,425.55	168.79	4,266.24	4,124.40	141.83	30.079		
11,300.00	7,124.59	11,355.00	7,233.69	118.24	97.70	-116.50	-2,425.55	168.79	4,366.14	4,224.27	141.87	30.775		
11,400.00	7,124.03	11,355.00	7,233.69	120.95	97.70	-116.50	-2,425.55	168.79	4,466.05	4,324.14	141.91	31.471		
11,500.00	7,123.46	11,364.54	7,233.42	123.67	97.89	-115.20	-2,435.08	168.46	4,565.93	4,423.72	142.21	32.107		
11,600.00	7,122.89	11,365.78	7,233.39	126.40	97.92	-115.04	-2,436.32	168.42	4,665.84	4,523.55	142.29	32.792		
11,700.00	7,122.32	11,366.99	7,233.36	129.14	97.94	-114.88	-2,437.53	168.38	4,765.75	4,623.39	142.36	33.477		
11,800.00	7,121.75	11,368.16	7,233.32	131.88	97.97	-114.73	-2,438.70	168.34	4,865.66	4,723.23	142.43	34.161		
11,900.00	7,121.18	11,369.30	7,233.29	134.62	97.99	-114.59	-2,439.84	168.31	4,965.58	4,823.07	142.51	34.844		
12,000.00	7,120.61	11,370.41	7,233.26	137.37	98.01	-114.45	-2,440.95	168.28	5,065.50	4,922.92	142.58	35.527		
12,100.00	7,120.05	11,371.49	7,233.23	140.12	98.03	-114.32	-2,442.03	168.24	5,165.42	5,022.76	142.66	36.209		
12,200.00	7,119.48	11,372.54	7,233.21	142.88	98.06	-114.19	-2,443.08	168.21	5,265.34	5,122.61	142.73	36.890		
12,300.00	7,118.91	11,373.57	7,233.18	145.64	98.08	-114.07	-2,444.10	168.18	5,365.27	5,222.47	142.80	37.571		
12,400.00	7,118.34	11,374.56	7,233.15	148.41	98.10	-113.95	-2,445.09	168.16	5,465.20	5,322.32	142.88	38.251		
12,500.00	7,117.77	11,375.53	7,233.13	151.18	98.12	-113.83	-2,446.06	168.13	5,565.13	5,422.18	142.95	38.931		
12,600.00	7,117.20	11,386.00	7,232.85	153.95	98.33	-112.65	-2,456.52	167.87	5,665.09	5,521.80	143.29	39.537		
12,700.00	7,116.64	11,386.00	7,232.85	156.73	98.33	-112.65	-2,456.52	167.87	5,765.01	5,621.68	143.33	40.221		
12,800.00	7,116.07	11,386.00	7,232.85	159.50	98.33	-112.65	-2,456.52	167.87	5,864.94	5,721.56	143.38	40.904		
12,900.00	7,115.50	11,386.00	7,232.85	162.29	98.33	-112.65	-2,456.52	167.87	5,964.88	5,821.45	143.43	41.587		
13,000.00	7,114.93	11,386.00	7,232.85	165.07	98.33	-112.65	-2,456.52	167.87	6,064.81	5,921.33	143.48	42.269		
13,100.00	7,114.36	11,386.00	7,232.85	167.86	98.33	-112.65	-2,456.52	167.87	6,164.75	6,021.22	143.53	42.950		
13,200.00	7,113.79	11,386.00	7,232.85	170.64	98.33	-112.65	-2,456.52	167.87	6,264.69	6,121.11	143.58	43.631		
13,300.00	7,113.22	11,386.00	7,232.85	173.44	98.33	-112.65	-2,456.52	167.87	6,364.63	6,221.00	143.63	44.311		
13,400.00	7,112.66	11,386.00	7,232.85	176.23	98.33	-112.65	-2,456.52	167.87	6,464.57	6,320.89	143.69	44.991		
13,500.00	7,112.09	11,386.00	7,232.85	179.02	98.33	-112.65	-2,456.52	167.87	6,564.52	6,420.78	143.74	45.670		
13,600.00	7,111.52	11,386.00	7,232.85	181.82	98.33	-112.65	-2,456.52	167.87	6,664.46	6,520.67	143.79	46.348		
13,700.00	7,110.95	11,386.00	7,232.85	184.62	98.33	-112.65	-2,456.52	167.87	6,764.41	6,620.57	143.85	47.025		
13,800.00	7,110.38	11,386.00	7,232.85	187.42	98.33	-112.65	-2,456.52	167.87	6,864.36	6,720.46	143.90	47.702		
13,900.00	7,109.81	11,386.00	7,232.85	190.22	98.33	-112.65	-2,456.52	167.87	6,964.31	6,820.36	143.96	48.378		
14,000.00	7,109.25	11,386.00	7,232.85	193.03	98.33	-112.65	-2,456.52	167.87	7,064.26	6,920.25	144.01	49.053		
14,100.00	7,108.68	11,386.00	7,232.85	195.84	98.33	-112.65	-2,456.52	167.87	7,164.22	7,020.15	144.07	49.728		
14,200.00	7,108.11	11,386.00	7,232.85	198.64	98.33	-112.65	-2,456.52	167.87	7,264.17	7,120.05	144.13	50.402		
14,300.00	7,107.54	11,386.00	7,232.85	201.45	98.33	-112.65	-2,456.52	167.87	7,364.13	7,219.94	144.18	51.075		
14,400.00	7,106.97	11,386.00	7,232.85	204.26	98.33	-112.65	-2,456.52	167.87	7,464.09	7,319.84	144.24	51.747		
14,500.00	7,106.40	11,386.00	7,232.85	207.07	98.33	-112.65	-2,456.52	167.87	7,564.04	7,419.74	144.30	52.418		
14,600.00	7,105.83	11,386.00	7,232.85	209.89	98.33	-112.65	-2,456.52	167.87	7,664.00	7,519.64	144.36	53.089		
14,700.00	7,105.27	11,386.00	7,232.85	212.70	98.33	-112.65	-2,456.52	167.87	7,763.96	7,619.54	144.42	53.759		
14,800.00	7,104.70	11,386.00	7,232.85	215.52	98.33	-112.65	-2,456.52	167.87	7,863.93	7,719.44	144.48	54.428		
14,900.00	7,104.13	11,386.00	7,232.85	218.33	98.33	-112.65	-2,456.52	167.87	7,963.89	7,819.34	144.54	55.096		
15,000.00	7,103.56	11,386.00	7,232.85	221.15	98.33	-112.65	-2,456.52	167.87	8,063.85	7,919.24	144.61	55.764		
15,100.00	7,102.99	11,386.00	7,232.85	223.97	98.33	-112.65	-2,456.52	167.87	8,163.82	8,019.15	144.67	56.431		
15,200.00	7,102.42	11,386.00	7,232.85	226.79	98.33	-112.65	-2,456.52	167.87	8,263.78	8,119.05	144.73	57.096		
15,274.57	7,102.00	11,386.00	7,232.85	228.89	98.33	-112.65	-2,456.52	167.87	8,338.32	8,193.54	144.78	57.592		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-243(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	-1.00	3.28	3.28	10.15	1,707.51	305.66	1,734.65					
100.00	100.00	78.54	77.54	3.28	3.29	10.17	1,707.92	306.27	1,735.30	1,728.73	6.57	264.125		
200.00	200.00	160.71	159.67	3.34	3.31	10.22	1,709.19	308.21	1,737.22	1,730.58	6.64	261.512		
300.00	299.98	281.54	280.43	3.44	3.41	-173.63	1,710.83	311.86	1,740.87	1,734.02	6.85	254.201		
400.00	399.84	373.70	372.55	3.59	3.54	-173.54	1,711.09	314.60	1,746.92	1,739.79	7.13	244.919		
500.00	499.45	465.16	463.98	3.79	3.71	-173.53	1,713.13	315.48	1,757.89	1,750.39	7.50	234.371		
600.00	598.70	592.22	591.04	4.03	3.99	-173.57	1,714.43	315.44	1,770.93	1,762.91	8.02	220.730		
700.00	697.47	679.73	678.55	4.31	4.22	-173.57	1,714.96	315.77	1,787.14	1,778.61	8.53	209.509		
800.00	795.62	767.90	766.71	4.64	4.47	-173.57	1,716.05	316.47	1,807.43	1,798.34	9.09	198.814		
900.00	893.06	877.47	876.26	5.00	4.81	-173.59	1,717.44	317.29	1,831.15	1,821.39	9.76	187.547		
1,000.00	989.64	971.60	970.39	5.40	5.12	-173.60	1,718.30	317.85	1,857.86	1,847.43	10.43	178.139		
1,100.00	1,085.27	1,052.75	1,051.52	5.83	5.40	-173.61	1,719.40	318.27	1,888.28	1,877.20	11.08	170.414		
1,200.00	1,179.88	1,144.33	1,143.08	6.29	5.72	-173.65	1,721.06	318.79	1,922.24	1,910.44	11.80	162.937		
1,300.00	1,274.26	1,249.73	1,248.47	6.78	6.10	-173.79	1,722.84	318.67	1,956.69	1,944.11	12.57	155.621		
1,400.00	1,368.63	1,339.32	1,338.05	7.28	6.43	-173.91	1,724.24	318.01	1,990.93	1,977.62	13.31	149.624		
1,500.00	1,463.00	1,436.68	1,435.40	7.80	6.79	-174.05	1,725.83	317.18	2,025.22	2,011.13	14.09	143.744		
1,600.00	1,557.38	1,508.22	1,506.92	8.33	7.07	-174.12	1,727.16	317.31	2,059.90	2,045.13	14.77	139.420		
1,700.00	1,651.75	1,575.90	1,574.55	8.87	7.33	-174.15	1,728.98	318.96	2,095.68	2,080.23	15.45	135.642		
1,800.00	1,746.12	1,643.65	1,642.19	9.41	7.60	-174.15	1,731.47	321.82	2,132.65	2,116.52	16.13	132.214		
1,900.00	1,840.49	1,722.31	1,720.63	9.96	7.92	-174.10	1,734.81	326.66	2,170.44	2,153.57	16.87	128.661		
2,000.00	1,934.87	1,788.50	1,788.54	10.52	8.19	-174.04	1,738.03	331.84	2,209.06	2,191.51	17.55	125.875		
2,100.00	2,029.24	1,852.33	1,850.01	11.08	8.46	-173.96	1,741.81	337.51	2,248.81	2,230.59	18.22	123.438		
2,200.00	2,123.61	1,917.00	1,914.24	11.64	8.73	-173.88	1,746.48	343.37	2,289.73	2,270.84	18.89	121.207		
2,300.00	2,217.99	1,996.18	1,992.82	12.21	9.07	-173.79	1,752.82	350.76	2,331.43	2,311.78	19.65	118.646		
2,400.00	2,312.36	2,075.90	2,071.92	12.78	9.42	-173.71	1,759.55	358.02	2,373.51	2,353.09	20.42	116.259		
2,500.00	2,406.73	2,163.16	2,158.55	13.35	9.81	-173.65	1,767.45	364.90	2,415.93	2,394.70	21.23	113.796		
2,600.00	2,501.10	2,259.37	2,254.00	13.93	10.24	-173.56	1,775.88	373.55	2,458.28	2,436.17	22.11	111.201		
2,700.00	2,595.48	2,389.16	2,382.76	14.51	10.83	-173.41	1,786.07	386.25	2,500.01	2,476.81	23.20	107.752		
2,800.00	2,689.85	2,475.26	2,468.28	15.08	11.22	-173.32	1,792.15	394.17	2,540.87	2,516.84	24.03	105.745		
2,900.00	2,784.22	2,554.09	2,546.57	15.66	11.58	-173.25	1,798.02	401.28	2,582.07	2,557.26	24.81	104.069		
3,000.00	2,878.60	2,627.17	2,619.09	16.25	11.92	-173.18	1,803.83	408.13	2,623.78	2,598.22	25.56	102.660		
3,100.00	2,972.97	2,708.18	2,699.41	16.83	12.30	-173.10	1,810.81	416.07	2,666.13	2,639.77	26.36	101.149		
3,200.00	3,067.34	2,856.34	2,846.29	17.41	13.00	-172.92	1,822.10	431.90	2,707.92	2,680.31	27.61	98.062		
3,300.00	3,161.72	2,957.15	2,946.29	18.00	13.48	-172.79	1,828.08	443.13	2,748.12	2,719.56	28.56	96.223		
3,400.00	3,256.09	3,056.72	3,045.24	18.58	13.94	-172.70	1,834.13	452.39	2,788.15	2,758.65	29.49	94.530		
3,500.00	3,350.46	3,133.00	3,121.07	19.17	14.30	-172.65	1,838.94	458.99	2,828.28	2,798.01	30.27	93.420		
3,600.00	3,444.83	3,206.17	3,193.74	19.75	14.65	-172.58	1,843.84	466.11	2,868.95	2,837.92	31.04	92.442		
3,700.00	3,539.21	3,322.57	3,309.32	20.34	15.20	-172.49	1,851.95	477.24	2,909.92	2,877.83	32.09	90.672		
3,800.00	3,633.58	3,415.79	3,402.04	20.93	15.64	-172.44	1,857.80	484.86	2,949.95	2,916.96	32.99	89.420		
3,900.00	3,727.95	3,502.43	3,488.18	21.52	16.05	-172.39	1,863.36	492.34	2,990.17	2,956.33	33.84	88.351		
4,000.00	3,822.33	3,583.15	3,568.40	22.11	16.43	-172.33	1,868.64	499.59	3,030.59	2,995.93	34.66	87.442		
4,100.00	3,916.70	3,670.12	3,654.82	22.70	16.84	-172.28	1,874.71	507.22	3,071.36	3,035.84	35.52	86.475		
4,200.00	4,011.07	3,769.51	3,753.52	23.29	17.32	-172.21	1,881.29	516.87	3,111.98	3,075.51	36.47	85.335		
4,300.00	4,105.44	10,065.00	7,117.35	23.88	73.47	-143.50	-1,255.48	644.97	3,099.14	3,057.34	41.80	74.142		
4,400.00	4,199.82	10,081.97	7,117.14	24.47	73.80	-143.03	-1,272.43	644.10	3,007.36	2,964.79	42.58	70.634		
4,500.00	4,294.19	10,096.00	7,117.22	25.06	74.07	-142.65	-1,286.44	643.40	2,916.15	2,872.76	43.39	67.208		
4,600.00	4,388.56	10,099.75	7,117.27	25.65	74.15	-142.54	-1,290.19	643.22	2,825.37	2,781.16	44.22	63.897		
4,700.00	4,482.94	10,124.93	7,117.67	26.24	74.64	-141.82	-1,315.33	642.04	2,735.04	2,689.85	45.19	60.528		
4,800.00	4,577.31	10,164.24	7,118.32	26.83	75.41	-140.66	-1,354.60	640.25	2,644.99	2,598.73	46.26	57.175		
4,900.00	4,671.68	10,208.25	7,118.95	27.43	76.27	-139.29	-1,398.55	638.01	2,555.08	2,507.68	47.40	53.899		
5,000.00	4,766.05	10,243.17	7,119.43	28.02	76.95	-138.15	-1,433.42	636.12	2,465.42	2,416.83	48.58	50.746		
5,100.00	4,860.43	10,290.60	7,119.90	28.61	77.88	-136.52	-1,480.79	633.79	2,376.03	2,326.15	49.87	47.640		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-243(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 146-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	4,954.80	10,337.24	7,120.09	29.20	78.80	-134.81	-1,527.36	631.39	2,286.78	2,235.53	51.24	44.627	
5,300.00	5,049.17	10,423.63	7,119.04	29.80	80.51	-131.38	-1,613.61	626.52	2,197.28	2,144.49	52.79	41.624	
5,400.00	5,143.55	10,466.37	7,117.90	30.39	81.35	-129.52	-1,656.27	624.33	2,108.02	2,053.67	54.35	38.788	
5,500.00	5,237.92	10,512.06	7,116.44	30.99	82.26	-127.42	-1,701.86	621.62	2,019.03	1,963.01	56.02	36.038	
5,600.00	5,332.29	10,538.14	7,115.53	31.58	82.78	-126.17	-1,727.88	620.11	1,930.60	1,872.79	57.81	33.396	
5,700.00	5,426.66	10,590.80	7,113.54	32.17	83.82	-123.54	-1,780.37	616.48	1,842.63	1,782.84	59.78	30.821	
5,800.00	5,521.04	10,623.16	7,112.31	32.77	84.46	-121.86	-1,812.60	613.78	1,755.31	1,693.41	61.90	28.357	
5,900.00	5,615.41	10,648.34	7,111.44	33.36	84.95	-120.51	-1,837.66	611.51	1,668.89	1,604.67	64.22	25.988	
6,000.00	5,709.78	10,667.00	7,110.83	33.96	85.32	-119.48	-1,856.24	609.93	1,583.65	1,516.87	66.78	23.713	
6,100.00	5,804.16	10,688.69	7,110.20	34.55	85.75	-118.26	-1,877.86	608.24	1,499.82	1,430.19	69.64	21.538	
6,200.00	5,898.53	10,712.90	7,109.63	35.14	86.24	-116.85	-1,902.00	606.49	1,417.66	1,344.85	72.81	19.471	
6,300.00	5,992.90	10,745.12	7,109.09	35.74	86.88	-114.94	-1,934.11	603.89	1,337.26	1,260.93	76.32	17.521	
6,400.00	6,087.27	10,779.99	7,108.59	36.33	87.57	-112.80	-1,968.84	600.80	1,258.80	1,178.59	80.21	15.693	
6,500.00	6,181.65	10,807.15	7,108.24	36.93	88.11	-111.09	-1,995.88	598.31	1,182.73	1,098.18	84.55	13.989	
6,600.00	6,276.02	10,831.87	7,108.13	37.52	88.60	-109.50	-2,020.51	596.10	1,109.77	1,020.41	89.35	12.420	
6,700.00	6,370.39	10,866.26	7,108.07	38.12	89.28	-107.24	-2,054.75	593.03	1,040.37	945.74	94.63	10.994	
6,800.00	6,464.77	10,901.99	7,107.95	38.71	89.99	-104.82	-2,090.33	589.73	975.06	874.69	100.37	9.714	
6,900.00	6,559.14	10,931.64	7,107.77	39.31	90.58	-102.97	-2,119.86	587.07	914.90	808.34	106.56	8.586	
7,000.00	6,652.92	10,959.75	7,107.70	39.90	91.14	-123.69	-2,147.86	584.65	868.15	754.90	113.25	7.666	
7,100.00	6,744.00	10,987.38	7,107.86	40.44	91.70	-137.82	-2,175.40	582.35	844.81	724.77	120.04	7.038	
7,140.13	6,779.28	10,997.58	7,108.01	40.64	91.90	-141.78	-2,185.56	581.53	842.68	720.12	122.56	6.876 CC, ES	
7,200.00	6,830.13	11,012.93	7,108.32	40.94	92.21	-146.27	-2,200.87	580.36	847.41	721.45	125.96	6.728	
7,300.00	6,909.19	11,038.62	7,109.08	41.37	92.73	-151.02	-2,226.48	578.54	875.73	745.35	130.38	6.717 SF	
7,400.00	6,979.23	11,067.28	7,110.19	41.75	93.31	-153.15	-2,255.06	576.68	926.84	793.52	133.31	6.952	
7,500.00	7,038.53	11,093.13	7,111.25	42.08	93.83	-153.55	-2,280.83	575.04	996.18	861.11	135.07	7.375	
7,600.00	7,085.63	11,113.08	7,112.04	42.37	94.24	-152.40	-2,300.73	573.85	1,079.09	943.04	136.05	7.932	
7,700.00	7,119.37	11,132.27	7,112.80	42.64	94.62	-147.87	-2,319.88	572.75	1,171.09	1,034.43	136.66	8.569	
7,800.00	7,138.92	11,147.55	7,113.43	42.91	94.94	-132.69	-2,335.12	571.86	1,268.40	1,131.33	137.06	9.254	
7,900.00	7,143.92	11,159.71	7,113.91	43.25	95.18	-67.95	-2,347.25	571.14	1,367.89	1,230.53	137.36	9.959	
8,000.00	7,143.35	11,169.50	7,114.29	43.72	95.38	-70.05	-2,357.01	570.53	1,467.62	1,330.02	137.60	10.666	
8,100.00	7,142.78	11,179.93	7,114.67	44.42	95.59	-71.93	-2,367.41	569.86	1,567.33	1,429.48	137.85	11.369	
8,200.00	7,142.22	11,185.21	7,114.85	45.39	95.70	-72.76	-2,372.68	569.52	1,667.05	1,529.03	138.02	12.078	
8,300.00	7,141.65	11,192.19	7,115.07	46.63	95.84	-73.76	-2,379.64	569.07	1,766.78	1,628.56	138.22	12.782	
8,400.00	7,141.08	11,199.17	7,115.28	48.09	95.98	-74.65	-2,386.61	568.62	1,866.50	1,728.08	138.42	13.484	
8,500.00	7,140.51	11,206.16	7,115.47	49.74	96.13	-75.46	-2,393.57	568.17	1,966.23	1,827.61	138.62	14.184	
8,600.00	7,139.94	11,206.00	7,115.47	51.53	96.12	-75.44	-2,393.42	568.18	2,065.98	1,927.30	138.68	14.898	
8,700.00	7,139.37	11,212.88	7,115.64	53.44	96.26	-76.16	-2,400.28	567.75	2,165.72	2,026.85	138.88	15.594	
8,800.00	7,138.80	11,216.05	7,115.71	55.45	96.33	-76.47	-2,403.44	567.55	2,265.49	2,126.49	139.00	16.298	
8,900.00	7,138.24	11,219.07	7,115.78	57.55	96.39	-76.76	-2,406.46	567.38	2,365.26	2,226.14	139.12	17.002	
9,000.00	7,137.67	11,221.96	7,115.84	59.71	96.45	-77.02	-2,409.35	567.21	2,465.05	2,325.82	139.23	17.704	
9,100.00	7,137.10	11,224.73	7,115.90	61.94	96.50	-77.25	-2,412.11	567.06	2,564.84	2,425.50	139.34	18.407	
9,200.00	7,136.53	11,227.38	7,115.95	64.22	96.56	-77.48	-2,414.75	566.91	2,664.65	2,525.20	139.45	19.108	
9,300.00	7,135.96	11,229.92	7,116.00	66.55	96.61	-77.68	-2,417.29	566.78	2,764.46	2,624.90	139.56	19.809	
9,400.00	7,135.39	11,238.00	7,116.14	68.92	96.77	-78.29	-2,425.36	566.36	2,864.30	2,724.51	139.79	20.490	
9,500.00	7,134.83	11,238.00	7,116.14	71.33	96.77	-78.29	-2,425.36	566.36	2,964.12	2,824.28	139.84	21.197	
9,600.00	7,134.26	11,238.00	7,116.14	73.77	96.77	-78.29	-2,425.36	566.36	3,063.95	2,924.06	139.88	21.904	
9,700.00	7,133.69	11,238.00	7,116.14	76.24	96.77	-78.29	-2,425.36	566.36	3,163.79	3,023.86	139.93	22.610	
9,800.00	7,133.12	11,238.00	7,116.14	78.74	96.77	-78.29	-2,425.36	566.36	3,263.64	3,123.67	139.97	23.317	
9,900.00	7,132.55	11,245.21	7,116.25	81.27	96.92	-78.78	-2,432.55	566.02	3,363.49	3,223.30	140.19	23.993	
10,000.00	7,131.98	11,247.92	7,116.29	83.81	96.98	-78.96	-2,435.27	565.89	3,463.34	3,323.05	140.30	24.686	
10,100.00	7,131.42	11,250.57	7,116.33	86.38	97.03	-79.13	-2,437.91	565.77	3,563.20	3,422.80	140.41	25.378	
10,200.00	7,130.85	11,253.14	7,116.36	88.96	97.08	-79.28	-2,440.48	565.66	3,663.07	3,522.55	140.51	26.069	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-243(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	11,255.64	7,116.40	91.56	97.13	-79.43	-2,442.98	565.55	3,762.93	3,622.32	140.62	26.760		
10,400.00	7,129.71	11,258.08	7,116.43	94.18	97.18	-79.57	-2,445.41	565.44	3,862.80	3,722.08	140.72	27.450		
10,500.00	7,129.14	11,260.45	7,116.46	96.81	97.23	-79.71	-2,447.78	565.34	3,962.68	3,821.85	140.82	28.139		
10,600.00	7,128.57	11,262.77	7,116.49	99.45	97.28	-79.84	-2,450.09	565.24	4,062.56	3,921.63	140.93	28.827		
10,700.00	7,128.00	11,270.00	7,116.58	102.11	97.43	-80.22	-2,457.32	564.94	4,162.45	4,021.29	141.15	29.489		
10,800.00	7,127.44	11,270.00	7,116.58	104.77	97.43	-80.22	-2,457.32	564.94	4,262.33	4,121.13	141.20	30.187		
10,900.00	7,126.87	11,270.00	7,116.58	107.45	97.43	-80.22	-2,457.32	564.94	4,362.21	4,220.97	141.24	30.884		
11,000.00	7,126.30	11,281.89	7,116.73	110.13	97.67	-80.78	-2,469.20	564.45	4,462.10	4,320.50	141.59	31.513		
11,100.00	7,125.73	11,300.86	7,116.96	112.82	98.06	-81.58	-2,488.15	563.63	4,561.97	4,419.84	142.13	32.097		
11,200.00	7,125.16	11,200.00	7,116.89	115.53	96.00	-81.33	-2,481.94	563.89	4,661.83	4,521.76	140.08	33.281		
11,300.00	7,124.59	11,307.62	7,117.05	118.24	98.20	-81.83	-2,494.90	563.32	4,761.70	4,619.30	142.40	33.438		
11,400.00	7,124.03	11,310.43	7,117.08	120.95	98.26	-81.93	-2,497.71	563.20	4,861.58	4,719.05	142.53	34.110		
11,500.00	7,123.46	11,313.19	7,117.12	123.67	98.31	-82.03	-2,500.47	563.08	4,961.45	4,818.80	142.65	34.781		
11,600.00	7,122.89	11,315.90	7,117.16	126.40	98.37	-82.12	-2,503.18	562.96	5,061.32	4,918.55	142.77	35.451		
11,700.00	7,122.32	11,318.57	7,117.19	129.14	98.42	-82.21	-2,505.84	562.85	5,161.20	5,018.31	142.89	36.120		
11,800.00	7,121.75	11,321.19	7,117.23	131.88	98.48	-82.30	-2,508.46	562.73	5,261.08	5,118.07	143.01	36.788		
11,900.00	7,121.18	11,323.76	7,117.27	134.62	98.53	-82.38	-2,511.02	562.63	5,360.96	5,217.83	143.13	37.455		
12,000.00	7,120.61	11,326.28	7,117.30	137.37	98.58	-82.47	-2,513.55	562.52	5,460.85	5,317.60	143.25	38.121		
12,100.00	7,120.05	11,334.00	7,117.42	140.12	98.74	-82.71	-2,521.26	562.21	5,560.74	5,417.23	143.51	38.749		
12,200.00	7,119.48	11,334.00	7,117.42	142.88	98.74	-82.71	-2,521.26	562.21	5,660.62	5,517.06	143.56	39.430		
12,300.00	7,118.91	11,334.00	7,117.42	145.64	98.74	-82.71	-2,521.26	562.21	5,760.51	5,616.90	143.61	40.111		
12,400.00	7,118.34	11,339.66	7,117.51	148.41	98.85	-82.87	-2,526.91	561.98	5,860.40	5,716.58	143.82	40.748		
12,500.00	7,117.77	11,346.54	7,117.61	151.18	99.00	-83.07	-2,533.79	561.70	5,960.29	5,816.23	144.06	41.373		
12,600.00	7,117.20	11,353.54	7,117.71	153.95	99.14	-83.26	-2,540.78	561.41	6,060.18	5,915.87	144.31	41.995		
12,700.00	7,116.64	11,360.65	7,117.80	156.73	99.28	-83.44	-2,547.88	561.12	6,160.06	6,015.51	144.56	42.613		
12,800.00	7,116.07	11,367.88	7,117.89	159.50	99.43	-83.61	-2,555.11	560.82	6,259.95	6,115.13	144.81	43.228		
12,900.00	7,115.50	11,370.44	7,117.92	162.29	99.49	-83.67	-2,557.67	560.71	6,359.83	6,214.89	144.94	43.879		
13,000.00	7,114.93	11,373.94	7,117.96	165.07	99.56	-83.75	-2,561.16	560.56	6,459.72	6,314.62	145.09	44.521		
13,100.00	7,114.36	11,377.40	7,118.01	167.86	99.63	-83.82	-2,564.62	560.42	6,559.60	6,414.35	145.25	45.161		
13,200.00	7,113.79	11,380.84	7,118.04	170.64	99.70	-83.90	-2,568.06	560.28	6,659.49	6,514.09	145.40	45.800		
13,300.00	7,113.22	11,384.26	7,118.08	173.44	99.77	-83.97	-2,571.47	560.14	6,759.38	6,613.82	145.56	46.438		
13,400.00	7,112.66	11,387.64	7,118.12	176.23	99.84	-84.04	-2,574.85	560.00	6,859.27	6,713.56	145.71	47.075		
13,500.00	7,112.09	11,391.00	7,118.16	179.02	99.91	-84.11	-2,578.20	559.87	6,959.16	6,813.29	145.86	47.710		
13,600.00	7,111.52	11,394.33	7,118.19	181.82	99.97	-84.17	-2,581.53	559.73	7,059.05	6,913.03	146.02	48.343		
13,700.00	7,110.95	11,397.00	7,118.22	184.62	100.03	-84.23	-2,584.20	559.62	7,158.94	7,012.78	146.16	48.982		
13,800.00	7,110.38	11,397.00	7,118.22	187.42	100.03	-84.23	-2,584.20	559.62	7,258.83	7,112.62	146.22	49.645		
13,900.00	7,109.81	11,397.00	7,118.22	190.22	100.03	-84.23	-2,584.20	559.62	7,358.73	7,212.45	146.28	50.307		
14,000.00	7,109.25	11,397.00	7,118.22	193.03	100.03	-84.23	-2,584.20	559.62	7,458.63	7,312.29	146.34	50.968		
14,100.00	7,108.68	11,397.00	7,118.22	195.84	100.03	-84.23	-2,584.20	559.62	7,558.53	7,412.13	146.40	51.629		
14,200.00	7,108.11	11,405.97	7,118.33	198.64	100.21	-84.40	-2,593.16	559.27	7,658.42	7,511.70	146.72	52.197		
14,300.00	7,107.54	11,407.61	7,118.35	201.45	100.25	-84.43	-2,594.80	559.21	7,758.33	7,611.49	146.83	52.839		
14,400.00	7,106.97	11,409.22	7,118.37	204.26	100.28	-84.46	-2,596.41	559.15	7,858.23	7,711.29	146.94	53.479		
14,500.00	7,106.40	11,410.81	7,118.39	207.07	100.31	-84.48	-2,598.00	559.09	7,958.13	7,811.08	147.05	54.118		
14,600.00	7,105.83	11,412.37	7,118.41	209.89	100.35	-84.51	-2,599.56	559.03	8,058.04	7,910.88	147.16	54.757		
14,700.00	7,105.27	11,413.91	7,118.44	212.70	100.38	-84.54	-2,601.10	558.98	8,157.95	8,010.68	147.27	55.394		
14,800.00	7,104.70	11,415.42	7,118.46	215.52	100.41	-84.57	-2,602.61	558.92	8,257.86	8,110.48	147.38	56.031		
14,900.00	7,104.13	11,416.91	7,118.48	218.33	100.44	-84.60	-2,604.10	558.87	8,357.77	8,210.28	147.49	56.667		
15,000.00	7,103.56	11,418.38	7,118.51	221.15	100.47	-84.62	-2,605.56	558.82	8,457.68	8,310.08	147.60	57.302		
15,100.00	7,102.99	11,429.00	7,118.70	223.97	100.69	-84.81	-2,616.18	558.45	8,557.61	8,409.63	147.97	57.832		
15,200.00	7,102.42	11,429.00	7,118.70	226.79	100.69	-84.81	-2,616.18	558.45	8,657.52	8,509.48	148.04	58.480		
15,274.57	7,102.00	11,429.00	7,118.70	228.89	100.69	-84.81	-2,616.18	558.45	8,732.02	8,583.93	148.09	58.963		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-403(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 146-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	14.47	3.47	3.28	3.28	44.87	1,703.91	1,696.25	2,404.29				
100.00	100.00	145.96	134.95	3.28	3.30	44.85	1,703.81	1,694.87	2,403.49	2,396.91	6.58	365.372	
200.00	200.00	257.49	246.44	3.34	3.37	44.80	1,704.07	1,691.93	2,401.80	2,395.09	6.71	357.950	
276.81	276.80	343.41	332.29	3.41	3.48	-139.26	1,704.81	1,688.59	2,400.95	2,394.05	6.89	348.368	
300.00	299.98	358.46	347.33	3.44	3.50	-139.28	1,705.02	1,687.96	2,401.02	2,394.08	6.94	345.858	
400.00	399.84	445.04	433.81	3.59	3.66	-139.41	1,706.75	1,684.23	2,403.37	2,396.13	7.24	331.753	
500.00	499.45	542.39	531.02	3.79	3.87	-139.59	1,709.19	1,679.80	2,408.62	2,400.97	7.65	314.673	
600.00	598.70	636.27	624.74	4.03	4.11	-139.79	1,712.21	1,675.09	2,416.76	2,408.62	8.14	297.049	
700.00	697.47	727.98	716.26	4.31	4.37	-140.01	1,715.69	1,670.18	2,427.83	2,419.15	8.68	279.728	
800.00	795.62	822.11	810.14	4.64	4.67	-140.26	1,719.92	1,664.91	2,442.01	2,432.72	9.29	262.903	
900.00	893.06	919.58	907.35	5.00	5.00	-140.54	1,724.21	1,659.24	2,458.79	2,448.83	9.96	246.851	
1,000.00	989.64	998.78	986.34	5.40	5.28	-140.72	1,727.96	1,654.87	2,478.86	2,468.24	10.61	233.568	
1,100.00	1,085.27	1,232.87	1,218.07	5.83	6.23	-142.18	1,745.93	1,628.33	2,501.40	2,489.43	11.97	209.047	
1,200.00	1,179.88	1,364.22	1,346.98	6.29	6.84	-143.16	1,755.48	1,604.98	2,521.52	2,508.52	13.00	193.993	
1,300.00	1,274.26	1,452.64	1,433.66	6.78	7.28	-143.93	1,761.71	1,588.71	2,542.29	2,528.43	13.86	183.414	
1,400.00	1,368.63	1,400.00	1,556.98	7.28	7.01	-145.01	1,770.42	1,565.30	2,563.55	2,549.51	14.05	182.485	
1,500.00	1,463.00	1,736.90	1,712.11	7.80	8.77	-146.32	1,777.42	1,533.95	2,582.55	2,566.33	16.22	159.244	
1,600.00	1,557.38	1,837.36	1,810.52	8.33	9.31	-147.11	1,780.14	1,513.97	2,600.88	2,583.67	17.21	151.158	
1,700.00	1,651.75	1,897.01	1,869.07	8.87	9.63	-147.57	1,781.80	1,502.70	2,620.27	2,602.28	17.99	145.671	
1,800.00	1,746.12	1,961.41	1,932.44	9.41	9.97	-148.05	1,783.90	1,491.40	2,641.17	2,622.38	18.79	140.543	
1,900.00	1,840.49	2,011.00	1,981.31	9.96	10.23	-148.41	1,785.66	1,483.20	2,663.45	2,643.93	19.52	136.470	
2,000.00	1,934.87	2,078.78	2,048.21	10.52	10.58	-148.89	1,788.59	1,472.73	2,687.16	2,666.83	20.33	132.151	
2,100.00	2,029.24	2,146.96	2,115.58	11.08	10.93	-149.36	1,792.32	1,462.89	2,712.47	2,691.32	21.15	128.224	
2,200.00	2,123.61	2,226.18	2,193.79	11.64	11.35	-149.91	1,797.17	1,451.29	2,738.58	2,716.54	22.04	124.258	
2,300.00	2,217.99	2,298.37	2,265.01	12.21	11.73	-150.41	1,802.19	1,440.63	2,765.59	2,742.70	22.89	120.831	
2,400.00	2,312.36	2,371.32	2,336.94	12.78	12.11	-150.92	1,807.84	1,429.83	2,793.55	2,769.81	23.74	117.651	
2,500.00	2,406.73	2,472.93	2,437.16	13.35	12.65	-151.61	1,815.82	1,415.12	2,822.11	2,797.33	24.77	113.918	
2,600.00	2,501.10	2,554.61	2,517.88	13.93	13.08	-152.14	1,821.60	1,404.01	2,850.77	2,825.10	25.67	111.039	
2,700.00	2,595.48	2,645.03	2,607.30	14.51	13.54	-152.70	1,828.01	1,392.26	2,880.02	2,853.40	26.62	108.179	
2,800.00	2,689.85	2,744.32	2,705.55	15.08	14.05	-153.30	1,834.68	1,379.64	2,909.38	2,881.75	27.62	105.319	
2,900.00	2,784.22	2,881.04	2,840.59	15.66	14.78	-154.13	1,843.67	1,360.22	2,938.26	2,909.38	28.88	101.757	
3,000.00	2,878.60	2,990.79	2,948.52	16.25	15.39	-154.84	1,850.93	1,341.73	2,966.25	2,936.27	29.98	98.926	
3,100.00	2,972.97	3,085.60	3,041.86	16.83	15.92	-155.43	1,856.71	1,326.14	2,994.33	2,963.33	31.00	96.599	
3,200.00	3,067.34	3,180.30	3,135.17	17.41	16.44	-155.99	1,862.10	1,310.89	3,022.51	2,990.50	32.01	94.437	
3,300.00	3,161.72	3,269.02	3,222.58	18.00	16.93	-156.52	1,867.28	1,296.57	3,051.06	3,018.09	32.97	92.536	
3,400.00	3,256.09	3,399.51	3,351.65	18.58	17.61	-157.21	1,872.87	1,278.29	3,079.55	3,045.37	34.18	90.097	
3,500.00	3,350.46	3,493.11	3,444.35	19.17	18.09	-157.68	1,875.47	1,265.65	3,107.11	3,071.97	35.15	88.408	
3,600.00	3,444.83	3,560.31	3,511.00	19.75	18.43	-158.00	1,877.46	1,257.32	3,135.48	3,099.54	35.94	87.230	
3,700.00	3,539.21	3,626.00	3,576.13	20.34	18.76	-158.31	1,880.12	1,249.14	3,164.89	3,128.16	36.73	86.167	
3,800.00	3,633.58	3,688.23	3,637.78	20.93	19.08	-158.61	1,883.32	1,241.23	3,195.30	3,157.81	37.49	85.220	
3,900.00	3,727.95	3,761.54	3,710.30	21.52	19.47	-158.97	1,887.89	1,231.52	3,226.62	3,188.28	38.34	84.167	
4,000.00	3,822.33	3,846.33	3,793.92	22.11	19.93	-159.42	1,894.06	1,218.98	3,258.46	3,219.19	39.27	82.984	
4,100.00	3,916.70	3,949.23	3,895.14	22.70	20.51	-159.97	1,902.12	1,202.35	3,290.51	3,250.17	40.34	81.568	
4,200.00	4,011.07	4,083.17	4,026.75	23.29	21.28	-160.69	1,911.84	1,179.41	3,321.98	3,280.33	41.65	79.755	
4,300.00	4,105.44	4,176.61	4,119.63	23.88	22.17	-161.41	1,921.62	1,156.97	3,353.46	3,311.81	43.00	77.955	
4,400.00	4,199.82	4,271.03	4,214.05	24.47	23.17	-162.13	1,931.40	1,134.62	3,385.94	3,343.29	44.39	76.155	
4,500.00	4,294.19	4,365.45	4,307.42	25.06	24.27	-162.85	1,941.18	1,112.37	3,418.42	3,375.77	45.82	74.355	
4,600.00	4,388.56	4,459.82	4,401.79	25.65	25.37	-163.57	1,950.96	1,090.12	3,450.90	3,408.25	47.29	72.555	
4,700.00	4,482.94	4,554.20	4,496.17	26.24	26.47	-164.29	1,960.74	1,067.87	3,483.38	3,440.73	48.80	70.755	
4,800.00	4,577.31	4,648.57	4,590.54	26.83	27.06	-165.01	1,970.52	1,045.62	3,515.86	3,473.21	50.34	68.955	
4,900.00	4,671.68	4,742.94	4,684.91	27.43	27.66	-165.73	1,980.30	1,023.37	3,548.34	3,505.69	51.91	67.155	
5,000.00	4,766.05	4,838.31	4,779.28	28.02	28.25	-166.45	1,990.08	1,001.12	3,580.82	3,538.17	53.51	65.355	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-403(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	10,471.68	7,236.71	28.61	79.68	-126.90	-1,510.40	973.23	2,608.28	2,546.72	61.56	42.368		
5,200.00	4,954.80	10,514.06	7,236.18	29.20	80.52	-125.46	-1,552.77	972.15	2,522.85	2,459.45	63.40	39.794		
5,300.00	5,049.17	10,555.10	7,235.53	29.80	81.33	-124.03	-1,593.78	971.01	2,437.98	2,372.65	65.33	37.319		
5,400.00	5,143.55	10,592.80	7,234.82	30.39	82.07	-122.66	-1,631.46	969.96	2,353.78	2,286.44	67.35	34.950		
5,500.00	5,237.92	10,635.80	7,233.83	30.99	82.93	-121.06	-1,674.44	968.68	2,270.31	2,200.76	69.55	32.642		
5,600.00	5,332.29	10,675.17	7,232.76	31.58	83.71	-119.55	-1,713.77	967.45	2,187.64	2,115.78	71.86	30.442		
5,700.00	5,426.66	10,722.57	7,231.20	32.17	84.65	-117.67	-1,761.11	965.80	2,105.82	2,031.41	74.42	28.298		
5,800.00	5,521.04	10,740.00	7,230.59	32.77	85.00	-116.97	-1,778.52	965.12	2,025.14	1,948.33	76.80	26.368		
5,900.00	5,615.41	10,758.08	7,230.04	33.36	85.36	-116.23	-1,796.58	964.49	1,945.97	1,866.60	79.36	24.520		
6,000.00	5,709.78	10,772.00	7,229.72	33.96	85.64	-115.65	-1,810.50	964.14	1,868.62	1,786.57	82.05	22.775		
6,100.00	5,804.16	10,791.32	7,229.38	34.55	86.03	-114.84	-1,829.81	963.78	1,793.22	1,708.25	84.98	21.102		
6,200.00	5,898.53	10,804.00	7,229.19	35.14	86.28	-114.31	-1,842.49	963.59	1,719.98	1,631.98	88.00	19.545		
6,300.00	5,992.90	10,825.13	7,229.01	35.74	86.70	-113.40	-1,863.62	963.39	1,649.20	1,557.86	91.34	18.057		
6,400.00	6,087.27	10,842.92	7,229.02	36.33	87.06	-112.63	-1,881.40	963.38	1,581.26	1,486.46	94.80	16.680		
6,500.00	6,181.65	10,867.00	7,229.17	36.93	87.54	-111.58	-1,905.48	963.51	1,516.44	1,417.90	98.55	15.388		
6,600.00	6,276.02	10,892.40	7,229.37	37.52	88.05	-110.46	-1,930.88	963.81	1,455.03	1,352.55	102.48	14.198		
6,700.00	6,370.39	10,927.71	7,229.57	38.12	88.77	-108.87	-1,966.19	964.36	1,397.34	1,290.59	106.75	13.089		
6,800.00	6,464.77	10,967.25	7,229.67	38.71	89.56	-107.07	-2,005.73	964.91	1,343.68	1,232.46	111.23	12.081		
6,900.00	6,559.14	11,002.78	7,229.64	39.31	90.28	-105.64	-2,041.25	965.39	1,294.61	1,178.95	115.66	11.193		
7,000.00	6,652.92	11,041.88	7,229.40	39.90	91.07	-126.47	-2,080.35	965.77	1,257.89	1,137.65	120.24	10.461		
7,100.00	6,744.00	11,073.83	7,229.12	40.44	91.72	-140.98	-2,112.29	966.05	1,242.57	1,118.04	124.53	9.978		
7,117.68	6,759.65	11,079.28	7,229.07	40.53	91.83	-142.88	-2,117.74	966.10	1,242.22	1,116.98	125.24	9.919 CC, ES		
7,200.00	6,830.13	11,123.01	7,228.44	40.94	92.72	-148.94	-2,161.47	966.25	1,249.84	1,121.07	128.76	9.706 SF		
7,300.00	6,909.19	11,146.28	7,228.00	41.37	93.19	-154.45	-2,184.73	966.19	1,279.17	1,147.55	131.62	9.719		
7,400.00	6,979.23	11,167.22	7,227.60	41.75	93.61	-157.91	-2,205.67	966.17	1,328.86	1,195.21	133.66	9.942		
7,500.00	7,038.53	11,184.63	7,227.29	42.08	93.97	-160.17	-2,223.08	966.19	1,395.78	1,260.80	134.98	10.341		
7,600.00	7,085.63	11,198.74	7,227.03	42.37	94.26	-161.70	-2,237.19	966.23	1,476.20	1,340.41	135.79	10.871		
7,700.00	7,119.37	11,208.73	7,226.84	42.64	94.46	-162.96	-2,247.17	966.27	1,566.34	1,430.10	136.24	11.497		
7,800.00	7,138.92	11,214.51	7,226.72	42.91	94.58	-164.92	-2,252.95	966.29	1,662.67	1,526.22	136.45	12.185		
7,900.00	7,143.92	11,216.05	7,226.68	43.25	94.61	-177.73	-2,254.49	966.30	1,762.05	1,625.55	136.51	12.908		
8,000.00	7,143.35	11,215.00	7,226.71	43.72	94.59	-178.55	-2,253.44	966.30	1,861.97	1,725.49	136.48	13.642		
8,100.00	7,142.78	11,215.00	7,226.71	44.42	94.59	-178.55	-2,253.44	966.30	1,961.90	1,825.41	136.49	14.374		
8,200.00	7,142.22	11,215.00	7,226.71	45.39	94.59	-178.55	-2,253.44	966.30	2,061.84	1,925.33	136.50	15.105		
8,300.00	7,141.65	11,215.00	7,226.71	46.63	94.59	-178.55	-2,253.44	966.30	2,161.78	2,025.27	136.51	15.836		
8,400.00	7,141.08	11,215.00	7,226.71	48.09	94.59	-178.55	-2,253.44	966.30	2,261.72	2,125.20	136.52	16.567		
8,500.00	7,140.51	11,215.00	7,226.71	49.74	94.59	-178.55	-2,253.44	966.30	2,361.67	2,225.14	136.53	17.298		
8,600.00	7,139.94	11,215.00	7,226.71	51.53	94.59	-178.55	-2,253.44	966.30	2,461.63	2,325.09	136.54	18.029		
8,700.00	7,139.37	11,215.00	7,226.71	53.44	94.59	-178.55	-2,253.44	966.30	2,561.58	2,425.03	136.55	18.759		
8,800.00	7,138.80	11,215.00	7,226.71	55.45	94.59	-178.55	-2,253.44	966.30	2,661.55	2,524.98	136.57	19.489		
8,900.00	7,138.24	11,215.00	7,226.71	57.55	94.59	-178.55	-2,253.44	966.30	2,761.51	2,624.93	136.58	20.219		
9,000.00	7,137.67	11,215.00	7,226.71	59.71	94.59	-178.55	-2,253.44	966.30	2,861.48	2,724.88	136.59	20.949		
9,100.00	7,137.10	11,215.00	7,226.71	61.94	94.59	-178.55	-2,253.44	966.30	2,961.44	2,824.84	136.61	21.678		
9,200.00	7,136.53	11,215.00	7,226.71	64.22	94.59	-178.55	-2,253.44	966.30	3,061.42	2,924.79	136.62	22.407		
9,300.00	7,135.96	11,215.00	7,226.71	66.55	94.59	-178.55	-2,253.44	966.30	3,161.39	3,024.75	136.64	23.136		
9,400.00	7,135.39	11,215.00	7,226.71	68.92	94.59	-178.55	-2,253.44	966.30	3,261.36	3,124.70	136.66	23.865		
9,500.00	7,134.83	11,215.00	7,226.71	71.33	94.59	-178.55	-2,253.44	966.30	3,361.34	3,224.66	136.68	24.593		
9,600.00	7,134.26	11,215.00	7,226.71	73.77	94.59	-178.55	-2,253.44	966.30	3,461.32	3,324.62	136.70	25.321		
9,700.00	7,133.69	11,215.00	7,226.71	76.24	94.59	-178.55	-2,253.44	966.30	3,561.29	3,424.58	136.72	26.048		
9,800.00	7,133.12	11,215.00	7,226.71	78.74	94.59	-178.55	-2,253.44	966.30	3,661.27	3,524.53	136.74	26.776		
9,900.00	7,132.55	11,215.00	7,226.71	81.27	94.59	-178.55	-2,253.44	966.30	3,761.25	3,624.49	136.76	27.502		
10,000.00	7,131.98	11,215.00	7,226.71	83.81	94.59	-178.55	-2,253.44	966.30	3,861.24	3,724.45	136.78	28.229		
10,100.00	7,131.42	11,215.00	7,226.71	86.38	94.59	-178.55	-2,253.44	966.30	3,961.22	3,824.41	136.81	28.955		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-403(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,130.85	11,215.00	7,226.71	88.96	94.59	-178.55	-2,253.44	966.30	4,061.20	3,924.37	136.83	29.680		
10,300.00	7,130.28	11,215.00	7,226.71	91.56	94.59	-178.55	-2,253.44	966.30	4,161.19	4,024.33	136.86	30.405		
10,400.00	7,129.71	11,215.00	7,226.71	94.18	94.59	-178.55	-2,253.44	966.30	4,261.17	4,124.29	136.88	31.130		
10,500.00	7,129.14	11,215.00	7,226.71	96.81	94.59	-178.55	-2,253.44	966.30	4,361.16	4,224.25	136.91	31.854		
10,600.00	7,128.57	11,215.00	7,226.71	99.45	94.59	-178.55	-2,253.44	966.30	4,461.14	4,324.20	136.94	32.577		
10,700.00	7,128.00	11,215.00	7,226.71	102.11	94.59	-178.55	-2,253.44	966.30	4,561.13	4,424.16	136.97	33.300		
10,800.00	7,127.44	11,215.00	7,226.71	104.77	94.59	-178.55	-2,253.44	966.30	4,661.12	4,524.12	137.00	34.023		
10,900.00	7,126.87	11,215.00	7,226.71	107.45	94.59	-178.55	-2,253.44	966.30	4,761.11	4,624.08	137.03	34.745		
11,000.00	7,126.30	11,215.00	7,226.71	110.13	94.59	-178.55	-2,253.44	966.30	4,861.09	4,724.03	137.06	35.467		
11,100.00	7,125.73	11,215.00	7,226.71	112.82	94.59	-178.55	-2,253.44	966.30	4,961.08	4,823.99	137.09	36.188		
11,200.00	7,125.16	11,215.00	7,226.71	115.53	94.59	-178.55	-2,253.44	966.30	5,061.07	4,923.95	137.13	36.908		
11,300.00	7,124.59	11,215.00	7,226.71	118.24	94.59	-178.55	-2,253.44	966.30	5,161.06	5,023.90	137.16	37.628		
11,400.00	7,124.03	11,215.00	7,226.71	120.95	94.59	-178.55	-2,253.44	966.30	5,261.05	5,123.86	137.20	38.347		
11,500.00	7,123.46	11,215.00	7,226.71	123.67	94.59	-178.55	-2,253.44	966.30	5,361.04	5,223.81	137.23	39.066		
11,600.00	7,122.89	11,215.00	7,226.71	126.40	94.59	-178.55	-2,253.44	966.30	5,461.03	5,323.77	137.27	39.784		
11,700.00	7,122.32	11,215.00	7,226.71	129.14	94.59	-178.55	-2,253.44	966.30	5,561.03	5,423.72	137.30	40.501		
11,800.00	7,121.75	11,215.00	7,226.71	131.88	94.59	-178.55	-2,253.44	966.30	5,661.02	5,523.67	137.34	41.218		
11,900.00	7,121.18	11,215.00	7,226.71	134.62	94.59	-178.55	-2,253.44	966.30	5,761.01	5,623.63	137.38	41.934		
12,000.00	7,120.61	11,215.00	7,226.71	137.37	94.59	-178.55	-2,253.44	966.30	5,861.00	5,723.58	137.42	42.650		
12,100.00	7,120.05	11,215.00	7,226.71	140.12	94.59	-178.55	-2,253.44	966.30	5,960.99	5,823.53	137.46	43.365		
12,200.00	7,119.48	11,215.00	7,226.71	142.88	94.59	-178.55	-2,253.44	966.30	6,060.99	5,923.48	137.50	44.079		
12,300.00	7,118.91	11,215.00	7,226.71	145.64	94.59	-178.55	-2,253.44	966.30	6,160.98	6,023.43	137.55	44.792		
12,400.00	7,118.34	11,215.00	7,226.71	148.41	94.59	-178.55	-2,253.44	966.30	6,260.97	6,123.38	137.59	45.505		
12,500.00	7,117.77	11,215.00	7,226.71	151.18	94.59	-178.55	-2,253.44	966.30	6,360.97	6,223.33	137.63	46.217		
12,600.00	7,117.20	11,215.00	7,226.71	153.95	94.59	-178.55	-2,253.44	966.30	6,460.96	6,323.28	137.68	46.929		
12,700.00	7,116.64	11,215.00	7,226.71	156.73	94.59	-178.55	-2,253.44	966.30	6,560.95	6,423.23	137.72	47.639		
12,800.00	7,116.07	11,215.00	7,226.71	159.50	94.59	-178.55	-2,253.44	966.30	6,660.95	6,523.18	137.77	48.349		
12,900.00	7,115.50	11,215.00	7,226.71	162.29	94.59	-178.55	-2,253.44	966.30	6,760.94	6,623.13	137.81	49.058		
13,000.00	7,114.93	11,215.00	7,226.71	165.07	94.59	-178.55	-2,253.44	966.30	6,860.94	6,723.07	137.86	49.767		
13,100.00	7,114.36	11,215.00	7,226.71	167.86	94.59	-178.55	-2,253.44	966.30	6,960.93	6,823.02	137.91	50.474		
13,200.00	7,113.79	11,215.00	7,226.71	170.64	94.59	-178.55	-2,253.44	966.30	7,060.92	6,922.96	137.96	51.181		
13,300.00	7,113.22	11,215.00	7,226.71	173.44	94.59	-178.55	-2,253.44	966.30	7,160.92	7,022.91	138.01	51.887		
13,400.00	7,112.66	11,215.00	7,226.71	176.23	94.59	-178.55	-2,253.44	966.30	7,260.91	7,122.85	138.06	52.592		
13,500.00	7,112.09	11,215.00	7,226.71	179.02	94.59	-178.55	-2,253.44	966.30	7,360.91	7,222.80	138.11	53.297		
13,600.00	7,111.52	11,215.00	7,226.71	181.82	94.59	-178.55	-2,253.44	966.30	7,460.90	7,322.74	138.16	54.000		
13,700.00	7,110.95	11,215.00	7,226.71	184.62	94.59	-178.55	-2,253.44	966.30	7,560.90	7,422.68	138.22	54.703		
13,800.00	7,110.38	11,215.00	7,226.71	187.42	94.59	-178.55	-2,253.44	966.30	7,660.90	7,522.62	138.27	55.405		
13,900.00	7,109.81	11,215.00	7,226.71	190.22	94.59	-178.55	-2,253.44	966.30	7,760.89	7,622.57	138.33	56.106		
14,000.00	7,109.25	11,215.00	7,226.71	193.03	94.59	-178.55	-2,253.44	966.30	7,860.89	7,722.51	138.38	56.806		
14,100.00	7,108.68	11,215.00	7,226.71	195.84	94.59	-178.55	-2,253.44	966.30	7,960.88	7,822.45	138.44	57.505		
14,200.00	7,108.11	11,215.00	7,226.71	198.64	94.59	-178.55	-2,253.44	966.30	8,060.88	7,922.38	138.49	58.204		
14,300.00	7,107.54	11,215.00	7,226.71	201.45	94.59	-178.55	-2,253.44	966.30	8,160.87	8,022.32	138.55	58.902		
14,400.00	7,106.97	11,215.00	7,226.71	204.26	94.59	-178.55	-2,253.44	966.30	8,260.87	8,122.26	138.61	59.598		
14,500.00	7,106.40	11,215.00	7,226.71	207.07	94.59	-178.55	-2,253.44	966.30	8,360.87	8,222.20	138.67	60.294		
14,600.00	7,105.83	11,215.00	7,226.71	209.89	94.59	-178.55	-2,253.44	966.30	8,460.86	8,322.13	138.73	60.989		
14,700.00	7,105.27	11,215.00	7,226.71	212.70	94.59	-178.55	-2,253.44	966.30	8,560.86	8,422.07	138.79	61.683		
14,800.00	7,104.70	11,215.00	7,226.71	215.52	94.59	-178.55	-2,253.44	966.30	8,660.86	8,522.01	138.85	62.376		
14,900.00	7,104.13	11,215.00	7,226.71	218.33	94.59	-178.55	-2,253.44	966.30	8,760.85	8,621.94	138.91	63.068		
15,000.00	7,103.56	11,215.00	7,226.71	221.15	94.59	-178.55	-2,253.44	966.30	8,860.85	8,721.87	138.97	63.759		
15,100.00	7,102.99	11,215.00	7,226.71	223.97	94.59	-178.55	-2,253.44	966.30	8,960.85	8,821.81	139.04	64.449		
15,200.00	7,102.42	11,215.00	7,226.71	226.79	94.59	-178.55	-2,253.44	966.30	9,060.84	8,921.74	139.10	65.138		
15,274.57	7,102.00	11,215.00	7,226.71	228.89	94.59	-178.55	-2,253.44	966.30	9,135.41	8,996.26	139.15	65.652		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	3.00	0.00	3.28	3.28	0.47	439.72	3.62	439.74					
100.00	100.00	103.00	100.00	3.28	3.29	0.47	439.72	3.62	439.74	433.17	6.57	66.930		
200.00	200.00	203.00	200.00	3.34	3.34	0.47	439.72	3.62	439.74	433.06	6.68	65.863 CC, ES		
300.00	299.98	289.27	286.26	3.44	3.43	176.50	441.10	3.48	443.07	436.19	6.88	64.388		
400.00	399.84	375.40	372.29	3.59	3.56	176.47	445.06	3.08	452.88	445.69	7.19	62.989		
500.00	499.45	460.47	457.11	3.79	3.73	176.42	451.49	2.43	469.08	461.49	7.59	61.833		
600.00	598.70	543.98	540.15	4.03	3.92	176.36	460.24	1.56	491.57	483.52	8.05	61.064		
700.00	697.47	625.48	620.92	4.31	4.14	176.28	471.10	0.47	520.19	511.63	8.56	60.756		
800.00	795.62	704.56	698.95	4.64	4.37	176.19	483.82	-0.81	554.77	545.66	9.11	60.926		
900.00	893.06	780.85	773.88	5.00	4.60	176.09	498.11	-2.25	595.07	585.40	9.67	61.548		
1,000.00	989.64	854.04	845.38	5.40	4.85	175.99	513.69	-3.81	640.86	630.63	10.23	62.624		
1,100.00	1,085.27	923.89	913.21	5.83	5.09	175.87	530.24	-5.47	691.87	681.06	10.80	64.041		
1,200.00	1,179.88	990.30	977.31	6.29	5.34	175.79	547.50	-7.20	747.64	736.28	11.37	65.777		
1,300.00	1,274.26	1,056.60	1,040.90	6.78	5.60	175.76	566.18	-9.08	805.88	793.97	11.91	67.672		
1,400.00	1,368.63	1,137.40	1,118.19	7.28	5.94	175.72	589.58	-11.43	864.80	852.27	12.53	69.001		
1,500.00	1,463.00	1,218.19	1,195.49	7.80	6.28	175.69	612.98	-13.78	923.72	910.54	13.18	70.072		
1,600.00	1,557.38	1,301.01	1,272.79	8.33	6.65	175.67	636.38	-16.13	982.64	968.78	13.86	70.895		
1,700.00	1,651.75	1,379.79	1,350.09	8.87	7.01	175.64	659.79	-18.48	1,041.57	1,027.03	14.54	71.637		
1,800.00	1,746.12	1,460.58	1,427.39	9.41	7.39	175.62	683.19	-20.83	1,100.49	1,085.25	15.24	72.200		
1,900.00	1,840.49	1,541.38	1,504.68	9.96	7.77	175.60	706.59	-23.18	1,159.41	1,143.45	15.96	72.652		
2,000.00	1,934.87	1,622.17	1,581.98	10.52	8.16	175.58	729.99	-25.53	1,218.33	1,201.65	16.69	73.015		
2,100.00	2,029.24	1,702.97	1,659.28	11.08	8.55	175.57	753.39	-27.88	1,277.25	1,259.83	17.42	73.305		
2,200.00	2,123.61	1,783.77	1,736.58	11.64	8.94	175.55	776.79	-30.22	1,336.18	1,318.01	18.17	73.535		
2,300.00	2,217.99	1,864.56	1,813.88	12.21	9.34	175.54	800.19	-32.57	1,395.10	1,376.17	18.93	73.717		
2,400.00	2,312.36	1,945.36	1,891.17	12.78	9.74	175.52	823.60	-34.92	1,454.02	1,434.33	19.69	73.858		
2,500.00	2,406.73	2,026.16	1,968.47	13.35	10.15	175.51	847.00	-37.27	1,512.94	1,492.49	20.45	73.967		
2,600.00	2,501.10	2,106.95	2,045.77	13.93	10.56	175.50	870.40	-39.62	1,571.87	1,550.64	21.23	74.049		
2,700.00	2,595.48	2,187.75	2,123.07	14.51	10.96	175.49	893.80	-41.97	1,630.79	1,608.78	22.01	74.108		
2,800.00	2,689.85	2,268.55	2,200.36	15.08	11.38	175.48	917.20	-44.32	1,689.71	1,666.92	22.79	74.149		
2,900.00	2,784.22	2,349.34	2,277.66	15.66	11.79	175.47	940.60	-46.67	1,748.63	1,725.06	23.57	74.174		
3,000.00	2,878.60	2,430.14	2,354.96	16.25	12.20	175.47	964.00	-49.02	1,807.56	1,783.19	24.36	74.187		
3,100.00	2,972.97	2,510.94	2,432.26	16.83	12.62	175.46	987.40	-51.37	1,866.48	1,841.32	25.16	74.190		
3,200.00	3,067.34	2,608.27	2,509.56	17.41	13.12	175.45	1,010.81	-53.72	1,925.40	1,899.37	26.03	73.956		
3,300.00	3,161.72	2,672.53	2,586.85	18.00	13.45	175.45	1,034.21	-56.07	1,984.32	1,957.57	26.75	74.170		
3,400.00	3,256.09	2,753.33	2,664.15	18.58	13.87	175.44	1,057.61	-58.42	2,043.25	2,015.69	27.56	74.151		
3,500.00	3,350.46	2,834.12	2,741.45	19.17	14.29	175.43	1,081.01	-60.77	2,102.17	2,073.81	28.36	74.127		
3,600.00	3,444.83	2,914.92	2,818.75	19.75	14.71	175.43	1,104.41	-63.12	2,161.09	2,131.93	29.17	74.098		
3,700.00	3,539.21	3,004.28	2,896.04	20.34	15.18	175.42	1,127.81	-65.47	2,220.01	2,190.00	30.02	73.963		
3,800.00	3,633.58	3,076.51	2,973.34	20.93	15.56	175.42	1,151.21	-67.82	2,278.94	2,248.15	30.78	74.033		
3,900.00	3,727.95	3,157.31	3,050.64	21.52	15.98	175.41	1,174.62	-70.16	2,337.86	2,306.27	31.59	73.996		
4,000.00	3,822.33	3,238.11	3,127.94	22.11	16.41	175.41	1,198.02	-72.51	2,396.78	2,364.37	32.41	73.958		
4,100.00	3,916.70	3,318.90	3,205.24	22.70	16.83	175.40	1,221.42	-74.86	2,455.70	2,422.48	33.22	73.919		
4,200.00	4,011.07	3,400.30	3,282.53	23.29	17.26	175.40	1,244.82	-77.21	2,514.63	2,480.59	34.04	73.872		
4,300.00	4,105.44	3,480.50	3,359.83	23.88	17.68	175.40	1,268.22	-79.56	2,573.55	2,538.70	34.85	73.837		
4,400.00	4,199.82	3,561.29	3,437.13	24.47	18.11	175.39	1,291.62	-81.91	2,632.47	2,596.80	35.67	73.795		
4,500.00	4,294.19	3,642.09	3,514.43	25.06	18.53	175.39	1,315.02	-84.26	2,691.40	2,654.90	36.49	73.752		
4,600.00	4,388.56	3,722.89	3,591.73	25.65	18.96	175.39	1,338.42	-86.61	2,750.32	2,713.01	37.31	73.710		
4,700.00	4,482.94	3,803.68	3,669.02	26.24	19.39	175.38	1,361.83	-88.96	2,809.24	2,771.11	38.13	73.667		
4,800.00	4,577.31	3,884.48	3,746.32	26.83	19.81	175.38	1,385.23	-91.31	2,868.16	2,829.21	38.96	73.624		
4,900.00	4,671.68	3,965.28	3,823.62	27.43	20.24	175.38	1,408.63	-93.66	2,927.09	2,887.31	39.78	73.581		
5,000.00	4,766.05	4,046.07	3,900.92	28.02	20.67	175.37	1,432.03	-96.01	2,986.01	2,945.40	40.60	73.538		
5,100.00	4,860.43	4,126.87	3,978.21	28.61	21.10	175.37	1,455.43	-98.36	3,044.93	3,003.50	41.43	73.496		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.00	4,954.80	4,207.67	4,055.51	29.20	21.52	175.37	1,478.83	-100.71	3,103.85	3,061.60	42.26	73.454		
5,300.00	5,049.17	4,288.46	4,132.81	29.80	21.95	175.37	1,502.23	-103.06	3,162.78	3,119.69	43.08	73.412		
5,400.00	5,143.55	4,369.26	4,210.11	30.39	22.38	175.36	1,525.64	-105.41	3,221.70	3,177.79	43.91	73.370		
5,500.00	5,237.92	4,450.06	4,287.41	30.99	22.81	175.36	1,549.04	-107.76	3,280.62	3,235.88	44.74	73.329		
5,600.00	5,332.29	4,530.85	4,364.70	31.58	23.24	175.36	1,572.44	-110.10	3,339.55	3,293.98	45.57	73.288		
5,700.00	5,426.66	4,611.65	4,442.00	32.17	23.67	175.36	1,595.84	-112.45	3,398.47	3,352.07	46.40	73.247		
5,800.00	5,521.04	4,707.55	4,519.30	32.77	24.18	175.35	1,619.24	-114.80	3,457.39	3,410.09	47.30	73.090		
5,900.00	5,615.41	4,773.24	4,596.60	33.36	24.53	175.35	1,642.64	-117.15	3,516.31	3,468.26	48.06	73.167		
6,000.00	5,709.78	4,854.04	4,673.90	33.96	24.96	175.35	1,666.04	-119.50	3,575.24	3,526.35	48.89	73.128		
6,100.00	5,804.16	4,934.84	4,751.19	34.55	25.39	175.35	1,689.44	-121.85	3,634.16	3,584.44	49.72	73.089		
6,200.00	5,898.53	5,015.63	4,828.49	35.14	25.82	175.35	1,712.85	-124.20	3,693.08	3,642.53	50.56	73.050		
6,300.00	5,992.90	5,103.57	4,905.79	35.74	26.29	175.34	1,736.25	-126.55	3,752.01	3,700.58	51.42	72.961		
6,400.00	6,087.27	5,177.23	4,983.09	36.33	26.68	175.34	1,759.65	-128.90	3,810.93	3,758.71	52.22	72.974		
6,500.00	6,181.65	6,402.71	6,181.65	36.93	32.16	175.58	1,944.96	-147.50	3,865.79	3,804.53	61.26	63.107		
6,600.00	6,276.02	6,508.34	6,276.02	37.52	32.54	175.62	1,944.96	-147.50	3,898.77	3,836.62	62.16	62.725		
6,700.00	6,370.39	6,586.03	6,370.39	38.12	32.82	175.65	1,944.96	-147.50	3,931.76	3,868.81	62.95	62.458		
6,800.00	6,464.77	6,680.41	6,464.77	38.71	33.16	175.69	1,944.96	-147.50	3,964.75	3,900.94	63.81	62.134		
6,900.00	6,559.14	6,774.78	6,559.14	39.31	33.50	175.48	1,944.96	-147.50	3,997.74	3,933.07	64.67	61.818		
7,000.00	6,652.92	6,870.44	6,654.78	39.90	33.85	149.26	1,944.95	-148.38	4,030.58	3,965.05	65.53	61.506		
7,100.00	6,744.00	6,970.90	6,754.27	40.44	34.20	130.33	1,944.85	-161.53	4,062.55	3,996.16	66.40	61.186		
7,200.00	6,830.13	7,074.35	6,853.25	40.94	34.57	117.64	1,944.62	-191.23	4,092.85	4,025.59	67.26	60.851		
7,300.00	6,909.19	7,181.27	6,949.10	41.37	34.92	108.93	1,944.25	-238.33	4,120.73	4,052.60	68.13	60.480		
7,400.00	6,979.23	7,291.98	7,038.59	41.75	35.25	102.76	1,943.74	-303.27	4,145.48	4,076.42	69.06	60.025		
7,500.00	7,038.53	7,406.50	7,117.89	42.08	35.55	98.32	1,943.10	-385.66	4,166.48	4,096.35	70.13	59.412		
7,600.00	7,085.63	7,524.44	7,182.79	42.37	35.88	95.18	1,942.33	-483.94	4,183.17	4,111.71	71.46	58.540		
7,700.00	7,119.37	7,644.99	7,229.26	42.64	36.41	93.08	1,941.46	-594.98	4,195.11	4,121.98	73.14	57.361		
7,800.00	7,138.92	7,766.92	7,254.14	42.91	37.39	91.89	1,940.53	-714.15	4,201.99	4,126.78	75.21	55.867		
7,900.00	7,143.92	7,880.00	7,257.84	43.25	38.62	91.55	1,939.65	-827.08	4,203.71	4,126.18	77.54	54.215		
8,000.00	7,143.35	7,980.00	7,257.46	43.72	39.92	91.56	1,938.86	-927.08	4,203.55	4,123.50	80.05	52.512		
8,100.00	7,142.78	8,080.00	7,257.08	44.42	41.37	91.56	1,938.08	-1,027.08	4,203.39	4,120.51	82.87	50.721		
8,200.00	7,142.22	8,180.00	7,256.70	45.39	42.97	91.56	1,937.30	-1,127.07	4,203.22	4,117.24	85.98	48.884		
8,300.00	7,141.65	8,280.00	7,256.32	46.63	44.70	91.56	1,936.52	-1,227.07	4,203.06	4,113.71	89.35	47.040		
8,400.00	7,141.08	8,380.00	7,255.94	48.09	46.54	91.57	1,935.74	-1,327.06	4,202.89	4,109.95	92.95	45.217		
8,500.00	7,140.51	8,480.00	7,255.56	49.74	48.48	91.57	1,934.95	-1,427.06	4,202.73	4,105.98	96.75	43.439		
8,600.00	7,139.94	8,580.00	7,255.18	51.53	50.51	91.57	1,934.17	-1,527.05	4,202.57	4,101.83	100.73	41.720		
8,700.00	7,139.37	8,680.00	7,254.81	53.44	52.61	91.57	1,933.39	-1,627.05	4,202.40	4,097.53	104.87	40.071		
8,800.00	7,138.80	8,780.00	7,254.43	55.45	54.79	91.58	1,932.61	-1,727.05	4,202.24	4,093.08	109.16	38.497		
8,900.00	7,138.24	8,880.00	7,254.05	57.55	57.02	91.58	1,931.83	-1,827.04	4,202.08	4,088.51	113.57	37.000		
9,000.00	7,137.67	8,980.00	7,253.67	59.71	59.31	91.58	1,931.04	-1,927.04	4,201.91	4,083.82	118.09	35.582		
9,100.00	7,137.10	9,080.00	7,253.29	61.94	61.65	91.59	1,930.26	-2,027.03	4,201.75	4,079.04	122.71	34.241		
9,200.00	7,136.53	9,180.00	7,252.91	64.22	64.02	91.59	1,929.48	-2,127.03	4,201.58	4,074.16	127.42	32.974		
9,300.00	7,135.96	9,280.00	7,252.53	66.55	66.44	91.59	1,928.70	-2,227.03	4,201.42	4,069.21	132.21	31.778		
9,400.00	7,135.39	9,380.00	7,252.15	68.92	68.89	91.59	1,927.92	-2,327.02	4,201.26	4,064.18	137.07	30.650		
9,500.00	7,134.83	9,480.00	7,251.77	71.33	71.37	91.60	1,927.13	-2,427.02	4,201.09	4,059.10	142.00	29.586		
9,600.00	7,134.26	9,580.00	7,251.39	73.77	73.88	91.60	1,926.35	-2,527.01	4,200.93	4,053.95	146.98	28.582		
9,700.00	7,133.69	9,680.00	7,251.01	76.24	76.41	91.60	1,925.57	-2,627.01	4,200.77	4,048.76	152.01	27.635		
9,800.00	7,133.12	9,780.00	7,250.63	78.74	78.97	91.60	1,924.79	-2,727.01	4,200.60	4,043.51	157.09	26.740		
9,900.00	7,132.55	9,880.00	7,250.25	81.27	81.54	91.61	1,924.01	-2,827.00	4,200.44	4,038.23	162.21	25.895		
10,000.00	7,131.98	9,980.00	7,249.87	83.81	84.13	91.61	1,923.22	-2,927.00	4,200.27	4,032.90	167.37	25.096		
10,100.00	7,131.42	10,079.99	7,249.49	86.38	86.74	91.61	1,922.44	-3,026.99	4,200.11	4,027.54	172.57	24.339		
10,200.00	7,130.85	10,179.99	7,249.11	88.96	89.37	91.61	1,921.66	-3,126.99	4,199.95	4,022.15	177.79	23.623		
10,300.00	7,130.28	10,279.99	7,248.73	91.56	92.01	91.62	1,920.88	-3,226.98	4,199.78	4,016.73	183.05	22.944		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	10,379.99	7,248.35	94.18	94.66	91.62	1,920.10	-3,326.98	4,199.62	4,011.29	188.33	22.299		
10,500.00	7,129.14	10,479.99	7,247.97	96.81	97.32	91.62	1,919.31	-3,426.98	4,199.46	4,005.82	193.64	21.687		
10,600.00	7,128.57	10,579.99	7,247.59	99.45	100.00	91.62	1,918.53	-3,526.97	4,199.29	4,000.32	198.97	21.105		
10,700.00	7,128.00	10,679.99	7,247.22	102.11	102.68	91.63	1,917.75	-3,626.97	4,199.13	3,994.81	204.32	20.552		
10,800.00	7,127.44	10,779.99	7,246.84	104.77	105.37	91.63	1,916.97	-3,726.96	4,198.97	3,989.28	209.69	20.025		
10,900.00	7,126.87	10,879.99	7,246.46	107.45	108.07	91.63	1,916.19	-3,826.96	4,198.80	3,983.73	215.08	19.522		
11,000.00	7,126.30	10,979.99	7,246.08	110.13	110.78	91.64	1,915.40	-3,926.96	4,198.64	3,978.16	220.48	19.043		
11,100.00	7,125.73	11,079.99	7,245.70	112.82	113.50	91.64	1,914.62	-4,026.95	4,198.47	3,972.58	225.90	18.586		
11,200.00	7,125.16	11,179.99	7,245.32	115.53	116.22	91.64	1,913.84	-4,126.95	4,198.31	3,966.98	231.33	18.148		
11,300.00	7,124.59	11,279.99	7,244.94	118.24	118.95	91.64	1,913.06	-4,226.94	4,198.15	3,961.37	236.78	17.730		
11,400.00	7,124.03	11,379.99	7,244.56	120.95	121.69	91.65	1,912.28	-4,326.94	4,197.98	3,955.75	242.24	17.330		
11,500.00	7,123.46	11,479.99	7,244.18	123.67	124.43	91.65	1,911.49	-4,426.94	4,197.82	3,950.11	247.71	16.947		
11,600.00	7,122.89	11,579.99	7,243.80	126.40	127.18	91.65	1,910.71	-4,526.93	4,197.66	3,944.47	253.19	16.579		
11,700.00	7,122.32	11,679.99	7,243.42	129.14	129.93	91.65	1,909.93	-4,626.93	4,197.49	3,938.81	258.68	16.227		
11,800.00	7,121.75	11,779.99	7,243.04	131.88	132.68	91.66	1,909.15	-4,726.92	4,197.33	3,933.15	264.18	15.888		
11,900.00	7,121.18	11,879.99	7,242.66	134.62	135.44	91.66	1,908.36	-4,826.92	4,197.17	3,927.48	269.69	15.563		
12,000.00	7,120.61	11,979.99	7,242.28	137.37	138.21	91.66	1,907.58	-4,926.92	4,197.00	3,921.79	275.21	15.250		
12,100.00	7,120.05	12,079.99	7,241.90	140.12	140.98	91.66	1,906.80	-5,026.91	4,196.84	3,916.11	280.73	14.950		
12,200.00	7,119.48	12,179.99	7,241.52	142.88	143.75	91.67	1,906.02	-5,126.91	4,196.68	3,910.41	286.27	14.660		
12,300.00	7,118.91	12,279.99	7,241.14	145.64	146.52	91.67	1,905.24	-5,226.90	4,196.51	3,904.71	291.81	14.381		
12,400.00	7,118.34	12,379.99	7,240.76	148.41	149.30	91.67	1,904.45	-5,326.90	4,196.35	3,899.00	297.35	14.112		
12,500.00	7,117.77	12,479.99	7,240.38	151.18	152.08	91.67	1,903.67	-5,426.89	4,196.19	3,893.28	302.91	13.853		
12,600.00	7,117.20	12,579.99	7,240.00	153.95	154.86	91.68	1,902.89	-5,526.89	4,196.02	3,887.56	308.46	13.603		
12,700.00	7,116.64	12,679.99	7,239.62	156.73	157.65	91.68	1,902.11	-5,626.89	4,195.86	3,881.83	314.03	13.361		
12,800.00	7,116.07	12,779.99	7,239.25	159.50	160.44	91.68	1,901.33	-5,726.88	4,195.69	3,876.10	319.60	13.128		
12,900.00	7,115.50	12,879.99	7,238.87	162.29	163.23	91.69	1,900.54	-5,826.88	4,195.53	3,870.36	325.17	12.902		
13,000.00	7,114.93	12,979.99	7,238.49	165.07	166.02	91.69	1,899.76	-5,926.87	4,195.37	3,864.62	330.75	12.684		
13,100.00	7,114.36	13,079.99	7,238.11	167.86	168.82	91.69	1,898.98	-6,026.87	4,195.20	3,858.87	336.34	12.473		
13,200.00	7,113.79	13,179.99	7,237.73	170.64	171.62	91.69	1,898.20	-6,126.87	4,195.04	3,853.12	341.92	12.269		
13,300.00	7,113.22	13,279.99	7,237.35	173.44	174.42	91.70	1,897.42	-6,226.86	4,194.88	3,847.36	347.52	12.071		
13,400.00	7,112.66	13,379.99	7,236.97	176.23	177.22	91.70	1,896.63	-6,326.86	4,194.71	3,841.60	353.11	11.879		
13,500.00	7,112.09	13,479.99	7,236.59	179.02	180.02	91.70	1,895.85	-6,426.85	4,194.55	3,835.84	358.71	11.693		
13,600.00	7,111.52	13,579.99	7,236.21	181.82	182.83	91.70	1,895.07	-6,526.85	4,194.39	3,830.07	364.32	11.513		
13,700.00	7,110.95	13,679.99	7,235.83	184.62	185.63	91.71	1,894.29	-6,626.85	4,194.22	3,824.30	369.92	11.338		
13,800.00	7,110.38	13,779.99	7,235.45	187.42	188.44	91.71	1,893.51	-6,726.84	4,194.06	3,818.53	375.53	11.168		
13,900.00	7,109.81	13,879.99	7,235.07	190.22	191.25	91.71	1,892.72	-6,826.84	4,193.90	3,812.75	381.14	11.003		
14,000.00	7,109.25	13,979.99	7,234.69	193.03	194.06	91.71	1,891.94	-6,926.83	4,193.73	3,806.97	386.76	10.843		
14,100.00	7,108.68	14,079.99	7,234.31	195.84	196.88	91.72	1,891.16	-7,026.83	4,193.57	3,801.19	392.38	10.688		
14,200.00	7,108.11	14,179.99	7,233.93	198.64	199.69	91.72	1,890.38	-7,126.83	4,193.41	3,795.41	398.00	10.536		
14,300.00	7,107.54	14,279.99	7,233.55	201.45	202.50	91.72	1,889.60	-7,226.82	4,193.24	3,789.62	403.62	10.389		
14,400.00	7,106.97	14,379.99	7,233.17	204.26	205.32	91.73	1,888.81	-7,326.82	4,193.08	3,783.83	409.25	10.246		
14,500.00	7,106.40	14,479.99	7,232.79	207.07	208.14	91.73	1,888.03	-7,426.81	4,192.92	3,778.04	414.88	10.106		
14,600.00	7,105.83	14,579.99	7,232.41	209.89	210.96	91.73	1,887.25	-7,526.81	4,192.75	3,772.24	420.51	9.971		
14,700.00	7,105.27	14,679.99	7,232.03	212.70	213.78	91.73	1,886.47	-7,626.80	4,192.59	3,766.45	426.14	9.838		
14,800.00	7,104.70	14,779.99	7,231.65	215.52	216.60	91.74	1,885.69	-7,726.80	4,192.43	3,760.65	431.78	9.710		
14,900.00	7,104.13	14,879.99	7,231.28	218.33	219.42	91.74	1,884.90	-7,826.80	4,192.26	3,754.85	437.42	9.584		
15,000.00	7,103.56	14,979.99	7,230.90	221.15	222.24	91.74	1,884.12	-7,926.79	4,192.10	3,749.05	443.06	9.462		
15,100.00	7,102.99	15,079.99	7,230.52	223.97	225.06	91.74	1,883.34	-8,026.79	4,191.94	3,743.24	448.70	9.342		
15,200.00	7,102.42	15,179.99	7,230.14	226.79	227.89	91.75	1,882.56	-8,126.78	4,191.78	3,737.43	454.34	9.226		
15,242.88	7,102.18	15,216.01	7,230.00	228.00	228.91	91.75	1,882.28	-8,162.82	4,191.71	3,735.15	456.56	9.181		
15,274.57	7,102.00	15,216.01	7,230.00	228.89	228.91	91.75	1,882.28	-8,162.82	4,191.83	3,734.40	457.43	9.164 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	3.00	0.00	3.28	3.28	0.49	420.05	3.62	420.07					
100.00	100.00	103.00	100.00	3.28	3.29	0.49	420.05	3.62	420.07	413.50	6.57	63.936		
200.00	200.00	203.00	200.00	3.34	3.34	0.49	420.05	3.62	420.07	413.39	6.68	62.917	CC, ES	
300.00	299.98	302.98	299.98	3.44	3.45	176.55	420.05	3.62	421.81	414.92	6.89	61.230		
400.00	399.84	389.58	386.56	3.59	3.58	176.55	421.44	3.44	428.63	421.44	7.19	59.632		
500.00	499.45	475.73	472.62	3.79	3.76	176.52	425.40	2.93	441.89	434.31	7.58	58.296		
600.00	598.70	560.53	557.17	4.03	3.95	176.47	431.79	2.11	461.50	453.45	8.04	57.374		
700.00	697.47	643.52	639.70	4.31	4.17	176.39	440.46	1.00	487.33	478.77	8.56	56.935		
800.00	795.62	724.25	719.70	4.64	4.41	176.29	451.15	-0.37	519.20	510.09	9.11	56.995		
900.00	893.06	802.32	796.75	5.00	4.65	176.18	463.62	-1.97	556.92	547.24	9.68	57.534		
1,000.00	989.64	878.41	871.49	5.40	4.91	176.05	477.77	-3.78	600.24	589.98	10.26	58.493		
1,100.00	1,085.27	966.44	957.76	5.83	5.21	175.92	495.10	-6.00	647.67	636.78	10.88	59.501		
1,200.00	1,179.88	1,052.87	1,042.47	6.29	5.52	175.85	512.13	-8.18	697.96	686.41	11.55	60.451		
1,300.00	1,274.26	1,138.92	1,126.81	6.78	5.85	175.83	529.07	-10.35	748.90	736.69	12.20	61.367		
1,400.00	1,368.63	1,224.97	1,211.15	7.28	6.19	175.82	546.02	-12.53	799.84	786.95	12.89	62.073		
1,500.00	1,463.00	1,311.03	1,295.49	7.80	6.53	175.81	562.97	-14.70	850.78	837.19	13.59	62.613		
1,600.00	1,557.38	1,402.92	1,379.83	8.33	6.92	175.80	579.92	-16.87	901.72	887.38	14.33	62.919		
1,700.00	1,651.75	1,483.13	1,464.17	8.87	7.26	175.79	596.87	-19.04	952.65	937.61	15.04	63.329		
1,800.00	1,746.12	1,569.19	1,548.51	9.41	7.62	175.78	613.82	-21.21	1,003.59	987.80	15.79	63.555		
1,900.00	1,840.49	1,655.24	1,632.85	9.96	8.00	175.77	630.76	-23.39	1,054.53	1,037.98	16.55	63.718		
2,000.00	1,934.87	1,741.29	1,717.19	10.52	8.37	175.77	647.71	-25.56	1,105.47	1,088.15	17.32	63.830		
2,100.00	2,029.24	1,827.35	1,801.53	11.08	8.76	175.76	664.66	-27.73	1,156.41	1,138.31	18.10	63.903		
2,200.00	2,123.61	1,913.40	1,885.87	11.64	9.14	175.76	681.61	-29.90	1,207.35	1,188.47	18.88	63.945		
2,300.00	2,217.99	2,000.54	1,970.21	12.21	9.53	175.75	698.56	-32.07	1,258.29	1,238.61	19.68	63.947		
2,400.00	2,312.36	2,085.51	2,054.55	12.78	9.92	175.75	715.50	-34.24	1,309.23	1,288.76	20.47	63.960		
2,500.00	2,406.73	2,171.56	2,138.89	13.35	10.31	175.74	732.45	-36.42	1,360.17	1,338.90	21.27	63.943		
2,600.00	2,501.10	2,257.62	2,223.23	13.93	10.70	175.74	749.40	-38.59	1,411.11	1,389.03	22.08	63.914		
2,700.00	2,595.48	2,343.67	2,307.57	14.51	11.10	175.74	766.35	-40.76	1,462.05	1,439.16	22.89	63.875		
2,800.00	2,689.85	2,429.72	2,391.91	15.08	11.49	175.73	783.30	-42.93	1,512.98	1,489.28	23.70	63.830		
2,900.00	2,784.22	2,515.78	2,476.25	15.66	11.89	175.73	800.24	-45.10	1,563.92	1,539.40	24.52	63.778		
3,000.00	2,878.60	2,601.83	2,560.59	16.25	12.29	175.73	817.19	-47.28	1,614.86	1,589.52	25.34	63.723		
3,100.00	2,972.97	2,687.88	2,644.93	16.83	12.69	175.72	834.14	-49.45	1,665.80	1,639.64	26.17	63.664		
3,200.00	3,067.34	2,773.94	2,729.27	17.41	13.09	175.72	851.09	-51.62	1,716.74	1,689.75	26.99	63.603		
3,300.00	3,161.72	2,859.99	2,813.61	18.00	13.50	175.72	868.04	-53.79	1,767.68	1,739.86	27.82	63.541		
3,400.00	3,256.09	2,946.04	2,897.95	18.58	13.90	175.72	884.98	-55.96	1,818.62	1,789.97	28.65	63.478		
3,500.00	3,350.46	3,032.10	2,982.29	19.17	14.30	175.71	901.93	-58.13	1,869.56	1,840.08	29.48	63.414		
3,600.00	3,444.83	3,118.15	3,066.63	19.75	14.71	175.71	918.88	-60.31	1,920.50	1,890.18	30.32	63.350		
3,700.00	3,539.21	3,204.20	3,150.97	20.34	15.11	175.71	935.83	-62.48	1,971.44	1,940.29	31.15	63.286		
3,800.00	3,633.58	3,290.26	3,235.31	20.93	15.52	175.71	952.78	-64.65	2,022.38	1,990.39	31.99	63.223		
3,900.00	3,727.95	3,376.31	3,319.65	21.52	15.92	175.71	969.73	-66.82	2,073.32	2,040.49	32.83	63.160		
4,000.00	3,822.33	3,462.36	3,403.99	22.11	16.33	175.70	986.67	-68.99	2,124.25	2,090.59	33.67	63.098		
4,100.00	3,916.70	3,548.42	3,488.33	22.70	16.74	175.70	1,003.62	-71.17	2,175.19	2,140.69	34.51	63.037		
4,200.00	4,011.07	3,634.47	3,572.67	23.29	17.15	175.70	1,020.57	-73.34	2,226.13	2,190.78	35.35	62.976		
4,300.00	4,105.44	3,720.52	3,657.01	23.88	17.56	175.70	1,037.52	-75.51	2,277.07	2,240.88	36.19	62.917		
4,400.00	4,199.82	3,806.58	3,741.35	24.47	17.96	175.70	1,054.47	-77.68	2,328.01	2,290.98	37.04	62.858		
4,500.00	4,294.19	3,892.63	3,825.69	25.06	18.37	175.70	1,071.41	-79.85	2,378.95	2,341.07	37.88	62.801		
4,600.00	4,388.56	3,978.68	3,910.03	25.65	18.78	175.70	1,088.36	-82.02	2,429.89	2,391.16	38.73	62.745		
4,700.00	4,482.94	4,064.74	3,994.37	26.24	19.19	175.69	1,105.31	-84.20	2,480.83	2,441.26	39.57	62.690		
4,800.00	4,577.31	4,150.79	4,078.71	26.83	19.60	175.69	1,122.26	-86.37	2,531.77	2,491.35	40.42	62.636		
4,900.00	4,671.68	4,236.85	4,163.05	27.43	20.01	175.69	1,139.21	-88.54	2,582.71	2,541.44	41.27	62.583		
5,000.00	4,766.05	4,322.90	4,247.39	28.02	20.42	175.69	1,156.15	-90.71	2,633.65	2,591.53	42.12	62.531		
5,100.00	4,860.43	4,408.95	4,331.73	28.61	20.83	175.69	1,173.10	-92.88	2,684.59	2,641.62	42.97	62.480		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,495.01	4,416.07	29.20	21.25	175.69	1,190.05	-95.05	2,735.52	2,691.71	43.82	62.430		
5,300.00	5,049.17	4,581.06	4,500.41	29.80	21.66	175.69	1,207.00	-97.23	2,786.46	2,741.80	44.67	62.381		
5,400.00	5,143.55	4,667.11	4,584.75	30.39	22.07	175.69	1,223.95	-99.40	2,837.40	2,791.88	45.52	62.333		
5,500.00	5,237.92	4,753.17	4,669.09	30.99	22.48	175.69	1,240.89	-101.57	2,888.34	2,841.97	46.37	62.286		
5,600.00	5,332.29	4,839.22	4,753.44	31.58	22.89	175.69	1,257.84	-103.74	2,939.28	2,892.06	47.22	62.240		
5,700.00	5,426.66	4,925.27	4,837.78	32.17	23.30	175.68	1,274.79	-105.91	2,990.22	2,942.14	48.08	62.195		
5,800.00	5,521.04	5,011.33	4,922.12	32.77	23.72	175.68	1,291.74	-108.09	3,041.16	2,992.23	48.93	62.151		
5,900.00	5,615.41	5,102.62	5,006.46	33.36	24.15	175.68	1,308.69	-110.26	3,092.10	3,042.29	49.81	62.078		
6,000.00	5,709.78	5,183.43	5,090.80	33.96	24.54	175.68	1,325.64	-112.43	3,143.04	3,092.40	50.64	62.066		
6,100.00	5,804.16	5,269.49	5,175.14	34.55	24.95	175.68	1,342.58	-114.60	3,193.98	3,142.48	51.50	62.024		
6,200.00	5,898.53	5,355.54	5,259.48	35.14	25.37	175.68	1,359.53	-116.77	3,244.92	3,192.57	52.35	61.983		
6,300.00	5,992.90	5,441.59	5,343.82	35.74	25.78	175.68	1,376.48	-118.94	3,295.86	3,242.65	53.21	61.943		
6,400.00	6,087.27	5,527.65	5,428.16	36.33	26.19	175.68	1,393.43	-121.12	3,346.80	3,292.73	54.06	61.904		
6,500.00	6,181.65	5,613.70	5,512.50	36.93	26.60	175.68	1,410.38	-123.29	3,397.73	3,342.81	54.92	61.865		
6,600.00	6,276.02	5,700.25	5,598.84	37.52	27.02	175.68	1,427.32	-125.46	3,448.67	3,392.89	55.78	61.825		
6,700.00	6,370.39	5,785.81	5,681.18	38.12	27.43	175.68	1,444.27	-127.63	3,499.61	3,442.98	56.64	61.790		
6,800.00	6,464.77	5,871.86	5,765.52	38.71	27.84	175.68	1,461.22	-129.80	3,550.55	3,493.06	57.50	61.754		
6,900.00	6,559.14	5,957.91	5,849.86	39.31	28.26	175.41	1,478.17	-131.98	3,601.49	3,543.14	58.35	61.718		
7,000.00	6,652.92	6,043.62	5,933.85	39.90	28.67	147.03	1,495.05	-134.14	3,652.21	3,593.00	59.21	61.683		
7,100.00	6,744.00	6,127.22	6,015.79	40.44	29.07	126.23	1,511.51	-136.25	3,701.74	3,641.71	60.03	61.662		
7,200.00	6,830.13	6,206.66	6,093.65	40.94	29.45	112.01	1,527.16	-138.25	3,749.16	3,688.36	60.80	61.662		
7,300.00	6,909.19	6,279.99	6,165.52	41.37	29.81	102.07	1,541.60	-140.10	3,793.71	3,732.20	61.51	61.679		
7,400.00	6,979.23	6,345.39	6,229.62	41.75	30.12	94.86	1,554.48	-141.75	3,834.81	3,772.64	62.16	61.688		
7,500.00	7,038.53	6,401.27	6,284.38	42.08	30.39	89.49	1,565.49	-143.16	3,872.01	3,809.21	62.80	61.653		
7,600.00	7,085.63	6,446.23	6,328.45	42.37	30.61	85.44	1,574.34	-144.30	3,904.97	3,841.51	63.46	61.532		
7,700.00	7,119.37	6,479.18	6,360.74	42.64	30.76	82.39	1,580.83	-145.13	3,933.36	3,869.19	64.18	61.289		
7,800.00	7,138.92	6,499.30	6,380.46	42.91	30.86	80.16	1,584.79	-145.64	3,956.91	3,891.94	64.97	60.904		
7,900.00	7,143.92	6,506.22	6,387.24	43.25	30.90	78.81	1,586.16	-145.81	3,975.39	3,909.56	65.84	60.383		
8,000.00	7,143.35	7,703.61	7,068.61	43.72	39.09	88.92	1,717.79	-923.53	3,981.61	3,902.73	78.88	50.475		
8,100.00	7,142.78	7,803.61	7,068.33	44.42	40.57	88.93	1,717.04	-1,023.52	3,981.47	3,899.72	81.74	48.707		
8,200.00	7,142.22	7,903.61	7,068.04	45.39	42.20	88.93	1,716.29	-1,123.52	3,981.32	3,896.43	84.89	46.899		
8,300.00	7,141.65	8,003.61	7,067.76	46.63	43.96	88.94	1,715.54	-1,223.52	3,981.18	3,892.88	88.30	45.088		
8,400.00	7,141.08	8,103.61	7,067.47	48.09	45.83	88.94	1,714.78	-1,323.51	3,981.03	3,889.10	91.93	43.303		
8,500.00	7,140.51	8,203.61	7,067.19	49.74	47.80	88.95	1,714.03	-1,423.51	3,980.89	3,885.11	95.77	41.566		
8,600.00	7,139.94	8,303.61	7,066.90	51.53	49.85	88.95	1,713.28	-1,523.50	3,980.74	3,880.95	99.79	39.890		
8,700.00	7,139.37	8,403.61	7,066.62	53.44	51.98	88.95	1,712.53	-1,623.50	3,980.60	3,876.63	103.97	38.286		
8,800.00	7,138.80	8,503.60	7,066.34	55.45	54.18	88.96	1,711.77	-1,723.50	3,980.45	3,872.16	108.29	36.758		
8,900.00	7,138.24	8,603.60	7,066.05	57.55	56.44	88.96	1,711.02	-1,823.49	3,980.31	3,867.58	112.73	35.308		
9,000.00	7,137.67	8,703.60	7,065.77	59.71	58.75	88.97	1,710.27	-1,923.49	3,980.16	3,862.88	117.28	33.936		
9,100.00	7,137.10	8,803.60	7,065.48	61.94	61.11	88.97	1,709.52	-2,023.49	3,980.02	3,858.08	121.94	32.640		
9,200.00	7,136.53	8,903.60	7,065.20	64.22	63.50	88.97	1,708.76	-2,123.48	3,979.87	3,853.20	126.67	31.418		
9,300.00	7,135.96	9,003.60	7,064.91	66.55	65.94	88.98	1,708.01	-2,223.48	3,979.73	3,848.24	131.49	30.267		
9,400.00	7,135.39	9,103.60	7,064.63	68.92	68.41	88.98	1,707.26	-2,323.47	3,979.59	3,843.21	136.38	29.181		
9,500.00	7,134.83	9,203.60	7,064.34	71.33	70.90	88.99	1,706.51	-2,423.47	3,979.44	3,838.12	141.32	28.158		
9,600.00	7,134.26	9,303.60	7,064.06	73.77	73.43	88.99	1,705.75	-2,523.47	3,979.30	3,832.97	146.33	27.195		
9,700.00	7,133.69	9,403.60	7,063.77	76.24	75.97	88.99	1,705.00	-2,623.46	3,979.15	3,827.77	151.38	26.286		
9,800.00	7,133.12	9,503.60	7,063.49	78.74	78.54	89.00	1,704.25	-2,723.46	3,979.01	3,822.53	156.48	25.428		
9,900.00	7,132.55	9,603.60	7,063.20	81.27	81.13	89.00	1,703.50	-2,823.46	3,978.86	3,817.24	161.62	24.618		
10,000.00	7,131.98	9,703.60	7,062.92	83.81	83.74	89.01	1,702.74	-2,923.45	3,978.72	3,811.92	166.80	23.853		
10,100.00	7,131.42	9,803.60	7,062.63	86.38	86.36	89.01	1,701.99	-3,023.45	3,978.57	3,806.56	172.02	23.129		
10,200.00	7,130.85	9,903.60	7,062.35	88.96	88.99	89.01	1,701.24	-3,123.44	3,978.43	3,801.17	177.26	22.444		
10,300.00	7,130.28	10,003.60	7,062.06	91.56	91.64	89.02	1,700.49	-3,223.44	3,978.29	3,795.75	182.53	21.795		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	10,103.60	7,061.78	94.18	94.31	89.02	1,699.73	-3,323.44	3,978.14	3,790.31	187.83	21.179		
10,500.00	7,129.14	10,203.60	7,061.49	96.81	96.98	89.03	1,698.98	-3,423.43	3,978.00	3,784.84	193.15	20.595		
10,600.00	7,128.57	10,303.60	7,061.21	99.45	99.66	89.03	1,698.23	-3,523.43	3,977.85	3,779.36	198.50	20.040		
10,700.00	7,128.00	10,403.60	7,060.92	102.11	102.36	89.03	1,697.48	-3,623.43	3,977.71	3,773.85	203.86	19.512		
10,800.00	7,127.44	10,503.60	7,060.64	104.77	105.06	89.04	1,696.72	-3,723.42	3,977.56	3,768.32	209.24	19.009		
10,900.00	7,126.87	10,603.59	7,060.36	107.45	107.77	89.04	1,695.97	-3,823.42	3,977.42	3,762.77	214.65	18.530		
11,000.00	7,126.30	10,703.59	7,060.07	110.13	110.48	89.05	1,695.22	-3,923.41	3,977.28	3,757.21	220.06	18.073		
11,100.00	7,125.73	10,803.59	7,059.79	112.82	113.21	89.05	1,694.47	-4,023.41	3,977.13	3,751.64	225.49	17.637		
11,200.00	7,125.16	10,903.59	7,059.50	115.53	115.94	89.05	1,693.71	-4,123.41	3,976.99	3,746.05	230.94	17.221		
11,300.00	7,124.59	11,003.59	7,059.22	118.24	118.68	89.06	1,692.96	-4,223.40	3,976.84	3,740.45	236.40	16.823		
11,400.00	7,124.03	11,103.59	7,058.93	120.95	121.42	89.06	1,692.21	-4,323.40	3,976.70	3,734.83	241.87	16.442		
11,500.00	7,123.46	11,203.59	7,058.65	123.67	124.17	89.07	1,691.46	-4,423.40	3,976.56	3,729.21	247.35	16.077		
11,600.00	7,122.89	11,303.59	7,058.36	126.40	126.92	89.07	1,690.70	-4,523.39	3,976.41	3,723.57	252.84	15.727		
11,700.00	7,122.32	11,403.59	7,058.08	129.14	129.67	89.07	1,689.95	-4,623.39	3,976.27	3,717.93	258.34	15.392		
11,800.00	7,121.75	11,503.59	7,057.79	131.88	132.44	89.08	1,689.20	-4,723.38	3,976.12	3,712.27	263.85	15.070		
11,900.00	7,121.18	11,603.59	7,057.51	134.62	135.20	89.08	1,688.45	-4,823.38	3,975.98	3,706.61	269.37	14.760		
12,000.00	7,120.61	11,703.59	7,057.22	137.37	137.97	89.09	1,687.69	-4,923.38	3,975.84	3,700.94	274.90	14.463		
12,100.00	7,120.05	11,803.59	7,056.94	140.12	140.74	89.09	1,686.94	-5,023.37	3,975.69	3,695.26	280.43	14.177		
12,200.00	7,119.48	11,903.59	7,056.65	142.88	143.52	89.09	1,686.19	-5,123.37	3,975.55	3,689.57	285.97	13.902		
12,300.00	7,118.91	12,003.59	7,056.37	145.64	146.30	89.10	1,685.44	-5,223.37	3,975.40	3,683.88	291.52	13.637		
12,400.00	7,118.34	12,103.59	7,056.08	148.41	149.08	89.10	1,684.68	-5,323.36	3,975.26	3,678.18	297.08	13.381		
12,500.00	7,117.77	12,203.59	7,055.80	151.18	151.87	89.11	1,683.93	-5,423.36	3,975.12	3,672.48	302.64	13.135		
12,600.00	7,117.20	12,303.59	7,055.51	153.95	154.65	89.11	1,683.18	-5,523.36	3,974.97	3,666.76	308.21	12.897		
12,700.00	7,116.64	12,403.59	7,055.23	156.73	157.44	89.12	1,682.43	-5,623.35	3,974.83	3,661.05	313.78	12.668		
12,800.00	7,116.07	12,503.59	7,054.94	159.50	160.24	89.12	1,681.67	-5,723.35	3,974.68	3,655.33	319.36	12.446		
12,900.00	7,115.50	12,603.58	7,054.66	162.29	163.03	89.12	1,680.92	-5,823.34	3,974.54	3,649.60	324.94	12.232		
13,000.00	7,114.93	12,703.58	7,054.38	165.07	165.83	89.13	1,680.17	-5,923.34	3,974.40	3,643.87	330.53	12.024		
13,100.00	7,114.36	12,803.58	7,054.09	167.86	168.63	89.13	1,679.42	-6,023.34	3,974.25	3,638.13	336.12	11.824		
13,200.00	7,113.79	12,903.58	7,053.81	170.64	171.43	89.14	1,678.67	-6,123.33	3,974.11	3,632.40	341.71	11.630		
13,300.00	7,113.22	13,003.58	7,053.52	173.44	174.23	89.14	1,677.91	-6,223.33	3,973.97	3,626.65	347.31	11.442		
13,400.00	7,112.66	13,103.58	7,053.24	176.23	177.04	89.14	1,677.16	-6,323.33	3,973.82	3,620.91	352.92	11.260		
13,500.00	7,112.09	13,203.58	7,052.95	179.02	179.84	89.15	1,676.41	-6,423.32	3,973.68	3,615.15	358.52	11.083		
13,600.00	7,111.52	13,303.58	7,052.67	181.82	182.65	89.15	1,675.66	-6,523.32	3,973.53	3,609.40	364.13	10.912		
13,700.00	7,110.95	13,403.58	7,052.38	184.62	185.46	89.16	1,674.90	-6,623.31	3,973.39	3,603.64	369.75	10.746		
13,800.00	7,110.38	13,503.58	7,052.10	187.42	188.27	89.16	1,674.15	-6,723.31	3,973.25	3,597.88	375.36	10.585		
13,900.00	7,109.81	13,603.58	7,051.81	190.22	191.08	89.16	1,673.40	-6,823.31	3,973.10	3,592.12	380.98	10.429		
14,000.00	7,109.25	13,703.58	7,051.53	193.03	193.90	89.17	1,672.65	-6,923.30	3,972.96	3,586.35	386.61	10.277		
14,100.00	7,108.68	13,803.58	7,051.24	195.84	196.71	89.17	1,671.89	-7,023.30	3,972.82	3,580.58	392.23	10.129		
14,200.00	7,108.11	13,903.58	7,050.96	198.64	199.53	89.18	1,671.14	-7,123.30	3,972.67	3,574.81	397.86	9.985		
14,300.00	7,107.54	14,003.58	7,050.67	201.45	202.35	89.18	1,670.39	-7,223.29	3,972.53	3,569.04	403.49	9.845		
14,400.00	7,106.97	14,103.58	7,050.39	204.26	205.16	89.18	1,669.64	-7,323.29	3,972.39	3,563.26	409.12	9.710		
14,500.00	7,106.40	14,203.58	7,050.10	207.07	207.98	89.19	1,668.88	-7,423.28	3,972.24	3,557.48	414.76	9.577		
14,600.00	7,105.83	14,303.58	7,049.82	209.89	210.80	89.19	1,668.13	-7,523.28	3,972.10	3,551.70	420.40	9.448		
14,700.00	7,105.27	14,403.58	7,049.53	212.70	213.63	89.20	1,667.38	-7,623.28	3,971.96	3,545.92	426.04	9.323		
14,800.00	7,104.70	14,503.58	7,049.25	215.52	216.45	89.20	1,666.63	-7,723.27	3,971.81	3,540.13	431.68	9.201		
14,900.00	7,104.13	14,603.57	7,048.96	218.33	219.27	89.20	1,665.87	-7,823.27	3,971.67	3,534.35	437.32	9.082		
15,000.00	7,103.56	14,703.57	7,048.68	221.15	222.10	89.21	1,665.12	-7,923.27	3,971.52	3,528.56	442.97	8.966		
15,100.00	7,102.99	14,803.57	7,048.40	223.97	224.92	89.21	1,664.37	-8,023.26	3,971.38	3,522.77	448.61	8.853		
15,200.00	7,102.42	14,903.57	7,048.11	226.79	227.75	89.22	1,663.62	-8,123.26	3,971.24	3,516.98	454.26	8.742		
15,243.03	7,102.18	14,946.60	7,047.99	228.00	228.96	89.22	1,663.29	-8,166.29	3,971.18	3,514.48	456.69	8.695		
15,274.57	7,102.00	14,942.37	7,048.00	228.89	228.85	89.22	1,663.32	-8,162.06	3,971.29	3,513.86	457.43	8.682 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.47	339.90	2.78	339.91					
100.00	100.00	102.00	100.00	3.28	3.29	0.47	339.90	2.78	339.91	333.34	6.57	51.738		
200.00	200.00	202.00	200.00	3.34	3.34	0.47	339.90	2.78	339.91	333.24	6.68	50.918	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.53	339.90	2.78	341.65	334.77	6.89	49.604		
400.00	399.84	401.84	399.84	3.59	3.61	176.57	339.90	2.78	346.88	339.68	7.20	48.185		
500.00	499.45	501.45	499.45	3.79	3.81	176.65	339.90	2.78	355.58	347.98	7.60	46.776		
600.00	598.70	600.70	598.70	4.03	4.05	176.74	339.90	2.78	367.74	359.66	8.08	45.498		
700.00	697.47	698.58	697.47	4.31	4.29	176.76	341.16	2.25	384.77	376.17	8.60	44.722		
800.00	795.62	797.92	795.62	4.64	4.54	176.64	344.82	0.70	407.94	398.77	9.17	44.479		
900.00	893.06	895.11	893.06	5.00	4.84	176.44	350.48	-1.69	436.19	426.39	9.80	44.531		
1,000.00	989.64	993.98	989.64	5.40	5.15	176.27	356.21	-4.11	467.79	457.33	10.46	44.731		
1,100.00	1,085.27	1,089.69	1,085.27	5.83	5.47	176.15	361.87	-6.50	502.68	491.53	11.15	45.092		
1,200.00	1,179.88	1,184.21	1,179.88	6.29	5.80	176.07	367.46	-8.86	540.62	528.75	11.87	45.563		
1,300.00	1,274.26	1,278.44	1,274.26	6.78	6.14	176.04	373.03	-11.21	579.25	566.66	12.59	46.021		
1,400.00	1,368.63	1,372.68	1,368.63	7.28	6.49	176.01	378.61	-13.57	617.89	604.56	13.33	46.356		
1,500.00	1,463.00	1,466.91	1,463.00	7.80	6.84	175.99	384.18	-15.92	656.52	642.43	14.09	46.595		
1,600.00	1,557.38	1,561.15	1,557.38	8.33	7.20	175.96	389.75	-18.27	695.16	680.29	14.87	46.763		
1,700.00	1,651.75	1,655.38	1,651.75	8.87	7.57	175.95	395.32	-20.63	733.79	718.14	15.65	46.875		
1,800.00	1,746.12	1,749.62	1,746.12	9.41	7.94	175.93	400.89	-22.98	772.43	755.97	16.45	46.945		
1,900.00	1,840.49	1,843.85	1,840.49	9.96	8.31	175.91	406.47	-25.34	811.06	793.80	17.26	46.983		
2,000.00	1,934.87	1,938.09	1,934.87	10.52	8.69	175.90	412.04	-27.69	849.70	831.62	18.08	46.996		
2,100.00	2,029.24	2,032.32	2,029.24	11.08	9.07	175.89	417.61	-30.04	888.33	869.43	18.90	46.990		
2,200.00	2,123.61	2,126.56	2,123.61	11.64	9.45	175.87	423.18	-32.40	926.97	907.23	19.74	46.970		
2,300.00	2,217.99	2,220.79	2,217.99	12.21	9.83	175.86	428.75	-34.75	965.60	945.03	20.57	46.939		
2,400.00	2,312.36	2,314.03	2,312.36	12.78	10.22	175.85	434.32	-37.10	1,004.24	982.83	21.41	46.900		
2,500.00	2,406.73	2,408.26	2,406.73	13.35	10.60	175.84	439.90	-39.46	1,042.87	1,020.62	22.26	46.855		
2,600.00	2,501.10	2,502.50	2,501.10	13.93	10.99	175.83	445.47	-41.81	1,081.51	1,058.40	23.11	46.805		
2,700.00	2,595.48	2,596.73	2,595.48	14.51	11.38	175.83	451.04	-44.16	1,120.15	1,096.19	23.96	46.753		
2,800.00	2,689.85	2,690.97	2,689.85	15.08	11.77	175.82	456.61	-46.52	1,158.78	1,133.97	24.81	46.698		
2,900.00	2,784.22	2,785.20	2,784.22	15.66	12.16	175.81	462.18	-48.87	1,197.42	1,171.74	25.67	46.642		
3,000.00	2,878.60	2,879.44	2,878.60	16.25	12.56	175.81	467.76	-51.22	1,236.05	1,209.52	26.53	46.585		
3,100.00	2,972.97	2,973.67	2,972.97	16.83	12.95	175.80	473.33	-53.58	1,274.69	1,247.29	27.40	46.529		
3,200.00	3,067.34	3,067.09	3,067.34	17.41	13.39	175.79	478.90	-55.93	1,313.32	1,285.02	28.30	46.400		
3,300.00	3,161.72	3,161.14	3,161.72	18.00	13.74	175.79	484.47	-58.28	1,351.96	1,322.83	29.13	46.415		
3,400.00	3,256.09	3,255.38	3,256.09	18.58	14.14	175.78	490.04	-60.64	1,390.59	1,360.60	30.00	46.360		
3,500.00	3,350.46	3,349.61	3,350.46	19.17	14.54	175.78	495.61	-62.99	1,429.23	1,398.36	30.87	46.305		
3,600.00	3,444.83	3,443.85	3,444.83	19.75	14.93	175.77	501.19	-65.34	1,467.87	1,436.13	31.74	46.250		
3,700.00	3,539.21	3,538.08	3,539.21	20.34	15.33	175.77	506.76	-67.70	1,506.50	1,473.89	32.61	46.197		
3,800.00	3,633.58	3,632.32	3,633.58	20.93	15.73	175.77	512.33	-70.05	1,545.14	1,511.65	33.48	46.146		
3,900.00	3,727.95	3,726.55	3,727.95	21.52	16.13	175.76	517.90	-72.41	1,583.77	1,549.41	34.36	46.095		
4,000.00	3,822.33	3,820.79	3,822.33	22.11	16.53	175.76	523.47	-74.76	1,622.41	1,587.17	35.24	46.045		
4,100.00	3,916.70	3,915.02	3,916.70	22.70	16.93	175.75	529.05	-77.11	1,661.04	1,624.93	36.11	45.996		
4,200.00	4,011.07	4,009.26	4,011.07	23.29	17.33	175.75	534.62	-79.47	1,699.68	1,662.69	36.99	45.949		
4,300.00	4,105.44	4,103.49	4,105.44	23.88	17.73	175.75	540.19	-81.82	1,738.32	1,700.45	37.87	45.903		
4,400.00	4,199.82	4,197.72	4,199.82	24.47	18.13	175.74	545.76	-84.17	1,776.95	1,738.20	38.75	45.858		
4,500.00	4,294.19	4,291.04	4,294.19	25.06	18.59	175.74	551.33	-86.53	1,815.59	1,775.91	39.68	45.753		
4,600.00	4,388.56	4,385.19	4,388.56	25.65	18.94	175.74	556.90	-88.88	1,854.22	1,813.71	40.51	45.771		
4,700.00	4,482.94	4,478.43	4,482.94	26.24	19.34	175.74	562.48	-91.23	1,892.86	1,851.47	41.39	45.729		
4,800.00	4,577.31	4,572.66	4,577.31	26.83	19.74	175.73	568.05	-93.59	1,931.49	1,889.22	42.28	45.689		
4,900.00	4,671.68	4,666.90	4,671.68	27.43	20.15	175.73	573.62	-95.94	1,970.13	1,926.97	43.16	45.649		
5,000.00	4,766.05	4,761.13	4,766.05	28.02	20.55	175.73	579.19	-98.29	2,008.77	1,964.72	44.04	45.610		
5,100.00	4,860.43	4,855.37	4,860.43	28.61	20.95	175.73	584.76	-100.65	2,047.40	2,002.48	44.93	45.573		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,839.60	4,828.75	29.20	21.36	175.72	590.34	-103.00	2,086.04	2,040.23	45.81	45.536		
5,300.00	5,049.17	4,931.84	4,920.78	29.80	21.76	175.72	595.91	-105.35	2,124.67	2,077.98	46.70	45.500		
5,400.00	5,143.55	5,024.07	5,012.82	30.39	22.16	175.72	601.48	-107.71	2,163.31	2,115.73	47.58	45.465		
5,500.00	5,237.92	5,116.31	5,104.86	30.99	22.57	175.72	607.05	-110.06	2,201.94	2,153.48	48.47	45.431		
5,600.00	5,332.29	5,208.54	5,196.89	31.58	22.97	175.71	612.62	-112.42	2,240.58	2,191.23	49.35	45.398		
5,700.00	5,426.66	5,300.78	5,288.93	32.17	23.37	175.71	618.20	-114.77	2,279.22	2,228.98	50.24	45.365		
5,800.00	5,521.04	5,406.99	5,380.97	32.77	23.84	175.71	623.77	-117.12	2,317.85	2,266.66	51.19	45.280		
5,900.00	5,615.41	5,485.25	5,473.00	33.36	24.18	175.71	629.34	-119.48	2,356.49	2,304.47	52.02	45.303		
6,000.00	5,709.78	5,577.48	5,565.04	33.96	24.59	175.71	634.91	-121.83	2,395.12	2,342.22	52.90	45.273		
6,100.00	5,804.16	5,669.72	5,657.07	34.55	24.99	175.71	640.48	-124.18	2,433.76	2,379.97	53.79	45.243		
6,200.00	5,898.53	5,761.95	5,749.11	35.14	25.40	175.70	646.05	-126.54	2,472.40	2,417.71	54.68	45.214		
6,300.00	5,992.90	5,854.19	5,841.15	35.74	25.80	175.70	651.63	-128.89	2,511.03	2,455.46	55.57	45.186		
6,400.00	6,087.27	5,946.42	5,933.18	36.33	26.21	175.70	657.20	-131.24	2,549.67	2,493.21	56.46	45.158		
6,500.00	6,181.65	6,038.66	6,025.22	36.93	26.61	175.70	662.77	-133.60	2,588.30	2,530.95	57.35	45.131		
6,600.00	6,276.02	6,130.89	6,117.26	37.52	27.02	175.70	668.34	-135.95	2,626.94	2,568.70	58.24	45.105		
6,700.00	6,370.39	6,223.13	6,209.29	38.12	27.42	175.70	673.91	-138.30	2,665.57	2,606.44	59.13	45.079		
6,800.00	6,464.77	6,315.36	6,301.33	38.71	27.83	175.70	679.49	-140.66	2,704.21	2,644.19	60.02	45.054		
6,900.00	6,559.14	6,407.60	6,393.37	39.31	28.23	175.45	685.06	-143.01	2,742.85	2,681.93	60.91	45.029		
7,000.00	6,652.92	6,499.46	6,485.03	39.90	28.64	148.64	690.61	-145.36	2,781.31	2,719.51	61.80	45.005		
7,100.00	6,744.00	6,589.06	6,574.43	40.44	29.03	129.37	696.02	-147.64	2,818.94	2,756.29	62.66	44.991		
7,200.00	6,830.13	6,676.60	6,661.76	40.94	29.42	116.59	701.31	-150.58	2,855.16	2,791.68	63.48	44.976		
7,300.00	6,909.19	6,771.80	6,755.67	41.37	29.84	107.92	707.06	-164.53	2,889.31	2,824.94	64.38	44.882		
7,400.00	6,979.23	6,875.85	6,854.65	41.75	30.30	101.86	713.22	-195.61	2,920.58	2,855.21	65.37	44.678		
7,500.00	7,038.53	6,991.57	6,957.14	42.08	30.82	97.62	719.73	-248.59	2,948.16	2,881.64	66.52	44.322		
7,600.00	7,085.63	7,122.03	7,059.03	42.37	31.46	94.77	726.35	-329.43	2,971.22	2,903.31	67.91	43.753		
7,700.00	7,119.37	7,269.76	7,151.81	42.64	32.36	93.02	732.63	-443.79	2,988.91	2,919.22	69.69	42.887		
7,800.00	7,138.92	7,435.00	7,221.35	42.91	33.70	92.17	737.71	-593.09	3,000.37	2,928.30	72.07	41.632		
7,900.00	7,143.92	7,613.48	7,250.78	43.25	35.63	92.03	740.52	-768.52	3,004.92	2,929.78	75.14	39.991		
8,000.00	7,143.35	7,722.12	7,250.67	43.72	37.04	92.04	741.15	-877.15	3,006.12	2,928.38	77.74	38.669		
8,100.00	7,142.78	7,822.11	7,250.30	44.42	38.51	92.05	741.72	-977.14	3,007.31	2,926.76	80.54	37.338		
8,200.00	7,142.22	7,922.10	7,249.94	45.39	40.13	92.05	742.29	-1,077.13	3,008.49	2,924.85	83.64	35.968		
8,300.00	7,141.65	8,022.09	7,249.57	46.63	41.87	92.05	742.85	-1,177.12	3,009.68	2,922.67	87.01	34.589		
8,400.00	7,141.08	8,122.09	7,249.20	48.09	43.74	92.05	743.42	-1,277.11	3,010.87	2,920.25	90.61	33.227		
8,500.00	7,140.51	8,222.08	7,248.84	49.74	45.71	92.06	743.99	-1,377.10	3,012.05	2,917.63	94.43	31.899		
8,600.00	7,139.94	8,322.07	7,248.47	51.53	47.77	92.06	744.55	-1,477.09	3,013.24	2,914.82	98.42	30.616		
8,700.00	7,139.37	8,422.07	7,248.11	53.44	49.91	92.06	745.12	-1,577.08	3,014.42	2,911.84	102.58	29.386		
8,800.00	7,138.80	8,522.06	7,247.74	55.45	52.12	92.07	745.69	-1,677.07	3,015.61	2,908.73	106.88	28.214		
8,900.00	7,138.24	8,622.05	7,247.37	57.55	54.39	92.07	746.25	-1,777.06	3,016.80	2,905.48	111.31	27.102		
9,000.00	7,137.67	8,722.04	7,247.01	59.71	56.71	92.07	746.82	-1,877.05	3,017.98	2,902.13	115.85	26.050		
9,100.00	7,137.10	8,822.04	7,246.64	61.94	59.08	92.08	747.39	-1,977.04	3,019.17	2,898.67	120.50	25.056		
9,200.00	7,136.53	8,922.03	7,246.28	64.22	61.49	92.08	747.95	-2,077.03	3,020.36	2,895.13	125.23	24.119		
9,300.00	7,135.96	9,022.02	7,245.91	66.55	63.94	92.08	748.52	-2,177.03	3,021.54	2,891.50	130.04	23.236		
9,400.00	7,135.39	9,122.02	7,245.54	68.92	66.43	92.08	749.09	-2,277.02	3,022.73	2,887.81	134.92	22.404		
9,500.00	7,134.83	9,222.01	7,245.18	71.33	68.94	92.09	749.66	-2,377.01	3,023.92	2,884.05	139.86	21.621		
9,600.00	7,134.26	9,322.00	7,244.81	73.77	71.48	92.09	750.22	-2,477.00	3,025.10	2,880.24	144.86	20.882		
9,700.00	7,133.69	9,421.99	7,244.44	76.24	74.04	92.09	750.79	-2,576.99	3,026.29	2,876.37	149.92	20.187		
9,800.00	7,133.12	9,521.99	7,244.08	78.74	76.62	92.10	751.36	-2,676.98	3,027.47	2,872.46	155.01	19.530		
9,900.00	7,132.55	9,621.98	7,243.71	81.27	79.22	92.10	751.92	-2,776.97	3,028.66	2,868.51	160.15	18.911		
10,000.00	7,131.98	9,721.97	7,243.35	83.81	81.84	92.10	752.49	-2,876.96	3,029.85	2,864.52	165.33	18.326		
10,100.00	7,131.42	9,821.96	7,242.98	86.38	84.48	92.11	753.06	-2,976.95	3,031.03	2,860.49	170.54	17.773		
10,200.00	7,130.85	9,921.96	7,242.61	88.96	87.13	92.11	753.62	-3,076.94	3,032.22	2,856.43	175.79	17.250		
10,300.00	7,130.28	10,021.95	7,242.25	91.56	89.79	92.11	754.19	-3,176.93	3,033.41	2,852.35	181.06	16.754		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	10,121.94	7,241.88	94.18	92.47	92.11	754.76	-3,276.92	3,034.59	2,848.24	186.36	16.284		
10,500.00	7,129.14	10,221.94	7,241.52	96.81	95.15	92.12	755.32	-3,376.91	3,035.78	2,844.10	191.68	15.838		
10,600.00	7,128.57	10,321.93	7,241.15	99.45	97.85	92.12	755.89	-3,476.90	3,036.97	2,839.94	197.02	15.414		
10,700.00	7,128.00	10,421.92	7,240.78	102.11	100.55	92.12	756.46	-3,576.89	3,038.15	2,835.77	202.39	15.012		
10,800.00	7,127.44	10,521.91	7,240.42	104.77	103.27	92.13	757.02	-3,676.88	3,039.34	2,831.57	207.77	14.628		
10,900.00	7,126.87	10,621.91	7,240.05	107.45	105.99	92.13	757.59	-3,776.87	3,040.53	2,827.36	213.17	14.263		
11,000.00	7,126.30	10,721.90	7,239.68	110.13	108.72	92.13	758.16	-3,876.87	3,041.71	2,823.13	218.59	13.915		
11,100.00	7,125.73	10,821.89	7,239.32	112.82	111.45	92.14	758.72	-3,976.86	3,042.90	2,818.88	224.02	13.583		
11,200.00	7,125.16	10,921.89	7,238.95	115.53	114.19	92.14	759.29	-4,076.85	3,044.09	2,814.62	229.46	13.266		
11,300.00	7,124.59	11,021.88	7,238.59	118.24	116.94	92.14	759.86	-4,176.84	3,045.27	2,810.35	234.92	12.963		
11,400.00	7,124.03	11,121.87	7,238.22	120.95	119.69	92.14	760.42	-4,276.83	3,046.46	2,806.07	240.39	12.673		
11,500.00	7,123.46	11,221.86	7,237.85	123.67	122.45	92.15	760.99	-4,376.82	3,047.65	2,801.77	245.87	12.395		
11,600.00	7,122.89	11,321.86	7,237.49	126.40	125.21	92.15	761.56	-4,476.81	3,048.83	2,797.47	251.36	12.129		
11,700.00	7,122.32	11,421.85	7,237.12	129.14	127.98	92.15	762.13	-4,576.80	3,050.02	2,793.15	256.87	11.874		
11,800.00	7,121.75	11,521.84	7,236.76	131.88	130.75	92.16	762.69	-4,676.79	3,051.20	2,788.83	262.38	11.629		
11,900.00	7,121.18	11,621.84	7,236.39	134.62	133.53	92.16	763.26	-4,776.78	3,052.39	2,784.49	267.90	11.394		
12,000.00	7,120.61	11,721.83	7,236.02	137.37	136.31	92.16	763.83	-4,876.77	3,053.58	2,780.15	273.42	11.168		
12,100.00	7,120.05	11,821.82	7,235.66	140.12	139.09	92.17	764.39	-4,976.76	3,054.76	2,775.81	278.96	10.951		
12,200.00	7,119.48	11,921.81	7,235.29	142.88	141.87	92.17	764.96	-5,076.75	3,055.95	2,771.45	284.50	10.741		
12,300.00	7,118.91	12,021.81	7,234.92	145.64	144.66	92.17	765.53	-5,176.74	3,057.14	2,767.09	290.05	10.540		
12,400.00	7,118.34	12,121.80	7,234.56	148.41	147.45	92.17	766.09	-5,276.73	3,058.32	2,762.72	295.61	10.346		
12,500.00	7,117.77	12,221.79	7,234.19	151.18	150.24	92.18	766.66	-5,376.72	3,059.51	2,758.34	301.17	10.159		
12,600.00	7,117.20	12,321.79	7,233.83	153.95	153.04	92.18	767.23	-5,476.71	3,060.70	2,753.96	306.73	9.978		
12,700.00	7,116.64	12,421.78	7,233.46	156.73	155.84	92.18	767.79	-5,576.70	3,061.88	2,749.58	312.31	9.804		
12,800.00	7,116.07	12,521.77	7,233.09	159.50	158.64	92.19	768.36	-5,676.70	3,063.07	2,745.19	317.88	9.636		
12,900.00	7,115.50	12,621.76	7,232.73	162.29	161.44	92.19	768.93	-5,776.69	3,064.26	2,740.79	323.47	9.473		
13,000.00	7,114.93	12,721.76	7,232.36	165.07	164.25	92.19	769.49	-5,876.68	3,065.44	2,736.39	329.05	9.316		
13,100.00	7,114.36	12,821.75	7,231.99	167.86	167.06	92.19	770.06	-5,976.67	3,066.63	2,731.99	334.64	9.164		
13,200.00	7,113.79	12,921.74	7,231.63	170.64	169.86	92.20	770.63	-6,076.66	3,067.82	2,727.58	340.24	9.017		
13,300.00	7,113.22	13,021.74	7,231.26	173.44	172.67	92.20	771.19	-6,176.65	3,069.00	2,723.17	345.84	8.874		
13,400.00	7,112.66	13,121.73	7,230.90	176.23	175.49	92.20	771.76	-6,276.64	3,070.19	2,718.75	351.44	8.736		
13,500.00	7,112.09	13,221.72	7,230.53	179.02	178.30	92.21	772.33	-6,376.63	3,071.38	2,714.33	357.05	8.602		
13,600.00	7,111.52	13,321.71	7,230.16	181.82	181.12	92.21	772.89	-6,476.62	3,072.56	2,709.91	362.66	8.472		
13,700.00	7,110.95	13,421.71	7,229.80	184.62	183.93	92.21	773.46	-6,576.61	3,073.75	2,705.48	368.27	8.346		
13,800.00	7,110.38	13,521.70	7,229.43	187.42	186.75	92.22	774.03	-6,676.60	3,074.94	2,701.05	373.89	8.224		
13,900.00	7,109.81	13,621.69	7,229.07	190.22	189.57	92.22	774.60	-6,776.59	3,076.13	2,696.62	379.51	8.106		
14,000.00	7,109.25	13,721.69	7,228.70	193.03	192.39	92.22	775.16	-6,876.58	3,077.31	2,692.18	385.13	7.990		
14,100.00	7,108.68	13,821.68	7,228.33	195.84	195.21	92.22	775.73	-6,976.57	3,078.50	2,687.75	390.75	7.878		
14,200.00	7,108.11	13,921.67	7,227.97	198.64	198.04	92.23	776.30	-7,076.56	3,079.69	2,683.31	396.38	7.770		
14,300.00	7,107.54	14,021.66	7,227.60	201.45	200.86	92.23	776.86	-7,176.55	3,080.87	2,678.86	402.01	7.664		
14,400.00	7,106.97	14,121.66	7,227.23	204.26	203.69	92.23	777.43	-7,276.54	3,082.06	2,674.42	407.64	7.561		
14,500.00	7,106.40	14,221.65	7,226.87	207.07	206.51	92.24	778.00	-7,376.53	3,083.25	2,669.97	413.28	7.461		
14,600.00	7,105.83	14,321.64	7,226.50	209.89	209.34	92.24	778.56	-7,476.52	3,084.43	2,665.52	418.91	7.363		
14,700.00	7,105.27	14,421.64	7,226.14	212.70	212.17	92.24	779.13	-7,576.52	3,085.62	2,661.07	424.55	7.268		
14,800.00	7,104.70	14,521.63	7,225.77	215.52	215.00	92.24	779.70	-7,676.51	3,086.81	2,656.61	430.19	7.175		
14,900.00	7,104.13	14,621.62	7,225.40	218.33	217.83	92.25	780.26	-7,776.50	3,087.99	2,652.16	435.83	7.085		
15,000.00	7,103.56	14,721.61	7,225.04	221.15	220.66	92.25	780.83	-7,876.49	3,089.18	2,647.70	441.48	6.997		
15,100.00	7,102.99	14,821.61	7,224.67	223.97	223.49	92.25	781.40	-7,976.48	3,090.37	2,643.24	447.13	6.912		
15,200.00	7,102.42	14,921.60	7,224.31	226.79	226.32	92.26	781.96	-8,076.47	3,091.55	2,638.78	452.77	6.828		
15,274.57	7,102.00	14,996.16	7,224.03	228.89	228.43	92.26	782.39	-8,151.03	3,092.44	2,635.45	456.99	6.767 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
0.00	0.00	1.00	0.00	3.28	3.28	0.40	40.07	0.28	40.07					
100.00	100.00	101.00	100.00	3.28	3.28	0.40	40.07	0.28	40.07	33.50	6.57	6.100		
200.00	200.00	201.01	200.01	3.34	3.34	0.40	40.07	0.28	40.07	33.40	6.67	6.004		
300.00	299.98	302.43	301.41	3.44	3.44	176.40	38.25	0.13	40.02	33.12	6.89	5.805		
400.00	399.84	403.84	402.67	3.59	3.60	176.28	32.85	-0.32	39.91	32.69	7.22	5.526		
500.00	499.45	505.24	503.67	3.79	3.80	176.09	23.88	-1.07	39.76	32.11	7.66	5.193		
600.00	598.70	606.64	604.28	4.03	4.05	175.81	11.36	-2.11	39.57	31.39	8.18	4.839		
700.00	697.47	708.03	704.37	4.31	4.34	175.46	-4.70	-3.45	39.33	30.56	8.77	4.484		
800.00	795.62	809.41	803.83	4.64	4.67	175.03	-24.28	-5.07	39.05	29.63	9.42	4.145		
900.00	893.06	910.78	902.51	5.00	5.04	174.51	-47.35	-6.99	38.73	28.61	10.12	3.826		
990.53	980.53	1,002.39	990.94	5.36	5.41	173.97	-71.16	-8.97	38.43	27.64	10.79	3.562 CC		
1,000.00	989.64	1,011.86	1,000.06	5.40	5.44	173.91	-73.74	-9.19	38.45	27.59	10.86	3.541		
1,100.00	1,085.27	1,111.84	1,096.24	5.83	5.87	173.68	-100.92	-11.45	40.51	28.90	11.61	3.491		
1,200.00	1,179.88	1,211.69	1,192.30	6.29	6.32	173.93	-128.08	-13.71	45.84	33.44	12.40	3.698		
1,300.00	1,274.26	1,311.51	1,288.33	6.78	6.78	174.23	-155.22	-15.96	51.91	38.70	13.22	3.928		
1,400.00	1,368.63	1,411.32	1,384.36	7.28	7.26	174.46	-182.36	-18.22	57.99	43.92	14.06	4.123		
1,500.00	1,463.00	1,511.14	1,480.39	7.80	7.74	174.64	-209.50	-20.48	64.07	49.13	14.93	4.290		
1,600.00	1,557.38	1,610.95	1,576.41	8.33	8.23	174.80	-236.65	-22.73	70.14	54.32	15.82	4.434		
1,700.00	1,651.75	1,710.77	1,672.44	8.87	8.73	174.93	-263.79	-24.99	76.22	59.50	16.72	4.558		
1,800.00	1,746.12	1,810.58	1,768.47	9.41	9.24	175.04	-290.93	-27.25	82.30	64.66	17.64	4.666		
1,900.00	1,840.49	1,910.40	1,864.49	9.96	9.75	175.13	-318.07	-29.51	88.38	69.81	18.57	4.760		
2,000.00	1,934.87	2,010.21	1,960.52	10.52	10.27	175.21	-345.22	-31.76	94.46	74.95	19.50	4.843		
2,100.00	2,029.24	2,110.03	2,056.55	11.08	10.79	175.29	-372.36	-34.02	100.54	80.09	20.45	4.917		
2,200.00	2,123.61	2,209.84	2,152.58	11.64	11.31	175.35	-399.50	-36.28	106.61	85.22	21.40	4.982		
2,300.00	2,217.99	2,309.66	2,248.60	12.21	11.83	175.41	-426.64	-38.53	112.69	90.34	22.36	5.041		
2,400.00	2,312.36	2,409.47	2,344.63	12.78	12.36	175.46	-453.79	-40.79	118.77	95.45	23.32	5.093		
2,500.00	2,406.73	2,509.29	2,440.66	13.35	12.89	175.51	-480.93	-43.05	124.85	100.56	24.29	5.141		
2,600.00	2,501.10	2,609.10	2,536.68	13.93	13.42	175.55	-508.07	-45.31	130.93	105.67	25.26	5.183		
2,700.00	2,595.48	2,708.92	2,632.71	14.51	13.96	175.59	-535.21	-47.56	137.01	110.77	26.24	5.222		
2,800.00	2,689.85	2,808.73	2,728.74	15.08	14.49	175.62	-562.36	-49.82	143.09	115.87	27.22	5.258		
2,900.00	2,784.22	2,908.55	2,824.77	15.66	15.03	175.66	-589.50	-52.08	149.17	120.97	28.20	5.290		
3,000.00	2,878.60	3,008.36	2,920.79	16.25	15.56	175.69	-616.64	-54.34	155.25	126.07	29.18	5.320		
3,100.00	2,972.97	3,108.18	3,016.82	16.83	16.10	175.71	-643.78	-56.59	161.33	131.16	30.17	5.347		
3,200.00	3,067.34	3,207.99	3,112.85	17.41	16.64	175.74	-670.93	-58.85	167.41	136.25	31.16	5.372		
3,300.00	3,161.72	3,307.81	3,208.87	18.00	17.18	175.76	-698.07	-61.11	173.49	141.34	32.15	5.396		
3,400.00	3,256.09	3,407.62	3,304.90	18.58	17.72	175.79	-725.21	-63.36	179.57	146.42	33.15	5.417		
3,500.00	3,350.46	3,507.44	3,400.93	19.17	18.26	175.81	-752.35	-65.62	185.65	151.51	34.14	5.437		
3,600.00	3,444.83	3,607.25	3,496.96	19.75	18.80	175.83	-779.50	-67.88	191.73	156.59	35.14	5.456		
3,700.00	3,539.21	3,707.07	3,592.98	20.34	19.34	175.85	-806.64	-70.14	197.81	161.67	36.14	5.474		
3,800.00	3,633.58	3,806.88	3,689.01	20.93	19.89	175.86	-833.78	-72.39	203.89	166.75	37.14	5.490		
3,900.00	3,727.95	3,906.70	3,785.04	21.52	20.43	175.88	-860.92	-74.65	209.97	171.83	38.14	5.505		
4,000.00	3,822.33	4,006.51	3,881.06	22.11	20.97	175.89	-888.07	-76.91	216.05	176.91	39.14	5.520		
4,100.00	3,916.70	4,106.33	3,977.09	22.70	21.52	175.91	-915.21	-79.17	222.13	181.98	40.14	5.533		
4,200.00	4,011.07	4,206.14	4,073.12	23.29	22.06	175.92	-942.35	-81.42	228.21	187.06	41.15	5.546		
4,300.00	4,105.44	4,305.96	4,169.15	23.88	22.61	175.93	-969.49	-83.68	234.29	192.13	42.15	5.558		
4,400.00	4,199.82	4,405.77	4,265.17	24.47	23.15	175.95	-996.64	-85.94	240.37	197.21	43.16	5.570		
4,500.00	4,294.19	4,505.59	4,361.20	25.06	23.70	175.96	-1,023.78	-88.19	246.45	202.28	44.16	5.580		
4,600.00	4,388.56	4,605.40	4,457.23	25.65	24.24	175.97	-1,050.92	-90.45	252.53	207.36	45.17	5.591		
4,700.00	4,482.94	4,705.22	4,553.26	26.24	24.79	175.98	-1,078.06	-92.71	258.61	212.43	46.18	5.600		
4,800.00	4,577.31	4,805.03	4,649.28	26.83	25.34	175.99	-1,105.21	-94.97	264.69	217.50	47.19	5.609		
4,900.00	4,671.68	4,904.85	4,745.31	27.43	25.88	176.00	-1,132.35	-97.22	270.77	222.57	48.20	5.618		
5,000.00	4,766.05	5,004.66	4,841.34	28.02	26.43	176.01	-1,159.49	-99.48	276.85	227.64	49.20	5.626		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	5,104.48	4,937.36	28.61	26.98	176.02	-1,186.63	-101.74	282.93	232.71	50.21	5.634		
5,200.00	4,954.80	5,204.29	5,033.39	29.20	27.52	176.03	-1,213.78	-103.99	289.01	237.78	51.22	5.642		
5,300.00	5,049.17	5,304.11	5,129.42	29.80	28.07	176.04	-1,240.92	-106.25	295.09	242.85	52.24	5.649		
5,400.00	5,143.55	5,403.92	5,225.45	30.39	28.62	176.04	-1,268.06	-108.51	301.17	247.92	53.25	5.656		
5,500.00	5,237.92	5,503.74	5,321.47	30.99	29.17	176.05	-1,295.20	-110.77	307.25	252.99	54.26	5.663		
5,600.00	5,332.29	5,603.55	5,417.50	31.58	29.72	176.06	-1,322.35	-113.02	313.33	258.05	55.27	5.669		
5,700.00	5,426.66	5,703.37	5,513.53	32.17	30.26	176.06	-1,349.49	-115.28	319.41	263.12	56.28	5.675		
5,800.00	5,521.04	5,803.18	5,609.55	32.77	30.81	176.07	-1,376.63	-117.54	325.49	268.19	57.30	5.681		
5,900.00	5,615.41	5,903.00	5,705.58	33.36	31.36	176.08	-1,403.77	-119.80	331.57	273.26	58.31	5.686		
6,000.00	5,709.78	6,002.81	5,801.61	33.96	31.91	176.08	-1,430.92	-122.05	337.65	278.32	59.32	5.692		
6,100.00	5,804.16	6,102.63	5,897.64	34.55	32.46	176.09	-1,458.06	-124.31	343.73	283.39	60.34	5.697		
6,200.00	5,898.53	6,202.44	5,993.66	35.14	33.01	176.10	-1,485.20	-126.57	349.81	288.46	61.35	5.702		
6,300.00	5,992.90	6,302.26	6,089.69	35.74	33.56	176.10	-1,512.34	-128.82	355.89	293.52	62.36	5.707		
6,400.00	6,087.27	6,402.07	6,185.72	36.33	34.10	176.11	-1,539.49	-131.08	361.97	298.59	63.38	5.711		
6,500.00	6,181.65	6,501.89	6,281.74	36.93	34.65	176.11	-1,566.63	-133.34	368.05	303.65	64.39	5.716		
6,600.00	6,276.02	6,601.70	6,377.77	37.52	35.20	176.12	-1,593.77	-135.60	374.13	308.72	65.41	5.720		
6,700.00	6,370.39	6,701.52	6,473.80	38.12	35.75	176.12	-1,620.91	-137.85	380.21	313.78	66.42	5.724		
6,800.00	6,464.77	6,801.33	6,569.83	38.71	36.30	176.13	-1,648.06	-140.11	386.29	318.85	67.44	5.728		
6,900.00	6,559.14	6,901.20	6,665.90	39.31	36.85	175.88	-1,675.22	-142.57	392.36	323.91	68.46	5.732		
7,000.00	6,652.92	7,001.17	6,761.22	39.90	37.39	151.76	-1,702.23	-155.15	398.40	328.92	69.48	5.734		
7,100.00	6,744.00	7,100.79	6,853.12	40.44	37.89	134.80	-1,728.40	-182.95	404.29	333.80	70.49	5.736		
7,200.00	6,830.13	7,200.09	6,939.43	40.94	38.34	123.93	-1,753.10	-225.14	409.88	338.42	71.46	5.736		
7,300.00	6,909.19	7,299.10	7,018.15	41.37	38.74	116.85	-1,775.75	-280.58	415.03	342.61	72.42	5.731		
7,400.00	6,979.23	7,397.84	7,087.45	41.75	39.09	112.08	-1,795.84	-347.85	419.61	346.21	73.40	5.717		
7,500.00	7,038.53	7,496.36	7,145.78	42.08	39.40	108.78	-1,812.89	-425.27	423.50	349.02	74.48	5.686		
7,600.00	7,085.63	7,594.68	7,191.83	42.37	39.69	106.53	-1,826.55	-510.95	426.62	350.88	75.74	5.633		
7,700.00	7,119.37	7,692.85	7,224.59	42.64	39.98	105.05	-1,836.49	-602.85	428.88	351.63	77.25	5.552		
7,800.00	7,138.92	7,790.88	7,243.35	42.91	40.33	104.22	-1,842.51	-698.79	430.21	351.19	79.03	5.444		
7,900.00	7,143.92	7,889.16	7,247.90	43.25	40.81	103.97	-1,844.54	-796.85	430.61	349.53	81.08	5.311		
8,000.00	7,143.35	7,989.16	7,247.31	43.72	41.53	103.97	-1,845.12	-896.84	430.63	347.14	83.49	5.158		
8,100.00	7,142.78	8,089.16	7,246.71	44.42	42.54	103.97	-1,845.71	-996.84	430.65	344.47	86.18	4.997		
8,200.00	7,142.22	8,189.16	7,246.12	45.39	43.81	103.96	-1,846.29	-1,096.84	430.67	341.54	89.13	4.832		
8,300.00	7,141.65	8,289.16	7,245.52	46.63	45.29	103.96	-1,846.87	-1,196.83	430.69	338.36	92.33	4.665		
8,400.00	7,141.08	8,389.16	7,244.93	48.09	46.94	103.95	-1,847.46	-1,296.83	430.72	334.97	95.75	4.498		
8,500.00	7,140.51	8,489.16	7,244.33	49.74	48.73	103.95	-1,848.04	-1,396.83	430.74	331.38	99.36	4.335		
8,600.00	7,139.94	8,589.16	7,243.73	51.53	50.63	103.94	-1,848.63	-1,496.82	430.76	327.62	103.14	4.176		
8,700.00	7,139.37	8,689.16	7,243.14	53.44	52.63	103.94	-1,849.21	-1,596.82	430.78	323.70	107.08	4.023		
8,800.00	7,138.80	8,789.16	7,242.54	55.45	54.71	103.93	-1,849.79	-1,696.82	430.80	319.64	111.16	3.875		
8,900.00	7,138.24	8,889.16	7,241.95	57.55	56.86	103.93	-1,850.38	-1,796.81	430.83	315.46	115.37	3.734		
9,000.00	7,137.67	8,989.16	7,241.35	59.71	59.08	103.92	-1,850.96	-1,896.81	430.85	311.17	119.68	3.600		
9,100.00	7,137.10	9,089.16	7,240.75	61.94	61.35	103.92	-1,851.54	-1,996.81	430.87	306.77	124.09	3.472		
9,200.00	7,136.53	9,189.16	7,240.16	64.22	63.67	103.92	-1,852.13	-2,096.80	430.89	302.29	128.60	3.351		
9,300.00	7,135.96	9,289.16	7,239.56	66.55	66.04	103.91	-1,852.71	-2,196.80	430.91	297.73	133.18	3.235		
9,400.00	7,135.39	9,389.16	7,238.97	68.92	68.44	103.91	-1,853.30	-2,296.80	430.93	293.09	137.84	3.126		
9,500.00	7,134.83	9,489.16	7,238.37	71.33	70.88	103.90	-1,853.88	-2,396.79	430.96	288.39	142.56	3.023		
9,600.00	7,134.26	9,589.16	7,237.78	73.77	73.35	103.90	-1,854.46	-2,496.79	430.98	283.63	147.34	2.925		
9,700.00	7,133.69	9,689.16	7,237.18	76.24	75.84	103.89	-1,855.05	-2,596.78	431.00	278.82	152.18	2.832		
9,800.00	7,133.12	9,789.16	7,236.58	78.74	78.37	103.89	-1,855.63	-2,696.78	431.02	273.96	157.06	2.744		
9,900.00	7,132.55	9,889.16	7,235.99	81.27	80.91	103.88	-1,856.21	-2,796.78	431.04	269.05	161.99	2.661		
10,000.00	7,131.98	9,989.16	7,235.39	83.81	83.48	103.88	-1,856.80	-2,896.77	431.06	264.11	166.96	2.582		
10,100.00	7,131.42	10,089.16	7,234.80	86.38	86.06	103.88	-1,857.38	-2,996.77	431.09	259.12	171.96	2.507		
10,200.00	7,130.85	10,189.16	7,234.20	88.96	88.66	103.87	-1,857.97	-3,096.77	431.11	254.11	177.00	2.436		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	10,289.16	7,233.60	91.56	91.28	103.87	-1,858.55	-3,196.76	431.13	249.06	182.07	2.368		
10,400.00	7,129.71	10,389.16	7,233.01	94.18	93.91	103.86	-1,859.13	-3,296.76	431.15	243.98	187.17	2.304		
10,500.00	7,129.14	10,489.16	7,232.41	96.81	96.55	103.86	-1,859.72	-3,396.76	431.17	238.88	192.29	2.242		
10,600.00	7,128.57	10,589.16	7,231.82	99.45	99.21	103.85	-1,860.30	-3,496.75	431.19	233.75	197.44	2.184		
10,700.00	7,128.00	10,689.16	7,231.22	102.11	101.88	103.85	-1,860.88	-3,596.75	431.22	228.60	202.61	2.128		
10,800.00	7,127.44	10,789.16	7,230.62	104.77	104.55	103.84	-1,861.47	-3,696.75	431.24	223.43	207.81	2.075		
10,900.00	7,126.87	10,889.16	7,230.03	107.45	107.24	103.84	-1,862.05	-3,796.74	431.26	218.24	213.02	2.025		
11,000.00	7,126.30	10,989.16	7,229.43	110.13	109.94	103.84	-1,862.64	-3,896.74	431.28	213.04	218.25	1.976		
11,100.00	7,125.73	11,089.16	7,228.84	112.82	112.64	103.83	-1,863.22	-3,996.74	431.30	207.81	223.49	1.930		
11,200.00	7,125.16	11,189.16	7,228.24	115.53	115.35	103.83	-1,863.80	-4,096.73	431.33	202.57	228.75	1.886		
11,300.00	7,124.59	11,289.16	7,227.65	118.24	118.07	103.82	-1,864.39	-4,196.73	431.35	197.32	234.03	1.843		
11,400.00	7,124.03	11,389.16	7,227.05	120.95	120.80	103.82	-1,864.97	-4,296.73	431.37	192.05	239.32	1.803		
11,500.00	7,123.46	11,489.16	7,226.45	123.67	123.53	103.81	-1,865.56	-4,396.72	431.39	186.77	244.62	1.764		
11,600.00	7,122.89	11,589.16	7,225.86	126.40	126.26	103.81	-1,866.14	-4,496.72	431.41	181.48	249.93	1.726		
11,700.00	7,122.32	11,689.16	7,225.26	129.14	129.01	103.80	-1,866.72	-4,596.72	431.43	176.18	255.26	1.690		
11,800.00	7,121.75	11,789.16	7,224.67	131.88	131.75	103.80	-1,867.31	-4,696.71	431.46	170.86	260.59	1.656		
11,900.00	7,121.18	11,889.16	7,224.07	134.62	134.50	103.80	-1,867.89	-4,796.71	431.48	165.54	265.94	1.622		
12,000.00	7,120.61	11,989.16	7,223.47	137.37	137.26	103.79	-1,868.47	-4,896.70	431.50	160.21	271.29	1.591		
12,100.00	7,120.05	12,089.16	7,222.88	140.12	140.02	103.79	-1,869.06	-4,996.70	431.52	154.87	276.65	1.560		
12,200.00	7,119.48	12,189.16	7,222.28	142.88	142.78	103.78	-1,869.64	-5,096.70	431.54	149.52	282.03	1.530		
12,300.00	7,118.91	12,289.16	7,221.69	145.64	145.55	103.78	-1,870.23	-5,196.69	431.57	144.16	287.40	1.502		
12,400.00	7,118.34	12,389.16	7,221.09	148.41	148.32	103.77	-1,870.81	-5,296.69	431.59	138.80	292.79	1.474 Level 3		
12,500.00	7,117.77	12,489.16	7,220.50	151.18	151.10	103.77	-1,871.39	-5,396.69	431.61	133.43	298.18	1.447 Level 3		
12,600.00	7,117.20	12,589.16	7,219.90	153.95	153.88	103.76	-1,871.98	-5,496.68	431.63	128.05	303.58	1.422 Level 3		
12,700.00	7,116.64	12,689.16	7,219.30	156.73	156.66	103.76	-1,872.56	-5,596.68	431.65	122.66	308.99	1.397 Level 3		
12,800.00	7,116.07	12,789.16	7,218.71	159.50	159.44	103.76	-1,873.14	-5,696.68	431.67	117.27	314.40	1.373 Level 3		
12,900.00	7,115.50	12,889.16	7,218.11	162.29	162.22	103.75	-1,873.73	-5,796.67	431.70	111.88	319.82	1.350 Level 3		
13,000.00	7,114.93	12,989.16	7,217.52	165.07	165.01	103.75	-1,874.31	-5,896.67	431.72	106.47	325.24	1.327 Level 3		
13,100.00	7,114.36	13,089.16	7,216.92	167.86	167.80	103.74	-1,874.90	-5,996.67	431.74	101.07	330.67	1.306 Level 3		
13,200.00	7,113.79	13,189.16	7,216.32	170.64	170.60	103.74	-1,875.48	-6,096.66	431.76	95.66	336.11	1.285 Level 3		
13,300.00	7,113.22	13,289.16	7,215.73	173.44	173.39	103.73	-1,876.06	-6,196.66	431.78	90.24	341.54	1.264 Level 3		
13,400.00	7,112.66	13,389.16	7,215.13	176.23	176.19	103.73	-1,876.65	-6,296.66	431.81	84.82	346.99	1.244 Level 2		
13,500.00	7,112.09	13,489.16	7,214.54	179.02	178.99	103.72	-1,877.23	-6,396.65	431.83	79.39	352.43	1.225 Level 2		
13,600.00	7,111.52	13,589.16	7,213.94	181.82	181.79	103.72	-1,877.81	-6,496.65	431.85	73.97	357.88	1.207 Level 2		
13,700.00	7,110.95	13,689.16	7,213.35	184.62	184.59	103.72	-1,878.40	-6,596.65	431.87	68.53	363.34	1.189 Level 2		
13,800.00	7,110.38	13,789.16	7,212.75	187.42	187.40	103.71	-1,878.98	-6,696.64	431.89	63.10	368.80	1.171 Level 2		
13,900.00	7,109.81	13,889.16	7,212.15	190.22	190.20	103.71	-1,879.57	-6,796.64	431.92	57.66	374.26	1.154 Level 2		
14,000.00	7,109.25	13,989.16	7,211.56	193.03	193.01	103.70	-1,880.15	-6,896.64	431.94	52.21	379.73	1.137 Level 2		
14,100.00	7,108.68	14,089.16	7,210.96	195.84	195.82	103.70	-1,880.73	-6,996.63	431.96	46.76	385.19	1.121 Level 2		
14,200.00	7,108.11	14,189.16	7,210.37	198.64	198.63	103.69	-1,881.32	-7,096.63	431.98	41.31	390.67	1.106 Level 2		
14,300.00	7,107.54	14,289.16	7,209.77	201.45	201.44	103.69	-1,881.90	-7,196.62	432.00	35.86	396.14	1.091 Level 2		
14,400.00	7,106.97	14,389.16	7,209.17	204.26	204.26	103.68	-1,882.48	-7,296.62	432.02	30.40	401.62	1.076 Level 2		
14,500.00	7,106.40	14,489.16	7,208.58	207.07	207.07	103.68	-1,883.07	-7,396.62	432.05	24.95	407.10	1.061 Level 2		
14,600.00	7,105.83	14,589.16	7,207.98	209.89	209.89	103.68	-1,883.65	-7,496.61	432.07	19.48	412.59	1.047 Level 2		
14,700.00	7,105.27	14,689.16	7,207.39	212.70	212.70	103.67	-1,884.24	-7,596.61	432.09	14.02	418.07	1.034 Level 2		
14,800.00	7,104.70	14,789.16	7,206.79	215.52	215.52	103.67	-1,884.82	-7,696.61	432.11	8.55	423.56	1.020 Level 2		
14,900.00	7,104.13	14,889.16	7,206.19	218.33	218.34	103.66	-1,885.40	-7,796.60	432.13	3.08	429.05	1.007 Level 2		
15,000.00	7,103.56	14,989.16	7,205.60	221.15	221.16	103.66	-1,885.99	-7,896.60	432.16	-2.39	434.55	0.995 Level 1		
15,100.00	7,102.99	15,089.16	7,205.00	223.97	223.98	103.65	-1,886.57	-7,996.60	432.18	-7.86	440.04	0.982 Level 1		
15,200.00	7,102.42	15,189.16	7,204.41	226.79	226.80	103.65	-1,887.16	-8,096.59	432.20	-13.34	445.54	0.970 Level 1		
15,205.52	7,102.39	15,194.68	7,204.37	226.94	226.96	103.65	-1,887.19	-8,102.12	432.20	-13.64	445.84	0.969 Level 1		
15,274.57	7,102.00	15,258.04	7,204.00	228.89	228.75	103.65	-1,887.56	-8,165.48	432.25	-17.01	449.27	0.962 Level 1, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.60	-80.14	-0.56	80.14					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-80.14	-0.56	80.14	73.57	6.57	12.199		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-80.14	-0.56	80.14	73.47	6.67	12.008		
300.00	299.98	297.28	297.26	3.44	3.44	-3.59	-81.79	-0.63	80.10	73.21	6.89	11.632		
400.00	399.84	394.57	394.42	3.59	3.58	-3.68	-86.74	-0.86	79.96	72.76	7.20	11.099		
500.00	499.45	491.86	491.35	3.79	3.77	-3.82	-94.98	-1.24	79.73	72.11	7.62	10.460		
600.00	598.70	589.15	587.96	4.03	4.01	-4.03	-106.50	-1.78	79.42	71.29	8.13	9.774		
700.00	697.47	686.47	684.13	4.31	4.27	-4.29	-121.30	-2.46	79.02	70.32	8.70	9.083		
800.00	795.62	783.79	779.76	4.64	4.58	-4.62	-139.35	-3.29	78.53	69.19	9.33	8.415		
900.00	893.06	881.13	874.73	5.00	4.93	-5.02	-160.65	-4.28	77.95	67.94	10.01	7.788		
1,000.00	989.64	978.50	968.95	5.40	5.31	-5.48	-185.15	-5.41	77.30	66.56	10.73	7.201		
1,100.00	1,085.27	1,075.88	1,062.30	5.83	5.72	-6.01	-212.85	-6.69	76.56	65.07	11.49	6.661		
1,189.25	1,169.87	1,162.83	1,144.80	6.24	6.12	-6.50	-240.25	-7.96	76.32	64.12	12.20	6.257		
1,200.00	1,179.88	1,173.30	1,154.68	6.29	6.17	-6.59	-243.72	-8.12	75.96	63.67	12.28	6.184 CC, ES		
1,300.00	1,274.26	1,270.68	1,245.93	6.78	6.65	-7.00	-277.69	-9.69	78.00	64.90	13.10	5.956		
1,400.00	1,368.63	1,367.81	1,335.74	7.28	7.15	-7.14	-314.64	-11.40	83.41	69.49	13.93	5.990		
1,500.00	1,463.00	1,464.48	1,423.82	7.80	7.69	-7.05	-354.41	-13.24	92.19	77.43	14.76	6.245		
1,600.00	1,557.38	1,560.48	1,509.91	8.33	8.26	-6.79	-396.82	-15.20	104.29	88.69	15.60	6.684		
1,700.00	1,651.75	1,655.59	1,593.76	8.87	8.85	-6.45	-441.65	-17.28	119.69	103.24	16.44	7.279		
1,800.00	1,746.12	1,749.62	1,675.15	9.41	9.46	-6.07	-488.69	-19.45	138.33	121.05	17.27	8.007		
1,900.00	1,840.49	1,843.07	1,754.48	9.96	10.09	-5.69	-538.03	-21.73	160.12	142.01	18.12	8.839		
2,000.00	1,934.87	1,940.39	1,836.46	10.52	10.78	-5.36	-590.41	-24.16	183.11	164.02	19.09	9.594		
2,100.00	2,029.24	2,037.71	1,918.45	11.08	11.48	-5.10	-642.79	-26.58	206.10	186.03	20.07	10.268		
2,200.00	2,123.61	2,135.03	2,000.43	11.64	12.18	-4.90	-695.17	-29.00	229.09	208.02	21.08	10.870		
2,300.00	2,217.99	2,232.35	2,082.42	12.21	12.90	-4.73	-747.55	-31.42	252.09	230.00	22.09	11.411		
2,400.00	2,312.36	2,329.66	2,164.40	12.78	13.62	-4.59	-799.92	-33.85	275.09	251.97	23.12	11.899		
2,500.00	2,406.73	2,426.98	2,246.39	13.35	14.34	-4.47	-852.30	-36.27	298.08	273.93	24.15	12.341		
2,600.00	2,501.10	2,524.30	2,328.37	13.93	15.07	-4.37	-904.68	-38.69	321.08	295.88	25.20	12.742		
2,700.00	2,595.48	2,621.62	2,410.35	14.51	15.81	-4.29	-957.06	-41.11	344.08	317.83	26.25	13.107		
2,800.00	2,689.85	2,718.93	2,492.34	15.08	16.55	-4.21	-1,009.43	-43.54	367.09	339.77	27.31	13.441		
2,900.00	2,784.22	2,816.25	2,574.32	15.66	17.29	-4.14	-1,061.81	-45.96	390.09	361.71	28.38	13.747		
3,000.00	2,878.60	2,913.57	2,656.31	16.25	18.04	-4.08	-1,114.19	-48.38	413.09	383.64	29.45	14.028		
3,100.00	2,972.97	3,010.89	2,738.29	16.83	18.79	-4.03	-1,166.57	-50.80	436.09	405.57	30.52	14.288		
3,200.00	3,067.34	3,108.21	2,820.28	17.41	19.54	-3.98	-1,218.95	-53.23	459.09	427.49	31.60	14.528		
3,300.00	3,161.72	3,205.52	2,902.26	18.00	20.29	-3.94	-1,271.32	-55.65	482.10	449.41	32.68	14.750		
3,400.00	3,256.09	3,302.84	2,984.25	18.58	21.04	-3.90	-1,323.70	-58.07	505.10	471.33	33.77	14.957		
3,500.00	3,350.46	3,400.16	3,066.23	19.17	21.80	-3.86	-1,376.08	-60.49	528.10	493.24	34.86	15.149		
3,600.00	3,444.83	3,497.48	3,148.21	19.75	22.56	-3.83	-1,428.46	-62.92	551.11	515.15	35.95	15.329		
3,700.00	3,539.21	3,594.79	3,230.20	20.34	23.31	-3.80	-1,480.83	-65.34	574.11	537.06	37.05	15.497		
3,800.00	3,633.58	3,707.89	3,312.18	20.93	24.20	-3.77	-1,533.21	-67.76	597.11	558.87	38.24	15.614		
3,900.00	3,727.95	3,789.43	3,394.17	21.52	24.83	-3.74	-1,585.59	-70.18	620.12	580.87	39.24	15.802		
4,000.00	3,822.33	3,886.75	3,476.15	22.11	25.59	-3.72	-1,637.97	-72.61	643.12	602.78	40.34	15.941		
4,100.00	3,916.70	3,984.07	3,558.14	22.70	26.36	-3.70	-1,690.35	-75.03	666.13	624.68	41.45	16.071		
4,200.00	4,011.07	4,081.38	3,640.12	23.29	27.12	-3.68	-1,742.72	-77.45	689.13	646.58	42.55	16.195		
4,300.00	4,105.44	4,178.70	3,722.11	23.88	27.88	-3.66	-1,795.10	-79.87	712.14	668.48	43.66	16.311		
4,400.00	4,199.82	4,276.02	3,804.09	24.47	28.65	-3.64	-1,847.48	-82.30	735.14	690.37	44.77	16.422		
4,500.00	4,294.19	4,373.34	3,886.07	25.06	29.41	-3.62	-1,899.86	-84.72	758.14	712.27	45.88	16.526		
4,600.00	4,388.56	4,470.65	3,968.06	25.65	30.18	-3.60	-1,952.23	-87.14	781.15	734.16	46.99	16.625		
4,700.00	4,482.94	4,567.97	4,050.04	26.24	30.94	-3.59	-2,004.61	-89.56	804.15	756.06	48.10	16.719		
4,800.00	4,577.31	4,665.29	4,132.03	26.83	31.71	-3.57	-2,056.99	-91.99	827.16	777.95	49.21	16.809		
4,900.00	4,671.68	4,762.61	4,214.01	27.43	32.48	-3.56	-2,109.37	-94.41	850.16	799.84	50.32	16.894		
5,000.00	4,766.05	4,859.93	4,296.00	28.02	33.25	-3.55	-2,161.75	-96.83	873.17	821.73	51.44	16.975		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	4,957.24	4,377.98	28.61	34.01	-3.54	-2,214.12	-99.25	896.17	843.62	52.55	17.052		
5,200.00	4,954.80	5,054.56	4,459.97	29.20	34.78	-3.52	-2,266.50	-101.68	919.18	865.51	53.67	17.126		
5,300.00	5,049.17	5,151.88	4,541.95	29.80	35.55	-3.51	-2,318.88	-104.10	942.18	887.39	54.79	17.197		
5,400.00	5,143.55	5,249.20	4,623.93	30.39	36.32	-3.50	-2,371.26	-106.52	965.19	909.28	55.91	17.265		
5,500.00	5,237.92	5,346.51	4,705.92	30.99	37.09	-3.49	-2,423.63	-108.94	988.19	931.17	57.02	17.330		
5,600.00	5,332.29	5,443.83	4,787.90	31.58	37.86	-3.48	-2,476.01	-111.37	1,011.20	953.05	58.14	17.392		
5,700.00	5,426.66	5,541.15	4,869.89	32.17	38.63	-3.47	-2,528.39	-113.79	1,034.20	974.94	59.26	17.451		
5,800.00	5,521.04	5,638.47	4,951.87	32.77	39.40	-3.46	-2,580.77	-116.21	1,057.21	996.82	60.38	17.508		
5,900.00	5,615.41	5,735.78	5,033.86	33.36	40.17	-3.46	-2,633.15	-118.63	1,080.21	1,018.71	61.50	17.563		
6,000.00	5,709.78	5,874.61	5,151.88	33.96	41.25	-3.45	-2,706.14	-122.01	1,101.97	1,038.75	63.22	17.431		
6,100.00	5,804.16	6,035.57	5,292.87	34.55	42.43	-3.46	-2,783.67	-125.60	1,118.54	1,053.49	65.05	17.196		
6,200.00	5,898.53	6,199.09	5,440.33	35.14	43.55	-3.48	-2,854.21	-128.86	1,129.50	1,062.85	66.65	16.946		
6,300.00	5,992.90	6,364.14	5,593.01	35.74	44.60	-3.53	-2,916.77	-131.75	1,134.75	1,066.75	68.01	16.686		
6,400.00	6,087.27	6,529.63	5,749.47	36.33	45.56	-3.59	-2,970.57	-134.24	1,134.24	1,065.15	69.09	16.418		
6,500.00	6,181.65	6,694.47	5,908.14	36.93	46.43	-3.68	-3,015.11	-136.30	1,127.97	1,058.08	69.89	16.140		
6,600.00	6,276.02	6,857.58	6,067.42	37.52	47.19	-3.79	-3,050.13	-137.92	1,116.01	1,045.61	70.40	15.853		
6,700.00	6,370.39	7,017.96	6,225.72	38.12	47.86	-3.92	-3,075.68	-139.10	1,098.46	1,027.83	70.64	15.551		
6,800.00	6,464.77	7,174.70	6,381.58	38.71	48.44	-4.07	-3,092.07	-139.86	1,075.51	1,004.90	70.61	15.232		
6,900.00	6,559.14	7,327.02	6,533.68	39.31	48.91	-4.50	-3,099.81	-140.22	1,047.35	977.01	70.34	14.891		
7,000.00	6,652.92	7,446.61	6,653.22	39.90	49.21	-31.39	-3,100.67	-142.21	1,015.09	944.55	70.55	14.389		
7,100.00	6,744.00	7,542.11	6,747.51	40.44	49.45	-51.24	-3,100.76	-156.78	983.34	912.08	71.25	13.801		
7,200.00	6,830.13	7,639.93	6,840.72	40.94	49.68	-64.96	-3,100.94	-186.15	953.46	881.64	71.82	13.276		
7,300.00	6,909.19	7,740.61	6,930.79	41.37	49.91	-74.75	-3,101.21	-230.89	926.26	854.04	72.22	12.825		
7,400.00	6,979.23	7,844.55	7,015.18	41.75	50.11	-82.03	-3,101.58	-291.37	902.42	829.93	72.48	12.450		
7,500.00	7,038.53	7,951.98	7,090.87	42.08	50.29	-87.52	-3,102.05	-367.42	882.48	809.79	72.69	12.140		
7,600.00	7,085.63	8,062.85	7,154.45	42.37	50.43	-91.59	-3,102.61	-458.09	866.85	793.85	73.00	11.874		
7,700.00	7,119.37	8,176.79	7,202.39	42.64	50.53	-94.40	-3,103.24	-561.28	855.79	782.16	73.63	11.623		
7,800.00	7,138.92	8,293.05	7,231.59	42.91	50.60	-96.03	-3,103.93	-673.64	849.41	774.63	74.77	11.360		
7,898.60	7,144.78	8,408.88	7,239.89	43.24	50.65	-96.45	-3,104.63	-789.01	847.31	770.73	76.58	11.064		
7,900.00	7,143.92	8,408.89	7,239.97	43.25	50.65	-96.51	-3,104.63	-789.02	847.71	771.14	76.58	11.070		
8,000.00	7,143.35	8,508.89	7,239.56	43.72	50.69	-96.52	-3,105.25	-889.02	847.73	768.88	78.85	10.751		
8,100.00	7,142.78	8,608.89	7,239.15	44.42	50.76	-96.53	-3,105.86	-989.01	847.75	766.29	81.46	10.407		
8,200.00	7,142.22	8,708.89	7,238.75	45.39	50.86	-96.54	-3,106.47	-1,089.01	847.77	763.39	84.37	10.048		
8,300.00	7,141.65	8,808.89	7,238.34	46.63	51.04	-96.55	-3,107.08	-1,189.01	847.78	760.23	87.56	9.683		
8,400.00	7,141.08	8,908.88	7,237.94	48.09	51.36	-96.56	-3,107.70	-1,289.01	847.80	756.83	90.97	9.319		
8,500.00	7,140.51	9,008.88	7,237.53	49.74	52.03	-96.57	-3,108.31	-1,389.00	847.82	753.19	94.63	8.959		
8,600.00	7,139.94	9,108.88	7,237.13	51.53	53.23	-96.58	-3,108.92	-1,489.00	847.84	749.37	98.47	8.610		
8,700.00	7,139.37	9,208.88	7,236.72	53.44	54.84	-96.59	-3,109.53	-1,589.00	847.86	745.38	102.48	8.274		
8,800.00	7,138.80	9,308.88	7,236.31	55.45	56.70	-96.60	-3,110.14	-1,688.99	847.88	741.25	106.63	7.952		
8,900.00	7,138.24	9,408.88	7,235.91	57.55	58.71	-96.61	-3,110.76	-1,788.99	847.89	736.96	110.93	7.643		
9,000.00	7,137.67	9,508.88	7,235.50	59.71	60.81	-96.63	-3,111.37	-1,888.99	847.91	732.56	115.35	7.351		
9,100.00	7,137.10	9,608.88	7,235.10	61.94	62.99	-96.64	-3,111.98	-1,988.99	847.93	728.06	119.87	7.074		
9,200.00	7,136.53	9,708.88	7,234.69	64.22	65.23	-96.65	-3,112.59	-2,088.98	847.95	723.46	124.49	6.812		
9,300.00	7,135.96	9,808.88	7,234.29	66.55	67.53	-96.66	-3,113.21	-2,188.98	847.97	718.78	129.18	6.564		
9,400.00	7,135.39	9,908.88	7,233.88	68.92	69.87	-96.67	-3,113.82	-2,288.98	847.99	714.02	133.97	6.330		
9,500.00	7,134.83	10,008.88	7,233.47	71.33	72.25	-96.68	-3,114.43	-2,388.97	848.00	709.19	138.81	6.109		
9,600.00	7,134.26	10,108.88	7,233.07	73.77	74.66	-96.69	-3,115.04	-2,488.97	848.02	704.31	143.72	5.901		
9,700.00	7,133.69	10,208.88	7,232.66	76.24	77.11	-96.70	-3,115.66	-2,588.97	848.04	699.36	148.68	5.704		
9,800.00	7,133.12	10,308.88	7,232.26	78.74	79.58	-96.71	-3,116.27	-2,688.97	848.06	694.37	153.69	5.518		
9,900.00	7,132.55	10,408.88	7,231.85	81.27	82.09	-96.72	-3,116.88	-2,788.96	848.08	689.33	158.74	5.342		
10,000.00	7,131.98	10,508.88	7,231.45	83.81	84.61	-96.74	-3,117.49	-2,888.96	848.10	684.26	163.84	5.176		
10,100.00	7,131.42	10,608.88	7,231.04	86.38	87.15	-96.75	-3,118.11	-2,988.96	848.11	679.14	168.97	5.019		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,200.00	7,130.85	10,708.88	7,230.63	88.96	89.72	-96.76	-3,118.72	-3,088.95	848.13	673.99	174.14	4.870		
10,300.00	7,130.28	10,808.88	7,230.23	91.56	92.30	-96.77	-3,119.33	-3,188.95	848.15	668.82	179.34	4.729		
10,400.00	7,129.71	10,908.88	7,229.82	94.18	94.90	-96.78	-3,119.94	-3,288.95	848.17	663.61	184.56	4.596		
10,500.00	7,129.14	11,008.88	7,229.42	96.81	97.51	-96.79	-3,120.56	-3,388.95	848.19	658.38	189.81	4.469		
10,600.00	7,128.57	11,108.88	7,229.01	99.45	100.14	-96.80	-3,121.17	-3,488.94	848.21	653.12	195.09	4.348		
10,700.00	7,128.00	11,208.88	7,228.61	102.11	102.78	-96.81	-3,121.78	-3,588.94	848.23	647.84	200.39	4.233		
10,800.00	7,127.44	11,308.88	7,228.20	104.77	105.43	-96.82	-3,122.39	-3,688.94	848.25	642.54	205.70	4.124		
10,900.00	7,126.87	11,408.88	7,227.79	107.45	108.09	-96.83	-3,123.01	-3,788.93	848.26	637.23	211.04	4.019		
11,000.00	7,126.30	11,508.88	7,227.39	110.13	110.76	-96.84	-3,123.62	-3,888.93	848.28	631.89	216.39	3.920		
11,100.00	7,125.73	11,608.88	7,226.98	112.82	113.44	-96.86	-3,124.23	-3,988.93	848.30	626.54	221.76	3.825		
11,200.00	7,125.16	11,708.88	7,226.58	115.53	116.13	-96.87	-3,124.84	-4,088.93	848.32	621.18	227.14	3.735		
11,300.00	7,124.59	11,808.88	7,226.17	118.24	118.83	-96.88	-3,125.46	-4,188.92	848.34	615.80	232.54	3.648		
11,400.00	7,124.03	11,908.88	7,225.76	120.95	121.53	-96.89	-3,126.07	-4,288.92	848.36	610.41	237.95	3.565		
11,500.00	7,123.46	12,008.88	7,225.36	123.67	124.24	-96.90	-3,126.68	-4,388.92	848.38	605.01	243.37	3.486		
11,600.00	7,122.89	12,108.88	7,224.95	126.40	126.96	-96.91	-3,127.29	-4,488.91	848.40	599.59	248.80	3.410		
11,700.00	7,122.32	12,208.88	7,224.55	129.14	129.69	-96.92	-3,127.91	-4,588.91	848.42	594.17	254.25	3.337		
11,800.00	7,121.75	12,308.88	7,224.14	131.88	132.42	-96.93	-3,128.52	-4,688.91	848.44	588.74	259.70	3.267		
11,900.00	7,121.18	12,408.88	7,223.74	134.62	135.15	-96.94	-3,129.13	-4,788.91	848.45	583.29	265.16	3.200		
12,000.00	7,120.61	12,508.88	7,223.33	137.37	137.89	-96.95	-3,129.74	-4,888.90	848.47	577.84	270.63	3.135		
12,100.00	7,120.05	12,608.88	7,222.92	140.12	140.64	-96.96	-3,130.36	-4,988.90	848.49	572.38	276.11	3.073		
12,200.00	7,119.48	12,708.88	7,222.52	142.88	143.38	-96.98	-3,130.97	-5,088.90	848.51	566.91	281.60	3.013		
12,300.00	7,118.91	12,808.88	7,222.11	145.64	146.14	-96.99	-3,131.58	-5,188.90	848.53	561.44	287.09	2.956		
12,400.00	7,118.34	12,908.88	7,221.71	148.41	148.90	-97.00	-3,132.19	-5,288.89	848.55	555.96	292.59	2.900		
12,500.00	7,117.77	13,008.88	7,221.30	151.18	151.66	-97.01	-3,132.81	-5,388.89	848.57	550.47	298.10	2.847		
12,600.00	7,117.20	13,108.88	7,220.90	153.95	154.42	-97.02	-3,133.42	-5,488.89	848.59	544.98	303.61	2.795		
12,700.00	7,116.64	13,208.88	7,220.49	156.73	157.19	-97.03	-3,134.03	-5,588.88	848.61	539.48	309.13	2.745		
12,800.00	7,116.07	13,308.88	7,220.08	159.50	159.96	-97.04	-3,134.64	-5,688.88	848.63	533.98	314.65	2.697		
12,900.00	7,115.50	13,408.88	7,219.68	162.29	162.74	-97.05	-3,135.26	-5,788.88	848.65	528.47	320.18	2.651		
13,000.00	7,114.93	13,508.88	7,219.27	165.07	165.51	-97.06	-3,135.87	-5,888.88	848.67	522.96	325.71	2.606		
13,100.00	7,114.36	13,608.88	7,218.87	167.86	168.29	-97.07	-3,136.48	-5,988.87	848.69	517.44	331.25	2.562		
13,200.00	7,113.79	13,708.88	7,218.46	170.64	171.08	-97.08	-3,137.09	-6,088.87	848.71	511.92	336.79	2.520		
13,300.00	7,113.22	13,808.88	7,218.06	173.44	173.86	-97.10	-3,137.71	-6,188.87	848.73	506.39	342.33	2.479		
13,400.00	7,112.66	13,908.88	7,217.65	176.23	176.65	-97.11	-3,138.32	-6,288.86	848.75	500.86	347.88	2.440		
13,500.00	7,112.09	14,008.88	7,217.24	179.02	179.44	-97.12	-3,138.93	-6,388.86	848.77	495.33	353.44	2.401		
13,600.00	7,111.52	14,108.88	7,216.84	181.82	182.23	-97.13	-3,139.54	-6,488.86	848.79	489.79	358.99	2.364		
13,700.00	7,110.95	14,208.88	7,216.43	184.62	185.02	-97.14	-3,140.16	-6,588.86	848.80	484.25	364.55	2.328		
13,800.00	7,110.38	14,308.88	7,216.03	187.42	187.82	-97.15	-3,140.77	-6,688.85	848.82	478.71	370.11	2.293		
13,900.00	7,109.81	14,408.88	7,215.62	190.22	190.62	-97.16	-3,141.38	-6,788.85	848.84	473.16	375.68	2.259		
14,000.00	7,109.25	14,508.88	7,215.22	193.03	193.42	-97.17	-3,141.99	-6,888.85	848.86	467.62	381.25	2.227		
14,100.00	7,108.68	14,608.88	7,214.81	195.84	196.22	-97.18	-3,142.61	-6,988.84	848.88	462.06	386.82	2.195		
14,200.00	7,108.11	14,708.88	7,214.40	198.64	199.02	-97.19	-3,143.22	-7,088.84	848.90	456.51	392.39	2.163		
14,300.00	7,107.54	14,808.88	7,214.00	201.45	201.83	-97.20	-3,143.83	-7,188.84	848.92	450.95	397.97	2.133		
14,400.00	7,106.97	14,908.88	7,213.59	204.26	204.63	-97.22	-3,144.44	-7,288.84	848.94	445.39	403.55	2.104		
14,500.00	7,106.40	15,008.88	7,213.19	207.07	207.44	-97.23	-3,145.06	-7,388.83	848.96	439.83	409.13	2.075		
14,600.00	7,105.83	15,108.88	7,212.78	209.89	210.25	-97.24	-3,145.67	-7,488.83	848.98	434.27	414.71	2.047		
14,700.00	7,105.27	15,208.88	7,212.38	212.70	213.06	-97.25	-3,146.28	-7,588.83	849.00	428.71	420.30	2.020		
14,800.00	7,104.70	15,308.88	7,211.97	215.52	215.87	-97.26	-3,146.89	-7,688.82	849.02	423.14	425.88	1.994		
14,900.00	7,104.13	15,408.88	7,211.56	218.33	218.68	-97.27	-3,147.51	-7,788.82	849.04	417.57	431.47	1.968		
15,000.00	7,103.56	15,508.88	7,211.16	221.15	221.50	-97.28	-3,148.12	-7,888.82	849.06	412.00	437.06	1.943		
15,100.00	7,102.99	15,608.88	7,210.75	223.97	224.31	-97.29	-3,148.73	-7,988.82	849.08	406.43	442.66	1.918		
15,200.00	7,102.42	15,708.88	7,210.35	226.79	227.13	-97.30	-3,149.34	-8,088.81	849.10	400.85	448.25	1.894		
15,274.57	7,102.00	15,783.44	7,210.04	228.89	229.23	-97.31	-3,149.80	-8,163.38	849.12	396.70	452.42	1.877	SF	

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.48	299.83	2.50	299.84					
100.00	100.00	102.00	100.00	3.28	3.29	0.48	299.83	2.50	299.84	293.27	6.57	45.638		
200.00	200.00	202.00	200.00	3.34	3.34	0.48	299.83	2.50	299.84	293.16	6.68	44.915	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.54	299.83	2.50	301.58	294.69	6.89	43.786		
400.00	399.84	401.84	399.84	3.59	3.61	176.59	299.83	2.50	306.80	299.60	7.20	42.618		
500.00	499.45	501.45	499.45	3.79	3.81	176.68	299.83	2.50	315.50	307.90	7.60	41.504		
600.00	598.70	600.70	598.70	4.03	4.05	176.79	299.83	2.50	327.67	319.59	8.08	40.540		
700.00	697.47	705.82	692.16	4.31	4.33	176.68	300.64	1.20	344.13	335.48	8.65	39.803		
800.00	795.62	807.98	789.96	4.64	4.63	176.43	302.18	-1.26	364.69	355.43	9.25	39.409		
900.00	893.06	889.10	887.00	5.00	4.89	176.24	303.70	-3.70	388.65	378.81	9.84	39.488		
1,000.00	989.64	985.28	983.14	5.40	5.20	176.09	305.22	-6.12	415.98	405.47	10.52	39.558		
1,100.00	1,085.27	1,080.46	1,078.27	5.83	5.53	175.98	306.71	-8.52	446.65	435.43	11.22	39.810		
1,200.00	1,179.88	1,174.58	1,172.35	6.29	5.87	175.91	308.19	-10.88	480.42	468.47	11.95	40.202		
1,300.00	1,274.26	1,268.45	1,266.18	6.78	6.21	175.90	309.67	-13.25	514.89	502.20	12.69	40.584		
1,400.00	1,368.63	1,362.32	1,360.01	7.28	6.57	175.88	311.14	-15.61	549.36	535.92	13.45	40.859		
1,500.00	1,463.00	1,456.19	1,453.84	7.80	6.93	175.87	312.62	-17.97	583.83	569.61	14.22	41.054		
1,600.00	1,557.38	1,550.06	1,547.67	8.33	7.29	175.85	314.10	-20.33	618.31	603.30	15.01	41.187		
1,700.00	1,651.75	1,643.93	1,641.50	8.87	7.66	175.84	315.57	-22.69	652.78	636.97	15.82	41.274		
1,800.00	1,746.12	1,737.80	1,735.33	9.41	8.03	175.83	317.05	-25.06	687.25	670.62	16.63	41.326		
1,900.00	1,840.49	1,831.67	1,829.16	9.96	8.41	175.82	318.52	-27.42	721.73	704.27	17.45	41.351		
2,000.00	1,934.87	1,925.54	1,922.98	10.52	8.79	175.82	320.00	-29.78	756.20	737.92	18.29	41.355		
2,100.00	2,029.24	2,019.41	2,016.81	11.08	9.18	175.81	321.48	-32.14	790.67	771.55	19.12	41.344		
2,200.00	2,123.61	2,113.28	2,110.64	11.64	9.56	175.80	322.95	-34.50	825.15	805.18	19.97	41.322		
2,300.00	2,217.99	2,207.15	2,204.47	12.21	9.95	175.80	324.43	-36.87	859.62	838.80	20.82	41.290		
2,400.00	2,312.36	2,301.02	2,298.30	12.78	10.34	175.79	325.90	-39.23	894.09	872.42	21.67	41.252		
2,500.00	2,406.73	2,405.11	2,392.13	13.35	10.78	175.78	327.38	-41.59	928.57	905.99	22.58	41.132		
2,600.00	2,501.10	2,488.76	2,485.96	13.93	11.13	175.78	328.86	-43.95	963.04	939.65	23.40	41.164		
2,700.00	2,595.48	2,582.63	2,579.79	14.51	11.52	175.77	330.33	-46.31	997.51	973.25	24.26	41.115		
2,800.00	2,689.85	2,676.50	2,673.61	15.08	11.92	175.77	331.81	-48.67	1,031.99	1,006.86	25.13	41.065		
2,900.00	2,784.22	2,770.37	2,767.44	15.66	12.32	175.77	333.28	-51.04	1,066.46	1,040.46	26.00	41.015		
3,000.00	2,878.60	2,864.24	2,861.27	16.25	12.71	175.76	334.76	-53.40	1,100.93	1,074.06	26.88	40.963		
3,100.00	2,972.97	2,958.11	2,955.10	16.83	13.11	175.76	336.23	-55.76	1,135.41	1,107.66	27.75	40.912		
3,200.00	3,067.34	3,051.98	3,048.93	17.41	13.51	175.75	337.71	-58.12	1,169.88	1,141.25	28.63	40.861		
3,300.00	3,161.72	3,145.85	3,142.76	18.00	13.91	175.75	339.19	-60.48	1,204.35	1,174.84	29.51	40.811		
3,400.00	3,256.09	3,239.72	3,236.59	18.58	14.31	175.75	340.66	-62.85	1,238.83	1,208.44	30.39	40.761		
3,500.00	3,350.46	3,333.59	3,330.41	19.17	14.72	175.75	342.14	-65.21	1,273.30	1,242.03	31.28	40.713		
3,600.00	3,444.83	3,427.46	3,424.24	19.75	15.12	175.74	343.61	-67.57	1,307.78	1,275.62	32.16	40.665		
3,700.00	3,539.21	3,521.33	3,518.07	20.34	15.52	175.74	345.09	-69.93	1,342.25	1,309.20	33.05	40.618		
3,800.00	3,633.58	3,615.20	3,611.90	20.93	15.93	175.74	346.57	-72.29	1,376.72	1,342.79	33.93	40.572		
3,900.00	3,727.95	3,709.07	3,705.73	21.52	16.33	175.74	348.04	-74.66	1,411.20	1,376.37	34.82	40.527		
4,000.00	3,822.33	3,802.94	3,799.56	22.11	16.74	175.73	349.52	-77.02	1,445.67	1,409.96	35.71	40.483		
4,100.00	3,916.70	3,903.19	3,893.39	22.70	17.17	175.73	350.99	-79.38	1,480.14	1,443.51	36.63	40.410		
4,200.00	4,011.07	4,009.32	3,987.22	23.29	17.63	175.73	352.47	-81.74	1,514.62	1,477.04	37.57	40.313		
4,300.00	4,105.44	4,084.55	4,081.04	23.88	17.95	175.73	353.95	-84.10	1,549.09	1,510.71	38.38	40.359		
4,400.00	4,199.82	4,178.42	4,174.87	24.47	18.36	175.73	355.42	-86.47	1,583.56	1,544.29	39.28	40.319		
4,500.00	4,294.19	4,272.29	4,268.70	25.06	18.76	175.72	356.90	-88.83	1,618.04	1,577.87	40.17	40.281		
4,600.00	4,388.56	4,366.16	4,362.53	25.65	19.17	175.72	358.37	-91.19	1,652.51	1,611.45	41.06	40.243		
4,700.00	4,482.94	4,460.03	4,456.36	26.24	19.58	175.72	359.85	-93.55	1,686.98	1,645.03	41.96	40.207		
4,800.00	4,577.31	4,553.90	4,550.19	26.83	19.99	175.72	361.32	-95.91	1,721.46	1,678.60	42.85	40.171		
4,900.00	4,671.68	4,647.77	4,644.02	27.43	20.39	175.72	362.80	-98.27	1,755.93	1,712.18	43.75	40.137		
5,000.00	4,766.05	4,741.64	4,737.85	28.02	20.80	175.72	364.28	-100.64	1,790.40	1,745.76	44.65	40.103		
5,100.00	4,860.43	4,835.51	4,831.67	28.61	21.21	175.71	365.75	-103.00	1,824.88	1,779.33	45.54	40.070		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,929.38	4,925.50	29.20	21.62	175.71	367.23	-105.36	1,859.35	1,812.91	46.44	40.038		
5,300.00	5,049.17	5,023.25	5,019.33	29.80	22.02	175.71	368.70	-107.72	1,893.82	1,846.49	47.34	40.007		
5,400.00	5,143.55	5,117.12	5,113.16	30.39	22.43	175.71	370.18	-110.08	1,928.30	1,880.06	48.24	39.977		
5,500.00	5,237.92	5,210.99	5,206.99	30.99	22.84	175.71	371.66	-112.45	1,962.77	1,913.64	49.13	39.947		
5,600.00	5,332.29	5,304.86	5,300.82	31.58	23.25	175.71	373.13	-114.81	1,997.24	1,947.21	50.03	39.918		
5,700.00	5,426.66	5,401.27	5,394.65	32.17	23.67	175.71	374.61	-117.17	2,031.72	1,980.77	50.94	39.881		
5,800.00	5,521.04	5,507.40	5,488.47	32.77	24.13	175.71	376.08	-119.53	2,066.19	2,014.29	51.90	39.813		
5,900.00	5,615.41	5,586.47	5,582.30	33.36	24.48	175.71	377.56	-121.89	2,100.66	2,047.93	52.73	39.836		
6,000.00	5,709.78	5,680.34	5,676.13	33.96	24.89	175.70	379.04	-124.26	2,135.14	2,081.50	53.63	39.810		
6,100.00	5,804.16	5,774.21	5,769.96	34.55	25.30	175.70	380.51	-126.62	2,169.61	2,115.08	54.53	39.784		
6,200.00	5,898.53	5,868.08	5,863.79	35.14	25.71	175.70	381.99	-128.98	2,204.08	2,148.65	55.44	39.759		
6,300.00	5,992.90	5,961.95	5,957.62	35.74	26.12	175.70	383.46	-131.34	2,238.56	2,182.22	56.34	39.735		
6,400.00	6,087.27	6,055.82	6,051.45	36.33	26.53	175.70	384.94	-133.70	2,273.03	2,215.79	57.24	39.711		
6,500.00	6,181.65	6,149.69	6,145.28	36.93	26.94	175.70	386.41	-136.07	2,307.50	2,249.36	58.14	39.688		
6,600.00	6,276.02	6,243.56	6,239.10	37.52	27.35	175.70	387.89	-138.43	2,341.98	2,282.93	59.04	39.665		
6,700.00	6,370.39	6,337.43	6,332.93	38.12	27.76	175.70	389.37	-140.79	2,376.45	2,316.50	59.95	39.642		
6,800.00	6,464.77	6,431.30	6,426.76	38.71	28.17	175.70	390.84	-143.15	2,410.92	2,350.07	60.85	39.621		
6,900.00	6,559.14	6,525.17	6,520.59	39.31	28.58	175.45	392.32	-145.51	2,445.40	2,383.64	61.75	39.599		
7,000.00	6,652.92	6,618.66	6,614.03	39.90	28.99	149.12	393.79	-147.86	2,479.72	2,417.07	62.65	39.579		
7,100.00	6,744.00	6,715.78	6,710.69	40.44	29.41	130.25	395.26	-156.34	2,513.23	2,449.66	63.58	39.531		
7,200.00	6,830.13	6,816.84	6,808.67	40.94	29.86	117.65	396.64	-180.57	2,545.09	2,480.57	64.52	39.445		
7,300.00	6,909.19	6,922.20	6,905.42	41.37	30.34	109.04	397.86	-221.98	2,574.51	2,509.01	65.50	39.308		
7,400.00	6,979.23	7,032.47	6,997.91	41.75	30.86	102.98	398.88	-281.77	2,600.74	2,534.21	66.53	39.089		
7,500.00	7,038.53	7,147.97	7,082.21	42.08	31.46	98.65	399.62	-360.49	2,623.10	2,555.39	67.71	38.741		
7,600.00	7,085.63	7,268.56	7,153.55	42.37	32.23	95.61	400.02	-457.48	2,640.95	2,571.81	69.14	38.199		
7,700.00	7,119.37	7,393.47	7,206.83	42.64	33.23	93.60	400.00	-570.23	2,653.79	2,582.86	70.93	37.416		
7,800.00	7,138.92	7,521.28	7,237.54	42.91	34.53	92.47	399.55	-694.08	2,661.21	2,588.07	73.14	36.383		
7,900.00	7,143.92	7,642.04	7,243.91	43.25	35.97	92.15	398.73	-814.53	2,663.08	2,587.45	75.63	35.210		
8,000.00	7,143.35	7,742.04	7,243.60	43.72	37.34	92.16	397.96	-914.52	2,662.94	2,584.75	78.19	34.058		
8,100.00	7,142.78	7,842.04	7,243.29	44.42	38.86	92.16	397.20	-1,014.52	2,662.79	2,581.73	81.06	32.851		
8,200.00	7,142.22	7,942.04	7,242.97	45.39	40.53	92.17	396.43	-1,114.52	2,662.65	2,578.43	84.22	31.616		
8,300.00	7,141.65	8,042.04	7,242.66	46.63	42.33	92.17	395.66	-1,214.51	2,662.50	2,574.87	87.64	30.381		
8,400.00	7,141.08	8,142.03	7,242.35	48.09	44.24	92.18	394.89	-1,314.51	2,662.36	2,571.07	91.28	29.166		
8,500.00	7,140.51	8,242.03	7,242.04	49.74	46.24	92.19	394.13	-1,414.50	2,662.21	2,567.08	95.13	27.984		
8,600.00	7,139.94	8,342.03	7,241.73	51.53	48.34	92.19	393.36	-1,514.50	2,662.07	2,562.90	99.16	26.845		
8,700.00	7,139.37	8,442.03	7,241.41	53.44	50.50	92.20	392.59	-1,614.50	2,661.92	2,558.57	103.35	25.756		
8,800.00	7,138.80	8,542.03	7,241.10	55.45	52.74	92.20	391.82	-1,714.49	2,661.78	2,554.10	107.68	24.719		
8,900.00	7,138.24	8,642.03	7,240.79	57.55	55.03	92.21	391.06	-1,814.49	2,661.64	2,549.50	112.13	23.736		
9,000.00	7,137.67	8,742.03	7,240.48	59.71	57.37	92.21	390.29	-1,914.49	2,661.49	2,544.79	116.70	22.807		
9,100.00	7,137.10	8,842.03	7,240.17	61.94	59.76	92.22	389.52	-2,014.48	2,661.35	2,539.99	121.36	21.930		
9,200.00	7,136.53	8,942.03	7,239.85	64.22	62.19	92.23	388.75	-2,114.48	2,661.20	2,535.10	126.10	21.104		
9,300.00	7,135.96	9,042.03	7,239.54	66.55	64.65	92.23	387.99	-2,214.47	2,661.06	2,530.13	130.92	20.325		
9,400.00	7,135.39	9,142.03	7,239.23	68.92	67.14	92.24	387.22	-2,314.47	2,660.91	2,525.10	135.82	19.592		
9,500.00	7,134.83	9,242.03	7,238.92	71.33	69.66	92.24	386.45	-2,414.47	2,660.77	2,520.00	140.77	18.902		
9,600.00	7,134.26	9,342.03	7,238.61	73.77	72.21	92.25	385.68	-2,514.46	2,660.62	2,514.85	145.78	18.251		
9,700.00	7,133.69	9,442.03	7,238.29	76.24	74.78	92.25	384.92	-2,614.46	2,660.48	2,509.64	150.84	17.638		
9,800.00	7,133.12	9,542.03	7,237.98	78.74	77.37	92.26	384.15	-2,714.45	2,660.33	2,504.39	155.94	17.060		
9,900.00	7,132.55	9,642.03	7,237.67	81.27	79.98	92.27	383.38	-2,814.45	2,660.19	2,499.11	161.08	16.514		
10,000.00	7,131.98	9,742.03	7,237.36	83.81	82.60	92.27	382.61	-2,914.45	2,660.05	2,493.78	166.27	15.999		
10,100.00	7,131.42	9,842.03	7,237.05	86.38	85.24	92.28	381.85	-3,014.44	2,659.90	2,488.42	171.48	15.511		
10,200.00	7,130.85	9,942.03	7,236.74	88.96	87.90	92.28	381.08	-3,114.44	2,659.76	2,483.03	176.73	15.050		
10,300.00	7,130.28	10,042.03	7,236.42	91.56	90.56	92.29	380.31	-3,214.43	2,659.61	2,477.61	182.00	14.613		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	10,142.03	7,236.11	94.18	93.24	92.29	379.54	-3,314.43	2,659.47	2,472.17	187.30	14.199		
10,500.00	7,129.14	10,242.03	7,235.80	96.81	95.93	92.30	378.77	-3,414.43	2,659.32	2,466.70	192.62	13.806		
10,600.00	7,128.57	10,342.02	7,235.49	99.45	98.62	92.30	378.01	-3,514.42	2,659.18	2,461.21	197.97	13.432		
10,700.00	7,128.00	10,442.02	7,235.18	102.11	101.33	92.31	377.24	-3,614.42	2,659.04	2,455.70	203.33	13.077		
10,800.00	7,127.44	10,542.02	7,234.86	104.77	104.05	92.32	376.47	-3,714.42	2,658.89	2,450.18	208.72	12.739		
10,900.00	7,126.87	10,642.02	7,234.55	107.45	106.77	92.32	375.70	-3,814.41	2,658.75	2,444.63	214.12	12.417		
11,000.00	7,126.30	10,742.02	7,234.24	110.13	109.50	92.33	374.94	-3,914.41	2,658.60	2,439.07	219.53	12.110		
11,100.00	7,125.73	10,842.02	7,233.93	112.82	112.23	92.33	374.17	-4,014.40	2,658.46	2,433.50	224.96	11.817		
11,200.00	7,125.16	10,942.02	7,233.62	115.53	114.97	92.34	373.40	-4,114.40	2,658.32	2,427.91	230.41	11.537		
11,300.00	7,124.59	11,042.02	7,233.30	118.24	117.72	92.34	372.63	-4,214.40	2,658.17	2,422.31	235.86	11.270		
11,400.00	7,124.03	11,142.02	7,232.99	120.95	120.47	92.35	371.87	-4,314.39	2,658.03	2,416.70	241.33	11.014		
11,500.00	7,123.46	11,242.02	7,232.68	123.67	123.23	92.36	371.10	-4,414.39	2,657.88	2,411.07	246.81	10.769		
11,600.00	7,122.89	11,342.02	7,232.37	126.40	125.99	92.36	370.33	-4,514.38	2,657.74	2,405.44	252.30	10.534		
11,700.00	7,122.32	11,442.02	7,232.06	129.14	128.75	92.37	369.56	-4,614.38	2,657.60	2,399.80	257.80	10.309		
11,800.00	7,121.75	11,542.02	7,231.74	131.88	131.52	92.37	368.80	-4,714.38	2,657.45	2,394.14	263.31	10.093		
11,900.00	7,121.18	11,642.02	7,231.43	134.62	134.30	92.38	368.03	-4,814.37	2,657.31	2,388.48	268.83	9.885		
12,000.00	7,120.61	11,742.02	7,231.12	137.37	137.07	92.38	367.26	-4,914.37	2,657.16	2,382.81	274.35	9.685		
12,100.00	7,120.05	11,842.02	7,230.81	140.12	139.85	92.39	366.49	-5,014.36	2,657.02	2,377.14	279.88	9.493		
12,200.00	7,119.48	11,942.02	7,230.50	142.88	142.64	92.40	365.73	-5,114.36	2,656.88	2,371.46	285.42	9.309		
12,300.00	7,118.91	12,042.02	7,230.19	145.64	145.42	92.40	364.96	-5,214.36	2,656.73	2,365.77	290.97	9.131		
12,400.00	7,118.34	12,142.02	7,229.87	148.41	148.21	92.41	364.19	-5,314.35	2,656.59	2,360.07	296.52	8.959		
12,500.00	7,117.77	12,242.02	7,229.56	151.18	151.00	92.41	363.42	-5,414.35	2,656.45	2,354.37	302.08	8.794		
12,600.00	7,117.20	12,342.02	7,229.25	153.95	153.80	92.42	362.66	-5,514.35	2,656.30	2,348.66	307.64	8.634		
12,700.00	7,116.64	12,442.02	7,228.94	156.73	156.59	92.42	361.89	-5,614.34	2,656.16	2,342.95	313.21	8.480		
12,800.00	7,116.07	12,542.02	7,228.63	159.50	159.39	92.43	361.12	-5,714.34	2,656.01	2,337.23	318.78	8.332		
12,900.00	7,115.50	12,642.01	7,228.31	162.29	162.19	92.44	360.35	-5,814.33	2,655.87	2,331.51	324.36	8.188		
13,000.00	7,114.93	12,742.01	7,228.00	165.07	164.99	92.44	359.59	-5,914.33	2,655.73	2,325.78	329.94	8.049		
13,100.00	7,114.36	12,842.01	7,227.69	167.86	167.80	92.45	358.82	-6,014.33	2,655.58	2,320.05	335.53	7.915		
13,200.00	7,113.79	12,942.01	7,227.38	170.64	170.60	92.45	358.05	-6,114.32	2,655.44	2,314.32	341.12	7.784		
13,300.00	7,113.22	13,042.01	7,227.07	173.44	173.41	92.46	357.28	-6,214.32	2,655.30	2,308.58	346.72	7.658		
13,400.00	7,112.66	13,142.01	7,226.75	176.23	176.22	92.46	356.51	-6,314.31	2,655.15	2,302.84	352.32	7.536		
13,500.00	7,112.09	13,242.01	7,226.44	179.02	179.03	92.47	355.75	-6,414.31	2,655.01	2,297.09	357.92	7.418		
13,600.00	7,111.52	13,342.01	7,226.13	181.82	181.85	92.47	354.98	-6,514.31	2,654.87	2,291.34	363.52	7.303		
13,700.00	7,110.95	13,442.01	7,225.82	184.62	184.66	92.48	354.21	-6,614.30	2,654.72	2,285.59	369.13	7.192		
13,800.00	7,110.38	13,542.01	7,225.51	187.42	187.47	92.49	353.44	-6,714.30	2,654.58	2,279.84	374.74	7.084		
13,900.00	7,109.81	13,642.01	7,225.19	190.22	190.29	92.49	352.68	-6,814.30	2,654.44	2,274.08	380.36	6.979		
14,000.00	7,109.25	13,742.01	7,224.88	193.03	193.11	92.50	351.91	-6,914.29	2,654.29	2,268.32	385.98	6.877		
14,100.00	7,108.68	13,842.01	7,224.57	195.84	195.93	92.50	351.14	-7,014.29	2,654.15	2,262.55	391.60	6.778		
14,200.00	7,108.11	13,942.01	7,224.26	198.64	198.75	92.51	350.37	-7,114.28	2,654.01	2,256.79	397.22	6.681		
14,300.00	7,107.54	14,042.01	7,223.95	201.45	201.57	92.51	349.61	-7,214.28	2,653.86	2,251.02	402.84	6.588		
14,400.00	7,106.97	14,142.01	7,223.63	204.26	204.39	92.52	348.84	-7,314.28	2,653.72	2,245.25	408.47	6.497		
14,500.00	7,106.40	14,242.01	7,223.32	207.07	207.21	92.53	348.07	-7,414.27	2,653.58	2,239.48	414.10	6.408		
14,600.00	7,105.83	14,342.01	7,223.01	209.89	210.04	92.53	347.30	-7,514.27	2,653.43	2,233.70	419.73	6.322		
14,700.00	7,105.27	14,442.01	7,222.70	212.70	212.86	92.54	346.54	-7,614.26	2,653.29	2,227.92	425.37	6.238		
14,800.00	7,104.70	14,542.01	7,222.39	215.52	215.69	92.54	345.77	-7,714.26	2,653.15	2,222.15	431.00	6.156		
14,900.00	7,104.13	14,642.01	7,222.08	218.33	218.52	92.55	345.00	-7,814.26	2,653.01	2,216.36	436.64	6.076		
15,000.00	7,103.56	14,742.01	7,221.76	221.15	221.34	92.55	344.23	-7,914.25	2,652.86	2,210.58	442.28	5.998		
15,100.00	7,102.99	14,842.00	7,221.45	223.97	224.17	92.56	343.47	-8,014.25	2,652.72	2,204.80	447.92	5.922		
15,200.00	7,102.42	14,942.00	7,221.14	226.79	227.00	92.57	342.70	-8,114.24	2,652.58	2,199.01	453.56	5.848		
15,253.03	7,102.12	14,995.03	7,220.97	228.28	228.50	92.57	342.29	-8,167.27	2,652.50	2,195.94	456.56	5.810		
15,274.57	7,102.00	14,987.41	7,221.00	228.89	228.28	92.57	342.35	-8,159.65	2,652.63	2,195.78	456.85	5.806 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.53	59.75	0.56	59.76					
100.00	100.00	101.00	100.00	3.28	3.28	0.53	59.75	0.56	59.76	53.19	6.57	9.096		
200.00	200.00	201.02	200.02	3.34	3.34	0.53	59.75	0.56	59.76	53.08	6.67	8.952		
300.00	299.98	303.14	302.12	3.44	3.44	176.53	57.91	0.38	59.69	52.79	6.89	8.657		
400.00	399.84	405.26	404.08	3.59	3.60	176.39	52.44	-0.13	59.55	52.32	7.23	8.241		
500.00	499.45	507.37	505.78	3.79	3.81	176.16	43.35	-0.99	59.35	51.69	7.66	7.746		
600.00	598.70	609.47	607.08	4.03	4.06	175.83	30.67	-2.18	59.08	50.89	8.19	7.217		
700.00	697.47	711.56	707.84	4.31	4.35	175.41	14.40	-3.72	58.75	49.97	8.78	6.689		
800.00	795.62	813.63	807.95	4.64	4.69	174.89	-5.43	-5.58	58.36	48.92	9.44	6.183		
900.00	893.06	915.68	907.26	5.00	5.06	174.27	-28.79	-7.78	57.91	47.77	10.14	5.710		
942.86	934.57	959.13	949.29	5.17	5.23	173.98	-39.77	-8.82	57.74	47.29	10.45	5.525 CC, ES		
1,000.00	989.64	1,016.26	1,004.50	5.40	5.46	173.68	-54.39	-10.20	58.30	47.45	10.86	5.370		
1,100.00	1,085.27	1,116.19	1,101.07	5.83	5.88	173.46	-79.97	-12.61	62.02	50.42	11.61	5.344		
1,200.00	1,179.88	1,215.94	1,197.46	6.29	6.32	173.58	-105.51	-15.01	69.00	56.60	12.40	5.565		
1,300.00	1,274.26	1,315.64	1,293.81	6.78	6.78	173.75	-131.03	-17.42	76.73	63.51	13.22	5.805		
1,400.00	1,368.63	1,415.35	1,390.16	7.28	7.24	173.89	-156.56	-19.82	84.45	70.39	14.06	6.005		
1,500.00	1,463.00	1,515.05	1,486.51	7.80	7.72	174.00	-182.08	-22.22	92.18	77.25	14.93	6.174		
1,600.00	1,557.38	1,614.75	1,582.86	8.33	8.20	174.10	-207.61	-24.63	99.90	84.09	15.81	6.318		
1,700.00	1,651.75	1,714.45	1,679.21	8.87	8.69	174.18	-233.13	-27.03	107.63	90.91	16.71	6.440		
1,800.00	1,746.12	1,814.15	1,775.56	9.41	9.19	174.25	-258.65	-29.44	115.35	97.73	17.62	6.545		
1,900.00	1,840.49	1,913.85	1,871.90	9.96	9.69	174.32	-284.18	-31.84	123.08	104.53	18.55	6.636		
2,000.00	1,934.87	2,013.55	1,968.25	10.52	10.20	174.37	-309.70	-34.25	130.80	111.33	19.48	6.716		
2,100.00	2,029.24	2,113.25	2,064.60	11.08	10.70	174.42	-335.22	-36.65	138.53	118.11	20.42	6.785		
2,200.00	2,123.61	2,212.95	2,160.95	11.64	11.22	174.46	-360.75	-39.05	146.26	124.89	21.36	6.846		
2,300.00	2,217.99	2,312.65	2,257.30	12.21	11.73	174.50	-386.27	-41.46	153.98	131.67	22.32	6.900		
2,400.00	2,312.36	2,412.36	2,353.65	12.78	12.25	174.54	-411.80	-43.86	161.71	138.44	23.27	6.948		
2,500.00	2,406.73	2,512.06	2,450.00	13.35	12.76	174.57	-437.32	-46.27	169.44	145.20	24.24	6.991		
2,600.00	2,501.10	2,611.76	2,546.34	13.93	13.28	174.60	-462.84	-48.67	177.16	151.96	25.20	7.030		
2,700.00	2,595.48	2,711.46	2,642.69	14.51	13.81	174.63	-488.37	-51.08	184.89	158.72	26.17	7.064		
2,800.00	2,689.85	2,811.16	2,739.04	15.08	14.33	174.65	-513.89	-53.48	192.62	165.47	27.15	7.095		
2,900.00	2,784.22	2,910.86	2,835.39	15.66	14.85	174.68	-539.42	-55.88	200.34	172.22	28.12	7.124		
3,000.00	2,878.60	3,010.56	2,931.74	16.25	15.38	174.70	-564.94	-58.29	208.07	178.97	29.10	7.150		
3,100.00	2,972.97	3,110.26	3,028.09	16.83	15.90	174.72	-590.46	-60.69	215.80	185.71	30.08	7.173		
3,200.00	3,067.34	3,209.96	3,124.44	17.41	16.43	174.74	-615.99	-63.10	223.52	192.46	31.07	7.195		
3,300.00	3,161.72	3,309.66	3,220.78	18.00	16.96	174.76	-641.51	-65.50	231.25	199.20	32.05	7.215		
3,400.00	3,256.09	3,409.37	3,317.13	18.58	17.49	174.77	-667.04	-67.91	238.98	205.94	33.04	7.233		
3,500.00	3,350.46	3,509.07	3,413.48	19.17	18.02	174.79	-692.56	-70.31	246.70	212.67	34.03	7.250		
3,600.00	3,444.83	3,608.77	3,509.83	19.75	18.55	174.80	-718.08	-72.71	254.43	219.41	35.02	7.265		
3,700.00	3,539.21	3,708.47	3,606.18	20.34	19.08	174.81	-743.61	-75.12	262.16	226.15	36.01	7.280		
3,800.00	3,633.58	3,808.17	3,702.53	20.93	19.61	174.83	-769.13	-77.52	269.88	232.88	37.01	7.293		
3,900.00	3,727.95	3,907.87	3,798.87	21.52	20.14	174.84	-794.66	-79.93	277.61	239.61	38.00	7.306		
4,000.00	3,822.33	4,007.57	3,895.22	22.11	20.67	174.85	-820.18	-82.33	285.34	246.34	38.99	7.317		
4,100.00	3,916.70	4,107.27	3,991.57	22.70	21.21	174.86	-845.70	-84.74	293.07	253.07	39.99	7.328		
4,200.00	4,011.07	4,206.97	4,087.92	23.29	21.74	174.87	-871.23	-87.14	300.79	259.80	40.99	7.338		
4,300.00	4,105.44	4,306.68	4,184.27	23.88	22.27	174.88	-896.75	-89.55	308.52	266.53	41.99	7.348		
4,400.00	4,199.82	4,406.38	4,280.62	24.47	22.81	174.89	-922.27	-91.95	316.25	273.26	42.99	7.357		
4,500.00	4,294.19	4,506.08	4,376.97	25.06	23.34	174.90	-947.80	-94.35	323.97	279.99	43.99	7.365		
4,600.00	4,388.56	4,605.78	4,473.31	25.65	23.87	174.91	-973.32	-96.76	331.70	286.71	44.99	7.373		
4,700.00	4,482.94	4,705.48	4,569.66	26.24	24.41	174.91	-998.85	-99.16	339.43	293.44	45.99	7.381		
4,800.00	4,577.31	4,805.18	4,666.01	26.83	24.94	174.92	-1,024.37	-101.57	347.15	300.17	46.99	7.388		
4,900.00	4,671.68	4,904.88	4,762.36	27.43	25.48	174.93	-1,049.89	-103.97	354.88	306.89	47.99	7.395		
5,000.00	4,766.05	5,004.58	4,858.71	28.02	26.01	174.94	-1,075.42	-106.38	362.61	313.61	48.99	7.401		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	5,104.28	4,955.06	28.61	26.55	174.94	-1,100.94	-108.78	370.34	320.34	50.00	7.407		
5,200.00	4,954.80	5,203.98	5,051.41	29.20	27.08	174.95	-1,126.47	-111.18	378.06	327.06	51.00	7.413		
5,300.00	5,049.17	5,303.69	5,147.75	29.80	27.62	174.96	-1,151.99	-113.59	385.79	333.78	52.00	7.418		
5,400.00	5,143.55	5,403.39	5,244.10	30.39	28.16	174.96	-1,177.51	-115.99	393.52	340.51	53.01	7.424		
5,500.00	5,237.92	5,503.09	5,340.45	30.99	28.69	174.97	-1,203.04	-118.40	401.24	347.23	54.01	7.428		
5,600.00	5,332.29	5,602.79	5,436.80	31.58	29.23	174.97	-1,228.56	-120.80	408.97	353.95	55.02	7.433		
5,700.00	5,426.66	5,702.49	5,533.15	32.17	29.76	174.98	-1,254.09	-123.21	416.70	360.67	56.03	7.438		
5,800.00	5,521.04	5,802.19	5,629.50	32.77	30.30	174.98	-1,279.61	-125.61	424.42	367.39	57.03	7.442		
5,900.00	5,615.41	5,901.89	5,725.85	33.36	30.84	174.99	-1,305.13	-128.01	432.15	374.11	58.04	7.446		
6,000.00	5,709.78	6,001.59	5,822.19	33.96	31.37	174.99	-1,330.66	-130.42	439.88	380.83	59.04	7.450		
6,100.00	5,804.16	6,101.29	5,918.54	34.55	31.91	175.00	-1,356.18	-132.82	447.61	387.55	60.05	7.454		
6,200.00	5,898.53	6,200.99	6,014.89	35.14	32.45	175.00	-1,381.71	-135.23	455.33	394.27	61.06	7.457		
6,300.00	5,992.90	6,300.70	6,111.24	35.74	32.98	175.01	-1,407.23	-137.63	463.06	400.99	62.07	7.461		
6,400.00	6,087.27	6,400.40	6,207.59	36.33	33.52	175.01	-1,432.75	-140.04	470.79	407.71	63.07	7.464		
6,500.00	6,181.65	6,500.10	6,303.94	36.93	34.06	175.01	-1,458.28	-142.44	478.51	414.43	64.08	7.467		
6,600.00	6,276.02	6,599.16	6,399.56	37.52	34.59	174.77	-1,483.62	-146.94	486.27	421.18	65.09	7.470		
6,700.00	6,370.39	6,695.24	6,490.81	38.12	35.09	173.03	-1,507.90	-164.23	494.52	428.39	66.13	7.478		
6,800.00	6,464.77	6,784.94	6,572.81	38.71	35.52	170.00	-1,529.81	-193.01	504.56	437.42	67.14	7.515		
6,900.00	6,559.14	6,865.76	6,642.67	39.31	35.88	166.02	-1,548.56	-228.93	518.43	450.42	68.01	7.623		
7,000.00	6,652.92	6,940.21	6,702.65	39.90	36.18	137.58	-1,564.72	-269.89	536.33	467.80	68.53	7.826		
7,100.00	6,744.00	7,012.06	6,755.77	40.44	36.45	116.75	-1,579.11	-316.03	556.11	487.49	68.62	8.105		
7,200.00	6,830.13	7,081.91	6,802.26	40.94	36.70	102.51	-1,591.77	-366.54	576.39	508.12	68.27	8.443		
7,300.00	6,909.19	7,150.00	6,842.16	41.37	36.92	92.61	-1,602.71	-420.58	596.01	528.43	67.58	8.820		
7,400.00	6,979.23	7,217.28	6,875.88	41.75	37.13	85.52	-1,612.04	-478.02	614.00	547.27	66.73	9.202		
7,500.00	7,038.53	7,283.45	6,903.14	42.08	37.33	80.42	-1,619.67	-537.79	629.59	563.71	65.88	9.556		
7,600.00	7,085.63	7,350.00	6,924.36	42.37	37.56	76.81	-1,625.73	-600.55	642.19	576.90	65.29	9.836		
7,700.00	7,119.37	7,413.96	6,938.68	42.64	37.82	74.44	-1,629.95	-662.72	651.35	586.31	65.04	10.015		
7,800.00	7,138.92	7,478.68	6,946.95	42.91	38.15	73.12	-1,632.59	-726.82	656.78	591.41	65.37	10.048		
7,900.00	7,143.92	7,548.74	6,948.94	43.25	38.60	72.77	-1,633.61	-796.81	658.33	591.86	66.47	9.905		
8,000.00	7,143.35	7,648.74	6,948.57	43.72	39.50	72.79	-1,634.21	-896.81	658.28	589.46	68.82	9.565		
8,100.00	7,142.78	7,748.74	6,948.19	44.42	40.67	72.80	-1,634.81	-996.81	658.24	586.73	71.51	9.205		
8,200.00	7,142.22	7,848.74	6,947.81	45.39	42.08	72.82	-1,635.41	-1,096.81	658.20	583.69	74.51	8.834		
8,300.00	7,141.65	7,948.74	6,947.43	46.63	43.67	72.84	-1,636.00	-1,196.80	658.16	580.38	77.78	8.462		
8,400.00	7,141.08	8,048.74	6,947.05	48.09	45.41	72.85	-1,636.60	-1,296.80	658.11	576.82	81.29	8.095		
8,500.00	7,140.51	8,148.74	6,946.67	49.74	47.27	72.87	-1,637.20	-1,396.80	658.07	573.05	85.02	7.740		
8,600.00	7,139.94	8,248.74	6,946.29	51.53	49.25	72.88	-1,637.80	-1,496.79	658.03	569.10	88.93	7.399		
8,700.00	7,139.37	8,348.74	6,945.91	53.44	51.31	72.90	-1,638.40	-1,596.79	657.99	564.98	93.01	7.075		
8,800.00	7,138.80	8,448.74	6,945.53	55.45	53.45	72.92	-1,639.00	-1,696.79	657.95	560.73	97.22	6.768		
8,900.00	7,138.24	8,548.74	6,945.15	57.55	55.65	72.93	-1,639.60	-1,796.79	657.90	556.34	101.56	6.478		
9,000.00	7,137.67	8,648.74	6,944.77	59.71	57.92	72.95	-1,640.19	-1,896.78	657.86	551.85	106.01	6.206		
9,100.00	7,137.10	8,748.74	6,944.39	61.94	60.24	72.97	-1,640.79	-1,996.78	657.82	547.27	110.55	5.950		
9,200.00	7,136.53	8,848.74	6,944.01	64.22	62.60	72.98	-1,641.39	-2,096.78	657.78	542.59	115.18	5.711		
9,300.00	7,135.96	8,948.74	6,943.63	66.55	65.01	73.00	-1,641.99	-2,196.78	657.74	537.85	119.89	5.486		
9,400.00	7,135.39	9,048.74	6,943.25	68.92	67.45	73.01	-1,642.59	-2,296.77	657.70	533.03	124.66	5.276		
9,500.00	7,134.83	9,148.74	6,942.88	71.33	69.92	73.03	-1,643.19	-2,396.77	657.65	528.16	129.49	5.079		
9,600.00	7,134.26	9,248.74	6,942.50	73.77	72.43	73.05	-1,643.79	-2,496.77	657.61	523.23	134.38	4.894		
9,700.00	7,133.69	9,348.74	6,942.12	76.24	74.95	73.06	-1,644.39	-2,596.76	657.57	518.26	139.31	4.720		
9,800.00	7,133.12	9,448.74	6,941.74	78.74	77.51	73.08	-1,644.98	-2,696.76	657.53	513.24	144.29	4.557		
9,900.00	7,132.55	9,548.74	6,941.36	81.27	80.08	73.09	-1,645.58	-2,796.76	657.49	508.19	149.30	4.404		
10,000.00	7,131.98	9,648.74	6,940.98	83.81	82.67	73.11	-1,646.18	-2,896.76	657.45	503.10	154.35	4.259		
10,100.00	7,131.42	9,748.73	6,940.60	86.38	85.28	73.13	-1,646.78	-2,996.75	657.41	497.98	159.43	4.123		
10,200.00	7,130.85	9,848.73	6,940.22	88.96	87.90	73.14	-1,647.38	-3,096.75	657.37	492.82	164.54	3.995		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	9,948.73	6,939.84	91.56	90.54	73.16	-1,647.98	-3,196.75	657.32	487.65	169.68	3.874		
10,400.00	7,129.71	10,048.73	6,939.46	94.18	93.19	73.18	-1,648.58	-3,296.75	657.28	482.45	174.84	3.759		
10,500.00	7,129.14	10,148.73	6,939.08	96.81	95.86	73.19	-1,649.17	-3,396.74	657.24	477.22	180.02	3.651		
10,600.00	7,128.57	10,248.73	6,938.70	99.45	98.53	73.21	-1,649.77	-3,496.74	657.20	471.98	185.22	3.548		
10,700.00	7,128.00	10,348.73	6,938.32	102.11	101.22	73.22	-1,650.37	-3,596.74	657.16	466.72	190.44	3.451		
10,800.00	7,127.44	10,448.73	6,937.94	104.77	103.91	73.24	-1,650.97	-3,696.74	657.12	461.44	195.68	3.358		
10,900.00	7,126.87	10,548.73	6,937.56	107.45	106.62	73.26	-1,651.57	-3,796.73	657.08	456.14	200.94	3.270		
11,000.00	7,126.30	10,648.73	6,937.19	110.13	109.33	73.27	-1,652.17	-3,896.73	657.04	450.83	206.21	3.186		
11,100.00	7,125.73	10,748.73	6,936.81	112.82	112.05	73.29	-1,652.77	-3,996.73	657.00	445.51	211.49	3.107		
11,200.00	7,125.16	10,848.73	6,936.43	115.53	114.77	73.30	-1,653.36	-4,096.72	656.96	440.17	216.79	3.030		
11,300.00	7,124.59	10,948.73	6,936.05	118.24	117.50	73.32	-1,653.96	-4,196.72	656.92	434.82	222.09	2.958		
11,400.00	7,124.03	11,048.73	6,935.67	120.95	120.24	73.34	-1,654.56	-4,296.72	656.88	429.46	227.41	2.888		
11,500.00	7,123.46	11,148.73	6,935.29	123.67	122.98	73.35	-1,655.16	-4,396.72	656.84	424.09	232.74	2.822		
11,600.00	7,122.89	11,248.73	6,934.91	126.40	125.73	73.37	-1,655.76	-4,496.71	656.79	418.71	238.08	2.759		
11,700.00	7,122.32	11,348.73	6,934.53	129.14	128.48	73.39	-1,656.36	-4,596.71	656.75	413.32	243.43	2.698		
11,800.00	7,121.75	11,448.73	6,934.15	131.88	131.24	73.40	-1,656.96	-4,696.71	656.71	407.92	248.79	2.640		
11,900.00	7,121.18	11,548.73	6,933.77	134.62	134.00	73.42	-1,657.56	-4,796.71	656.67	402.52	254.16	2.584		
12,000.00	7,120.61	11,648.73	6,933.39	137.37	136.77	73.43	-1,658.15	-4,896.70	656.63	397.10	259.53	2.530		
12,100.00	7,120.05	11,748.73	6,933.01	140.12	139.54	73.45	-1,658.75	-4,996.70	656.59	391.68	264.91	2.479		
12,200.00	7,119.48	11,848.73	6,932.63	142.88	142.31	73.47	-1,659.35	-5,096.70	656.55	386.25	270.30	2.429		
12,300.00	7,118.91	11,948.73	6,932.25	145.64	145.09	73.48	-1,659.95	-5,196.69	656.51	380.82	275.69	2.381		
12,400.00	7,118.34	12,048.73	6,931.87	148.41	147.87	73.50	-1,660.55	-5,296.69	656.47	375.38	281.09	2.335		
12,500.00	7,117.77	12,148.73	6,931.50	151.18	150.65	73.51	-1,661.15	-5,396.69	656.43	369.93	286.50	2.291		
12,600.00	7,117.20	12,248.73	6,931.12	153.95	153.44	73.53	-1,661.75	-5,496.69	656.39	364.48	291.91	2.249		
12,700.00	7,116.64	12,348.73	6,930.74	156.73	156.23	73.55	-1,662.34	-5,596.68	656.35	359.02	297.33	2.207		
12,800.00	7,116.07	12,448.73	6,930.36	159.50	159.02	73.56	-1,662.94	-5,696.68	656.31	353.56	302.75	2.168		
12,900.00	7,115.50	12,548.73	6,929.98	162.29	161.81	73.58	-1,663.54	-5,796.68	656.27	348.09	308.18	2.130		
13,000.00	7,114.93	12,648.73	6,929.60	165.07	164.60	73.60	-1,664.14	-5,896.68	656.23	342.62	313.61	2.092		
13,100.00	7,114.36	12,748.73	6,929.22	167.86	167.40	73.61	-1,664.74	-5,996.67	656.19	337.14	319.05	2.057		
13,200.00	7,113.79	12,848.73	6,928.84	170.64	170.20	73.63	-1,665.34	-6,096.67	656.16	331.66	324.49	2.022		
13,300.00	7,113.22	12,948.73	6,928.46	173.44	173.00	73.64	-1,665.94	-6,196.67	656.12	326.18	329.94	1.989		
13,400.00	7,112.66	13,048.73	6,928.08	176.23	175.81	73.66	-1,666.54	-6,296.67	656.08	320.69	335.39	1.956		
13,500.00	7,112.09	13,148.73	6,927.70	179.02	178.61	73.68	-1,667.13	-6,396.66	656.04	315.20	340.84	1.925		
13,600.00	7,111.52	13,248.73	6,927.32	181.82	181.42	73.69	-1,667.73	-6,496.66	656.00	309.70	346.30	1.894		
13,700.00	7,110.95	13,348.73	6,926.94	184.62	184.23	73.71	-1,668.33	-6,596.66	655.96	304.20	351.76	1.865		
13,800.00	7,110.38	13,448.73	6,926.56	187.42	187.04	73.73	-1,668.93	-6,696.65	655.92	298.70	357.22	1.836		
13,900.00	7,109.81	13,548.73	6,926.18	190.22	189.85	73.74	-1,669.53	-6,796.65	655.88	293.19	362.69	1.808		
14,000.00	7,109.25	13,648.73	6,925.81	193.03	192.66	73.76	-1,670.13	-6,896.65	655.84	287.68	368.16	1.781		
14,100.00	7,108.68	13,748.73	6,925.43	195.84	195.47	73.77	-1,670.73	-6,996.65	655.80	282.17	373.63	1.755		
14,200.00	7,108.11	13,848.73	6,925.05	198.64	198.29	73.79	-1,671.32	-7,096.64	655.76	276.65	379.11	1.730		
14,300.00	7,107.54	13,948.73	6,924.67	201.45	201.11	73.81	-1,671.92	-7,196.64	655.72	271.14	384.59	1.705		
14,400.00	7,106.97	14,048.73	6,924.29	204.26	203.92	73.82	-1,672.52	-7,296.64	655.68	265.62	390.07	1.681		
14,500.00	7,106.40	14,148.73	6,923.91	207.07	206.74	73.84	-1,673.12	-7,396.64	655.65	260.09	395.55	1.658		
14,600.00	7,105.83	14,248.73	6,923.53	209.89	209.56	73.85	-1,673.72	-7,496.63	655.61	254.57	401.04	1.635		
14,700.00	7,105.27	14,348.73	6,923.15	212.70	212.38	73.87	-1,674.32	-7,596.63	655.57	249.04	406.53	1.613		
14,800.00	7,104.70	14,448.73	6,922.77	215.52	215.21	73.89	-1,674.92	-7,696.63	655.53	243.51	412.02	1.591		
14,900.00	7,104.13	14,548.73	6,922.39	218.33	218.03	73.90	-1,675.51	-7,796.63	655.49	237.97	417.52	1.570		
15,000.00	7,103.56	14,648.73	6,922.01	221.15	220.85	73.92	-1,676.11	-7,896.62	655.45	232.44	423.01	1.549		
15,100.00	7,102.99	14,748.73	6,921.63	223.97	223.68	73.94	-1,676.71	-7,996.62	655.41	226.90	428.51	1.530		
15,200.00	7,102.42	14,848.73	6,921.25	226.79	226.50	73.95	-1,677.31	-8,096.62	655.37	221.36	434.02	1.510		
15,266.91	7,102.04	14,915.63	6,921.00	228.68	228.39	73.96	-1,677.71	-8,163.52	655.35	217.65	437.70	1.497 Level 3, SF		
15,274.57	7,102.00	14,915.55	6,921.00	228.89	228.39	73.96	-1,677.71	-8,163.44	655.39	217.69	437.70	1.497 Level 3		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.40	79.78	0.56	79.78					
100.00	100.00	101.00	100.00	3.28	3.28	0.40	79.78	0.56	79.78	73.22	6.57	12.145		
200.00	200.00	201.03	200.03	3.34	3.34	0.40	79.78	0.56	79.78	73.11	6.67	11.953		
300.00	299.98	303.88	302.85	3.44	3.44	176.39	77.91	0.36	79.70	72.81	6.90	11.559		
400.00	399.84	406.72	405.54	3.59	3.60	176.23	72.37	-0.23	79.54	72.31	7.23	11.003		
500.00	499.45	509.56	507.95	3.79	3.81	175.97	63.17	-1.22	79.28	71.61	7.67	10.340		
600.00	598.70	612.38	609.95	4.03	4.07	175.60	50.32	-2.59	78.94	70.75	8.20	9.633		
700.00	697.47	715.18	711.41	4.31	4.36	175.13	33.85	-4.34	78.52	69.73	8.79	8.928		
800.00	795.62	817.96	812.18	4.64	4.70	174.54	13.77	-6.48	78.03	68.57	9.45	8.254		
846.75	841.27	865.56	858.60	4.80	4.87	174.24	3.29	-7.60	77.81	68.05	9.76	7.969 CC, ES		
900.00	893.06	918.81	910.48	5.00	5.07	173.95	-8.61	-8.87	78.31	68.18	10.12	7.736		
1,000.00	989.64	1,018.74	1,007.85	5.40	5.46	173.62	-30.95	-11.25	81.90	71.07	10.83	7.563		
1,100.00	1,085.27	1,118.48	1,105.05	5.83	5.87	173.57	-53.25	-13.63	88.95	77.37	11.58	7.682		
1,200.00	1,179.88	1,217.95	1,201.97	6.29	6.29	173.74	-75.48	-16.00	99.25	86.89	12.37	8.025		
1,300.00	1,274.26	1,317.33	1,298.81	6.78	6.73	173.93	-97.70	-18.37	110.30	97.12	13.18	8.368		
1,400.00	1,368.63	1,416.72	1,395.65	7.28	7.18	174.09	-119.92	-20.74	121.36	107.34	14.02	8.656		
1,500.00	1,463.00	1,516.11	1,492.49	7.80	7.64	174.22	-142.13	-23.11	132.41	117.53	14.88	8.900		
1,600.00	1,557.38	1,615.49	1,589.34	8.33	8.10	174.33	-164.35	-25.48	143.46	127.71	15.75	9.108		
1,700.00	1,651.75	1,714.88	1,686.18	8.87	8.57	174.43	-186.57	-27.85	154.51	137.87	16.64	9.285		
1,800.00	1,746.12	1,814.27	1,783.02	9.41	9.05	174.51	-208.79	-30.22	165.56	148.02	17.54	9.439		
1,900.00	1,840.49	1,913.66	1,879.87	9.96	9.53	174.58	-231.01	-32.59	176.62	158.17	18.45	9.572		
2,000.00	1,934.87	2,013.04	1,976.71	10.52	10.01	174.65	-253.22	-34.96	187.67	168.30	19.37	9.688		
2,100.00	2,029.24	2,112.43	2,073.55	11.08	10.50	174.70	-275.44	-37.32	198.72	178.43	20.30	9.790		
2,200.00	2,123.61	2,211.82	2,170.39	11.64	10.99	174.76	-297.66	-39.69	209.78	188.55	21.23	9.880		
2,300.00	2,217.99	2,311.20	2,267.24	12.21	11.48	174.80	-319.88	-42.06	220.83	198.66	22.17	9.960		
2,400.00	2,312.36	2,410.59	2,364.08	12.78	11.97	174.84	-342.09	-44.43	231.89	208.77	23.12	10.031		
2,500.00	2,406.73	2,509.98	2,460.92	13.35	12.47	174.88	-364.31	-46.80	242.94	218.87	24.07	10.095		
2,600.00	2,501.10	2,609.37	2,557.77	13.93	12.97	174.91	-386.53	-49.17	254.00	228.98	25.02	10.152		
2,700.00	2,595.48	2,708.75	2,654.61	14.51	13.47	174.95	-408.75	-51.54	265.05	239.07	25.98	10.204		
2,800.00	2,689.85	2,808.14	2,751.45	15.08	13.97	174.97	-430.96	-53.91	276.10	249.17	26.94	10.250		
2,900.00	2,784.22	2,907.53	2,848.29	15.66	14.47	175.00	-453.18	-56.28	287.16	259.26	27.90	10.293		
3,000.00	2,878.60	3,006.91	2,945.14	16.25	14.97	175.03	-475.40	-58.65	298.21	269.35	28.86	10.332		
3,100.00	2,972.97	3,106.30	3,041.98	16.83	15.47	175.05	-497.62	-61.02	309.27	279.44	29.83	10.367		
3,200.00	3,067.34	3,205.69	3,138.82	17.41	15.98	175.07	-519.84	-63.39	320.32	289.52	30.80	10.400		
3,300.00	3,161.72	3,305.07	3,235.67	18.00	16.48	175.09	-542.05	-65.76	331.38	299.61	31.77	10.430		
3,400.00	3,256.09	3,404.46	3,332.51	18.58	16.99	175.11	-564.27	-68.13	342.43	309.69	32.74	10.458		
3,500.00	3,350.46	3,503.85	3,429.35	19.17	17.50	175.13	-586.49	-70.49	353.49	319.77	33.72	10.483		
3,600.00	3,444.83	3,603.24	3,526.19	19.75	18.00	175.14	-608.71	-72.86	364.54	329.85	34.70	10.507		
3,700.00	3,539.21	3,702.62	3,623.04	20.34	18.51	175.16	-630.92	-75.23	375.60	339.92	35.67	10.529		
3,800.00	3,633.58	3,802.01	3,719.88	20.93	19.02	175.17	-653.14	-77.60	386.65	350.00	36.65	10.549		
3,900.00	3,727.95	3,901.40	3,816.72	21.52	19.53	175.19	-675.36	-79.97	397.71	360.07	37.63	10.568		
4,000.00	3,822.33	4,000.78	3,913.57	22.11	20.04	175.20	-697.58	-82.34	408.76	370.15	38.61	10.586		
4,100.00	3,916.70	4,100.17	4,010.41	22.70	20.55	175.21	-719.80	-84.71	419.82	380.22	39.59	10.603		
4,200.00	4,011.07	4,199.56	4,107.25	23.29	21.06	175.22	-742.01	-87.08	430.87	390.29	40.58	10.619		
4,300.00	4,105.44	4,301.06	4,204.09	23.88	21.58	175.23	-764.23	-89.45	441.93	400.36	41.57	10.631		
4,400.00	4,199.82	4,398.33	4,300.94	24.47	22.08	175.24	-786.45	-91.82	452.98	410.44	42.54	10.647		
4,500.00	4,294.19	4,497.72	4,397.78	25.06	22.59	175.25	-808.67	-94.19	464.04	420.51	43.53	10.660		
4,600.00	4,388.56	4,602.89	4,494.62	25.65	23.13	175.26	-830.88	-96.56	475.09	430.55	44.54	10.666		
4,700.00	4,482.94	4,703.51	4,591.47	26.24	23.65	175.27	-853.10	-98.93	486.15	440.61	45.53	10.677		
4,800.00	4,577.31	4,804.12	4,688.31	26.83	24.16	175.28	-875.32	-101.30	497.20	450.67	46.53	10.686		
4,900.00	4,671.68	4,904.73	4,785.15	27.43	24.68	175.29	-897.54	-103.66	508.26	460.74	47.52	10.696		
5,000.00	4,766.05	5,005.35	4,881.99	28.02	25.20	175.30	-919.75	-106.03	519.31	470.80	48.51	10.704		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	5,094.04	4,978.84	28.61	25.66	175.31	-941.97	-108.40	530.37	480.91	49.45	10.725		
5,200.00	4,954.80	5,193.43	5,075.68	29.20	26.17	175.31	-964.19	-110.77	541.42	490.98	50.44	10.734		
5,300.00	5,049.17	5,307.19	5,172.52	29.80	26.76	175.32	-986.41	-113.14	552.48	500.98	51.50	10.728		
5,400.00	5,143.55	5,407.80	5,269.37	30.39	27.28	175.33	-1,008.63	-115.51	563.53	511.04	52.49	10.735		
5,500.00	5,237.92	5,508.41	5,366.21	30.99	27.80	175.33	-1,030.84	-117.88	574.59	521.10	53.49	10.742		
5,600.00	5,332.29	5,590.98	5,463.05	31.58	28.22	175.34	-1,053.06	-120.25	585.64	531.24	54.40	10.766		
5,700.00	5,426.66	5,709.64	5,559.89	32.17	28.84	175.35	-1,075.28	-122.62	596.70	541.21	55.48	10.755		
5,800.00	5,521.04	5,789.75	5,656.74	32.77	29.25	175.35	-1,097.50	-124.99	607.75	551.37	56.38	10.779		
5,900.00	5,615.41	5,889.14	5,753.58	33.36	29.76	175.36	-1,119.71	-127.36	618.81	561.43	57.37	10.786		
6,000.00	5,709.78	5,988.52	5,850.42	33.96	30.28	175.36	-1,141.93	-129.73	629.86	571.50	58.36	10.792		
6,100.00	5,804.16	6,087.91	5,947.27	34.55	30.79	175.37	-1,164.15	-132.10	640.92	581.56	59.36	10.798		
6,200.00	5,898.53	6,187.30	6,044.11	35.14	31.30	175.37	-1,186.37	-134.47	651.97	591.62	60.35	10.803		
6,300.00	5,992.90	6,286.69	6,140.95	35.74	31.82	175.38	-1,208.58	-136.83	663.03	601.69	61.34	10.809		
6,400.00	6,087.27	6,386.07	6,237.79	36.33	32.33	175.38	-1,230.80	-139.20	674.08	611.75	62.33	10.814		
6,500.00	6,181.65	6,485.46	6,334.64	36.93	32.85	175.39	-1,253.02	-141.57	685.14	621.81	63.33	10.819		
6,600.00	6,276.02	6,584.85	6,431.48	37.52	33.36	175.39	-1,275.24	-143.94	696.19	631.87	64.32	10.824		
6,700.00	6,370.39	6,683.46	6,527.34	38.12	33.87	175.08	-1,297.25	-150.15	707.28	641.97	65.32	10.829		
6,800.00	6,464.77	6,778.63	6,617.97	38.71	34.34	173.68	-1,318.16	-169.87	718.78	652.48	66.31	10.840		
6,900.00	6,559.14	6,866.83	6,698.54	39.31	34.74	171.23	-1,336.83	-200.32	731.72	664.47	67.24	10.882		
7,000.00	6,652.92	6,949.01	6,769.23	39.90	35.09	144.32	-1,353.29	-238.73	746.54	678.48	68.06	10.969		
7,100.00	6,744.00	7,028.24	6,832.27	40.44	35.40	124.80	-1,368.04	-284.31	762.26	693.55	68.71	11.094		
7,200.00	6,830.13	7,105.14	6,887.72	40.94	35.67	111.65	-1,381.09	-335.91	778.08	708.91	69.17	11.248		
7,300.00	6,909.19	7,180.22	6,935.61	41.37	35.92	102.59	-1,392.43	-392.54	793.28	723.79	69.48	11.417		
7,400.00	6,979.23	7,253.86	6,975.94	41.75	36.16	96.16	-1,402.08	-453.35	807.19	737.48	69.71	11.579		
7,500.00	7,038.53	7,326.41	7,008.72	42.08	36.39	91.52	-1,410.01	-517.54	819.26	749.28	69.98	11.707		
7,600.00	7,085.63	7,400.00	7,034.48	42.37	36.65	88.24	-1,416.36	-586.14	829.05	758.60	70.45	11.768		
7,700.00	7,119.37	7,469.28	7,051.53	42.64	36.97	86.08	-1,420.71	-653.11	836.19	765.08	71.12	11.758		
7,800.00	7,138.92	7,540.06	7,061.51	42.91	37.38	84.87	-1,423.45	-723.09	840.46	768.28	72.18	11.644		
7,900.00	7,143.92	7,615.67	7,063.96	43.25	37.98	84.55	-1,424.51	-798.62	841.70	767.96	73.75	11.413		
8,000.00	7,143.35	7,715.67	7,063.73	43.72	39.00	84.57	-1,425.11	-898.62	841.69	765.49	76.19	11.047		
8,100.00	7,142.78	7,815.67	7,063.50	44.42	40.28	84.60	-1,425.71	-998.62	841.67	762.69	78.98	10.657		
8,200.00	7,142.22	7,915.67	7,063.27	45.39	41.77	84.62	-1,426.31	-1,098.61	841.65	759.59	82.06	10.256		
8,300.00	7,141.65	8,015.67	7,063.04	46.63	43.41	84.64	-1,426.90	-1,198.61	841.63	756.22	85.42	9.853		
8,400.00	7,141.08	8,115.67	7,062.81	48.09	45.19	84.66	-1,427.50	-1,298.61	841.62	752.60	89.01	9.455		
8,500.00	7,140.51	8,215.67	7,062.58	49.74	47.09	84.69	-1,428.10	-1,398.61	841.60	748.78	92.82	9.067		
8,600.00	7,139.94	8,315.67	7,062.35	51.53	49.08	84.71	-1,428.70	-1,498.60	841.58	744.77	96.81	8.693		
8,700.00	7,139.37	8,415.67	7,062.12	53.44	51.16	84.73	-1,429.30	-1,598.60	841.56	740.60	100.97	8.335		
8,800.00	7,138.80	8,515.67	7,061.89	55.45	53.32	84.76	-1,429.90	-1,698.60	841.55	736.28	105.27	7.994		
8,900.00	7,138.24	8,615.67	7,061.66	57.55	55.54	84.78	-1,430.50	-1,798.60	841.53	731.83	109.70	7.671		
9,000.00	7,137.67	8,715.67	7,061.43	59.71	57.82	84.80	-1,431.10	-1,898.59	841.51	727.27	114.25	7.366		
9,100.00	7,137.10	8,815.67	7,061.20	61.94	60.15	84.83	-1,431.69	-1,998.59	841.50	722.61	118.89	7.078		
9,200.00	7,136.53	8,915.66	7,060.97	64.22	62.52	84.85	-1,432.29	-2,098.59	841.48	717.86	123.62	6.807		
9,300.00	7,135.96	9,015.66	7,060.74	66.55	64.94	84.87	-1,432.89	-2,198.59	841.46	713.03	128.44	6.552		
9,400.00	7,135.39	9,115.66	7,060.51	68.92	67.38	84.89	-1,433.49	-2,298.58	841.45	708.13	133.32	6.312		
9,500.00	7,134.83	9,215.66	7,060.28	71.33	69.86	84.92	-1,434.09	-2,398.58	841.43	703.17	138.27	6.086		
9,600.00	7,134.26	9,315.66	7,060.05	73.77	72.37	84.94	-1,434.69	-2,498.58	841.42	698.15	143.27	5.873		
9,700.00	7,133.69	9,415.66	7,059.82	76.24	74.91	84.96	-1,435.29	-2,598.57	841.40	693.08	148.33	5.673		
9,800.00	7,133.12	9,515.66	7,059.59	78.74	77.46	84.99	-1,435.89	-2,698.57	841.39	687.96	153.43	5.484		
9,900.00	7,132.55	9,615.66	7,059.36	81.27	80.04	85.01	-1,436.49	-2,798.57	841.37	682.80	158.57	5.306		
10,000.00	7,131.98	9,715.66	7,059.13	83.81	82.64	85.03	-1,437.08	-2,898.57	841.35	677.61	163.75	5.138		
10,100.00	7,131.42	9,815.66	7,058.90	86.38	85.25	85.06	-1,437.68	-2,998.56	841.34	672.38	168.96	4.979		
10,200.00	7,130.85	9,915.66	7,058.67	88.96	87.88	85.08	-1,438.28	-3,098.56	841.32	667.12	174.21	4.829		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	10,015.66	7,058.44	91.56	90.52	85.10	-1,438.88	-3,198.56	841.31	661.83	179.48	4.687		
10,400.00	7,129.71	10,115.66	7,058.21	94.18	93.18	85.12	-1,439.48	-3,298.56	841.30	656.51	184.78	4.553		
10,500.00	7,129.14	10,215.66	7,057.97	96.81	95.84	85.15	-1,440.08	-3,398.55	841.28	651.17	190.11	4.425		
10,600.00	7,128.57	10,315.66	7,057.74	99.45	98.52	85.17	-1,440.68	-3,498.55	841.27	645.81	195.46	4.304		
10,700.00	7,128.00	10,415.66	7,057.51	102.11	101.21	85.19	-1,441.28	-3,598.55	841.25	640.43	200.82	4.189		
10,800.00	7,127.44	10,515.66	7,057.28	104.77	103.91	85.22	-1,441.87	-3,698.55	841.24	635.03	206.21	4.080		
10,900.00	7,126.87	10,615.65	7,057.05	107.45	106.61	85.24	-1,442.47	-3,798.54	841.22	629.61	211.61	3.975		
11,000.00	7,126.30	10,715.65	7,056.82	110.13	109.33	85.26	-1,443.07	-3,898.54	841.21	624.18	217.03	3.876		
11,100.00	7,125.73	10,815.65	7,056.59	112.82	112.05	85.29	-1,443.67	-3,998.54	841.20	618.73	222.46	3.781		
11,200.00	7,125.16	10,915.65	7,056.36	115.53	114.77	85.31	-1,444.27	-4,098.54	841.18	613.27	227.91	3.691		
11,300.00	7,124.59	11,015.65	7,056.13	118.24	117.51	85.33	-1,444.87	-4,198.53	841.17	607.80	233.37	3.604		
11,400.00	7,124.03	11,115.65	7,055.90	120.95	120.25	85.35	-1,445.47	-4,298.53	841.16	602.31	238.85	3.522		
11,500.00	7,123.46	11,215.65	7,055.67	123.67	122.99	85.38	-1,446.07	-4,398.53	841.14	596.81	244.33	3.443		
11,600.00	7,122.89	11,315.65	7,055.44	126.40	125.74	85.40	-1,446.67	-4,498.52	841.13	591.30	249.82	3.367		
11,700.00	7,122.32	11,415.65	7,055.21	129.14	128.50	85.42	-1,447.26	-4,598.52	841.12	585.79	255.33	3.294		
11,800.00	7,121.75	11,515.65	7,054.98	131.88	131.25	85.45	-1,447.86	-4,698.52	841.10	580.26	260.84	3.225		
11,900.00	7,121.18	11,615.65	7,054.75	134.62	134.02	85.47	-1,448.46	-4,798.52	841.09	574.73	266.36	3.158		
12,000.00	7,120.61	11,715.65	7,054.52	137.37	136.79	85.49	-1,449.06	-4,898.51	841.08	569.18	271.90	3.093		
12,100.00	7,120.05	11,815.65	7,054.29	140.12	139.56	85.52	-1,449.66	-4,998.51	841.07	563.63	277.43	3.032		
12,200.00	7,119.48	11,915.65	7,054.06	142.88	142.33	85.54	-1,450.26	-5,098.51	841.05	558.07	282.98	2.972		
12,300.00	7,118.91	12,015.65	7,053.83	145.64	145.11	85.56	-1,450.86	-5,198.51	841.04	552.51	288.53	2.915		
12,400.00	7,118.34	12,115.65	7,053.60	148.41	147.89	85.58	-1,451.46	-5,298.50	841.03	546.94	294.09	2.860		
12,500.00	7,117.77	12,215.65	7,053.37	151.18	150.67	85.61	-1,452.06	-5,398.50	841.02	541.36	299.66	2.807		
12,600.00	7,117.20	12,315.65	7,053.14	153.95	153.46	85.63	-1,452.65	-5,498.50	841.01	535.78	305.23	2.755		
12,700.00	7,116.64	12,415.64	7,052.91	156.73	156.25	85.65	-1,453.25	-5,598.50	840.99	530.19	310.80	2.706		
12,800.00	7,116.07	12,515.64	7,052.68	159.50	159.04	85.68	-1,453.85	-5,698.49	840.98	524.60	316.39	2.658		
12,900.00	7,115.50	12,615.64	7,052.45	162.29	161.83	85.70	-1,454.45	-5,798.49	840.97	519.00	321.97	2.612		
13,000.00	7,114.93	12,715.64	7,052.22	165.07	164.63	85.72	-1,455.05	-5,898.49	840.96	513.40	327.56	2.567		
13,100.00	7,114.36	12,815.64	7,051.98	167.86	167.43	85.75	-1,455.65	-5,998.49	840.95	507.79	333.16	2.524		
13,200.00	7,113.79	12,915.64	7,051.75	170.64	170.23	85.77	-1,456.25	-6,098.48	840.94	502.18	338.76	2.482		
13,300.00	7,113.22	13,015.64	7,051.52	173.44	173.03	85.79	-1,456.85	-6,198.48	840.93	496.56	344.36	2.442		
13,400.00	7,112.66	13,115.64	7,051.29	176.23	175.84	85.82	-1,457.44	-6,298.48	840.92	490.95	349.97	2.403		
13,500.00	7,112.09	13,215.64	7,051.06	179.02	178.64	85.84	-1,458.04	-6,398.47	840.91	485.32	355.58	2.365		
13,600.00	7,111.52	13,315.64	7,050.83	181.82	181.45	85.86	-1,458.64	-6,498.47	840.90	479.70	361.20	2.328		
13,700.00	7,110.95	13,415.64	7,050.60	184.62	184.26	85.88	-1,459.24	-6,598.47	840.89	474.07	366.82	2.292		
13,800.00	7,110.38	13,515.64	7,050.37	187.42	187.07	85.91	-1,459.84	-6,698.47	840.88	468.44	372.44	2.258		
13,900.00	7,109.81	13,615.64	7,050.14	190.22	189.88	85.93	-1,460.44	-6,798.46	840.87	462.80	378.07	2.224		
14,000.00	7,109.25	13,715.64	7,049.91	193.03	192.69	85.95	-1,461.04	-6,898.46	840.86	457.16	383.69	2.191		
14,100.00	7,108.68	13,815.64	7,049.68	195.84	195.51	85.98	-1,461.64	-6,998.46	840.85	451.52	389.32	2.160		
14,200.00	7,108.11	13,915.64	7,049.45	198.64	198.32	86.00	-1,462.24	-7,098.46	840.84	445.88	394.96	2.129		
14,300.00	7,107.54	14,015.64	7,049.22	201.45	201.14	86.02	-1,462.83	-7,198.45	840.83	440.23	400.60	2.099		
14,400.00	7,106.97	14,115.64	7,048.99	204.26	203.96	86.05	-1,463.43	-7,298.45	840.82	434.58	406.23	2.070		
14,500.00	7,106.40	14,215.63	7,048.76	207.07	206.78	86.07	-1,464.03	-7,398.45	840.81	428.93	411.88	2.041		
14,600.00	7,105.83	14,315.63	7,048.53	209.89	209.60	86.09	-1,464.63	-7,498.45	840.80	423.28	417.52	2.014		
14,700.00	7,105.27	14,415.63	7,048.30	212.70	212.42	86.11	-1,465.23	-7,598.44	840.79	417.63	423.17	1.987		
14,800.00	7,104.70	14,515.63	7,048.07	215.52	215.24	86.14	-1,465.83	-7,698.44	840.78	411.97	428.81	1.961		
14,900.00	7,104.13	14,615.63	7,047.84	218.33	218.07	86.16	-1,466.43	-7,798.44	840.77	406.31	434.46	1.935		
15,000.00	7,103.56	14,715.63	7,047.61	221.15	220.89	86.18	-1,467.03	-7,898.44	840.77	400.65	440.12	1.910		
15,100.00	7,102.99	14,815.63	7,047.38	223.97	223.72	86.21	-1,467.62	-7,998.43	840.76	394.99	445.77	1.886		
15,200.00	7,102.42	14,915.63	7,047.15	226.79	226.54	86.23	-1,468.22	-8,098.43	840.75	389.32	451.43	1.862		
15,268.44	7,102.03	14,984.07	7,046.99	228.72	228.48	86.25	-1,468.63	-8,166.87	840.74	385.44	455.30	1.847 SF		
15,274.57	7,102.00	14,979.18	7,047.00	228.89	228.34	86.24	-1,468.60	-8,161.98	840.82	385.70	455.12	1.847		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.48	99.83	0.83	99.84					
100.00	100.00	101.00	100.00	3.28	3.28	0.48	99.83	0.83	99.84	93.27	6.57	15.197		
200.00	200.00	201.04	200.04	3.34	3.34	0.48	99.83	0.83	99.84	93.16	6.67	14.957		
300.00	299.98	304.62	303.59	3.44	3.45	176.45	97.94	0.59	99.75	92.85	6.90	14.463		
400.00	399.84	408.19	407.01	3.59	3.61	176.25	92.33	-0.13	99.55	92.32	7.23	13.765		
500.00	499.45	511.76	510.14	3.79	3.82	175.92	83.02	-1.33	99.26	91.58	7.67	12.935		
600.00	598.70	615.30	612.85	4.03	4.08	175.45	70.03	-3.01	98.87	90.66	8.20	12.051		
700.00	697.47	718.82	714.99	4.31	4.37	174.85	53.36	-5.16	98.38	89.58	8.81	11.173		
723.71	720.80	742.83	738.59	4.39	4.45	174.69	49.02	-5.72	98.30	89.35	8.95	10.983 CC, ES		
800.00	795.62	819.10	813.58	4.64	4.70	174.18	35.17	-7.51	99.31	89.90	9.41	10.552		
900.00	893.06	919.00	911.79	5.00	5.06	173.90	17.03	-9.85	103.70	93.63	10.07	10.299		
1,000.00	989.64	1,018.68	1,009.79	5.40	5.43	173.76	-1.07	-12.18	111.57	100.79	10.78	10.353		
1,100.00	1,085.27	1,118.04	1,107.46	5.83	5.83	173.80	-19.12	-14.51	122.88	111.36	11.52	10.663		
1,200.00	1,179.88	1,216.97	1,204.72	6.29	6.23	173.99	-37.08	-16.83	137.43	125.13	12.31	11.167		
1,300.00	1,274.26	1,315.79	1,301.87	6.78	6.65	174.18	-55.03	-19.14	152.73	139.62	13.11	11.650		
1,400.00	1,368.63	1,414.61	1,399.02	7.28	7.07	174.34	-72.97	-21.46	168.02	154.09	13.94	12.057		
1,500.00	1,463.00	1,513.44	1,496.17	7.80	7.51	174.48	-90.92	-23.77	183.32	168.54	14.78	12.403		
1,600.00	1,557.38	1,612.26	1,593.33	8.33	7.95	174.59	-108.86	-26.08	198.62	182.98	15.64	12.698		
1,700.00	1,651.75	1,711.08	1,690.48	8.87	8.39	174.69	-126.81	-28.40	213.92	197.40	16.52	12.952		
1,800.00	1,746.12	1,809.90	1,787.63	9.41	8.84	174.77	-144.75	-30.71	229.22	211.82	17.40	13.172		
1,900.00	1,840.49	1,908.72	1,884.78	9.96	9.30	174.84	-162.70	-33.03	244.52	226.22	18.30	13.364		
2,000.00	1,934.87	2,007.55	1,981.93	10.52	9.75	174.91	-180.64	-35.34	259.82	240.62	19.20	13.531		
2,100.00	2,029.24	2,106.37	2,079.08	11.08	10.21	174.96	-198.59	-37.66	275.12	255.01	20.11	13.679		
2,200.00	2,123.61	2,205.19	2,176.24	11.64	10.68	175.02	-216.53	-39.97	290.42	269.39	21.03	13.810		
2,300.00	2,217.99	2,304.01	2,273.39	12.21	11.14	175.06	-234.48	-42.29	305.72	283.77	21.95	13.926		
2,400.00	2,312.36	2,402.84	2,370.54	12.78	11.61	175.10	-252.42	-44.60	321.02	298.14	22.88	14.030		
2,500.00	2,406.73	2,501.66	2,467.69	13.35	12.08	175.14	-270.37	-46.92	336.32	312.51	23.81	14.124		
2,600.00	2,501.10	2,600.48	2,564.84	13.93	12.55	175.18	-288.31	-49.23	351.62	326.87	24.75	14.208		
2,700.00	2,595.48	2,700.70	2,661.99	14.51	13.03	175.21	-306.26	-51.55	366.92	341.23	25.69	14.281		
2,800.00	2,689.85	2,801.88	2,759.15	15.08	13.51	175.24	-324.20	-53.86	382.23	355.58	26.65	14.344		
2,900.00	2,784.22	2,903.05	2,856.30	15.66	14.00	175.26	-342.15	-56.18	397.53	369.93	27.60	14.402		
3,000.00	2,878.60	3,004.23	2,953.45	16.25	14.49	175.29	-360.09	-58.49	412.83	384.27	28.56	14.455		
3,100.00	2,972.97	3,105.41	3,050.60	16.83	14.97	175.31	-378.04	-60.81	428.13	398.61	29.52	14.503		
3,200.00	3,067.34	3,206.59	3,147.75	17.41	15.46	175.33	-395.98	-63.12	443.43	412.95	30.48	14.547		
3,300.00	3,161.72	3,307.77	3,244.90	18.00	15.95	175.35	-413.93	-65.44	458.73	427.29	31.45	14.588		
3,400.00	3,256.09	3,408.94	3,342.06	18.58	16.44	175.37	-431.87	-67.75	474.04	441.62	32.41	14.625		
3,500.00	3,350.46	3,489.88	3,439.21	19.17	16.84	175.39	-449.82	-70.06	489.34	456.05	33.29	14.701		
3,600.00	3,444.83	3,588.70	3,536.36	19.75	17.32	175.41	-467.76	-72.38	504.64	470.39	34.24	14.736		
3,700.00	3,539.21	3,687.52	3,633.51	20.34	17.80	175.42	-485.71	-74.69	519.94	484.74	35.20	14.769		
3,800.00	3,633.58	3,786.35	3,730.66	20.93	18.28	175.44	-503.65	-77.01	535.24	499.08	36.16	14.800		
3,900.00	3,727.95	3,885.17	3,827.81	21.52	18.76	175.45	-521.60	-79.32	550.55	513.42	37.13	14.829		
4,000.00	3,822.33	3,983.99	3,924.97	22.11	19.24	175.47	-539.54	-81.64	565.85	527.76	38.09	14.856		
4,100.00	3,916.70	4,082.81	4,022.12	22.70	19.72	175.48	-557.49	-83.95	581.15	542.10	39.05	14.882		
4,200.00	4,011.07	4,181.64	4,119.27	23.29	20.21	175.49	-575.43	-86.27	596.45	556.44	40.02	14.906		
4,300.00	4,105.44	4,280.46	4,216.42	23.88	20.69	175.50	-593.38	-88.58	611.75	570.77	40.98	14.928		
4,400.00	4,199.82	4,379.28	4,313.57	24.47	21.17	175.51	-611.32	-90.90	627.06	585.11	41.95	14.949		
4,500.00	4,294.19	4,478.10	4,410.72	25.06	21.66	175.52	-629.27	-93.21	642.36	599.45	42.91	14.969		
4,600.00	4,388.56	4,576.92	4,507.88	25.65	22.14	175.53	-647.21	-95.53	657.66	613.78	43.88	14.988		
4,700.00	4,482.94	4,675.75	4,605.03	26.24	22.62	175.54	-665.16	-97.84	672.96	628.12	44.85	15.006		
4,800.00	4,577.31	4,774.57	4,702.18	26.83	23.11	175.55	-683.10	-100.16	688.27	642.45	45.82	15.023		
4,900.00	4,671.68	4,873.39	4,799.33	27.43	23.59	175.56	-701.05	-102.47	703.57	656.78	46.78	15.039		
5,000.00	4,766.05	4,972.21	4,896.48	28.02	24.08	175.57	-718.99	-104.79	718.87	671.12	47.75	15.054		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	5,071.04	4,993.63	28.61	24.56	175.57	-736.94	-107.10	734.17	685.45	48.72	15.068		
5,200.00	4,954.80	5,169.86	5,090.79	29.20	25.05	175.58	-754.88	-109.42	749.47	699.78	49.69	15.082		
5,300.00	5,049.17	5,268.68	5,187.94	29.80	25.53	175.59	-772.83	-111.73	764.78	714.11	50.66	15.095		
5,400.00	5,143.55	5,367.50	5,285.09	30.39	26.02	175.60	-790.77	-114.04	780.08	728.44	51.63	15.108		
5,500.00	5,237.92	5,466.32	5,382.24	30.99	26.50	175.60	-808.72	-116.36	795.38	742.78	52.61	15.120		
5,600.00	5,332.29	5,565.15	5,479.39	31.58	26.99	175.61	-826.66	-118.67	810.68	757.11	53.58	15.131		
5,700.00	5,426.66	5,663.97	5,576.54	32.17	27.48	175.61	-844.61	-120.99	825.99	771.44	54.55	15.142		
5,800.00	5,521.04	5,762.79	5,673.70	32.77	27.96	175.62	-862.55	-123.30	841.29	785.77	55.52	15.152		
5,900.00	5,615.41	5,861.61	5,770.85	33.36	28.45	175.63	-880.50	-125.62	856.59	800.10	56.49	15.162		
6,000.00	5,709.78	5,960.43	5,868.00	33.96	28.93	175.63	-898.44	-127.93	871.89	814.43	57.47	15.172		
6,100.00	5,804.16	6,059.26	5,965.15	34.55	29.42	175.64	-916.39	-130.25	887.20	828.75	58.44	15.181		
6,200.00	5,898.53	6,158.08	6,062.30	35.14	29.91	175.64	-934.33	-132.56	902.50	843.08	59.41	15.190		
6,300.00	5,992.90	6,256.90	6,159.45	35.74	30.39	175.65	-952.28	-134.88	917.80	857.41	60.39	15.198		
6,400.00	6,087.27	6,355.72	6,256.61	36.33	30.88	175.65	-970.22	-137.19	933.10	871.74	61.36	15.206		
6,500.00	6,181.65	6,454.55	6,353.76	36.93	31.37	175.66	-988.17	-139.51	948.41	886.07	62.34	15.214		
6,600.00	6,276.02	6,553.37	6,450.91	37.52	31.85	175.66	-1,006.11	-141.82	963.71	900.40	63.31	15.222		
6,700.00	6,370.39	6,652.47	6,548.32	38.12	32.34	175.65	-1,024.11	-144.43	979.01	914.72	64.29	15.228		
6,800.00	6,464.77	6,751.44	6,644.68	38.71	32.82	175.03	-1,042.09	-157.37	994.27	928.99	65.28	15.232		
6,900.00	6,559.14	6,845.05	6,732.94	39.31	33.25	173.44	-1,058.79	-183.44	1,009.92	943.70	66.22	15.251		
7,000.00	6,652.92	6,933.09	6,811.63	39.90	33.63	147.16	-1,073.90	-219.72	1,026.32	959.23	67.09	15.297		
7,100.00	6,744.00	7,018.08	6,882.22	40.44	33.96	128.20	-1,087.66	-264.91	1,042.86	974.98	67.89	15.362		
7,200.00	6,830.13	7,100.63	6,944.49	40.94	34.26	115.52	-1,100.02	-317.58	1,058.94	990.35	68.59	15.439		
7,300.00	6,909.19	7,181.22	6,998.30	41.37	34.54	106.86	-1,110.92	-376.50	1,073.98	1,004.75	69.23	15.512		
7,400.00	6,979.23	7,260.27	7,043.54	41.75	34.80	100.74	-1,120.33	-440.57	1,087.47	1,017.60	69.87	15.564		
7,500.00	7,038.53	7,338.10	7,080.11	42.08	35.08	96.36	-1,128.21	-508.77	1,098.94	1,028.36	70.58	15.570		
7,600.00	7,085.63	7,414.99	7,107.92	42.37	35.41	93.26	-1,134.53	-580.13	1,108.04	1,036.58	71.45	15.507		
7,700.00	7,119.37	7,491.19	7,126.93	42.64	35.86	91.20	-1,139.26	-653.72	1,114.45	1,041.89	72.56	15.358		
7,800.00	7,138.92	7,566.91	7,137.11	42.91	36.46	90.05	-1,142.39	-728.64	1,117.98	1,044.02	73.96	15.115		
7,900.00	7,143.92	7,649.66	7,138.84	43.25	37.28	89.74	-1,144.09	-811.32	1,118.45	1,042.65	75.80	14.754		
8,000.00	7,143.35	7,749.65	7,138.29	43.72	38.50	89.74	-1,145.66	-911.30	1,117.50	1,039.18	78.32	14.269		
8,100.00	7,142.78	7,849.65	7,137.75	44.42	39.90	89.74	-1,147.23	-1,011.28	1,116.54	1,035.39	81.15	13.759		
8,200.00	7,142.22	7,949.64	7,137.21	45.39	41.48	89.75	-1,148.80	-1,111.27	1,115.58	1,031.31	84.27	13.238		
8,300.00	7,141.65	8,049.64	7,136.67	46.63	43.19	89.75	-1,150.37	-1,211.25	1,114.62	1,026.97	87.66	12.716		
8,400.00	7,141.08	8,149.64	7,136.13	48.09	45.03	89.75	-1,151.94	-1,311.23	1,113.67	1,022.39	91.27	12.202		
8,500.00	7,140.51	8,249.63	7,135.58	49.74	46.97	89.75	-1,153.51	-1,411.21	1,112.71	1,017.61	95.09	11.701		
8,600.00	7,139.94	8,349.63	7,135.04	51.53	49.01	89.75	-1,155.08	-1,511.19	1,111.75	1,012.65	99.10	11.219		
8,700.00	7,139.37	8,449.62	7,134.50	53.44	51.12	89.75	-1,156.65	-1,611.17	1,110.80	1,007.53	103.26	10.757		
8,800.00	7,138.80	8,549.62	7,133.96	55.45	53.31	89.75	-1,158.22	-1,711.16	1,109.84	1,002.27	107.57	10.317		
8,900.00	7,138.24	8,649.61	7,133.42	57.55	55.56	89.75	-1,159.79	-1,811.14	1,108.88	996.87	112.01	9.900		
9,000.00	7,137.67	8,749.61	7,132.87	59.71	57.86	89.76	-1,161.36	-1,911.12	1,107.92	991.37	116.55	9.506		
9,100.00	7,137.10	8,849.60	7,132.33	61.94	60.21	89.76	-1,162.93	-2,011.10	1,106.97	985.77	121.19	9.134		
9,200.00	7,136.53	8,949.60	7,131.79	64.22	62.60	89.76	-1,164.50	-2,111.08	1,106.01	980.08	125.93	8.783		
9,300.00	7,135.96	9,049.59	7,131.25	66.55	65.03	89.76	-1,166.07	-2,211.06	1,105.05	974.31	130.74	8.452		
9,400.00	7,135.39	9,149.59	7,130.71	68.92	67.50	89.76	-1,167.64	-2,311.05	1,104.09	968.48	135.62	8.141		
9,500.00	7,134.83	9,249.58	7,130.16	71.33	69.99	89.76	-1,169.21	-2,411.03	1,103.14	962.58	140.56	7.848		
9,600.00	7,134.26	9,349.58	7,129.62	73.77	72.51	89.76	-1,170.78	-2,511.01	1,102.18	956.62	145.56	7.572		
9,700.00	7,133.69	9,449.58	7,129.08	76.24	75.05	89.76	-1,172.35	-2,610.99	1,101.22	950.61	150.61	7.312		
9,800.00	7,133.12	9,549.57	7,128.54	78.74	77.62	89.76	-1,173.92	-2,710.97	1,100.27	944.56	155.71	7.066		
9,900.00	7,132.55	9,649.57	7,128.00	81.27	80.21	89.77	-1,175.49	-2,810.95	1,099.31	938.46	160.85	6.835		
10,000.00	7,131.98	9,749.56	7,127.45	83.81	82.81	89.77	-1,177.06	-2,910.94	1,098.35	932.33	166.02	6.616		
10,100.00	7,131.42	9,849.56	7,126.91	86.38	85.43	89.77	-1,178.63	-3,010.92	1,097.39	926.16	171.23	6.409		
10,200.00	7,130.85	9,949.55	7,126.37	88.96	88.06	89.77	-1,180.20	-3,110.90	1,096.44	919.96	176.47	6.213		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	10,049.55	7,125.83	91.56	90.71	89.77	-1,181.77	-3,210.88	1,095.48	913.74	181.74	6.028		
10,400.00	7,129.71	10,149.54	7,125.29	94.18	93.37	89.77	-1,183.34	-3,310.86	1,094.52	907.48	187.04	5.852		
10,500.00	7,129.14	10,249.54	7,124.75	96.81	96.04	89.77	-1,184.91	-3,410.84	1,093.57	901.21	192.36	5.685		
10,600.00	7,128.57	10,349.53	7,124.20	99.45	98.73	89.77	-1,186.48	-3,510.83	1,092.61	894.91	197.70	5.527		
10,700.00	7,128.00	10,449.53	7,123.66	102.11	101.42	89.78	-1,188.05	-3,610.81	1,091.65	888.59	203.06	5.376		
10,800.00	7,127.44	10,549.53	7,123.12	104.77	104.12	89.78	-1,189.62	-3,710.79	1,090.69	882.25	208.44	5.233		
10,900.00	7,126.87	10,649.52	7,122.58	107.45	106.83	89.78	-1,191.19	-3,810.77	1,089.74	875.90	213.84	5.096		
11,000.00	7,126.30	10,749.52	7,122.04	110.13	109.54	89.78	-1,192.76	-3,910.75	1,088.78	869.53	219.25	4.966		
11,100.00	7,125.73	10,849.51	7,121.49	112.82	112.26	89.78	-1,194.33	-4,010.73	1,087.82	863.14	224.68	4.842		
11,200.00	7,125.16	10,949.51	7,120.95	115.53	114.99	89.78	-1,195.90	-4,110.71	1,086.86	856.74	230.13	4.723		
11,300.00	7,124.59	11,049.50	7,120.41	118.24	117.73	89.78	-1,197.47	-4,210.70	1,085.91	850.33	235.58	4.609		
11,400.00	7,124.03	11,149.50	7,119.87	120.95	120.47	89.78	-1,199.04	-4,310.68	1,084.95	843.90	241.05	4.501		
11,500.00	7,123.46	11,249.49	7,119.33	123.67	123.22	89.78	-1,200.61	-4,410.66	1,083.99	837.47	246.53	4.397		
11,600.00	7,122.89	11,349.49	7,118.78	126.40	125.97	89.79	-1,202.18	-4,510.64	1,083.04	831.02	252.02	4.297		
11,700.00	7,122.32	11,449.48	7,118.24	129.14	128.72	89.79	-1,203.75	-4,610.62	1,082.08	824.56	257.52	4.202		
11,800.00	7,121.75	11,549.48	7,117.70	131.88	131.48	89.79	-1,205.32	-4,710.60	1,081.12	818.10	263.02	4.110		
11,900.00	7,121.18	11,649.48	7,117.16	134.62	134.24	89.79	-1,206.89	-4,810.59	1,080.16	811.62	268.54	4.022		
12,000.00	7,120.61	11,749.47	7,116.62	137.37	137.01	89.79	-1,208.46	-4,910.57	1,079.21	805.14	274.07	3.938		
12,100.00	7,120.05	11,849.47	7,116.07	140.12	139.78	89.79	-1,210.03	-5,010.55	1,078.25	798.65	279.60	3.856		
12,200.00	7,119.48	11,949.46	7,115.53	142.88	142.56	89.79	-1,211.60	-5,110.53	1,077.29	792.15	285.14	3.778		
12,300.00	7,118.91	12,049.46	7,114.99	145.64	145.34	89.79	-1,213.17	-5,210.51	1,076.34	785.65	290.68	3.703		
12,400.00	7,118.34	12,149.45	7,114.45	148.41	148.12	89.80	-1,214.74	-5,310.49	1,075.38	779.14	296.24	3.630		
12,500.00	7,117.77	12,249.45	7,113.91	151.18	150.90	89.80	-1,216.31	-5,410.48	1,074.42	772.63	301.80	3.560		
12,600.00	7,117.20	12,349.44	7,113.36	153.95	153.68	89.80	-1,217.88	-5,510.46	1,073.46	766.10	307.36	3.493		
12,700.00	7,116.64	12,449.44	7,112.82	156.73	156.47	89.80	-1,219.45	-5,610.44	1,072.51	759.58	312.93	3.427		
12,800.00	7,116.07	12,549.43	7,112.28	159.50	159.26	89.80	-1,221.02	-5,710.42	1,071.55	753.04	318.51	3.364		
12,900.00	7,115.50	12,649.43	7,111.74	162.29	162.06	89.80	-1,222.59	-5,810.40	1,070.59	746.51	324.09	3.303		
13,000.00	7,114.93	12,749.42	7,111.20	165.07	164.85	89.80	-1,224.16	-5,910.38	1,069.64	739.97	329.67	3.245		
13,100.00	7,114.36	12,849.42	7,110.65	167.86	167.65	89.80	-1,225.73	-6,010.37	1,068.68	733.42	335.26	3.188		
13,200.00	7,113.79	12,949.42	7,110.11	170.64	170.45	89.81	-1,227.30	-6,110.35	1,067.72	726.87	340.85	3.133		
13,300.00	7,113.22	13,049.41	7,109.57	173.44	173.25	89.81	-1,228.87	-6,210.33	1,066.76	720.31	346.45	3.079		
13,400.00	7,112.66	13,149.41	7,109.03	176.23	176.05	89.81	-1,230.44	-6,310.31	1,065.81	713.76	352.05	3.027		
13,500.00	7,112.09	13,249.40	7,108.49	179.02	178.86	89.81	-1,232.01	-6,410.29	1,064.85	707.19	357.65	2.977		
13,600.00	7,111.52	13,349.40	7,107.95	181.82	181.66	89.81	-1,233.58	-6,510.27	1,063.89	700.63	363.26	2.929		
13,700.00	7,110.95	13,449.39	7,107.40	184.62	184.47	89.81	-1,235.15	-6,610.26	1,062.93	694.06	368.87	2.882		
13,800.00	7,110.38	13,549.39	7,106.86	187.42	187.28	89.81	-1,236.72	-6,710.24	1,061.98	687.49	374.49	2.836		
13,900.00	7,109.81	13,649.38	7,106.32	190.22	190.09	89.81	-1,238.29	-6,810.22	1,061.02	680.92	380.10	2.791		
14,000.00	7,109.25	13,749.38	7,105.78	193.03	192.90	89.82	-1,239.86	-6,910.20	1,060.06	674.34	385.72	2.748		
14,100.00	7,108.68	13,849.37	7,105.24	195.84	195.71	89.82	-1,241.43	-7,010.18	1,059.11	667.76	391.35	2.706		
14,200.00	7,108.11	13,949.37	7,104.69	198.64	198.53	89.82	-1,243.00	-7,110.16	1,058.15	661.18	396.97	2.666		
14,300.00	7,107.54	14,049.37	7,104.15	201.45	201.34	89.82	-1,244.57	-7,210.15	1,057.19	654.59	402.60	2.626		
14,400.00	7,106.97	14,149.36	7,103.61	204.26	204.16	89.82	-1,246.14	-7,310.13	1,056.23	648.00	408.23	2.587		
14,500.00	7,106.40	14,249.36	7,103.07	207.07	206.98	89.82	-1,247.71	-7,410.11	1,055.28	641.41	413.86	2.550		
14,600.00	7,105.83	14,349.35	7,102.53	209.89	209.80	89.82	-1,249.28	-7,510.09	1,054.32	634.82	419.50	2.513		
14,700.00	7,105.27	14,449.35	7,101.98	212.70	212.62	89.82	-1,250.85	-7,610.07	1,053.36	628.23	425.14	2.478		
14,800.00	7,104.70	14,549.34	7,101.44	215.52	215.44	89.83	-1,252.42	-7,710.05	1,052.41	621.63	430.77	2.443		
14,900.00	7,104.13	14,649.34	7,100.90	218.33	218.26	89.83	-1,253.99	-7,810.03	1,051.45	615.03	436.42	2.409		
15,000.00	7,103.56	14,749.33	7,100.36	221.15	221.08	89.83	-1,255.56	-7,910.02	1,050.49	608.43	442.06	2.376		
15,100.00	7,102.99	14,849.33	7,099.82	223.97	223.90	89.83	-1,257.13	-8,010.00	1,049.53	601.83	447.70	2.344		
15,200.00	7,102.42	14,949.32	7,099.27	226.79	226.73	89.83	-1,258.70	-8,109.98	1,048.58	595.23	453.35	2.313		
15,260.30	7,102.08	15,009.62	7,098.95	228.49	228.43	89.83	-1,259.64	-8,170.27	1,048.00	591.25	456.75	2.294 SF		
15,274.57	7,102.00	15,000.73	7,099.00	228.89	228.18	89.83	-1,259.50	-8,161.38	1,048.12	591.55	456.56	2.296		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.20	-20.04	-0.28	20.04					
100.00	100.00	100.00	100.00	3.28	3.28	-179.20	-20.04	-0.28	20.04	13.47	6.57	3.050		
200.00	200.00	200.00	200.00	3.34	3.34	-179.20	-20.04	-0.28	20.04	13.36	6.67	3.002		
300.00	299.98	299.31	299.29	3.44	3.44	-3.19	-21.75	-0.39	20.03	13.14	6.89	2.907		
400.00	399.84	398.61	398.45	3.59	3.59	-3.28	-26.91	-0.71	19.99	12.78	7.21	2.772		
500.00	499.45	497.92	497.39	3.79	3.79	-3.43	-35.48	-1.26	19.93	12.30	7.64	2.610		
600.00	598.70	597.23	595.96	4.03	4.03	-3.64	-47.48	-2.02	19.85	11.70	8.15	2.436		
700.00	697.47	696.55	694.07	4.31	4.30	-3.91	-62.88	-3.00	19.75	11.02	8.73	2.262		
800.00	795.62	795.87	791.58	4.64	4.62	-4.24	-81.66	-4.19	19.63	10.25	9.37	2.094		
900.00	893.06	895.19	888.39	5.00	4.98	-4.64	-103.80	-5.60	19.48	9.42	10.06	1.936		
1,000.00	989.64	994.52	984.37	5.40	5.37	-5.10	-129.29	-7.22	19.31	8.52	10.80	1.789		
1,100.00	1,085.27	1,093.86	1,079.42	5.83	5.80	-5.64	-158.08	-9.05	19.13	7.56	11.57	1.654		
1,116.78	1,101.21	1,110.52	1,095.27	5.90	5.88	-5.73	-163.23	-9.38	19.11	7.41	11.70	1.634 CC		
1,200.00	1,179.88	1,193.20	1,173.42	6.29	6.26	-6.18	-190.14	-11.09	19.12	6.76	12.36	1.547		
1,300.00	1,274.26	1,307.08	1,266.84	6.78	6.82	-6.11	-224.96	-13.30	21.17	7.92	13.25	1.598		
1,400.00	1,368.63	1,407.11	1,360.40	7.28	7.34	-5.99	-260.11	-15.54	23.47	9.37	14.10	1.664		
1,500.00	1,463.00	1,507.13	1,453.97	7.80	7.87	-5.90	-295.26	-17.77	25.77	10.79	14.98	1.720		
1,600.00	1,557.38	1,607.16	1,547.53	8.33	8.41	-5.82	-330.40	-20.00	28.07	12.18	15.89	1.767		
1,700.00	1,651.75	1,707.19	1,641.10	8.87	8.97	-5.75	-365.55	-22.24	30.37	13.56	16.81	1.807		
1,800.00	1,746.12	1,807.21	1,734.66	9.41	9.53	-5.69	-400.70	-24.47	32.67	14.92	17.75	1.841		
1,900.00	1,840.49	1,907.24	1,828.23	9.96	10.09	-5.64	-435.84	-26.71	34.97	16.27	18.70	1.870		
2,000.00	1,934.87	2,007.27	1,921.79	10.52	10.67	-5.59	-470.99	-28.94	37.27	17.61	19.66	1.896		
2,100.00	2,029.24	2,092.71	2,015.36	11.08	11.16	-5.55	-506.14	-31.17	39.57	19.01	20.56	1.925		
2,200.00	2,123.61	2,207.32	2,108.92	11.64	11.82	-5.52	-541.28	-33.41	41.87	20.26	21.61	1.938		
2,300.00	2,217.99	2,292.65	2,202.49	12.21	12.32	-5.49	-576.43	-35.64	44.17	21.65	22.52	1.961		
2,400.00	2,312.36	2,407.37	2,296.05	12.78	13.00	-5.46	-611.58	-37.88	46.47	22.88	23.59	1.970		
2,500.00	2,406.73	2,492.60	2,389.62	13.35	13.50	-5.43	-646.72	-40.11	48.77	24.26	24.51	1.990		
2,600.00	2,501.10	2,592.58	2,483.19	13.93	14.09	-5.41	-681.87	-42.34	51.07	25.56	25.52	2.002		
2,700.00	2,595.48	2,707.45	2,576.75	14.51	14.77	-5.39	-717.02	-44.58	53.37	26.77	26.60	2.006		
2,800.00	2,689.85	2,792.52	2,670.32	15.08	15.28	-5.37	-752.16	-46.81	55.67	28.14	27.54	2.022		
2,900.00	2,784.22	2,907.50	2,763.88	15.66	15.97	-5.35	-787.31	-49.04	57.97	29.35	28.63	2.025		
3,000.00	2,878.60	3,007.53	2,857.45	16.25	16.56	-5.33	-822.45	-51.28	60.27	30.63	29.65	2.033		
3,100.00	2,972.97	3,092.44	2,951.01	16.83	17.07	-5.32	-857.60	-53.51	62.57	31.98	30.59	2.046		
3,200.00	3,067.34	3,192.42	3,044.58	17.41	17.67	-5.30	-892.75	-55.75	64.87	33.26	31.61	2.052		
3,300.00	3,161.72	3,307.61	3,138.14	18.00	18.37	-5.29	-927.89	-57.98	67.18	34.46	32.72	2.053		
3,400.00	3,256.09	3,407.64	3,231.71	18.58	18.97	-5.28	-963.04	-60.21	69.48	35.73	33.75	2.059		
3,500.00	3,350.46	3,507.66	3,325.27	19.17	19.57	-5.26	-998.19	-62.45	71.78	37.00	34.78	2.064		
3,600.00	3,444.83	3,592.31	3,418.84	19.75	20.09	-5.25	-1,033.33	-64.68	74.08	38.35	35.73	2.073		
3,700.00	3,539.21	3,692.28	3,512.40	20.34	20.69	-5.24	-1,068.48	-66.91	76.38	39.61	36.76	2.077		
3,800.00	3,633.58	3,792.26	3,605.97	20.93	21.30	-5.23	-1,103.63	-69.15	78.68	40.88	37.80	2.081		
3,900.00	3,727.95	3,907.77	3,699.53	21.52	22.00	-5.22	-1,138.77	-71.38	80.98	42.06	38.92	2.081		
4,000.00	3,822.33	3,992.20	3,793.10	22.11	22.51	-5.22	-1,173.92	-73.62	83.28	43.40	39.87	2.089		
4,100.00	3,916.70	4,107.82	3,886.66	22.70	23.21	-5.21	-1,209.07	-75.85	85.58	44.58	40.99	2.088		
4,200.00	4,011.07	4,192.15	3,980.23	23.29	23.73	-5.20	-1,244.21	-78.08	87.88	45.93	41.95	2.095		
4,300.00	4,105.44	4,307.87	4,073.79	23.88	24.43	-5.19	-1,279.36	-80.32	90.18	47.10	43.08	2.093		
4,400.00	4,199.82	4,407.90	4,167.36	24.47	25.04	-5.19	-1,314.51	-82.55	92.48	48.36	44.12	2.096		
4,500.00	4,294.19	4,507.93	4,260.92	25.06	25.65	-5.18	-1,349.65	-84.79	94.78	49.62	45.16	2.099		
4,600.00	4,388.56	4,607.95	4,354.49	25.65	26.26	-5.17	-1,384.80	-87.02	97.08	50.88	46.20	2.101		
4,700.00	4,482.94	4,692.02	4,448.05	26.24	26.77	-5.17	-1,419.95	-89.25	99.38	52.22	47.16	2.107		
4,800.00	4,577.31	4,791.99	4,541.62	26.83	27.38	-5.16	-1,455.09	-91.49	101.68	53.47	48.21	2.109		
4,900.00	4,671.68	4,891.97	4,635.18	27.43	27.99	-5.16	-1,490.24	-93.72	103.98	54.73	49.26	2.111		
5,000.00	4,766.05	4,991.94	4,728.75	28.02	28.60	-5.15	-1,525.39	-95.95	106.28	55.98	50.30	2.113		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13C-16-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,100.00	4,860.43	5,091.91	4,822.31	28.61	29.21	-5.14	-1,560.53	-98.19	108.58	57.23	51.35	2.115	
5,200.00	4,954.80	5,191.89	4,915.88	29.20	29.82	-5.14	-1,595.68	-100.42	110.88	58.49	52.40	2.116	
5,300.00	5,049.17	5,308.14	5,009.44	29.80	30.53	-5.14	-1,630.83	-102.66	113.18	59.65	53.53	2.114	
5,400.00	5,143.55	5,408.17	5,103.01	30.39	31.14	-5.13	-1,665.97	-104.89	115.48	60.90	54.58	2.116	
5,500.00	5,237.92	5,491.81	5,196.57	30.99	31.65	-5.13	-1,701.12	-107.12	117.78	62.24	55.54	2.121	
5,600.00	5,332.29	5,608.22	5,290.14	31.58	32.37	-5.12	-1,736.27	-109.36	120.08	63.41	56.68	2.119	
5,700.00	5,426.66	5,708.25	5,383.70	32.17	32.98	-5.12	-1,771.41	-111.59	122.38	64.66	57.73	2.120	
5,800.00	5,521.04	5,808.27	5,477.27	32.77	33.59	-5.11	-1,806.56	-113.83	124.68	65.91	58.78	2.121	
5,900.00	5,615.41	5,908.30	5,570.84	33.36	34.20	-5.11	-1,841.71	-116.06	126.98	67.16	59.83	2.123	
6,000.00	5,709.78	5,991.68	5,664.40	33.96	34.71	-5.11	-1,876.85	-118.29	129.28	68.50	60.79	2.127	
6,100.00	5,804.16	6,091.65	5,757.97	34.55	35.33	-5.10	-1,912.00	-120.53	131.59	69.74	61.84	2.128	
6,200.00	5,898.53	6,208.38	5,851.53	35.14	36.04	-5.10	-1,947.14	-122.76	133.89	70.90	62.98	2.126	
6,300.00	5,992.90	6,308.40	5,945.10	35.74	36.65	-5.10	-1,982.29	-124.99	136.19	72.15	64.03	2.127	
6,400.00	6,087.27	6,408.43	6,038.66	36.33	37.27	-5.09	-2,017.44	-127.23	138.49	73.40	65.08	2.128	
6,500.00	6,181.65	6,491.54	6,132.23	36.93	37.78	-5.09	-2,052.58	-129.46	140.79	74.74	66.05	2.132	
6,600.00	6,276.02	6,608.48	6,225.79	37.52	38.49	-5.09	-2,087.73	-131.70	143.09	75.90	67.19	2.130	
6,700.00	6,370.39	6,691.49	6,319.36	38.12	39.00	-5.09	-2,122.88	-133.93	145.39	77.24	68.15	2.133	
6,800.00	6,464.77	6,808.54	6,412.92	38.71	39.72	-5.08	-2,158.02	-136.16	147.69	78.39	69.30	2.131	
6,900.00	6,559.14	6,908.56	6,506.49	39.31	40.33	-5.30	-2,193.17	-138.40	149.99	79.64	70.35	2.132	
7,000.00	6,652.92	6,990.99	6,599.66	39.90	40.84	-31.27	-2,228.17	-140.62	152.61	81.17	71.44	2.136	
7,100.00	6,744.00	7,089.64	6,691.96	40.44	41.44	-55.05	-2,262.85	-143.53	158.02	84.88	73.14	2.160	
7,200.00	6,830.13	7,193.72	6,788.14	40.94	42.06	-73.41	-2,299.08	-159.18	167.52	92.33	75.20	2.228	
7,300.00	6,909.19	7,302.87	6,884.98	41.37	42.65	-86.87	-2,335.70	-193.33	179.79	103.30	76.49	2.350	
7,400.00	6,979.23	7,417.52	6,979.19	41.75	43.19	-96.82	-2,371.50	-247.66	193.41	117.25	76.16	2.540	
7,500.00	7,038.53	7,537.84	7,066.53	42.08	43.67	-104.14	-2,404.87	-323.10	206.92	133.05	73.87	2.801	
7,600.00	7,085.63	7,663.66	7,141.91	42.37	44.10	-109.36	-2,433.92	-419.29	218.96	149.00	69.95	3.130	
7,700.00	7,119.37	7,794.30	7,199.84	42.64	44.46	-112.85	-2,456.56	-533.91	228.34	162.93	65.41	3.491	
7,800.00	7,138.92	7,928.51	7,235.27	42.91	44.80	-114.81	-2,470.86	-662.31	234.15	172.31	61.83	3.787	
7,900.00	7,143.92	8,059.90	7,244.93	43.25	45.16	-115.36	-2,475.50	-793.04	235.84	174.75	61.09	3.861	
8,000.00	7,143.35	8,159.90	7,244.43	43.72	45.54	-115.38	-2,476.09	-893.04	235.85	172.64	63.21	3.731	
8,100.00	7,142.78	8,259.90	7,243.93	44.42	46.10	-115.40	-2,476.68	-993.03	235.85	170.19	65.66	3.592	
8,200.00	7,142.22	8,359.90	7,243.43	45.39	46.90	-115.41	-2,477.27	-1,093.03	235.86	167.43	68.43	3.447	
8,300.00	7,141.65	8,459.90	7,242.93	46.63	47.97	-115.43	-2,477.86	-1,193.03	235.87	164.40	71.47	3.300	
8,400.00	7,141.08	8,559.90	7,242.43	48.09	49.29	-115.45	-2,478.44	-1,293.03	235.87	161.12	74.75	3.155	
8,500.00	7,140.51	8,659.90	7,241.93	49.74	50.82	-115.47	-2,479.03	-1,393.02	235.88	157.64	78.24	3.015	
8,600.00	7,139.94	8,759.90	7,241.43	51.53	52.52	-115.48	-2,479.62	-1,493.02	235.89	153.97	81.92	2.879	
8,700.00	7,139.37	8,859.90	7,240.93	53.44	54.36	-115.50	-2,480.21	-1,593.02	235.89	150.14	85.76	2.751	
8,800.00	7,138.80	8,959.90	7,240.43	55.45	56.31	-115.52	-2,480.80	-1,693.01	235.90	146.17	89.73	2.629	
8,900.00	7,138.24	9,059.90	7,239.93	57.55	58.35	-115.54	-2,481.39	-1,793.01	235.91	142.08	93.83	2.514	
9,000.00	7,137.67	9,159.90	7,239.43	59.71	60.47	-115.55	-2,481.97	-1,893.01	235.91	137.88	98.03	2.407	
9,100.00	7,137.10	9,259.90	7,238.93	61.94	62.66	-115.57	-2,482.56	-1,993.00	235.92	133.59	102.33	2.306	
9,200.00	7,136.53	9,359.90	7,238.43	64.22	64.90	-115.59	-2,483.15	-2,093.00	235.93	129.22	106.70	2.211	
9,300.00	7,135.96	9,459.90	7,237.92	66.55	67.20	-115.61	-2,483.74	-2,193.00	235.94	124.78	111.15	2.123	
9,400.00	7,135.39	9,559.90	7,237.42	68.92	69.54	-115.62	-2,484.33	-2,293.00	235.94	120.28	115.66	2.040	
9,500.00	7,134.83	9,659.90	7,236.92	71.33	71.92	-115.64	-2,484.91	-2,392.99	235.95	115.72	120.23	1.962	
9,600.00	7,134.26	9,759.90	7,236.42	73.77	74.34	-115.66	-2,485.50	-2,492.99	235.96	111.11	124.85	1.890	
9,700.00	7,133.69	9,859.90	7,235.92	76.24	76.78	-115.67	-2,486.09	-2,592.99	235.96	106.46	129.51	1.822	
9,800.00	7,133.12	9,959.90	7,235.42	78.74	79.26	-115.69	-2,486.68	-2,692.98	235.97	101.77	134.20	1.758	
9,900.00	7,132.55	10,059.90	7,234.92	81.27	81.76	-115.71	-2,487.27	-2,792.98	235.98	97.04	138.94	1.698	
10,000.00	7,131.98	10,159.90	7,234.42	83.81	84.29	-115.73	-2,487.86	-2,892.98	235.98	92.28	143.70	1.642	
10,100.00	7,131.42	10,259.90	7,233.92	86.38	86.84	-115.74	-2,488.44	-2,992.97	235.99	87.49	148.50	1.589	
10,200.00	7,130.85	10,359.90	7,233.42	88.96	89.40	-115.76	-2,489.03	-3,092.97	236.00	82.68	153.32	1.539	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	10,459.90	7,232.92	91.56	91.99	-115.78	-2,489.62	-3,192.97	236.01	77.84	158.16	1.492 Level 3		
10,400.00	7,129.71	10,559.90	7,232.42	94.18	94.59	-115.80	-2,490.21	-3,292.97	236.01	72.99	163.03	1.448 Level 3		
10,500.00	7,129.14	10,659.90	7,231.92	96.81	97.21	-115.81	-2,490.80	-3,392.96	236.02	68.11	167.91	1.406 Level 3		
10,600.00	7,128.57	10,759.90	7,231.42	99.45	99.84	-115.83	-2,491.38	-3,492.96	236.03	63.22	172.81	1.366 Level 3		
10,700.00	7,128.00	10,859.90	7,230.91	102.11	102.48	-115.85	-2,491.97	-3,592.96	236.03	58.31	177.72	1.328 Level 3		
10,800.00	7,127.44	10,959.90	7,230.41	104.77	105.13	-115.87	-2,492.56	-3,692.95	236.04	53.39	182.65	1.292 Level 3		
10,900.00	7,126.87	11,059.90	7,229.91	107.45	107.79	-115.88	-2,493.15	-3,792.95	236.05	48.45	187.60	1.258 Level 3		
11,000.00	7,126.30	11,159.90	7,229.41	110.13	110.47	-115.90	-2,493.74	-3,892.95	236.06	43.50	192.55	1.226 Level 2		
11,100.00	7,125.73	11,259.90	7,228.91	112.82	113.15	-115.92	-2,494.33	-3,992.94	236.06	38.55	197.52	1.195 Level 2		
11,200.00	7,125.16	11,359.90	7,228.41	115.53	115.84	-115.94	-2,494.91	-4,092.94	236.07	33.58	202.49	1.166 Level 2		
11,300.00	7,124.59	11,459.90	7,227.91	118.24	118.54	-115.95	-2,495.50	-4,192.94	236.08	28.60	207.48	1.138 Level 2		
11,400.00	7,124.03	11,559.90	7,227.41	120.95	121.25	-115.97	-2,496.09	-4,292.94	236.09	23.61	212.47	1.111 Level 2		
11,500.00	7,123.46	11,659.90	7,226.91	123.67	123.96	-115.99	-2,496.68	-4,392.93	236.09	18.62	217.47	1.086 Level 2		
11,600.00	7,122.89	11,759.90	7,226.41	126.40	126.69	-116.01	-2,497.27	-4,492.93	236.10	13.62	222.48	1.061 Level 2		
11,700.00	7,122.32	11,859.90	7,225.91	129.14	129.41	-116.02	-2,497.85	-4,592.93	236.11	8.61	227.50	1.038 Level 2		
11,800.00	7,121.75	11,959.90	7,225.41	131.88	132.14	-116.04	-2,498.44	-4,692.92	236.12	3.60	232.52	1.015 Level 2		
11,900.00	7,121.18	12,059.90	7,224.91	134.62	134.88	-116.06	-2,499.03	-4,792.92	236.12	-1.42	237.55	0.994 Level 1		
12,000.00	7,120.61	12,159.90	7,224.41	137.37	137.62	-116.08	-2,499.62	-4,892.92	236.13	-6.45	242.58	0.973 Level 1		
12,100.00	7,120.05	12,259.90	7,223.91	140.12	140.37	-116.09	-2,500.21	-4,992.91	236.14	-11.48	247.62	0.954 Level 1		
12,200.00	7,119.48	12,359.90	7,223.40	142.88	143.12	-116.11	-2,500.80	-5,092.91	236.15	-16.51	252.66	0.935 Level 1		
12,300.00	7,118.91	12,459.90	7,222.90	145.64	145.88	-116.13	-2,501.38	-5,192.91	236.15	-21.55	257.70	0.916 Level 1		
12,400.00	7,118.34	12,559.90	7,222.40	148.41	148.64	-116.15	-2,501.97	-5,292.91	236.16	-26.59	262.75	0.899 Level 1		
12,500.00	7,117.77	12,659.90	7,221.90	151.18	151.40	-116.16	-2,502.56	-5,392.90	236.17	-31.63	267.80	0.882 Level 1		
12,600.00	7,117.20	12,759.90	7,221.40	153.95	154.17	-116.18	-2,503.15	-5,492.90	236.18	-36.68	272.86	0.866 Level 1		
12,700.00	7,116.64	12,859.90	7,220.90	156.73	156.94	-116.20	-2,503.74	-5,592.90	236.18	-41.73	277.92	0.850 Level 1		
12,800.00	7,116.07	12,959.90	7,220.40	159.50	159.71	-116.22	-2,504.32	-5,692.89	236.19	-46.79	282.98	0.835 Level 1		
12,900.00	7,115.50	13,059.90	7,219.90	162.29	162.49	-116.23	-2,504.91	-5,792.89	236.20	-51.84	288.04	0.820 Level 1		
13,000.00	7,114.93	13,159.90	7,219.40	165.07	165.27	-116.25	-2,505.50	-5,892.89	236.21	-56.90	293.11	0.806 Level 1		
13,100.00	7,114.36	13,259.90	7,218.90	167.86	168.05	-116.27	-2,506.09	-5,992.88	236.21	-61.96	298.18	0.792 Level 1		
13,200.00	7,113.79	13,359.90	7,218.40	170.64	170.83	-116.28	-2,506.68	-6,092.88	236.22	-67.02	303.25	0.779 Level 1		
13,300.00	7,113.22	13,459.90	7,217.90	173.44	173.62	-116.30	-2,507.27	-6,192.88	236.23	-72.09	308.32	0.766 Level 1		
13,400.00	7,112.66	13,559.90	7,217.40	176.23	176.41	-116.32	-2,507.85	-6,292.88	236.24	-77.15	313.39	0.754 Level 1		
13,500.00	7,112.09	13,659.90	7,216.90	179.02	179.20	-116.34	-2,508.44	-6,392.87	236.25	-82.22	318.47	0.742 Level 1		
13,600.00	7,111.52	13,759.90	7,216.40	181.82	181.99	-116.35	-2,509.03	-6,492.87	236.25	-87.29	323.54	0.730 Level 1		
13,700.00	7,110.95	13,859.90	7,215.89	184.62	184.79	-116.37	-2,509.62	-6,592.87	236.26	-92.36	328.62	0.719 Level 1		
13,800.00	7,110.38	13,959.90	7,215.39	187.42	187.59	-116.39	-2,510.21	-6,692.86	236.27	-97.43	333.70	0.708 Level 1		
13,900.00	7,109.81	14,059.90	7,214.89	190.22	190.39	-116.41	-2,510.79	-6,792.86	236.28	-102.50	338.78	0.697 Level 1		
14,000.00	7,109.25	14,159.90	7,214.39	193.03	193.19	-116.42	-2,511.38	-6,892.86	236.29	-107.57	343.86	0.687 Level 1		
14,100.00	7,108.68	14,259.90	7,213.89	195.84	195.99	-116.44	-2,511.97	-6,992.85	236.29	-112.65	348.94	0.677 Level 1		
14,200.00	7,108.11	14,359.90	7,213.39	198.64	198.79	-116.46	-2,512.56	-7,092.85	236.30	-117.72	354.02	0.667 Level 1		
14,300.00	7,107.54	14,459.90	7,212.89	201.45	201.60	-116.48	-2,513.15	-7,192.85	236.31	-122.79	359.10	0.658 Level 1		
14,400.00	7,106.97	14,559.90	7,212.39	204.26	204.41	-116.49	-2,513.74	-7,292.85	236.32	-127.87	364.19	0.649 Level 1		
14,500.00	7,106.40	14,659.90	7,211.89	207.07	207.22	-116.51	-2,514.32	-7,392.84	236.33	-132.94	369.27	0.640 Level 1		
14,600.00	7,105.83	14,759.90	7,211.39	209.89	210.03	-116.53	-2,514.91	-7,492.84	236.33	-138.02	374.35	0.631 Level 1		
14,700.00	7,105.27	14,859.90	7,210.89	212.70	212.84	-116.55	-2,515.50	-7,592.84	236.34	-143.10	379.44	0.623 Level 1		
14,800.00	7,104.70	14,959.90	7,210.39	215.52	215.65	-116.56	-2,516.09	-7,692.83	236.35	-148.17	384.52	0.615 Level 1		
14,900.00	7,104.13	15,059.90	7,209.89	218.33	218.46	-116.58	-2,516.68	-7,792.83	236.36	-153.25	389.61	0.607 Level 1		
15,000.00	7,103.56	15,159.90	7,209.39	221.15	221.28	-116.60	-2,517.26	-7,892.83	236.37	-158.32	394.69	0.599 Level 1		
15,100.00	7,102.99	15,259.90	7,208.89	223.97	224.09	-116.62	-2,517.85	-7,992.82	236.37	-163.40	399.77	0.591 Level 1		
15,200.00	7,102.42	15,359.90	7,208.38	226.79	226.91	-116.63	-2,518.44	-8,092.82	236.38	-168.48	404.86	0.584 Level 1		
15,274.57	7,102.00	15,434.47	7,208.01	228.89	229.01	-116.65	-2,518.88	-8,167.39	236.39	-172.26	408.65	0.578 Level 1, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.60	-40.06	-0.28	40.06					
100.00	100.00	100.00	100.00	3.28	3.28	-179.60	-40.06	-0.28	40.06	33.49	6.57	6.098		
200.00	200.00	200.00	200.00	3.34	3.34	-179.60	-40.06	-0.28	40.06	33.39	6.67	6.003		
300.00	299.98	298.62	298.60	3.44	3.44	-3.58	-41.76	-0.38	40.04	33.15	6.89	5.813		
400.00	399.84	397.25	397.09	3.59	3.59	-3.66	-46.84	-0.68	39.97	32.76	7.21	5.544		
500.00	499.45	495.88	495.35	3.79	3.78	-3.79	-55.30	-1.19	39.86	32.22	7.63	5.222		
600.00	598.70	594.51	593.26	4.03	4.02	-3.97	-67.13	-1.89	39.70	31.55	8.14	4.876		
700.00	697.47	693.15	690.71	4.31	4.29	-4.20	-82.33	-2.80	39.49	30.77	8.72	4.528		
800.00	795.62	791.79	787.59	4.64	4.61	-4.49	-100.86	-3.90	39.24	29.88	9.36	4.192		
900.00	893.06	890.45	883.78	5.00	4.96	-4.83	-122.72	-5.20	38.95	28.90	10.05	3.877		
1,000.00	989.64	989.12	979.18	5.40	5.35	-5.23	-147.87	-6.70	38.61	27.84	10.78	3.583		
1,100.00	1,085.27	1,087.80	1,073.66	5.83	5.77	-5.69	-176.29	-8.39	38.24	26.70	11.54	3.313		
1,173.76	1,155.22	1,160.59	1,142.69	6.17	6.11	-6.02	-199.32	-9.77	38.26	26.13	12.13	3.155		
1,200.00	1,179.88	1,186.49	1,167.11	6.29	6.23	-6.18	-207.94	-10.28	38.03	25.69	12.34	3.082 CC		
1,300.00	1,274.26	1,285.12	1,259.36	6.78	6.72	-6.28	-242.77	-12.36	40.50	27.34	13.16	3.078		
1,400.00	1,368.63	1,384.17	1,350.87	7.28	7.24	-5.98	-280.60	-14.61	46.05	32.05	14.00	3.290		
1,500.00	1,463.00	1,483.98	1,442.88	7.80	7.78	-5.69	-319.21	-16.91	52.14	37.26	14.88	3.505		
1,600.00	1,557.38	1,583.79	1,534.90	8.33	8.34	-5.46	-357.82	-19.21	58.23	42.45	15.78	3.690		
1,700.00	1,651.75	1,683.61	1,626.91	8.87	8.91	-5.27	-396.43	-21.51	64.32	47.62	16.70	3.851		
1,800.00	1,746.12	1,783.42	1,718.93	9.41	9.50	-5.12	-435.04	-23.81	70.41	52.77	17.64	3.991		
1,900.00	1,840.49	1,883.24	1,810.94	9.96	10.09	-4.99	-473.65	-26.11	76.50	57.90	18.60	4.113		
2,000.00	1,934.87	1,983.05	1,902.96	10.52	10.68	-4.87	-512.26	-28.41	82.59	63.02	19.57	4.221		
2,100.00	2,029.24	2,082.87	1,994.97	11.08	11.28	-4.78	-550.87	-30.71	88.68	68.14	20.54	4.316		
2,200.00	2,123.61	2,182.68	2,086.99	11.64	11.89	-4.70	-589.49	-33.01	94.77	73.24	21.53	4.401		
2,300.00	2,217.99	2,282.49	2,179.00	12.21	12.50	-4.62	-628.10	-35.31	100.86	78.34	22.53	4.477		
2,400.00	2,312.36	2,382.31	2,271.02	12.78	13.11	-4.56	-666.71	-37.62	106.96	83.42	23.53	4.545		
2,500.00	2,406.73	2,482.12	2,363.03	13.35	13.73	-4.50	-705.32	-39.92	113.05	88.51	24.54	4.607		
2,600.00	2,501.10	2,581.94	2,455.05	13.93	14.35	-4.45	-743.93	-42.22	119.14	93.58	25.56	4.662		
2,700.00	2,595.48	2,681.75	2,547.06	14.51	14.97	-4.40	-782.54	-44.52	125.23	98.66	26.57	4.712		
2,800.00	2,689.85	2,781.57	2,639.08	15.08	15.59	-4.36	-821.15	-46.82	131.32	103.73	27.60	4.758		
2,900.00	2,784.22	2,881.38	2,731.09	15.66	16.22	-4.32	-859.76	-49.12	137.42	108.79	28.63	4.800		
3,000.00	2,878.60	2,981.19	2,823.11	16.25	16.84	-4.28	-898.38	-51.42	143.51	113.85	29.66	4.839		
3,100.00	2,972.97	3,081.01	2,915.12	16.83	17.47	-4.25	-936.99	-53.72	149.60	118.91	30.69	4.874		
3,200.00	3,067.34	3,180.82	3,007.14	17.41	18.10	-4.22	-975.60	-56.02	155.69	123.97	31.73	4.907		
3,300.00	3,161.72	3,280.64	3,099.15	18.00	18.73	-4.19	-1,014.21	-58.32	161.78	129.02	32.77	4.937		
3,400.00	3,256.09	3,380.45	3,191.16	18.58	19.36	-4.17	-1,052.82	-60.62	167.88	134.07	33.81	4.966		
3,500.00	3,350.46	3,480.26	3,283.18	19.17	20.00	-4.14	-1,091.43	-62.92	173.97	139.12	34.85	4.992		
3,600.00	3,444.83	3,580.08	3,375.19	19.75	20.63	-4.12	-1,130.04	-65.22	180.06	144.16	35.90	5.016		
3,700.00	3,539.21	3,679.89	3,467.21	20.34	21.26	-4.10	-1,168.65	-67.52	186.15	149.21	36.94	5.039		
3,800.00	3,633.58	3,779.71	3,559.22	20.93	21.90	-4.08	-1,207.27	-69.82	192.25	154.25	37.99	5.060		
3,900.00	3,727.95	3,879.52	3,651.24	21.52	22.54	-4.06	-1,245.88	-72.12	198.34	159.30	39.04	5.080		
4,000.00	3,822.33	3,979.34	3,743.25	22.11	23.17	-4.04	-1,284.49	-74.42	204.43	164.34	40.10	5.099		
4,100.00	3,916.70	4,079.15	3,835.27	22.70	23.81	-4.03	-1,323.10	-76.72	210.52	169.38	41.15	5.116		
4,200.00	4,011.07	4,178.96	3,927.28	23.29	24.44	-4.01	-1,361.71	-79.03	216.62	174.41	42.20	5.133		
4,300.00	4,105.44	4,278.78	4,019.30	23.88	25.08	-4.00	-1,400.32	-81.33	222.71	179.45	43.26	5.148		
4,400.00	4,199.82	4,378.59	4,111.31	24.47	25.72	-3.98	-1,438.93	-83.63	228.80	184.49	44.31	5.163		
4,500.00	4,294.19	4,478.41	4,203.33	25.06	26.36	-3.97	-1,477.54	-85.93	234.90	189.52	45.37	5.177		
4,600.00	4,388.56	4,578.22	4,295.34	25.65	27.00	-3.96	-1,516.16	-88.23	240.99	194.56	46.43	5.190		
4,700.00	4,482.94	4,678.04	4,387.36	26.24	27.64	-3.95	-1,554.77	-90.53	247.08	199.59	47.49	5.203		
4,800.00	4,577.31	4,777.85	4,479.37	26.83	28.28	-3.94	-1,593.38	-92.83	253.17	204.63	48.55	5.215		
4,900.00	4,671.68	4,877.66	4,571.39	27.43	28.92	-3.93	-1,631.99	-95.13	259.27	209.66	49.61	5.226		
5,000.00	4,766.05	4,977.48	4,663.40	28.02	29.56	-3.92	-1,670.60	-97.43	265.36	214.69	50.67	5.237		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	5,077.29	4,755.42	28.61	30.20	-3.91	-1,709.21	-99.73	271.45	219.72	51.73	5.247		
5,200.00	4,954.80	5,177.11	4,847.43	29.20	30.84	-3.90	-1,747.82	-102.03	277.54	224.75	52.79	5.257		
5,300.00	5,049.17	5,276.92	4,939.45	29.80	31.48	-3.89	-1,786.43	-104.33	283.64	229.78	53.86	5.267		
5,400.00	5,143.55	5,376.73	5,031.46	30.39	32.12	-3.88	-1,825.05	-106.63	289.73	234.81	54.92	5.276		
5,500.00	5,237.92	5,476.55	5,123.48	30.99	32.76	-3.87	-1,863.66	-108.93	295.82	239.84	55.98	5.284		
5,600.00	5,332.29	5,576.36	5,215.49	31.58	33.40	-3.86	-1,902.27	-111.23	301.91	244.87	57.05	5.292		
5,700.00	5,426.66	5,676.18	5,307.51	32.17	34.04	-3.86	-1,940.88	-113.53	308.01	249.90	58.11	5.300		
5,800.00	5,521.04	5,775.99	5,399.52	32.77	34.68	-3.85	-1,979.49	-115.83	314.10	254.92	59.18	5.308		
5,900.00	5,615.41	5,875.81	5,491.54	33.36	35.33	-3.84	-2,018.10	-118.13	320.19	259.95	60.24	5.315		
6,000.00	5,709.78	5,975.62	5,583.55	33.96	35.97	-3.83	-2,056.71	-120.44	326.29	264.98	61.31	5.322		
6,100.00	5,804.16	6,075.43	5,675.57	34.55	36.61	-3.83	-2,095.32	-122.74	332.38	270.01	62.37	5.329		
6,200.00	5,898.53	6,175.25	5,767.58	35.14	37.25	-3.82	-2,133.94	-125.04	338.47	275.03	63.44	5.335		
6,300.00	5,992.90	6,275.06	5,859.60	35.74	37.90	-3.82	-2,172.55	-127.34	344.56	280.06	64.51	5.342		
6,400.00	6,087.27	6,374.88	5,951.61	36.33	38.54	-3.81	-2,211.16	-129.64	350.66	285.08	65.57	5.348		
6,500.00	6,181.65	6,474.69	6,043.63	36.93	39.18	-3.80	-2,249.77	-131.94	356.75	290.11	66.64	5.353		
6,600.00	6,276.02	6,574.51	6,135.64	37.52	39.82	-3.80	-2,288.38	-134.24	362.84	295.13	67.71	5.359		
6,700.00	6,370.39	6,674.32	6,227.66	38.12	40.47	-3.79	-2,326.99	-136.54	368.93	300.16	68.78	5.364		
6,800.00	6,464.77	6,774.13	6,319.67	38.71	41.11	-3.79	-2,365.60	-138.84	375.03	305.18	69.84	5.370		
6,900.00	6,559.14	6,873.95	6,411.69	39.31	41.75	-4.00	-2,404.21	-141.14	381.12	310.21	70.91	5.375		
7,000.00	6,652.92	6,973.41	6,503.38	39.90	42.39	-27.85	-2,442.69	-143.47	387.21	315.20	72.02	5.377		
7,100.00	6,744.00	7,074.31	6,595.71	40.44	43.03	-45.54	-2,481.50	-145.83	393.58	320.36	73.22	5.375		
7,200.00	6,830.13	7,177.68	6,687.32	40.94	43.63	-57.11	-2,520.12	-182.72	400.10	325.64	74.46	5.373		
7,300.00	6,909.19	7,283.62	6,775.58	41.37	44.18	-64.84	-2,557.47	-227.58	406.55	330.89	75.66	5.373		
7,400.00	6,979.23	7,392.14	6,857.56	41.75	44.66	-70.22	-2,592.30	-289.34	412.66	335.89	76.77	5.375		
7,500.00	7,038.53	7,503.13	6,930.13	42.08	45.08	-74.04	-2,623.30	-367.19	418.14	340.37	77.77	5.376		
7,600.00	7,085.63	7,616.37	6,990.14	42.37	45.44	-76.74	-2,649.14	-459.49	422.73	343.95	78.77	5.366		
7,700.00	7,119.37	7,731.48	7,034.71	42.64	45.75	-78.55	-2,668.59	-563.65	426.15	346.24	79.92	5.333		
7,800.00	7,138.92	7,847.95	7,061.45	42.91	46.03	-79.59	-2,680.62	-676.21	428.23	346.87	81.36	5.264		
7,900.00	7,143.92	7,963.25	7,068.96	43.25	46.31	-79.93	-2,684.60	-791.04	428.82	345.60	83.22	5.153		
8,000.00	7,143.35	8,063.25	7,068.67	43.72	46.63	-79.97	-2,685.20	-891.04	428.75	343.20	85.56	5.011		
8,100.00	7,142.78	8,163.25	7,068.37	44.42	47.08	-80.00	-2,685.79	-991.04	428.69	340.51	88.18	4.862		
8,200.00	7,142.22	8,263.25	7,068.07	45.39	47.73	-80.04	-2,686.39	-1,091.03	428.63	337.56	91.07	4.706		
8,300.00	7,141.65	8,363.25	7,067.77	46.63	48.63	-80.07	-2,686.99	-1,191.03	428.57	334.35	94.22	4.549		
8,400.00	7,141.08	8,463.25	7,067.48	48.09	49.79	-80.11	-2,687.59	-1,291.03	428.51	330.92	97.59	4.391		
8,500.00	7,140.51	8,563.25	7,067.18	49.74	51.19	-80.14	-2,688.19	-1,391.03	428.45	327.28	101.16	4.235		
8,600.00	7,139.94	8,663.25	7,066.88	51.53	52.80	-80.18	-2,688.78	-1,491.02	428.39	323.47	104.92	4.083		
8,700.00	7,139.37	8,763.25	7,066.58	53.44	54.56	-80.22	-2,689.38	-1,591.02	428.32	319.49	108.83	3.936		
8,800.00	7,138.80	8,863.25	7,066.29	55.45	56.46	-80.25	-2,689.98	-1,691.02	428.26	315.37	112.90	3.793		
8,900.00	7,138.24	8,963.25	7,065.99	57.55	58.46	-80.29	-2,690.58	-1,791.01	428.20	311.11	117.09	3.657		
9,000.00	7,137.67	9,063.25	7,065.69	59.71	60.55	-80.32	-2,691.17	-1,891.01	428.14	306.74	121.41	3.527		
9,100.00	7,137.10	9,163.25	7,065.39	61.94	62.71	-80.36	-2,691.77	-1,991.01	428.08	302.26	125.83	3.402		
9,200.00	7,136.53	9,263.25	7,065.10	64.22	64.93	-80.39	-2,692.37	-2,091.01	428.02	297.68	130.34	3.284		
9,300.00	7,135.96	9,363.25	7,064.80	66.55	67.21	-80.43	-2,692.97	-2,191.00	427.96	293.02	134.94	3.171		
9,400.00	7,135.39	9,463.25	7,064.50	68.92	69.54	-80.46	-2,693.57	-2,291.00	427.90	288.28	139.62	3.065		
9,500.00	7,134.83	9,563.25	7,064.20	71.33	71.91	-80.50	-2,694.16	-2,391.00	427.84	283.48	144.37	2.964		
9,600.00	7,134.26	9,663.25	7,063.90	73.77	74.31	-80.53	-2,694.76	-2,491.00	427.78	278.61	149.18	2.868		
9,700.00	7,133.69	9,763.25	7,063.61	76.24	76.75	-80.57	-2,695.36	-2,590.99	427.72	273.68	154.05	2.777		
9,800.00	7,133.12	9,863.25	7,063.31	78.74	79.22	-80.61	-2,695.96	-2,690.99	427.67	268.70	158.97	2.690		
9,900.00	7,132.55	9,963.24	7,063.01	81.27	81.72	-80.64	-2,696.56	-2,790.99	427.61	263.67	163.94	2.608		
10,000.00	7,131.98	10,063.24	7,062.71	83.81	84.24	-80.68	-2,697.15	-2,890.99	427.55	258.60	168.95	2.531		
10,100.00	7,131.42	10,163.24	7,062.42	86.38	86.78	-80.71	-2,697.75	-2,990.98	427.49	253.49	174.00	2.457		
10,200.00	7,130.85	10,263.24	7,062.12	88.96	89.34	-80.75	-2,698.35	-3,090.98	427.43	248.34	179.09	2.387		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	10,363.24	7,061.82	91.56	91.92	-80.78	-2,698.95	-3,190.98	427.37	243.16	184.22	2.320		
10,400.00	7,129.71	10,463.24	7,061.52	94.18	94.52	-80.82	-2,699.55	-3,290.98	427.31	237.94	189.37	2.257		
10,500.00	7,129.14	10,563.24	7,061.23	96.81	97.13	-80.85	-2,700.14	-3,390.97	427.26	232.70	194.55	2.196		
10,600.00	7,128.57	10,663.24	7,060.93	99.45	99.76	-80.89	-2,700.74	-3,490.97	427.20	227.44	199.76	2.139		
10,700.00	7,128.00	10,763.24	7,060.63	102.11	102.39	-80.92	-2,701.34	-3,590.97	427.14	222.14	205.00	2.084		
10,800.00	7,127.44	10,863.24	7,060.33	104.77	105.04	-80.96	-2,701.94	-3,690.97	427.08	216.83	210.25	2.031		
10,900.00	7,126.87	10,963.24	7,060.04	107.45	107.71	-81.00	-2,702.54	-3,790.96	427.03	211.49	215.53	1.981		
11,000.00	7,126.30	11,063.24	7,059.74	110.13	110.38	-81.03	-2,703.13	-3,890.96	426.97	206.14	220.83	1.933		
11,100.00	7,125.73	11,163.24	7,059.44	112.82	113.06	-81.07	-2,703.73	-3,990.96	426.91	200.76	226.15	1.888		
11,200.00	7,125.16	11,263.24	7,059.14	115.53	115.75	-81.10	-2,704.33	-4,090.96	426.85	195.37	231.48	1.844		
11,300.00	7,124.59	11,363.24	7,058.85	118.24	118.45	-81.14	-2,704.93	-4,190.95	426.80	189.97	236.83	1.802		
11,400.00	7,124.03	11,463.24	7,058.55	120.95	121.15	-81.17	-2,705.53	-4,290.95	426.74	184.55	242.20	1.762		
11,500.00	7,123.46	11,563.24	7,058.25	123.67	123.86	-81.21	-2,706.12	-4,390.95	426.68	179.11	247.57	1.723		
11,600.00	7,122.89	11,663.24	7,057.95	126.40	126.58	-81.25	-2,706.72	-4,490.94	426.63	173.66	252.97	1.686		
11,700.00	7,122.32	11,763.24	7,057.66	129.14	129.31	-81.28	-2,707.32	-4,590.94	426.57	168.20	258.37	1.651		
11,800.00	7,121.75	11,863.24	7,057.36	131.88	132.04	-81.32	-2,707.92	-4,690.94	426.52	162.73	263.79	1.617		
11,900.00	7,121.18	11,963.24	7,057.06	134.62	134.77	-81.35	-2,708.51	-4,790.94	426.46	157.24	269.22	1.584		
12,000.00	7,120.61	12,063.24	7,056.76	137.37	137.51	-81.39	-2,709.11	-4,890.93	426.41	151.75	274.66	1.553		
12,100.00	7,120.05	12,163.24	7,056.47	140.12	140.26	-81.42	-2,709.71	-4,990.93	426.35	146.24	280.11	1.522		
12,200.00	7,119.48	12,263.24	7,056.17	142.88	143.01	-81.46	-2,710.31	-5,090.93	426.29	140.73	285.56	1.493 Level 3		
12,300.00	7,118.91	12,363.24	7,055.87	145.64	145.76	-81.50	-2,710.91	-5,190.93	426.24	135.21	291.03	1.465 Level 3		
12,400.00	7,118.34	12,463.24	7,055.57	148.41	148.52	-81.53	-2,711.50	-5,290.92	426.18	129.68	296.51	1.437 Level 3		
12,500.00	7,117.77	12,563.24	7,055.27	151.18	151.29	-81.57	-2,712.10	-5,390.92	426.13	124.14	301.99	1.411 Level 3		
12,600.00	7,117.20	12,663.24	7,054.98	153.95	154.05	-81.60	-2,712.70	-5,490.92	426.08	118.59	307.48	1.386 Level 3		
12,700.00	7,116.64	12,763.23	7,054.68	156.73	156.82	-81.64	-2,713.30	-5,590.92	426.02	113.04	312.98	1.361 Level 3		
12,800.00	7,116.07	12,863.23	7,054.38	159.50	159.59	-81.67	-2,713.90	-5,690.91	425.97	107.48	318.49	1.337 Level 3		
12,900.00	7,115.50	12,963.23	7,054.08	162.29	162.37	-81.71	-2,714.49	-5,790.91	425.91	101.91	324.00	1.315 Level 3		
13,000.00	7,114.93	13,063.23	7,053.79	165.07	165.15	-81.75	-2,715.09	-5,890.91	425.86	96.34	329.52	1.292 Level 3		
13,100.00	7,114.36	13,163.23	7,053.49	167.86	167.93	-81.78	-2,715.69	-5,990.91	425.81	90.76	335.04	1.271 Level 3		
13,200.00	7,113.79	13,263.23	7,053.19	170.64	170.71	-81.82	-2,716.29	-6,090.90	425.75	85.18	340.58	1.250 Level 3		
13,300.00	7,113.22	13,363.23	7,052.89	173.44	173.50	-81.85	-2,716.89	-6,190.90	425.70	79.59	346.11	1.230 Level 2		
13,400.00	7,112.66	13,463.23	7,052.60	176.23	176.29	-81.89	-2,717.48	-6,290.90	425.65	73.99	351.65	1.210 Level 2		
13,500.00	7,112.09	13,563.23	7,052.30	179.02	179.08	-81.92	-2,718.08	-6,390.90	425.59	68.39	357.20	1.191 Level 2		
13,600.00	7,111.52	13,663.23	7,052.00	181.82	181.87	-81.96	-2,718.68	-6,490.89	425.54	62.78	362.75	1.173 Level 2		
13,700.00	7,110.95	13,763.23	7,051.70	184.62	184.66	-82.00	-2,719.28	-6,590.89	425.49	57.18	368.31	1.155 Level 2		
13,800.00	7,110.38	13,863.23	7,051.41	187.42	187.46	-82.03	-2,719.88	-6,690.89	425.43	51.56	373.87	1.138 Level 2		
13,900.00	7,109.81	13,963.23	7,051.11	190.22	190.26	-82.07	-2,720.47	-6,790.89	425.38	45.94	379.44	1.121 Level 2		
14,000.00	7,109.25	14,063.23	7,050.81	193.03	193.06	-82.10	-2,721.07	-6,890.88	425.33	40.32	385.01	1.105 Level 2		
14,100.00	7,108.68	14,163.23	7,050.51	195.84	195.86	-82.14	-2,721.67	-6,990.88	425.28	34.69	390.58	1.089 Level 2		
14,200.00	7,108.11	14,263.23	7,050.22	198.64	198.67	-82.18	-2,722.27	-7,090.88	425.23	29.06	396.16	1.073 Level 2		
14,300.00	7,107.54	14,363.23	7,049.92	201.45	201.47	-82.21	-2,722.86	-7,190.87	425.17	23.43	401.74	1.058 Level 2		
14,400.00	7,106.97	14,463.23	7,049.62	204.26	204.28	-82.25	-2,723.46	-7,290.87	425.12	17.79	407.33	1.044 Level 2		
14,500.00	7,106.40	14,563.23	7,049.32	207.07	207.09	-82.28	-2,724.06	-7,390.87	425.07	12.15	412.92	1.029 Level 2		
14,600.00	7,105.83	14,663.23	7,049.03	209.89	209.90	-82.32	-2,724.66	-7,490.87	425.02	6.51	418.51	1.016 Level 2		
14,700.00	7,105.27	14,763.23	7,048.73	212.70	212.71	-82.35	-2,725.26	-7,590.86	424.97	0.86	424.11	1.002 Level 2		
14,800.00	7,104.70	14,863.23	7,048.43	215.52	215.52	-82.39	-2,725.85	-7,690.86	424.92	-4.79	429.71	0.989 Level 1		
14,900.00	7,104.13	14,963.23	7,048.13	218.33	218.33	-82.43	-2,726.45	-7,790.86	424.87	-10.44	435.31	0.976 Level 1		
15,000.00	7,103.56	15,063.23	7,047.83	221.15	221.15	-82.46	-2,727.05	-7,890.86	424.82	-16.10	440.92	0.963 Level 1		
15,100.00	7,102.99	15,163.23	7,047.54	223.97	223.96	-82.50	-2,727.65	-7,990.85	424.77	-21.76	446.52	0.951 Level 1		
15,200.00	7,102.42	15,263.23	7,047.24	226.79	226.78	-82.53	-2,728.25	-8,090.85	424.72	-27.42	452.14	0.939 Level 1		
15,274.57	7,102.00	15,337.79	7,047.02	228.89	228.88	-82.56	-2,728.69	-8,165.42	424.68	-31.64	456.32	0.931 Level 1, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.50	319.88	2.78	319.89					
100.00	100.00	102.00	100.00	3.28	3.29	0.50	319.88	2.78	319.89	313.32	6.57	48.690		
200.00	200.00	202.00	200.00	3.34	3.34	0.50	319.88	2.78	319.89	313.21	6.68	47.918	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.56	319.88	2.78	321.63	314.74	6.89	46.697		
400.00	399.84	401.84	399.84	3.59	3.61	176.61	319.88	2.78	326.85	319.66	7.20	45.403		
500.00	499.45	501.45	499.45	3.79	3.81	176.68	319.88	2.78	335.55	327.95	7.60	44.142		
600.00	598.70	590.94	588.92	4.03	4.02	176.66	321.16	2.12	349.13	341.07	8.07	43.290		
700.00	697.47	682.39	680.27	4.31	4.27	176.46	324.88	0.19	368.71	360.12	8.59	42.905		
800.00	795.62	779.55	777.30	4.64	4.55	176.24	329.43	-2.17	392.32	383.13	9.18	42.726		
900.00	893.06	875.83	873.45	5.00	4.86	176.07	333.94	-4.50	419.29	409.48	9.81	42.722		
1,000.00	989.64	971.12	968.61	5.40	5.17	175.94	338.40	-6.81	449.60	439.12	10.48	42.895		
1,100.00	1,085.27	1,065.30	1,062.65	5.83	5.50	175.85	342.81	-9.09	483.22	472.04	11.18	43.229		
1,200.00	1,179.88	1,158.32	1,155.55	6.29	5.83	175.80	347.16	-11.35	519.90	507.99	11.90	43.687		
1,300.00	1,274.26	1,251.08	1,248.17	6.78	6.17	175.80	351.51	-13.60	557.27	544.64	12.63	44.131		
1,400.00	1,368.63	1,343.83	1,340.79	7.28	6.52	175.80	355.85	-15.85	594.65	581.27	13.38	44.456		
1,500.00	1,463.00	1,436.58	1,433.42	7.80	6.88	175.80	360.19	-18.10	632.03	617.88	14.14	44.691		
1,600.00	1,557.38	1,529.33	1,526.04	8.33	7.24	175.80	364.53	-20.35	669.40	654.48	14.92	44.857		
1,700.00	1,651.75	1,622.08	1,618.66	8.87	7.61	175.80	368.88	-22.60	706.78	691.06	15.72	44.970		
1,800.00	1,746.12	1,714.84	1,711.29	9.41	7.98	175.80	373.22	-24.84	744.16	727.64	16.52	45.042		
1,900.00	1,840.49	1,807.59	1,803.91	9.96	8.35	175.80	377.56	-27.09	781.53	764.20	17.34	45.083		
2,000.00	1,934.87	1,900.34	1,896.53	10.52	8.73	175.80	381.91	-29.34	818.91	800.75	18.16	45.100		
2,100.00	2,029.24	2,006.91	1,989.16	11.08	9.17	175.80	386.25	-31.59	856.29	837.24	19.04	44.965		
2,200.00	2,123.61	2,085.85	2,081.78	11.64	9.49	175.80	390.59	-33.84	893.67	873.84	19.82	45.085		
2,300.00	2,217.99	2,178.60	2,174.40	12.21	9.88	175.80	394.93	-36.09	931.04	910.38	20.66	45.060		
2,400.00	2,312.36	2,271.35	2,267.03	12.78	10.27	175.80	399.28	-38.34	968.42	946.91	21.51	45.027		
2,500.00	2,406.73	2,364.10	2,359.65	13.35	10.65	175.80	403.62	-40.59	1,005.80	983.44	22.36	44.988		
2,600.00	2,501.10	2,456.85	2,452.27	13.93	11.04	175.80	407.96	-42.84	1,043.17	1,019.96	23.21	44.944		
2,700.00	2,595.48	2,549.61	2,544.90	14.51	11.44	175.80	412.31	-45.09	1,080.55	1,056.48	24.07	44.898		
2,800.00	2,689.85	2,642.36	2,637.52	15.08	11.83	175.80	416.65	-47.34	1,117.93	1,093.00	24.93	44.849		
2,900.00	2,784.22	2,735.11	2,730.14	15.66	12.22	175.80	420.99	-49.58	1,155.30	1,129.52	25.79	44.799		
3,000.00	2,878.60	2,827.86	2,822.76	16.25	12.62	175.80	425.33	-51.83	1,192.68	1,166.03	26.65	44.748		
3,100.00	2,972.97	2,920.61	2,915.39	16.83	13.01	175.80	429.68	-54.08	1,230.06	1,202.54	27.52	44.696		
3,200.00	3,067.34	3,013.37	3,008.01	17.41	13.41	175.80	434.02	-56.33	1,267.44	1,239.05	28.39	44.645		
3,300.00	3,161.72	3,106.12	3,100.63	18.00	13.81	175.80	438.36	-58.58	1,304.81	1,275.55	29.26	44.594		
3,400.00	3,256.09	3,201.13	3,193.26	18.58	14.21	175.80	442.70	-60.83	1,342.19	1,312.05	30.14	44.529		
3,500.00	3,350.46	3,308.38	3,285.88	19.17	14.67	175.80	447.05	-63.08	1,379.57	1,348.49	31.08	44.390		
3,600.00	3,444.83	3,384.38	3,378.50	19.75	15.00	175.80	451.39	-65.33	1,416.94	1,385.06	31.88	44.444		
3,700.00	3,539.21	3,477.13	3,471.13	20.34	15.40	175.80	455.73	-67.58	1,454.32	1,421.56	32.76	44.395		
3,800.00	3,633.58	3,569.88	3,563.75	20.93	15.80	175.80	460.08	-69.83	1,491.70	1,458.06	33.64	44.348		
3,900.00	3,727.95	3,662.63	3,656.37	21.52	16.20	175.80	464.42	-72.08	1,529.07	1,494.56	34.52	44.302		
4,000.00	3,822.33	3,755.38	3,749.00	22.11	16.60	175.80	468.76	-74.32	1,566.45	1,531.06	35.40	44.256		
4,100.00	3,916.70	3,848.14	3,841.62	22.70	17.00	175.80	473.10	-76.57	1,603.83	1,567.55	36.28	44.212		
4,200.00	4,011.07	3,940.89	3,934.24	23.29	17.41	175.80	477.45	-78.82	1,641.21	1,604.05	37.16	44.168		
4,300.00	4,105.44	4,033.64	4,026.87	23.88	17.81	175.80	481.79	-81.07	1,678.58	1,640.54	38.04	44.126		
4,400.00	4,199.82	4,126.39	4,119.49	24.47	18.21	175.80	486.13	-83.32	1,715.96	1,677.04	38.92	44.085		
4,500.00	4,294.19	4,219.14	4,212.11	25.06	18.61	175.80	490.48	-85.57	1,753.34	1,713.53	39.81	44.044		
4,600.00	4,388.56	4,311.90	4,304.73	25.65	19.02	175.80	494.82	-87.82	1,790.71	1,750.02	40.69	44.005		
4,700.00	4,482.94	4,404.65	4,397.36	26.24	19.42	175.80	499.16	-90.07	1,828.09	1,786.51	41.58	43.967		
4,800.00	4,577.31	4,502.60	4,489.98	26.83	19.85	175.80	503.50	-92.32	1,865.47	1,822.98	42.49	43.906		
4,900.00	4,671.68	4,609.85	4,582.60	27.43	20.31	175.80	507.85	-94.57	1,902.84	1,859.41	43.44	43.806		
5,000.00	4,766.05	4,682.91	4,675.23	28.02	20.63	175.80	512.19	-96.82	1,940.22	1,895.98	44.24	43.857		
5,100.00	4,860.43	4,775.66	4,767.85	28.61	21.04	175.80	516.53	-99.06	1,977.60	1,932.47	45.13	43.823		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,868.41	4,860.47	29.20	21.44	175.80	520.88	-101.31	2,014.98	1,968.96	46.02	43.789		
5,300.00	5,049.17	4,961.16	4,953.10	29.80	21.84	175.80	525.22	-103.56	2,052.35	2,005.45	46.90	43.756		
5,400.00	5,143.55	5,053.91	5,045.72	30.39	22.25	175.80	529.56	-105.81	2,089.73	2,041.94	47.79	43.724		
5,500.00	5,237.92	5,146.67	5,138.34	30.99	22.65	175.80	533.90	-108.06	2,127.11	2,078.42	48.68	43.693		
5,600.00	5,332.29	5,239.42	5,230.97	31.58	23.06	175.80	538.25	-110.31	2,164.48	2,114.91	49.57	43.662		
5,700.00	5,426.66	5,332.17	5,323.59	32.17	23.46	175.80	542.59	-112.56	2,201.86	2,151.40	50.46	43.632		
5,800.00	5,521.04	5,424.92	5,416.21	32.77	23.87	175.80	546.93	-114.81	2,239.24	2,187.88	51.36	43.603		
5,900.00	5,615.41	5,517.68	5,508.84	33.36	24.28	175.80	551.28	-117.06	2,276.61	2,224.37	52.25	43.574		
6,000.00	5,709.78	5,610.43	5,601.46	33.96	24.68	175.80	555.62	-119.31	2,313.99	2,260.85	53.14	43.547		
6,100.00	5,804.16	5,703.18	5,694.08	34.55	25.09	175.80	559.96	-121.56	2,351.37	2,297.34	54.03	43.519		
6,200.00	5,898.53	5,795.93	5,786.70	35.14	25.49	175.80	564.30	-123.80	2,388.75	2,333.82	54.92	43.493		
6,300.00	5,992.90	5,888.68	5,879.33	35.74	25.90	175.80	568.65	-126.05	2,426.12	2,370.31	55.82	43.467		
6,400.00	6,087.27	5,981.44	5,971.95	36.33	26.31	175.80	572.99	-128.30	2,463.50	2,406.79	56.71	43.441		
6,500.00	6,181.65	6,074.19	6,064.57	36.93	26.71	175.80	577.33	-130.55	2,500.88	2,443.27	57.60	43.416		
6,600.00	6,276.02	6,166.94	6,157.20	37.52	27.12	175.80	581.67	-132.80	2,538.25	2,479.76	58.50	43.392		
6,700.00	6,370.39	6,259.69	6,249.82	38.12	27.52	175.80	586.02	-135.05	2,575.63	2,516.24	59.39	43.368		
6,800.00	6,464.77	6,352.44	6,342.44	38.71	27.93	175.80	590.36	-137.30	2,613.01	2,552.72	60.28	43.345		
6,900.00	6,559.14	6,445.20	6,435.07	39.31	28.34	175.55	594.70	-139.55	2,650.38	2,589.21	61.18	43.322		
7,000.00	6,652.92	6,541.07	6,530.32	39.90	28.76	148.75	599.12	-148.58	2,687.55	2,625.45	62.10	43.277		
7,100.00	6,744.00	6,637.84	6,624.00	40.44	29.19	129.23	603.37	-172.08	2,723.68	2,660.66	63.02	43.220		
7,200.00	6,830.13	6,735.96	6,714.25	40.94	29.62	116.01	607.37	-210.13	2,757.89	2,693.97	63.93	43.142		
7,300.00	6,909.19	6,835.88	6,799.04	41.37	30.09	106.86	611.00	-262.66	2,789.34	2,724.50	64.84	43.018		
7,400.00	6,979.23	6,937.89	6,876.07	41.75	30.60	100.32	614.18	-329.30	2,817.25	2,751.43	65.82	42.804		
7,500.00	7,038.53	7,042.08	6,942.75	42.08	31.22	95.58	616.78	-409.16	2,840.91	2,773.98	66.94	42.442		
7,600.00	7,085.63	7,148.27	6,996.42	42.37	31.99	92.21	618.69	-500.63	2,859.75	2,791.46	68.30	41.872		
7,700.00	7,119.37	7,256.02	7,034.60	42.64	32.97	89.96	619.82	-601.25	2,873.28	2,803.30	69.98	41.056		
7,800.00	7,138.92	7,364.64	7,055.40	42.91	34.14	88.68	620.08	-707.73	2,881.16	2,809.14	72.02	40.004		
7,900.00	7,143.92	7,471.04	7,058.53	43.25	35.45	88.30	619.52	-813.99	2,883.24	2,808.90	74.34	38.785		
8,000.00	7,143.35	7,571.04	7,056.78	43.72	36.86	88.28	618.76	-913.96	2,883.14	2,806.22	76.92	37.481		
8,100.00	7,142.78	7,671.03	7,055.03	44.42	38.42	88.26	618.01	-1,013.94	2,883.03	2,803.21	79.82	36.119		
8,200.00	7,142.22	7,771.02	7,053.29	45.39	40.13	88.23	617.26	-1,113.91	2,882.93	2,799.92	83.01	34.730		
8,300.00	7,141.65	7,871.02	7,051.54	46.63	41.95	88.21	616.51	-1,213.89	2,882.83	2,796.37	86.46	33.343		
8,400.00	7,141.08	7,971.01	7,049.79	48.09	43.89	88.19	615.75	-1,313.86	2,882.73	2,792.59	90.14	31.981		
8,500.00	7,140.51	8,071.00	7,048.04	49.74	45.93	88.16	615.00	-1,413.84	2,882.62	2,788.60	94.02	30.660		
8,600.00	7,139.94	8,170.99	7,046.29	51.53	48.05	88.14	614.25	-1,513.81	2,882.52	2,784.44	98.08	29.390		
8,700.00	7,139.37	8,270.99	7,044.54	53.44	50.24	88.11	613.49	-1,613.79	2,882.42	2,780.13	102.30	28.177		
8,800.00	7,138.80	8,370.98	7,042.79	55.45	52.50	88.09	612.74	-1,713.76	2,882.32	2,775.67	106.65	27.026		
8,900.00	7,138.24	8,470.97	7,041.04	57.55	54.81	88.07	611.99	-1,813.74	2,882.22	2,771.09	111.13	25.936		
9,000.00	7,137.67	8,570.97	7,039.29	59.71	57.17	88.04	611.24	-1,913.71	2,882.12	2,766.40	115.72	24.907		
9,100.00	7,137.10	8,670.96	7,037.54	61.94	59.58	88.02	610.48	-2,013.69	2,882.02	2,761.62	120.40	23.937		
9,200.00	7,136.53	8,770.95	7,035.79	64.22	62.02	88.00	609.73	-2,113.66	2,881.92	2,756.76	125.17	23.025		
9,300.00	7,135.96	8,870.94	7,034.04	66.55	64.50	87.97	608.98	-2,213.64	2,881.82	2,751.82	130.01	22.166		
9,400.00	7,135.39	8,970.94	7,032.29	68.92	67.01	87.95	608.23	-2,313.61	2,881.73	2,746.81	134.92	21.359		
9,500.00	7,134.83	9,070.93	7,030.54	71.33	69.55	87.93	607.47	-2,413.59	2,881.63	2,741.74	139.89	20.599		
9,600.00	7,134.26	9,170.92	7,028.79	73.77	72.11	87.90	606.72	-2,513.56	2,881.53	2,736.62	144.92	19.884		
9,700.00	7,133.69	9,270.92	7,027.04	76.24	74.69	87.88	605.97	-2,613.53	2,881.44	2,731.45	149.99	19.211		
9,800.00	7,133.12	9,370.91	7,025.29	78.74	77.29	87.86	605.22	-2,713.51	2,881.34	2,726.23	155.11	18.576		
9,900.00	7,132.55	9,470.90	7,023.55	81.27	79.91	87.83	604.46	-2,813.48	2,881.25	2,720.98	160.27	17.978		
10,000.00	7,131.98	9,570.89	7,021.80	83.81	82.54	87.81	603.71	-2,913.46	2,881.15	2,715.69	165.46	17.413		
10,100.00	7,131.42	9,670.89	7,020.05	86.38	85.19	87.78	602.96	-3,013.43	2,881.06	2,710.37	170.69	16.879		
10,200.00	7,130.85	9,770.88	7,018.30	88.96	87.85	87.76	602.21	-3,113.41	2,880.96	2,705.02	175.94	16.374		
10,300.00	7,130.28	9,870.87	7,016.55	91.56	90.52	87.74	601.45	-3,213.38	2,880.87	2,699.64	181.23	15.896		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	9,970.87	7,014.80	94.18	93.21	87.71	600.70	-3,313.36	2,880.78	2,694.24	186.54	15.444		
10,500.00	7,129.14	10,070.86	7,013.05	96.81	95.90	87.69	599.95	-3,413.33	2,880.68	2,688.82	191.87	15.014		
10,600.00	7,128.57	10,170.85	7,011.30	99.45	98.61	87.67	599.20	-3,513.31	2,880.59	2,683.37	197.22	14.606		
10,700.00	7,128.00	10,270.85	7,009.55	102.11	101.32	87.64	598.44	-3,613.28	2,880.50	2,677.91	202.59	14.218		
10,800.00	7,127.44	10,370.84	7,007.80	104.77	104.04	87.62	597.69	-3,713.26	2,880.41	2,672.43	207.98	13.849		
10,900.00	7,126.87	10,470.83	7,006.05	107.45	106.77	87.60	596.94	-3,813.23	2,880.32	2,666.93	213.39	13.498		
11,000.00	7,126.30	10,570.82	7,004.30	110.13	109.50	87.57	596.19	-3,913.21	2,880.23	2,661.42	218.81	13.163		
11,100.00	7,125.73	10,670.82	7,002.55	112.82	112.24	87.55	595.43	-4,013.18	2,880.14	2,655.90	224.24	12.844		
11,200.00	7,125.16	10,770.81	7,000.80	115.53	114.99	87.53	594.68	-4,113.16	2,880.05	2,650.36	229.69	12.539		
11,300.00	7,124.59	10,870.80	6,999.05	118.24	117.74	87.50	593.93	-4,213.13	2,879.96	2,644.81	235.15	12.247		
11,400.00	7,124.03	10,970.80	6,997.30	120.95	120.49	87.48	593.18	-4,313.11	2,879.88	2,639.25	240.62	11.968		
11,500.00	7,123.46	11,070.79	6,995.55	123.67	123.26	87.45	592.42	-4,413.08	2,879.79	2,633.69	246.10	11.702		
11,600.00	7,122.89	11,170.78	6,993.81	126.40	126.02	87.43	591.67	-4,513.06	2,879.70	2,628.11	251.60	11.446		
11,700.00	7,122.32	11,270.77	6,992.06	129.14	128.79	87.41	590.92	-4,613.03	2,879.62	2,622.52	257.10	11.201		
11,800.00	7,121.75	11,370.77	6,990.31	131.88	131.56	87.38	590.16	-4,713.01	2,879.53	2,616.92	262.61	10.965		
11,900.00	7,121.18	11,470.76	6,988.56	134.62	134.34	87.36	589.41	-4,812.98	2,879.44	2,611.32	268.12	10.739		
12,000.00	7,120.61	11,570.75	6,986.81	137.37	137.12	87.34	588.66	-4,912.96	2,879.36	2,605.71	273.65	10.522		
12,100.00	7,120.05	11,670.75	6,985.06	140.12	139.90	87.31	587.91	-5,012.93	2,879.27	2,600.10	279.18	10.313		
12,200.00	7,119.48	11,770.74	6,983.31	142.88	142.69	87.29	587.15	-5,112.90	2,879.19	2,594.47	284.72	10.112		
12,300.00	7,118.91	11,870.73	6,981.56	145.64	145.48	87.27	586.40	-5,212.88	2,879.11	2,588.85	290.26	9.919		
12,400.00	7,118.34	11,970.73	6,979.81	148.41	148.27	87.24	585.65	-5,312.85	2,879.02	2,583.21	295.81	9.733		
12,500.00	7,117.77	12,070.72	6,978.06	151.18	151.06	87.22	584.90	-5,412.83	2,878.94	2,577.57	301.37	9.553		
12,600.00	7,117.20	12,170.71	6,976.31	153.95	153.86	87.20	584.14	-5,512.80	2,878.86	2,571.93	306.93	9.380		
12,700.00	7,116.64	12,270.70	6,974.56	156.73	156.66	87.17	583.39	-5,612.78	2,878.78	2,566.28	312.50	9.212		
12,800.00	7,116.07	12,370.70	6,972.81	159.50	159.46	87.15	582.64	-5,712.75	2,878.70	2,560.63	318.07	9.051		
12,900.00	7,115.50	12,470.69	6,971.06	162.29	162.26	87.12	581.89	-5,812.73	2,878.62	2,554.97	323.64	8.894		
13,000.00	7,114.93	12,570.68	6,969.31	165.07	165.06	87.10	581.13	-5,912.70	2,878.54	2,549.31	329.22	8.743		
13,100.00	7,114.36	12,670.68	6,967.56	167.86	167.87	87.08	580.38	-6,012.68	2,878.46	2,543.65	334.81	8.597		
13,200.00	7,113.79	12,770.67	6,965.81	170.64	170.68	87.05	579.63	-6,112.65	2,878.38	2,537.99	340.39	8.456		
13,300.00	7,113.22	12,870.66	6,964.07	173.44	173.49	87.03	578.88	-6,212.63	2,878.30	2,532.32	345.98	8.319		
13,400.00	7,112.66	12,970.65	6,962.32	176.23	176.30	87.01	578.12	-6,312.60	2,878.22	2,526.64	351.58	8.187		
13,500.00	7,112.09	13,070.65	6,960.57	179.02	179.11	86.98	577.37	-6,412.58	2,878.14	2,520.97	357.17	8.058		
13,600.00	7,111.52	13,170.64	6,958.82	181.82	181.93	86.96	576.62	-6,512.55	2,878.07	2,515.29	362.77	7.934		
13,700.00	7,110.95	13,270.63	6,957.07	184.62	184.74	86.94	575.87	-6,612.53	2,877.99	2,509.61	368.38	7.813		
13,800.00	7,110.38	13,370.63	6,955.32	187.42	187.56	86.91	575.11	-6,712.50	2,877.91	2,503.93	373.98	7.695		
13,900.00	7,109.81	13,470.62	6,953.57	190.22	190.38	86.89	574.36	-6,812.48	2,877.84	2,498.25	379.59	7.581		
14,000.00	7,109.25	13,570.61	6,951.82	193.03	193.19	86.86	573.61	-6,912.45	2,877.76	2,492.56	385.20	7.471		
14,100.00	7,108.68	13,670.61	6,950.07	195.84	196.01	86.84	572.86	-7,012.43	2,877.69	2,486.87	390.81	7.363		
14,200.00	7,108.11	13,770.60	6,948.32	198.64	198.84	86.82	572.10	-7,112.40	2,877.61	2,481.18	396.43	7.259		
14,300.00	7,107.54	13,870.59	6,946.57	201.45	201.66	86.79	571.35	-7,212.38	2,877.54	2,475.49	402.05	7.157		
14,400.00	7,106.97	13,970.58	6,944.82	204.26	204.48	86.77	570.60	-7,312.35	2,877.47	2,469.80	407.67	7.058		
14,500.00	7,106.40	14,070.58	6,943.07	207.07	207.31	86.75	569.85	-7,412.32	2,877.39	2,464.11	413.29	6.962		
14,600.00	7,105.83	14,170.57	6,941.32	209.89	210.13	86.72	569.09	-7,512.30	2,877.32	2,458.41	418.91	6.869		
14,700.00	7,105.27	14,270.56	6,939.57	212.70	212.96	86.70	568.34	-7,612.27	2,877.25	2,452.72	424.54	6.777		
14,800.00	7,104.70	14,370.56	6,937.82	215.52	215.78	86.68	567.59	-7,712.25	2,877.18	2,447.02	430.16	6.689		
14,900.00	7,104.13	14,470.55	6,936.07	218.33	218.61	86.65	566.83	-7,812.22	2,877.11	2,441.32	435.79	6.602		
15,000.00	7,103.56	14,570.54	6,934.33	221.15	221.44	86.63	566.08	-7,912.20	2,877.04	2,435.62	441.42	6.518		
15,100.00	7,102.99	14,670.53	6,932.58	223.97	224.27	86.60	565.33	-8,012.17	2,876.97	2,429.92	447.05	6.435		
15,200.00	7,102.42	14,770.53	6,930.83	226.79	227.10	86.58	564.58	-8,112.15	2,876.90	2,424.22	452.68	6.355		
15,249.00	7,102.15	14,819.52	6,929.97	228.17	228.48	86.57	564.21	-8,161.13	2,876.86	2,421.42	455.44	6.317		
15,274.57	7,102.00	14,817.75	6,930.00	228.89	228.43	86.57	564.22	-8,159.36	2,876.98	2,420.95	456.03	6.309 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.53	119.87	1.11	119.87					
100.00	100.00	101.00	100.00	3.28	3.28	0.53	119.87	1.11	119.87	113.30	6.57	18.247		
200.00	200.00	201.04	200.04	3.34	3.34	0.53	119.87	1.11	119.87	113.20	6.67	17.959		
300.00	299.98	305.37	304.35	3.44	3.45	176.51	117.95	0.84	119.77	112.88	6.90	17.364		
400.00	399.84	409.69	408.50	3.59	3.61	176.30	112.27	0.04	119.55	112.32	7.24	16.523		
500.00	499.45	513.99	512.36	3.79	3.83	175.97	102.85	-1.29	119.21	111.53	7.68	15.522		
600.00	598.70	618.27	615.79	4.03	4.11	175.49	89.69	-3.15	118.74	110.53	8.21	14.458		
667.98	665.90	688.45	685.09	4.22	4.34	175.10	78.78	-4.69	118.41	109.81	8.61	13.756 CC		
700.00	697.47	720.46	716.67	4.31	4.45	174.92	73.58	-5.43	118.59	109.80	8.79	13.490 ES		
800.00	795.62	820.41	815.27	4.64	4.82	174.49	57.35	-7.72	121.45	112.06	9.39	12.932		
900.00	893.06	920.20	913.71	5.00	5.23	174.22	41.14	-10.01	127.79	117.73	10.05	12.709		
1,000.00	989.64	1,019.72	1,011.88	5.40	5.66	174.13	24.98	-12.29	137.58	126.82	10.76	12.783		
1,100.00	1,085.27	1,118.83	1,109.65	5.83	6.12	174.17	8.88	-14.57	150.83	139.32	11.51	13.104		
1,200.00	1,179.88	1,217.46	1,206.94	6.29	6.58	174.33	-7.13	-16.83	167.30	155.01	12.29	13.612		
1,300.00	1,274.26	1,315.97	1,304.11	6.78	7.06	174.49	-23.13	-19.09	184.52	171.43	13.09	14.096		
1,400.00	1,368.63	1,414.47	1,401.28	7.28	7.54	174.63	-39.13	-21.35	201.74	187.82	13.91	14.501		
1,500.00	1,463.00	1,512.98	1,498.45	7.80	8.04	174.75	-55.13	-23.61	218.96	204.20	14.75	14.842		
1,600.00	1,557.38	1,611.48	1,595.63	8.33	8.54	174.85	-71.13	-25.87	236.17	220.57	15.61	15.131		
1,700.00	1,651.75	1,709.99	1,692.80	8.87	9.05	174.93	-87.13	-28.13	253.39	236.92	16.48	15.378		
1,800.00	1,746.12	1,808.49	1,789.97	9.41	9.57	175.01	-103.13	-30.39	270.61	253.26	17.36	15.590		
1,900.00	1,840.49	1,907.00	1,887.14	9.96	10.08	175.07	-119.12	-32.65	287.83	269.59	18.25	15.773		
2,000.00	1,934.87	2,005.51	1,984.31	10.52	10.60	175.13	-135.12	-34.91	305.06	285.91	19.15	15.933		
2,100.00	2,029.24	2,104.01	2,081.48	11.08	11.13	175.18	-151.12	-37.17	322.28	302.22	20.05	16.072		
2,200.00	2,123.61	2,202.52	2,178.65	11.64	11.66	175.23	-167.12	-39.43	339.50	318.53	20.96	16.195		
2,300.00	2,217.99	2,301.02	2,275.83	12.21	12.19	175.27	-183.12	-41.69	356.72	334.84	21.88	16.303		
2,400.00	2,312.36	2,400.47	2,373.00	12.78	12.72	175.31	-199.12	-43.95	373.94	351.14	22.81	16.396		
2,500.00	2,406.73	2,501.97	2,470.17	13.35	13.27	175.35	-215.12	-46.21	391.16	367.42	23.75	16.473		
2,600.00	2,501.10	2,603.46	2,567.34	13.93	13.82	175.38	-231.11	-48.47	408.39	383.70	24.69	16.542		
2,700.00	2,595.48	2,704.96	2,664.51	14.51	14.37	175.41	-247.11	-50.73	425.61	399.97	25.63	16.603		
2,800.00	2,689.85	2,806.45	2,761.68	15.08	14.93	175.44	-263.11	-52.99	442.83	416.25	26.58	16.658		
2,900.00	2,784.22	2,907.94	2,858.86	15.66	15.48	175.46	-279.11	-55.25	460.05	432.52	27.54	16.707		
3,000.00	2,878.60	3,009.44	2,956.03	16.25	16.04	175.49	-295.11	-57.51	477.28	448.79	28.49	16.752		
3,100.00	2,972.97	3,089.07	3,053.20	16.83	16.47	175.51	-311.11	-59.77	494.50	465.15	29.35	16.849		
3,200.00	3,067.34	3,187.57	3,150.37	17.41	17.02	175.53	-327.11	-62.03	511.72	481.43	30.29	16.892		
3,300.00	3,161.72	3,286.08	3,247.54	18.00	17.56	175.55	-343.10	-64.29	528.94	497.70	31.24	16.931		
3,400.00	3,256.09	3,384.58	3,344.71	18.58	18.10	175.56	-359.10	-66.55	546.17	513.98	32.19	16.968		
3,500.00	3,350.46	3,483.09	3,441.88	19.17	18.64	175.58	-375.10	-68.81	563.39	530.25	33.14	17.001		
3,600.00	3,444.83	3,581.59	3,539.06	19.75	19.19	175.60	-391.10	-71.07	580.61	546.52	34.09	17.032		
3,700.00	3,539.21	3,680.10	3,636.23	20.34	19.73	175.61	-407.10	-73.33	597.84	562.79	35.04	17.060		
3,800.00	3,633.58	3,778.61	3,733.40	20.93	20.27	175.63	-423.10	-75.59	615.06	579.06	36.00	17.087		
3,900.00	3,727.95	3,877.11	3,830.57	21.52	20.82	175.64	-439.09	-77.85	632.28	595.33	36.95	17.111		
4,000.00	3,822.33	3,975.62	3,927.74	22.11	21.36	175.65	-455.09	-80.11	649.50	611.60	37.91	17.134		
4,100.00	3,916.70	4,074.12	4,024.91	22.70	21.91	175.66	-471.09	-82.37	666.73	627.86	38.86	17.156		
4,200.00	4,011.07	4,172.63	4,122.08	23.29	22.46	175.67	-487.09	-84.63	683.95	644.13	39.82	17.176		
4,300.00	4,105.44	4,271.13	4,219.26	23.88	23.00	175.68	-503.09	-86.89	701.17	660.39	40.78	17.194		
4,400.00	4,199.82	4,369.64	4,316.43	24.47	23.55	175.70	-519.09	-89.15	718.40	676.66	41.74	17.212		
4,500.00	4,294.19	4,468.14	4,413.60	25.06	24.10	175.70	-535.09	-91.41	735.62	692.92	42.70	17.228		
4,600.00	4,388.56	4,566.65	4,510.77	25.65	24.64	175.71	-551.08	-93.67	752.84	709.18	43.66	17.244		
4,700.00	4,482.94	4,665.16	4,607.94	26.24	25.19	175.72	-567.08	-95.93	770.07	725.45	44.62	17.259		
4,800.00	4,577.31	4,763.66	4,705.11	26.83	25.74	175.73	-583.08	-98.19	787.29	741.71	45.58	17.272		
4,900.00	4,671.68	4,862.17	4,802.28	27.43	26.29	175.74	-599.08	-100.45	804.51	757.97	46.54	17.285		
5,000.00	4,766.05	4,960.67	4,899.46	28.02	26.84	175.75	-615.08	-102.71	821.74	774.23	47.51	17.298		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	5,059.18	4,996.63	28.61	27.38	175.75	-631.08	-104.97	838.96	790.49	48.47	17.309		
5,200.00	4,954.80	5,157.68	5,093.80	29.20	27.93	175.76	-647.08	-107.23	856.18	806.75	49.43	17.320		
5,300.00	5,049.17	5,256.19	5,190.97	29.80	28.48	175.77	-663.07	-109.49	873.41	823.01	50.40	17.331		
5,400.00	5,143.55	5,354.70	5,288.14	30.39	29.03	175.78	-679.07	-111.75	890.63	839.27	51.36	17.341		
5,500.00	5,237.92	5,453.20	5,385.31	30.99	29.58	175.78	-695.07	-114.01	907.85	855.53	52.32	17.350		
5,600.00	5,332.29	5,551.71	5,482.48	31.58	30.13	175.79	-711.07	-116.27	925.08	871.79	53.29	17.359		
5,700.00	5,426.66	5,650.21	5,579.66	32.17	30.68	175.79	-727.07	-118.53	942.30	888.04	54.26	17.368		
5,800.00	5,521.04	5,748.72	5,676.83	32.77	31.23	175.80	-743.07	-120.79	959.52	904.30	55.22	17.376		
5,900.00	5,615.41	5,847.22	5,774.00	33.36	31.78	175.81	-759.07	-123.05	976.74	920.56	56.19	17.384		
6,000.00	5,709.78	5,945.73	5,871.17	33.96	32.32	175.81	-775.06	-125.32	993.97	936.82	57.15	17.391		
6,100.00	5,804.16	6,044.23	5,968.34	34.55	32.87	175.82	-791.06	-127.58	1,011.19	953.07	58.12	17.398		
6,200.00	5,898.53	6,142.74	6,065.51	35.14	33.42	175.82	-807.06	-129.84	1,028.42	969.33	59.09	17.405		
6,300.00	5,992.90	6,241.25	6,162.68	35.74	33.97	175.83	-823.06	-132.10	1,045.64	985.58	60.05	17.412		
6,400.00	6,087.27	6,339.75	6,259.86	36.33	34.52	175.83	-839.06	-134.36	1,062.86	1,001.84	61.02	17.418		
6,500.00	6,181.65	6,438.26	6,357.03	36.93	35.07	175.83	-855.06	-136.62	1,080.09	1,018.10	61.99	17.424		
6,600.00	6,276.02	6,536.76	6,454.20	37.52	35.62	175.84	-871.06	-138.88	1,097.31	1,034.35	62.96	17.430		
6,700.00	6,370.39	6,635.27	6,551.37	38.12	36.17	175.84	-887.05	-141.14	1,114.53	1,050.61	63.92	17.435		
6,800.00	6,464.77	6,733.87	6,648.63	38.71	36.73	175.84	-903.07	-143.62	1,131.75	1,066.86	64.89	17.440		
6,900.00	6,559.14	6,831.74	6,744.32	39.31	37.28	175.10	-918.89	-155.95	1,148.99	1,083.10	65.89	17.437		
7,000.00	6,652.92	6,926.56	6,834.19	39.90	37.81	149.47	-933.85	-181.93	1,166.33	1,099.44	66.89	17.436		
7,100.00	6,744.00	7,019.33	6,917.46	40.44	38.32	131.08	-947.80	-220.15	1,183.40	1,115.53	67.87	17.436		
7,200.00	6,830.13	7,110.38	6,993.01	40.94	38.82	118.91	-960.56	-269.20	1,199.72	1,130.88	68.84	17.427		
7,300.00	6,909.19	7,200.03	7,059.90	41.37	39.32	110.67	-971.95	-327.68	1,214.84	1,145.01	69.83	17.398		
7,400.00	6,979.23	7,288.57	7,117.35	41.75	39.83	104.90	-981.85	-394.22	1,228.34	1,157.45	70.89	17.328		
7,500.00	7,038.53	7,376.22	7,164.72	42.08	40.39	100.79	-990.13	-467.43	1,239.85	1,167.76	72.10	17.197		
7,600.00	7,085.63	7,463.20	7,201.47	42.37	41.01	97.90	-996.70	-545.91	1,249.08	1,175.56	73.52	16.989		
7,700.00	7,119.37	7,549.69	7,227.21	42.64	41.73	95.98	-1,001.49	-628.28	1,255.77	1,180.55	75.22	16.694		
7,800.00	7,138.92	7,635.84	7,241.66	42.91	42.59	94.90	-1,004.44	-713.09	1,259.74	1,182.50	77.24	16.310		
7,900.00	7,143.92	7,724.55	7,244.90	43.25	43.63	94.59	-1,005.56	-801.67	1,260.90	1,181.28	79.62	15.836		
8,000.00	7,143.35	7,824.55	7,244.37	43.72	45.01	94.60	-1,006.15	-901.66	1,260.93	1,178.29	82.65	15.257		
8,100.00	7,142.78	7,924.55	7,243.84	44.42	46.63	94.60	-1,006.73	-1,001.66	1,260.97	1,174.96	86.00	14.662		
8,200.00	7,142.22	8,024.55	7,243.31	45.39	48.46	94.60	-1,007.32	-1,101.66	1,261.00	1,171.34	89.66	14.065		
8,300.00	7,141.65	8,124.55	7,242.78	46.63	50.48	94.60	-1,007.90	-1,201.65	1,261.03	1,167.46	93.57	13.476		
8,400.00	7,141.08	8,224.55	7,242.26	48.09	52.65	94.60	-1,008.49	-1,301.65	1,261.06	1,163.34	97.72	12.905		
8,500.00	7,140.51	8,324.55	7,241.73	49.74	54.97	94.60	-1,009.07	-1,401.65	1,261.09	1,159.02	102.07	12.355		
8,600.00	7,139.94	8,424.55	7,241.20	51.53	57.39	94.61	-1,009.65	-1,501.65	1,261.12	1,154.52	106.60	11.830		
8,700.00	7,139.37	8,524.55	7,240.67	53.44	59.92	94.61	-1,010.24	-1,601.64	1,261.16	1,149.87	111.29	11.333		
8,800.00	7,138.80	8,624.55	7,240.14	55.45	62.53	94.61	-1,010.82	-1,701.64	1,261.19	1,145.08	116.11	10.862		
8,900.00	7,138.24	8,724.55	7,239.61	57.55	65.21	94.61	-1,011.41	-1,801.64	1,261.22	1,140.17	121.05	10.419		
9,000.00	7,137.67	8,824.55	7,239.08	59.71	67.95	94.61	-1,011.99	-1,901.63	1,261.25	1,135.15	126.10	10.002		
9,100.00	7,137.10	8,924.55	7,238.55	61.94	70.75	94.61	-1,012.58	-2,001.63	1,261.28	1,130.03	131.25	9.610		
9,200.00	7,136.53	9,024.55	7,238.03	64.22	73.60	94.62	-1,013.16	-2,101.63	1,261.31	1,124.83	136.48	9.242		
9,300.00	7,135.96	9,124.55	7,237.50	66.55	76.49	94.62	-1,013.75	-2,201.62	1,261.35	1,119.56	141.79	8.896		
9,400.00	7,135.39	9,224.55	7,236.97	68.92	79.42	94.62	-1,014.33	-2,301.62	1,261.38	1,114.21	147.16	8.571		
9,500.00	7,134.83	9,324.55	7,236.44	71.33	82.37	94.62	-1,014.91	-2,401.62	1,261.41	1,108.81	152.60	8.266		
9,600.00	7,134.26	9,424.55	7,235.91	73.77	85.36	94.62	-1,015.50	-2,501.61	1,261.44	1,103.36	158.09	7.979		
9,700.00	7,133.69	9,524.55	7,235.38	76.24	88.38	94.62	-1,016.08	-2,601.61	1,261.47	1,097.85	163.62	7.710		
9,800.00	7,133.12	9,624.55	7,234.85	78.74	91.41	94.63	-1,016.67	-2,701.61	1,261.50	1,092.30	169.20	7.456		
9,900.00	7,132.55	9,724.55	7,234.33	81.27	94.47	94.63	-1,017.25	-2,801.60	1,261.54	1,086.71	174.82	7.216		
10,000.00	7,131.98	9,824.55	7,233.80	83.81	97.55	94.63	-1,017.84	-2,901.60	1,261.57	1,081.09	180.48	6.990		
10,100.00	7,131.42	9,924.55	7,233.27	86.38	100.64	94.63	-1,018.42	-3,001.60	1,261.60	1,075.43	186.17	6.777		
10,200.00	7,130.85	10,024.55	7,232.74	88.96	103.75	94.63	-1,019.00	-3,101.60	1,261.63	1,069.75	191.88	6.575		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	10,124.55	7,232.21	91.56	106.87	94.63	-1,019.59	-3,201.59	1,261.66	1,064.03	197.63	6.384		
10,400.00	7,129.71	10,224.55	7,231.68	94.18	110.00	94.64	-1,020.17	-3,301.59	1,261.70	1,058.29	203.40	6.203		
10,500.00	7,129.14	10,324.55	7,231.15	96.81	113.15	94.64	-1,020.76	-3,401.59	1,261.73	1,052.53	209.19	6.031		
10,600.00	7,128.57	10,424.55	7,230.62	99.45	116.31	94.64	-1,021.34	-3,501.58	1,261.76	1,046.75	215.01	5.868		
10,700.00	7,128.00	10,524.55	7,230.10	102.11	119.48	94.64	-1,021.93	-3,601.58	1,261.79	1,040.95	220.84	5.714		
10,800.00	7,127.44	10,624.55	7,229.57	104.77	122.65	94.64	-1,022.51	-3,701.58	1,261.82	1,035.13	226.69	5.566		
10,900.00	7,126.87	10,724.55	7,229.04	107.45	125.84	94.64	-1,023.09	-3,801.57	1,261.85	1,029.29	232.56	5.426		
11,000.00	7,126.30	10,824.55	7,228.51	110.13	129.03	94.65	-1,023.68	-3,901.57	1,261.89	1,023.44	238.45	5.292		
11,100.00	7,125.73	10,924.55	7,227.98	112.82	132.23	94.65	-1,024.26	-4,001.57	1,261.92	1,017.57	244.34	5.165		
11,200.00	7,125.16	11,024.55	7,227.45	115.53	135.44	94.65	-1,024.85	-4,101.56	1,261.95	1,011.70	250.25	5.043		
11,300.00	7,124.59	11,124.55	7,226.92	118.24	138.65	94.65	-1,025.43	-4,201.56	1,261.98	1,005.80	256.18	4.926		
11,400.00	7,124.03	11,224.55	7,226.39	120.95	141.87	94.65	-1,026.02	-4,301.56	1,262.01	999.90	262.11	4.815		
11,500.00	7,123.46	11,324.55	7,225.87	123.67	145.09	94.65	-1,026.60	-4,401.56	1,262.04	993.99	268.06	4.708		
11,600.00	7,122.89	11,424.55	7,225.34	126.40	148.32	94.66	-1,027.19	-4,501.55	1,262.08	988.06	274.01	4.606		
11,700.00	7,122.32	11,524.55	7,224.81	129.14	151.55	94.66	-1,027.77	-4,601.55	1,262.11	982.13	279.98	4.508		
11,800.00	7,121.75	11,624.55	7,224.28	131.88	154.79	94.66	-1,028.35	-4,701.55	1,262.14	976.19	285.95	4.414		
11,900.00	7,121.18	11,724.55	7,223.75	134.62	158.03	94.66	-1,028.94	-4,801.54	1,262.17	970.24	291.93	4.324		
12,000.00	7,120.61	11,824.55	7,223.22	137.37	161.27	94.66	-1,029.52	-4,901.54	1,262.20	964.28	297.92	4.237		
12,100.00	7,120.05	11,924.55	7,222.69	140.12	164.52	94.66	-1,030.11	-5,001.54	1,262.23	958.32	303.92	4.153		
12,200.00	7,119.48	12,024.55	7,222.16	142.88	167.77	94.67	-1,030.69	-5,101.53	1,262.27	952.35	309.92	4.073		
12,300.00	7,118.91	12,124.55	7,221.64	145.64	171.03	94.67	-1,031.28	-5,201.53	1,262.30	946.37	315.93	3.995		
12,400.00	7,118.34	12,224.55	7,221.11	148.41	174.29	94.67	-1,031.86	-5,301.53	1,262.33	940.38	321.95	3.921		
12,500.00	7,117.77	12,324.55	7,220.58	151.18	177.55	94.67	-1,032.44	-5,401.52	1,262.36	934.39	327.97	3.849		
12,600.00	7,117.20	12,424.55	7,220.05	153.95	180.81	94.67	-1,033.03	-5,501.52	1,262.39	928.40	334.00	3.780		
12,700.00	7,116.64	12,524.55	7,219.52	156.73	184.08	94.67	-1,033.61	-5,601.52	1,262.43	922.40	340.03	3.713		
12,800.00	7,116.07	12,624.55	7,218.99	159.50	187.35	94.68	-1,034.20	-5,701.51	1,262.46	916.39	346.07	3.648		
12,900.00	7,115.50	12,724.55	7,218.46	162.29	190.62	94.68	-1,034.78	-5,801.51	1,262.49	910.38	352.11	3.586		
13,000.00	7,114.93	12,824.55	7,217.94	165.07	193.89	94.68	-1,035.37	-5,901.51	1,262.52	904.37	358.16	3.525		
13,100.00	7,114.36	12,924.55	7,217.41	167.86	197.17	94.68	-1,035.95	-6,001.51	1,262.55	898.35	364.21	3.467		
13,200.00	7,113.79	13,024.55	7,216.88	170.64	200.44	94.68	-1,036.54	-6,101.50	1,262.58	892.32	370.26	3.410		
13,300.00	7,113.22	13,124.55	7,216.35	173.44	203.72	94.68	-1,037.12	-6,201.50	1,262.62	886.30	376.32	3.355		
13,400.00	7,112.66	13,224.55	7,215.82	176.23	207.00	94.69	-1,037.70	-6,301.50	1,262.65	880.27	382.38	3.302		
13,500.00	7,112.09	13,324.55	7,215.29	179.02	210.29	94.69	-1,038.29	-6,401.49	1,262.68	874.23	388.45	3.251		
13,600.00	7,111.52	13,424.55	7,214.76	181.82	213.57	94.69	-1,038.87	-6,501.49	1,262.71	868.20	394.51	3.201		
13,700.00	7,110.95	13,524.55	7,214.23	184.62	216.85	94.69	-1,039.46	-6,601.49	1,262.74	862.16	400.59	3.152		
13,800.00	7,110.38	13,624.55	7,213.71	187.42	220.14	94.69	-1,040.04	-6,701.48	1,262.77	856.11	406.66	3.105		
13,900.00	7,109.81	13,724.55	7,213.18	190.22	223.43	94.69	-1,040.63	-6,801.48	1,262.81	850.07	412.74	3.060		
14,000.00	7,109.25	13,824.55	7,212.65	193.03	226.72	94.70	-1,041.21	-6,901.48	1,262.84	844.02	418.82	3.015		
14,100.00	7,108.68	13,924.55	7,212.12	195.84	230.01	94.70	-1,041.79	-7,001.47	1,262.87	837.97	424.90	2.972		
14,200.00	7,108.11	14,024.55	7,211.59	198.64	233.30	94.70	-1,042.38	-7,101.47	1,262.90	831.91	430.99	2.930		
14,300.00	7,107.54	14,124.55	7,211.06	201.45	236.60	94.70	-1,042.96	-7,201.47	1,262.93	825.86	437.08	2.890		
14,400.00	7,106.97	14,224.55	7,210.53	204.26	239.89	94.70	-1,043.55	-7,301.46	1,262.97	819.80	443.17	2.850		
14,500.00	7,106.40	14,324.55	7,210.00	207.07	243.19	94.71	-1,044.13	-7,401.46	1,263.00	813.74	449.26	2.811		
14,600.00	7,105.83	14,424.55	7,209.48	209.89	246.48	94.71	-1,044.72	-7,501.46	1,263.03	807.68	455.35	2.774		
14,700.00	7,105.27	14,524.55	7,208.95	212.70	249.78	94.71	-1,045.30	-7,601.46	1,263.06	801.61	461.45	2.737		
14,800.00	7,104.70	14,624.55	7,208.42	215.52	253.08	94.71	-1,045.89	-7,701.45	1,263.09	795.55	467.55	2.702		
14,900.00	7,104.13	14,724.55	7,207.89	218.33	256.38	94.71	-1,046.47	-7,801.45	1,263.12	789.48	473.65	2.667		
15,000.00	7,103.56	14,824.55	7,207.36	221.15	259.68	94.71	-1,047.05	-7,901.45	1,263.16	783.41	479.75	2.633		
15,100.00	7,102.99	14,924.55	7,206.83	223.97	262.98	94.72	-1,047.64	-8,001.44	1,263.19	777.33	485.85	2.600		
15,200.00	7,102.42	15,024.55	7,206.30	226.79	266.28	94.72	-1,048.22	-8,101.44	1,263.22	771.26	491.96	2.568		
15,200.19	7,102.42	15,024.74	7,206.30	226.79	266.29	94.72	-1,048.22	-8,101.63	1,263.22	771.25	491.97	2.568		
15,274.57	7,102.00	15,081.89	7,206.00	228.89	268.17	94.72	-1,048.56	-8,158.78	1,263.36	767.75	495.61	2.549 SF		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.47	239.73	1.95	239.73					
100.00	100.00	102.00	100.00	3.28	3.29	0.47	239.73	1.95	239.73	233.16	6.57	36.490		
200.00	200.00	202.00	200.00	3.34	3.34	0.47	239.73	1.95	239.73	233.06	6.68	35.911	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.53	239.73	1.95	241.47	234.59	6.89	35.059		
400.00	399.84	401.84	399.84	3.59	3.61	176.60	239.73	1.95	246.70	239.50	7.20	34.269		
500.00	499.45	501.59	499.59	3.79	3.81	176.70	239.72	1.95	255.40	247.80	7.60	33.597		
600.00	598.70	610.50	608.48	4.03	4.06	176.72	237.70	1.28	265.71	257.61	8.10	32.811		
700.00	697.47	719.84	717.62	4.31	4.34	176.52	231.71	-0.68	275.88	267.21	8.67	31.822		
800.00	795.62	819.62	817.10	4.64	4.63	176.26	224.28	-3.12	287.54	278.28	9.26	31.041		
900.00	893.06	918.46	915.63	5.00	4.93	176.06	216.91	-5.54	302.65	292.74	9.90	30.556		
1,000.00	989.64	1,016.72	1,013.59	5.40	5.26	175.92	209.59	-7.94	321.19	310.60	10.59	30.336		
1,100.00	1,085.27	1,114.27	1,110.84	5.83	5.59	175.83	202.31	-10.33	343.15	331.84	11.31	30.349		
1,200.00	1,179.88	1,211.06	1,207.33	6.29	5.94	175.79	195.10	-12.69	368.28	356.23	12.06	30.546		
1,300.00	1,274.26	1,307.66	1,303.63	6.78	6.30	175.78	187.90	-15.06	394.15	381.33	12.82	30.747		
1,400.00	1,368.63	1,404.25	1,399.93	7.28	6.67	175.78	180.69	-17.42	420.01	406.41	13.60	30.875		
1,500.00	1,463.00	1,500.85	1,496.23	7.80	7.05	175.78	173.49	-19.78	445.87	431.47	14.41	30.949		
1,600.00	1,557.38	1,602.55	1,592.53	8.33	7.45	175.78	166.29	-22.15	471.74	456.49	15.25	30.944		
1,700.00	1,651.75	1,705.95	1,688.83	8.87	7.87	175.77	159.09	-24.51	497.60	481.50	16.10	30.899		
1,800.00	1,746.12	1,809.36	1,785.13	9.41	8.29	175.77	151.89	-26.87	523.47	506.49	16.97	30.838		
1,900.00	1,840.49	1,887.24	1,881.43	9.96	8.61	175.77	144.69	-29.23	549.33	531.58	17.75	30.945		
2,000.00	1,934.87	1,983.84	1,977.73	10.52	9.01	175.77	137.48	-31.60	575.19	556.58	18.61	30.904		
2,100.00	2,029.24	2,080.44	2,074.03	11.08	9.42	175.77	130.28	-33.96	601.06	581.58	19.48	30.855		
2,200.00	2,123.61	2,177.03	2,170.33	11.64	9.83	175.76	123.08	-36.32	626.92	606.57	20.35	30.801		
2,300.00	2,217.99	2,273.63	2,266.63	12.21	10.24	175.76	115.88	-38.69	652.78	631.55	21.23	30.744		
2,400.00	2,312.36	2,370.23	2,362.93	12.78	10.65	175.76	108.68	-41.05	678.65	656.53	22.12	30.684		
2,500.00	2,406.73	2,466.83	2,459.23	13.35	11.06	175.76	101.48	-43.41	704.51	681.50	23.01	30.623		
2,600.00	2,501.10	2,563.42	2,555.53	13.93	11.48	175.76	94.27	-45.77	730.37	706.48	23.90	30.562		
2,700.00	2,595.48	2,660.02	2,651.83	14.51	11.89	175.76	87.07	-48.14	756.24	731.44	24.79	30.502		
2,800.00	2,689.85	2,756.62	2,748.13	15.08	12.31	175.76	79.87	-50.50	782.10	756.41	25.69	30.442		
2,900.00	2,784.22	2,853.22	2,844.42	15.66	12.73	175.76	72.67	-52.86	807.96	781.37	26.59	30.383		
3,000.00	2,878.60	2,949.81	2,940.72	16.25	13.15	175.76	65.47	-55.22	833.83	806.33	27.50	30.325		
3,100.00	2,972.97	3,046.41	3,037.02	16.83	13.57	175.75	58.27	-57.59	859.69	831.29	28.40	30.268		
3,200.00	3,067.34	3,143.01	3,133.32	17.41	14.00	175.75	51.06	-59.95	885.56	856.25	29.31	30.213		
3,300.00	3,161.72	3,239.61	3,229.62	18.00	14.42	175.75	43.86	-62.31	911.42	881.20	30.22	30.159		
3,400.00	3,256.09	3,336.20	3,325.92	18.58	14.84	175.75	36.66	-64.68	937.28	906.15	31.13	30.107		
3,500.00	3,350.46	3,432.80	3,422.22	19.17	15.27	175.75	29.46	-67.04	963.15	931.10	32.04	30.057		
3,600.00	3,444.83	3,529.40	3,518.52	19.75	15.69	175.75	22.26	-69.40	989.01	956.05	32.96	30.008		
3,700.00	3,539.21	3,626.00	3,614.82	20.34	16.12	175.75	15.06	-71.76	1,014.87	981.00	33.87	29.960		
3,800.00	3,633.58	3,722.59	3,711.12	20.93	16.55	175.75	7.86	-74.13	1,040.74	1,005.95	34.79	29.914		
3,900.00	3,727.95	3,819.19	3,807.42	21.52	16.97	175.75	0.65	-76.49	1,066.60	1,030.89	35.71	29.869		
4,000.00	3,822.33	3,915.79	3,903.72	22.11	17.40	175.75	-6.55	-78.85	1,092.46	1,055.84	36.63	29.826		
4,100.00	3,916.70	4,012.39	4,000.02	22.70	17.83	175.75	-13.75	-81.21	1,118.33	1,080.78	37.55	29.784		
4,200.00	4,011.07	4,108.98	4,096.32	23.29	18.26	175.75	-20.95	-83.58	1,144.19	1,105.72	38.47	29.744		
4,300.00	4,105.44	4,205.58	4,192.62	23.88	18.69	175.75	-28.15	-85.94	1,170.06	1,130.67	39.39	29.704		
4,400.00	4,199.82	4,302.18	4,288.92	24.47	19.11	175.75	-35.35	-88.30	1,195.92	1,155.61	40.31	29.666		
4,500.00	4,294.19	4,401.22	4,385.22	25.06	19.55	175.75	-42.56	-90.67	1,221.78	1,180.54	41.25	29.622		
4,600.00	4,388.56	4,504.63	4,481.52	25.65	20.01	175.75	-49.76	-93.03	1,247.65	1,205.45	42.20	29.566		
4,700.00	4,482.94	4,608.03	4,577.82	26.24	20.48	175.75	-56.96	-95.39	1,273.51	1,230.36	43.15	29.511		
4,800.00	4,577.31	4,688.57	4,674.12	26.83	20.83	175.75	-64.16	-97.75	1,299.37	1,255.37	44.01	29.526		
4,900.00	4,671.68	4,785.17	4,770.42	27.43	21.26	175.75	-71.36	-100.12	1,325.24	1,280.30	44.93	29.493		
5,000.00	4,766.05	4,881.76	4,866.72	28.02	21.70	175.75	-78.56	-102.48	1,351.10	1,305.24	45.86	29.462		
5,100.00	4,860.43	4,978.36	4,963.02	28.61	22.13	175.75	-85.77	-104.84	1,376.96	1,330.18	46.79	29.431		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	5,074.96	5,059.32	29.20	22.56	175.75	-92.97	-107.21	1,402.83	1,355.11	47.71	29.401		
5,300.00	5,049.17	5,171.56	5,155.62	29.80	22.99	175.75	-100.17	-109.57	1,428.69	1,380.05	48.64	29.373		
5,400.00	5,143.55	5,268.15	5,251.92	30.39	23.42	175.74	-107.37	-111.93	1,454.55	1,404.99	49.57	29.345		
5,500.00	5,237.92	5,364.75	5,348.22	30.99	23.85	175.74	-114.57	-114.29	1,480.42	1,429.92	50.50	29.317		
5,600.00	5,332.29	5,461.35	5,444.52	31.58	24.28	175.74	-121.77	-116.66	1,506.28	1,454.86	51.42	29.291		
5,700.00	5,426.66	5,557.95	5,540.82	32.17	24.72	175.74	-128.98	-119.02	1,532.15	1,479.79	52.35	29.265		
5,800.00	5,521.04	5,654.54	5,637.12	32.77	25.15	175.74	-136.18	-121.38	1,558.01	1,504.73	53.28	29.240		
5,900.00	5,615.41	5,751.14	5,733.42	33.36	25.58	175.74	-143.38	-123.74	1,583.87	1,529.66	54.21	29.216		
6,000.00	5,709.78	5,847.74	5,829.72	33.96	26.01	175.74	-150.58	-126.11	1,609.74	1,554.59	55.14	29.192		
6,100.00	5,804.16	5,944.34	5,926.01	34.55	26.45	175.74	-157.78	-128.47	1,635.60	1,579.53	56.07	29.169		
6,200.00	5,898.53	6,040.93	6,022.31	35.14	26.88	175.74	-164.98	-130.83	1,661.46	1,604.46	57.00	29.147		
6,300.00	5,992.90	6,137.53	6,118.61	35.74	27.31	175.74	-172.18	-133.20	1,687.33	1,629.39	57.93	29.125		
6,400.00	6,087.27	6,234.13	6,214.91	36.33	27.75	175.74	-179.39	-135.56	1,713.19	1,654.32	58.87	29.103		
6,500.00	6,181.65	6,330.73	6,311.21	36.93	28.18	175.74	-186.59	-137.92	1,739.05	1,679.26	59.80	29.083		
6,600.00	6,276.02	6,427.32	6,407.51	37.52	28.61	175.74	-193.79	-140.28	1,764.92	1,704.19	60.73	29.062		
6,700.00	6,370.39	6,523.92	6,503.81	38.12	29.04	175.74	-200.99	-142.65	1,790.78	1,729.12	61.66	29.043		
6,800.00	6,464.77	6,620.52	6,600.11	38.71	29.48	175.74	-208.19	-145.01	1,816.64	1,754.05	62.59	29.023		
6,900.00	6,559.14	6,717.90	6,696.90	39.31	29.91	175.36	-215.47	-151.84	1,842.49	1,778.96	63.53	29.001		
7,000.00	6,652.92	6,813.91	6,790.28	39.90	30.33	149.39	-222.60	-172.61	1,868.19	1,803.74	64.45	28.987		
7,100.00	6,744.00	6,908.75	6,878.42	40.44	30.73	130.67	-229.45	-206.71	1,893.20	1,827.87	65.33	28.979		
7,200.00	6,830.13	7,002.75	6,959.83	40.94	31.11	118.18	-235.90	-253.08	1,916.89	1,850.71	66.18	28.967		
7,300.00	6,909.19	7,096.19	7,033.13	41.37	31.46	109.66	-241.83	-310.59	1,938.65	1,871.64	67.01	28.929		
7,400.00	6,979.23	7,189.30	7,097.04	41.75	31.84	103.63	-247.15	-377.98	1,957.94	1,890.04	67.91	28.834		
7,500.00	7,038.53	7,282.22	7,150.37	42.08	32.31	99.31	-251.74	-453.83	1,974.29	1,905.36	68.93	28.644		
7,600.00	7,085.63	7,375.04	7,192.09	42.37	32.93	96.26	-255.52	-536.56	1,987.28	1,917.12	70.16	28.325		
7,700.00	7,119.37	7,467.77	7,221.35	42.64	33.73	94.23	-258.42	-624.42	1,996.60	1,924.93	71.67	27.859		
7,800.00	7,138.92	7,560.40	7,237.58	42.91	34.69	93.09	-260.37	-715.52	2,002.01	1,928.53	73.48	27.246		
7,900.00	7,143.92	7,654.83	7,240.90	43.25	35.81	92.78	-261.38	-809.82	2,003.42	1,927.81	75.62	26.495		
8,000.00	7,143.35	7,754.83	7,240.51	43.72	37.17	92.78	-262.16	-909.82	2,003.26	1,925.09	78.17	25.626		
8,100.00	7,142.78	7,854.83	7,240.11	44.42	38.68	92.79	-262.94	-1,009.81	2,003.10	1,922.06	81.04	24.717		
8,200.00	7,142.22	7,954.83	7,239.72	45.39	40.35	92.79	-263.73	-1,109.81	2,002.94	1,918.74	84.20	23.788		
8,300.00	7,141.65	8,054.83	7,239.33	46.63	42.14	92.80	-264.51	-1,209.81	2,002.78	1,915.17	87.62	22.859		
8,400.00	7,141.08	8,154.83	7,238.93	48.09	44.04	92.80	-265.29	-1,309.80	2,002.62	1,911.36	91.26	21.944		
8,500.00	7,140.51	8,254.83	7,238.54	49.74	46.05	92.81	-266.07	-1,409.80	2,002.46	1,907.35	95.11	21.054		
8,600.00	7,139.94	8,354.83	7,238.15	51.53	48.14	92.81	-266.86	-1,509.79	2,002.30	1,903.16	99.14	20.197		
8,700.00	7,139.37	8,454.83	7,237.75	53.44	50.30	92.82	-267.64	-1,609.79	2,002.14	1,898.81	103.33	19.377		
8,800.00	7,138.80	8,554.83	7,237.36	55.45	52.53	92.82	-268.42	-1,709.79	2,001.98	1,894.33	107.65	18.597		
8,900.00	7,138.24	8,654.83	7,236.97	57.55	54.83	92.83	-269.20	-1,809.78	2,001.82	1,889.72	112.10	17.857		
9,000.00	7,137.67	8,754.83	7,236.57	59.71	57.17	92.83	-269.98	-1,909.78	2,001.66	1,885.00	116.66	17.158		
9,100.00	7,137.10	8,854.83	7,236.18	61.94	59.55	92.84	-270.77	-2,009.77	2,001.50	1,880.18	121.32	16.498		
9,200.00	7,136.53	8,954.83	7,235.79	64.22	61.98	92.84	-271.55	-2,109.77	2,001.34	1,875.28	126.06	15.876		
9,300.00	7,135.96	9,054.83	7,235.39	66.55	64.44	92.85	-272.33	-2,209.77	2,001.18	1,870.30	130.88	15.290		
9,400.00	7,135.39	9,154.82	7,235.00	68.92	66.94	92.85	-273.11	-2,309.76	2,001.02	1,865.25	135.77	14.738		
9,500.00	7,134.83	9,254.82	7,234.61	71.33	69.46	92.86	-273.90	-2,409.76	2,000.86	1,860.13	140.72	14.218		
9,600.00	7,134.26	9,354.82	7,234.21	73.77	72.01	92.86	-274.68	-2,509.75	2,000.70	1,854.97	145.73	13.729		
9,700.00	7,133.69	9,454.82	7,233.82	76.24	74.58	92.87	-275.46	-2,609.75	2,000.54	1,849.75	150.78	13.267		
9,800.00	7,133.12	9,554.82	7,233.43	78.74	77.17	92.87	-276.24	-2,709.74	2,000.38	1,844.49	155.89	12.832		
9,900.00	7,132.55	9,654.82	7,233.03	81.27	79.78	92.88	-277.02	-2,809.74	2,000.22	1,839.19	161.03	12.422		
10,000.00	7,131.98	9,754.82	7,232.64	83.81	82.40	92.89	-277.81	-2,909.74	2,000.06	1,833.85	166.21	12.034		
10,100.00	7,131.42	9,854.82	7,232.25	86.38	85.04	92.89	-278.59	-3,009.73	1,999.90	1,828.48	171.42	11.667		
10,200.00	7,130.85	9,954.82	7,231.85	88.96	87.70	92.90	-279.37	-3,109.73	1,999.74	1,823.07	176.66	11.319		
10,300.00	7,130.28	10,054.82	7,231.46	91.56	90.36	92.90	-280.15	-3,209.72	1,999.58	1,817.64	181.93	10.991		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,129.71	10,154.82	7,231.07	94.18	93.04	92.91	-280.94	-3,309.72	1,999.42	1,812.18	187.23	10.679	
10,500.00	7,129.14	10,254.82	7,230.67	96.81	95.73	92.91	-281.72	-3,409.72	1,999.25	1,806.70	192.55	10.383	
10,600.00	7,128.57	10,354.82	7,230.28	99.45	98.43	92.92	-282.50	-3,509.71	1,999.09	1,801.20	197.89	10.102	
10,700.00	7,128.00	10,454.82	7,229.89	102.11	101.13	92.92	-283.28	-3,609.71	1,998.93	1,795.68	203.26	9.835	
10,800.00	7,127.44	10,554.82	7,229.49	104.77	103.85	92.93	-284.06	-3,709.70	1,998.77	1,790.14	208.64	9.580	
10,900.00	7,126.87	10,654.82	7,229.10	107.45	106.57	92.93	-284.85	-3,809.70	1,998.61	1,784.58	214.03	9.338	
11,000.00	7,126.30	10,754.82	7,228.71	110.13	109.30	92.94	-285.63	-3,909.69	1,998.45	1,779.01	219.45	9.107	
11,100.00	7,125.73	10,854.82	7,228.31	112.82	112.04	92.94	-286.41	-4,009.69	1,998.29	1,773.42	224.87	8.886	
11,200.00	7,125.16	10,954.82	7,227.92	115.53	114.78	92.95	-287.19	-4,109.69	1,998.13	1,767.82	230.32	8.676	
11,300.00	7,124.59	11,054.82	7,227.53	118.24	117.52	92.95	-287.98	-4,209.68	1,997.97	1,762.21	235.77	8.474	
11,400.00	7,124.03	11,154.82	7,227.13	120.95	120.28	92.96	-288.76	-4,309.68	1,997.81	1,756.58	241.23	8.282	
11,500.00	7,123.46	11,254.82	7,226.74	123.67	123.03	92.96	-289.54	-4,409.67	1,997.65	1,750.94	246.71	8.097	
11,600.00	7,122.89	11,354.82	7,226.35	126.40	125.80	92.97	-290.32	-4,509.67	1,997.49	1,745.30	252.20	7.920	
11,700.00	7,122.32	11,454.82	7,225.95	129.14	128.56	92.97	-291.10	-4,609.67	1,997.33	1,739.64	257.69	7.751	
11,800.00	7,121.75	11,554.82	7,225.56	131.88	131.33	92.98	-291.89	-4,709.66	1,997.17	1,733.97	263.20	7.588	
11,900.00	7,121.18	11,654.82	7,225.17	134.62	134.11	92.99	-292.67	-4,809.66	1,997.01	1,728.30	268.71	7.432	
12,000.00	7,120.61	11,754.82	7,224.77	137.37	136.88	92.99	-293.45	-4,909.65	1,996.85	1,722.62	274.24	7.282	
12,100.00	7,120.05	11,854.82	7,224.38	140.12	139.66	93.00	-294.23	-5,009.65	1,996.70	1,716.93	279.77	7.137	
12,200.00	7,119.48	11,954.82	7,223.99	142.88	142.45	93.00	-295.02	-5,109.65	1,996.54	1,711.23	285.30	6.998	
12,300.00	7,118.91	12,054.82	7,223.59	145.64	145.23	93.01	-295.80	-5,209.64	1,996.38	1,705.53	290.84	6.864	
12,400.00	7,118.34	12,154.82	7,223.20	148.41	148.02	93.01	-296.58	-5,309.64	1,996.22	1,699.82	296.39	6.735	
12,500.00	7,117.77	12,254.82	7,222.81	151.18	150.81	93.02	-297.36	-5,409.63	1,996.06	1,694.11	301.95	6.611	
12,600.00	7,117.20	12,354.82	7,222.41	153.95	153.61	93.02	-298.14	-5,509.63	1,995.90	1,688.39	307.51	6.491	
12,700.00	7,116.64	12,454.82	7,222.02	156.73	156.40	93.03	-298.93	-5,609.62	1,995.74	1,682.66	313.07	6.375	
12,800.00	7,116.07	12,554.81	7,221.63	159.50	159.20	93.03	-299.71	-5,709.62	1,995.58	1,676.93	318.65	6.263	
12,900.00	7,115.50	12,654.81	7,221.23	162.29	162.00	93.04	-300.49	-5,809.62	1,995.42	1,671.20	324.22	6.154	
13,000.00	7,114.93	12,754.81	7,220.84	165.07	164.81	93.04	-301.27	-5,909.61	1,995.26	1,665.46	329.80	6.050	
13,100.00	7,114.36	12,854.81	7,220.45	167.86	167.61	93.05	-302.06	-6,009.61	1,995.10	1,659.71	335.39	5.949	
13,200.00	7,113.79	12,954.81	7,220.05	170.64	170.42	93.05	-302.84	-6,109.60	1,994.94	1,653.96	340.97	5.851	
13,300.00	7,113.22	13,054.81	7,219.66	173.44	173.22	93.06	-303.62	-6,209.60	1,994.78	1,648.21	346.57	5.756	
13,400.00	7,112.66	13,154.81	7,219.27	176.23	176.03	93.06	-304.40	-6,309.60	1,994.62	1,642.46	352.16	5.664	
13,500.00	7,112.09	13,254.81	7,218.87	179.02	178.85	93.07	-305.18	-6,409.59	1,994.46	1,636.70	357.76	5.575	
13,600.00	7,111.52	13,354.81	7,218.48	181.82	181.66	93.08	-305.97	-6,509.59	1,994.30	1,630.93	363.36	5.488	
13,700.00	7,110.95	13,454.81	7,218.09	184.62	184.47	93.08	-306.75	-6,609.58	1,994.14	1,625.17	368.97	5.405	
13,800.00	7,110.38	13,554.81	7,217.69	187.42	187.29	93.09	-307.53	-6,709.58	1,993.98	1,619.40	374.58	5.323	
13,900.00	7,109.81	13,654.81	7,217.30	190.22	190.10	93.09	-308.31	-6,809.58	1,993.82	1,613.63	380.19	5.244	
14,000.00	7,109.25	13,754.81	7,216.91	193.03	192.92	93.10	-309.10	-6,909.57	1,993.66	1,607.86	385.81	5.168	
14,100.00	7,108.68	13,854.81	7,216.51	195.84	195.74	93.10	-309.88	-7,009.57	1,993.50	1,602.08	391.42	5.093	
14,200.00	7,108.11	13,954.81	7,216.12	198.64	198.56	93.11	-310.66	-7,109.56	1,993.34	1,596.30	397.04	5.020	
14,300.00	7,107.54	14,054.81	7,215.73	201.45	201.38	93.11	-311.44	-7,209.56	1,993.18	1,590.52	402.66	4.950	
14,400.00	7,106.97	14,154.81	7,215.33	204.26	204.21	93.12	-312.22	-7,309.55	1,993.02	1,584.73	408.29	4.881	
14,500.00	7,106.40	14,254.81	7,214.94	207.07	207.03	93.12	-313.01	-7,409.55	1,992.86	1,578.95	413.92	4.815	
14,600.00	7,105.83	14,354.81	7,214.55	209.89	209.85	93.13	-313.79	-7,509.55	1,992.70	1,573.16	419.54	4.750	
14,700.00	7,105.27	14,454.81	7,214.15	212.70	212.68	93.13	-314.57	-7,609.54	1,992.54	1,567.37	425.18	4.686	
14,800.00	7,104.70	14,554.81	7,213.76	215.52	215.50	93.14	-315.35	-7,709.54	1,992.39	1,561.58	430.81	4.625	
14,900.00	7,104.13	14,654.81	7,213.37	218.33	218.33	93.14	-316.14	-7,809.53	1,992.23	1,555.78	436.44	4.565	
15,000.00	7,103.56	14,754.81	7,212.97	221.15	221.16	93.15	-316.92	-7,909.53	1,992.07	1,549.99	442.08	4.506	
15,100.00	7,102.99	14,854.81	7,212.58	223.97	223.99	93.15	-317.70	-8,009.53	1,991.91	1,544.19	447.72	4.449	
15,200.00	7,102.42	14,954.81	7,212.19	226.79	226.82	93.16	-318.48	-8,109.52	1,991.75	1,538.39	453.36	4.393	
15,254.73	7,102.11	15,009.54	7,211.97	228.33	228.36	93.16	-318.91	-8,164.25	1,991.66	1,535.22	456.44	4.363	
15,274.57	7,102.00	15,002.44	7,212.00	228.89	228.16	93.16	-318.86	-8,157.15	1,991.81	1,535.18	456.63	4.362 SF	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.46	139.91	1.11	139.91					
100.00	100.00	101.00	100.00	3.28	3.28	0.46	139.91	1.11	139.91	133.34	6.57	21.296		
200.00	200.00	201.00	200.00	3.34	3.34	0.46	139.91	1.11	139.91	133.23	6.67	20.961	CC, ES	
300.00	299.98	301.03	300.03	3.44	3.45	176.54	139.91	1.11	141.65	134.77	6.89	20.570		
400.00	399.84	406.16	405.14	3.59	3.61	176.54	137.97	0.78	145.03	137.83	7.21	20.126		
500.00	499.45	511.43	510.24	3.79	3.81	176.38	132.22	-0.22	148.27	140.64	7.63	19.432		
600.00	598.70	616.81	615.17	4.03	4.06	176.08	122.66	-1.88	151.37	143.23	8.15	18.577		
700.00	697.47	721.48	718.96	4.31	4.35	175.64	109.45	-4.17	154.38	145.64	8.73	17.675		
800.00	795.62	821.33	817.81	4.64	4.66	175.25	95.53	-6.59	159.55	150.22	9.34	17.091		
900.00	893.06	920.95	916.43	5.00	4.99	174.99	81.64	-9.00	168.20	158.21	9.99	16.842		
1,000.00	989.64	1,020.21	1,014.69	5.40	5.34	174.84	67.81	-11.40	180.31	169.62	10.69	16.872		
1,100.00	1,085.27	1,118.99	1,112.47	5.83	5.71	174.80	54.04	-13.79	195.86	184.44	11.42	17.144		
1,200.00	1,179.88	1,217.20	1,209.70	6.29	6.10	174.84	40.35	-16.17	214.63	202.44	12.20	17.600		
1,300.00	1,274.26	1,315.28	1,306.80	6.78	6.49	174.92	26.68	-18.55	234.14	221.16	12.98	18.034		
1,400.00	1,368.63	1,413.36	1,403.89	7.28	6.89	174.98	13.00	-20.92	253.65	239.86	13.79	18.389		
1,500.00	1,463.00	1,511.44	1,500.98	7.80	7.30	175.03	-0.67	-23.29	273.16	258.54	14.62	18.681		
1,600.00	1,557.38	1,609.52	1,598.07	8.33	7.71	175.08	-14.34	-25.67	292.68	277.21	15.47	18.922		
1,700.00	1,651.75	1,707.59	1,695.16	8.87	8.13	175.12	-28.01	-28.04	312.19	295.86	16.33	19.123		
1,800.00	1,746.12	1,805.67	1,792.25	9.41	8.56	175.16	-41.68	-30.41	331.70	314.50	17.19	19.291		
1,900.00	1,840.49	1,903.75	1,889.34	9.96	8.99	175.19	-55.35	-32.79	351.21	333.14	18.07	19.433		
2,000.00	1,934.87	2,001.83	1,986.44	10.52	9.42	175.22	-69.03	-35.16	370.72	351.76	18.96	19.553		
2,100.00	2,029.24	2,100.09	2,083.53	11.08	9.85	175.24	-82.70	-37.53	390.23	370.38	19.85	19.655		
2,200.00	2,123.61	2,202.02	2,180.62	11.64	10.31	175.27	-96.37	-39.91	409.74	388.97	20.77	19.727		
2,300.00	2,217.99	2,303.94	2,277.71	12.21	10.77	175.29	-110.04	-42.28	429.25	407.56	21.69	19.788		
2,400.00	2,312.36	2,405.86	2,374.80	12.78	11.23	175.31	-123.71	-44.65	448.76	426.14	22.62	19.839		
2,500.00	2,406.73	2,507.78	2,471.89	13.35	11.69	175.32	-137.39	-47.03	468.28	444.72	23.55	19.883		
2,600.00	2,501.10	2,590.30	2,568.98	13.93	12.07	175.34	-151.06	-49.40	487.79	463.39	24.40	19.990		
2,700.00	2,595.48	2,688.37	2,666.07	14.51	12.51	175.36	-164.73	-51.78	507.30	481.98	25.32	20.033		
2,800.00	2,689.85	2,786.45	2,763.17	15.08	12.96	175.37	-178.40	-54.15	526.81	500.56	26.25	20.071		
2,900.00	2,784.22	2,884.53	2,860.26	15.66	13.41	175.38	-192.07	-56.52	546.32	519.15	27.18	20.104		
3,000.00	2,878.60	2,982.61	2,957.35	16.25	13.86	175.39	-205.74	-58.90	565.83	537.73	28.10	20.133		
3,100.00	2,972.97	3,080.69	3,054.44	16.83	14.32	175.41	-219.42	-61.27	585.35	556.31	29.04	20.159		
3,200.00	3,067.34	3,178.76	3,151.53	17.41	14.77	175.42	-233.09	-63.64	604.86	574.89	29.97	20.182		
3,300.00	3,161.72	3,276.84	3,248.62	18.00	15.22	175.43	-246.76	-66.02	624.37	593.46	30.91	20.202		
3,400.00	3,256.09	3,374.92	3,345.71	18.58	15.68	175.44	-260.43	-68.39	643.88	612.04	31.84	20.220		
3,500.00	3,350.46	3,473.00	3,442.81	19.17	16.13	175.44	-274.10	-70.76	663.39	630.61	32.78	20.237		
3,600.00	3,444.83	3,571.08	3,539.90	19.75	16.59	175.45	-287.77	-73.14	682.90	649.18	33.72	20.251		
3,700.00	3,539.21	3,669.15	3,636.99	20.34	17.04	175.46	-301.45	-75.51	702.42	667.75	34.66	20.264		
3,800.00	3,633.58	3,767.23	3,734.08	20.93	17.50	175.47	-315.12	-77.88	721.93	686.32	35.61	20.276		
3,900.00	3,727.95	3,865.31	3,831.17	21.52	17.96	175.47	-328.79	-80.26	741.44	704.89	36.55	20.286		
4,000.00	3,822.33	3,963.39	3,928.26	22.11	18.41	175.48	-342.46	-82.63	760.95	723.46	37.49	20.295		
4,100.00	3,916.70	4,061.46	4,025.35	22.70	18.87	175.49	-356.13	-85.01	780.46	742.02	38.44	20.304		
4,200.00	4,011.07	4,159.54	4,122.45	23.29	19.33	175.49	-369.80	-87.38	799.98	760.59	39.39	20.311		
4,300.00	4,105.44	4,257.62	4,219.54	23.88	19.79	175.50	-383.48	-89.75	819.49	779.15	40.33	20.318		
4,400.00	4,199.82	4,355.70	4,316.63	24.47	20.25	175.50	-397.15	-92.13	839.00	797.72	41.28	20.324		
4,500.00	4,294.19	4,453.78	4,413.72	25.06	20.71	175.51	-410.82	-94.50	858.51	816.28	42.23	20.330		
4,600.00	4,388.56	4,551.85	4,510.81	25.65	21.17	175.51	-424.49	-96.87	878.02	834.84	43.18	20.335		
4,700.00	4,482.94	4,649.93	4,607.90	26.24	21.63	175.52	-438.16	-99.25	897.53	853.41	44.13	20.339		
4,800.00	4,577.31	4,748.01	4,704.99	26.83	22.09	175.52	-451.84	-101.62	917.05	871.97	45.08	20.343		
4,900.00	4,671.68	4,846.09	4,802.08	27.43	22.55	175.53	-465.51	-103.99	936.56	890.53	46.03	20.347		
5,000.00	4,766.05	4,944.17	4,899.18	28.02	23.01	175.53	-479.18	-106.37	956.07	909.09	46.98	20.350		
5,100.00	4,860.43	5,042.24	4,996.27	28.61	23.47	175.54	-492.85	-108.74	975.58	927.65	47.93	20.353		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	5,140.32	5,093.36	29.20	23.93	175.54	-506.52	-111.11	995.09	946.21	48.89	20.356		
5,300.00	5,049.17	5,238.40	5,190.45	29.80	24.39	175.54	-520.19	-113.49	1,014.61	964.77	49.84	20.358		
5,400.00	5,143.55	5,336.48	5,287.54	30.39	24.85	175.55	-533.87	-115.86	1,034.12	983.33	50.79	20.360		
5,500.00	5,237.92	5,434.56	5,384.63	30.99	25.31	175.55	-547.54	-118.23	1,053.63	1,001.88	51.74	20.362		
5,600.00	5,332.29	5,532.63	5,481.72	31.58	25.78	175.55	-561.21	-120.61	1,073.14	1,020.44	52.70	20.364		
5,700.00	5,426.66	5,630.71	5,578.82	32.17	26.24	175.56	-574.88	-122.98	1,092.65	1,039.00	53.65	20.365		
5,800.00	5,521.04	5,728.79	5,675.91	32.77	26.70	175.56	-588.55	-125.36	1,112.16	1,057.56	54.61	20.366		
5,900.00	5,615.41	5,826.87	5,773.00	33.36	27.16	175.56	-602.22	-127.73	1,131.68	1,076.11	55.56	20.368		
6,000.00	5,709.78	5,924.95	5,870.09	33.96	27.62	175.57	-615.90	-130.10	1,151.19	1,094.67	56.52	20.369		
6,100.00	5,804.16	6,023.02	5,967.18	34.55	28.09	175.57	-629.57	-132.48	1,170.70	1,113.23	57.47	20.369		
6,200.00	5,898.53	6,121.10	6,064.27	35.14	28.55	175.57	-643.24	-134.85	1,190.21	1,131.78	58.43	20.370		
6,300.00	5,992.90	6,219.18	6,161.36	35.74	29.01	175.57	-656.91	-137.22	1,209.72	1,150.34	59.39	20.371		
6,400.00	6,087.27	6,317.26	6,258.46	36.33	29.47	175.58	-670.58	-139.60	1,229.24	1,168.89	60.34	20.371		
6,500.00	6,181.65	6,415.34	6,355.55	36.93	29.94	175.58	-684.25	-141.97	1,248.75	1,187.45	61.30	20.372		
6,600.00	6,276.02	6,513.42	6,452.65	37.52	30.40	175.58	-697.93	-144.35	1,268.26	1,206.00	62.26	20.372		
6,700.00	6,370.39	6,610.93	6,548.56	38.12	30.85	175.22	-711.50	-154.62	1,287.79	1,224.57	63.21	20.373		
6,800.00	6,464.77	6,703.95	6,637.58	38.71	31.27	174.28	-724.22	-178.09	1,307.60	1,243.47	64.13	20.391		
6,900.00	6,559.14	6,789.22	6,715.42	39.31	31.63	172.70	-735.45	-210.90	1,328.35	1,263.39	64.96	20.449		
7,000.00	6,652.92	6,868.38	6,783.17	39.90	31.95	146.08	-745.32	-250.50	1,350.20	1,284.50	65.70	20.550		
7,100.00	6,744.00	6,944.83	6,843.51	40.44	32.23	126.78	-754.20	-296.54	1,372.22	1,305.85	66.37	20.675		
7,200.00	6,830.13	7,019.23	6,896.56	40.94	32.49	113.78	-762.11	-348.04	1,393.61	1,326.65	66.96	20.811		
7,300.00	6,909.19	7,092.06	6,942.37	41.37	32.75	104.83	-769.04	-404.18	1,413.64	1,346.12	67.51	20.938		
7,400.00	6,979.23	7,163.70	6,980.95	41.75	33.02	98.46	-774.98	-464.20	1,431.64	1,363.56	68.08	21.028		
7,500.00	7,038.53	7,234.44	7,012.26	42.08	33.35	93.86	-779.93	-527.40	1,447.05	1,378.31	68.74	21.051		
7,600.00	7,085.63	7,304.52	7,036.23	42.37	33.80	90.60	-783.87	-593.09	1,459.40	1,389.84	69.57	20.978		
7,700.00	7,119.37	7,374.13	7,052.83	42.64	34.37	88.43	-786.79	-660.60	1,468.34	1,397.69	70.65	20.784		
7,800.00	7,138.92	7,443.44	7,062.00	42.91	35.05	87.22	-788.67	-729.24	1,473.59	1,401.58	72.01	20.464		
7,900.00	7,143.92	7,519.69	7,063.91	43.25	35.93	86.89	-789.60	-805.43	1,475.01	1,401.21	73.80	19.987		
8,000.00	7,143.35	7,619.69	7,063.51	43.72	37.23	86.90	-790.41	-905.43	1,474.80	1,398.48	76.32	19.324		
8,100.00	7,142.78	7,719.69	7,063.12	44.42	38.71	86.90	-791.23	-1,005.42	1,474.59	1,395.42	79.17	18.625		
8,200.00	7,142.22	7,819.69	7,062.73	45.39	40.35	86.91	-792.04	-1,105.42	1,474.38	1,392.06	82.32	17.909		
8,300.00	7,141.65	7,919.69	7,062.33	46.63	42.12	86.92	-792.85	-1,205.41	1,474.17	1,388.43	85.74	17.194		
8,400.00	7,141.08	8,019.68	7,061.94	48.09	44.00	86.92	-793.66	-1,305.41	1,473.97	1,384.58	89.39	16.489		
8,500.00	7,140.51	8,119.68	7,061.55	49.74	45.99	86.93	-794.47	-1,405.40	1,473.76	1,380.51	93.25	15.805		
8,600.00	7,139.94	8,219.68	7,061.15	51.53	48.07	86.94	-795.29	-1,505.40	1,473.55	1,376.26	97.29	15.146		
8,700.00	7,139.37	8,319.68	7,060.76	53.44	50.22	86.94	-796.10	-1,605.39	1,473.34	1,371.86	101.49	14.517		
8,800.00	7,138.80	8,419.68	7,060.37	55.45	52.45	86.95	-796.91	-1,705.39	1,473.14	1,367.31	105.83	13.920		
8,900.00	7,138.24	8,519.68	7,059.97	57.55	54.73	86.95	-797.72	-1,805.39	1,472.93	1,362.63	110.30	13.354		
9,000.00	7,137.67	8,619.68	7,059.58	59.71	57.06	86.96	-798.53	-1,905.38	1,472.72	1,357.85	114.87	12.821		
9,100.00	7,137.10	8,719.68	7,059.19	61.94	59.44	86.97	-799.34	-2,005.38	1,472.51	1,352.97	119.55	12.317		
9,200.00	7,136.53	8,819.68	7,058.80	64.22	61.86	86.97	-800.16	-2,105.37	1,472.30	1,348.00	124.31	11.844		
9,300.00	7,135.96	8,919.68	7,058.40	66.55	64.32	86.98	-800.97	-2,205.37	1,472.10	1,342.95	129.15	11.399		
9,400.00	7,135.39	9,019.68	7,058.01	68.92	66.81	86.99	-801.78	-2,305.36	1,471.89	1,337.84	134.05	10.980		
9,500.00	7,134.83	9,119.68	7,057.62	71.33	69.33	86.99	-802.59	-2,405.36	1,471.68	1,332.66	139.02	10.586		
9,600.00	7,134.26	9,219.68	7,057.22	73.77	71.87	87.00	-803.40	-2,505.35	1,471.47	1,327.43	144.04	10.215		
9,700.00	7,133.69	9,319.68	7,056.83	76.24	74.44	87.01	-804.21	-2,605.35	1,471.27	1,322.15	149.12	9.867		
9,800.00	7,133.12	9,419.68	7,056.44	78.74	77.02	87.01	-805.03	-2,705.35	1,471.06	1,316.82	154.23	9.538		
9,900.00	7,132.55	9,519.68	7,056.04	81.27	79.63	87.02	-805.84	-2,805.34	1,470.85	1,311.46	159.39	9.228		
10,000.00	7,131.98	9,619.68	7,055.65	83.81	82.25	87.03	-806.65	-2,905.34	1,470.64	1,306.06	164.59	8.935		
10,100.00	7,131.42	9,719.68	7,055.26	86.38	84.89	87.03	-807.46	-3,005.33	1,470.44	1,300.62	169.82	8.659		
10,200.00	7,130.85	9,819.68	7,054.86	88.96	87.54	87.04	-808.27	-3,105.33	1,470.23	1,295.15	175.07	8.398		
10,300.00	7,130.28	9,919.68	7,054.47	91.56	90.20	87.04	-809.08	-3,205.32	1,470.02	1,289.66	180.36	8.150		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	10,019.68	7,054.08	94.18	92.88	87.05	-809.90	-3,305.32	1,469.81	1,284.14	185.67	7.916		
10,500.00	7,129.14	10,119.68	7,053.68	96.81	95.56	87.06	-810.71	-3,405.31	1,469.61	1,278.60	191.01	7.694		
10,600.00	7,128.57	10,219.68	7,053.29	99.45	98.26	87.06	-811.52	-3,505.31	1,469.40	1,273.04	196.36	7.483		
10,700.00	7,128.00	10,319.68	7,052.90	102.11	100.96	87.07	-812.33	-3,605.31	1,469.19	1,267.45	201.74	7.283		
10,800.00	7,127.44	10,419.68	7,052.50	104.77	103.68	87.08	-813.14	-3,705.30	1,468.98	1,261.85	207.13	7.092		
10,900.00	7,126.87	10,519.68	7,052.11	107.45	106.40	87.08	-813.96	-3,805.30	1,468.78	1,256.23	212.54	6.911		
11,000.00	7,126.30	10,619.68	7,051.72	110.13	109.13	87.09	-814.77	-3,905.29	1,468.57	1,250.60	217.97	6.738		
11,100.00	7,125.73	10,719.68	7,051.33	112.82	111.86	87.10	-815.58	-4,005.29	1,468.36	1,244.95	223.41	6.573		
11,200.00	7,125.16	10,819.68	7,050.93	115.53	114.60	87.10	-816.39	-4,105.28	1,468.15	1,239.29	228.86	6.415		
11,300.00	7,124.59	10,919.67	7,050.54	118.24	117.35	87.11	-817.20	-4,205.28	1,467.95	1,233.62	234.33	6.264		
11,400.00	7,124.03	11,019.67	7,050.15	120.95	120.10	87.12	-818.01	-4,305.27	1,467.74	1,227.93	239.81	6.121		
11,500.00	7,123.46	11,119.67	7,049.75	123.67	122.85	87.12	-818.83	-4,405.27	1,467.53	1,222.24	245.29	5.983		
11,600.00	7,122.89	11,219.67	7,049.36	126.40	125.61	87.13	-819.64	-4,505.27	1,467.32	1,216.53	250.79	5.851		
11,700.00	7,122.32	11,319.67	7,048.97	129.14	128.38	87.13	-820.45	-4,605.26	1,467.12	1,210.82	256.30	5.724		
11,800.00	7,121.75	11,419.67	7,048.57	131.88	131.15	87.14	-821.26	-4,705.26	1,466.91	1,205.09	261.82	5.603		
11,900.00	7,121.18	11,519.67	7,048.18	134.62	133.92	87.15	-822.07	-4,805.25	1,466.70	1,199.36	267.34	5.486		
12,000.00	7,120.61	11,619.67	7,047.79	137.37	136.70	87.15	-822.88	-4,905.25	1,466.50	1,193.62	272.88	5.374		
12,100.00	7,120.05	11,719.67	7,047.39	140.12	139.47	87.16	-823.70	-5,005.24	1,466.29	1,187.87	278.42	5.267		
12,200.00	7,119.48	11,819.67	7,047.00	142.88	142.26	87.17	-824.51	-5,105.24	1,466.08	1,182.12	283.96	5.163		
12,300.00	7,118.91	11,919.67	7,046.61	145.64	145.04	87.17	-825.32	-5,205.24	1,465.87	1,176.36	289.52	5.063		
12,400.00	7,118.34	12,019.67	7,046.21	148.41	147.83	87.18	-826.13	-5,305.23	1,465.67	1,170.59	295.08	4.967		
12,500.00	7,117.77	12,119.67	7,045.82	151.18	150.62	87.19	-826.94	-5,405.23	1,465.46	1,164.82	300.64	4.874		
12,600.00	7,117.20	12,219.67	7,045.43	153.95	153.42	87.19	-827.75	-5,505.22	1,465.25	1,159.04	306.21	4.785		
12,700.00	7,116.64	12,319.67	7,045.03	156.73	156.21	87.20	-828.57	-5,605.22	1,465.05	1,153.26	311.79	4.699		
12,800.00	7,116.07	12,419.67	7,044.64	159.50	159.01	87.21	-829.38	-5,705.21	1,464.84	1,147.47	317.37	4.616		
12,900.00	7,115.50	12,519.67	7,044.25	162.29	161.81	87.21	-830.19	-5,805.21	1,464.63	1,141.67	322.96	4.535		
13,000.00	7,114.93	12,619.67	7,043.86	165.07	164.61	87.22	-831.00	-5,905.20	1,464.42	1,135.88	328.55	4.457		
13,100.00	7,114.36	12,719.67	7,043.46	167.86	167.41	87.23	-831.81	-6,005.20	1,464.22	1,130.07	334.14	4.382		
13,200.00	7,113.79	12,819.67	7,043.07	170.64	170.22	87.23	-832.62	-6,105.20	1,464.01	1,124.27	339.74	4.309		
13,300.00	7,113.22	12,919.67	7,042.68	173.44	173.03	87.24	-833.44	-6,205.19	1,463.80	1,118.46	345.34	4.239		
13,400.00	7,112.66	13,019.67	7,042.28	176.23	175.84	87.24	-834.25	-6,305.19	1,463.60	1,112.65	350.95	4.170		
13,500.00	7,112.09	13,119.67	7,041.89	179.02	178.65	87.25	-835.06	-6,405.18	1,463.39	1,106.83	356.56	4.104		
13,600.00	7,111.52	13,219.67	7,041.50	181.82	181.46	87.26	-835.87	-6,505.18	1,463.18	1,101.01	362.17	4.040		
13,700.00	7,110.95	13,319.67	7,041.10	184.62	184.27	87.26	-836.68	-6,605.17	1,462.98	1,095.19	367.79	3.978		
13,800.00	7,110.38	13,419.67	7,040.71	187.42	187.09	87.27	-837.50	-6,705.17	1,462.77	1,089.36	373.41	3.917		
13,900.00	7,109.81	13,519.67	7,040.32	190.22	189.90	87.28	-838.31	-6,805.16	1,462.56	1,083.53	379.03	3.859		
14,000.00	7,109.25	13,619.67	7,039.92	193.03	192.72	87.28	-839.12	-6,905.16	1,462.35	1,077.70	384.66	3.802		
14,100.00	7,108.68	13,719.67	7,039.53	195.84	195.54	87.29	-839.93	-7,005.16	1,462.15	1,071.86	390.28	3.746		
14,200.00	7,108.11	13,819.66	7,039.14	198.64	198.36	87.30	-840.74	-7,105.15	1,461.94	1,066.03	395.91	3.693		
14,300.00	7,107.54	13,919.66	7,038.74	201.45	201.18	87.30	-841.55	-7,205.15	1,461.73	1,060.19	401.55	3.640		
14,400.00	7,106.97	14,019.66	7,038.35	204.26	204.00	87.31	-842.37	-7,305.14	1,461.53	1,054.35	407.18	3.589		
14,500.00	7,106.40	14,119.66	7,037.96	207.07	206.83	87.32	-843.18	-7,405.14	1,461.32	1,048.50	412.82	3.540		
14,600.00	7,105.83	14,219.66	7,037.56	209.89	209.65	87.32	-843.99	-7,505.13	1,461.11	1,042.66	418.46	3.492		
14,700.00	7,105.27	14,319.66	7,037.17	212.70	212.47	87.33	-844.80	-7,605.13	1,460.91	1,036.81	424.10	3.445		
14,800.00	7,104.70	14,419.66	7,036.78	215.52	215.30	87.34	-845.61	-7,705.12	1,460.70	1,030.96	429.74	3.399		
14,900.00	7,104.13	14,519.66	7,036.38	218.33	218.13	87.34	-846.42	-7,805.12	1,460.49	1,025.11	435.39	3.354		
15,000.00	7,103.56	14,619.66	7,035.99	221.15	220.95	87.35	-847.24	-7,905.12	1,460.29	1,019.25	441.03	3.311		
15,100.00	7,102.99	14,719.66	7,035.60	223.97	223.78	87.36	-848.05	-8,005.11	1,460.08	1,013.40	446.68	3.269		
15,200.00	7,102.42	14,819.66	7,035.21	226.79	226.61	87.36	-848.86	-8,105.11	1,459.87	1,007.54	452.33	3.227		
15,257.94	7,102.09	14,877.60	7,034.98	228.42	228.25	87.37	-849.33	-8,163.05	1,459.75	1,004.15	455.61	3.204		
15,274.57	7,102.00	14,871.88	7,035.00	228.89	228.09	87.36	-849.28	-8,157.32	1,459.89	1,004.20	455.69	3.204 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.51	220.06	1.95	220.07					
100.00	100.00	102.00	100.00	3.28	3.29	0.51	220.06	1.95	220.07	213.50	6.57	33.496		
200.00	200.00	202.00	200.00	3.34	3.34	0.51	220.06	1.95	220.07	213.39	6.68	32.965	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.57	220.06	1.95	221.81	214.92	6.89	32.204		
400.00	399.84	401.84	399.84	3.59	3.61	176.65	220.06	1.95	227.03	219.83	7.20	31.537		
500.00	499.45	501.45	499.45	3.79	3.81	176.76	220.06	1.95	235.73	228.13	7.60	31.010		
600.00	598.70	602.61	600.61	4.03	4.05	176.91	219.97	1.93	247.82	239.74	8.08	30.656		
700.00	697.47	711.18	709.14	4.31	4.32	176.96	217.13	1.26	260.85	252.21	8.64	30.198		
800.00	795.62	820.31	818.03	4.64	4.63	176.86	210.25	-0.35	273.65	264.38	9.27	29.521		
900.00	893.06	926.89	924.06	5.00	4.96	176.65	199.77	-2.79	286.36	276.42	9.95	28.791		
1,000.00	989.64	1,025.71	1,022.27	5.40	5.28	176.47	189.10	-5.29	301.59	290.96	10.63	28.368		
1,100.00	1,085.27	1,123.95	1,119.90	5.83	5.63	176.33	178.50	-7.76	320.26	308.91	11.35	28.211		
1,200.00	1,179.88	1,221.52	1,216.87	6.29	5.98	176.25	167.96	-10.23	342.13	330.03	12.11	28.258		
1,300.00	1,274.26	1,318.93	1,313.68	6.78	6.35	176.20	157.45	-12.68	364.74	351.86	12.88	28.323		
1,400.00	1,368.63	1,416.34	1,410.49	7.28	6.73	176.16	146.93	-15.14	387.35	373.68	13.67	28.333		
1,500.00	1,463.00	1,513.75	1,507.30	7.80	7.11	176.13	136.41	-17.60	409.96	395.47	14.48	28.305		
1,600.00	1,557.38	1,611.16	1,604.11	8.33	7.51	176.10	125.90	-20.06	432.57	417.25	15.31	28.250		
1,700.00	1,651.75	1,708.57	1,700.92	8.87	7.91	176.07	115.38	-22.51	455.17	439.02	16.15	28.178		
1,800.00	1,746.12	1,805.98	1,797.73	9.41	8.31	176.04	104.86	-24.97	477.78	460.78	17.01	28.093		
1,900.00	1,840.49	1,903.39	1,894.54	9.96	8.72	176.02	94.35	-27.43	500.39	482.52	17.87	28.001		
2,000.00	1,934.87	2,000.81	1,991.35	10.52	9.13	175.99	83.83	-29.89	523.00	504.26	18.74	27.906		
2,100.00	2,029.24	2,101.78	2,088.16	11.08	9.56	175.97	73.32	-32.34	545.61	525.97	19.64	27.787		
2,200.00	2,123.61	2,204.37	2,184.97	11.64	10.01	175.95	62.80	-34.80	568.22	547.67	20.54	27.660		
2,300.00	2,217.99	2,306.96	2,281.78	12.21	10.45	175.94	52.28	-37.26	590.83	569.37	21.46	27.537		
2,400.00	2,312.36	2,409.55	2,378.59	12.78	10.90	175.92	41.77	-39.71	613.43	591.06	22.37	27.418		
2,500.00	2,406.73	2,487.86	2,475.40	13.35	11.24	175.91	31.25	-42.17	636.04	612.85	23.19	27.424		
2,600.00	2,501.10	2,585.27	2,572.21	13.93	11.67	175.89	20.74	-44.63	658.65	634.56	24.10	27.334		
2,700.00	2,595.48	2,682.68	2,669.02	14.51	12.10	175.88	10.22	-47.09	681.26	656.26	25.00	27.246		
2,800.00	2,689.85	2,780.09	2,765.83	15.08	12.53	175.87	-0.30	-49.54	703.87	677.96	25.91	27.161		
2,900.00	2,784.22	2,877.50	2,862.64	15.66	12.96	175.86	-10.81	-52.00	726.48	699.65	26.83	27.079		
3,000.00	2,878.60	2,974.91	2,959.45	16.25	13.40	175.85	-21.33	-54.46	749.09	721.34	27.74	27.000		
3,100.00	2,972.97	3,072.32	3,056.26	16.83	13.83	175.84	-31.85	-56.92	771.70	743.04	28.66	26.924		
3,200.00	3,067.34	3,169.73	3,153.07	17.41	14.27	175.83	-42.36	-59.37	794.31	764.72	29.58	26.851		
3,300.00	3,161.72	3,267.14	3,249.88	18.00	14.70	175.82	-52.88	-61.83	816.92	786.41	30.50	26.780		
3,400.00	3,256.09	3,364.55	3,346.69	18.58	15.14	175.81	-63.39	-64.29	839.52	808.10	31.43	26.713		
3,500.00	3,350.46	3,461.96	3,443.50	19.17	15.58	175.80	-73.91	-66.75	862.13	829.78	32.35	26.648		
3,600.00	3,444.83	3,559.37	3,540.31	19.75	16.02	175.79	-84.43	-69.20	884.74	851.46	33.28	26.585		
3,700.00	3,539.21	3,656.78	3,637.12	20.34	16.46	175.79	-94.94	-71.66	907.35	873.14	34.21	26.525		
3,800.00	3,633.58	3,754.19	3,733.93	20.93	16.90	175.78	-105.46	-74.12	929.96	894.82	35.14	26.467		
3,900.00	3,727.95	3,851.61	3,830.74	21.52	17.34	175.77	-115.97	-76.58	952.57	916.50	36.07	26.411		
4,000.00	3,822.33	3,949.02	3,927.56	22.11	17.78	175.77	-126.49	-79.03	975.18	938.18	37.00	26.357		
4,100.00	3,916.70	4,046.43	4,024.37	22.70	18.22	175.76	-137.01	-81.49	997.79	959.86	37.93	26.306		
4,200.00	4,011.07	4,143.84	4,121.18	23.29	18.66	175.76	-147.52	-83.95	1,020.40	981.53	38.86	26.256		
4,300.00	4,105.44	4,241.25	4,217.99	23.88	19.10	175.75	-158.04	-86.40	1,043.01	1,003.21	39.80	26.208		
4,400.00	4,199.82	4,338.66	4,314.80	24.47	19.55	175.74	-168.56	-88.86	1,065.62	1,024.88	40.73	26.161		
4,500.00	4,294.19	4,436.07	4,411.61	25.06	19.99	175.74	-179.07	-91.32	1,088.23	1,046.56	41.67	26.117		
4,600.00	4,388.56	4,533.48	4,508.42	25.65	20.43	175.74	-189.59	-93.78	1,110.84	1,068.23	42.60	26.073		
4,700.00	4,482.94	4,630.89	4,605.23	26.24	20.88	175.73	-200.10	-96.23	1,133.45	1,089.90	43.54	26.032		
4,800.00	4,577.31	4,728.30	4,702.04	26.83	21.32	175.73	-210.62	-98.69	1,156.05	1,111.58	44.48	25.991		
4,900.00	4,671.68	4,825.71	4,798.85	27.43	21.77	175.72	-221.14	-101.15	1,178.66	1,133.25	45.42	25.952		
5,000.00	4,766.05	4,923.12	4,895.66	28.02	22.21	175.72	-231.65	-103.61	1,201.27	1,154.92	46.36	25.915		
5,100.00	4,860.43	5,020.53	4,992.47	28.61	22.65	175.71	-242.17	-106.06	1,223.88	1,176.59	47.29	25.878		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	5,117.94	5,089.28	29.20	23.10	175.71	-252.68	-108.52	1,246.49	1,198.26	48.23	25.843		
5,300.00	5,049.17	5,215.35	5,186.09	29.80	23.54	175.71	-263.20	-110.98	1,269.10	1,219.93	49.17	25.809		
5,400.00	5,143.55	5,312.76	5,282.90	30.39	23.99	175.70	-273.72	-113.44	1,291.71	1,241.60	50.11	25.776		
5,500.00	5,237.92	5,410.17	5,379.71	30.99	24.44	175.70	-284.23	-115.89	1,314.32	1,263.26	51.05	25.743		
5,600.00	5,332.29	5,507.58	5,476.52	31.58	24.88	175.70	-294.75	-118.35	1,336.93	1,284.93	52.00	25.712		
5,700.00	5,426.66	5,604.99	5,573.33	32.17	25.33	175.69	-305.27	-120.81	1,359.54	1,306.60	52.94	25.682		
5,800.00	5,521.04	5,702.41	5,670.14	32.77	25.77	175.69	-315.78	-123.27	1,382.15	1,328.27	53.88	25.653		
5,900.00	5,615.41	5,800.18	5,766.95	33.36	26.22	175.69	-326.30	-125.72	1,404.76	1,349.93	54.82	25.624		
6,000.00	5,709.78	5,902.77	5,863.76	33.96	26.69	175.68	-336.81	-128.18	1,427.37	1,371.58	55.79	25.585		
6,100.00	5,804.16	5,994.64	5,960.57	34.55	27.11	175.68	-347.33	-130.64	1,449.98	1,393.27	56.71	25.570		
6,200.00	5,898.53	6,107.95	6,057.38	35.14	27.63	175.68	-357.85	-133.09	1,472.58	1,414.86	57.72	25.512		
6,300.00	5,992.90	6,189.46	6,154.19	35.74	28.01	175.68	-368.36	-135.55	1,495.19	1,436.60	58.59	25.518		
6,400.00	6,087.27	6,286.87	6,251.00	36.33	28.45	175.67	-378.88	-138.01	1,517.80	1,458.27	59.54	25.494		
6,500.00	6,181.65	6,384.28	6,347.81	36.93	28.90	175.67	-389.39	-140.47	1,540.41	1,479.93	60.48	25.470		
6,600.00	6,276.02	6,481.69	6,444.62	37.52	29.35	175.67	-399.91	-142.92	1,563.02	1,501.60	61.42	25.446		
6,700.00	6,370.39	6,579.31	6,541.61	38.12	29.79	175.64	-410.45	-146.06	1,585.63	1,523.26	62.37	25.422		
6,800.00	6,464.77	6,675.86	6,636.46	38.71	30.23	175.21	-420.85	-160.18	1,608.25	1,544.94	63.31	25.403		
6,900.00	6,559.14	6,766.93	6,723.00	39.31	30.63	174.11	-430.45	-186.57	1,631.18	1,566.99	64.19	25.411		
7,000.00	6,652.92	6,852.62	6,800.24	39.90	30.98	147.74	-439.12	-222.50	1,654.57	1,589.56	65.01	25.450		
7,100.00	6,744.00	6,935.60	6,869.80	40.44	31.30	128.66	-447.03	-266.94	1,677.72	1,611.94	65.78	25.506		
7,200.00	6,830.13	7,016.49	6,931.52	40.94	31.60	115.86	-454.15	-318.66	1,699.93	1,633.43	66.49	25.565		
7,300.00	6,909.19	7,095.78	6,985.21	41.37	31.90	107.07	-460.45	-376.59	1,720.53	1,653.33	67.20	25.605		
7,400.00	6,979.23	7,173.85	7,030.67	41.75	32.23	100.83	-465.90	-439.76	1,738.93	1,670.99	67.94	25.596		
7,500.00	7,038.53	7,250.00	7,067.28	42.08	32.64	96.34	-470.41	-506.33	1,754.62	1,685.85	68.77	25.514		
7,600.00	7,085.63	7,327.47	7,096.15	42.37	33.20	93.15	-474.14	-578.08	1,767.15	1,697.33	69.82	25.310		
7,700.00	7,119.37	7,403.47	7,115.85	42.64	33.87	91.03	-476.88	-651.38	1,776.19	1,705.10	71.09	24.985		
7,800.00	7,138.92	7,479.14	7,126.70	42.91	34.67	89.84	-478.67	-726.20	1,781.50	1,708.85	72.64	24.524		
7,900.00	7,143.92	7,560.59	7,128.89	43.25	35.63	89.52	-479.58	-807.58	1,782.93	1,708.37	74.56	23.912		
8,000.00	7,143.35	7,660.59	7,128.46	43.72	36.99	89.52	-480.36	-907.58	1,782.77	1,705.65	77.12	23.118		
8,100.00	7,142.78	7,760.59	7,128.02	44.42	38.50	89.53	-481.13	-1,007.57	1,782.60	1,702.61	79.99	22.286		
8,200.00	7,142.22	7,860.59	7,127.59	45.39	40.16	89.53	-481.91	-1,107.57	1,782.43	1,699.28	83.15	21.435		
8,300.00	7,141.65	7,960.59	7,127.15	46.63	41.95	89.53	-482.69	-1,207.57	1,782.27	1,695.69	86.58	20.585		
8,400.00	7,141.08	8,060.59	7,126.72	48.09	43.85	89.54	-483.46	-1,307.56	1,782.10	1,691.86	90.24	19.748		
8,500.00	7,140.51	8,160.59	7,126.29	49.74	45.86	89.54	-484.24	-1,407.56	1,781.94	1,687.83	94.10	18.936		
8,600.00	7,139.94	8,260.59	7,125.85	51.53	47.95	89.55	-485.02	-1,507.55	1,781.77	1,683.62	98.15	18.154		
8,700.00	7,139.37	8,360.59	7,125.42	53.44	50.12	89.55	-485.80	-1,607.55	1,781.61	1,679.25	102.35	17.406		
8,800.00	7,138.80	8,460.59	7,124.99	55.45	52.35	89.56	-486.57	-1,707.55	1,781.44	1,674.74	106.70	16.696		
8,900.00	7,138.24	8,560.59	7,124.55	57.55	54.64	89.56	-487.35	-1,807.54	1,781.28	1,670.11	111.17	16.023		
9,000.00	7,137.67	8,660.59	7,124.12	59.71	56.99	89.56	-488.13	-1,907.54	1,781.11	1,665.36	115.75	15.388		
9,100.00	7,137.10	8,760.59	7,123.68	61.94	59.38	89.57	-488.91	-2,007.53	1,780.95	1,660.52	120.42	14.789		
9,200.00	7,136.53	8,860.59	7,123.25	64.22	61.81	89.57	-489.68	-2,107.53	1,780.78	1,655.60	125.18	14.225		
9,300.00	7,135.96	8,960.59	7,122.82	66.55	64.27	89.58	-490.46	-2,207.52	1,780.61	1,650.59	130.02	13.695		
9,400.00	7,135.39	9,060.59	7,122.38	68.92	66.77	89.58	-491.24	-2,307.52	1,780.45	1,645.52	134.93	13.195		
9,500.00	7,134.83	9,160.59	7,121.95	71.33	69.29	89.59	-492.02	-2,407.52	1,780.28	1,640.38	139.90	12.725		
9,600.00	7,134.26	9,260.59	7,121.51	73.77	71.84	89.59	-492.79	-2,507.51	1,780.12	1,635.19	144.92	12.283		
9,700.00	7,133.69	9,360.59	7,121.08	76.24	74.41	89.59	-493.57	-2,607.51	1,779.95	1,629.95	150.00	11.867		
9,800.00	7,133.12	9,460.59	7,120.65	78.74	77.01	89.60	-494.35	-2,707.50	1,779.79	1,624.67	155.12	11.474		
9,900.00	7,132.55	9,560.59	7,120.21	81.27	79.62	89.61	-495.13	-2,807.50	1,779.62	1,619.35	160.28	11.104		
10,000.00	7,131.98	9,660.59	7,119.78	83.81	82.24	89.61	-495.90	-2,907.50	1,779.46	1,613.99	165.47	10.754		
10,100.00	7,131.42	9,760.59	7,119.34	86.38	84.88	89.61	-496.68	-3,007.49	1,779.29	1,608.59	170.70	10.423		
10,200.00	7,130.85	9,860.59	7,118.91	88.96	87.54	89.62	-497.46	-3,107.49	1,779.13	1,603.17	175.96	10.111		
10,300.00	7,130.28	9,960.59	7,118.48	91.56	90.21	89.62	-498.23	-3,207.48	1,778.96	1,597.71	181.25	9.815		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	10,060.59	7,118.04	94.18	92.89	89.62	-499.01	-3,307.48	1,778.80	1,592.24	186.56	9.535		
10,500.00	7,129.14	10,160.59	7,117.61	96.81	95.58	89.63	-499.79	-3,407.47	1,778.63	1,586.73	191.90	9.269		
10,600.00	7,128.57	10,260.59	7,117.17	99.45	98.28	89.63	-500.57	-3,507.47	1,778.47	1,581.21	197.25	9.016		
10,700.00	7,128.00	10,360.59	7,116.74	102.11	100.98	89.64	-501.34	-3,607.47	1,778.30	1,575.67	202.63	8.776		
10,800.00	7,127.44	10,460.58	7,116.31	104.77	103.70	89.64	-502.12	-3,707.46	1,778.13	1,570.11	208.02	8.548		
10,900.00	7,126.87	10,560.58	7,115.87	107.45	106.42	89.65	-502.90	-3,807.46	1,777.97	1,564.53	213.44	8.330		
11,000.00	7,126.30	10,660.58	7,115.44	110.13	109.15	89.65	-503.68	-3,907.45	1,777.80	1,558.94	218.86	8.123		
11,100.00	7,125.73	10,760.58	7,115.01	112.82	111.89	89.65	-504.45	-4,007.45	1,777.64	1,553.33	224.31	7.925		
11,200.00	7,125.16	10,860.58	7,114.57	115.53	114.63	89.66	-505.23	-4,107.44	1,777.47	1,547.71	229.76	7.736		
11,300.00	7,124.59	10,960.58	7,114.14	118.24	117.38	89.66	-506.01	-4,207.44	1,777.31	1,542.08	235.23	7.556		
11,400.00	7,124.03	11,060.58	7,113.70	120.95	120.13	89.67	-506.79	-4,307.44	1,777.14	1,536.44	240.71	7.383		
11,500.00	7,123.46	11,160.58	7,113.27	123.67	122.89	89.67	-507.56	-4,407.43	1,776.98	1,530.78	246.20	7.218		
11,600.00	7,122.89	11,260.58	7,112.84	126.40	125.66	89.68	-508.34	-4,507.43	1,776.81	1,525.11	251.70	7.059		
11,700.00	7,122.32	11,360.58	7,112.40	129.14	128.42	89.68	-509.12	-4,607.42	1,776.65	1,519.44	257.21	6.907		
11,800.00	7,121.75	11,460.58	7,111.97	131.88	131.19	89.68	-509.90	-4,707.42	1,776.48	1,513.76	262.73	6.762		
11,900.00	7,121.18	11,560.58	7,111.53	134.62	133.97	89.69	-510.67	-4,807.42	1,776.32	1,508.06	268.25	6.622		
12,000.00	7,120.61	11,660.58	7,111.10	137.37	136.75	89.69	-511.45	-4,907.41	1,776.15	1,502.36	273.79	6.487		
12,100.00	7,120.05	11,760.58	7,110.67	140.12	139.53	89.70	-512.23	-5,007.41	1,775.99	1,496.66	279.33	6.358		
12,200.00	7,119.48	11,860.58	7,110.23	142.88	142.31	89.70	-513.00	-5,107.40	1,775.82	1,490.94	284.88	6.234		
12,300.00	7,118.91	11,960.58	7,109.80	145.64	145.10	89.71	-513.78	-5,207.40	1,775.66	1,485.22	290.44	6.114		
12,400.00	7,118.34	12,060.58	7,109.36	148.41	147.89	89.71	-514.56	-5,307.39	1,775.49	1,479.49	296.00	5.998		
12,500.00	7,117.77	12,160.58	7,108.93	151.18	150.68	89.72	-515.34	-5,407.39	1,775.33	1,473.76	301.57	5.887		
12,600.00	7,117.20	12,260.58	7,108.50	153.95	153.47	89.72	-516.11	-5,507.39	1,775.16	1,468.02	307.14	5.780		
12,700.00	7,116.64	12,360.58	7,108.06	156.73	156.27	89.72	-516.89	-5,607.38	1,775.00	1,462.28	312.72	5.676		
12,800.00	7,116.07	12,460.58	7,107.63	159.50	159.07	89.73	-517.67	-5,707.38	1,774.83	1,456.53	318.30	5.576		
12,900.00	7,115.50	12,560.58	7,107.19	162.29	161.87	89.73	-518.45	-5,807.37	1,774.67	1,450.78	323.89	5.479		
13,000.00	7,114.93	12,660.58	7,106.76	165.07	164.67	89.74	-519.22	-5,907.37	1,774.50	1,445.02	329.48	5.386		
13,100.00	7,114.36	12,760.58	7,106.33	167.86	167.48	89.74	-520.00	-6,007.37	1,774.34	1,439.26	335.08	5.295		
13,200.00	7,113.79	12,860.58	7,105.89	170.64	170.29	89.75	-520.78	-6,107.36	1,774.17	1,433.49	340.68	5.208		
13,300.00	7,113.22	12,960.58	7,105.46	173.44	173.10	89.75	-521.56	-6,207.36	1,774.01	1,427.72	346.28	5.123		
13,400.00	7,112.66	13,060.58	7,105.03	176.23	175.91	89.75	-522.33	-6,307.35	1,773.84	1,421.95	351.89	5.041		
13,500.00	7,112.09	13,160.58	7,104.59	179.02	178.72	89.76	-523.11	-6,407.35	1,773.68	1,416.17	357.50	4.961		
13,600.00	7,111.52	13,260.58	7,104.16	181.82	181.53	89.76	-523.89	-6,507.34	1,773.51	1,410.40	363.12	4.884		
13,700.00	7,110.95	13,360.58	7,103.72	184.62	184.34	89.77	-524.67	-6,607.34	1,773.35	1,404.61	368.74	4.809		
13,800.00	7,110.38	13,460.58	7,103.29	187.42	187.16	89.77	-525.44	-6,707.34	1,773.18	1,398.83	374.36	4.737		
13,900.00	7,109.81	13,560.58	7,102.86	190.22	189.98	89.78	-526.22	-6,807.33	1,773.02	1,393.04	379.98	4.666		
14,000.00	7,109.25	13,660.58	7,102.42	193.03	192.80	89.78	-527.00	-6,907.33	1,772.85	1,387.25	385.61	4.598		
14,100.00	7,108.68	13,760.58	7,101.99	195.84	195.62	89.78	-527.77	-7,007.32	1,772.69	1,381.45	391.24	4.531		
14,200.00	7,108.11	13,860.58	7,101.55	198.64	198.44	89.79	-528.55	-7,107.32	1,772.52	1,375.65	396.87	4.466		
14,300.00	7,107.54	13,960.58	7,101.12	201.45	201.26	89.79	-529.33	-7,207.32	1,772.36	1,369.86	402.50	4.403		
14,400.00	7,106.97	14,060.58	7,100.69	204.26	204.08	89.80	-530.11	-7,307.31	1,772.19	1,364.05	408.14	4.342		
14,500.00	7,106.40	14,160.58	7,100.25	207.07	206.90	89.80	-530.88	-7,407.31	1,772.03	1,358.25	413.78	4.283		
14,600.00	7,105.83	14,260.58	7,099.82	209.89	209.73	89.81	-531.66	-7,507.30	1,771.86	1,352.44	419.42	4.225		
14,700.00	7,105.27	14,360.58	7,099.38	212.70	212.55	89.81	-532.44	-7,607.30	1,771.70	1,346.64	425.06	4.168		
14,800.00	7,104.70	14,460.58	7,098.95	215.52	215.38	89.81	-533.22	-7,707.29	1,771.53	1,340.83	430.71	4.113		
14,900.00	7,104.13	14,560.58	7,098.52	218.33	218.21	89.82	-533.99	-7,807.29	1,771.37	1,335.01	436.35	4.059		
15,000.00	7,103.56	14,660.58	7,098.08	221.15	221.04	89.82	-534.77	-7,907.29	1,771.20	1,329.20	442.00	4.007		
15,100.00	7,102.99	14,760.58	7,097.65	223.97	223.86	89.83	-535.55	-8,007.28	1,771.04	1,323.39	447.65	3.956		
15,200.00	7,102.42	14,860.58	7,097.21	226.79	226.69	89.83	-536.33	-8,107.28	1,770.87	1,317.57	453.31	3.907		
15,260.39	7,102.08	14,920.96	7,096.95	228.49	228.40	89.83	-536.80	-8,167.66	1,770.77	1,314.06	456.72	3.877 SF		
15,274.57	7,102.00	14,909.96	7,097.00	228.89	228.09	89.83	-536.71	-8,156.66	1,770.93	1,314.31	456.62	3.878		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	0.79	20.05	0.28	20.05					
100.00	100.00	101.00	100.00	3.28	3.28	0.79	20.05	0.28	20.05	13.49	6.57	3.053		
200.00	200.00	201.01	200.01	3.34	3.34	0.79	20.05	0.28	20.05	13.38	6.67	3.005		
300.00	299.98	301.71	300.69	3.44	3.44	176.79	18.25	0.14	20.01	13.12	6.89	2.903		
400.00	399.84	402.41	401.24	3.59	3.60	176.66	12.93	-0.27	19.94	12.72	7.22	2.761		
500.00	499.45	503.11	501.54	3.79	3.80	176.46	4.08	-0.95	19.85	12.20	7.65	2.594		
600.00	598.70	603.80	601.47	4.03	4.04	176.16	-8.28	-1.90	19.73	11.56	8.17	2.415		
700.00	697.47	704.49	700.89	4.31	4.33	175.79	-24.12	-3.11	19.60	10.84	8.76	2.238		
800.00	795.62	805.17	799.68	4.64	4.66	175.32	-43.44	-4.59	19.44	10.03	9.41	2.066		
900.00	893.06	905.85	897.73	5.00	5.02	174.77	-66.21	-6.34	19.26	9.16	10.10	1.906		
1,000.00	989.64	1,006.52	994.91	5.40	5.42	174.12	-92.40	-8.35	19.07	8.22	10.84	1.758		
1,093.28	1,078.88	1,100.38	1,084.63	5.80	5.83	173.43	-119.86	-10.46	18.88	7.31	11.57	1.632 CC		
1,100.00	1,085.27	1,107.10	1,091.02	5.83	5.86	173.38	-121.92	-10.62	18.89	7.27	11.62	1.626		
1,200.00	1,179.88	1,207.08	1,186.18	6.29	6.32	173.30	-152.52	-12.96	20.65	8.24	12.41	1.664		
1,300.00	1,274.26	1,307.05	1,281.32	6.78	6.80	173.46	-183.13	-15.31	23.16	9.93	13.23	1.750		
1,400.00	1,368.63	1,407.01	1,376.45	7.28	7.29	173.58	-213.73	-17.66	25.66	11.58	14.08	1.822		
1,500.00	1,463.00	1,506.98	1,471.59	7.80	7.80	173.68	-244.34	-20.01	28.17	13.21	14.96	1.883		
1,600.00	1,557.38	1,606.95	1,566.73	8.33	8.31	173.77	-274.95	-22.36	30.68	14.83	15.85	1.935		
1,700.00	1,651.75	1,706.92	1,661.87	8.87	8.83	173.84	-305.55	-24.71	33.19	16.42	16.77	1.980		
1,800.00	1,746.12	1,806.89	1,757.01	9.41	9.36	173.90	-336.16	-27.05	35.70	18.01	17.69	2.018		
1,900.00	1,840.49	1,906.86	1,852.15	9.96	9.90	173.95	-366.76	-29.40	38.21	19.58	18.63	2.051		
2,000.00	1,934.87	2,006.83	1,947.29	10.52	10.44	174.00	-397.37	-31.75	40.72	21.14	19.58	2.080		
2,100.00	2,029.24	2,106.79	2,042.43	11.08	10.98	174.04	-427.97	-34.10	43.22	22.69	20.54	2.105		
2,200.00	2,123.61	2,206.76	2,137.57	11.64	11.53	174.08	-458.58	-36.45	45.73	24.23	21.50	2.127		
2,300.00	2,217.99	2,306.73	2,232.71	12.21	12.08	174.11	-489.18	-38.80	48.24	25.77	22.47	2.147		
2,400.00	2,312.36	2,406.70	2,327.85	12.78	12.63	174.14	-519.79	-41.14	50.75	27.30	23.45	2.164		
2,500.00	2,406.73	2,506.67	2,422.99	13.35	13.18	174.17	-550.39	-43.49	53.26	28.83	24.43	2.180		
2,600.00	2,501.10	2,606.64	2,518.13	13.93	13.74	174.20	-581.00	-45.84	55.77	30.35	25.42	2.194		
2,700.00	2,595.48	2,706.61	2,613.27	14.51	14.30	174.22	-611.60	-48.19	58.28	31.87	26.41	2.207		
2,800.00	2,689.85	2,806.57	2,708.41	15.08	14.86	174.24	-642.21	-50.54	60.79	33.38	27.40	2.218		
2,900.00	2,784.22	2,906.54	2,803.55	15.66	15.42	174.26	-672.81	-52.89	63.30	34.90	28.40	2.229		
3,000.00	2,878.60	3,006.51	2,898.69	16.25	15.98	174.28	-703.42	-55.23	65.80	36.40	29.40	2.238		
3,100.00	2,972.97	3,106.48	2,993.83	16.83	16.55	174.29	-734.02	-57.58	68.31	37.91	30.40	2.247		
3,200.00	3,067.34	3,206.45	3,088.96	17.41	17.11	174.31	-764.63	-59.93	70.82	39.41	31.41	2.255		
3,300.00	3,161.72	3,306.42	3,184.10	18.00	17.68	174.32	-795.23	-62.28	73.33	40.91	32.42	2.262		
3,400.00	3,256.09	3,406.39	3,279.24	18.58	18.24	174.34	-825.84	-64.63	75.84	42.41	33.43	2.269		
3,500.00	3,350.46	3,506.35	3,374.38	19.17	18.81	174.35	-856.44	-66.98	78.35	43.91	34.44	2.275		
3,600.00	3,444.83	3,606.32	3,469.52	19.75	19.38	174.36	-887.05	-69.32	80.86	45.41	35.45	2.281		
3,700.00	3,539.21	3,706.29	3,564.66	20.34	19.95	174.37	-917.65	-71.67	83.37	46.90	36.46	2.286		
3,800.00	3,633.58	3,806.26	3,659.80	20.93	20.52	174.38	-948.26	-74.02	85.88	48.40	37.48	2.291		
3,900.00	3,727.95	3,906.23	3,754.94	21.52	21.09	174.39	-978.86	-76.37	88.38	49.89	38.50	2.296		
4,000.00	3,822.33	4,006.20	3,850.08	22.11	21.66	174.40	-1,009.47	-78.72	90.89	51.38	39.51	2.300		
4,100.00	3,916.70	4,106.16	3,945.22	22.70	22.23	174.41	-1,040.07	-81.07	93.40	52.87	40.53	2.304		
4,200.00	4,011.07	4,206.13	4,040.36	23.29	22.80	174.42	-1,070.68	-83.41	95.91	54.36	41.55	2.308		
4,300.00	4,105.44	4,306.10	4,135.50	23.88	23.37	174.42	-1,101.28	-85.76	98.42	55.85	42.57	2.312		
4,400.00	4,199.82	4,406.07	4,230.64	24.47	23.94	174.43	-1,131.89	-88.11	100.93	57.33	43.60	2.315		
4,500.00	4,294.19	4,506.04	4,325.78	25.06	24.51	174.44	-1,162.49	-90.46	103.44	58.82	44.62	2.318		
4,600.00	4,388.56	4,606.01	4,420.92	25.65	25.08	174.45	-1,193.10	-92.81	105.95	60.30	45.64	2.321		
4,700.00	4,482.94	4,705.98	4,516.06	26.24	25.66	174.45	-1,223.70	-95.16	108.46	61.79	46.67	2.324		
4,800.00	4,577.31	4,805.94	4,611.20	26.83	26.23	174.46	-1,254.31	-97.50	110.96	63.27	47.69	2.327		
4,900.00	4,671.68	4,905.91	4,706.34	27.43	26.80	174.46	-1,284.91	-99.85	113.47	64.76	48.72	2.329		
5,000.00	4,766.05	5,005.88	4,801.48	28.02	27.38	174.47	-1,315.52	-102.20	115.98	66.24	49.74	2.332		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	5,105.85	4,896.61	28.61	27.95	174.47	-1,346.13	-104.55	118.49	67.72	50.77	2.334		
5,200.00	4,954.80	5,205.82	4,991.75	29.20	28.52	174.48	-1,376.73	-106.90	121.00	69.20	51.80	2.336		
5,300.00	5,049.17	5,305.79	5,086.89	29.80	29.10	174.48	-1,407.34	-109.25	123.51	70.69	52.82	2.338		
5,400.00	5,143.55	5,405.76	5,182.03	30.39	29.67	174.49	-1,437.94	-111.59	126.02	72.17	53.85	2.340		
5,500.00	5,237.92	5,505.72	5,277.17	30.99	30.25	174.49	-1,468.55	-113.94	128.53	73.65	54.88	2.342		
5,600.00	5,332.29	5,605.69	5,372.31	31.58	30.82	174.50	-1,499.15	-116.29	131.04	75.13	55.91	2.344		
5,700.00	5,426.66	5,705.66	5,467.45	32.17	31.40	174.50	-1,529.76	-118.64	133.54	76.61	56.94	2.345		
5,800.00	5,521.04	5,805.63	5,562.59	32.77	31.97	174.51	-1,560.36	-120.99	136.05	78.09	57.97	2.347		
5,900.00	5,615.41	5,905.60	5,657.73	33.36	32.55	174.51	-1,590.97	-123.34	138.56	79.57	59.00	2.349		
6,000.00	5,709.78	6,005.57	5,752.87	33.96	33.12	174.51	-1,621.57	-125.68	141.07	81.04	60.03	2.350		
6,100.00	5,804.16	6,105.54	5,848.01	34.55	33.70	174.52	-1,652.18	-128.03	143.58	82.52	61.06	2.352		
6,200.00	5,898.53	6,205.50	5,943.15	35.14	34.27	174.52	-1,682.78	-130.38	146.09	84.00	62.09	2.353		
6,300.00	5,992.90	6,305.47	6,038.29	35.74	34.85	174.52	-1,713.39	-132.73	148.60	85.48	63.12	2.354		
6,400.00	6,087.27	6,405.44	6,133.43	36.33	35.42	174.53	-1,743.99	-135.08	151.11	86.96	64.15	2.356		
6,500.00	6,181.65	6,505.41	6,228.57	36.93	36.00	174.53	-1,774.60	-137.43	153.62	88.43	65.18	2.357		
6,600.00	6,276.02	6,605.38	6,323.71	37.52	36.58	174.53	-1,805.20	-139.77	156.12	89.91	66.21	2.358		
6,700.00	6,370.39	6,705.35	6,418.85	38.12	37.15	174.54	-1,835.81	-142.12	158.63	91.39	67.24	2.359		
6,800.00	6,464.77	6,805.11	6,513.76	38.71	37.73	174.26	-1,866.35	-145.25	161.16	92.88	68.29	2.360		
6,900.00	6,559.14	6,902.73	6,605.53	39.31	38.27	169.75	-1,895.96	-159.83	164.50	94.98	69.51	2.366		
7,000.00	6,652.92	6,996.77	6,690.90	39.90	38.76	139.87	-1,923.62	-187.64	170.12	99.29	70.83	2.402		
7,100.00	6,744.00	7,088.37	6,789.41	40.44	39.19	117.88	-1,949.17	-227.14	177.37	105.63	71.74	2.472		
7,200.00	6,830.13	7,177.89	6,840.12	40.94	39.57	102.80	-1,972.28	-276.80	185.53	113.61	71.92	2.580		
7,300.00	6,909.19	7,265.64	6,902.31	41.37	39.89	92.30	-1,992.73	-335.13	193.91	122.60	71.31	2.719		
7,400.00	6,979.23	7,351.93	6,955.44	41.75	40.19	84.83	-2,010.32	-400.72	201.90	131.83	70.07	2.881		
7,500.00	7,038.53	7,437.04	6,999.09	42.08	40.44	79.49	-2,024.90	-472.24	209.00	140.49	68.50	3.051		
7,600.00	7,085.63	7,521.24	7,032.94	42.37	40.68	75.75	-2,036.37	-548.41	214.83	147.84	66.98	3.207		
7,700.00	7,119.37	7,604.78	7,056.78	42.64	40.93	73.31	-2,044.65	-627.99	219.09	153.19	65.90	3.325		
7,800.00	7,138.92	7,687.90	7,070.44	42.91	41.20	71.97	-2,049.68	-709.76	221.59	156.00	65.59	3.378		
7,900.00	7,143.92	7,773.25	7,073.95	43.25	41.55	71.65	-2,051.46	-794.97	222.24	155.82	66.41	3.346		
8,000.00	7,143.35	7,873.25	7,073.63	43.72	42.15	71.70	-2,052.13	-894.97	222.11	153.38	68.73	3.232		
8,100.00	7,142.78	7,973.25	7,073.30	44.42	43.00	71.76	-2,052.80	-994.96	221.98	150.60	71.38	3.110		
8,200.00	7,142.22	8,073.25	7,072.98	45.39	44.13	71.81	-2,053.46	-1,094.96	221.85	147.51	74.34	2.984		
8,300.00	7,141.65	8,173.25	7,072.65	46.63	45.51	71.87	-2,054.13	-1,194.96	221.72	144.14	77.59	2.858		
8,400.00	7,141.08	8,273.25	7,072.33	48.09	47.09	71.93	-2,054.80	-1,294.95	221.60	140.53	81.07	2.733		
8,500.00	7,140.51	8,373.25	7,072.00	49.74	48.83	71.98	-2,055.47	-1,394.95	221.47	136.70	84.77	2.613		
8,600.00	7,139.94	8,473.25	7,071.68	51.53	50.69	72.04	-2,056.13	-1,494.95	221.34	132.68	88.66	2.496		
8,700.00	7,139.37	8,573.25	7,071.35	53.44	52.66	72.09	-2,056.80	-1,594.94	221.22	128.50	92.72	2.386		
8,800.00	7,138.80	8,673.25	7,071.03	55.45	54.71	72.15	-2,057.47	-1,694.94	221.09	124.17	96.92	2.281		
8,900.00	7,138.24	8,773.25	7,070.70	57.55	56.85	72.20	-2,058.14	-1,794.94	220.96	119.71	101.25	2.182		
9,000.00	7,137.67	8,873.25	7,070.38	59.71	59.05	72.26	-2,058.80	-1,894.94	220.84	115.15	105.69	2.089		
9,100.00	7,137.10	8,973.25	7,070.05	61.94	61.31	72.32	-2,059.47	-1,994.93	220.71	110.48	110.23	2.002		
9,200.00	7,136.53	9,073.25	7,069.73	64.22	63.62	72.37	-2,060.14	-2,094.93	220.58	105.72	114.86	1.920		
9,300.00	7,135.96	9,173.25	7,069.40	66.55	65.97	72.43	-2,060.81	-2,194.93	220.46	100.89	119.57	1.844		
9,400.00	7,135.39	9,273.25	7,069.08	68.92	68.37	72.48	-2,061.47	-2,294.92	220.33	95.99	124.34	1.772		
9,500.00	7,134.83	9,373.25	7,068.75	71.33	70.80	72.54	-2,062.14	-2,394.92	220.21	91.03	129.18	1.705		
9,600.00	7,134.26	9,473.25	7,068.43	73.77	73.26	72.60	-2,062.81	-2,494.92	220.08	86.01	134.08	1.641		
9,700.00	7,133.69	9,573.25	7,068.10	76.24	75.75	72.65	-2,063.48	-2,594.91	219.96	80.94	139.02	1.582		
9,800.00	7,133.12	9,673.25	7,067.78	78.74	78.27	72.71	-2,064.14	-2,694.91	219.83	75.82	144.01	1.526		
9,900.00	7,132.55	9,773.25	7,067.45	81.27	80.81	72.77	-2,064.81	-2,794.91	219.71	70.66	149.04	1.474 Level 3		
10,000.00	7,131.98	9,873.25	7,067.13	83.81	83.37	72.82	-2,065.48	-2,894.90	219.59	65.47	154.11	1.425 Level 3		
10,100.00	7,131.42	9,973.25	7,066.80	86.38	85.95	72.88	-2,066.15	-2,994.90	219.46	60.24	159.22	1.378 Level 3		
10,200.00	7,130.85	10,073.25	7,066.48	88.96	88.55	72.93	-2,066.81	-3,094.90	219.34	54.99	164.35	1.335 Level 3		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	10,173.25	7,066.15	91.56	91.16	72.99	-2,067.48	-3,194.90	219.21	49.70	169.52	1.293 Level 3		
10,400.00	7,129.71	10,273.25	7,065.83	94.18	93.79	73.05	-2,068.15	-3,294.89	219.09	44.38	174.71	1.254 Level 3		
10,500.00	7,129.14	10,373.25	7,065.50	96.81	96.43	73.10	-2,068.82	-3,394.89	218.97	39.05	179.92	1.217 Level 2		
10,600.00	7,128.57	10,473.25	7,065.18	99.45	99.09	73.16	-2,069.48	-3,494.89	218.84	33.69	185.16	1.182 Level 2		
10,700.00	7,128.00	10,573.25	7,064.85	102.11	101.75	73.22	-2,070.15	-3,594.88	218.72	28.31	190.42	1.149 Level 2		
10,800.00	7,127.44	10,673.24	7,064.53	104.77	104.43	73.28	-2,070.82	-3,694.88	218.60	22.91	195.69	1.117 Level 2		
10,900.00	7,126.87	10,773.24	7,064.20	107.45	107.11	73.33	-2,071.49	-3,794.88	218.48	17.49	200.99	1.087 Level 2		
11,000.00	7,126.30	10,873.24	7,063.88	110.13	109.81	73.39	-2,072.15	-3,894.87	218.36	12.06	206.30	1.058 Level 2		
11,100.00	7,125.73	10,973.24	7,063.55	112.82	112.51	73.45	-2,072.82	-3,994.87	218.23	6.61	211.63	1.031 Level 2		
11,200.00	7,125.16	11,073.24	7,063.23	115.53	115.22	73.50	-2,073.49	-4,094.87	218.11	1.14	216.97	1.005 Level 2		
11,300.00	7,124.59	11,173.24	7,062.90	118.24	117.94	73.56	-2,074.16	-4,194.86	217.99	-4.34	222.33	0.980 Level 1		
11,400.00	7,124.03	11,273.24	7,062.58	120.95	120.66	73.62	-2,074.82	-4,294.86	217.87	-9.83	227.70	0.957 Level 1		
11,500.00	7,123.46	11,373.24	7,062.26	123.67	123.39	73.68	-2,075.49	-4,394.86	217.75	-15.33	233.08	0.934 Level 1		
11,600.00	7,122.89	11,473.24	7,061.93	126.40	126.12	73.73	-2,076.16	-4,494.86	217.63	-20.85	238.48	0.913 Level 1		
11,700.00	7,122.32	11,573.24	7,061.61	129.14	128.87	73.79	-2,076.83	-4,594.85	217.51	-26.38	243.89	0.892 Level 1		
11,800.00	7,121.75	11,673.24	7,061.28	131.88	131.61	73.85	-2,077.49	-4,694.85	217.39	-31.91	249.30	0.872 Level 1		
11,900.00	7,121.18	11,773.24	7,060.96	134.62	134.36	73.91	-2,078.16	-4,794.85	217.27	-37.46	254.73	0.853 Level 1		
12,000.00	7,120.61	11,873.24	7,060.63	137.37	137.12	73.96	-2,078.83	-4,894.84	217.15	-43.02	260.17	0.835 Level 1		
12,100.00	7,120.05	11,973.24	7,060.31	140.12	139.88	74.02	-2,079.50	-4,994.84	217.03	-48.58	265.61	0.817 Level 1		
12,200.00	7,119.48	12,073.24	7,059.98	142.88	142.64	74.08	-2,080.16	-5,094.84	216.91	-54.16	271.07	0.800 Level 1		
12,300.00	7,118.91	12,173.24	7,059.66	145.64	145.40	74.14	-2,080.83	-5,194.83	216.79	-59.74	276.53	0.784 Level 1		
12,400.00	7,118.34	12,273.24	7,059.33	148.41	148.18	74.20	-2,081.50	-5,294.83	216.67	-65.33	282.00	0.768 Level 1		
12,500.00	7,117.77	12,373.24	7,059.01	151.18	150.95	74.25	-2,082.17	-5,394.83	216.55	-70.93	287.48	0.753 Level 1		
12,600.00	7,117.20	12,473.24	7,058.68	153.95	153.73	74.31	-2,082.83	-5,494.83	216.43	-76.54	292.97	0.739 Level 1		
12,700.00	7,116.64	12,573.24	7,058.36	156.73	156.51	74.37	-2,083.50	-5,594.82	216.32	-82.15	298.46	0.725 Level 1		
12,800.00	7,116.07	12,673.24	7,058.03	159.50	159.29	74.43	-2,084.17	-5,694.82	216.20	-87.77	303.96	0.711 Level 1		
12,900.00	7,115.50	12,773.24	7,057.71	162.29	162.07	74.49	-2,084.84	-5,794.82	216.08	-93.39	309.47	0.698 Level 1		
13,000.00	7,114.93	12,873.24	7,057.38	165.07	164.86	74.55	-2,085.50	-5,894.81	215.96	-99.02	314.99	0.686 Level 1		
13,100.00	7,114.36	12,973.24	7,057.06	167.86	167.65	74.60	-2,086.17	-5,994.81	215.85	-104.66	320.51	0.673 Level 1		
13,200.00	7,113.79	13,073.24	7,056.73	170.64	170.44	74.66	-2,086.84	-6,094.81	215.73	-110.31	326.03	0.662 Level 1		
13,300.00	7,113.22	13,173.24	7,056.41	173.44	173.24	74.72	-2,087.51	-6,194.80	215.61	-115.96	331.57	0.650 Level 1		
13,400.00	7,112.66	13,273.24	7,056.08	176.23	176.03	74.78	-2,088.17	-6,294.80	215.49	-121.61	337.11	0.639 Level 1		
13,500.00	7,112.09	13,373.24	7,055.76	179.02	178.83	74.84	-2,088.84	-6,394.80	215.38	-127.27	342.65	0.629 Level 1		
13,600.00	7,111.52	13,473.24	7,055.43	181.82	181.63	74.90	-2,089.51	-6,494.79	215.26	-132.94	348.20	0.618 Level 1		
13,700.00	7,110.95	13,573.24	7,055.11	184.62	184.44	74.96	-2,090.18	-6,594.79	215.15	-138.61	353.75	0.608 Level 1		
13,800.00	7,110.38	13,673.24	7,054.78	187.42	187.24	75.02	-2,090.84	-6,694.79	215.03	-144.28	359.31	0.598 Level 1		
13,900.00	7,109.81	13,773.24	7,054.46	190.22	190.04	75.07	-2,091.51	-6,794.79	214.92	-149.96	364.88	0.589 Level 1		
14,000.00	7,109.25	13,873.24	7,054.13	193.03	192.85	75.13	-2,092.18	-6,894.78	214.80	-155.65	370.45	0.580 Level 1		
14,100.00	7,108.68	13,973.23	7,053.81	195.84	195.66	75.19	-2,092.85	-6,994.78	214.68	-161.34	376.02	0.571 Level 1		
14,200.00	7,108.11	14,073.23	7,053.48	198.64	198.47	75.25	-2,093.51	-7,094.78	214.57	-167.03	381.60	0.562 Level 1		
14,300.00	7,107.54	14,173.23	7,053.16	201.45	201.28	75.31	-2,094.18	-7,194.77	214.46	-172.73	387.19	0.554 Level 1		
14,400.00	7,106.97	14,273.23	7,052.83	204.26	204.09	75.37	-2,094.85	-7,294.77	214.34	-178.43	392.77	0.546 Level 1		
14,500.00	7,106.40	14,373.23	7,052.51	207.07	206.91	75.43	-2,095.52	-7,394.77	214.23	-184.14	398.37	0.538 Level 1		
14,600.00	7,105.83	14,473.23	7,052.18	209.89	209.72	75.49	-2,096.18	-7,494.76	214.11	-189.85	403.96	0.530 Level 1		
14,700.00	7,105.27	14,573.23	7,051.86	212.70	212.54	75.55	-2,096.85	-7,594.76	214.00	-195.56	409.56	0.523 Level 1		
14,800.00	7,104.70	14,673.23	7,051.53	215.52	215.36	75.61	-2,097.52	-7,694.76	213.89	-201.28	415.17	0.515 Level 1		
14,900.00	7,104.13	14,773.23	7,051.21	218.33	218.18	75.67	-2,098.19	-7,794.75	213.77	-207.00	420.78	0.508 Level 1		
15,000.00	7,103.56	14,873.23	7,050.88	221.15	221.00	75.73	-2,098.85	-7,894.75	213.66	-212.73	426.39	0.501 Level 1		
15,100.00	7,102.99	14,973.23	7,050.56	223.97	223.82	75.79	-2,099.52	-7,994.75	213.55	-218.46	432.01	0.494 Level 1		
15,200.00	7,102.42	15,073.23	7,050.23	226.79	226.64	75.85	-2,100.19	-8,094.75	213.43	-224.19	437.63	0.488 Level 1		
15,274.57	7,102.00	15,147.80	7,049.99	228.89	228.74	75.89	-2,100.69	-8,169.31	213.35	-228.47	441.82	0.483 Level 1, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	-179.47	-60.10	-0.56	60.10					
100.00	100.00	100.00	100.00	3.28	3.28	-179.47	-60.10	-0.56	60.10	53.53	6.57	9.149		
200.00	200.00	200.00	200.00	3.34	3.34	-179.47	-60.10	-0.56	60.10	53.43	6.67	9.005		
300.00	299.98	297.95	297.93	3.44	3.44	-3.45	-61.77	-0.65	60.07	53.18	6.89	8.722		
400.00	399.84	395.90	395.75	3.59	3.59	-3.53	-66.78	-0.92	59.96	52.76	7.21	8.320		
500.00	499.45	493.85	493.34	3.79	3.78	-3.65	-75.13	-1.38	59.79	52.16	7.63	7.839		
600.00	598.70	591.81	590.59	4.03	4.01	-3.83	-86.81	-2.02	59.55	51.42	8.13	7.322		
700.00	697.47	689.78	687.40	4.31	4.28	-4.06	-101.80	-2.84	59.24	50.53	8.71	6.802		
800.00	795.62	787.77	783.65	4.64	4.60	-4.34	-120.09	-3.84	58.87	49.53	9.35	6.299		
900.00	893.06	885.76	879.23	5.00	4.95	-4.68	-141.66	-5.02	58.43	48.41	10.03	5.827		
1,000.00	989.64	983.78	974.03	5.40	5.33	-5.07	-166.49	-6.38	57.93	47.18	10.75	5.387		
1,100.00	1,085.27	1,081.81	1,067.95	5.83	5.75	-5.53	-194.54	-7.92	57.37	45.85	11.52	4.981		
1,182.37	1,163.36	1,162.56	1,144.55	6.21	6.12	-5.91	-220.05	-9.31	57.27	45.10	12.17	4.706		
1,200.00	1,179.88	1,179.86	1,160.86	6.29	6.20	-6.02	-225.80	-9.63	56.95	44.64	12.31	4.626 CC, ES		
1,300.00	1,274.26	1,277.86	1,252.61	6.78	6.68	-6.28	-260.19	-11.51	59.20	46.07	13.13	4.510		
1,400.00	1,368.63	1,375.60	1,342.88	7.28	7.20	-6.22	-297.59	-13.56	64.84	50.88	13.96	4.646		
1,500.00	1,463.00	1,474.57	1,433.28	7.80	7.74	-5.98	-337.82	-15.76	73.06	58.24	14.82	4.929		
1,600.00	1,557.38	1,574.21	1,524.23	8.33	8.31	-5.78	-378.47	-17.99	81.45	65.72	15.72	5.180		
1,700.00	1,651.75	1,673.86	1,615.18	8.87	8.90	-5.61	-419.12	-20.21	89.83	73.18	16.65	5.396		
1,800.00	1,746.12	1,773.51	1,706.13	9.41	9.49	-5.48	-459.77	-22.44	98.22	80.63	17.59	5.583		
1,900.00	1,840.49	1,873.16	1,797.08	9.96	10.09	-5.36	-500.42	-24.66	106.60	88.05	18.55	5.747		
2,000.00	1,934.87	1,972.80	1,888.03	10.52	10.70	-5.26	-541.07	-26.89	114.99	95.47	19.52	5.891		
2,100.00	2,029.24	2,072.45	1,978.98	11.08	11.32	-5.18	-581.73	-29.12	123.37	102.87	20.50	6.017		
2,200.00	2,123.61	2,172.10	2,069.93	11.64	11.94	-5.10	-622.38	-31.34	131.76	110.27	21.50	6.130		
2,300.00	2,217.99	2,271.75	2,160.89	12.21	12.57	-5.04	-663.03	-33.57	140.15	117.65	22.50	6.230		
2,400.00	2,312.36	2,371.39	2,251.84	12.78	13.20	-4.98	-703.68	-35.79	148.53	125.03	23.51	6.319		
2,500.00	2,406.73	2,471.04	2,342.79	13.35	13.83	-4.93	-744.33	-38.02	156.92	132.40	24.52	6.399		
2,600.00	2,501.10	2,570.69	2,433.74	13.93	14.46	-4.88	-784.98	-40.24	165.31	139.77	25.54	6.472		
2,700.00	2,595.48	2,670.34	2,524.69	14.51	15.10	-4.84	-825.64	-42.47	173.70	147.13	26.57	6.538		
2,800.00	2,689.85	2,769.98	2,615.64	15.08	15.74	-4.80	-866.29	-44.70	182.08	154.48	27.60	6.597		
2,900.00	2,784.22	2,869.63	2,706.59	15.66	16.38	-4.77	-906.94	-46.92	190.47	161.84	28.63	6.652		
3,000.00	2,878.60	2,969.28	2,797.54	16.25	17.03	-4.74	-947.59	-49.15	198.86	169.19	29.67	6.702		
3,100.00	2,972.97	3,068.93	2,888.50	16.83	17.67	-4.71	-988.24	-51.37	207.25	176.53	30.71	6.747		
3,200.00	3,067.34	3,168.57	2,979.45	17.41	18.32	-4.68	-1,028.89	-53.60	215.63	183.87	31.76	6.790		
3,300.00	3,161.72	3,268.22	3,070.40	18.00	18.97	-4.65	-1,069.54	-55.83	224.02	191.21	32.81	6.829		
3,400.00	3,256.09	3,367.87	3,161.35	18.58	19.62	-4.63	-1,110.20	-58.05	232.41	198.55	33.86	6.865		
3,500.00	3,350.46	3,467.52	3,252.30	19.17	20.27	-4.61	-1,150.85	-60.28	240.80	205.89	34.91	6.898		
3,600.00	3,444.83	3,567.17	3,343.25	19.75	20.92	-4.59	-1,191.50	-62.50	249.18	213.22	35.96	6.929		
3,700.00	3,539.21	3,666.81	3,434.20	20.34	21.57	-4.57	-1,232.15	-64.73	257.57	220.55	37.02	6.958		
3,800.00	3,633.58	3,766.46	3,525.15	20.93	22.22	-4.55	-1,272.80	-66.95	265.96	227.88	38.08	6.985		
3,900.00	3,727.95	3,866.11	3,616.11	21.52	22.88	-4.54	-1,313.45	-69.18	274.35	235.21	39.13	7.010		
4,000.00	3,822.33	3,965.76	3,707.06	22.11	23.53	-4.52	-1,354.11	-71.41	282.74	242.54	40.19	7.034		
4,100.00	3,916.70	4,065.40	3,798.01	22.70	24.18	-4.51	-1,394.76	-73.63	291.12	249.87	41.26	7.057		
4,200.00	4,011.07	4,165.05	3,888.96	23.29	24.84	-4.49	-1,435.41	-75.86	299.51	257.19	42.32	7.077		
4,300.00	4,105.44	4,264.70	3,979.91	23.88	25.49	-4.48	-1,476.06	-78.08	307.90	264.52	43.38	7.097		
4,400.00	4,199.82	4,364.35	4,070.86	24.47	26.15	-4.47	-1,516.71	-80.31	316.29	271.84	44.45	7.116		
4,500.00	4,294.19	4,463.99	4,161.81	25.06	26.81	-4.46	-1,557.36	-82.53	324.68	279.16	45.51	7.134		
4,600.00	4,388.56	4,563.64	4,252.76	25.65	27.46	-4.44	-1,598.02	-84.76	333.06	286.48	46.58	7.150		
4,700.00	4,482.94	4,663.29	4,343.72	26.24	28.12	-4.43	-1,638.67	-86.99	341.45	293.80	47.65	7.166		
4,800.00	4,577.31	4,762.94	4,434.67	26.83	28.78	-4.42	-1,679.32	-89.21	349.84	301.12	48.72	7.181		
4,900.00	4,671.68	4,862.58	4,525.62	27.43	29.43	-4.41	-1,719.97	-91.44	358.23	308.44	49.79	7.195		
5,000.00	4,766.05	4,962.23	4,616.57	28.02	30.09	-4.40	-1,760.62	-93.66	366.62	315.76	50.86	7.209		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	5,061.88	4,707.52	28.61	30.75	-4.40	-1,801.27	-95.89	375.00	323.08	51.93	7.222		
5,200.00	4,954.80	5,161.53	4,798.47	29.20	31.41	-4.39	-1,841.92	-98.11	383.39	330.39	53.00	7.234		
5,300.00	5,049.17	5,261.17	4,889.42	29.80	32.07	-4.38	-1,882.58	-100.34	391.78	337.71	54.07	7.246		
5,400.00	5,143.55	5,360.82	4,980.38	30.39	32.73	-4.37	-1,923.23	-102.57	400.17	345.02	55.14	7.257		
5,500.00	5,237.92	5,460.47	5,071.33	30.99	33.39	-4.36	-1,963.88	-104.79	408.56	352.34	56.22	7.268		
5,600.00	5,332.29	5,560.12	5,162.28	31.58	34.05	-4.36	-2,004.53	-107.02	416.94	359.65	57.29	7.278		
5,700.00	5,426.66	5,659.76	5,253.23	32.17	34.71	-4.35	-2,045.18	-109.24	425.33	366.97	58.36	7.288		
5,800.00	5,521.04	5,759.41	5,344.18	32.77	35.37	-4.34	-2,085.83	-111.47	433.72	374.28	59.44	7.297		
5,900.00	5,615.41	5,859.06	5,435.13	33.36	36.02	-4.34	-2,126.49	-113.69	442.11	381.60	60.51	7.306		
6,000.00	5,709.78	5,958.71	5,526.08	33.96	36.69	-4.33	-2,167.14	-115.92	450.50	388.91	61.59	7.315		
6,100.00	5,804.16	6,058.35	5,617.03	34.55	37.35	-4.33	-2,207.79	-118.15	458.88	396.22	62.66	7.323		
6,200.00	5,898.53	6,158.00	5,707.99	35.14	38.01	-4.32	-2,248.44	-120.37	467.27	403.53	63.74	7.331		
6,300.00	5,992.90	6,257.65	5,798.94	35.74	38.67	-4.31	-2,289.09	-122.60	475.66	410.85	64.81	7.339		
6,400.00	6,087.27	6,357.30	5,889.89	36.33	39.33	-4.31	-2,329.74	-124.82	484.05	418.16	65.89	7.346		
6,500.00	6,181.65	6,456.94	5,980.84	36.93	39.99	-4.30	-2,370.40	-127.05	492.44	425.47	66.97	7.353		
6,600.00	6,276.02	6,556.59	6,071.79	37.52	40.65	-4.30	-2,411.05	-129.27	500.82	432.78	68.04	7.360		
6,700.00	6,370.39	6,656.24	6,162.74	38.12	41.31	-4.29	-2,451.70	-131.50	509.21	440.09	69.12	7.367		
6,800.00	6,464.77	6,755.89	6,253.69	38.71	41.97	-4.29	-2,492.35	-133.73	517.60	447.40	70.20	7.373		
6,900.00	6,559.14	6,855.54	6,344.64	39.31	42.63	-4.50	-2,533.00	-135.95	525.99	454.71	71.28	7.380		
7,000.00	6,652.92	6,954.76	6,435.21	39.90	43.29	-27.82	-2,573.48	-138.17	534.42	462.03	72.38	7.383		
7,100.00	6,744.00	7,051.53	6,523.54	40.44	43.93	-45.51	-2,612.96	-140.33	543.45	469.89	73.56	7.388		
7,200.00	6,830.13	7,147.56	6,611.14	40.94	44.57	-58.29	-2,652.12	-143.53	554.63	479.72	74.91	7.404		
7,300.00	6,909.19	7,254.24	6,707.07	41.37	45.25	-67.67	-2,695.13	-160.90	568.04	491.53	76.51	7.424		
7,400.00	6,979.23	7,370.11	6,806.61	41.75	45.91	-74.72	-2,739.91	-199.32	582.79	504.79	78.00	7.472		
7,500.00	7,038.53	7,496.85	6,906.14	42.08	46.53	-80.19	-2,784.91	-263.19	597.84	518.82	79.02	7.566		
7,600.00	7,085.63	7,635.73	6,999.50	42.37	47.08	-84.43	-2,827.39	-356.40	611.87	532.52	79.35	7.711		
7,700.00	7,119.37	7,786.87	7,077.46	42.64	47.55	-87.53	-2,863.25	-480.39	623.36	544.20	79.16	7.875		
7,800.00	7,138.92	7,948.35	7,128.76	42.91	47.95	-89.43	-2,887.42	-631.12	630.81	551.63	79.19	7.966		
7,900.00	7,143.92	8,108.63	7,143.95	43.25	48.30	-90.00	-2,895.52	-790.07	633.14	552.72	80.42	7.873		
8,000.00	7,143.35	8,208.63	7,143.41	43.72	48.56	-90.01	-2,896.11	-890.06	633.12	550.41	82.71	7.655		
8,100.00	7,142.78	8,308.63	7,142.87	44.42	48.93	-90.01	-2,896.70	-990.06	633.09	547.77	85.32	7.420		
8,200.00	7,142.22	8,408.63	7,142.32	45.39	49.46	-90.01	-2,897.29	-1,090.06	633.07	544.84	88.23	7.175		
8,300.00	7,141.65	8,508.63	7,141.78	46.63	50.19	-90.01	-2,897.88	-1,190.05	633.04	541.64	91.40	6.926		
8,400.00	7,141.08	8,608.63	7,141.24	48.09	51.17	-90.01	-2,898.46	-1,290.05	633.02	538.20	94.81	6.676		
8,500.00	7,140.51	8,708.63	7,140.70	49.74	52.42	-90.02	-2,899.05	-1,390.05	632.99	534.55	98.44	6.430		
8,600.00	7,139.94	8,808.63	7,140.16	51.53	53.89	-90.02	-2,899.64	-1,490.04	632.97	530.71	102.26	6.190		
8,700.00	7,139.37	8,908.63	7,139.62	53.44	55.55	-90.02	-2,900.23	-1,590.04	632.94	526.70	106.24	5.958		
8,800.00	7,138.80	9,008.63	7,139.08	55.45	57.37	-90.02	-2,900.82	-1,690.04	632.92	522.54	110.38	5.734		
8,900.00	7,138.24	9,108.63	7,138.54	57.55	59.30	-90.03	-2,901.40	-1,790.03	632.89	518.24	114.66	5.520		
9,000.00	7,137.67	9,208.63	7,138.00	59.71	61.33	-90.03	-2,901.99	-1,890.03	632.87	513.82	119.05	5.316		
9,100.00	7,137.10	9,308.63	7,137.45	61.94	63.45	-90.03	-2,902.58	-1,990.03	632.84	509.29	123.56	5.122		
9,200.00	7,136.53	9,408.63	7,136.91	64.22	65.63	-90.03	-2,903.17	-2,090.02	632.82	504.66	128.16	4.938		
9,300.00	7,135.96	9,508.63	7,136.37	66.55	67.88	-90.04	-2,903.75	-2,190.02	632.79	499.95	132.84	4.763		
9,400.00	7,135.39	9,608.63	7,135.83	68.92	70.17	-90.04	-2,904.34	-2,290.02	632.77	495.16	137.61	4.598		
9,500.00	7,134.83	9,708.63	7,135.29	71.33	72.51	-90.04	-2,904.93	-2,390.02	632.74	490.30	142.44	4.442		
9,600.00	7,134.26	9,808.63	7,134.75	73.77	74.89	-90.04	-2,905.52	-2,490.01	632.72	485.37	147.34	4.294		
9,700.00	7,133.69	9,908.63	7,134.21	76.24	77.31	-90.05	-2,906.11	-2,590.01	632.69	480.39	152.30	4.154		
9,800.00	7,133.12	10,008.63	7,133.67	78.74	79.76	-90.05	-2,906.69	-2,690.01	632.67	475.36	157.30	4.022		
9,900.00	7,132.55	10,108.63	7,133.13	81.27	82.23	-90.05	-2,907.28	-2,790.00	632.64	470.28	162.36	3.897		
10,000.00	7,131.98	10,208.63	7,132.59	83.81	84.73	-90.05	-2,907.87	-2,890.00	632.62	465.16	167.46	3.778		
10,100.00	7,131.42	10,308.63	7,132.04	86.38	87.26	-90.06	-2,908.46	-2,990.00	632.59	460.00	172.59	3.665		
10,200.00	7,130.85	10,408.63	7,131.50	88.96	89.81	-90.06	-2,909.05	-3,089.99	632.57	454.81	177.76	3.559		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	10,508.63	7,130.96	91.56	92.37	-90.06	-2,909.63	-3,189.99	632.54	449.58	182.97	3.457		
10,400.00	7,129.71	10,608.63	7,130.42	94.18	94.95	-90.06	-2,910.22	-3,289.99	632.52	444.32	188.20	3.361		
10,500.00	7,129.14	10,708.63	7,129.88	96.81	97.55	-90.07	-2,910.81	-3,389.98	632.49	439.03	193.46	3.269		
10,600.00	7,128.57	10,808.63	7,129.34	99.45	100.17	-90.07	-2,911.40	-3,489.98	632.47	433.72	198.75	3.182		
10,700.00	7,128.00	10,908.63	7,128.80	102.11	102.79	-90.07	-2,911.99	-3,589.98	632.44	428.39	204.05	3.099		
10,800.00	7,127.44	11,008.63	7,128.26	104.77	105.43	-90.07	-2,912.57	-3,689.97	632.42	423.03	209.38	3.020		
10,900.00	7,126.87	11,108.63	7,127.72	107.45	108.08	-90.08	-2,913.16	-3,789.97	632.39	417.66	214.74	2.945		
11,000.00	7,126.30	11,208.63	7,127.17	110.13	110.74	-90.08	-2,913.75	-3,889.97	632.37	412.26	220.10	2.873		
11,100.00	7,125.73	11,308.63	7,126.63	112.82	113.41	-90.08	-2,914.34	-3,989.96	632.34	406.85	225.49	2.804		
11,200.00	7,125.16	11,408.63	7,126.09	115.53	116.09	-90.08	-2,914.93	-4,089.96	632.32	401.43	230.89	2.739		
11,300.00	7,124.59	11,508.63	7,125.55	118.24	118.78	-90.09	-2,915.51	-4,189.96	632.29	395.98	236.31	2.676		
11,400.00	7,124.03	11,608.63	7,125.01	120.95	121.48	-90.09	-2,916.10	-4,289.95	632.27	390.53	241.74	2.615		
11,500.00	7,123.46	11,708.63	7,124.47	123.67	124.18	-90.09	-2,916.69	-4,389.95	632.24	385.06	247.18	2.558		
11,600.00	7,122.89	11,808.63	7,123.93	126.40	126.90	-90.09	-2,917.28	-4,489.95	632.22	379.58	252.64	2.502		
11,700.00	7,122.32	11,908.63	7,123.39	129.14	129.61	-90.10	-2,917.87	-4,589.94	632.19	374.09	258.10	2.449		
11,800.00	7,121.75	12,008.63	7,122.85	131.88	132.34	-90.10	-2,918.45	-4,689.94	632.17	368.58	263.58	2.398		
11,900.00	7,121.18	12,108.63	7,122.30	134.62	135.07	-90.10	-2,919.04	-4,789.94	632.14	363.07	269.07	2.349		
12,000.00	7,120.61	12,208.63	7,121.76	137.37	137.80	-90.10	-2,919.63	-4,889.94	632.12	357.55	274.57	2.302		
12,100.00	7,120.05	12,308.63	7,121.22	140.12	140.54	-90.11	-2,920.22	-4,989.93	632.09	352.02	280.07	2.257		
12,200.00	7,119.48	12,408.63	7,120.68	142.88	143.28	-90.11	-2,920.80	-5,089.93	632.07	346.48	285.59	2.213		
12,300.00	7,118.91	12,508.63	7,120.14	145.64	146.03	-90.11	-2,921.39	-5,189.93	632.04	340.93	291.11	2.171		
12,400.00	7,118.34	12,608.63	7,119.60	148.41	148.79	-90.11	-2,921.98	-5,289.92	632.02	335.38	296.64	2.131		
12,500.00	7,117.77	12,708.63	7,119.06	151.18	151.54	-90.12	-2,922.57	-5,389.92	631.99	329.82	302.17	2.091		
12,600.00	7,117.20	12,808.63	7,118.52	153.95	154.30	-90.12	-2,923.16	-5,489.92	631.97	324.25	307.72	2.054		
12,700.00	7,116.64	12,908.63	7,117.98	156.73	157.07	-90.12	-2,923.74	-5,589.91	631.94	318.68	313.27	2.017		
12,800.00	7,116.07	13,008.63	7,117.43	159.50	159.84	-90.12	-2,924.33	-5,689.91	631.92	313.10	318.82	1.982		
12,900.00	7,115.50	13,108.63	7,116.89	162.29	162.61	-90.13	-2,924.92	-5,789.91	631.89	307.51	324.38	1.948		
13,000.00	7,114.93	13,208.63	7,116.35	165.07	165.38	-90.13	-2,925.51	-5,889.90	631.87	301.92	329.95	1.915		
13,100.00	7,114.36	13,308.63	7,115.81	167.86	168.16	-90.13	-2,926.10	-5,989.90	631.84	296.32	335.52	1.883		
13,200.00	7,113.79	13,408.63	7,115.27	170.64	170.94	-90.13	-2,926.68	-6,089.90	631.82	290.72	341.09	1.852		
13,300.00	7,113.22	13,508.63	7,114.73	173.44	173.72	-90.14	-2,927.27	-6,189.89	631.79	285.12	346.67	1.822		
13,400.00	7,112.66	13,608.63	7,114.19	176.23	176.50	-90.14	-2,927.86	-6,289.89	631.77	279.51	352.26	1.793		
13,500.00	7,112.09	13,708.63	7,113.65	179.02	179.29	-90.14	-2,928.45	-6,389.89	631.74	273.89	357.85	1.765		
13,600.00	7,111.52	13,808.63	7,113.11	181.82	182.08	-90.14	-2,929.04	-6,489.88	631.72	268.28	363.44	1.738		
13,700.00	7,110.95	13,908.63	7,112.57	184.62	184.87	-90.15	-2,929.62	-6,589.88	631.69	262.65	369.04	1.712		
13,800.00	7,110.38	14,008.63	7,112.02	187.42	187.66	-90.15	-2,930.21	-6,689.88	631.67	257.03	374.64	1.686		
13,900.00	7,109.81	14,108.63	7,111.48	190.22	190.46	-90.15	-2,930.80	-6,789.87	631.64	251.40	380.24	1.661		
14,000.00	7,109.25	14,208.63	7,110.94	193.03	193.26	-90.15	-2,931.39	-6,889.87	631.62	245.77	385.85	1.637		
14,100.00	7,108.68	14,308.63	7,110.40	195.84	196.06	-90.16	-2,931.98	-6,989.87	631.59	240.13	391.46	1.613		
14,200.00	7,108.11	14,408.63	7,109.86	198.64	198.86	-90.16	-2,932.56	-7,089.86	631.57	234.49	397.07	1.591		
14,300.00	7,107.54	14,508.63	7,109.32	201.45	201.66	-90.16	-2,933.15	-7,189.86	631.54	228.85	402.69	1.568		
14,400.00	7,106.97	14,608.63	7,108.78	204.26	204.46	-90.16	-2,933.74	-7,289.86	631.52	223.21	408.31	1.547		
14,500.00	7,106.40	14,708.63	7,108.24	207.07	207.27	-90.17	-2,934.33	-7,389.86	631.49	217.56	413.93	1.526		
14,600.00	7,105.83	14,808.63	7,107.70	209.89	210.07	-90.17	-2,934.92	-7,489.85	631.47	211.91	419.55	1.505		
14,700.00	7,105.27	14,908.63	7,107.15	212.70	212.88	-90.17	-2,935.50	-7,589.85	631.44	206.26	425.18	1.485 Level 3		
14,800.00	7,104.70	15,008.63	7,106.61	215.52	215.69	-90.17	-2,936.09	-7,689.85	631.42	200.61	430.81	1.466 Level 3		
14,900.00	7,104.13	15,108.63	7,106.07	218.33	218.50	-90.18	-2,936.68	-7,789.84	631.39	194.95	436.44	1.447 Level 3		
15,000.00	7,103.56	15,208.63	7,105.53	221.15	221.32	-90.18	-2,937.27	-7,889.84	631.37	189.29	442.08	1.428 Level 3		
15,100.00	7,102.99	15,308.63	7,104.99	223.97	224.13	-90.18	-2,937.86	-7,989.84	631.34	183.63	447.71	1.410 Level 3		
15,200.00	7,102.42	15,408.63	7,104.45	226.79	226.94	-90.18	-2,938.44	-8,089.83	631.32	177.97	453.35	1.393 Level 3		
15,274.57	7,102.00	15,483.20	7,104.05	228.89	229.04	-90.19	-2,938.88	-8,164.40	631.30	173.75	457.55	1.380 Level 3, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	3.00	0.00	3.28	0.01	0.48	400.01	3.34	400.03					
100.00	100.00	103.00	100.00	3.28	0.19	0.48	400.01	3.34	400.03	396.55	3.47	115.169		
200.00	200.00	203.00	200.00	3.34	0.63	0.48	400.01	3.34	400.03	396.06	3.96	100.903 CC, ES		
300.00	299.98	302.98	299.98	3.44	1.07	176.53	400.01	3.34	401.77	397.26	4.51	89.159		
400.00	399.84	402.84	399.84	3.59	1.50	176.57	400.01	3.34	406.99	401.89	5.10	79.857		
500.00	499.45	502.45	499.45	3.79	1.94	176.63	400.01	3.34	415.69	409.96	5.73	72.498		
600.00	598.70	588.58	585.57	4.03	2.32	176.67	401.37	3.15	429.41	423.05	6.37	67.443		
700.00	697.47	673.64	670.53	4.31	2.70	176.68	405.22	2.63	449.49	442.45	7.04	63.849		
800.00	795.62	756.83	753.49	4.64	3.07	176.65	411.41	1.79	475.77	468.04	7.73	61.528		
900.00	893.06	837.72	833.94	5.00	3.43	176.59	419.71	0.66	508.10	499.67	8.43	60.251		
1,000.00	989.64	915.92	911.46	5.40	3.78	176.50	429.88	-0.73	546.26	537.13	9.13	59.827		
1,100.00	1,085.27	991.09	985.69	5.83	4.11	176.40	441.62	-2.32	590.01	580.19	9.82	60.098		
1,200.00	1,179.88	1,069.78	1,063.08	6.29	4.47	176.31	455.74	-4.24	638.72	628.20	10.52	60.730		
1,300.00	1,274.26	1,156.55	1,148.35	6.78	4.85	176.26	471.62	-6.40	688.44	677.19	11.24	61.222		
1,400.00	1,368.63	1,243.31	1,233.62	7.28	5.24	176.22	487.51	-8.57	738.16	726.17	11.99	61.566		
1,500.00	1,463.00	1,330.07	1,318.88	7.80	5.64	176.19	503.40	-10.73	787.88	775.13	12.75	61.802		
1,600.00	1,557.38	1,416.83	1,404.15	8.33	6.04	176.16	519.29	-12.89	837.60	824.08	13.52	61.956		
1,700.00	1,651.75	1,503.60	1,489.42	8.87	6.44	176.13	535.18	-15.05	887.32	873.02	14.30	62.048		
1,800.00	1,746.12	1,609.64	1,574.69	9.41	6.94	176.11	551.06	-17.21	937.04	921.86	15.18	61.734		
1,900.00	1,840.49	1,677.12	1,659.96	9.96	7.26	176.09	566.95	-19.37	986.76	970.87	15.89	62.105		
2,000.00	1,934.87	1,763.88	1,745.22	10.52	7.66	176.07	582.84	-21.53	1,036.48	1,019.79	16.69	62.091		
2,100.00	2,029.24	1,850.65	1,830.49	11.08	8.07	176.05	598.73	-23.70	1,086.20	1,068.70	17.50	62.058		
2,200.00	2,123.61	1,937.41	1,915.76	11.64	8.48	176.03	614.62	-25.86	1,135.93	1,117.61	18.32	62.011		
2,300.00	2,217.99	2,024.17	2,001.03	12.21	8.89	176.02	630.51	-28.02	1,185.65	1,166.51	19.14	61.954		
2,400.00	2,312.36	2,110.93	2,086.29	12.78	9.30	176.00	646.39	-30.18	1,235.37	1,215.41	19.96	61.889		
2,500.00	2,406.73	2,197.69	2,171.56	13.35	9.71	175.99	662.28	-32.34	1,285.09	1,264.30	20.79	61.820		
2,600.00	2,501.10	2,284.46	2,256.83	13.93	10.12	175.98	678.17	-34.50	1,334.81	1,313.19	21.62	61.748		
2,700.00	2,595.48	2,371.22	2,342.10	14.51	10.53	175.97	694.06	-36.66	1,384.53	1,362.08	22.45	61.673		
2,800.00	2,689.85	2,457.98	2,427.37	15.08	10.94	175.96	709.95	-38.83	1,434.26	1,410.97	23.28	61.597		
2,900.00	2,784.22	2,544.74	2,512.63	15.66	11.35	175.95	725.83	-40.99	1,483.98	1,459.86	24.12	61.522		
3,000.00	2,878.60	2,631.51	2,597.90	16.25	11.76	175.94	741.72	-43.15	1,533.70	1,508.74	24.96	61.446		
3,100.00	2,972.97	2,718.27	2,683.17	16.83	12.17	175.93	757.61	-45.31	1,583.42	1,557.62	25.80	61.371		
3,200.00	3,067.34	2,805.03	2,768.44	17.41	12.58	175.92	773.50	-47.47	1,633.14	1,606.50	26.64	61.297		
3,300.00	3,161.72	2,908.21	2,853.71	18.00	13.07	175.92	789.39	-49.63	1,682.86	1,655.30	27.56	61.055		
3,400.00	3,256.09	2,978.56	2,938.97	18.58	13.41	175.91	805.27	-51.79	1,732.59	1,704.25	28.33	61.153		
3,500.00	3,350.46	3,065.32	3,024.24	19.17	13.82	175.90	821.16	-53.96	1,782.31	1,753.13	29.18	61.084		
3,600.00	3,444.83	3,152.08	3,109.51	19.75	14.23	175.90	837.05	-56.12	1,832.03	1,802.00	30.03	61.016		
3,700.00	3,539.21	3,238.84	3,194.78	20.34	14.65	175.89	852.94	-58.28	1,881.75	1,850.88	30.87	60.950		
3,800.00	3,633.58	3,325.61	3,280.04	20.93	15.06	175.89	868.83	-60.44	1,931.47	1,899.75	31.72	60.885		
3,900.00	3,727.95	3,412.37	3,365.31	21.52	15.47	175.88	884.72	-62.60	1,981.20	1,948.62	32.57	60.822		
4,000.00	3,822.33	3,500.87	3,450.58	22.11	15.89	175.87	900.60	-64.76	2,030.92	1,997.48	33.43	60.746		
4,100.00	3,916.70	3,585.89	3,535.85	22.70	16.30	175.87	916.49	-66.92	2,080.64	2,046.36	34.28	60.701		
4,200.00	4,011.07	3,672.65	3,621.12	23.29	16.71	175.87	932.38	-69.09	2,130.36	2,095.23	35.13	60.643		
4,300.00	4,105.44	3,759.42	3,706.38	23.88	17.12	175.86	948.27	-71.25	2,180.08	2,144.10	35.98	60.586		
4,400.00	4,199.82	3,846.18	3,791.65	24.47	17.54	175.86	964.16	-73.41	2,229.81	2,192.97	36.84	60.532		
4,500.00	4,294.19	3,932.94	3,876.92	25.06	17.95	175.85	980.04	-75.57	2,279.53	2,241.84	37.69	60.478		
4,600.00	4,388.56	4,019.70	3,962.19	25.65	18.36	175.85	995.93	-77.73	2,329.25	2,290.70	38.55	60.426		
4,700.00	4,482.94	4,106.47	4,047.45	26.24	18.78	175.85	1,011.82	-79.89	2,378.97	2,339.57	39.40	60.376		
4,800.00	4,577.31	4,206.77	4,132.72	26.83	19.26	175.84	1,027.71	-82.05	2,428.69	2,388.37	40.32	60.232		
4,900.00	4,671.68	4,279.99	4,217.99	27.43	19.60	175.84	1,043.60	-84.22	2,478.42	2,437.30	41.12	60.278		
5,000.00	4,766.05	4,366.75	4,303.26	28.02	20.02	175.84	1,059.48	-86.38	2,528.14	2,486.16	41.97	60.232		
5,100.00	4,860.43	4,453.52	4,388.53	28.61	20.43	175.83	1,075.37	-88.54	2,577.86	2,535.03	42.83	60.186		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.00	4,954.80	4,540.28	4,473.79	29.20	20.84	175.83	1,091.26	-90.70	2,627.58	2,583.89	43.69	60.142		
5,300.00	5,049.17	4,627.04	4,559.06	29.80	21.26	175.83	1,107.15	-92.86	2,677.30	2,632.76	44.55	60.099		
5,400.00	5,143.55	4,713.80	4,644.33	30.39	21.67	175.82	1,123.04	-95.02	2,727.03	2,681.62	45.41	60.057		
5,500.00	5,237.92	4,800.56	4,729.60	30.99	22.09	175.82	1,138.93	-97.18	2,776.75	2,730.48	46.27	60.015		
5,600.00	5,332.29	4,887.33	4,814.86	31.58	22.50	175.82	1,154.81	-99.35	2,826.47	2,779.34	47.13	59.975		
5,700.00	5,426.66	4,974.09	4,900.13	32.17	22.91	175.82	1,170.70	-101.51	2,876.19	2,828.21	47.99	59.936		
5,800.00	5,521.04	5,060.85	4,985.40	32.77	23.33	175.81	1,186.59	-103.67	2,925.92	2,877.07	48.85	59.898		
5,900.00	5,615.41	5,147.61	5,070.67	33.36	23.74	175.81	1,202.48	-105.83	2,975.64	2,925.93	49.71	59.861		
6,000.00	5,709.78	5,234.38	5,155.94	33.96	24.15	175.81	1,218.37	-107.99	3,025.36	2,974.79	50.57	59.824		
6,100.00	5,804.16	5,321.14	5,241.20	34.55	24.57	175.81	1,234.25	-110.15	3,075.08	3,023.65	51.43	59.788		
6,200.00	5,898.53	5,407.90	5,326.47	35.14	24.98	175.81	1,250.14	-112.31	3,124.80	3,072.51	52.30	59.753		
6,300.00	5,992.90	5,505.34	5,411.74	35.74	25.45	175.80	1,266.03	-114.48	3,174.53	3,121.32	53.21	59.663		
6,400.00	6,087.27	5,581.43	5,497.01	36.33	25.81	175.80	1,281.92	-116.64	3,224.25	3,170.23	54.02	59.686		
6,500.00	6,181.65	5,668.19	5,582.27	36.93	26.22	175.80	1,297.81	-118.80	3,273.97	3,219.09	54.88	59.653		
6,600.00	6,276.02	5,754.95	5,667.54	37.52	26.64	175.80	1,313.69	-120.96	3,323.69	3,267.94	55.75	59.621		
6,700.00	6,370.39	5,841.71	5,752.81	38.12	27.05	175.80	1,329.58	-123.12	3,373.41	3,316.80	56.61	59.589		
6,800.00	6,464.77	5,928.47	5,838.08	38.71	27.47	175.79	1,345.47	-125.28	3,423.14	3,365.66	57.48	59.558		
6,900.00	6,559.14	6,015.24	5,923.35	39.31	27.88	175.53	1,361.36	-127.44	3,472.86	3,414.52	58.34	59.528		
7,000.00	6,652.92	6,101.64	6,008.26	39.90	28.29	147.32	1,377.18	-129.60	3,522.38	3,463.18	59.20	59.499		
7,100.00	6,744.00	6,185.93	6,091.09	40.44	28.69	126.67	1,392.62	-131.70	3,570.78	3,510.75	60.03	59.483		
7,200.00	6,830.13	6,266.01	6,169.80	40.94	29.08	112.60	1,407.28	-133.69	3,617.15	3,556.35	60.80	59.489		
7,300.00	6,909.19	6,339.92	6,242.43	41.37	29.43	102.77	1,420.81	-135.53	3,660.80	3,599.28	61.52	59.510		
7,400.00	6,979.23	6,405.83	6,307.21	41.75	29.74	95.65	1,432.89	-137.18	3,701.18	3,639.00	62.18	59.525		
7,500.00	7,038.53	6,462.13	6,362.54	42.08	30.01	90.34	1,443.20	-138.58	3,737.88	3,675.06	62.82	59.500		
7,600.00	7,085.63	6,507.43	6,407.06	42.37	30.23	86.32	1,451.49	-139.71	3,770.57	3,707.09	63.48	59.393		
7,700.00	7,119.37	6,540.62	6,439.67	42.64	30.39	83.28	1,457.57	-140.53	3,798.98	3,734.77	64.20	59.172		
7,800.00	7,138.92	6,560.86	6,459.57	42.91	30.48	81.02	1,461.27	-141.04	3,822.82	3,757.83	64.99	58.817		
7,900.00	7,143.92	6,567.80	6,466.39	43.25	30.52	79.62	1,462.54	-141.21	3,841.88	3,776.02	65.86	58.335		
8,000.00	7,143.35	6,569.62	6,468.18	43.72	30.53	79.65	1,462.88	-141.26	3,860.62	3,793.77	66.85	57.752		
8,100.00	7,142.78	8,011.89	7,257.86	44.42	41.30	91.71	1,595.85	-1,058.29	3,861.72	3,778.83	82.89	46.590		
8,200.00	7,142.22	8,111.88	7,257.44	45.39	42.96	91.71	1,594.19	-1,158.27	3,860.68	3,774.61	86.07	44.858		
8,300.00	7,141.65	8,211.88	7,257.02	46.63	44.75	91.72	1,592.53	-1,258.25	3,859.64	3,770.14	89.50	43.127		
8,400.00	7,141.08	8,311.87	7,256.60	48.09	46.65	91.72	1,590.87	-1,358.23	3,858.59	3,765.45	93.15	41.424		
8,500.00	7,140.51	8,411.87	7,256.18	49.74	48.63	91.72	1,589.21	-1,458.21	3,857.55	3,760.55	97.00	39.768		
8,600.00	7,139.94	8,511.86	7,255.76	51.53	50.71	91.72	1,587.55	-1,558.19	3,856.51	3,755.48	101.03	38.172		
8,700.00	7,139.37	8,611.85	7,255.34	53.44	52.85	91.73	1,585.89	-1,658.17	3,855.47	3,750.26	105.21	36.644		
8,800.00	7,138.80	8,711.85	7,254.92	55.45	55.06	91.73	1,584.24	-1,758.15	3,854.43	3,744.90	109.54	35.189		
8,900.00	7,138.24	8,811.84	7,254.50	57.55	57.33	91.73	1,582.58	-1,858.13	3,853.39	3,739.41	113.98	33.808		
9,000.00	7,137.67	8,911.84	7,254.08	59.71	59.64	91.74	1,580.92	-1,958.11	3,852.35	3,733.82	118.53	32.501		
9,100.00	7,137.10	9,011.83	7,253.66	61.94	62.01	91.74	1,579.26	-2,058.09	3,851.31	3,728.13	123.18	31.266		
9,200.00	7,136.53	9,111.83	7,253.24	64.22	64.41	91.74	1,577.60	-2,158.07	3,850.27	3,722.35	127.92	30.100		
9,300.00	7,135.96	9,211.82	7,252.82	66.55	66.85	91.74	1,575.94	-2,258.05	3,849.23	3,716.50	132.73	29.001		
9,400.00	7,135.39	9,311.82	7,252.40	68.92	69.32	91.75	1,574.28	-2,358.03	3,848.19	3,710.58	137.61	27.965		
9,500.00	7,134.83	9,411.81	7,251.98	71.33	71.82	91.75	1,572.63	-2,458.01	3,847.15	3,704.60	142.55	26.988		
9,600.00	7,134.26	9,511.80	7,251.56	73.77	74.34	91.75	1,570.97	-2,557.99	3,846.11	3,698.56	147.55	26.067		
9,700.00	7,133.69	9,611.80	7,251.14	76.24	76.89	91.75	1,569.31	-2,657.97	3,845.06	3,692.47	152.59	25.198		
9,800.00	7,133.12	9,711.79	7,250.72	78.74	79.46	91.76	1,567.65	-2,757.95	3,844.02	3,686.34	157.69	24.378		
9,900.00	7,132.55	9,811.79	7,250.30	81.27	82.04	91.76	1,565.99	-2,857.93	3,842.98	3,680.16	162.82	23.603		
10,000.00	7,131.98	9,911.78	7,249.88	83.81	84.65	91.76	1,564.33	-2,957.91	3,841.94	3,673.95	167.99	22.870		
10,100.00	7,131.42	10,011.78	7,249.45	86.38	87.27	91.76	1,562.67	-3,057.88	3,840.90	3,667.71	173.20	22.176		
10,200.00	7,130.85	10,111.77	7,249.03	88.96	89.90	91.77	1,561.02	-3,157.86	3,839.86	3,661.43	178.43	21.520		
10,300.00	7,130.28	10,211.77	7,248.61	91.56	92.55	91.77	1,559.36	-3,257.84	3,838.82	3,655.12	183.70	20.898		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	10,311.76	7,248.19	94.18	95.21	91.77	1,557.70	-3,357.82	3,837.78	3,648.79	188.99	20.307		
10,500.00	7,129.14	10,411.75	7,247.77	96.81	97.88	91.78	1,556.04	-3,457.80	3,836.74	3,642.44	194.30	19.746		
10,600.00	7,128.57	10,511.75	7,247.35	99.45	100.56	91.78	1,554.38	-3,557.78	3,835.70	3,636.06	199.64	19.213		
10,700.00	7,128.00	10,611.74	7,246.93	102.11	103.25	91.78	1,552.72	-3,657.76	3,834.66	3,629.67	204.99	18.706		
10,800.00	7,127.44	10,711.74	7,246.51	104.77	105.95	91.78	1,551.06	-3,757.74	3,833.62	3,623.25	210.37	18.223		
10,900.00	7,126.87	10,811.73	7,246.09	107.45	108.66	91.79	1,549.41	-3,857.72	3,832.58	3,616.82	215.76	17.763		
11,000.00	7,126.30	10,911.73	7,245.67	110.13	111.37	91.79	1,547.75	-3,957.70	3,831.54	3,610.37	221.17	17.324		
11,100.00	7,125.73	11,011.72	7,245.25	112.82	114.09	91.79	1,546.09	-4,057.68	3,830.50	3,603.91	226.59	16.905		
11,200.00	7,125.16	11,111.72	7,244.83	115.53	116.82	91.79	1,544.43	-4,157.66	3,829.46	3,597.43	232.03	16.504		
11,300.00	7,124.59	11,211.71	7,244.41	118.24	119.55	91.80	1,542.77	-4,257.64	3,828.42	3,590.94	237.48	16.121		
11,400.00	7,124.03	11,311.70	7,243.99	120.95	122.29	91.80	1,541.11	-4,357.62	3,827.37	3,584.44	242.94	15.755		
11,500.00	7,123.46	11,411.70	7,243.57	123.67	125.04	91.80	1,539.45	-4,457.60	3,826.33	3,577.92	248.41	15.403		
11,600.00	7,122.89	11,511.69	7,243.15	126.40	127.79	91.81	1,537.80	-4,557.58	3,825.29	3,571.40	253.89	15.067		
11,700.00	7,122.32	11,611.69	7,242.73	129.14	130.54	91.81	1,536.14	-4,657.56	3,824.25	3,564.87	259.39	14.744		
11,800.00	7,121.75	11,711.68	7,242.31	131.88	133.30	91.81	1,534.48	-4,757.54	3,823.21	3,558.33	264.89	14.433		
11,900.00	7,121.18	11,811.68	7,241.89	134.62	136.06	91.81	1,532.82	-4,857.52	3,822.17	3,551.77	270.40	14.135		
12,000.00	7,120.61	11,911.67	7,241.47	137.37	138.83	91.82	1,531.16	-4,957.50	3,821.13	3,545.21	275.92	13.849		
12,100.00	7,120.05	12,011.67	7,241.05	140.12	141.60	91.82	1,529.50	-5,057.48	3,820.09	3,538.65	281.44	13.573		
12,200.00	7,119.48	12,111.66	7,240.63	142.88	144.37	91.82	1,527.84	-5,157.46	3,819.05	3,532.07	286.98	13.308		
12,300.00	7,118.91	12,211.65	7,240.21	145.64	147.14	91.82	1,526.19	-5,257.44	3,818.01	3,525.49	292.52	13.052		
12,400.00	7,118.34	12,311.65	7,239.79	148.41	149.92	91.83	1,524.53	-5,357.42	3,816.97	3,518.91	298.06	12.806		
12,500.00	7,117.77	12,411.64	7,239.37	151.18	152.70	91.83	1,522.87	-5,457.40	3,815.93	3,512.31	303.62	12.568		
12,600.00	7,117.20	12,511.64	7,238.95	153.95	155.49	91.83	1,521.21	-5,557.38	3,814.89	3,505.71	309.18	12.339		
12,700.00	7,116.64	12,611.63	7,238.53	156.73	158.27	91.84	1,519.55	-5,657.36	3,813.85	3,499.11	314.74	12.117		
12,800.00	7,116.07	12,711.63	7,238.11	159.50	161.06	91.84	1,517.89	-5,757.34	3,812.81	3,492.50	320.31	11.904		
12,900.00	7,115.50	12,811.62	7,237.69	162.29	163.86	91.84	1,516.24	-5,857.32	3,811.77	3,485.89	325.88	11.697		
13,000.00	7,114.93	12,911.61	7,237.27	165.07	166.65	91.84	1,514.58	-5,957.30	3,810.73	3,479.27	331.46	11.497		
13,100.00	7,114.36	13,011.61	7,236.85	167.86	169.44	91.85	1,512.92	-6,057.28	3,809.69	3,472.64	337.04	11.303		
13,200.00	7,113.79	13,111.60	7,236.43	170.64	172.24	91.85	1,511.26	-6,157.26	3,808.65	3,466.02	342.63	11.116		
13,300.00	7,113.22	13,211.60	7,236.01	173.44	175.04	91.85	1,509.60	-6,257.24	3,807.61	3,459.38	348.22	10.934		
13,400.00	7,112.66	13,311.59	7,235.59	176.23	177.84	91.85	1,507.94	-6,357.22	3,806.57	3,452.75	353.82	10.759		
13,500.00	7,112.09	13,411.59	7,235.16	179.02	180.65	91.86	1,506.28	-6,457.20	3,805.52	3,446.11	359.42	10.588		
13,600.00	7,111.52	13,511.58	7,234.74	181.82	183.45	91.86	1,504.63	-6,557.18	3,804.48	3,439.47	365.02	10.423		
13,700.00	7,110.95	13,611.58	7,234.32	184.62	186.26	91.86	1,502.97	-6,657.16	3,803.44	3,432.82	370.62	10.262		
13,800.00	7,110.38	13,711.57	7,233.90	187.42	189.06	91.87	1,501.31	-6,757.14	3,802.40	3,426.17	376.23	10.107		
13,900.00	7,109.81	13,811.56	7,233.48	190.22	191.87	91.87	1,499.65	-6,857.12	3,801.36	3,419.52	381.84	9.955		
14,000.00	7,109.25	13,911.56	7,233.06	193.03	194.68	91.87	1,497.99	-6,957.10	3,800.32	3,412.87	387.46	9.808		
14,100.00	7,108.68	14,011.55	7,232.64	195.84	197.49	91.87	1,496.33	-7,057.08	3,799.28	3,406.21	393.07	9.666		
14,200.00	7,108.11	14,111.55	7,232.22	198.64	200.31	91.88	1,494.67	-7,157.06	3,798.24	3,399.55	398.69	9.527		
14,300.00	7,107.54	14,211.54	7,231.80	201.45	203.12	91.88	1,493.02	-7,257.04	3,797.20	3,392.89	404.32	9.392		
14,400.00	7,106.97	14,311.54	7,231.38	204.26	205.94	91.88	1,491.36	-7,357.02	3,796.16	3,386.22	409.94	9.260		
14,500.00	7,106.40	14,411.53	7,230.96	207.07	208.75	91.88	1,489.70	-7,457.00	3,795.12	3,379.55	415.57	9.132		
14,600.00	7,105.83	14,511.53	7,230.54	209.89	211.57	91.89	1,488.04	-7,556.98	3,794.08	3,372.89	421.20	9.008		
14,700.00	7,105.27	14,611.52	7,230.12	212.70	214.39	91.89	1,486.38	-7,656.96	3,793.04	3,366.21	426.83	8.887		
14,800.00	7,104.70	14,711.51	7,229.70	215.52	217.21	91.89	1,484.72	-7,756.93	3,792.00	3,359.54	432.46	8.768		
14,900.00	7,104.13	14,811.51	7,229.28	218.33	220.03	91.90	1,483.06	-7,856.91	3,790.96	3,352.86	438.10	8.653		
15,000.00	7,103.56	14,911.50	7,228.86	221.15	222.85	91.90	1,481.41	-7,956.89	3,789.92	3,346.19	443.73	8.541		
15,100.00	7,102.99	15,011.50	7,228.44	223.97	225.67	91.90	1,479.75	-8,056.87	3,788.88	3,339.51	449.37	8.431		
15,200.00	7,102.42	15,111.49	7,228.02	226.79	228.49	91.90	1,478.09	-8,156.85	3,787.84	3,332.83	455.01	8.325		
15,244.12	7,102.17	15,116.21	7,228.00	228.03	228.63	91.90	1,478.01	-8,161.57	3,787.59	3,331.22	456.37	8.299		
15,274.57	7,102.00	15,116.21	7,228.00	228.89	228.63	91.90	1,478.01	-8,161.57	3,787.71	3,330.53	457.17	8.285 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.49	359.94	3.06	359.95					
100.00	100.00	102.00	100.00	3.28	3.29	0.49	359.94	3.06	359.95	353.38	6.57	54.789		
200.00	200.00	202.00	200.00	3.34	3.34	0.49	359.94	3.06	359.95	353.28	6.68	53.920	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.54	359.94	3.06	361.70	354.81	6.89	52.514		
400.00	399.84	401.84	399.84	3.59	3.61	176.59	359.94	3.06	366.92	359.72	7.20	50.969		
500.00	499.45	501.45	499.45	3.79	3.81	176.66	359.94	3.06	375.62	368.02	7.60	49.413		
600.00	598.70	600.70	598.70	4.03	4.05	176.75	359.94	3.06	387.79	379.70	8.08	47.978		
700.00	697.47	697.50	685.48	4.31	4.28	176.79	361.24	2.75	404.88	396.28	8.60	47.071		
800.00	795.62	772.72	770.62	4.64	4.53	176.76	365.00	1.85	428.23	419.07	9.17	46.715		
900.00	893.06	855.83	853.49	5.00	4.80	176.66	371.04	0.40	457.69	447.93	9.76	46.885		
1,000.00	989.64	936.88	934.11	5.40	5.07	176.51	379.18	-1.55	493.07	482.69	10.37	47.527		
1,100.00	1,085.27	1,028.62	1,025.23	5.83	5.38	176.35	389.54	-4.03	532.84	521.80	11.04	48.245		
1,200.00	1,179.88	1,119.01	1,115.01	6.29	5.70	176.23	399.75	-6.48	575.60	563.87	11.74	49.042		
1,300.00	1,274.26	1,209.08	1,204.47	6.78	6.03	176.18	409.92	-8.91	619.05	606.61	12.43	49.784		
1,400.00	1,368.63	1,300.85	1,293.93	7.28	6.37	176.13	420.09	-11.35	662.49	649.33	13.16	50.338		
1,500.00	1,463.00	1,389.22	1,383.39	7.80	6.71	176.08	430.26	-13.79	705.93	692.03	13.89	50.812		
1,600.00	1,557.38	1,479.29	1,472.85	8.33	7.07	176.04	440.44	-16.22	749.37	734.72	14.65	51.159		
1,700.00	1,651.75	1,569.36	1,562.31	8.87	7.43	176.01	450.61	-18.66	792.81	777.39	15.42	51.428		
1,800.00	1,746.12	1,659.43	1,651.77	9.41	7.79	175.98	460.78	-21.09	836.25	820.06	16.20	51.633		
1,900.00	1,840.49	1,749.50	1,741.23	9.96	8.16	175.95	470.95	-23.53	879.69	862.71	16.99	51.789		
2,000.00	1,934.87	1,839.57	1,830.69	10.52	8.53	175.92	481.12	-25.97	923.14	905.35	17.78	51.906		
2,100.00	2,029.24	1,929.64	1,920.15	11.08	8.91	175.90	491.29	-28.40	966.58	947.99	18.59	51.991		
2,200.00	2,123.61	2,019.72	2,009.61	11.64	9.28	175.88	501.47	-30.84	1,010.02	990.62	19.40	52.052		
2,300.00	2,217.99	2,109.79	2,099.07	12.21	9.67	175.86	511.64	-33.28	1,053.47	1,033.24	20.22	52.093		
2,400.00	2,312.36	2,200.14	2,188.54	12.78	10.05	175.84	521.81	-35.71	1,096.91	1,075.86	21.05	52.115		
2,500.00	2,406.73	2,289.93	2,278.00	13.35	10.43	175.83	531.98	-38.15	1,140.35	1,118.48	21.88	52.130		
2,600.00	2,501.10	2,380.00	2,367.46	13.93	10.82	175.81	542.15	-40.59	1,183.79	1,161.09	22.71	52.132		
2,700.00	2,595.48	2,470.07	2,456.92	14.51	11.21	175.80	552.33	-43.02	1,227.24	1,203.69	23.54	52.125		
2,800.00	2,689.85	2,560.14	2,546.38	15.08	11.60	175.78	562.50	-45.46	1,270.68	1,246.30	24.38	52.113		
2,900.00	2,784.22	2,650.21	2,635.84	15.66	11.99	175.77	572.67	-47.90	1,314.12	1,288.90	25.23	52.095		
3,000.00	2,878.60	2,740.28	2,725.30	16.25	12.38	175.76	582.84	-50.33	1,357.57	1,331.50	26.07	52.072		
3,100.00	2,972.97	2,830.35	2,814.76	16.83	12.77	175.75	593.01	-52.77	1,401.01	1,374.09	26.92	52.047		
3,200.00	3,067.34	2,920.42	2,904.22	17.41	13.16	175.74	603.18	-55.21	1,444.45	1,416.68	27.77	52.019		
3,300.00	3,161.72	3,010.49	2,993.68	18.00	13.56	175.73	613.36	-57.64	1,487.90	1,459.28	28.62	51.989		
3,400.00	3,256.09	3,100.56	3,083.14	18.58	13.95	175.72	623.53	-60.08	1,531.34	1,501.87	29.47	51.958		
3,500.00	3,350.46	3,209.37	3,172.60	19.17	14.43	175.71	633.70	-62.51	1,574.78	1,544.37	30.41	51.785		
3,600.00	3,444.83	3,280.70	3,262.06	19.75	14.75	175.70	643.87	-64.95	1,618.23	1,587.04	31.18	51.892		
3,700.00	3,539.21	3,370.77	3,351.53	20.34	15.14	175.69	654.04	-67.39	1,661.67	1,629.63	32.04	51.859		
3,800.00	3,633.58	3,460.84	3,440.99	20.93	15.54	175.69	664.22	-69.82	1,705.11	1,672.21	32.90	51.824		
3,900.00	3,727.95	3,550.91	3,530.45	21.52	15.94	175.68	674.39	-72.26	1,748.56	1,714.79	33.76	51.790		
4,000.00	3,822.33	3,640.98	3,619.91	22.11	16.34	175.67	684.56	-74.70	1,792.00	1,757.38	34.62	51.756		
4,100.00	3,916.70	3,731.05	3,709.37	22.70	16.74	175.67	694.73	-77.13	1,835.44	1,799.96	35.49	51.722		
4,200.00	4,011.07	3,821.12	3,798.83	23.29	17.14	175.66	704.90	-79.57	1,878.89	1,842.54	36.35	51.688		
4,300.00	4,105.44	3,911.19	3,888.29	23.88	17.54	175.66	715.07	-82.01	1,922.33	1,885.11	37.22	51.655		
4,400.00	4,199.82	4,001.26	3,977.75	24.47	17.94	175.65	725.25	-84.44	1,965.77	1,927.69	38.08	51.621		
4,500.00	4,294.19	4,108.67	4,067.21	25.06	18.41	175.64	735.42	-86.88	2,009.22	1,970.19	39.02	51.487		
4,600.00	4,388.56	4,181.40	4,156.67	25.65	18.74	175.64	745.59	-89.32	2,052.66	2,012.85	39.81	51.556		
4,700.00	4,482.94	4,271.47	4,246.13	26.24	19.14	175.64	755.76	-91.75	2,096.10	2,055.42	40.68	51.524		
4,800.00	4,577.31	4,361.54	4,335.59	26.83	19.54	175.63	765.93	-94.19	2,139.55	2,098.00	41.55	51.493		
4,900.00	4,671.68	4,451.61	4,425.05	27.43	19.94	175.63	776.10	-96.63	2,182.99	2,140.57	42.42	51.462		
5,000.00	4,766.05	4,541.68	4,514.52	28.02	20.34	175.62	786.28	-99.06	2,226.43	2,183.15	43.29	51.431		
5,100.00	4,860.43	4,631.75	4,603.98	28.61	20.75	175.62	796.45	-101.50	2,269.88	2,225.72	44.16	51.401		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,721.82	4,693.44	29.20	21.15	175.61	806.62	-103.94	2,313.32	2,268.29	45.03	51.372		
5,300.00	5,049.17	4,811.89	4,782.90	29.80	21.55	175.61	816.79	-106.37	2,356.77	2,310.86	45.90	51.343		
5,400.00	5,143.55	4,901.96	4,872.36	30.39	21.95	175.61	826.96	-108.81	2,400.21	2,353.43	46.77	51.315		
5,500.00	5,237.92	4,992.03	4,961.82	30.99	22.36	175.60	837.14	-111.24	2,443.65	2,396.01	47.65	51.287		
5,600.00	5,332.29	5,082.10	5,051.28	31.58	22.76	175.60	847.31	-113.68	2,487.10	2,438.58	48.52	51.259		
5,700.00	5,426.66	5,172.17	5,140.74	32.17	23.16	175.60	857.48	-116.12	2,530.54	2,481.15	49.39	51.232		
5,800.00	5,521.04	5,262.24	5,230.20	32.77	23.57	175.59	867.65	-118.55	2,573.98	2,523.72	50.27	51.206		
5,900.00	5,615.41	5,352.31	5,319.66	33.36	23.97	175.59	877.82	-120.99	2,617.43	2,566.29	51.14	51.180		
6,000.00	5,709.78	5,442.38	5,409.12	33.96	24.37	175.59	887.99	-123.43	2,660.87	2,608.85	52.02	51.154		
6,100.00	5,804.16	5,532.45	5,498.58	34.55	24.78	175.58	898.17	-125.86	2,704.31	2,651.42	52.89	51.129		
6,200.00	5,898.53	5,622.52	5,588.04	35.14	25.18	175.58	908.34	-128.30	2,747.76	2,693.99	53.77	51.105		
6,300.00	5,992.90	5,712.59	5,677.51	35.74	25.59	175.58	918.51	-130.74	2,791.20	2,736.56	54.64	51.081		
6,400.00	6,087.27	5,802.66	5,766.97	36.33	25.99	175.58	928.68	-133.17	2,834.65	2,779.13	55.52	51.057		
6,500.00	6,181.65	5,907.27	5,856.43	36.93	26.46	175.57	938.85	-135.61	2,878.09	2,821.63	56.46	50.975		
6,600.00	6,276.02	5,982.80	5,945.89	37.52	26.80	175.57	949.03	-138.05	2,921.53	2,864.26	57.27	51.010		
6,700.00	6,370.39	6,072.87	6,035.35	38.12	27.20	175.57	959.20	-140.48	2,964.98	2,906.83	58.15	50.988		
6,800.00	6,464.77	6,162.94	6,124.81	38.71	27.61	175.57	969.37	-142.92	3,008.42	2,949.39	59.03	50.966		
6,900.00	6,559.14	6,253.01	6,214.27	39.31	28.01	175.31	979.54	-145.36	3,051.86	2,991.96	59.91	50.944		
7,000.00	6,652.92	6,342.73	6,303.38	39.90	28.42	147.92	989.67	-147.78	3,095.10	3,034.32	60.78	50.922		
7,100.00	6,744.00	6,434.95	6,394.80	40.44	28.83	128.06	1,000.04	-153.32	3,137.29	3,075.63	61.67	50.873		
7,200.00	6,830.13	6,532.66	6,489.83	40.94	29.27	114.59	1,010.73	-172.87	3,177.41	3,114.82	62.59	50.764		
7,300.00	6,909.19	6,635.89	6,585.77	41.37	29.72	105.25	1,021.40	-209.15	3,214.49	3,150.93	63.55	50.580		
7,400.00	6,979.23	6,745.88	6,680.15	41.75	30.20	98.59	1,031.76	-264.39	3,247.59	3,183.00	64.59	50.282		
7,500.00	7,038.53	6,863.56	6,769.08	42.08	30.77	93.81	1,041.35	-340.61	3,275.85	3,210.07	65.78	49.801		
7,600.00	7,085.63	6,989.24	6,846.95	42.37	31.53	90.45	1,049.53	-438.66	3,298.48	3,231.24	67.24	49.054		
7,700.00	7,119.37	7,122.18	6,906.85	42.64	32.59	88.23	1,055.52	-556.92	3,314.79	3,245.68	69.11	47.964		
7,800.00	7,138.92	7,260.28	6,941.88	42.91	34.00	86.99	1,058.58	-690.19	3,324.26	3,252.80	71.45	46.525		
7,900.00	7,143.92	7,388.15	6,948.91	43.25	35.55	86.64	1,058.48	-817.71	3,326.68	3,252.64	74.04	44.932		
8,000.00	7,143.35	7,488.15	6,948.61	43.72	36.95	86.64	1,057.74	-917.70	3,326.54	3,249.92	76.62	43.417		
8,100.00	7,142.78	7,588.15	6,948.31	44.42	38.51	86.65	1,057.00	-1,017.70	3,326.40	3,246.88	79.52	41.832		
8,200.00	7,142.22	7,688.15	6,948.01	45.39	40.21	86.65	1,056.27	-1,117.70	3,326.26	3,243.54	82.71	40.215		
8,300.00	7,141.65	7,788.15	6,947.72	46.63	42.03	86.66	1,055.53	-1,217.69	3,326.12	3,239.95	86.16	38.602		
8,400.00	7,141.08	7,888.15	6,947.42	48.09	43.97	86.66	1,054.79	-1,317.69	3,325.98	3,236.13	89.85	37.018		
8,500.00	7,140.51	7,988.15	6,947.12	49.74	46.00	86.67	1,054.05	-1,417.69	3,325.84	3,232.10	93.73	35.482		
8,600.00	7,139.94	8,088.15	6,946.82	51.53	48.11	86.67	1,053.31	-1,517.68	3,325.69	3,227.90	97.80	34.007		
8,700.00	7,139.37	8,188.15	6,946.52	53.44	50.30	86.68	1,052.58	-1,617.68	3,325.55	3,223.54	102.02	32.598		
8,800.00	7,138.80	8,288.15	6,946.22	55.45	52.55	86.68	1,051.84	-1,717.68	3,325.41	3,219.04	106.38	31.260		
8,900.00	7,138.24	8,388.15	6,945.93	57.55	54.86	86.68	1,051.10	-1,817.67	3,325.27	3,214.41	110.86	29.995		
9,000.00	7,137.67	8,488.15	6,945.63	59.71	57.22	86.69	1,050.36	-1,917.67	3,325.13	3,209.68	115.45	28.801		
9,100.00	7,137.10	8,588.15	6,945.33	61.94	59.63	86.69	1,049.63	-2,017.66	3,324.99	3,204.86	120.14	27.676		
9,200.00	7,136.53	8,688.15	6,945.03	64.22	62.07	86.70	1,048.89	-2,117.66	3,324.85	3,199.94	124.91	26.618		
9,300.00	7,135.96	8,788.15	6,944.73	66.55	64.54	86.70	1,048.15	-2,217.66	3,324.71	3,194.96	129.76	25.622		
9,400.00	7,135.39	8,888.15	6,944.43	68.92	67.05	86.71	1,047.41	-2,317.65	3,324.57	3,189.90	134.67	24.686		
9,500.00	7,134.83	8,988.15	6,944.14	71.33	69.58	86.71	1,046.67	-2,417.65	3,324.43	3,184.78	139.65	23.806		
9,600.00	7,134.26	9,088.15	6,943.84	73.77	72.14	86.72	1,045.94	-2,517.65	3,324.29	3,179.61	144.68	22.977		
9,700.00	7,133.69	9,188.15	6,943.54	76.24	74.72	86.72	1,045.20	-2,617.64	3,324.15	3,174.39	149.76	22.197		
9,800.00	7,133.12	9,288.15	6,943.24	78.74	77.32	86.73	1,044.46	-2,717.64	3,324.01	3,169.13	154.88	21.462		
9,900.00	7,132.55	9,388.15	6,942.94	81.27	79.93	86.73	1,043.72	-2,817.64	3,323.87	3,163.83	160.04	20.768		
10,000.00	7,131.98	9,488.14	6,942.64	83.81	82.57	86.73	1,042.99	-2,917.63	3,323.73	3,158.49	165.24	20.114		
10,100.00	7,131.42	9,588.14	6,942.35	86.38	85.21	86.74	1,042.25	-3,017.63	3,323.59	3,153.12	170.47	19.496		
10,200.00	7,130.85	9,688.14	6,942.05	88.96	87.87	86.74	1,041.51	-3,117.62	3,323.45	3,147.72	175.74	18.912		
10,300.00	7,130.28	9,788.14	6,941.75	91.56	90.55	86.75	1,040.77	-3,217.62	3,323.31	3,142.29	181.02	18.358		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	9,888.14	6,941.45	94.18	93.23	86.75	1,040.03	-3,317.62	3,323.17	3,136.84	186.34	17.834		
10,500.00	7,129.14	9,988.14	6,941.15	96.81	95.92	86.76	1,039.30	-3,417.61	3,323.03	3,131.36	191.67	17.337		
10,600.00	7,128.57	10,088.14	6,940.85	99.45	98.63	86.76	1,038.56	-3,517.61	3,322.89	3,125.86	197.03	16.865		
10,700.00	7,128.00	10,188.14	6,940.56	102.11	101.34	86.77	1,037.82	-3,617.61	3,322.75	3,120.34	202.41	16.416		
10,800.00	7,127.44	10,288.14	6,940.26	104.77	104.06	86.77	1,037.08	-3,717.60	3,322.61	3,114.81	207.80	15.989		
10,900.00	7,126.87	10,388.14	6,939.96	107.45	106.79	86.78	1,036.35	-3,817.60	3,322.47	3,109.26	213.22	15.583		
11,000.00	7,126.30	10,488.14	6,939.66	110.13	109.52	86.78	1,035.61	-3,917.60	3,322.33	3,103.69	218.64	15.195		
11,100.00	7,125.73	10,588.14	6,939.36	112.82	112.26	86.78	1,034.87	-4,017.59	3,322.19	3,098.11	224.08	14.826		
11,200.00	7,125.16	10,688.14	6,939.06	115.53	115.00	86.79	1,034.13	-4,117.59	3,322.06	3,092.52	229.54	14.473		
11,300.00	7,124.59	10,788.14	6,938.77	118.24	117.75	86.79	1,033.39	-4,217.59	3,321.92	3,086.91	235.00	14.136		
11,400.00	7,124.03	10,888.14	6,938.47	120.95	120.51	86.80	1,032.66	-4,317.58	3,321.78	3,081.29	240.48	13.813		
11,500.00	7,123.46	10,988.14	6,938.17	123.67	123.27	86.80	1,031.92	-4,417.58	3,321.64	3,075.67	245.97	13.504		
11,600.00	7,122.89	11,088.14	6,937.87	126.40	126.03	86.81	1,031.18	-4,517.57	3,321.50	3,070.03	251.47	13.208		
11,700.00	7,122.32	11,188.14	6,937.57	129.14	128.80	86.81	1,030.44	-4,617.57	3,321.36	3,064.38	256.97	12.925		
11,800.00	7,121.75	11,288.14	6,937.27	131.88	131.58	86.82	1,029.71	-4,717.57	3,321.22	3,058.73	262.49	12.653		
11,900.00	7,121.18	11,388.14	6,936.98	134.62	134.35	86.82	1,028.97	-4,817.56	3,321.08	3,053.06	268.02	12.391		
12,000.00	7,120.61	11,488.14	6,936.68	137.37	137.13	86.83	1,028.23	-4,917.56	3,320.94	3,047.39	273.55	12.140		
12,100.00	7,120.05	11,588.14	6,936.38	140.12	139.92	86.83	1,027.49	-5,017.56	3,320.80	3,041.71	279.09	11.899		
12,200.00	7,119.48	11,688.14	6,936.08	142.88	142.70	86.83	1,026.75	-5,117.55	3,320.66	3,036.02	284.63	11.666		
12,300.00	7,118.91	11,788.13	6,935.78	145.64	145.49	86.84	1,026.02	-5,217.55	3,320.52	3,030.33	290.19	11.443		
12,400.00	7,118.34	11,888.13	6,935.48	148.41	148.28	86.84	1,025.28	-5,317.55	3,320.38	3,024.63	295.75	11.227		
12,500.00	7,117.77	11,988.13	6,935.18	151.18	151.07	86.85	1,024.54	-5,417.54	3,320.24	3,018.93	301.31	11.019		
12,600.00	7,117.20	12,088.13	6,934.89	153.95	153.87	86.85	1,023.80	-5,517.54	3,320.10	3,013.22	306.88	10.819		
12,700.00	7,116.64	12,188.13	6,934.59	156.73	156.67	86.86	1,023.07	-5,617.53	3,319.96	3,007.51	312.46	10.625		
12,800.00	7,116.07	12,288.13	6,934.29	159.50	159.47	86.86	1,022.33	-5,717.53	3,319.82	3,001.79	318.04	10.439		
12,900.00	7,115.50	12,388.13	6,933.99	162.29	162.27	86.87	1,021.59	-5,817.53	3,319.68	2,996.06	323.62	10.258		
13,000.00	7,114.93	12,488.13	6,933.69	165.07	165.08	86.87	1,020.85	-5,917.52	3,319.54	2,990.33	329.21	10.083		
13,100.00	7,114.36	12,588.13	6,933.39	167.86	167.88	86.88	1,020.11	-6,017.52	3,319.40	2,984.60	334.80	9.914		
13,200.00	7,113.79	12,688.13	6,933.10	170.64	170.69	86.88	1,019.38	-6,117.52	3,319.26	2,978.86	340.40	9.751		
13,300.00	7,113.22	12,788.13	6,932.80	173.44	173.50	86.88	1,018.64	-6,217.51	3,319.13	2,973.12	346.00	9.593		
13,400.00	7,112.66	12,888.13	6,932.50	176.23	176.31	86.89	1,017.90	-6,317.51	3,318.99	2,967.38	351.61	9.439		
13,500.00	7,112.09	12,988.13	6,932.20	179.02	179.12	86.89	1,017.16	-6,417.51	3,318.85	2,961.63	357.22	9.291		
13,600.00	7,111.52	13,088.13	6,931.90	181.82	181.94	86.90	1,016.43	-6,517.50	3,318.71	2,955.88	362.83	9.147		
13,700.00	7,110.95	13,188.13	6,931.60	184.62	184.75	86.90	1,015.69	-6,617.50	3,318.57	2,950.13	368.44	9.007		
13,800.00	7,110.38	13,288.13	6,931.31	187.42	187.57	86.91	1,014.95	-6,717.50	3,318.43	2,944.37	374.06	8.871		
13,900.00	7,109.81	13,388.13	6,931.01	190.22	190.39	86.91	1,014.21	-6,817.49	3,318.29	2,938.61	379.68	8.740		
14,000.00	7,109.25	13,488.13	6,930.71	193.03	193.21	86.92	1,013.47	-6,917.49	3,318.15	2,932.85	385.30	8.612		
14,100.00	7,108.68	13,588.13	6,930.41	195.84	196.03	86.92	1,012.74	-7,017.48	3,318.01	2,927.08	390.93	8.488		
14,200.00	7,108.11	13,688.13	6,930.11	198.64	198.85	86.93	1,012.00	-7,117.48	3,317.87	2,921.32	396.56	8.367		
14,300.00	7,107.54	13,788.13	6,929.81	201.45	201.67	86.93	1,011.26	-7,217.48	3,317.73	2,915.55	402.19	8.249		
14,400.00	7,106.97	13,888.13	6,929.52	204.26	204.50	86.93	1,010.52	-7,317.47	3,317.59	2,909.77	407.82	8.135		
14,500.00	7,106.40	13,988.12	6,929.22	207.07	207.32	86.94	1,009.79	-7,417.47	3,317.46	2,904.00	413.46	8.024		
14,600.00	7,105.83	14,088.12	6,928.92	209.89	210.15	86.94	1,009.05	-7,517.47	3,317.32	2,898.22	419.09	7.915		
14,700.00	7,105.27	14,188.12	6,928.62	212.70	212.97	86.95	1,008.31	-7,617.46	3,317.18	2,892.44	424.73	7.810		
14,800.00	7,104.70	14,288.12	6,928.32	215.52	215.80	86.95	1,007.57	-7,717.46	3,317.04	2,886.66	430.37	7.707		
14,900.00	7,104.13	14,388.12	6,928.02	218.33	218.63	86.96	1,006.83	-7,817.46	3,316.90	2,880.88	436.02	7.607		
15,000.00	7,103.56	14,488.12	6,927.73	221.15	221.46	86.96	1,006.10	-7,917.45	3,316.76	2,875.10	441.66	7.510		
15,100.00	7,102.99	14,588.12	6,927.43	223.97	224.29	86.97	1,005.36	-8,017.45	3,316.62	2,869.31	447.31	7.415		
15,200.00	7,102.42	14,688.12	6,927.13	226.79	227.12	86.97	1,004.62	-8,117.44	3,316.48	2,863.52	452.96	7.322		
15,248.61	7,102.15	14,732.12	6,927.00	228.16	228.36	86.97	1,004.30	-8,161.44	3,316.42	2,860.85	455.57	7.280		
15,274.57	7,102.00	14,732.12	6,927.00	228.89	228.36	86.97	1,004.30	-8,161.44	3,316.52	2,860.27	456.25	7.269 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.46	379.99	3.06	380.00					
100.00	100.00	102.00	100.00	3.28	3.29	0.46	379.99	3.06	380.00	373.43	6.57	57.840		
200.00	200.00	202.00	200.00	3.34	3.34	0.46	379.99	3.06	380.00	373.32	6.68	56.923	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.52	379.99	3.06	381.74	374.85	6.89	55.424		
400.00	399.84	401.84	399.84	3.59	3.61	176.56	379.99	3.06	386.96	379.77	7.20	53.753		
500.00	499.45	501.45	499.45	3.79	3.81	176.62	379.99	3.06	395.66	388.06	7.60	52.049		
600.00	598.70	600.70	598.70	4.03	4.05	176.71	379.99	3.06	407.83	399.75	8.08	50.458		
700.00	697.47	698.80	684.79	4.31	4.28	176.77	381.28	2.85	424.93	416.33	8.60	49.413		
800.00	795.62	771.33	769.23	4.64	4.53	176.77	385.04	2.25	448.32	439.16	9.16	48.927		
900.00	893.06	853.76	851.42	5.00	4.79	176.74	391.07	1.27	477.84	468.08	9.76	48.980		
1,000.00	989.64	933.65	930.89	5.40	5.05	176.67	399.15	-0.03	513.29	502.92	10.36	49.523		
1,100.00	1,085.27	1,010.65	1,007.24	5.83	5.32	176.57	408.99	-1.61	554.45	543.47	10.98	50.504		
1,200.00	1,179.88	1,088.46	1,084.11	6.29	5.60	176.47	420.91	-3.53	600.81	589.20	11.61	51.755		
1,300.00	1,274.26	1,176.38	1,170.88	6.78	5.92	176.40	434.95	-5.79	648.46	636.18	12.28	52.818		
1,400.00	1,368.63	1,264.30	1,257.64	7.28	6.24	176.34	448.99	-8.06	696.10	683.13	12.98	53.649		
1,500.00	1,463.00	1,352.22	1,344.40	7.80	6.58	176.30	463.04	-10.32	743.75	730.05	13.69	54.325		
1,600.00	1,557.38	1,440.14	1,431.16	8.33	6.93	176.25	477.08	-12.58	791.39	776.97	14.42	54.868		
1,700.00	1,651.75	1,528.06	1,517.92	8.87	7.29	176.21	491.12	-14.84	839.04	823.86	15.17	55.306		
1,800.00	1,746.12	1,615.98	1,604.68	9.41	7.65	176.18	505.16	-17.10	886.68	870.75	15.93	55.658		
1,900.00	1,840.49	1,703.89	1,691.44	9.96	8.01	176.15	519.21	-19.36	934.33	917.62	16.70	55.942		
2,000.00	1,934.87	1,808.19	1,778.20	10.52	8.45	176.12	533.25	-21.63	981.97	964.42	17.55	55.951		
2,100.00	2,029.24	1,879.73	1,864.96	11.08	8.76	176.10	547.29	-23.89	1,029.62	1,011.35	18.27	56.354		
2,200.00	2,123.61	1,967.65	1,951.72	11.64	9.14	176.08	561.33	-26.15	1,077.26	1,058.20	19.07	56.501		
2,300.00	2,217.99	2,055.57	2,038.48	12.21	9.52	176.05	575.37	-28.41	1,124.91	1,105.04	19.87	56.618		
2,400.00	2,312.36	2,143.49	2,125.24	12.78	9.90	176.04	589.42	-30.67	1,172.56	1,151.88	20.68	56.711		
2,500.00	2,406.73	2,231.41	2,212.00	13.35	10.28	176.02	603.46	-32.94	1,220.20	1,198.71	21.49	56.783		
2,600.00	2,501.10	2,319.33	2,298.77	13.93	10.67	176.00	617.50	-35.20	1,267.85	1,245.54	22.31	56.840		
2,700.00	2,595.48	2,407.25	2,385.53	14.51	11.06	175.99	631.54	-37.46	1,315.49	1,292.37	23.13	56.882		
2,800.00	2,689.85	2,504.84	2,472.29	15.08	11.49	175.97	645.59	-39.72	1,363.14	1,339.15	23.99	56.813		
2,900.00	2,784.22	2,583.08	2,559.05	15.66	11.84	175.96	659.63	-41.98	1,410.79	1,386.01	24.78	56.935		
3,000.00	2,878.60	2,671.00	2,645.81	16.25	12.23	175.95	673.67	-44.24	1,458.43	1,432.82	25.61	56.949		
3,100.00	2,972.97	2,758.92	2,732.57	16.83	12.63	175.94	687.71	-46.51	1,506.08	1,479.64	26.44	56.956		
3,200.00	3,067.34	2,846.84	2,819.33	17.41	13.02	175.92	701.75	-48.77	1,553.73	1,526.45	27.28	56.958		
3,300.00	3,161.72	2,934.76	2,906.09	18.00	13.42	175.91	715.80	-51.03	1,601.37	1,573.26	28.12	56.955		
3,400.00	3,256.09	3,022.68	2,992.85	18.58	13.82	175.91	729.84	-53.29	1,649.02	1,620.06	28.96	56.949		
3,500.00	3,350.46	3,110.60	3,079.61	19.17	14.22	175.90	743.88	-55.55	1,696.67	1,666.87	29.80	56.940		
3,600.00	3,444.83	3,201.48	3,166.37	19.75	14.63	175.89	757.92	-57.81	1,744.31	1,713.66	30.65	56.903		
3,700.00	3,539.21	3,286.43	3,253.13	20.34	15.01	175.88	771.97	-60.08	1,791.96	1,760.48	31.49	56.913		
3,800.00	3,633.58	3,374.35	3,339.89	20.93	15.41	175.87	786.01	-62.34	1,839.61	1,807.28	32.33	56.897		
3,900.00	3,727.95	3,462.27	3,426.66	21.52	15.82	175.86	800.05	-64.60	1,887.26	1,854.08	33.18	56.880		
4,000.00	3,822.33	3,550.19	3,513.42	22.11	16.22	175.86	814.09	-66.86	1,934.90	1,900.87	34.03	56.861		
4,100.00	3,916.70	3,638.11	3,600.18	22.70	16.62	175.85	828.13	-69.12	1,982.55	1,947.67	34.88	56.841		
4,200.00	4,011.07	3,726.03	3,686.94	23.29	17.02	175.84	842.18	-71.39	2,030.20	1,994.47	35.73	56.821		
4,300.00	4,105.44	3,813.95	3,773.70	23.88	17.42	175.84	856.22	-73.65	2,077.84	2,041.26	36.58	56.800		
4,400.00	4,199.82	3,901.87	3,860.46	24.47	17.83	175.83	870.26	-75.91	2,125.49	2,088.06	37.43	56.778		
4,500.00	4,294.19	3,989.79	3,947.22	25.06	18.23	175.83	884.30	-78.17	2,173.14	2,134.85	38.29	56.757		
4,600.00	4,388.56	4,077.70	4,033.98	25.65	18.63	175.82	898.34	-80.43	2,220.78	2,181.64	39.14	56.734		
4,700.00	4,482.94	4,165.62	4,120.74	26.24	19.04	175.82	912.39	-82.69	2,268.43	2,228.43	40.00	56.712		
4,800.00	4,577.31	4,253.54	4,207.50	26.83	19.44	175.81	926.43	-84.96	2,316.08	2,275.22	40.86	56.689		
4,900.00	4,671.68	4,341.46	4,294.26	27.43	19.85	175.81	940.47	-87.22	2,363.73	2,322.01	41.71	56.667		
5,000.00	4,766.05	4,429.38	4,381.02	28.02	20.25	175.80	954.51	-89.48	2,411.37	2,368.80	42.57	56.644		
5,100.00	4,860.43	4,517.30	4,467.78	28.61	20.66	175.80	968.56	-91.74	2,459.02	2,415.59	43.43	56.622		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,605.22	4,554.55	29.20	21.06	175.80	982.60	-94.00	2,506.67	2,462.38	44.29	56.599		
5,300.00	5,049.17	4,693.14	4,641.31	29.80	21.47	175.79	996.64	-96.26	2,554.31	2,509.17	45.15	56.577		
5,400.00	5,143.55	4,781.06	4,728.07	30.39	21.87	175.79	1,010.68	-98.53	2,601.96	2,555.95	46.01	56.555		
5,500.00	5,237.92	4,868.97	4,814.83	30.99	22.28	175.78	1,024.72	-100.79	2,649.61	2,602.74	46.87	56.533		
5,600.00	5,332.29	4,956.89	4,901.59	31.58	22.69	175.78	1,038.77	-103.05	2,697.26	2,649.53	47.73	56.511		
5,700.00	5,426.66	5,044.81	4,988.35	32.17	23.09	175.78	1,052.81	-105.31	2,744.90	2,696.31	48.59	56.489		
5,800.00	5,521.04	5,132.73	5,075.11	32.77	23.50	175.77	1,066.85	-107.57	2,792.55	2,743.10	49.45	56.468		
5,900.00	5,615.41	5,220.65	5,161.87	33.36	23.91	175.77	1,080.89	-109.84	2,840.20	2,789.88	50.32	56.446		
6,000.00	5,709.78	5,308.57	5,248.63	33.96	24.31	175.77	1,094.94	-112.10	2,887.84	2,836.66	51.18	56.425		
6,100.00	5,804.16	5,403.51	5,335.39	34.55	24.75	175.76	1,108.98	-114.36	2,935.49	2,883.42	52.08	56.369		
6,200.00	5,898.53	5,484.41	5,422.15	35.14	25.13	175.76	1,123.02	-116.62	2,983.14	2,930.23	52.91	56.383		
6,300.00	5,992.90	5,572.33	5,508.91	35.74	25.54	175.76	1,137.06	-118.88	3,030.79	2,977.01	53.77	56.363		
6,400.00	6,087.27	5,660.24	5,595.67	36.33	25.94	175.76	1,151.10	-121.14	3,078.43	3,023.79	54.64	56.343		
6,500.00	6,181.65	5,748.16	5,682.44	36.93	26.35	175.75	1,165.15	-123.41	3,126.08	3,070.58	55.50	56.323		
6,600.00	6,276.02	5,836.08	5,769.20	37.52	26.76	175.75	1,179.19	-125.67	3,173.73	3,117.36	56.37	56.303		
6,700.00	6,370.39	5,924.00	5,855.96	38.12	27.17	175.75	1,193.23	-127.93	3,221.37	3,164.14	57.24	56.283		
6,800.00	6,464.77	6,011.92	5,942.72	38.71	27.58	175.75	1,207.27	-130.19	3,269.02	3,210.92	58.10	56.263		
6,900.00	6,559.14	6,100.16	6,029.48	39.31	27.99	175.49	1,221.31	-132.45	3,316.67	3,257.70	58.97	56.243		
7,000.00	6,652.92	6,187.40	6,115.89	39.90	28.39	147.55	1,235.30	-134.71	3,364.11	3,304.28	59.83	56.226		
7,100.00	6,744.00	6,272.82	6,200.19	40.44	28.79	127.19	1,248.94	-136.90	3,410.49	3,349.82	60.66	56.219		
7,200.00	6,830.13	6,354.00	6,280.29	40.94	29.16	113.36	1,261.91	-138.99	3,454.94	3,393.50	61.44	56.231		
7,300.00	6,909.19	6,428.93	6,354.23	41.37	29.51	103.75	1,273.88	-140.92	3,496.85	3,434.69	62.16	56.257		
7,400.00	6,979.23	6,504.23	6,420.19	41.75	29.86	96.81	1,284.55	-142.64	3,535.73	3,472.86	62.87	56.242		
7,500.00	7,038.53	6,552.87	6,476.55	42.08	30.09	91.64	1,293.67	-144.11	3,571.23	3,507.75	63.48	56.260		
7,600.00	7,085.63	6,598.84	6,521.90	42.37	30.30	87.71	1,301.01	-145.29	3,603.09	3,538.95	64.15	56.170		
7,700.00	7,119.37	6,689.42	6,597.67	42.64	31.61	88.25	1,343.46	-216.96	3,629.92	3,562.72	67.20	54.019		
7,800.00	7,138.92	7,622.63	7,138.86	42.91	36.98	90.12	1,378.53	-820.02	3,640.54	3,565.51	75.03	48.522		
7,900.00	7,143.92	7,722.38	7,138.43	43.25	38.31	89.92	1,375.08	-919.71	3,639.65	3,562.26	77.39	47.030		
8,000.00	7,143.35	7,822.34	7,138.00	43.72	39.81	89.92	1,371.62	-1,019.61	3,636.80	3,556.71	80.09	45.409		
8,100.00	7,142.78	7,922.30	7,137.56	44.42	41.45	89.93	1,368.16	-1,119.51	3,633.96	3,550.86	83.09	43.734		
8,200.00	7,142.22	8,022.26	7,137.13	45.39	43.21	89.93	1,364.70	-1,219.41	3,631.11	3,544.74	86.37	42.043		
8,300.00	7,141.65	8,122.22	7,136.70	46.63	45.08	89.93	1,361.24	-1,319.31	3,628.26	3,538.38	89.88	40.366		
8,400.00	7,141.08	8,222.18	7,136.26	48.09	47.06	89.93	1,357.78	-1,419.20	3,625.41	3,531.80	93.62	38.726		
8,500.00	7,140.51	8,322.14	7,135.83	49.74	49.12	89.94	1,354.32	-1,519.10	3,622.56	3,525.02	97.54	37.139		
8,600.00	7,139.94	8,422.09	7,135.40	51.53	51.25	89.94	1,350.86	-1,619.00	3,619.72	3,518.08	101.63	35.616		
8,700.00	7,139.37	8,522.05	7,134.96	53.44	53.45	89.94	1,347.40	-1,718.90	3,616.87	3,511.00	105.87	34.162		
8,800.00	7,138.80	8,622.01	7,134.53	55.45	55.71	89.94	1,343.95	-1,818.80	3,614.02	3,503.78	110.25	32.782		
8,900.00	7,138.24	8,721.97	7,134.09	57.55	58.02	89.94	1,340.49	-1,918.70	3,611.17	3,496.44	114.74	31.474		
9,000.00	7,137.67	8,821.93	7,133.66	59.71	60.38	89.95	1,337.03	-2,018.60	3,608.33	3,489.00	119.33	30.238		
9,100.00	7,137.10	8,921.89	7,133.23	61.94	62.78	89.95	1,333.57	-2,118.49	3,605.48	3,481.46	124.02	29.073		
9,200.00	7,136.53	9,021.85	7,132.79	64.22	65.21	89.95	1,330.11	-2,218.39	3,602.63	3,473.85	128.78	27.974		
9,300.00	7,135.96	9,121.81	7,132.36	66.55	67.68	89.95	1,326.65	-2,318.29	3,599.78	3,466.16	133.63	26.939		
9,400.00	7,135.39	9,221.77	7,131.93	68.92	70.17	89.95	1,323.19	-2,418.19	3,596.93	3,458.40	138.53	25.964		
9,500.00	7,134.83	9,321.73	7,131.49	71.33	72.69	89.96	1,319.73	-2,518.09	3,594.09	3,450.59	143.50	25.046		
9,600.00	7,134.26	9,421.69	7,131.06	73.77	75.24	89.96	1,316.27	-2,617.99	3,591.24	3,442.72	148.52	24.180		
9,700.00	7,133.69	9,521.65	7,130.63	76.24	77.80	89.96	1,312.82	-2,717.89	3,588.39	3,434.80	153.59	23.364		
9,800.00	7,133.12	9,621.61	7,130.19	78.74	80.39	89.96	1,309.36	-2,817.78	3,585.54	3,426.84	158.70	22.593		
9,900.00	7,132.55	9,721.57	7,129.76	81.27	82.99	89.96	1,305.90	-2,917.68	3,582.69	3,418.85	163.85	21.866		
10,000.00	7,131.98	9,821.53	7,129.33	83.81	85.61	89.97	1,302.44	-3,017.58	3,579.85	3,410.81	169.04	21.178		
10,100.00	7,131.42	9,921.49	7,128.89	86.38	88.24	89.97	1,298.98	-3,117.48	3,577.00	3,402.75	174.25	20.528		
10,200.00	7,130.85	10,021.44	7,128.46	88.96	90.88	89.97	1,295.52	-3,217.38	3,574.15	3,394.65	179.50	19.912		
10,300.00	7,130.28	10,121.40	7,128.02	91.56	93.54	89.97	1,292.06	-3,317.28	3,571.30	3,386.53	184.78	19.328		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	10,221.36	7,127.59	94.18	96.21	89.98	1,288.60	-3,417.17	3,568.46	3,378.38	190.08	18.774		
10,500.00	7,129.14	10,321.32	7,127.16	96.81	98.88	89.98	1,285.14	-3,517.07	3,565.61	3,370.21	195.40	18.248		
10,600.00	7,128.57	10,421.28	7,126.72	99.45	101.57	89.98	1,281.68	-3,616.97	3,562.76	3,362.02	200.74	17.748		
10,700.00	7,128.00	10,521.24	7,126.29	102.11	104.27	89.98	1,278.23	-3,716.87	3,559.91	3,353.81	206.11	17.272		
10,800.00	7,127.44	10,621.20	7,125.86	104.77	106.97	89.98	1,274.77	-3,816.77	3,557.07	3,345.58	211.49	16.819		
10,900.00	7,126.87	10,721.16	7,125.42	107.45	109.68	89.99	1,271.31	-3,916.67	3,554.22	3,337.33	216.89	16.387		
11,000.00	7,126.30	10,821.12	7,124.99	110.13	112.40	89.99	1,267.85	-4,016.57	3,551.37	3,329.07	222.30	15.976		
11,100.00	7,125.73	10,921.08	7,124.56	112.82	115.12	89.99	1,264.39	-4,116.46	3,548.52	3,320.79	227.73	15.582		
11,200.00	7,125.16	11,021.04	7,124.12	115.53	117.85	89.99	1,260.93	-4,216.36	3,545.67	3,312.51	233.17	15.206		
11,300.00	7,124.59	11,121.00	7,123.69	118.24	120.58	89.99	1,257.47	-4,316.26	3,542.83	3,304.20	238.62	14.847		
11,400.00	7,124.03	11,220.96	7,123.25	120.95	123.32	90.00	1,254.01	-4,416.16	3,539.98	3,295.89	244.09	14.503		
11,500.00	7,123.46	11,320.92	7,122.82	123.67	126.07	90.00	1,250.55	-4,516.06	3,537.13	3,287.57	249.56	14.173		
11,600.00	7,122.89	11,420.88	7,122.39	126.40	128.82	90.00	1,247.09	-4,615.96	3,534.28	3,279.24	255.05	13.857		
11,700.00	7,122.32	11,520.83	7,121.95	129.14	131.57	90.00	1,243.64	-4,715.86	3,531.44	3,270.89	260.54	13.554		
11,800.00	7,121.75	11,620.79	7,121.52	131.88	134.33	90.01	1,240.18	-4,815.75	3,528.59	3,262.54	266.05	13.263		
11,900.00	7,121.18	11,720.75	7,121.09	134.62	137.09	90.01	1,236.72	-4,915.65	3,525.74	3,254.18	271.56	12.983		
12,000.00	7,120.61	11,820.71	7,120.65	137.37	139.85	90.01	1,233.26	-5,015.55	3,522.89	3,245.81	277.08	12.714		
12,100.00	7,120.05	11,920.67	7,120.22	140.12	142.62	90.01	1,229.80	-5,115.45	3,520.05	3,237.44	282.61	12.456		
12,200.00	7,119.48	12,020.63	7,119.79	142.88	145.39	90.01	1,226.34	-5,215.35	3,517.20	3,229.06	288.14	12.207		
12,300.00	7,118.91	12,120.59	7,119.35	145.64	148.17	90.02	1,222.88	-5,315.25	3,514.35	3,220.67	293.68	11.967		
12,400.00	7,118.34	12,220.55	7,118.92	148.41	150.94	90.02	1,219.42	-5,415.15	3,511.50	3,212.27	299.23	11.735		
12,500.00	7,117.77	12,320.51	7,118.49	151.18	153.72	90.02	1,215.96	-5,515.04	3,508.65	3,203.87	304.78	11.512		
12,600.00	7,117.20	12,420.47	7,118.05	153.95	156.50	90.02	1,212.51	-5,614.94	3,505.81	3,195.47	310.34	11.297		
12,700.00	7,116.64	12,520.43	7,117.62	156.73	159.29	90.03	1,209.05	-5,714.84	3,502.96	3,187.06	315.90	11.089		
12,800.00	7,116.07	12,620.39	7,117.18	159.50	162.07	90.03	1,205.59	-5,814.74	3,500.11	3,178.64	321.47	10.888		
12,900.00	7,115.50	12,720.35	7,116.75	162.29	164.86	90.03	1,202.13	-5,914.64	3,497.26	3,170.22	327.04	10.694		
13,000.00	7,114.93	12,820.31	7,116.32	165.07	167.65	90.03	1,198.67	-6,014.54	3,494.42	3,161.79	332.62	10.506		
13,100.00	7,114.36	12,920.27	7,115.88	167.86	170.44	90.03	1,195.21	-6,114.44	3,491.57	3,153.36	338.20	10.324		
13,200.00	7,113.79	13,020.23	7,115.45	170.64	173.24	90.04	1,191.75	-6,214.33	3,488.72	3,144.93	343.79	10.148		
13,300.00	7,113.22	13,120.18	7,115.02	173.44	176.03	90.04	1,188.29	-6,314.23	3,485.87	3,136.49	349.38	9.977		
13,400.00	7,112.66	13,220.14	7,114.58	176.23	178.83	90.04	1,184.83	-6,414.13	3,483.03	3,128.05	354.97	9.812		
13,500.00	7,112.09	13,320.10	7,114.15	179.02	181.63	90.04	1,181.37	-6,514.03	3,480.18	3,119.61	360.57	9.652		
13,600.00	7,111.52	13,420.06	7,113.72	181.82	184.43	90.05	1,177.92	-6,613.93	3,477.33	3,111.16	366.17	9.496		
13,700.00	7,110.95	13,520.02	7,113.28	184.62	187.23	90.05	1,174.46	-6,713.83	3,474.48	3,102.71	371.78	9.346		
13,800.00	7,110.38	13,619.98	7,112.85	187.42	190.03	90.05	1,171.00	-6,813.73	3,471.64	3,094.25	377.38	9.199		
13,900.00	7,109.81	13,719.94	7,112.41	190.22	192.84	90.05	1,167.54	-6,913.62	3,468.79	3,085.80	382.99	9.057		
14,000.00	7,109.25	13,819.90	7,111.98	193.03	195.64	90.05	1,164.08	-7,013.52	3,465.94	3,077.34	388.60	8.919		
14,100.00	7,108.68	13,919.86	7,111.55	195.84	198.45	90.06	1,160.62	-7,113.42	3,463.09	3,068.87	394.22	8.785		
14,200.00	7,108.11	14,019.82	7,111.11	198.64	201.26	90.06	1,157.16	-7,213.32	3,460.25	3,060.41	399.84	8.654		
14,300.00	7,107.54	14,119.78	7,110.68	201.45	204.07	90.06	1,153.70	-7,313.22	3,457.40	3,051.94	405.46	8.527		
14,400.00	7,106.97	14,219.74	7,110.25	204.26	206.88	90.06	1,150.24	-7,413.12	3,454.55	3,043.47	411.08	8.404		
14,500.00	7,106.40	14,319.70	7,109.81	207.07	209.69	90.07	1,146.78	-7,513.02	3,451.70	3,035.00	416.70	8.283		
14,600.00	7,105.83	14,419.66	7,109.38	209.89	212.50	90.07	1,143.33	-7,612.91	3,448.86	3,026.52	422.33	8.166		
14,700.00	7,105.27	14,519.62	7,108.95	212.70	215.31	90.07	1,139.87	-7,712.81	3,446.01	3,018.05	427.96	8.052		
14,800.00	7,104.70	14,619.57	7,108.51	215.52	218.13	90.07	1,136.41	-7,812.71	3,443.16	3,009.57	433.59	7.941		
14,900.00	7,104.13	14,719.53	7,108.08	218.33	220.94	90.08	1,132.95	-7,912.61	3,440.31	3,001.09	439.22	7.833		
15,000.00	7,103.56	14,819.49	7,107.65	221.15	223.76	90.08	1,129.49	-8,012.51	3,437.47	2,992.61	444.86	7.727		
15,100.00	7,102.99	14,919.45	7,107.21	223.97	226.57	90.08	1,126.03	-8,112.41	3,434.62	2,984.12	450.49	7.624		
15,200.00	7,102.42	14,969.16	7,107.00	226.79	227.97	90.08	1,124.31	-8,162.09	3,432.14	2,977.43	454.71	7.548		
15,247.49	7,102.15	14,969.16	7,107.00	228.13	227.97	90.08	1,124.31	-8,162.09	3,431.81	2,975.85	455.96	7.527		
15,274.57	7,102.00	14,969.16	7,107.00	228.89	227.97	90.08	1,124.31	-8,162.09	3,431.92	2,975.28	456.64	7.516 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.49	259.77	2.23	259.78					
100.00	100.00	102.00	100.00	3.28	3.29	0.49	259.77	2.23	259.78	253.21	6.57	39.540		
200.00	200.00	202.00	200.00	3.34	3.34	0.49	259.77	2.23	259.78	253.10	6.68	38.914	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.55	259.77	2.23	261.52	254.63	6.89	37.969		
400.00	399.84	401.98	399.98	3.59	3.61	176.62	259.77	2.22	266.74	259.54	7.20	37.053		
500.00	499.45	509.77	507.75	3.79	3.82	176.46	258.11	0.92	273.90	266.29	7.61	35.979		
600.00	598.70	609.74	607.64	4.03	4.05	176.10	254.96	-1.55	282.92	274.84	8.08	35.005		
700.00	697.47	708.95	706.76	4.31	4.30	175.81	251.84	-4.02	295.40	286.78	8.62	34.275		
800.00	795.62	807.66	805.39	4.64	4.59	175.58	248.72	-6.47	311.34	302.12	9.21	33.795		
900.00	893.06	905.76	903.41	5.00	4.89	175.42	245.63	-8.90	330.70	320.84	9.85	33.560		
1,000.00	989.64	1,003.13	1,000.70	5.40	5.22	175.31	242.56	-11.32	353.46	342.93	10.53	33.553		
1,100.00	1,085.27	1,100.36	1,097.14	5.83	5.55	175.25	239.51	-13.71	379.60	368.35	11.25	33.743		
1,200.00	1,179.88	1,204.74	1,192.68	6.29	5.93	175.24	236.50	-16.08	408.88	396.86	12.02	34.006		
1,300.00	1,274.26	1,309.35	1,288.00	6.78	6.31	175.27	233.49	-18.45	438.88	426.07	12.81	34.260		
1,400.00	1,368.63	1,386.05	1,383.31	7.28	6.60	175.30	230.48	-20.82	468.88	455.37	13.51	34.697		
1,500.00	1,463.00	1,481.44	1,478.63	7.80	6.97	175.32	227.47	-23.19	498.88	484.57	14.30	34.877		
1,600.00	1,557.38	1,576.83	1,573.95	8.33	7.34	175.34	224.46	-25.55	528.88	513.77	15.11	35.002		
1,700.00	1,651.75	1,672.23	1,669.27	8.87	7.72	175.36	221.46	-27.92	558.88	542.95	15.93	35.087		
1,800.00	1,746.12	1,767.62	1,764.58	9.41	8.10	175.38	218.45	-30.29	588.88	572.12	16.76	35.140		
1,900.00	1,840.49	1,863.02	1,859.90	9.96	8.49	175.39	215.44	-32.66	618.88	601.28	17.60	35.170		
2,000.00	1,934.87	1,958.41	1,955.22	10.52	8.88	175.40	212.43	-35.02	648.88	630.43	18.44	35.181		
2,100.00	2,029.24	2,053.80	2,050.53	11.08	9.27	175.42	209.42	-37.39	678.87	659.58	19.30	35.179		
2,200.00	2,123.61	2,149.20	2,145.85	11.64	9.67	175.43	206.41	-39.76	708.87	688.72	20.16	35.167		
2,300.00	2,217.99	2,244.59	2,241.17	12.21	10.06	175.44	203.40	-42.13	738.87	717.85	21.02	35.146		
2,400.00	2,312.36	2,339.99	2,336.49	12.78	10.46	175.45	200.40	-44.49	768.87	746.98	21.89	35.120		
2,500.00	2,406.73	2,435.38	2,431.80	13.35	10.86	175.46	197.39	-46.86	798.87	776.11	22.77	35.089		
2,600.00	2,501.10	2,530.77	2,527.12	13.93	11.27	175.46	194.38	-49.23	828.87	805.23	23.64	35.055		
2,700.00	2,595.48	2,626.17	2,622.44	14.51	11.67	175.47	191.37	-51.60	858.87	834.35	24.53	35.019		
2,800.00	2,689.85	2,721.56	2,717.75	15.08	12.08	175.48	188.36	-53.96	888.87	863.46	25.41	34.981		
2,900.00	2,784.22	2,816.96	2,813.07	15.66	12.48	175.49	185.35	-56.33	918.87	892.57	26.30	34.942		
3,000.00	2,878.60	2,912.35	2,908.39	16.25	12.89	175.49	182.34	-58.70	948.87	921.68	27.19	34.903		
3,100.00	2,972.97	3,007.74	3,003.71	16.83	13.30	175.50	179.34	-61.07	978.87	950.79	28.08	34.864		
3,200.00	3,067.34	3,103.14	3,099.02	17.41	13.71	175.50	176.33	-63.43	1,008.87	979.90	28.97	34.824		
3,300.00	3,161.72	3,201.47	3,194.34	18.00	14.13	175.51	173.32	-65.80	1,038.87	1,008.99	29.88	34.770		
3,400.00	3,256.09	3,306.07	3,289.66	18.58	14.58	175.51	170.31	-68.17	1,068.87	1,038.05	30.81	34.687		
3,500.00	3,350.46	3,389.32	3,384.97	19.17	14.94	175.52	167.30	-70.54	1,098.87	1,067.21	31.66	34.708		
3,600.00	3,444.83	3,484.72	3,480.29	19.75	15.35	175.52	164.29	-72.90	1,128.87	1,096.31	32.56	34.670		
3,700.00	3,539.21	3,580.11	3,575.61	20.34	15.77	175.53	161.29	-75.27	1,158.87	1,125.41	33.46	34.633		
3,800.00	3,633.58	3,675.50	3,670.93	20.93	16.18	175.53	158.28	-77.64	1,188.87	1,154.50	34.36	34.597		
3,900.00	3,727.95	3,770.90	3,766.24	21.52	16.59	175.53	155.27	-80.01	1,218.87	1,183.60	35.27	34.562		
4,000.00	3,822.33	3,866.29	3,861.56	22.11	17.01	175.54	152.26	-82.37	1,248.86	1,212.69	36.17	34.527		
4,100.00	3,916.70	3,961.69	3,956.88	22.70	17.42	175.54	149.25	-84.74	1,278.86	1,241.79	37.08	34.494		
4,200.00	4,011.07	4,057.08	4,052.19	23.29	17.84	175.54	146.24	-87.11	1,308.86	1,270.88	37.98	34.461		
4,300.00	4,105.44	4,152.47	4,147.51	23.88	18.25	175.55	143.23	-89.48	1,338.86	1,299.98	38.89	34.429		
4,400.00	4,199.82	4,247.87	4,242.83	24.47	18.67	175.55	140.23	-91.84	1,368.86	1,329.07	39.80	34.397		
4,500.00	4,294.19	4,343.26	4,338.15	25.06	19.08	175.55	137.22	-94.21	1,398.86	1,358.16	40.70	34.367		
4,600.00	4,388.56	4,438.66	4,433.46	25.65	19.50	175.56	134.21	-96.58	1,428.86	1,387.25	41.61	34.337		
4,700.00	4,482.94	4,534.05	4,528.78	26.24	19.92	175.56	131.20	-98.95	1,458.86	1,416.34	42.52	34.308		
4,800.00	4,577.31	4,629.44	4,624.10	26.83	20.33	175.56	128.19	-101.31	1,488.86	1,445.43	43.43	34.280		
4,900.00	4,671.68	4,724.84	4,719.42	27.43	20.75	175.56	125.18	-103.68	1,518.86	1,474.52	44.34	34.252		
5,000.00	4,766.05	4,820.23	4,814.73	28.02	21.17	175.57	122.17	-106.05	1,548.86	1,503.61	45.25	34.226		
5,100.00	4,860.43	4,915.63	4,910.05	28.61	21.58	175.57	119.17	-108.42	1,578.86	1,532.69	46.17	34.200		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	5,011.02	5,005.37	29.20	22.00	175.57	116.16	-110.78	1,608.86	1,561.78	47.08	34.174		
5,300.00	5,049.17	5,106.41	5,100.68	29.80	22.42	175.57	113.15	-113.15	1,638.86	1,590.87	47.99	34.149		
5,400.00	5,143.55	5,201.81	5,196.00	30.39	22.84	175.57	110.14	-115.52	1,668.86	1,619.96	48.90	34.125		
5,500.00	5,237.92	5,302.80	5,291.32	30.99	23.28	175.58	107.13	-117.89	1,698.86	1,649.02	49.84	34.085		
5,600.00	5,332.29	5,407.40	5,386.64	31.58	23.74	175.58	104.12	-120.25	1,728.86	1,678.06	50.80	34.035		
5,700.00	5,426.66	5,487.99	5,481.95	32.17	24.09	175.58	101.11	-122.62	1,758.86	1,707.21	51.65	34.056		
5,800.00	5,521.04	5,583.38	5,577.27	32.77	24.51	175.58	98.11	-124.99	1,788.86	1,736.30	52.56	34.034		
5,900.00	5,615.41	5,678.78	5,672.59	33.36	24.93	175.58	95.10	-127.36	1,818.86	1,765.38	53.48	34.013		
6,000.00	5,709.78	5,774.17	5,767.90	33.96	25.35	175.59	92.09	-129.72	1,848.86	1,794.47	54.39	33.992		
6,100.00	5,804.16	5,869.57	5,863.22	34.55	25.77	175.59	89.08	-132.09	1,878.86	1,823.55	55.31	33.972		
6,200.00	5,898.53	5,964.96	5,958.54	35.14	26.19	175.59	86.07	-134.46	1,908.86	1,852.63	56.22	33.952		
6,300.00	5,992.90	6,060.35	6,053.86	35.74	26.60	175.59	83.06	-136.83	1,938.86	1,881.72	57.14	33.933		
6,400.00	6,087.27	6,155.75	6,149.17	36.33	27.02	175.59	80.06	-139.19	1,968.86	1,910.80	58.05	33.914		
6,500.00	6,181.65	6,251.14	6,244.49	36.93	27.44	175.59	77.05	-141.56	1,998.85	1,939.88	58.97	33.895		
6,600.00	6,276.02	6,346.54	6,339.81	37.52	27.86	175.59	74.04	-143.93	2,028.85	1,968.97	59.89	33.877		
6,700.00	6,370.39	6,441.93	6,435.12	38.12	28.28	175.60	71.03	-146.30	2,058.85	1,998.05	60.81	33.860		
6,800.00	6,464.77	6,537.24	6,529.87	38.71	28.70	175.41	68.00	-155.26	2,088.85	2,027.13	61.72	33.842		
6,900.00	6,559.14	6,628.65	6,618.52	39.31	29.10	174.61	65.08	-177.05	2,118.98	2,056.38	62.60	33.849		
7,000.00	6,652.92	6,715.65	6,699.18	39.90	29.47	147.88	62.35	-209.37	2,149.23	2,085.81	63.43	33.886		
7,100.00	6,744.00	6,800.49	6,772.87	40.44	29.83	128.44	59.78	-251.19	2,178.86	2,114.65	64.21	33.934		
7,200.00	6,830.13	6,883.75	6,839.17	40.94	30.19	115.30	57.39	-301.41	2,207.05	2,142.09	64.96	33.976		
7,300.00	6,909.19	6,965.92	6,897.62	41.37	30.58	106.22	55.20	-359.03	2,233.05	2,167.34	65.71	33.984		
7,400.00	6,979.23	7,047.33	6,947.75	41.75	31.03	99.73	53.23	-423.08	2,256.17	2,189.66	66.51	33.922		
7,500.00	7,038.53	7,128.25	6,988.08	42.08	31.59	95.04	51.51	-492.57	2,275.82	2,208.37	67.44	33.743		
7,600.00	7,085.63	7,208.86	7,021.17	42.37	32.25	91.70	50.05	-566.44	2,291.49	2,222.92	68.57	33.418		
7,700.00	7,119.37	7,289.28	7,043.63	42.64	33.02	89.48	48.87	-643.59	2,302.81	2,232.86	69.95	32.919		
7,800.00	7,138.92	7,369.56	7,056.18	42.91	33.91	88.23	47.99	-722.82	2,309.49	2,237.86	71.62	32.246		
7,900.00	7,143.92	7,454.07	7,058.90	43.25	34.95	87.89	47.39	-807.25	2,311.38	2,237.75	73.63	31.393		
8,000.00	7,143.35	7,554.07	7,058.47	43.72	36.35	87.90	46.79	-907.25	2,311.39	2,235.19	76.21	30.331		
8,100.00	7,142.78	7,654.07	7,058.03	44.42	37.90	87.90	46.19	-1,007.24	2,311.40	2,232.30	79.10	29.221		
8,200.00	7,142.22	7,754.07	7,057.60	45.39	39.59	87.90	45.59	-1,107.24	2,311.41	2,229.12	82.29	28.088		
8,300.00	7,141.65	7,854.07	7,057.17	46.63	41.42	87.91	44.99	-1,207.24	2,311.42	2,225.68	85.74	26.957		
8,400.00	7,141.08	7,954.07	7,056.73	48.09	43.36	87.91	44.39	-1,307.24	2,311.43	2,222.00	89.43	25.847		
8,500.00	7,140.51	8,054.07	7,056.30	49.74	45.39	87.91	43.80	-1,407.23	2,311.44	2,218.12	93.32	24.770		
8,600.00	7,139.94	8,154.07	7,055.86	51.53	47.51	87.92	43.20	-1,507.23	2,311.45	2,214.07	97.38	23.736		
8,700.00	7,139.37	8,254.07	7,055.43	53.44	49.71	87.92	42.60	-1,607.23	2,311.46	2,209.85	101.61	22.748		
8,800.00	7,138.80	8,354.07	7,055.00	55.45	51.96	87.92	42.00	-1,707.22	2,311.47	2,205.49	105.97	21.811		
8,900.00	7,138.24	8,454.07	7,054.56	57.55	54.28	87.93	41.40	-1,807.22	2,311.48	2,201.01	110.46	20.925		
9,000.00	7,137.67	8,554.07	7,054.13	59.71	56.65	87.93	40.80	-1,907.22	2,311.49	2,196.42	115.06	20.089		
9,100.00	7,137.10	8,654.07	7,053.69	61.94	59.06	87.93	40.20	-2,007.22	2,311.50	2,191.74	119.75	19.302		
9,200.00	7,136.53	8,754.07	7,053.26	64.22	61.50	87.94	39.60	-2,107.21	2,311.50	2,186.97	124.53	18.561		
9,300.00	7,135.96	8,854.07	7,052.83	66.55	63.98	87.94	39.01	-2,207.21	2,311.51	2,182.13	129.39	17.865		
9,400.00	7,135.39	8,954.07	7,052.39	68.92	66.50	87.94	38.41	-2,307.21	2,311.52	2,177.21	134.31	17.210		
9,500.00	7,134.83	9,054.07	7,051.96	71.33	69.04	87.95	37.81	-2,407.21	2,311.53	2,172.24	139.29	16.595		
9,600.00	7,134.26	9,154.07	7,051.52	73.77	71.60	87.95	37.21	-2,507.20	2,311.54	2,167.21	144.33	16.016		
9,700.00	7,133.69	9,254.07	7,051.09	76.24	74.18	87.95	36.61	-2,607.20	2,311.55	2,162.14	149.41	15.471		
9,800.00	7,133.12	9,354.07	7,050.66	78.74	76.79	87.96	36.01	-2,707.20	2,311.56	2,157.02	154.54	14.957		
9,900.00	7,132.55	9,454.07	7,050.22	81.27	79.41	87.96	35.41	-2,807.19	2,311.57	2,151.86	159.71	14.473		
10,000.00	7,131.98	9,554.07	7,049.79	83.81	82.05	87.96	34.81	-2,907.19	2,311.58	2,146.66	164.92	14.016		
10,100.00	7,131.42	9,654.07	7,049.35	86.38	84.70	87.97	34.22	-3,007.19	2,311.59	2,141.43	170.16	13.585		
10,200.00	7,130.85	9,754.07	7,048.92	88.96	87.37	87.97	33.62	-3,107.19	2,311.60	2,136.17	175.42	13.177		
10,300.00	7,130.28	9,854.07	7,048.49	91.56	90.04	87.97	33.02	-3,207.18	2,311.61	2,130.89	180.72	12.791		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,400.00	7,129.71	9,954.07	7,048.05	94.18	92.73	87.98	32.42	-3,307.18	2,311.62	2,125.58	186.04	12.425		
10,500.00	7,129.14	10,054.07	7,047.62	96.81	95.43	87.98	31.82	-3,407.18	2,311.63	2,120.24	191.38	12.079		
10,600.00	7,128.57	10,154.07	7,047.18	99.45	98.14	87.98	31.22	-3,507.17	2,311.64	2,114.89	196.75	11.749		
10,700.00	7,128.00	10,254.07	7,046.75	102.11	100.85	87.99	30.62	-3,607.17	2,311.65	2,109.52	202.13	11.436		
10,800.00	7,127.44	10,354.07	7,046.32	104.77	103.57	87.99	30.02	-3,707.17	2,311.66	2,104.12	207.53	11.139		
10,900.00	7,126.87	10,454.07	7,045.88	107.45	106.30	87.99	29.43	-3,807.17	2,311.66	2,098.72	212.95	10.856		
11,000.00	7,126.30	10,554.07	7,045.45	110.13	109.04	88.00	28.83	-3,907.16	2,311.67	2,093.29	218.38	10.586		
11,100.00	7,125.73	10,654.07	7,045.01	112.82	111.78	88.00	28.23	-4,007.16	2,311.68	2,087.86	223.83	10.328		
11,200.00	7,125.16	10,754.07	7,044.58	115.53	114.53	88.00	27.63	-4,107.16	2,311.69	2,082.41	229.29	10.082		
11,300.00	7,124.59	10,854.07	7,044.15	118.24	117.29	88.01	27.03	-4,207.15	2,311.70	2,076.94	234.76	9.847		
11,400.00	7,124.03	10,954.07	7,043.71	120.95	120.05	88.01	26.43	-4,307.15	2,311.71	2,071.47	240.24	9.622		
11,500.00	7,123.46	11,054.07	7,043.28	123.67	122.81	88.01	25.83	-4,407.15	2,311.72	2,065.99	245.74	9.407		
11,600.00	7,122.89	11,154.07	7,042.84	126.40	125.58	88.02	25.23	-4,507.15	2,311.73	2,060.49	251.24	9.201		
11,700.00	7,122.32	11,254.07	7,042.41	129.14	128.35	88.02	24.63	-4,607.14	2,311.74	2,054.99	256.75	9.004		
11,800.00	7,121.75	11,354.07	7,041.98	131.88	131.12	88.02	24.04	-4,707.14	2,311.75	2,049.48	262.28	8.814		
11,900.00	7,121.18	11,454.07	7,041.54	134.62	133.90	88.03	23.44	-4,807.14	2,311.76	2,043.95	267.81	8.632		
12,000.00	7,120.61	11,554.07	7,041.11	137.37	136.69	88.03	22.84	-4,907.13	2,311.77	2,038.43	273.34	8.457		
12,100.00	7,120.05	11,654.07	7,040.67	140.12	139.47	88.03	22.24	-5,007.13	2,311.78	2,032.89	278.89	8.289		
12,200.00	7,119.48	11,754.07	7,040.24	142.88	142.26	88.04	21.64	-5,107.13	2,311.79	2,027.35	284.44	8.128		
12,300.00	7,118.91	11,854.07	7,039.81	145.64	145.05	88.04	21.04	-5,207.13	2,311.80	2,021.80	290.00	7.972		
12,400.00	7,118.34	11,954.07	7,039.37	148.41	147.84	88.04	20.44	-5,307.12	2,311.81	2,016.25	295.56	7.822		
12,500.00	7,117.77	12,054.07	7,038.94	151.18	150.64	88.05	19.84	-5,407.12	2,311.82	2,010.69	301.13	7.677		
12,600.00	7,117.20	12,154.07	7,038.50	153.95	153.44	88.05	19.25	-5,507.12	2,311.83	2,005.12	306.71	7.538		
12,700.00	7,116.64	12,254.07	7,038.07	156.73	156.24	88.05	18.65	-5,607.11	2,311.84	1,999.55	312.29	7.403		
12,800.00	7,116.07	12,354.07	7,037.64	159.50	159.04	88.06	18.05	-5,707.11	2,311.85	1,993.97	317.87	7.273		
12,900.00	7,115.50	12,454.07	7,037.20	162.29	161.85	88.06	17.45	-5,807.11	2,311.86	1,988.39	323.46	7.147		
13,000.00	7,114.93	12,554.07	7,036.77	165.07	164.65	88.06	16.85	-5,907.11	2,311.87	1,982.81	329.06	7.026		
13,100.00	7,114.36	12,654.07	7,036.33	167.86	167.46	88.07	16.25	-6,007.10	2,311.88	1,977.22	334.65	6.908		
13,200.00	7,113.79	12,754.07	7,035.90	170.64	170.27	88.07	15.65	-6,107.10	2,311.89	1,971.63	340.26	6.795		
13,300.00	7,113.22	12,854.07	7,035.47	173.44	173.08	88.07	15.05	-6,207.10	2,311.89	1,966.03	345.86	6.684		
13,400.00	7,112.66	12,954.07	7,035.03	176.23	175.89	88.08	14.46	-6,307.09	2,311.90	1,960.43	351.47	6.578		
13,500.00	7,112.09	13,054.07	7,034.60	179.02	178.71	88.08	13.86	-6,407.09	2,311.91	1,954.83	357.09	6.474		
13,600.00	7,111.52	13,154.07	7,034.16	181.82	181.52	88.08	13.26	-6,507.09	2,311.92	1,949.22	362.70	6.374		
13,700.00	7,110.95	13,254.07	7,033.73	184.62	184.34	88.09	12.66	-6,607.09	2,311.93	1,943.61	368.32	6.277		
13,800.00	7,110.38	13,354.07	7,033.30	187.42	187.16	88.09	12.06	-6,707.08	2,311.94	1,938.00	373.94	6.183		
13,900.00	7,109.81	13,454.07	7,032.86	190.22	189.98	88.09	11.46	-6,807.08	2,311.95	1,932.38	379.57	6.091		
14,000.00	7,109.25	13,554.07	7,032.43	193.03	192.80	88.10	10.86	-6,907.08	2,311.96	1,926.77	385.20	6.002		
14,100.00	7,108.68	13,654.07	7,031.99	195.84	195.62	88.10	10.26	-7,007.08	2,311.97	1,921.15	390.83	5.916		
14,200.00	7,108.11	13,754.07	7,031.56	198.64	198.45	88.10	9.67	-7,107.07	2,311.98	1,915.52	396.46	5.832		
14,300.00	7,107.54	13,854.07	7,031.13	201.45	201.27	88.11	9.07	-7,207.07	2,311.99	1,909.90	402.09	5.750		
14,400.00	7,106.97	13,954.07	7,030.69	204.26	204.09	88.11	8.47	-7,307.07	2,312.00	1,904.27	407.73	5.670		
14,500.00	7,106.40	14,054.07	7,030.26	207.07	206.92	88.11	7.87	-7,407.06	2,312.01	1,898.64	413.37	5.593		
14,600.00	7,105.83	14,154.07	7,029.82	209.89	209.75	88.12	7.27	-7,507.06	2,312.02	1,893.01	419.01	5.518		
14,700.00	7,105.27	14,254.07	7,029.39	212.70	212.57	88.12	6.67	-7,607.06	2,312.03	1,887.37	424.66	5.444		
14,800.00	7,104.70	14,354.07	7,028.96	215.52	215.40	88.12	6.07	-7,707.06	2,312.04	1,881.74	430.30	5.373		
14,900.00	7,104.13	14,454.07	7,028.52	218.33	218.23	88.13	5.47	-7,807.05	2,312.05	1,876.10	435.95	5.303		
15,000.00	7,103.56	14,554.07	7,028.09	221.15	221.06	88.13	4.88	-7,907.05	2,312.06	1,870.46	441.60	5.236		
15,100.00	7,102.99	14,654.07	7,027.65	223.97	223.89	88.13	4.28	-8,007.05	2,312.07	1,864.82	447.25	5.170		
15,200.00	7,102.42	14,754.07	7,027.22	226.79	226.72	88.14	3.68	-8,107.04	2,312.08	1,859.18	452.90	5.105		
15,200.00	7,102.42	14,754.07	7,027.22	226.79	226.72	88.14	3.68	-8,107.04	2,312.08	1,859.18	452.90	5.105		
15,274.57	7,102.00	14,805.04	7,027.00	228.89	228.17	88.14	3.37	-8,158.01	2,312.21	1,855.87	456.34	5.067 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	0.46	279.80	2.23	279.81					
100.00	100.00	102.00	100.00	3.28	3.29	0.46	279.80	2.23	279.81	273.24	6.57	42.590		
200.00	200.00	202.00	200.00	3.34	3.34	0.46	279.80	2.23	279.81	273.13	6.68	41.914	CC, ES	
300.00	299.98	301.98	299.98	3.44	3.45	176.52	279.80	2.23	281.55	274.66	6.89	40.878		
400.00	399.84	401.84	399.84	3.59	3.61	176.58	279.80	2.23	286.77	279.57	7.20	39.836		
500.00	499.45	501.45	499.45	3.79	3.81	176.67	279.80	2.22	295.47	287.87	7.60	38.870		
600.00	598.70	600.78	598.76	4.03	4.04	176.48	279.80	0.60	307.62	299.55	8.08	38.093		
700.00	697.47	700.46	697.49	4.31	4.30	176.19	279.80	-1.87	323.22	314.60	8.61	37.519		
800.00	795.62	802.30	795.62	4.64	4.60	175.96	279.80	-4.32	342.25	333.03	9.22	37.128		
900.00	893.06	904.86	893.03	5.00	4.92	175.78	279.80	-6.75	364.69	354.82	9.87	36.937		
1,000.00	989.64	1,008.26	989.61	5.40	5.26	175.65	279.80	-9.17	390.51	379.94	10.57	36.933		
1,100.00	1,085.27	1,087.39	1,085.22	5.83	5.53	175.57	279.80	-11.56	419.68	408.46	11.22	37.391		
1,200.00	1,179.88	1,182.03	1,179.83	6.29	5.87	175.54	279.80	-13.92	451.97	440.01	11.96	37.796		
1,300.00	1,274.26	1,276.43	1,274.21	6.78	6.22	175.55	279.80	-16.28	484.96	472.26	12.70	38.188		
1,400.00	1,368.63	1,370.83	1,368.58	7.28	6.57	175.55	279.80	-18.64	517.95	504.49	13.46	38.475		
1,500.00	1,463.00	1,465.23	1,462.95	7.80	6.93	175.56	279.80	-21.00	550.94	536.70	14.24	38.683		
1,600.00	1,557.38	1,559.63	1,557.32	8.33	7.30	175.57	279.80	-23.36	583.94	568.90	15.04	38.831		
1,700.00	1,651.75	1,654.03	1,651.69	8.87	7.67	175.57	279.80	-25.72	616.93	601.09	15.85	38.932		
1,800.00	1,746.12	1,748.43	1,746.06	9.41	8.05	175.58	279.80	-28.08	649.92	633.26	16.67	38.998		
1,900.00	1,840.49	1,842.84	1,840.43	9.96	8.43	175.58	279.80	-30.43	682.92	665.42	17.49	39.037		
2,000.00	1,934.87	1,937.24	1,934.80	10.52	8.81	175.59	279.80	-32.79	715.91	697.58	18.33	39.056		
2,100.00	2,029.24	2,031.64	2,029.17	11.08	9.19	175.59	279.80	-35.15	748.90	729.73	19.17	39.059		
2,200.00	2,123.61	2,126.04	2,123.54	11.64	9.58	175.59	279.80	-37.51	781.90	761.87	20.02	39.049		
2,300.00	2,217.99	2,220.44	2,217.91	12.21	9.97	175.60	279.80	-39.87	814.89	794.01	20.88	39.031		
2,400.00	2,312.36	2,314.84	2,312.29	12.78	10.37	175.60	279.80	-42.23	847.88	826.15	21.74	39.005		
2,500.00	2,406.73	2,409.24	2,406.66	13.35	10.76	175.60	279.80	-44.59	880.88	858.28	22.60	38.974		
2,600.00	2,501.10	2,503.64	2,501.03	13.93	11.16	175.60	279.80	-46.95	913.87	890.40	23.47	38.939		
2,700.00	2,595.48	2,601.96	2,595.40	14.51	11.57	175.61	279.80	-49.30	946.86	922.51	24.36	38.875		
2,800.00	2,689.85	2,707.56	2,689.77	15.08	12.01	175.61	279.80	-51.66	979.86	954.58	25.28	38.764		
2,900.00	2,784.22	2,786.84	2,784.14	15.66	12.35	175.61	279.80	-54.02	1,012.85	986.76	26.09	38.821		
3,000.00	2,878.60	2,881.24	2,878.51	16.25	12.75	175.61	279.80	-56.38	1,045.84	1,018.87	26.97	38.779		
3,100.00	2,972.97	2,975.64	2,972.88	16.83	13.15	175.61	279.80	-58.74	1,078.84	1,050.99	27.85	38.737		
3,200.00	3,067.34	3,070.04	3,067.25	17.41	13.55	175.61	279.80	-61.10	1,111.83	1,083.10	28.73	38.695		
3,300.00	3,161.72	3,164.44	3,161.62	18.00	13.96	175.62	279.80	-63.46	1,144.82	1,115.21	29.62	38.653		
3,400.00	3,256.09	3,258.84	3,256.00	18.58	14.36	175.62	279.80	-65.82	1,177.82	1,147.31	30.50	38.611		
3,500.00	3,350.46	3,353.24	3,350.37	19.17	14.77	175.62	279.80	-68.17	1,210.81	1,179.42	31.39	38.570		
3,600.00	3,444.83	3,447.64	3,444.74	19.75	15.17	175.62	279.80	-70.53	1,243.80	1,211.52	32.28	38.530		
3,700.00	3,539.21	3,542.04	3,539.11	20.34	15.58	175.62	279.80	-72.89	1,276.80	1,243.62	33.17	38.490		
3,800.00	3,633.58	3,636.44	3,633.48	20.93	15.98	175.62	279.80	-75.25	1,309.79	1,275.73	34.06	38.451		
3,900.00	3,727.95	3,730.84	3,727.85	21.52	16.39	175.62	279.80	-77.61	1,342.78	1,307.83	34.96	38.412		
4,000.00	3,822.33	3,825.24	3,822.22	22.11	16.80	175.62	279.80	-79.97	1,375.78	1,339.93	35.85	38.375		
4,100.00	3,916.70	3,919.65	3,916.59	22.70	17.20	175.63	279.80	-82.33	1,408.77	1,372.02	36.75	38.338		
4,200.00	4,011.07	4,014.05	4,010.96	23.29	17.61	175.63	279.80	-84.69	1,441.76	1,404.12	37.64	38.302		
4,300.00	4,105.44	4,108.45	4,105.33	23.88	18.02	175.63	279.80	-87.04	1,474.76	1,436.22	38.54	38.267		
4,400.00	4,199.82	4,202.85	4,199.71	24.47	18.43	175.63	279.80	-89.40	1,507.75	1,468.31	39.44	38.233		
4,500.00	4,294.19	4,302.75	4,294.08	25.06	18.86	175.63	279.80	-91.76	1,540.74	1,500.39	40.36	38.177		
4,600.00	4,388.56	4,408.35	4,388.45	25.65	19.32	175.63	279.80	-94.12	1,573.74	1,532.43	41.30	38.101		
4,700.00	4,482.94	4,486.05	4,482.82	26.24	19.66	175.63	279.80	-96.48	1,606.73	1,564.60	42.13	38.136		
4,800.00	4,577.31	4,580.45	4,577.19	26.83	20.07	175.63	279.80	-98.84	1,639.72	1,596.69	43.03	38.105		
4,900.00	4,671.68	4,674.85	4,671.56	27.43	20.48	175.63	279.80	-101.20	1,672.72	1,628.78	43.93	38.075		
5,000.00	4,766.05	4,769.25	4,765.93	28.02	20.89	175.63	279.80	-103.56	1,705.71	1,660.88	44.83	38.045		
5,100.00	4,860.43	4,863.65	4,860.30	28.61	21.30	175.63	279.80	-105.92	1,738.70	1,692.97	45.74	38.017		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,958.05	4,954.67	29.20	21.71	175.63	279.80	-108.27	1,771.70	1,725.06	46.64	37.989		
5,300.00	5,049.17	5,052.45	5,049.04	29.80	22.12	175.63	279.80	-110.63	1,804.69	1,757.15	47.54	37.962		
5,400.00	5,143.55	5,146.85	5,143.41	30.39	22.53	175.64	279.80	-112.99	1,837.68	1,789.24	48.44	37.935		
5,500.00	5,237.92	5,241.25	5,237.79	30.99	22.94	175.64	279.80	-115.35	1,870.68	1,821.33	49.35	37.909		
5,600.00	5,332.29	5,335.65	5,332.16	31.58	23.35	175.64	279.80	-117.71	1,903.67	1,853.42	50.25	37.884		
5,700.00	5,426.66	5,430.05	5,426.53	32.17	23.76	175.64	279.80	-120.07	1,936.66	1,885.51	51.15	37.859		
5,800.00	5,521.04	5,524.45	5,520.90	32.77	24.17	175.64	279.80	-122.43	1,969.66	1,917.60	52.06	37.835		
5,900.00	5,615.41	5,618.85	5,615.27	33.36	24.59	175.64	279.80	-124.79	2,002.65	1,949.68	52.96	37.812		
6,000.00	5,709.78	5,713.25	5,709.64	33.96	25.00	175.64	279.80	-127.14	2,035.64	1,981.77	53.87	37.789		
6,100.00	5,804.16	5,807.65	5,804.01	34.55	25.41	175.64	279.80	-129.50	2,068.64	2,013.86	54.77	37.766		
6,200.00	5,898.53	5,902.05	5,898.38	35.14	25.82	175.64	279.80	-131.86	2,101.63	2,045.95	55.68	37.744		
6,300.00	5,992.90	6,003.55	5,992.75	35.74	26.26	175.64	279.80	-134.22	2,134.62	2,078.00	56.62	37.702		
6,400.00	6,087.27	6,109.14	6,087.12	36.33	26.73	175.64	279.80	-136.58	2,167.61	2,110.04	57.57	37.650		
6,500.00	6,181.65	6,185.26	6,181.50	36.93	27.06	175.64	279.80	-138.94	2,200.61	2,142.21	58.40	37.681		
6,600.00	6,276.02	6,279.66	6,275.87	37.52	27.47	175.64	279.80	-141.30	2,233.60	2,174.29	59.31	37.661		
6,700.00	6,370.39	6,374.06	6,370.24	38.12	27.88	175.64	279.80	-143.66	2,266.59	2,206.38	60.21	37.642		
6,800.00	6,464.77	6,468.46	6,464.61	38.71	28.30	175.64	279.80	-146.01	2,299.59	2,238.47	61.12	37.623		
6,900.00	6,559.14	6,566.06	6,562.06	39.31	28.72	175.34	279.75	-150.73	2,332.55	2,270.49	62.06	37.585		
7,000.00	6,652.92	6,665.57	6,659.72	39.90	29.17	148.80	279.44	-169.29	2,365.14	2,302.12	63.02	37.530		
7,100.00	6,744.00	6,764.50	6,752.77	40.44	29.61	129.54	278.83	-202.58	2,396.63	2,332.68	63.96	37.473		
7,200.00	6,830.13	6,863.21	6,839.36	40.94	30.06	116.57	277.95	-249.76	2,426.25	2,361.38	64.87	37.401		
7,300.00	6,909.19	6,961.97	6,917.67	41.37	30.54	107.62	276.82	-309.77	2,453.26	2,387.47	65.79	37.290		
7,400.00	6,979.23	7,060.92	6,985.88	41.75	31.08	101.25	275.45	-381.30	2,476.98	2,410.21	66.77	37.098		
7,500.00	7,038.53	7,160.06	7,042.28	42.08	31.73	96.64	273.89	-462.70	2,496.82	2,428.93	67.89	36.777		
7,600.00	7,085.63	7,259.27	7,085.41	42.37	32.52	93.38	272.16	-551.92	2,512.30	2,443.06	69.24	36.283		
7,700.00	7,119.37	7,358.32	7,114.12	42.64	33.48	91.20	270.33	-646.59	2,523.04	2,452.16	70.88	35.596		
7,800.00	7,138.92	7,456.90	7,127.79	42.91	34.58	89.97	268.43	-744.10	2,528.78	2,455.96	72.82	34.727		
7,900.00	7,143.92	7,556.04	7,128.79	43.25	35.85	89.66	266.49	-843.20	2,529.41	2,454.32	75.09	33.687		
8,000.00	7,143.35	7,656.03	7,128.42	43.72	37.28	89.67	264.53	-943.17	2,528.06	2,450.36	77.70	32.535		
8,100.00	7,142.78	7,756.03	7,128.06	44.42	38.87	89.67	262.58	-1,043.14	2,526.72	2,446.08	80.64	31.334		
8,200.00	7,142.22	7,856.02	7,127.69	45.39	40.59	89.67	260.62	-1,143.11	2,525.38	2,441.52	83.86	30.114		
8,300.00	7,141.65	7,956.01	7,127.33	46.63	42.44	89.68	258.67	-1,243.08	2,524.03	2,436.70	87.34	28.900		
8,400.00	7,141.08	8,056.00	7,126.96	48.09	44.39	89.68	256.71	-1,343.05	2,522.69	2,431.65	91.04	27.710		
8,500.00	7,140.51	8,155.99	7,126.59	49.74	46.44	89.69	254.76	-1,443.02	2,521.34	2,426.41	94.94	26.557		
8,600.00	7,139.94	8,255.98	7,126.23	51.53	48.57	89.69	252.80	-1,542.99	2,520.00	2,420.98	99.02	25.450		
8,700.00	7,139.37	8,355.97	7,125.86	53.44	50.77	89.70	250.84	-1,642.96	2,518.66	2,415.41	103.25	24.394		
8,800.00	7,138.80	8,455.96	7,125.50	55.45	53.03	89.70	248.89	-1,742.94	2,517.31	2,409.70	107.62	23.392		
8,900.00	7,138.24	8,555.95	7,125.13	57.55	55.35	89.71	246.93	-1,842.91	2,515.97	2,403.87	112.10	22.443		
9,000.00	7,137.67	8,655.94	7,124.76	59.71	57.71	89.71	244.98	-1,942.88	2,514.63	2,397.93	116.70	21.548		
9,100.00	7,137.10	8,755.93	7,124.40	61.94	60.12	89.71	243.02	-2,042.85	2,513.28	2,391.89	121.39	20.704		
9,200.00	7,136.53	8,855.92	7,124.03	64.22	62.57	89.72	241.07	-2,142.82	2,511.94	2,385.78	126.16	19.910		
9,300.00	7,135.96	8,955.91	7,123.66	66.55	65.05	89.72	239.11	-2,242.79	2,510.60	2,379.58	131.01	19.163		
9,400.00	7,135.39	9,055.91	7,123.30	68.92	67.56	89.73	237.16	-2,342.76	2,509.25	2,373.32	135.93	18.460		
9,500.00	7,134.83	9,155.90	7,122.93	71.33	70.09	89.73	235.20	-2,442.73	2,507.91	2,367.00	140.91	17.798		
9,600.00	7,134.26	9,255.89	7,122.57	73.77	72.65	89.74	233.25	-2,542.70	2,506.56	2,360.63	145.94	17.176		
9,700.00	7,133.69	9,355.88	7,122.20	76.24	75.23	89.74	231.29	-2,642.67	2,505.22	2,354.21	151.02	16.589		
9,800.00	7,133.12	9,455.87	7,121.83	78.74	77.83	89.75	229.34	-2,742.65	2,503.88	2,347.74	156.14	16.036		
9,900.00	7,132.55	9,555.86	7,121.47	81.27	80.45	89.75	227.38	-2,842.62	2,502.53	2,341.23	161.30	15.515		
10,000.00	7,131.98	9,655.85	7,121.10	83.81	83.08	89.76	225.42	-2,942.59	2,501.19	2,334.69	166.50	15.022		
10,100.00	7,131.42	9,755.84	7,120.74	86.38	85.72	89.76	223.47	-3,042.56	2,499.85	2,328.12	171.73	14.557		
10,200.00	7,130.85	9,855.83	7,120.37	88.96	88.38	89.76	221.51	-3,142.53	2,498.50	2,321.51	176.99	14.117		
10,300.00	7,130.28	9,955.82	7,120.00	91.56	91.05	89.77	219.56	-3,242.50	2,497.16	2,314.88	182.28	13.700		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	10,055.81	7,119.64	94.18	93.74	89.77	217.60	-3,342.47	2,495.82	2,308.23	187.59	13.305		
10,500.00	7,129.14	10,155.80	7,119.27	96.81	96.43	89.78	215.65	-3,442.44	2,494.47	2,301.55	192.93	12.930		
10,600.00	7,128.57	10,255.79	7,118.91	99.45	99.13	89.78	213.69	-3,542.41	2,493.13	2,294.85	198.28	12.574		
10,700.00	7,128.00	10,355.79	7,118.54	102.11	101.84	89.79	211.74	-3,642.38	2,491.79	2,288.13	203.66	12.235		
10,800.00	7,127.44	10,455.78	7,118.17	104.77	104.55	89.79	209.78	-3,742.36	2,490.44	2,281.39	209.05	11.913		
10,900.00	7,126.87	10,555.77	7,117.81	107.45	107.28	89.80	207.83	-3,842.33	2,489.10	2,274.64	214.46	11.606		
11,000.00	7,126.30	10,655.76	7,117.44	110.13	110.01	89.80	205.87	-3,942.30	2,487.76	2,267.87	219.89	11.314		
11,100.00	7,125.73	10,755.75	7,117.07	112.82	112.75	89.80	203.92	-4,042.27	2,486.41	2,261.08	225.33	11.035		
11,200.00	7,125.16	10,855.74	7,116.71	115.53	115.49	89.81	201.96	-4,142.24	2,485.07	2,254.29	230.78	10.768		
11,300.00	7,124.59	10,955.73	7,116.34	118.24	118.24	89.81	200.00	-4,242.21	2,483.73	2,247.48	236.25	10.513		
11,400.00	7,124.03	11,055.72	7,115.98	120.95	120.99	89.82	198.05	-4,342.18	2,482.38	2,240.66	241.73	10.269		
11,500.00	7,123.46	11,155.71	7,115.61	123.67	123.75	89.82	196.09	-4,442.15	2,481.04	2,233.83	247.21	10.036		
11,600.00	7,122.89	11,255.70	7,115.24	126.40	126.51	89.83	194.14	-4,542.12	2,479.70	2,226.99	252.71	9.812		
11,700.00	7,122.32	11,355.69	7,114.88	129.14	129.27	89.83	192.18	-4,642.09	2,478.35	2,220.14	258.22	9.598		
11,800.00	7,121.75	11,455.68	7,114.51	131.88	132.04	89.84	190.23	-4,742.07	2,477.01	2,213.28	263.73	9.392		
11,900.00	7,121.18	11,555.67	7,114.15	134.62	134.81	89.84	188.27	-4,842.04	2,475.67	2,206.41	269.26	9.194		
12,000.00	7,120.61	11,655.67	7,113.78	137.37	137.59	89.85	186.32	-4,942.01	2,474.32	2,199.53	274.79	9.004		
12,100.00	7,120.05	11,755.66	7,113.41	140.12	140.37	89.85	184.36	-5,041.98	2,472.98	2,192.65	280.33	8.822		
12,200.00	7,119.48	11,855.65	7,113.05	142.88	143.15	89.86	182.41	-5,141.95	2,471.64	2,185.76	285.87	8.646		
12,300.00	7,118.91	11,955.64	7,112.68	145.64	145.94	89.86	180.45	-5,241.92	2,470.29	2,178.87	291.43	8.477		
12,400.00	7,118.34	12,055.63	7,112.31	148.41	148.72	89.86	178.50	-5,341.89	2,468.95	2,171.97	296.98	8.313		
12,500.00	7,117.77	12,155.62	7,111.95	151.18	151.51	89.87	176.54	-5,441.86	2,467.61	2,165.06	302.55	8.156		
12,600.00	7,117.20	12,255.61	7,111.58	153.95	154.31	89.87	174.58	-5,541.83	2,466.26	2,158.15	308.12	8.004		
12,700.00	7,116.64	12,355.60	7,111.22	156.73	157.10	89.88	172.63	-5,641.80	2,464.92	2,151.23	313.69	7.858		
12,800.00	7,116.07	12,455.59	7,110.85	159.50	159.90	89.88	170.67	-5,741.78	2,463.58	2,144.31	319.27	7.716		
12,900.00	7,115.50	12,555.58	7,110.48	162.29	162.70	89.89	168.72	-5,841.75	2,462.24	2,137.38	324.86	7.579		
13,000.00	7,114.93	12,655.57	7,110.12	165.07	165.50	89.89	166.76	-5,941.72	2,460.89	2,130.45	330.45	7.447		
13,100.00	7,114.36	12,755.56	7,109.75	167.86	168.30	89.90	164.81	-6,041.69	2,459.55	2,123.51	336.04	7.319		
13,200.00	7,113.79	12,855.56	7,109.39	170.64	171.10	89.90	162.85	-6,141.66	2,458.21	2,116.57	341.63	7.195		
13,300.00	7,113.22	12,955.55	7,109.02	173.44	173.91	89.91	160.90	-6,241.63	2,456.86	2,109.63	347.24	7.075		
13,400.00	7,112.66	13,055.54	7,108.65	176.23	176.72	89.91	158.94	-6,341.60	2,455.52	2,102.68	352.84	6.959		
13,500.00	7,112.09	13,155.53	7,108.29	179.02	179.52	89.92	156.99	-6,441.57	2,454.18	2,095.73	358.45	6.847		
13,600.00	7,111.52	13,255.52	7,107.92	181.82	182.33	89.92	155.03	-6,541.54	2,452.83	2,088.78	364.06	6.737		
13,700.00	7,110.95	13,355.51	7,107.55	184.62	185.15	89.92	153.08	-6,641.51	2,451.49	2,081.82	369.67	6.632		
13,800.00	7,110.38	13,455.50	7,107.19	187.42	187.96	89.93	151.12	-6,741.49	2,450.15	2,074.86	375.29	6.529		
13,900.00	7,109.81	13,555.49	7,106.82	190.22	190.77	89.93	149.16	-6,841.46	2,448.81	2,067.90	380.91	6.429		
14,000.00	7,109.25	13,655.48	7,106.46	193.03	193.59	89.94	147.21	-6,941.43	2,447.46	2,060.93	386.53	6.332		
14,100.00	7,108.68	13,755.47	7,106.09	195.84	196.40	89.94	145.25	-7,041.40	2,446.12	2,053.96	392.16	6.238		
14,200.00	7,108.11	13,855.46	7,105.72	198.64	199.22	89.95	143.30	-7,141.37	2,444.78	2,046.99	397.78	6.146		
14,300.00	7,107.54	13,955.45	7,105.36	201.45	202.04	89.95	141.34	-7,241.34	2,443.43	2,040.02	403.41	6.057		
14,400.00	7,106.97	14,055.44	7,104.99	204.26	204.86	89.96	139.39	-7,341.31	2,442.09	2,033.04	409.05	5.970		
14,500.00	7,106.40	14,155.44	7,104.63	207.07	207.68	89.96	137.43	-7,441.28	2,440.75	2,026.07	414.68	5.886		
14,600.00	7,105.83	14,255.43	7,104.26	209.89	210.50	89.97	135.48	-7,541.25	2,439.41	2,019.09	420.32	5.804		
14,700.00	7,105.27	14,355.42	7,103.89	212.70	213.32	89.97	133.52	-7,641.22	2,438.06	2,012.11	425.96	5.724		
14,800.00	7,104.70	14,455.41	7,103.53	215.52	216.15	89.98	131.57	-7,741.20	2,436.72	2,005.12	431.60	5.646		
14,900.00	7,104.13	14,555.40	7,103.16	218.33	218.97	89.98	129.61	-7,841.17	2,435.38	1,998.14	437.24	5.570		
15,000.00	7,103.56	14,655.39	7,102.79	221.15	221.79	89.99	127.66	-7,941.14	2,434.03	1,991.15	442.88	5.496		
15,100.00	7,102.99	14,755.38	7,102.43	223.97	224.62	89.99	125.70	-8,041.11	2,432.69	1,984.16	448.53	5.424		
15,200.00	7,102.42	14,855.37	7,102.06	226.79	227.44	90.00	123.74	-8,141.08	2,431.35	1,977.17	454.18	5.353		
15,249.68	7,102.14	14,872.41	7,102.00	228.19	227.93	90.00	123.41	-8,158.12	2,430.90	1,974.94	455.96	5.331		
15,274.57	7,102.00	14,872.41	7,102.00	228.89	227.93	90.00	123.41	-8,158.12	2,431.03	1,974.50	456.53	5.325 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 41-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	59.00	3.28	3.28	-113.96	-3,995.87	-8,992.65	9,840.64					
100.00	100.00	41.00	100.00	3.28	3.36	-113.96	-3,995.87	-8,992.65	9,840.46	9,833.82	6.64	1,481.575		
200.00	200.00	141.00	200.00	3.34	4.57	-113.96	-3,995.87	-8,992.65	9,840.46	9,832.56	7.90	1,245.113		
300.00	299.98	240.98	299.98	3.44	7.43	62.11	-3,995.87	-8,992.65	9,839.64	9,828.77	10.87	905.234		
400.00	399.84	340.84	399.84	3.59	10.67	62.18	-3,995.87	-8,992.65	9,837.19	9,822.94	14.26	689.896		
500.00	499.45	440.45	499.45	3.79	14.02	62.30	-3,995.87	-8,992.65	9,833.12	9,815.31	17.81	552.199		
600.00	598.70	539.70	598.70	4.03	17.41	62.46	-3,995.87	-8,992.65	9,827.44	9,806.00	21.44	458.426		
700.00	697.47	638.47	697.47	4.31	20.80	62.67	-3,995.87	-8,992.65	9,820.16	9,795.04	25.12	390.982		
800.00	795.62	736.62	795.62	4.64	24.19	62.92	-3,995.87	-8,992.65	9,811.31	9,782.48	28.83	340.351		
900.00	893.06	834.06	893.06	5.00	27.57	63.23	-3,995.87	-8,992.65	9,800.91	9,768.35	32.56	301.047		
1,000.00	989.64	930.64	989.64	5.40	30.92	63.57	-3,995.87	-8,992.65	9,789.00	9,752.70	36.30	269.706		
1,100.00	1,085.27	1,026.27	1,085.27	5.83	34.24	63.96	-3,995.87	-8,992.65	9,775.60	9,735.57	40.04	244.166		
1,200.00	1,179.88	1,120.88	1,179.88	6.29	37.53	64.30	-3,995.87	-8,992.65	9,760.86	9,717.08	43.78	222.976		
1,300.00	1,274.26	1,215.26	1,274.26	6.78	40.81	64.47	-3,995.87	-8,992.65	9,745.88	9,698.35	47.53	205.055		
1,400.00	1,368.63	1,309.63	1,368.63	7.28	44.10	64.64	-3,995.87	-8,992.65	9,730.99	9,679.69	51.30	189.692		
1,500.00	1,463.00	1,404.00	1,463.00	7.80	47.38	64.80	-3,995.87	-8,992.65	9,716.19	9,661.10	55.08	176.387		
1,600.00	1,557.38	1,501.62	1,557.38	8.33	50.78	64.97	-3,995.87	-8,992.65	9,701.48	9,642.48	59.00	164.445		
1,700.00	1,651.75	1,607.25	1,651.75	8.87	54.46	65.14	-3,995.87	-8,992.65	9,686.86	9,623.66	63.20	153.284		
1,800.00	1,746.12	1,687.12	1,746.12	9.41	57.25	65.31	-3,995.87	-8,992.65	9,672.33	9,605.82	66.51	145.435		
1,900.00	1,840.49	1,781.49	1,840.49	9.96	60.54	65.48	-3,995.87	-8,992.65	9,657.89	9,587.56	70.33	137.323		
2,000.00	1,934.87	1,875.87	1,934.87	10.52	63.83	65.65	-3,995.87	-8,992.65	9,643.54	9,569.38	74.16	130.038		
2,100.00	2,029.24	1,970.24	2,029.24	11.08	67.12	65.82	-3,995.87	-8,992.65	9,629.29	9,551.30	77.99	123.462		
2,200.00	2,123.61	2,064.61	2,123.61	11.64	70.41	65.99	-3,995.87	-8,992.65	9,615.13	9,533.29	81.83	117.496		
2,300.00	2,217.99	2,158.99	2,217.99	12.21	73.70	66.17	-3,995.87	-8,992.65	9,601.06	9,515.38	85.68	112.061		
2,400.00	2,312.36	2,253.36	2,312.36	12.78	76.99	66.34	-3,995.87	-8,992.65	9,587.09	9,497.56	89.52	107.089		
2,500.00	2,406.73	2,347.73	2,406.73	13.35	80.28	66.51	-3,995.87	-8,992.65	9,573.20	9,479.83	93.37	102.525		
2,600.00	2,501.10	2,442.10	2,501.10	13.93	83.57	66.68	-3,995.87	-8,992.65	9,559.42	9,462.19	97.23	98.320		
2,700.00	2,595.48	2,536.48	2,595.48	14.51	86.87	66.86	-3,995.87	-8,992.65	9,545.73	9,444.64	101.08	94.434		
2,800.00	2,689.85	2,630.85	2,689.85	15.08	90.16	67.03	-3,995.87	-8,992.65	9,532.13	9,427.19	104.94	90.833		
2,900.00	2,784.22	2,725.22	2,784.22	15.66	93.45	67.21	-3,995.87	-8,992.65	9,518.63	9,409.83	108.80	87.486		
3,000.00	2,878.60	2,819.60	2,878.60	16.25	96.74	67.38	-3,995.87	-8,992.65	9,505.22	9,392.56	112.66	84.368		
3,100.00	2,972.97	2,913.97	2,972.97	16.83	100.04	67.56	-3,995.87	-8,992.65	9,491.91	9,375.39	116.53	81.456		
3,200.00	3,067.34	3,008.34	3,067.34	17.41	103.33	67.73	-3,995.87	-8,992.65	9,478.70	9,358.31	120.39	78.731		
3,300.00	3,161.72	3,102.72	3,161.72	18.00	106.62	67.91	-3,995.87	-8,992.65	9,465.59	9,341.33	124.26	76.176		
3,400.00	3,256.09	3,202.91	3,256.09	18.58	110.12	68.09	-3,995.87	-8,992.65	9,452.57	9,324.24	128.33	73.657		
3,500.00	3,350.46	3,308.54	3,350.46	19.17	113.80	68.26	-3,995.87	-8,992.65	9,439.65	9,307.05	132.59	71.192		
3,600.00	3,444.83	3,385.83	3,444.83	19.75	116.50	68.44	-3,995.87	-8,992.65	9,426.83	9,290.96	135.87	69.381		
3,700.00	3,539.21	3,480.21	3,539.21	20.34	119.79	68.62	-3,995.87	-8,992.65	9,414.10	9,274.36	139.74	67.368		
3,800.00	3,633.58	3,574.58	3,633.58	20.93	123.09	68.80	-3,995.87	-8,992.65	9,401.48	9,257.86	143.62	65.463		
3,900.00	3,727.95	3,668.95	3,727.95	21.52	126.38	68.98	-3,995.87	-8,992.65	9,388.96	9,241.47	147.49	63.659		
4,000.00	3,822.33	3,763.33	3,822.33	22.11	129.67	69.16	-3,995.87	-8,992.65	9,376.53	9,225.17	151.36	61.947		
4,100.00	3,916.70	3,857.70	3,916.70	22.70	132.97	69.33	-3,995.87	-8,992.65	9,364.21	9,208.97	155.24	60.320		
4,200.00	4,011.07	3,952.07	4,011.07	23.29	136.26	69.52	-3,995.87	-8,992.65	9,351.98	9,192.87	159.12	58.774		
4,300.00	4,105.44	4,046.44	4,105.44	23.88	139.55	69.70	-3,995.87	-8,992.65	9,339.86	9,176.87	163.00	57.301		
4,400.00	4,199.82	4,140.82	4,199.82	24.47	142.85	69.88	-3,995.87	-8,992.65	9,327.84	9,160.97	166.88	55.897		
4,500.00	4,294.19	4,235.19	4,294.19	25.06	146.14	70.06	-3,995.87	-8,992.65	9,315.92	9,145.17	170.76	54.557		
4,600.00	4,388.56	4,329.56	4,388.56	25.65	149.44	70.24	-3,995.87	-8,992.65	9,304.11	9,129.47	174.64	53.277		
4,700.00	4,482.94	4,423.94	4,482.94	26.24	152.73	70.42	-3,995.87	-8,992.65	9,292.39	9,113.88	178.52	52.053		
4,800.00	4,577.31	4,518.31	4,577.31	26.83	156.02	70.61	-3,995.87	-8,992.65	9,280.78	9,098.38	182.40	50.882		
4,900.00	4,671.68	4,612.68	4,671.68	27.43	159.32	70.79	-3,995.87	-8,992.65	9,269.27	9,082.99	186.28	49.760		
5,000.00	4,766.05	4,707.05	4,766.05	28.02	162.61	70.97	-3,995.87	-8,992.65	9,257.87	9,067.71	190.16	48.683		
5,100.00	4,860.43	4,801.43	4,860.43	28.61	165.91	71.16	-3,995.87	-8,992.65	9,246.57	9,052.52	194.05	47.651		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 41-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,904.20	4,954.80	29.20	169.49	71.34	-3,995.87	-8,992.65	9,235.38	9,037.15	198.23	46.590		
5,300.00	5,049.17	5,009.83	5,049.17	29.80	173.18	71.53	-3,995.87	-8,992.65	9,224.29	9,021.78	202.50	45.551		
5,400.00	5,143.55	5,084.55	5,143.55	30.39	175.79	71.71	-3,995.87	-8,992.65	9,213.30	9,007.60	205.70	44.789		
5,500.00	5,237.92	5,178.92	5,237.92	30.99	179.08	71.90	-3,995.87	-8,992.65	9,202.42	8,992.83	209.59	43.907		
5,600.00	5,332.29	5,273.29	5,332.29	31.58	182.37	72.08	-3,995.87	-8,992.65	9,191.65	8,978.18	213.48	43.057		
5,700.00	5,426.66	5,367.66	5,426.66	32.17	185.67	72.27	-3,995.87	-8,992.65	9,180.99	8,963.62	217.36	42.238		
5,800.00	5,521.04	5,462.04	5,521.04	32.77	188.96	72.46	-3,995.87	-8,992.65	9,170.43	8,949.18	221.25	41.448		
5,900.00	5,615.41	5,556.41	5,615.41	33.36	192.26	72.64	-3,995.87	-8,992.65	9,159.98	8,934.84	225.14	40.686		
6,000.00	5,709.78	5,650.78	5,709.78	33.96	195.55	72.83	-3,995.87	-8,992.65	9,149.63	8,920.60	229.03	39.950		
6,100.00	5,804.16	5,745.16	5,804.16	34.55	198.85	73.02	-3,995.87	-8,992.65	9,139.40	8,906.48	232.92	39.239		
6,200.00	5,898.53	5,839.53	5,898.53	35.14	202.14	73.21	-3,995.87	-8,992.65	9,129.27	8,892.46	236.81	38.551		
6,300.00	5,992.90	5,933.90	5,992.90	35.74	205.43	73.40	-3,995.87	-8,992.65	9,119.25	8,878.55	240.70	37.887		
6,400.00	6,087.27	6,028.27	6,087.27	36.33	208.73	73.58	-3,995.87	-8,992.65	9,109.34	8,864.75	244.59	37.244		
6,500.00	6,181.65	6,122.65	6,181.65	36.93	212.02	73.77	-3,995.87	-8,992.65	9,099.54	8,851.06	248.48	36.621		
6,600.00	6,276.02	6,217.02	6,276.02	37.52	215.32	73.96	-3,995.87	-8,992.65	9,089.85	8,837.48	252.37	36.018		
6,700.00	6,370.39	6,311.39	6,370.39	38.12	218.61	74.15	-3,995.87	-8,992.65	9,080.27	8,824.00	256.26	35.433		
6,800.00	6,464.77	6,405.77	6,464.77	38.71	221.90	74.34	-3,995.87	-8,992.65	9,070.80	8,810.64	260.16	34.867		
6,900.00	6,559.14	6,500.14	6,559.14	39.31	225.20	74.32	-3,995.87	-8,992.65	9,061.44	8,797.39	264.05	34.317		
7,000.00	6,652.92	6,606.08	6,652.92	39.90	228.90	50.96	-3,995.87	-8,992.65	9,044.44	8,776.11	268.33	33.707		
7,100.00	6,744.00	6,685.00	6,744.00	40.44	231.65	34.40	-3,995.87	-8,992.65	9,012.63	8,741.02	271.61	33.182		
7,200.00	6,830.13	6,771.13	6,830.13	40.94	234.66	23.48	-3,995.87	-8,992.65	8,966.76	8,691.68	275.08	32.597		
7,300.00	6,909.19	6,850.19	6,909.19	41.37	237.42	15.74	-3,995.87	-8,992.65	8,907.92	8,629.69	278.23	32.017		
7,400.00	6,979.23	6,920.23	6,979.23	41.75	239.86	9.36	-3,995.87	-8,992.65	8,837.53	8,556.54	280.99	31.452		
7,500.00	7,038.53	6,979.53	7,038.53	42.08	241.93	2.88	-3,995.87	-8,992.65	8,757.30	8,474.01	283.29	30.913		
7,600.00	7,085.63	7,026.63	7,085.63	42.37	243.58	-5.64	-3,995.87	-8,992.65	8,669.21	8,384.12	285.09	30.408		
7,700.00	7,119.37	7,060.37	7,119.37	42.64	244.75	-20.46	-3,995.87	-8,992.65	8,575.42	8,289.07	286.35	29.948		
7,800.00	7,138.92	7,079.92	7,138.92	42.91	245.44	-51.87	-3,995.87	-8,992.65	8,478.25	8,191.21	287.04	29.537		
7,900.00	7,143.92	7,084.92	7,143.92	43.25	245.61	-91.59	-3,995.87	-8,992.65	8,380.11	8,092.95	287.16	29.183		
8,000.00	7,143.35	7,084.35	7,143.35	43.72	245.59	-91.57	-3,995.87	-8,992.65	8,282.17	7,995.10	287.07	28.850		
8,100.00	7,142.78	7,083.78	7,142.78	44.42	245.57	-91.55	-3,995.87	-8,992.65	8,184.28	7,897.28	287.00	28.517		
8,200.00	7,142.22	7,083.22	7,142.22	45.39	245.55	-91.53	-3,995.87	-8,992.65	8,086.45	7,799.51	286.94	28.182		
8,300.00	7,141.65	7,082.65	7,141.65	46.63	245.53	-91.51	-3,995.87	-8,992.65	7,988.67	7,701.79	286.88	27.847		
8,400.00	7,141.08	7,082.08	7,141.08	48.09	245.51	-91.49	-3,995.87	-8,992.65	7,890.94	7,604.11	286.84	27.510		
8,500.00	7,140.51	7,081.51	7,140.51	49.74	245.49	-91.47	-3,995.87	-8,992.65	7,793.28	7,506.47	286.80	27.173		
8,600.00	7,139.94	7,080.94	7,139.94	51.53	245.47	-91.45	-3,995.87	-8,992.65	7,695.67	7,408.88	286.78	26.834		
8,700.00	7,139.37	7,080.37	7,139.37	53.44	245.45	-91.43	-3,995.87	-8,992.65	7,598.12	7,311.35	286.78	26.495		
8,800.00	7,138.80	7,079.80	7,138.80	55.45	245.43	-91.41	-3,995.87	-8,992.65	7,500.64	7,213.86	286.78	26.154		
8,900.00	7,138.24	7,079.24	7,138.24	57.55	245.41	-91.39	-3,995.87	-8,992.65	7,403.23	7,116.42	286.81	25.812		
9,000.00	7,137.67	7,078.67	7,137.67	59.71	245.39	-91.38	-3,995.87	-8,992.65	7,305.88	7,019.04	286.85	25.470		
9,100.00	7,137.10	7,078.10	7,137.10	61.94	245.37	-91.36	-3,995.87	-8,992.65	7,208.61	6,921.71	286.90	25.125		
9,200.00	7,136.53	7,077.53	7,136.53	64.22	245.35	-91.34	-3,995.87	-8,992.65	7,111.42	6,824.43	286.98	24.780		
9,300.00	7,135.96	7,076.96	7,135.96	66.55	245.33	-91.32	-3,995.87	-8,992.65	7,014.30	6,727.22	287.08	24.433		
9,400.00	7,135.39	7,076.39	7,135.39	68.92	245.31	-91.30	-3,995.87	-8,992.65	6,917.26	6,630.07	287.20	24.086		
9,500.00	7,134.83	7,075.83	7,134.83	71.33	245.29	-91.28	-3,995.87	-8,992.65	6,820.31	6,532.98	287.34	23.736		
9,600.00	7,134.26	7,075.26	7,134.26	73.77	245.27	-91.26	-3,995.87	-8,992.65	6,723.45	6,435.95	287.50	23.386		
9,700.00	7,133.69	7,074.69	7,133.69	76.24	245.25	-91.24	-3,995.87	-8,992.65	6,626.69	6,338.99	287.70	23.034		
9,800.00	7,133.12	7,074.12	7,133.12	78.74	245.23	-91.22	-3,995.87	-8,992.65	6,530.02	6,242.10	287.92	22.680		
9,900.00	7,132.55	7,073.55	7,132.55	81.27	245.21	-91.20	-3,995.87	-8,992.65	6,433.45	6,145.28	288.17	22.326		
10,000.00	7,131.98	7,072.98	7,131.98	83.81	245.19	-91.18	-3,995.87	-8,992.65	6,336.99	6,048.54	288.45	21.969		
10,100.00	7,131.42	7,072.42	7,131.42	86.38	245.17	-91.16	-3,995.87	-8,992.65	6,240.64	5,951.88	288.76	21.612		
10,200.00	7,130.85	7,071.85	7,130.85	88.96	245.16	-91.14	-3,995.87	-8,992.65	6,144.41	5,855.29	289.11	21.253		
10,300.00	7,130.28	7,071.28	7,130.28	91.56	245.14	-91.12	-3,995.87	-8,992.65	6,048.29	5,758.79	289.50	20.892		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 41-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,070.71	7,129.71	94.18	245.12	-91.10	-3,995.87	-8,992.65	5,952.31	5,662.38	289.93	20.530		
10,500.00	7,129.14	7,070.14	7,129.14	96.81	245.10	-91.09	-3,995.87	-8,992.65	5,856.46	5,566.06	290.40	20.167		
10,600.00	7,128.57	7,069.57	7,128.57	99.45	245.08	-91.07	-3,995.87	-8,992.65	5,760.76	5,469.83	290.92	19.802		
10,700.00	7,128.00	7,069.00	7,128.00	102.11	245.06	-91.05	-3,995.87	-8,992.65	5,665.20	5,373.71	291.49	19.436		
10,800.00	7,127.44	7,068.44	7,127.44	104.77	245.04	-91.03	-3,995.87	-8,992.65	5,569.79	5,277.69	292.10	19.068		
10,900.00	7,126.87	7,067.87	7,126.87	107.45	245.02	-91.01	-3,995.87	-8,992.65	5,474.55	5,181.78	292.77	18.699		
11,000.00	7,126.30	7,067.30	7,126.30	110.13	245.00	-90.99	-3,995.87	-8,992.65	5,379.49	5,085.99	293.49	18.329		
11,100.00	7,125.73	7,066.73	7,125.73	112.82	244.98	-90.97	-3,995.87	-8,992.65	5,284.60	4,990.33	294.28	17.958		
11,200.00	7,125.16	7,066.16	7,125.16	115.53	244.96	-90.95	-3,995.87	-8,992.65	5,189.91	4,894.79	295.12	17.586		
11,300.00	7,124.59	7,065.59	7,124.59	118.24	244.94	-90.93	-3,995.87	-8,992.65	5,095.42	4,799.39	296.03	17.212		
11,400.00	7,124.03	7,065.03	7,124.03	120.95	244.92	-90.91	-3,995.87	-8,992.65	5,001.14	4,704.13	297.01	16.838		
11,500.00	7,123.46	7,064.46	7,123.46	123.67	244.90	-90.89	-3,995.87	-8,992.65	4,907.09	4,609.03	298.06	16.463		
11,600.00	7,122.89	7,063.89	7,122.89	126.40	244.88	-90.87	-3,995.87	-8,992.65	4,813.28	4,514.09	299.19	16.087		
11,700.00	7,122.32	7,063.32	7,122.32	129.14	244.86	-90.85	-3,995.87	-8,992.65	4,719.73	4,419.32	300.40	15.711		
11,800.00	7,121.75	7,062.75	7,121.75	131.88	244.84	-90.83	-3,995.87	-8,992.65	4,626.44	4,324.74	301.70	15.335		
11,900.00	7,121.18	7,062.18	7,121.18	134.62	244.82	-90.81	-3,995.87	-8,992.65	4,533.44	4,230.36	303.08	14.958		
12,000.00	7,120.61	7,061.61	7,120.61	137.37	244.80	-90.80	-3,995.87	-8,992.65	4,440.75	4,136.19	304.56	14.581		
12,100.00	7,120.05	7,061.05	7,120.05	140.12	244.78	-90.78	-3,995.87	-8,992.65	4,348.38	4,042.24	306.14	14.204		
12,200.00	7,119.48	7,060.48	7,119.48	142.88	244.76	-90.76	-3,995.87	-8,992.65	4,256.35	3,948.54	307.81	13.828		
12,300.00	7,118.91	7,059.91	7,118.91	145.64	244.74	-90.74	-3,995.87	-8,992.65	4,164.69	3,855.09	309.60	13.452		
12,400.00	7,118.34	7,059.34	7,118.34	148.41	244.72	-90.72	-3,995.87	-8,992.65	4,073.42	3,761.92	311.51	13.077		
12,500.00	7,117.77	7,058.77	7,117.77	151.18	244.70	-90.70	-3,995.87	-8,992.65	3,982.58	3,669.05	313.53	12.702		
12,600.00	7,117.20	7,058.20	7,117.20	153.95	244.68	-90.68	-3,995.87	-8,992.65	3,892.18	3,576.50	315.68	12.329		
12,700.00	7,116.64	7,057.64	7,116.64	156.73	244.66	-90.66	-3,995.87	-8,992.65	3,802.26	3,484.29	317.97	11.958		
12,800.00	7,116.07	7,057.07	7,116.07	159.50	244.64	-90.64	-3,995.87	-8,992.65	3,712.86	3,392.46	320.39	11.588		
12,900.00	7,115.50	7,056.50	7,115.50	162.29	244.62	-90.62	-3,995.87	-8,992.65	3,624.01	3,301.04	322.97	11.221		
13,000.00	7,114.93	7,055.93	7,114.93	165.07	244.60	-90.60	-3,995.87	-8,992.65	3,535.75	3,210.06	325.70	10.856		
13,100.00	7,114.36	7,055.36	7,114.36	167.86	244.58	-90.58	-3,995.87	-8,992.65	3,448.14	3,119.55	328.59	10.494		
13,200.00	7,113.79	7,054.79	7,113.79	170.64	244.56	-90.56	-3,995.87	-8,992.65	3,361.22	3,029.56	331.66	10.134		
13,300.00	7,113.22	7,054.22	7,113.22	173.44	244.54	-90.54	-3,995.87	-8,992.65	3,275.05	2,940.13	334.91	9.779		
13,400.00	7,112.66	7,053.66	7,112.66	176.23	244.52	-90.52	-3,995.87	-8,992.65	3,189.68	2,851.32	338.36	9.427		
13,500.00	7,112.09	7,053.09	7,112.09	179.02	244.50	-90.50	-3,995.87	-8,992.65	3,105.19	2,763.18	342.01	9.079		
13,600.00	7,111.52	7,052.52	7,111.52	181.82	244.48	-90.49	-3,995.87	-8,992.65	3,021.64	2,675.78	345.86	8.736		
13,700.00	7,110.95	7,051.95	7,110.95	184.62	244.46	-90.47	-3,995.87	-8,992.65	2,939.12	2,589.18	349.95	8.399		
13,800.00	7,110.38	7,051.38	7,110.38	187.42	244.44	-90.45	-3,995.87	-8,992.65	2,857.72	2,503.46	354.26	8.067		
13,900.00	7,109.81	7,050.81	7,109.81	190.22	244.42	-90.43	-3,995.87	-8,992.65	2,777.53	2,418.72	358.81	7.741		
14,000.00	7,109.25	7,050.25	7,109.25	193.03	244.40	-90.41	-3,995.87	-8,992.65	2,698.67	2,335.05	363.62	7.422		
14,100.00	7,108.68	7,049.68	7,108.68	195.84	244.38	-90.39	-3,995.87	-8,992.65	2,621.24	2,252.56	368.69	7.110		
14,200.00	7,108.11	7,049.11	7,108.11	198.64	244.36	-90.37	-3,995.87	-8,992.65	2,545.40	2,171.38	374.02	6.805		
14,300.00	7,107.54	7,048.54	7,107.54	201.45	244.34	-90.35	-3,995.87	-8,992.65	2,471.27	2,091.64	379.63	6.510		
14,400.00	7,106.97	7,047.97	7,106.97	204.26	244.32	-90.33	-3,995.87	-8,992.65	2,399.02	2,013.51	385.51	6.223		
14,500.00	7,106.40	7,047.40	7,106.40	207.07	244.30	-90.31	-3,995.87	-8,992.65	2,328.82	1,937.16	391.66	5.946		
14,600.00	7,105.83	7,046.83	7,105.83	209.89	244.28	-90.29	-3,995.87	-8,992.65	2,260.87	1,862.78	398.08	5.679		
14,700.00	7,105.27	7,046.27	7,105.27	212.70	244.26	-90.27	-3,995.87	-8,992.65	2,195.37	1,790.61	404.76	5.424		
14,800.00	7,104.70	7,045.70	7,104.70	215.52	244.24	-90.25	-3,995.87	-8,992.65	2,132.55	1,720.87	411.67	5.180		
14,900.00	7,104.13	7,045.13	7,104.13	218.33	244.22	-90.23	-3,995.87	-8,992.65	2,072.65	1,653.85	418.80	4.949		
15,000.00	7,103.56	7,044.56	7,103.56	221.15	244.20	-90.21	-3,995.87	-8,992.65	2,015.93	1,589.83	426.10	4.731		
15,100.00	7,102.99	7,043.99	7,102.99	223.97	244.18	-90.20	-3,995.87	-8,992.65	1,962.68	1,529.15	433.52	4.527		
15,200.00	7,102.42	7,043.42	7,102.42	226.79	244.16	-90.18	-3,995.87	-8,992.65	1,913.17	1,472.15	441.01	4.338		
15,274.57	7,102.00	7,043.00	7,102.00	228.89	244.15	-90.16	-3,995.87	-8,992.65	1,878.87	1,432.27	446.60	4.207	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 6-2-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	683.60	715.34	3.28	4.37	-106.64	-2,670.09	-8,933.32	9,351.22					
100.00	100.00	724.00	755.32	3.28	4.49	-106.67	-2,674.07	-8,929.05	9,343.88	9,336.13	7.75	1,206.015		
200.00	200.00	724.00	755.32	3.34	4.49	-106.67	-2,674.07	-8,929.05	9,337.40	9,329.61	7.79	1,198.881		
300.00	299.98	724.00	755.32	3.44	4.49	69.48	-2,674.07	-8,929.05	9,331.37	9,323.49	7.88	1,183.853		
400.00	399.84	769.48	800.26	3.59	4.64	69.58	-2,679.53	-8,924.75	9,324.46	9,316.29	8.17	1,140.735		
500.00	499.45	818.00	848.05	3.79	4.81	69.68	-2,687.07	-8,921.09	9,317.97	9,309.43	8.53	1,091.947		
600.00	598.70	818.00	848.05	4.03	4.81	69.83	-2,687.07	-8,921.09	9,310.50	9,301.73	8.77	1,061.483		
700.00	697.47	818.00	848.05	4.31	4.81	69.97	-2,687.07	-8,921.09	9,302.89	9,293.84	9.05	1,027.740		
800.00	795.62	818.00	848.05	4.64	4.81	70.11	-2,687.07	-8,921.09	9,295.17	9,285.80	9.37	991.799		
900.00	893.06	818.00	848.05	5.00	4.81	70.26	-2,687.07	-8,921.09	9,287.33	9,277.60	9.73	954.553		
1,000.00	989.64	859.84	889.15	5.40	4.96	70.43	-2,694.56	-8,918.83	9,278.76	9,268.49	10.27	903.192		
1,100.00	1,085.27	912.00	940.33	5.83	5.15	70.63	-2,704.51	-8,917.38	9,270.68	9,259.79	10.89	850.991		
1,200.00	1,179.88	912.00	940.33	6.29	5.15	70.74	-2,704.51	-8,917.38	9,261.62	9,250.27	11.35	815.988		
1,300.00	1,274.26	912.00	940.33	6.78	5.15	70.74	-2,704.51	-8,917.38	9,253.38	9,241.55	11.83	782.191		
1,400.00	1,368.63	912.00	940.33	7.28	5.15	70.74	-2,704.51	-8,917.38	9,246.22	9,233.89	12.33	750.081		
1,500.00	1,463.00	912.00	940.33	7.80	5.15	70.74	-2,704.51	-8,917.38	9,240.13	9,227.29	12.84	719.780		
1,600.00	1,557.38	912.00	940.33	8.33	5.15	70.74	-2,704.51	-8,917.38	9,235.12	9,221.76	13.36	691.313		
1,700.00	1,651.75	962.26	989.62	8.87	5.33	70.78	-2,714.34	-8,917.58	9,230.24	9,216.16	14.08	655.507		
1,800.00	1,746.12	1,006.00	1,032.51	9.41	5.50	70.82	-2,722.76	-8,919.16	9,227.11	9,212.32	14.79	623.923		
1,900.00	1,840.49	1,006.00	1,032.51	9.96	5.50	70.82	-2,722.76	-8,919.16	9,224.33	9,209.00	15.33	601.697		
2,000.00	1,934.87	1,006.00	1,032.51	10.52	5.50	70.82	-2,722.76	-8,919.16	9,222.65	9,206.77	15.88	580.894		
2,100.00	2,029.24	1,006.00	1,032.51	11.08	5.50	70.82	-2,722.76	-8,919.16	9,222.04	9,205.62	16.43	561.424		
2,105.72	2,034.64	1,006.00	1,032.51	11.11	5.50	70.82	-2,722.76	-8,919.16	9,222.04	9,205.58	16.46	560.347		
2,200.00	2,123.61	1,006.00	1,032.51	11.64	5.50	70.82	-2,722.76	-8,919.16	9,222.52	9,205.54	16.98	543.196		
2,300.00	2,217.99	1,060.11	1,085.58	12.21	5.70	70.87	-2,732.71	-8,922.74	9,223.24	9,205.49	17.74	519.796		
2,400.00	2,312.36	1,101.00	1,125.68	12.78	5.85	70.91	-2,739.72	-8,926.53	9,225.35	9,206.89	18.46	499.679		
2,500.00	2,406.73	1,101.00	1,125.68	13.35	5.85	70.91	-2,739.72	-8,926.53	9,228.07	9,209.05	19.02	485.219		
2,600.00	2,501.10	1,101.00	1,125.68	13.93	5.85	70.91	-2,739.72	-8,926.53	9,231.87	9,212.29	19.57	471.633		
2,700.00	2,595.48	1,101.00	1,125.68	14.51	5.85	70.91	-2,739.72	-8,926.53	9,236.75	9,216.62	20.13	458.858		
2,800.00	2,689.85	1,152.14	1,175.68	15.08	6.05	70.97	-2,748.69	-8,932.35	9,241.95	9,221.06	20.90	442.279		
2,900.00	2,784.22	1,197.00	1,219.30	15.66	6.23	71.02	-2,757.34	-8,938.28	9,248.55	9,226.91	21.64	427.384		
3,000.00	2,878.60	1,197.00	1,219.30	16.25	6.23	71.02	-2,757.34	-8,938.28	9,255.64	9,233.45	22.19	417.049		
3,100.00	2,972.97	1,197.00	1,219.30	16.83	6.23	71.02	-2,757.34	-8,938.28	9,263.81	9,241.06	22.74	407.296		
3,200.00	3,067.34	1,197.00	1,219.30	17.41	6.23	71.02	-2,757.34	-8,938.28	9,273.04	9,249.75	23.29	398.085		
3,300.00	3,161.72	1,249.85	1,270.37	18.00	6.45	71.07	-2,768.39	-8,946.19	9,282.63	9,258.55	24.08	385.435		
3,400.00	3,256.09	1,292.00	1,310.86	18.58	6.64	71.10	-2,777.80	-8,953.16	9,293.45	9,268.62	24.83	374.335		
3,500.00	3,350.46	1,292.00	1,310.86	19.17	6.64	71.10	-2,777.80	-8,953.16	9,304.88	9,279.51	25.37	366.769		
3,600.00	3,444.83	1,292.00	1,310.86	19.75	6.64	71.10	-2,777.80	-8,953.16	9,317.37	9,291.46	25.91	359.604		
3,700.00	3,539.21	1,332.16	1,349.22	20.34	6.84	71.13	-2,787.27	-8,960.36	9,330.49	9,303.85	26.65	350.172		
3,800.00	3,633.58	1,387.00	1,401.23	20.93	7.12	71.17	-2,800.97	-8,971.05	9,344.86	9,317.39	27.47	340.213		
3,900.00	3,727.95	1,387.00	1,401.23	21.52	7.12	71.17	-2,800.97	-8,971.05	9,359.50	9,331.50	28.00	334.273		
4,000.00	3,822.33	1,416.95	1,429.50	22.11	7.29	71.20	-2,808.77	-8,977.15	9,375.13	9,346.43	28.70	326.691		
4,100.00	3,916.70	1,481.00	1,489.84	22.70	7.66	71.24	-2,825.91	-8,990.09	9,391.11	9,361.53	29.58	317.492		
4,200.00	4,011.07	1,533.52	1,539.12	23.29	7.99	71.27	-2,840.60	-9,000.76	9,407.53	9,377.11	30.42	309.224		
4,300.00	4,105.44	1,691.68	1,686.39	23.88	9.09	71.33	-2,888.84	-9,032.32	9,424.30	9,392.35	31.96	294.913		
4,400.00	4,199.82	1,760.00	1,749.48	24.47	9.60	71.34	-2,911.64	-9,045.23	9,440.64	9,407.69	32.95	286.500		
4,500.00	4,294.19	2,467.46	2,386.18	25.06	15.99	71.08	-3,202.91	-9,140.08	9,453.36	9,413.90	39.46	239.568		
4,600.00	4,388.56	2,513.00	2,427.24	25.65	16.42	71.06	-3,222.02	-9,144.89	9,463.84	9,423.43	40.41	234.180		
4,700.00	4,482.94	2,513.00	2,427.24	26.24	16.42	71.06	-3,222.02	-9,144.89	9,475.01	9,434.06	40.95	231.359		
4,800.00	4,577.31	2,575.41	2,483.51	26.83	17.01	71.04	-3,248.02	-9,152.16	9,486.73	9,444.67	42.05	225.591		
4,900.00	4,671.68	2,608.00	2,512.91	27.43	17.33	71.03	-3,261.46	-9,156.24	9,499.13	9,456.24	42.88	221.522		
5,000.00	4,766.05	2,666.97	2,566.06	28.02	17.90	71.00	-3,285.83	-9,163.95	9,512.06	9,468.11	43.95	216.436		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 6-2-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWDD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	2,703.00	2,598.44	28.61	18.24	70.99	-3,300.85	-9,168.80	9,525.54	9,480.73	44.80	212.600		
5,200.00	4,954.80	2,740.46	2,631.99	29.20	18.62	70.97	-3,316.69	-9,174.02	9,539.66	9,493.98	45.68	208.835		
5,300.00	5,049.17	2,798.00	2,683.12	29.80	19.20	70.95	-3,341.66	-9,182.52	9,554.66	9,507.92	46.74	204.408		
5,400.00	5,143.55	2,798.00	2,683.12	30.39	19.20	70.95	-3,341.66	-9,182.52	9,570.10	9,522.84	47.26	202.510		
5,500.00	5,237.92	3,082.00	2,934.59	30.99	22.12	70.79	-3,467.17	-9,222.99	9,584.97	9,534.43	50.54	189.660		
5,600.00	5,332.29	3,140.01	2,986.75	31.58	22.70	70.77	-3,491.17	-9,231.22	9,599.09	9,547.49	51.60	186.011		
5,700.00	5,426.66	3,467.22	3,278.76	32.17	26.03	70.61	-3,632.69	-9,273.19	9,612.33	9,557.05	55.29	173.867		
5,800.00	5,521.04	3,521.63	3,327.33	32.77	26.59	70.59	-3,656.34	-9,279.65	9,624.74	9,568.40	56.34	170.826		
5,900.00	5,615.41	3,576.90	3,376.62	33.36	27.15	70.56	-3,680.41	-9,286.40	9,637.55	9,580.14	57.41	167.886		
6,000.00	5,709.78	3,800.03	3,577.43	33.96	29.39	70.47	-3,773.70	-9,313.66	9,649.62	9,589.57	60.05	160.683		
6,100.00	5,804.16	3,831.00	3,605.48	34.55	29.69	70.46	-3,786.26	-9,317.50	9,661.74	9,600.87	60.87	158.730		
6,200.00	5,898.53	3,893.74	3,662.16	35.14	30.31	70.44	-3,811.93	-9,325.56	9,674.37	9,612.38	61.98	156.077		
6,300.00	5,992.90	3,925.00	3,690.33	35.74	30.62	70.43	-3,824.86	-9,329.65	9,687.50	9,624.70	62.80	154.260		
6,400.00	6,087.27	3,925.00	3,690.33	36.33	30.62	70.43	-3,824.86	-9,329.65	9,701.56	9,638.25	63.31	153.235		
6,500.00	6,181.65	3,980.66	3,740.00	36.93	31.21	70.40	-3,848.76	-9,337.26	9,715.94	9,651.57	64.38	150.926		
6,600.00	6,276.02	4,020.00	3,774.58	37.52	31.62	70.38	-3,866.65	-9,342.97	9,731.40	9,666.13	65.27	149.090		
6,700.00	6,370.39	4,041.51	3,793.31	38.12	31.86	70.36	-3,876.72	-9,346.14	9,747.48	9,681.49	66.00	147.695		
6,800.00	6,464.77	6,799.24	6,386.27	38.71	51.92	71.45	-4,620.94	-9,542.84	9,756.59	9,671.34	85.25	114.447		
6,900.00	6,559.14	6,855.79	6,442.82	39.31	52.08	71.33	-4,621.82	-9,543.19	9,746.59	9,660.50	86.08	113.225		
7,000.00	6,652.92	6,912.16	6,499.17	39.90	52.24	47.80	-4,622.85	-9,543.72	9,729.39	9,642.50	86.89	111.973		
7,100.00	6,744.00	6,967.16	6,554.15	40.44	52.39	30.99	-4,624.00	-9,544.42	9,697.91	9,610.28	87.63	110.668		
7,200.00	6,830.13	7,037.00	6,623.97	40.94	52.59	19.76	-4,625.66	-9,545.56	9,652.87	9,564.55	88.33	109.287		
7,300.00	6,909.19	7,091.20	6,678.15	41.37	52.74	11.57	-4,626.97	-9,546.57	9,595.15	9,506.25	88.90	107.929		
7,400.00	6,979.23	7,166.69	6,753.60	41.75	52.96	4.57	-4,628.61	-9,548.00	9,525.98	9,436.54	89.44	106.507		
7,500.00	7,038.53	7,230.96	6,817.85	42.08	53.15	-2.79	-4,629.83	-9,549.25	9,447.01	9,357.15	89.86	105.135		
7,600.00	7,085.63	7,282.49	6,869.36	42.37	53.29	-12.51	-4,630.68	-9,550.26	9,360.20	9,270.05	90.14	103.836		
7,700.00	7,119.37	7,320.05	6,906.91	42.64	53.40	-28.23	-4,631.23	-9,551.01	9,267.71	9,177.41	90.30	102.630		
7,800.00	7,138.92	7,342.74	6,929.59	42.91	53.47	-55.67	-4,631.54	-9,551.46	9,171.85	9,081.51	90.34	101.528		
7,900.00	7,143.92	7,350.14	6,936.99	43.25	53.49	-86.12	-4,631.64	-9,551.61	9,075.00	8,984.73	90.27	100.535		
8,000.00	7,143.35	7,351.67	6,938.52	43.72	53.49	-86.16	-4,631.66	-9,551.64	8,978.36	8,888.19	90.17	99.573		
8,100.00	7,142.78	7,353.20	6,940.05	44.42	53.50	-86.20	-4,631.67	-9,551.67	8,881.80	8,791.71	90.08	98.596		
8,200.00	7,142.22	7,354.74	6,941.59	45.39	53.50	-86.23	-4,631.69	-9,551.71	8,785.31	8,695.30	90.01	97.601		
8,300.00	7,141.65	7,351.39	6,938.24	46.63	53.49	-86.15	-4,631.66	-9,551.65	8,688.91	8,598.97	89.94	96.605		
8,400.00	7,141.08	7,352.77	6,939.62	48.09	53.49	-86.18	-4,631.67	-9,551.67	8,592.59	8,502.68	89.90	95.576		
8,500.00	7,140.51	7,354.15	6,941.00	49.74	53.50	-86.22	-4,631.69	-9,551.70	8,496.34	8,406.46	89.88	94.528		
8,600.00	7,139.94	7,355.54	6,942.39	51.53	53.50	-86.25	-4,631.71	-9,551.73	8,400.19	8,310.31	89.88	93.461		
8,700.00	7,139.37	7,356.94	6,943.78	53.44	53.50	-86.29	-4,631.73	-9,551.76	8,304.13	8,214.23	89.90	92.374		
8,800.00	7,138.80	7,358.34	6,945.18	55.45	53.51	-86.32	-4,631.75	-9,551.79	8,208.16	8,118.22	89.94	91.268		
8,900.00	7,138.24	7,359.74	6,946.59	57.55	53.51	-86.36	-4,631.76	-9,551.82	8,112.29	8,022.29	90.00	90.140		
9,000.00	7,137.67	7,361.15	6,948.00	59.71	53.52	-86.39	-4,631.78	-9,551.85	8,016.52	7,926.44	90.08	88.992		
9,100.00	7,137.10	7,362.57	6,949.41	61.94	53.52	-86.43	-4,631.80	-9,551.88	7,920.85	7,830.66	90.19	87.822		
9,200.00	7,136.53	7,363.99	6,950.83	64.22	53.52	-86.46	-4,631.82	-9,551.91	7,825.29	7,734.96	90.33	86.631		
9,300.00	7,135.96	7,365.41	6,952.26	66.55	53.53	-86.50	-4,631.83	-9,551.94	7,729.84	7,639.35	90.49	85.417		
9,400.00	7,135.39	7,366.85	6,953.69	68.92	53.53	-86.53	-4,631.85	-9,551.97	7,634.51	7,543.82	90.69	84.182		
9,500.00	7,134.83	7,368.28	6,955.13	71.33	53.53	-86.57	-4,631.87	-9,552.00	7,539.30	7,448.39	90.92	82.925		
9,600.00	7,134.26	7,369.73	6,956.57	73.77	53.54	-86.60	-4,631.89	-9,552.03	7,444.22	7,353.04	91.18	81.646		
9,700.00	7,133.69	7,371.17	6,958.02	76.24	53.54	-86.64	-4,631.91	-9,552.06	7,349.26	7,257.79	91.47	80.345		
9,800.00	7,133.12	7,372.63	6,959.47	78.74	53.55	-86.67	-4,631.92	-9,552.09	7,254.44	7,162.64	91.80	79.022		
9,900.00	7,132.55	7,374.09	6,960.93	81.27	53.55	-86.71	-4,631.94	-9,552.12	7,159.77	7,067.60	92.17	77.679		
10,000.00	7,131.98	7,375.55	6,962.39	83.81	53.55	-86.75	-4,631.96	-9,552.15	7,065.23	6,972.65	92.58	76.315		
10,100.00	7,131.42	7,377.02	6,963.86	86.38	53.56	-86.78	-4,631.98	-9,552.18	6,970.85	6,877.82	93.03	74.932		
10,200.00	7,130.85	7,378.50	6,965.34	88.96	53.56	-86.82	-4,632.00	-9,552.21	6,876.63	6,783.11	93.52	73.529		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HOOD 6-2-20(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWDD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,379.98	6,966.82	91.56	53.57	-86.86	-4,632.01	-9,552.24	6,782.58	6,688.52	94.06	72.109		
10,400.00	7,129.71	7,381.46	6,968.31	94.18	53.57	-86.89	-4,632.03	-9,552.28	6,688.69	6,594.05	94.65	70.671		
10,500.00	7,129.14	7,382.96	6,969.80	96.81	53.57	-86.93	-4,632.05	-9,552.31	6,594.99	6,499.71	95.28	69.218		
10,600.00	7,128.57	7,384.45	6,971.30	99.45	53.58	-86.97	-4,632.07	-9,552.34	6,501.47	6,405.51	95.96	67.750		
10,700.00	7,128.00	7,385.96	6,972.80	102.11	53.58	-87.00	-4,632.09	-9,552.37	6,408.15	6,311.45	96.70	66.269		
10,800.00	7,127.44	7,387.47	6,974.31	104.77	53.59	-87.04	-4,632.10	-9,552.40	6,315.03	6,217.54	97.49	64.777		
10,900.00	7,126.87	7,388.98	6,975.82	107.45	53.59	-87.08	-4,632.12	-9,552.44	6,222.13	6,123.79	98.34	63.275		
11,000.00	7,126.30	7,390.51	6,977.34	110.13	53.60	-87.12	-4,632.14	-9,552.47	6,129.44	6,030.20	99.24	61.764		
11,100.00	7,125.73	7,392.03	6,978.87	112.82	53.60	-87.15	-4,632.16	-9,552.50	6,036.99	5,936.79	100.20	60.247		
11,200.00	7,125.16	7,393.57	6,980.40	115.53	53.60	-87.19	-4,632.17	-9,552.53	5,944.79	5,843.56	101.23	58.725		
11,300.00	7,124.59	7,395.11	6,981.94	118.24	53.61	-87.23	-4,632.19	-9,552.57	5,852.84	5,750.52	102.32	57.201		
11,400.00	7,124.03	7,396.65	6,983.49	120.95	53.61	-87.27	-4,632.21	-9,552.60	5,761.16	5,657.68	103.48	55.675		
11,500.00	7,123.46	7,398.20	6,985.04	123.67	53.62	-87.31	-4,632.23	-9,552.63	5,669.76	5,565.06	104.70	54.151		
11,600.00	7,122.89	7,399.76	6,986.60	126.40	53.62	-87.34	-4,632.25	-9,552.67	5,578.65	5,472.65	106.00	52.629		
11,700.00	7,122.32	7,401.32	6,988.16	129.14	53.63	-87.38	-4,632.26	-9,552.70	5,487.86	5,380.49	107.37	51.112		
11,800.00	7,121.75	7,402.89	6,989.73	131.88	53.63	-87.42	-4,632.28	-9,552.74	5,397.39	5,288.57	108.81	49.603		
11,900.00	7,121.18	7,404.47	6,991.30	134.62	53.63	-87.46	-4,632.30	-9,552.77	5,307.25	5,196.92	110.33	48.101		
12,000.00	7,120.61	7,406.05	6,992.89	137.37	53.64	-87.50	-4,632.32	-9,552.80	5,217.48	5,105.55	111.94	46.611		
12,100.00	7,120.05	7,407.64	6,994.47	140.12	53.64	-87.54	-4,632.34	-9,552.84	5,128.09	5,014.47	113.62	45.133		
12,200.00	7,119.48	7,409.23	6,996.07	142.88	53.65	-87.58	-4,632.35	-9,552.87	5,039.10	4,923.70	115.39	43.669		
12,300.00	7,118.91	7,410.84	6,997.67	145.64	53.65	-87.62	-4,632.37	-9,552.91	4,950.52	4,833.27	117.25	42.221		
12,400.00	7,118.34	7,412.44	6,999.28	148.41	53.66	-87.66	-4,632.39	-9,552.94	4,862.39	4,743.18	119.21	40.790		
12,500.00	7,117.77	7,414.06	7,000.89	151.18	53.66	-87.70	-4,632.41	-9,552.98	4,774.72	4,653.47	121.25	39.379		
12,600.00	7,117.20	7,415.68	7,002.51	153.95	53.66	-87.74	-4,632.42	-9,553.02	4,687.55	4,564.15	123.40	37.988		
12,700.00	7,116.64	7,417.30	7,004.13	156.73	53.67	-87.78	-4,632.44	-9,553.05	4,600.90	4,475.26	125.64	36.619		
12,800.00	7,116.07	7,418.94	7,005.77	159.50	53.67	-87.82	-4,632.46	-9,553.09	4,514.80	4,386.81	127.99	35.274		
12,900.00	7,115.50	7,420.58	7,007.41	162.29	53.68	-87.86	-4,632.48	-9,553.12	4,429.28	4,298.83	130.45	33.954		
13,000.00	7,114.93	7,422.22	7,009.05	165.07	53.68	-87.90	-4,632.49	-9,553.16	4,344.39	4,211.36	133.02	32.659		
13,100.00	7,114.36	7,423.88	7,010.71	167.86	53.69	-87.94	-4,632.51	-9,553.20	4,260.14	4,124.43	135.71	31.392		
13,200.00	7,113.79	7,425.54	7,012.36	170.64	53.69	-87.98	-4,632.53	-9,553.23	4,176.59	4,038.08	138.51	30.153		
13,300.00	7,113.22	7,427.20	7,014.03	173.44	53.70	-88.02	-4,632.55	-9,553.27	4,093.78	3,952.34	141.44	28.943		
13,400.00	7,112.66	7,428.88	7,015.70	176.23	53.70	-88.06	-4,632.57	-9,553.31	4,011.75	3,867.25	144.50	27.763		
13,500.00	7,112.09	7,430.56	7,017.38	179.02	53.71	-88.10	-4,632.58	-9,553.34	3,930.55	3,782.86	147.69	26.613		
13,600.00	7,111.52	7,432.24	7,019.07	181.82	53.71	-88.15	-4,632.60	-9,553.38	3,850.24	3,699.22	151.02	25.495		
13,700.00	7,110.95	7,433.94	7,020.76	184.62	53.71	-88.19	-4,632.62	-9,553.42	3,770.87	3,616.38	154.48	24.409		
13,800.00	7,110.38	7,435.64	7,022.46	187.42	53.72	-88.23	-4,632.64	-9,553.46	3,692.50	3,534.40	158.09	23.356		
13,900.00	7,109.81	7,437.34	7,024.17	190.22	53.72	-88.27	-4,632.65	-9,553.50	3,615.19	3,453.34	161.85	22.337		
14,000.00	7,109.25	7,439.06	7,025.88	193.03	53.73	-88.31	-4,632.67	-9,553.53	3,539.02	3,373.27	165.76	21.351		
14,100.00	7,108.68	7,440.78	7,027.60	195.84	53.73	-88.36	-4,632.69	-9,553.57	3,464.07	3,294.25	169.82	20.399		
14,200.00	7,108.11	7,442.51	7,029.33	198.64	53.74	-88.40	-4,632.70	-9,553.61	3,390.40	3,216.37	174.04	19.481		
14,300.00	7,107.54	7,444.25	7,031.07	201.45	53.74	-88.44	-4,632.72	-9,553.65	3,318.11	3,139.70	178.41	18.598		
14,400.00	7,106.97	7,445.99	7,032.81	204.26	53.75	-88.49	-4,632.74	-9,553.69	3,247.30	3,064.35	182.95	17.750		
14,500.00	7,106.40	7,447.74	7,034.56	207.07	53.75	-88.53	-4,632.76	-9,553.73	3,178.05	2,990.40	187.64	16.937		
14,600.00	7,105.83	7,449.50	7,036.32	209.89	53.76	-88.57	-4,632.77	-9,553.77	3,110.47	2,917.97	192.49	16.159		
14,700.00	7,105.27	7,451.26	7,038.08	212.70	53.76	-88.62	-4,632.79	-9,553.81	3,044.68	2,847.17	197.50	15.416		
14,800.00	7,104.70	7,453.03	7,039.85	215.52	53.77	-88.66	-4,632.81	-9,553.85	2,980.78	2,778.12	202.67	14.708		
14,900.00	7,104.13	7,454.81	7,041.63	218.33	53.77	-88.70	-4,632.83	-9,553.89	2,918.92	2,710.94	207.98	14.035		
15,000.00	7,103.56	7,456.60	7,043.42	221.15	53.78	-88.75	-4,632.84	-9,553.93	2,859.22	2,645.79	213.43	13.397		
15,100.00	7,102.99	7,458.40	7,045.21	223.97	53.78	-88.79	-4,632.86	-9,553.97	2,801.81	2,582.80	219.00	12.793		
15,200.00	7,102.42	7,460.20	7,047.02	226.79	53.79	-88.84	-4,632.88	-9,554.01	2,746.84	2,522.14	224.70	12.225		
15,274.57	7,102.00	7,461.55	7,048.36	228.89	53.79	-88.87	-4,632.89	-9,554.04	2,707.53	2,478.52	229.01	11.823 CC, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 1 21-2(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	62.00	3.28	3.28	-128.60	-3,923.06	-4,914.42	6,288.55					
100.00	100.00	48.46	110.46	3.28	3.28	-128.60	-3,922.91	-4,914.50	6,288.21	6,281.64	6.57	957.620		
200.00	200.00	177.35	239.33	3.34	3.33	-128.58	-3,921.13	-4,915.26	6,287.82	6,281.15	6.67	943.329		
300.00	299.98	274.62	336.59	3.44	3.43	47.52	-3,919.25	-4,915.96	6,285.99	6,279.12	6.87	915.628		
400.00	399.84	372.60	434.55	3.59	3.57	47.63	-3,917.68	-4,916.52	6,281.91	6,274.75	7.16	877.470		
500.00	499.45	475.95	537.89	3.79	3.76	47.80	-3,916.23	-4,916.91	6,275.45	6,267.90	7.55	830.841		
600.00	598.70	592.83	654.76	4.03	4.03	48.04	-3,914.65	-4,917.07	6,266.52	6,258.46	8.06	777.171		
700.00	697.47	682.12	744.04	4.31	4.26	48.31	-3,913.51	-4,917.01	6,255.18	6,246.61	8.58	729.336		
800.00	795.62	781.29	843.21	4.64	4.55	48.65	-3,912.47	-4,916.91	6,241.67	6,232.49	9.17	680.320		
900.00	893.06	869.32	931.23	5.00	4.81	49.04	-3,911.55	-4,916.84	6,225.94	6,216.15	9.79	635.898		
1,000.00	989.64	959.02	1,020.93	5.40	5.10	49.48	-3,910.69	-4,916.89	6,208.17	6,197.71	10.46	593.719		
1,100.00	1,085.27	1,059.72	1,121.62	5.83	5.44	50.01	-3,909.72	-4,916.98	6,188.27	6,177.07	11.20	552.536		
1,200.00	1,179.88	1,151.80	1,213.69	6.29	5.76	50.46	-3,908.77	-4,916.99	6,166.30	6,154.35	11.95	515.911		
1,300.00	1,274.26	1,234.12	1,296.01	6.78	6.05	50.67	-3,907.95	-4,917.15	6,144.11	6,131.42	12.69	484.026		
1,400.00	1,368.63	1,316.26	1,378.14	7.28	6.35	50.88	-3,907.35	-4,917.35	6,122.23	6,108.77	13.46	454.953		
1,500.00	1,463.00	1,401.87	1,463.76	7.80	6.67	51.09	-3,906.95	-4,917.55	6,100.60	6,086.35	14.25	428.081		
1,600.00	1,557.38	1,507.98	1,569.86	8.33	7.07	51.36	-3,906.48	-4,917.76	6,079.06	6,063.92	15.14	401.618		
1,700.00	1,651.75	1,597.57	1,659.46	8.87	7.41	51.59	-3,906.17	-4,917.81	6,057.57	6,041.60	15.98	379.153		
1,800.00	1,746.12	1,697.38	1,759.26	9.41	7.79	51.84	-3,905.87	-4,917.82	6,036.18	6,019.31	16.87	357.873		
1,900.00	1,840.49	1,786.66	1,848.55	9.96	8.14	52.07	-3,905.56	-4,917.85	6,014.89	5,997.16	17.73	339.275		
2,000.00	1,934.87	1,861.79	1,923.68	10.52	8.44	52.26	-3,905.46	-4,917.92	5,993.89	5,975.34	18.55	323.192		
2,100.00	2,029.24	1,939.94	2,001.83	11.08	8.75	52.47	-3,905.52	-4,918.22	5,973.31	5,953.93	19.38	308.195		
2,200.00	2,123.61	2,026.12	2,088.01	11.64	9.09	52.69	-3,905.65	-4,918.70	5,953.03	5,932.78	20.25	293.918		
2,300.00	2,217.99	2,117.85	2,179.73	12.21	9.45	52.93	-3,905.91	-4,919.22	5,932.94	5,911.79	21.15	280.466		
2,400.00	2,312.36	2,210.35	2,272.23	12.78	9.82	53.17	-3,906.11	-4,919.81	5,912.99	5,890.93	22.06	268.009		
2,500.00	2,406.73	2,296.44	2,358.32	13.35	10.17	53.40	-3,906.27	-4,920.48	5,893.25	5,870.30	22.95	256.757		
2,600.00	2,501.10	2,392.92	2,454.79	13.93	10.56	53.66	-3,906.44	-4,921.31	5,873.68	5,849.79	23.89	245.895		
2,700.00	2,595.48	2,482.32	2,544.19	14.51	10.92	53.90	-3,906.60	-4,922.09	5,854.24	5,829.44	24.80	236.069		
2,800.00	2,689.85	2,569.40	2,631.27	15.08	11.28	54.13	-3,906.77	-4,922.96	5,835.03	5,809.32	25.71	226.989		
2,900.00	2,784.22	2,651.89	2,713.75	15.66	11.62	54.36	-3,906.83	-4,924.00	5,816.08	5,789.48	26.60	218.651		
3,000.00	2,878.60	2,734.86	2,796.71	16.25	11.96	54.59	-3,907.00	-4,925.20	5,797.48	5,769.98	27.50	210.826		
3,100.00	2,972.97	2,822.39	2,884.23	16.83	12.32	54.83	-3,907.31	-4,926.53	5,779.14	5,750.72	28.42	203.359		
3,200.00	3,067.34	2,911.32	2,973.15	17.41	12.69	55.08	-3,907.85	-4,927.86	5,761.03	5,731.68	29.35	196.312		
3,300.00	3,161.72	2,998.52	3,060.33	18.00	13.05	55.32	-3,908.45	-4,929.24	5,743.15	5,712.88	30.27	189.729		
3,400.00	3,256.09	3,112.43	3,174.23	18.58	13.52	55.64	-3,909.18	-4,931.00	5,725.37	5,694.07	31.30	182.925		
3,500.00	3,350.46	3,255.00	3,316.79	19.17	14.11	56.04	-3,909.62	-4,932.02	5,706.75	5,674.31	32.44	175.929		
3,600.00	3,444.83	3,350.91	3,412.70	19.75	14.51	56.31	-3,909.77	-4,932.65	5,688.25	5,654.85	33.40	170.295		
3,700.00	3,539.21	3,450.55	3,512.34	20.34	14.93	56.59	-3,909.80	-4,933.18	5,669.72	5,635.34	34.38	164.898		
3,800.00	3,633.58	3,532.59	3,594.38	20.93	15.27	56.83	-3,909.98	-4,933.59	5,651.40	5,616.10	35.30	160.095		
3,900.00	3,727.95	3,606.22	3,668.00	21.52	15.58	57.04	-3,910.15	-4,934.24	5,633.52	5,597.33	36.19	155.674		
4,000.00	3,822.33	3,681.61	3,743.39	22.11	15.90	57.26	-3,910.31	-4,935.23	5,616.11	5,579.02	37.08	151.443		
4,100.00	3,916.70	3,764.60	3,826.37	22.70	16.24	57.50	-3,910.52	-4,936.57	5,599.11	5,561.09	38.01	147.303		
4,200.00	4,011.07	3,852.00	3,913.75	23.29	16.61	57.76	-3,910.90	-4,938.05	5,582.39	5,543.44	38.96	143.300		
4,300.00	4,105.44	3,931.14	3,992.88	23.88	16.94	57.99	-3,911.49	-4,939.38	5,565.96	5,526.09	39.87	139.597		
4,400.00	4,199.82	4,000.01	4,061.73	24.47	17.23	58.20	-3,912.26	-4,940.73	5,550.08	5,509.33	40.75	136.200		
4,500.00	4,294.19	4,073.20	4,134.90	25.06	17.54	58.41	-3,913.42	-4,942.35	5,534.73	5,493.09	41.64	132.903		
4,600.00	4,388.56	4,145.14	4,206.80	25.65	17.84	58.62	-3,914.90	-4,944.06	5,519.89	5,477.36	42.54	129.769		
4,700.00	4,482.94	4,230.10	4,291.70	26.24	18.20	58.86	-3,916.96	-4,946.33	5,505.58	5,462.10	43.48	126.624		
4,800.00	4,577.31	4,351.58	4,413.12	26.83	18.72	59.22	-3,919.49	-4,949.36	5,491.10	5,446.54	44.57	123.214		
4,900.00	4,671.68	4,454.23	4,515.73	27.43	19.15	59.52	-3,921.06	-4,951.90	5,476.52	5,430.94	45.58	120.151		
5,000.00	4,766.05	4,585.00	4,646.45	28.02	19.70	59.92	-3,922.52	-4,955.00	5,461.84	5,415.14	46.70	116.948		
5,100.00	4,860.43	4,715.07	4,776.50	28.61	20.25	60.32	-3,923.52	-4,957.19	5,446.54	5,398.72	47.82	113.891		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 1 21-2(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,830.29	4,891.70	29.20	20.74	60.67	-3,924.25	-4,958.48	5,430.85	5,381.97	48.89	111.092		
5,300.00	5,049.17	4,923.04	4,984.45	29.80	21.13	60.96	-3,924.82	-4,959.44	5,415.24	5,365.37	49.87	108.591		
5,400.00	5,143.55	5,024.55	5,085.95	30.39	21.56	61.27	-3,925.19	-4,960.55	5,399.72	5,348.84	50.88	106.119		
5,500.00	5,237.92	5,126.35	5,187.75	30.99	21.99	61.60	-3,925.25	-4,961.61	5,384.19	5,332.29	51.90	103.739		
5,600.00	5,332.29	5,218.22	5,279.61	31.58	22.38	61.89	-3,924.93	-4,962.76	5,368.83	5,315.95	52.88	101.521		
5,700.00	5,426.66	5,315.69	5,377.07	32.17	22.79	62.21	-3,924.40	-4,964.00	5,353.57	5,299.68	53.89	99.345		
5,800.00	5,521.04	5,392.77	5,454.14	32.77	23.12	62.46	-3,924.16	-4,965.03	5,338.64	5,283.82	54.82	97.385		
5,900.00	5,615.41	5,513.52	5,574.88	33.36	23.63	62.86	-3,923.76	-4,966.51	5,323.75	5,267.84	55.91	95.218		
6,000.00	5,709.78	5,588.70	5,650.06	33.96	23.95	63.10	-3,923.66	-4,967.33	5,309.01	5,252.17	56.84	93.406		
6,100.00	5,804.16	5,666.91	5,728.26	34.55	24.28	63.36	-3,923.89	-4,968.33	5,294.75	5,236.97	57.78	91.642		
6,200.00	5,898.53	5,756.32	5,817.66	35.14	24.66	63.65	-3,924.17	-4,969.70	5,280.87	5,222.12	58.76	89.876		
6,300.00	5,992.90	5,839.80	5,901.13	35.74	25.02	63.92	-3,924.57	-4,970.95	5,267.22	5,207.50	59.72	88.203		
6,400.00	6,087.27	5,915.14	5,976.46	36.33	25.34	64.17	-3,924.77	-4,972.47	5,254.08	5,193.43	60.65	86.633		
6,500.00	6,181.65	6,008.43	6,069.73	36.93	25.74	64.49	-3,924.84	-4,974.60	5,241.29	5,179.64	61.65	85.022		
6,600.00	6,276.02	6,115.06	6,176.33	37.52	26.19	64.85	-3,925.03	-4,976.78	5,228.49	5,165.80	62.70	83.395		
6,700.00	6,370.39	6,186.32	6,247.57	38.12	26.49	65.09	-3,925.03	-4,978.42	5,216.04	5,152.42	63.61	81.996		
6,800.00	6,464.77	6,268.28	6,329.50	38.71	26.84	65.37	-3,925.02	-4,980.63	5,204.10	5,139.53	64.57	80.594		
6,900.00	6,559.14	6,360.75	6,421.94	39.31	27.24	65.47	-3,925.44	-4,983.09	5,192.49	5,126.92	65.57	79.189		
7,000.00	6,652.92	6,454.13	6,515.28	39.90	27.63	64.93	-3,925.49	-4,985.71	5,173.64	5,107.09	66.55	77.737		
7,100.00	6,744.00	6,545.84	6,606.95	40.44	28.02	24.94	-3,925.62	-4,988.29	5,140.76	5,073.29	67.47	76.195		
7,200.00	6,830.13	6,625.28	6,686.36	40.94	28.36	13.26	-3,926.14	-4,990.36	5,094.54	5,026.28	68.26	74.631		
7,300.00	6,909.19	6,684.15	6,745.21	41.37	28.61	4.35	-3,926.42	-4,992.17	5,036.36	4,967.45	68.90	73.094		
7,400.00	6,979.23	6,736.21	6,797.23	41.75	28.84	-3.71	-3,926.50	-4,994.06	4,967.59	4,898.16	69.43	71.544		
7,500.00	7,038.53	6,780.93	6,841.92	42.08	29.03	-12.51	-3,926.43	-4,995.91	4,889.84	4,819.99	69.85	70.003		
7,600.00	7,085.63	6,817.63	6,878.57	42.37	29.18	-23.90	-3,926.32	-4,997.59	4,804.93	4,734.78	70.15	68.494		
7,700.00	7,119.37	6,845.25	6,906.16	42.64	29.30	-40.18	-3,926.27	-4,998.91	4,714.90	4,644.57	70.33	67.039		
7,800.00	7,138.92	6,862.96	6,923.85	42.91	29.38	-62.51	-3,926.26	-4,999.79	4,621.98	4,551.57	70.40	65.652		
7,900.00	7,143.92	6,870.27	6,931.15	43.25	29.41	-83.43	-3,926.26	-5,000.15	4,528.49	4,458.11	70.38	64.344		
8,000.00	7,143.35	6,873.56	6,934.44	43.72	29.42	-83.54	-3,926.26	-5,000.32	4,435.50	4,365.15	70.35	63.051		
8,100.00	7,142.78	6,876.88	6,937.75	44.42	29.44	-83.65	-3,926.26	-5,000.49	4,342.82	4,272.47	70.35	61.730		
8,200.00	7,142.22	6,880.23	6,941.10	45.39	29.45	-83.77	-3,926.26	-5,000.66	4,250.47	4,180.08	70.40	60.379		
8,300.00	7,141.65	6,883.61	6,944.48	46.63	29.46	-83.89	-3,926.27	-5,000.83	4,158.47	4,087.99	70.48	58.998		
8,400.00	7,141.08	6,887.03	6,947.89	48.09	29.48	-84.00	-3,926.27	-5,001.01	4,066.84	3,996.22	70.62	57.584		
8,500.00	7,140.51	6,890.48	6,951.34	49.74	29.49	-84.12	-3,926.28	-5,001.18	3,975.62	3,904.80	70.82	56.137		
8,600.00	7,139.94	6,893.96	6,954.81	51.53	29.51	-84.24	-3,926.28	-5,001.36	3,884.82	3,813.74	71.08	54.655		
8,700.00	7,139.37	6,900.01	6,960.86	53.44	29.53	-84.45	-3,926.30	-5,001.68	3,794.48	3,723.06	71.41	53.133		
8,800.00	7,138.80	6,900.01	6,960.86	55.45	29.53	-84.45	-3,926.30	-5,001.68	3,704.63	3,632.81	71.81	51.586		
8,900.00	7,138.24	6,900.01	6,960.86	57.55	29.53	-84.45	-3,926.30	-5,001.68	3,615.31	3,543.01	72.30	50.003		
9,000.00	7,137.67	6,900.01	6,960.86	59.71	29.53	-84.45	-3,926.30	-5,001.68	3,526.57	3,453.68	72.89	48.385		
9,100.00	7,137.10	6,910.47	6,971.30	61.94	29.58	-84.82	-3,926.32	-5,002.23	3,438.42	3,364.82	73.60	46.721		
9,200.00	7,136.53	6,913.76	6,974.58	64.22	29.59	-84.93	-3,926.33	-5,002.41	3,350.94	3,276.53	74.40	45.037		
9,300.00	7,135.96	6,917.09	6,977.91	66.55	29.61	-85.04	-3,926.34	-5,002.59	3,264.18	3,188.84	75.34	43.326		
9,400.00	7,135.39	6,920.48	6,981.29	68.92	29.62	-85.16	-3,926.36	-5,002.77	3,178.19	3,101.78	76.41	41.595		
9,500.00	7,134.83	6,923.92	6,984.72	71.33	29.64	-85.28	-3,926.37	-5,002.96	3,093.04	3,015.41	77.62	39.846		
9,600.00	7,134.26	6,927.41	6,988.21	73.77	29.65	-85.40	-3,926.39	-5,003.15	3,008.79	2,929.80	79.00	38.088		
9,700.00	7,133.69	6,930.95	6,991.75	76.24	29.67	-85.53	-3,926.40	-5,003.35	2,925.53	2,845.00	80.54	36.326		
9,800.00	7,133.12	6,934.55	6,995.35	78.74	29.68	-85.65	-3,926.42	-5,003.55	2,843.35	2,761.10	82.25	34.568		
9,900.00	7,132.55	6,938.21	6,999.00	81.27	29.70	-85.78	-3,926.44	-5,003.75	2,762.33	2,678.17	84.16	32.823		
10,000.00	7,131.98	6,941.93	7,002.71	83.81	29.71	-85.91	-3,926.46	-5,003.96	2,682.59	2,596.33	86.26	31.097		
10,100.00	7,131.42	6,945.71	7,006.48	86.38	29.73	-86.04	-3,926.48	-5,004.18	2,604.24	2,515.66	88.58	29.400		
10,200.00	7,130.85	6,949.54	7,010.31	88.96	29.75	-86.17	-3,926.50	-5,004.40	2,527.41	2,436.30	91.11	27.740		
10,300.00	7,130.28	6,953.44	7,014.21	91.56	29.76	-86.31	-3,926.53	-5,004.62	2,452.24	2,358.38	93.87	26.124		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 1 21-2(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	6,957.41	7,018.16	94.18	29.78	-86.45	-3,926.55	-5,004.85	2,378.90	2,282.04	96.86	24.561		
10,500.00	7,129.14	6,961.44	7,022.19	96.81	29.80	-86.59	-3,926.58	-5,005.09	2,307.55	2,207.46	100.09	23.056		
10,600.00	7,128.57	6,965.54	7,026.28	99.45	29.81	-86.73	-3,926.61	-5,005.33	2,238.38	2,134.82	103.55	21.615		
10,700.00	7,128.00	6,969.71	7,030.44	102.11	29.83	-86.87	-3,926.65	-5,005.58	2,171.60	2,064.34	107.26	20.246		
10,800.00	7,127.44	6,973.94	7,034.67	104.77	29.85	-87.02	-3,926.68	-5,005.84	2,107.45	1,996.24	111.21	18.951		
10,900.00	7,126.87	6,978.26	7,038.97	107.45	29.87	-87.17	-3,926.72	-5,006.10	2,046.16	1,930.78	115.38	17.735		
11,000.00	7,126.30	6,982.64	7,043.35	110.13	29.89	-87.32	-3,926.75	-5,006.36	1,988.00	1,868.24	119.76	16.600		
11,100.00	7,125.73	6,987.10	7,047.80	112.82	29.91	-87.48	-3,926.79	-5,006.64	1,933.26	1,808.93	124.33	15.549		
11,200.00	7,125.16	6,991.65	7,052.34	115.53	29.93	-87.64	-3,926.84	-5,006.92	1,882.23	1,753.16	129.06	14.584		
11,300.00	7,124.59	6,996.27	7,056.95	118.24	29.95	-87.80	-3,926.88	-5,007.21	1,835.21	1,701.29	133.92	13.704		
11,400.00	7,124.03	7,001.08	7,061.75	120.95	29.97	-87.97	-3,926.93	-5,007.51	1,792.54	1,653.69	138.85	12.910		
11,500.00	7,123.46	7,006.34	7,067.00	123.67	29.99	-88.15	-3,926.99	-5,007.84	1,754.51	1,610.71	143.80	12.201		
11,600.00	7,122.89	7,011.61	7,072.26	126.40	30.01	-88.33	-3,927.05	-5,008.18	1,721.44	1,572.75	148.70	11.577		
11,700.00	7,122.32	7,016.89	7,077.53	129.14	30.03	-88.52	-3,927.10	-5,008.51	1,693.63	1,540.15	153.48	11.035		
11,800.00	7,121.75	7,022.16	7,082.79	131.88	30.06	-88.70	-3,927.16	-5,008.84	1,671.32	1,513.26	158.06	10.574		
11,900.00	7,121.18	7,027.45	7,088.07	134.62	30.08	-88.89	-3,927.23	-5,009.18	1,654.75	1,492.37	162.38	10.191		
12,000.00	7,120.61	7,032.74	7,093.34	137.37	30.10	-89.07	-3,927.29	-5,009.51	1,644.08	1,477.73	166.35	9.883		
12,100.00	7,120.05	7,038.03	7,098.62	140.12	30.12	-89.26	-3,927.35	-5,009.85	1,639.44	1,469.52	169.92	9.648		
12,126.45	7,119.90	7,039.43	7,100.02	140.85	30.13	-89.31	-3,927.37	-5,009.93	1,639.22	1,468.43	170.79	9.598 CC		
12,200.00	7,119.48	7,043.33	7,103.91	142.88	30.15	-89.44	-3,927.42	-5,010.18	1,640.87	1,467.83	173.04	9.483 ES		
12,300.00	7,118.91	7,048.63	7,109.20	145.64	30.17	-89.63	-3,927.49	-5,010.52	1,648.36	1,472.70	175.66	9.384		
12,400.00	7,118.34	7,053.94	7,114.50	148.41	30.19	-89.81	-3,927.56	-5,010.85	1,661.82	1,484.05	177.78	9.348 SF		
12,500.00	7,117.77	7,059.25	7,119.80	151.18	30.21	-90.00	-3,927.63	-5,011.19	1,681.12	1,501.74	179.38	9.372		
12,600.00	7,117.20	7,064.57	7,125.11	153.95	30.24	-90.18	-3,927.70	-5,011.53	1,706.05	1,525.55	180.50	9.452		
12,700.00	7,116.64	7,069.89	7,130.42	156.73	30.26	-90.37	-3,927.78	-5,011.86	1,736.38	1,555.22	181.15	9.585		
12,800.00	7,116.07	7,075.22	7,135.73	159.50	30.28	-90.55	-3,927.85	-5,012.20	1,771.82	1,590.43	181.38	9.768		
12,900.00	7,115.50	7,080.55	7,141.05	162.29	30.31	-90.74	-3,927.93	-5,012.54	1,812.07	1,630.83	181.24	9.998		
13,000.00	7,114.93	7,085.88	7,146.38	165.07	30.33	-90.93	-3,928.01	-5,012.88	1,856.83	1,676.06	180.76	10.272		
13,100.00	7,114.36	7,091.23	7,151.71	167.86	30.35	-91.11	-3,928.09	-5,013.22	1,905.77	1,725.76	180.01	10.587		
13,200.00	7,113.79	7,096.57	7,157.05	170.64	30.37	-91.30	-3,928.17	-5,013.56	1,958.58	1,779.55	179.03	10.940		
13,300.00	7,113.22	7,102.08	7,162.54	173.44	30.40	-91.49	-3,928.26	-5,013.91	2,014.95	1,837.09	177.86	11.329		
13,400.00	7,112.66	7,107.88	7,168.33	176.23	30.42	-91.69	-3,928.35	-5,014.27	2,074.61	1,898.05	176.56	11.750		
13,500.00	7,112.09	7,113.67	7,174.11	179.02	30.45	-91.89	-3,928.44	-5,014.64	2,137.26	1,962.12	175.14	12.203		
13,600.00	7,111.52	7,119.47	7,179.89	181.82	30.47	-92.10	-3,928.53	-5,015.01	2,202.66	2,029.01	173.65	12.685		
13,700.00	7,110.95	7,125.26	7,185.67	184.62	30.50	-92.30	-3,928.63	-5,015.38	2,270.56	2,098.46	172.10	13.193		
13,800.00	7,110.38	7,131.06	7,191.45	187.42	30.52	-92.50	-3,928.72	-5,015.75	2,340.75	2,170.22	170.53	13.726		
13,900.00	7,109.81	7,136.85	7,197.23	190.22	30.55	-92.70	-3,928.81	-5,016.12	2,413.04	2,244.09	168.94	14.283		
14,000.00	7,109.25	7,142.64	7,203.02	193.03	30.57	-92.90	-3,928.90	-5,016.48	2,487.23	2,319.86	167.36	14.861		
14,100.00	7,108.68	7,148.43	7,208.80	195.84	30.60	-93.10	-3,928.99	-5,016.85	2,563.16	2,397.36	165.79	15.460		
14,200.00	7,108.11	7,154.23	7,214.58	198.64	30.62	-93.30	-3,929.08	-5,017.22	2,640.68	2,476.43	164.25	16.077		
14,300.00	7,107.54	7,160.02	7,220.36	201.45	30.65	-93.50	-3,929.17	-5,017.59	2,719.66	2,556.92	162.74	16.712		
14,400.00	7,106.97	7,165.81	7,226.14	204.26	30.67	-93.71	-3,929.27	-5,017.96	2,799.97	2,638.70	161.26	17.363		
14,500.00	7,106.40	7,171.60	7,231.91	207.07	30.70	-93.91	-3,929.36	-5,018.32	2,881.50	2,721.67	159.83	18.029		
14,600.00	7,105.83	7,177.39	7,237.69	209.89	30.72	-94.11	-3,929.45	-5,018.69	2,964.15	2,805.72	158.43	18.709		
14,700.00	7,105.27	7,183.19	7,243.47	212.70	30.75	-94.31	-3,929.54	-5,019.06	3,047.83	2,890.75	157.08	19.403		
14,800.00	7,104.70	7,188.98	7,249.25	215.52	30.77	-94.51	-3,929.63	-5,019.43	3,132.45	2,976.68	155.77	20.109		
14,900.00	7,104.13	7,194.77	7,255.03	218.33	30.80	-94.71	-3,929.72	-5,019.79	3,217.95	3,063.44	154.51	20.827		
15,000.00	7,103.56	7,200.56	7,260.81	221.15	30.82	-94.91	-3,929.81	-5,020.16	3,304.25	3,150.96	153.30	21.555		
15,100.00	7,102.99	7,206.35	7,266.58	223.97	30.85	-95.11	-3,929.90	-5,020.53	3,391.30	3,239.17	152.12	22.293		
15,200.00	7,102.42	7,212.14	7,272.36	226.79	30.87	-95.31	-3,930.00	-5,020.90	3,479.03	3,328.03	150.99	23.041		
15,274.57	7,102.00	7,216.45	7,276.67	228.89	30.89	-95.46	-3,930.06	-5,021.17	3,544.86	3,394.68	150.18	23.604		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	25.00	71.00	3.28	3.28	-146.92	-5,053.36	-3,291.36	6,031.13					
100.00	100.00	91.65	137.65	3.28	3.28	-146.92	-5,053.19	-3,291.23	6,030.62	6,024.05	6.57	918.159		
200.00	200.00	192.34	238.34	3.34	3.33	-146.92	-5,052.44	-3,291.04	6,029.89	6,023.23	6.67	904.596		
300.00	299.98	263.92	309.91	3.44	3.39	29.15	-5,051.94	-3,291.26	6,027.95	6,021.12	6.83	882.079		
400.00	399.84	355.10	401.09	3.59	3.51	29.22	-5,051.85	-3,291.38	6,023.36	6,016.26	7.11	847.655		
500.00	499.45	1,489.47	1,521.93	3.79	7.59	30.88	-4,909.64	-3,322.51	6,002.37	5,991.08	11.29	531.612		
600.00	598.70	1,552.00	1,582.82	4.03	7.93	31.30	-4,895.60	-3,324.83	5,975.41	5,963.60	11.81	506.073		
700.00	697.47	1,628.18	1,657.02	4.31	8.34	31.81	-4,878.64	-3,327.97	5,946.05	5,933.62	12.43	478.212		
800.00	795.62	1,690.28	1,717.48	4.64	8.68	32.33	-4,864.79	-3,330.89	5,914.25	5,901.22	13.03	453.916		
900.00	893.06	1,802.69	1,827.00	5.00	9.31	33.06	-4,840.06	-3,336.34	5,880.12	5,866.21	13.91	422.648		
1,000.00	989.64	1,890.94	1,912.88	5.40	9.82	33.79	-4,820.17	-3,340.65	5,842.96	5,828.25	14.71	397.255		
1,100.00	1,085.27	1,977.52	1,997.12	5.83	10.32	34.59	-4,800.66	-3,344.88	5,803.27	5,787.75	15.52	373.818		
1,200.00	1,179.88	2,062.42	2,079.73	6.29	10.82	35.26	-4,781.53	-3,349.03	5,761.28	5,744.92	16.36	352.161		
1,300.00	1,274.26	2,146.93	2,161.96	6.78	11.32	35.59	-4,762.49	-3,353.16	5,718.92	5,701.71	17.20	332.472		
1,400.00	1,368.63	2,231.43	2,244.19	7.28	11.83	35.93	-4,743.45	-3,357.29	5,676.74	5,658.67	18.06	314.252		
1,500.00	1,463.00	2,315.94	2,326.42	7.80	12.33	36.28	-4,724.40	-3,361.42	5,634.75	5,615.80	18.95	297.408		
1,600.00	1,557.38	2,400.45	2,408.65	8.33	12.84	36.63	-4,705.36	-3,365.55	5,592.96	5,573.11	19.84	281.836		
1,700.00	1,651.75	2,484.95	2,490.88	8.87	13.35	36.98	-4,686.32	-3,369.68	5,551.37	5,530.61	20.76	267.433		
1,800.00	1,746.12	2,569.46	2,573.11	9.41	13.87	37.34	-4,667.27	-3,373.81	5,509.98	5,488.30	21.68	254.097		
1,900.00	1,840.49	2,653.97	2,655.34	9.96	14.38	37.70	-4,648.23	-3,377.93	5,468.81	5,446.18	22.62	241.735		
2,000.00	1,934.87	2,738.47	2,737.57	10.52	14.90	38.06	-4,629.19	-3,382.06	5,427.84	5,404.27	23.57	230.260		
2,100.00	2,029.24	2,822.98	2,819.80	11.08	15.42	38.44	-4,610.15	-3,386.19	5,387.10	5,362.57	24.53	219.591		
2,200.00	2,123.61	2,907.49	2,902.03	11.64	15.94	38.81	-4,591.10	-3,390.32	5,346.58	5,321.08	25.50	209.657		
2,300.00	2,217.99	2,991.99	2,984.26	12.21	16.46	39.19	-4,572.06	-3,394.45	5,306.29	5,279.81	26.48	200.392		
2,400.00	2,312.36	3,076.50	3,066.49	12.78	16.98	39.58	-4,553.02	-3,398.58	5,266.24	5,238.77	27.47	191.737		
2,500.00	2,406.73	3,161.01	3,148.72	13.35	17.51	39.97	-4,533.98	-3,402.71	5,226.42	5,197.96	28.46	183.639		
2,600.00	2,501.10	3,245.51	3,230.95	13.93	18.03	40.37	-4,514.93	-3,406.84	5,186.85	5,157.39	29.46	176.050		
2,700.00	2,595.48	3,330.02	3,313.18	14.51	18.56	40.77	-4,495.89	-3,410.97	5,147.53	5,117.06	30.47	168.928		
2,800.00	2,689.85	3,414.53	3,395.41	15.08	19.08	41.18	-4,476.85	-3,415.10	5,108.47	5,076.98	31.49	162.234		
2,900.00	2,784.22	3,500.97	3,477.64	15.66	19.62	41.59	-4,457.81	-3,419.23	5,069.67	5,037.15	32.52	155.880		
3,000.00	2,878.60	3,583.54	3,559.87	16.25	20.14	42.01	-4,438.76	-3,423.36	5,031.14	4,997.60	33.54	149.996		
3,100.00	2,972.97	3,668.05	3,642.10	16.83	20.67	42.43	-4,419.72	-3,427.49	4,992.89	4,958.31	34.58	144.392		
3,200.00	3,067.34	3,752.56	3,724.33	17.41	21.20	42.86	-4,400.68	-3,431.62	4,954.92	4,919.30	35.62	139.097		
3,300.00	3,161.72	10,700.18	7,243.63	18.00	120.20	-12.63	-3,572.17	21.03	4,898.69	4,815.34	83.35	58.769		
3,400.00	3,256.09	10,695.77	7,243.70	18.58	120.07	-12.44	-3,572.18	16.97	4,801.93	4,718.11	83.82	57.289		
3,500.00	3,350.46	10,691.72	7,243.77	19.17	119.94	-12.26	-3,572.20	12.92	4,705.29	4,620.97	84.32	55.802		
3,600.00	3,444.83	10,687.66	7,243.84	19.75	119.81	-12.07	-3,572.21	8.87	4,608.79	4,523.94	84.85	54.316		
3,700.00	3,539.21	10,683.61	7,243.91	20.34	119.68	-11.88	-3,572.22	4.82	4,512.44	4,427.03	85.41	52.830		
3,800.00	3,633.58	10,679.56	7,243.98	20.93	119.55	-11.69	-3,572.24	0.77	4,416.25	4,330.24	86.01	51.346		
3,900.00	3,727.95	10,675.51	7,244.06	21.52	119.42	-11.51	-3,572.25	-3.28	4,320.23	4,233.59	86.64	49.865		
4,000.00	3,822.33	10,671.46	7,244.13	22.11	119.30	-11.32	-3,572.26	-7.33	4,224.39	4,137.08	87.30	48.387		
4,100.00	3,916.70	10,667.40	7,244.20	22.70	119.17	-11.13	-3,572.28	-11.39	4,128.74	4,040.73	88.01	46.914		
4,200.00	4,011.07	10,663.35	7,244.27	23.29	119.04	-10.94	-3,572.29	-15.44	4,033.30	3,944.55	88.75	45.447		
4,300.00	4,105.44	10,659.30	7,244.34	23.88	118.91	-10.75	-3,572.31	-19.49	3,938.08	3,848.55	89.53	43.987		
4,400.00	4,199.82	10,655.25	7,244.41	24.47	118.78	-10.56	-3,572.32	-23.54	3,843.10	3,752.75	90.35	42.534		
4,500.00	4,294.19	10,652.85	7,244.48	25.06	118.71	-10.37	-3,572.33	-27.59	3,748.38	3,657.12	91.26	41.074		
4,600.00	4,388.56	10,647.14	7,244.55	25.65	118.53	-10.18	-3,572.35	-31.64	3,653.93	3,561.79	92.14	39.656		
4,700.00	4,482.94	10,643.09	7,244.63	26.24	118.40	-9.99	-3,572.36	-35.70	3,559.78	3,466.67	93.11	38.232		
4,800.00	4,577.31	10,639.04	7,244.70	26.83	118.27	-9.80	-3,572.37	-39.75	3,465.96	3,371.83	94.13	36.821		
4,900.00	4,671.68	10,634.99	7,244.77	27.43	118.14	-9.61	-3,572.39	-43.80	3,372.48	3,277.28	95.21	35.423		
5,000.00	4,766.05	10,630.93	7,244.84	28.02	118.01	-9.42	-3,572.40	-47.85	3,279.39	3,183.05	96.34	34.039		
5,100.00	4,860.43	10,626.88	7,244.91	28.61	117.88	-9.23	-3,572.41	-51.90	3,186.71	3,089.17	97.54	32.670		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN												Offset Site Error:	0.00 ft
Survey Program: 25-MWD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.00	4,954.80	10,622.83	7,244.98	29.20	117.76	-9.04	-3,572.43	-55.95	3,094.48	2,995.67	98.81	31.318	
5,300.00	5,049.17	10,618.78	7,245.05	29.80	117.63	-8.85	-3,572.44	-60.01	3,002.74	2,902.60	100.14	29.984	
5,400.00	5,143.55	10,614.72	7,245.12	30.39	117.50	-8.66	-3,572.45	-64.06	2,911.54	2,809.98	101.56	28.669	
5,500.00	5,237.92	10,610.67	7,245.20	30.99	117.37	-8.47	-3,572.47	-68.11	2,820.93	2,717.88	103.05	27.375	
5,600.00	5,332.29	10,606.62	7,245.27	31.58	117.24	-8.28	-3,572.48	-72.16	2,730.97	2,626.35	104.62	26.103	
5,700.00	5,426.66	10,602.57	7,245.34	32.17	117.12	-8.09	-3,572.49	-76.21	2,641.73	2,535.44	106.29	24.855	
5,800.00	5,521.04	10,598.52	7,245.41	32.77	116.99	-7.90	-3,572.51	-80.26	2,553.27	2,445.23	108.04	23.632	
5,900.00	5,615.41	10,594.46	7,245.48	33.36	116.86	-7.71	-3,572.52	-84.32	2,465.70	2,355.80	109.90	22.436	
6,000.00	5,709.78	10,590.41	7,245.55	33.96	116.73	-7.52	-3,572.54	-88.37	2,379.09	2,267.23	111.86	21.268	
6,100.00	5,804.16	10,586.36	7,245.62	34.55	116.60	-7.33	-3,572.55	-92.42	2,293.57	2,179.64	113.93	20.132	
6,200.00	5,898.53	10,582.31	7,245.69	35.14	116.48	-7.13	-3,572.56	-96.47	2,209.26	2,093.15	116.10	19.028	
6,300.00	5,992.90	10,578.25	7,245.77	35.74	116.35	-6.94	-3,572.58	-100.52	2,126.30	2,007.90	118.40	17.959	
6,400.00	6,087.27	10,574.20	7,245.84	36.33	116.22	-6.75	-3,572.59	-104.57	2,044.86	1,924.06	120.80	16.928	
6,500.00	6,181.65	10,570.15	7,245.91	36.93	116.09	-6.56	-3,572.60	-108.62	1,965.12	1,841.80	123.31	15.936	
6,600.00	6,276.02	10,566.10	7,245.98	37.52	115.96	-6.37	-3,572.62	-112.68	1,887.30	1,761.37	125.93	14.987	
6,700.00	6,370.39	10,562.05	7,246.05	38.12	115.84	-6.18	-3,572.63	-116.73	1,811.66	1,683.01	128.64	14.083	
6,800.00	6,464.77	10,557.99	7,246.12	38.71	115.71	-5.98	-3,572.64	-120.78	1,738.46	1,607.03	131.43	13.227	
6,900.00	6,559.14	10,553.94	7,246.19	39.31	115.58	-6.08	-3,572.66	-124.83	1,668.05	1,533.78	134.27	12.423	
7,000.00	6,652.92	10,549.41	7,246.40	39.90	115.20	-36.82	-3,572.70	-136.83	1,601.20	1,464.35	136.85	11.700	
7,100.00	6,744.00	10,514.58	7,246.89	40.44	114.34	-58.63	-3,572.79	-164.19	1,539.64	1,400.80	138.83	11.090	
7,200.00	6,830.13	10,472.52	7,247.63	40.94	113.02	-72.71	-3,572.93	-206.24	1,484.81	1,344.71	140.09	10.599	
7,300.00	6,909.19	10,416.81	7,248.61	41.37	111.26	-81.67	-3,573.11	-261.94	1,437.65	1,297.08	140.57	10.227	
7,400.00	6,979.23	10,345.12	7,249.60	41.75	109.02	-87.21	-3,573.35	-333.63	1,398.59	1,258.45	140.14	9.980	
7,500.00	7,038.53	10,266.48	7,249.62	42.08	106.56	-90.68	-3,573.62	-412.26	1,367.51	1,228.29	139.21	9.823	
7,600.00	7,085.63	10,180.01	7,249.62	42.37	103.86	-92.75	-3,573.91	-498.73	1,344.29	1,206.48	137.81	9.755 SF	
7,700.00	7,119.37	10,086.78	7,249.62	42.64	100.97	-93.89	-3,574.22	-591.96	1,328.41	1,192.37	136.05	9.764	
7,800.00	7,138.92	9,989.09	7,249.62	42.91	97.95	-94.45	-3,574.54	-689.65	1,319.37	1,185.28	134.09	9.839	
7,900.00	7,143.92	9,889.33	7,249.62	43.25	94.88	-94.61	-3,574.88	-789.41	1,316.74	1,184.68	132.06	9.971 ES	
8,000.00	7,143.35	9,789.34	7,249.62	43.72	91.83	-94.63	-3,575.21	-889.40	1,316.51	1,186.37	130.14	10.116	
8,100.00	7,142.78	9,689.34	7,249.62	44.42	88.79	-94.66	-3,575.54	-989.40	1,316.28	1,187.87	128.41	10.251	
8,200.00	7,142.22	9,589.34	7,249.62	45.39	85.78	-94.68	-3,575.88	-1,089.40	1,316.05	1,189.20	126.85	10.375	
8,300.00	7,141.65	9,489.34	7,249.62	46.63	82.79	-94.71	-3,576.21	-1,189.39	1,315.81	1,190.37	125.44	10.489	
8,400.00	7,141.08	9,389.34	7,249.62	48.09	79.83	-94.73	-3,576.55	-1,289.39	1,315.58	1,191.40	124.18	10.594	
8,500.00	7,140.51	9,289.35	7,249.62	49.74	76.90	-94.76	-3,576.88	-1,389.39	1,315.35	1,192.29	123.06	10.689	
8,600.00	7,139.94	9,189.35	7,249.62	51.53	74.01	-94.78	-3,577.21	-1,489.39	1,315.12	1,193.06	122.06	10.774	
8,700.00	7,139.37	9,089.35	7,249.62	53.44	71.15	-94.81	-3,577.55	-1,589.38	1,314.89	1,193.71	121.18	10.850	
8,800.00	7,138.80	8,989.35	7,249.62	55.45	68.35	-94.84	-3,577.88	-1,689.38	1,314.66	1,194.24	120.42	10.917	
8,900.00	7,138.24	8,889.35	7,249.62	57.55	65.59	-94.86	-3,578.22	-1,789.38	1,314.43	1,194.66	119.77	10.975	
9,000.00	7,137.67	8,789.36	7,249.62	59.71	62.90	-94.89	-3,578.55	-1,889.38	1,314.20	1,194.98	119.22	11.023	
9,100.00	7,137.10	8,689.36	7,249.62	61.94	60.27	-94.91	-3,578.88	-1,989.37	1,313.97	1,195.18	118.79	11.062	
9,200.00	7,136.53	8,589.36	7,249.62	64.22	57.73	-94.94	-3,579.22	-2,089.37	1,313.74	1,195.28	118.47	11.090	
9,300.00	7,135.96	8,489.36	7,249.62	66.55	55.28	-94.96	-3,579.55	-2,189.37	1,313.51	1,195.25	118.26	11.107	
9,400.00	7,135.39	8,389.36	7,249.62	68.92	52.96	-94.99	-3,579.89	-2,289.37	1,313.28	1,195.10	118.18	11.113	
9,500.00	7,134.83	8,289.37	7,249.62	71.33	50.78	-95.02	-3,580.22	-2,389.36	1,313.06	1,194.82	118.23	11.106	
9,600.00	7,134.26	8,189.37	7,249.62	73.77	48.79	-95.04	-3,580.55	-2,489.36	1,312.83	1,194.40	118.43	11.085	
9,700.00	7,133.69	8,089.37	7,249.62	76.24	47.03	-95.07	-3,580.89	-2,589.36	1,312.60	1,193.81	118.79	11.050	
9,800.00	7,133.12	7,989.37	7,249.62	78.74	45.59	-95.09	-3,581.22	-2,689.36	1,312.37	1,193.04	119.33	10.998	
9,900.00	7,132.55	7,889.37	7,249.62	81.27	44.50	-95.12	-3,581.56	-2,789.35	1,312.14	1,192.08	120.06	10.929	
10,000.00	7,131.98	7,789.38	7,249.62	83.81	43.76	-95.15	-3,581.89	-2,889.35	1,311.92	1,190.90	121.02	10.841	
10,064.71	7,131.62	7,727.63	7,249.54	85.47	43.45	-95.16	-3,582.12	-2,951.10	1,311.79	1,189.96	121.83	10.767 CC	
10,100.00	7,131.42	7,700.00	7,248.51	86.38	43.34	-95.12	-3,582.45	-2,978.70	1,311.89	1,189.45	122.44	10.714	
10,200.00	7,130.85	7,623.30	7,239.57	88.96	43.09	-94.74	-3,584.77	-3,054.80	1,313.37	1,189.03	124.34	10.563	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,549.56	7,222.62	91.56	42.91	-94.01	-3,588.94	-3,126.40	1,316.80	1,190.37	126.43	10.415		
10,400.00	7,129.71	7,480.58	7,199.57	94.18	42.76	-93.01	-3,594.50	-3,191.14	1,322.61	1,193.92	128.69	10.277		
10,500.00	7,129.14	7,417.34	7,172.56	96.81	42.64	-91.84	-3,600.95	-3,247.92	1,331.33	1,200.30	131.04	10.160		
10,600.00	7,128.57	7,360.25	7,143.56	99.45	42.52	-90.60	-3,607.83	-3,296.60	1,343.51	1,210.19	133.32	10.077		
10,700.00	7,128.00	7,309.23	7,114.14	102.11	42.41	-89.35	-3,614.78	-3,337.68	1,359.62	1,224.14	135.48	10.036		
10,800.00	7,127.44	7,263.93	7,085.40	104.77	42.30	-88.13	-3,621.56	-3,372.03	1,380.06	1,242.61	137.45	10.041		
10,900.00	7,126.87	7,223.82	7,058.03	107.45	42.20	-86.99	-3,628.00	-3,400.62	1,405.07	1,265.91	139.16	10.097		
11,000.00	7,126.30	7,188.32	7,032.38	110.13	42.10	-85.93	-3,634.02	-3,424.41	1,434.80	1,294.20	140.59	10.205		
11,100.00	7,125.73	7,152.01	7,004.86	112.82	41.99	-84.80	-3,640.48	-3,447.17	1,469.26	1,327.52	141.74	10.366		
11,200.00	7,125.16	7,128.94	6,986.72	115.53	41.91	-84.07	-3,644.72	-3,460.79	1,508.32	1,365.70	142.62	10.576		
11,300.00	7,124.59	7,100.00	6,963.32	118.24	41.82	-83.13	-3,650.20	-3,476.90	1,551.89	1,408.67	143.23	10.835		
11,400.00	7,124.03	7,081.84	6,948.28	120.95	41.75	-82.53	-3,653.72	-3,486.45	1,599.70	1,456.10	143.60	11.140		
11,500.00	7,123.46	7,052.01	6,923.01	123.67	41.65	-81.54	-3,659.62	-3,501.16	1,651.61	1,507.85	143.76	11.488		
11,600.00	7,122.89	7,049.69	6,921.02	126.40	41.64	-81.46	-3,660.09	-3,502.25	1,707.14	1,563.42	143.72	11.878		
11,700.00	7,122.32	7,027.73	6,901.97	129.14	41.55	-80.72	-3,664.54	-3,512.22	1,766.15	1,622.60	143.55	12.303		
11,800.00	7,121.75	7,010.76	6,887.02	131.88	41.48	-80.14	-3,668.03	-3,519.46	1,828.38	1,685.14	143.24	12.764		
11,900.00	7,121.18	7,000.00	6,877.45	134.62	41.44	-79.78	-3,670.26	-3,523.84	1,893.53	1,750.71	142.82	13.258		
12,000.00	7,120.61	7,000.00	6,877.45	137.37	41.44	-79.78	-3,670.26	-3,523.84	1,961.49	1,819.20	142.29	13.785		
12,100.00	7,120.05	6,976.19	6,856.02	140.12	41.33	-78.96	-3,675.26	-3,532.94	2,031.62	1,889.86	141.75	14.332		
12,200.00	7,119.48	6,952.01	6,833.94	142.88	41.23	-78.14	-3,680.40	-3,541.32	2,104.26	1,963.09	141.17	14.906		
12,300.00	7,118.91	6,952.01	6,833.94	145.64	41.23	-78.14	-3,680.40	-3,541.32	2,178.61	2,038.11	140.50	15.506		
12,400.00	7,118.34	6,952.01	6,833.94	148.41	41.23	-78.14	-3,680.40	-3,541.32	2,254.94	2,115.14	139.80	16.130		
12,500.00	7,117.77	6,952.01	6,833.94	151.18	41.23	-78.14	-3,680.40	-3,541.32	2,333.06	2,193.98	139.08	16.775		
12,600.00	7,117.20	6,931.94	6,815.38	153.95	41.13	-77.45	-3,684.72	-3,547.63	2,412.45	2,274.02	138.43	17.427		
12,700.00	7,116.64	6,924.91	6,808.83	156.73	41.10	-77.21	-3,686.25	-3,549.70	2,493.35	2,355.62	137.73	18.103		
12,800.00	7,116.07	6,900.00	6,785.47	159.50	40.98	-76.36	-3,691.68	-3,556.41	2,575.82	2,438.73	137.09	18.789		
12,900.00	7,115.50	6,900.00	6,785.47	162.29	40.98	-76.36	-3,691.68	-3,556.41	2,658.98	2,522.59	136.39	19.495		
13,000.00	7,114.93	6,900.00	6,785.47	165.07	40.98	-76.36	-3,691.68	-3,556.41	2,743.27	2,607.56	135.71	20.214		
13,100.00	7,114.36	6,900.00	6,785.47	167.86	40.98	-76.36	-3,691.68	-3,556.41	2,828.58	2,693.54	135.04	20.947		
13,200.00	7,113.79	6,900.00	6,785.47	170.64	40.98	-76.36	-3,691.68	-3,556.41	2,914.82	2,780.44	134.38	21.691		
13,300.00	7,113.22	6,900.00	6,785.47	173.44	40.98	-76.36	-3,691.68	-3,556.41	3,001.92	2,868.18	133.74	22.446		
13,400.00	7,112.66	6,900.00	6,785.47	176.23	40.98	-76.36	-3,691.68	-3,556.41	3,089.80	2,956.68	133.12	23.211		
13,500.00	7,112.09	6,900.00	6,785.47	179.02	40.98	-76.36	-3,691.68	-3,556.41	3,178.39	3,045.88	132.51	23.985		
13,600.00	7,111.52	6,878.37	6,764.99	181.82	40.87	-75.63	-3,696.45	-3,561.48	3,267.24	3,135.23	132.00	24.751		
13,700.00	7,110.95	6,874.54	6,761.34	184.62	40.85	-75.50	-3,697.29	-3,562.31	3,356.94	3,225.49	131.45	25.537		
13,800.00	7,110.38	6,852.01	6,739.83	187.42	40.74	-74.74	-3,702.30	-3,566.69	3,447.50	3,316.52	130.97	26.322		
13,900.00	7,109.81	6,852.01	6,739.83	190.22	40.74	-74.74	-3,702.30	-3,566.69	3,538.14	3,407.69	130.45	27.122		
14,000.00	7,109.25	6,852.01	6,739.83	193.03	40.74	-74.74	-3,702.30	-3,566.69	3,629.28	3,499.33	129.95	27.929		
14,100.00	7,108.68	6,852.01	6,739.83	195.84	40.74	-74.74	-3,702.30	-3,566.69	3,720.87	3,591.41	129.46	28.742		
14,200.00	7,108.11	6,852.01	6,739.83	198.64	40.74	-74.74	-3,702.30	-3,566.69	3,812.89	3,683.90	128.99	29.560		
14,300.00	7,107.54	6,852.01	6,739.83	201.45	40.74	-74.74	-3,702.30	-3,566.69	3,905.29	3,776.76	128.54	30.383		
14,400.00	7,106.97	6,852.01	6,739.83	204.26	40.74	-74.74	-3,702.30	-3,566.69	3,998.07	3,869.97	128.10	31.211		
14,500.00	7,106.40	6,852.01	6,739.83	207.07	40.74	-74.74	-3,702.30	-3,566.69	4,091.18	3,963.50	127.68	32.043		
14,600.00	7,105.83	6,852.01	6,739.83	209.89	40.74	-74.74	-3,702.30	-3,566.69	4,184.61	4,057.34	127.27	32.879		
14,700.00	7,105.27	6,852.01	6,739.83	212.70	40.74	-74.74	-3,702.30	-3,566.69	4,278.34	4,151.45	126.88	33.719		
14,800.00	7,104.70	6,852.01	6,739.83	215.52	40.74	-74.74	-3,702.30	-3,566.69	4,372.34	4,245.84	126.51	34.562		
14,900.00	7,104.13	6,852.01	6,739.83	218.33	40.74	-74.74	-3,702.30	-3,566.69	4,466.61	4,340.46	126.15	35.408		
15,000.00	7,103.56	6,852.01	6,739.83	221.15	40.74	-74.74	-3,702.30	-3,566.69	4,561.12	4,435.32	125.80	36.258		
15,100.00	7,102.99	6,852.01	6,739.83	223.97	40.74	-74.74	-3,702.30	-3,566.69	4,655.86	4,530.40	125.46	37.110		
15,200.00	7,102.42	6,852.01	6,739.83	226.79	40.74	-74.74	-3,702.30	-3,566.69	4,750.82	4,625.68	125.14	37.964		
15,274.57	7,102.00	6,852.01	6,739.83	228.89	40.74	-74.74	-3,702.30	-3,566.69	4,821.75	4,696.85	124.91	38.603		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	25.00	71.00	3.28	3.28	-146.82	-5,033.32	-3,291.36	6,014.35					
100.00	100.00	1,177.04	1,207.83	3.28	6.61	-145.79	-4,883.58	-3,320.45	6,008.49	5,998.66	9.84	610.668		
200.00	200.00	1,271.20	1,298.53	3.34	7.16	-145.61	-4,859.02	-3,326.37	5,990.13	5,979.78	10.35	578.751		
300.00	299.98	1,403.69	1,426.24	3.44	7.95	30.91	-4,824.49	-3,333.62	5,969.89	5,958.76	11.14	536.076		
400.00	399.84	1,492.22	1,511.74	3.59	8.49	31.34	-4,801.90	-3,337.68	5,946.82	5,935.08	11.74	506.649		
500.00	499.45	1,585.13	1,601.53	3.79	9.06	31.83	-4,778.32	-3,341.35	5,920.73	5,908.31	12.41	477.071		
600.00	598.70	1,642.00	1,656.61	4.03	9.41	32.28	-4,764.31	-3,343.48	5,892.33	5,879.40	12.93	455.802		
700.00	697.47	1,802.11	1,807.44	4.31	10.41	33.05	-4,725.47	-3,349.77	5,861.27	5,847.21	14.06	416.975		
800.00	795.62	1,887.60	1,893.92	4.64	10.96	33.73	-4,701.99	-3,353.94	5,826.79	5,811.97	14.82	393.106		
900.00	893.06	1,975.72	1,978.87	5.00	11.54	34.47	-4,678.92	-3,358.03	5,789.74	5,774.10	15.64	370.291		
1,000.00	989.64	2,062.16	2,062.20	5.40	12.10	35.28	-4,656.30	-3,362.05	5,750.19	5,733.72	16.47	349.146		
1,100.00	1,085.27	2,146.80	2,143.80	5.83	12.66	36.16	-4,634.14	-3,365.98	5,708.21	5,690.89	17.32	329.562		
1,200.00	1,179.88	2,229.67	2,223.69	6.29	13.21	36.90	-4,612.45	-3,369.83	5,664.04	5,645.85	18.19	311.392		
1,300.00	1,274.26	2,312.12	2,303.17	6.78	13.76	37.26	-4,590.87	-3,373.65	5,619.54	5,600.47	19.06	294.781		
1,400.00	1,368.63	2,394.56	2,382.65	7.28	14.31	37.63	-4,569.29	-3,377.48	5,575.25	5,555.29	19.96	279.334		
1,500.00	1,463.00	2,477.01	2,462.13	7.80	14.86	38.01	-4,547.71	-3,381.31	5,531.19	5,510.32	20.87	264.983		
1,600.00	1,557.38	2,559.46	2,541.61	8.33	15.42	38.39	-4,526.13	-3,385.14	5,487.37	5,465.56	21.81	251.651		
1,700.00	1,651.75	2,641.91	2,621.09	8.87	15.97	38.77	-4,504.56	-3,388.97	5,443.77	5,421.02	22.75	239.262		
1,800.00	1,746.12	2,724.36	2,700.58	9.41	16.53	39.16	-4,482.98	-3,392.80	5,400.42	5,376.71	23.71	227.741		
1,900.00	1,840.49	2,806.80	2,780.06	9.96	17.08	39.56	-4,461.40	-3,396.63	5,357.32	5,332.63	24.69	217.015		
2,000.00	1,934.87	2,889.25	2,859.54	10.52	17.64	39.96	-4,439.82	-3,400.46	5,314.47	5,288.79	25.67	207.019		
2,100.00	2,029.24	2,971.70	2,939.02	11.08	18.20	40.37	-4,418.24	-3,404.29	5,271.87	5,245.21	26.67	197.690		
2,200.00	2,123.61	3,054.15	3,018.50	11.64	18.76	40.78	-4,396.66	-3,408.11	5,229.55	5,201.87	27.67	188.973		
2,300.00	2,217.99	3,136.60	3,097.98	12.21	19.32	41.19	-4,375.08	-3,411.94	5,187.49	5,158.80	28.69	180.815		
2,400.00	2,312.36	3,219.04	3,177.46	12.78	19.88	41.62	-4,353.50	-3,415.77	5,145.72	5,116.00	29.71	173.170		
2,500.00	2,406.73	3,301.49	3,256.95	13.35	20.44	42.05	-4,331.92	-3,419.60	5,104.22	5,073.48	30.75	165.997		
2,600.00	2,501.10	3,383.94	3,336.43	13.93	21.01	42.48	-4,310.34	-3,423.43	5,063.03	5,031.23	31.79	159.256		
2,700.00	2,595.48	3,466.39	3,415.91	14.51	21.57	42.92	-4,288.76	-3,427.26	5,022.13	4,989.28	32.84	152.913		
2,800.00	2,689.85	3,548.84	3,495.39	15.08	22.13	43.37	-4,267.18	-3,431.09	4,981.53	4,947.63	33.90	146.937		
2,900.00	2,784.22	3,631.29	3,574.87	15.66	22.75	43.82	-4,245.60	-3,434.92	4,941.26	4,906.24	35.02	141.114		
3,000.00	2,878.60	3,713.73	3,654.35	16.25	23.26	44.27	-4,224.02	-3,438.75	4,901.30	4,865.26	36.05	135.977		
3,100.00	2,972.97	3,796.18	3,736.83	16.83	23.81	44.72	-4,202.44	-3,442.58	4,861.84	4,825.88	37.07	131.211		
3,200.00	3,067.34	3,878.63	3,819.48	17.41	24.36	45.17	-4,180.86	-3,446.41	4,822.98	4,787.92	38.07	126.924		
3,300.00	3,161.72	3,961.08	3,902.93	18.00	24.91	45.62	-4,159.28	-3,449.24	4,784.62	4,749.56	39.07	123.106		
3,400.00	3,256.09	4,043.53	3,985.38	18.58	25.46	46.07	-4,137.70	-3,452.07	4,746.26	4,711.20	40.07	119.757		
3,500.00	3,350.46	4,125.98	4,067.83	19.17	26.01	46.52	-4,116.12	-3,454.90	4,707.90	4,672.84	41.07	116.868		
3,600.00	3,444.83	4,208.43	4,150.28	19.75	26.56	46.97	-4,094.54	-3,457.73	4,669.54	4,634.48	42.07	114.429		
3,700.00	3,539.21	4,290.88	4,232.73	20.34	27.11	47.42	-4,072.96	-3,460.56	4,631.18	4,596.12	43.07	112.440		
3,800.00	3,633.58	4,373.33	4,315.18	20.93	27.66	47.87	-4,051.38	-3,463.39	4,592.82	4,557.76	44.07	110.901		
3,900.00	3,727.95	4,455.78	4,397.63	21.52	28.21	48.32	-4,029.80	-3,466.22	4,554.46	4,519.40	45.07	109.812		
4,000.00	3,822.33	4,538.23	4,480.08	22.11	28.76	48.77	-4,008.22	-3,469.05	4,516.10	4,481.04	46.07	109.173		
4,100.00	3,916.70	4,620.68	4,562.53	22.70	29.31	49.22	-3,986.64	-3,471.88	4,477.74	4,442.68	47.07	109.084		
4,200.00	4,011.07	4,703.13	4,645.08	23.29	29.86	49.67	-3,965.06	-3,474.71	4,439.38	4,404.32	48.07	109.545		
4,300.00	4,105.44	4,785.58	4,727.53	23.88	30.41	50.12	-3,943.48	-3,477.54	4,401.02	4,365.96	49.07	110.556		
4,400.00	4,199.82	4,868.03	4,809.98	24.47	30.96	50.57	-3,921.90	-3,480.37	4,362.66	4,327.60	50.07	112.117		
4,500.00	4,294.19	4,950.48	4,892.43	25.06	31.51	51.02	-3,900.32	-3,483.20	4,324.30	4,289.24	51.07	114.228		
4,600.00	4,388.56	5,032.93	4,974.88	25.65	32.06	51.47	-3,878.74	-3,485.03	4,285.94	4,250.88	52.07	116.889		
4,700.00	4,482.94	5,115.38	5,057.33	26.24	32.61	51.92	-3,857.16	-3,486.86	4,247.58	4,212.52	53.07	120.000		
4,800.00	4,577.31	5,197.83	5,139.78	26.83	33.16	52.37	-3,835.58	-3,488.69	4,209.22	4,174.16	54.07	123.611		
4,900.00	4,671.68	5,280.28	5,222.23	27.43	33.71	52.82	-3,814.00	-3,490.52	4,170.86	4,135.80	55.07	127.722		
5,000.00	4,766.05	5,362.73	5,304.68	28.02	34.26	53.27	-3,792.42	-3,492.35	4,132.50	4,097.44	56.07	132.333		
5,100.00	4,860.43	5,445.18	5,387.13	28.61	34.81	53.72	-3,770.84	-3,494.18	4,094.14	4,059.08	57.07	137.444		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN												Offset Site Error:	0.00 ft
Survey Program: 25-MWVD												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
5,200.00	4,954.80	10,435.95	7,075.91	29.20	116.35	-6.71	-3,309.13	-109.80	2,793.12	2,697.46	95.66	29.200	
5,300.00	5,049.17	10,433.85	7,075.91	29.80	116.28	-6.59	-3,309.12	-111.91	2,700.22	2,603.16	97.06	27.819	
5,400.00	5,143.55	10,438.30	7,075.90	30.39	116.42	-6.47	-3,309.12	-114.01	2,607.85	2,509.14	98.71	26.420	
5,500.00	5,237.92	10,440.41	7,075.90	30.99	116.49	-6.35	-3,309.11	-116.12	2,516.06	2,415.66	100.40	25.060	
5,600.00	5,332.29	10,427.53	7,075.90	31.58	116.08	-6.24	-3,309.11	-118.23	2,424.92	2,323.07	101.86	23.807	
5,700.00	5,426.66	10,425.42	7,075.90	32.17	116.01	-6.12	-3,309.10	-120.33	2,334.51	2,230.84	103.66	22.520	
5,800.00	5,521.04	10,423.31	7,075.90	32.77	115.95	-6.00	-3,309.10	-122.44	2,244.90	2,139.31	105.59	21.260	
5,900.00	5,615.41	10,421.21	7,075.89	33.36	115.88	-5.88	-3,309.09	-124.55	2,156.21	2,048.56	107.65	20.030	
6,000.00	5,709.78	10,419.10	7,075.89	33.96	115.82	-5.76	-3,309.09	-126.65	2,068.54	1,958.70	109.84	18.833	
6,100.00	5,804.16	10,416.99	7,075.89	34.55	115.75	-5.64	-3,309.08	-128.76	1,982.04	1,869.88	112.17	17.670	
6,200.00	5,898.53	10,414.88	7,075.89	35.14	115.68	-5.52	-3,309.08	-130.87	1,896.87	1,782.22	114.65	16.545	
6,300.00	5,992.90	10,412.78	7,075.88	35.74	115.62	-5.41	-3,309.07	-132.98	1,813.21	1,695.93	117.28	15.460	
6,400.00	6,087.27	10,410.67	7,075.88	36.33	115.55	-5.29	-3,309.06	-135.08	1,731.28	1,611.21	120.07	14.419	
6,500.00	6,181.65	10,408.56	7,075.88	36.93	115.48	-5.17	-3,309.06	-137.19	1,651.34	1,528.33	123.01	13.425	
6,600.00	6,276.02	10,406.46	7,075.88	37.52	115.42	-5.05	-3,309.05	-139.30	1,573.70	1,447.61	126.09	12.481	
6,700.00	6,370.39	10,404.35	7,075.88	38.12	115.35	-4.93	-3,309.05	-141.40	1,498.70	1,369.41	129.29	11.592	
6,800.00	6,464.77	10,402.24	7,075.87	38.71	115.29	-4.81	-3,309.04	-143.51	1,426.77	1,294.19	132.58	10.762	
6,900.00	6,559.14	10,400.14	7,075.87	39.31	115.22	-4.69	-3,309.04	-145.62	1,358.39	1,222.50	135.90	9.996	
7,000.00	6,653.52	10,398.03	7,075.86	39.90	114.90	-35.13	-3,309.01	-155.68	1,294.44	1,155.53	138.91	9.319	
7,100.00	6,747.90	10,364.58	7,075.84	40.44	114.10	-56.19	-3,308.95	-181.17	1,236.65	1,095.46	141.19	8.759	
7,200.00	6,830.13	10,324.30	7,075.80	40.94	112.84	-69.39	-3,308.85	-221.46	1,186.49	1,043.91	142.58	8.322	
7,300.00	6,909.19	10,270.21	7,075.74	41.37	111.15	-77.36	-3,308.72	-275.54	1,144.76	1,001.78	142.98	8.007	
7,400.00	6,979.23	10,203.65	7,075.68	41.75	109.07	-81.97	-3,308.55	-342.10	1,111.59	969.16	142.43	7.804	
7,500.00	7,038.53	10,126.26	7,075.60	42.08	106.66	-84.45	-3,308.36	-419.50	1,086.49	945.39	141.10	7.700	
7,600.00	7,085.63	10,039.94	7,075.51	42.37	103.98	-85.60	-3,308.15	-505.82	1,068.53	929.32	139.21	7.676 SF	
7,700.00	7,119.37	9,946.81	7,075.42	42.64	101.11	-86.04	-3,307.92	-598.94	1,056.62	919.58	137.05	7.710	
7,800.00	7,138.92	9,849.18	7,075.32	42.91	98.11	-86.17	-3,307.68	-696.57	1,049.77	914.94	134.84	7.785	
7,900.00	7,143.92	9,749.45	7,075.22	43.25	95.06	-86.24	-3,307.43	-796.30	1,047.30	914.55	132.75	7.889	
8,000.00	7,143.35	9,649.45	7,075.13	43.72	92.03	-86.26	-3,307.18	-896.30	1,046.41	915.57	130.84	7.998	
8,100.00	7,142.78	9,549.46	7,075.03	44.42	89.01	-86.29	-3,306.94	-996.29	1,045.52	916.41	129.11	8.098	
8,200.00	7,142.22	9,449.46	7,074.93	45.39	86.03	-86.31	-3,306.69	-1,096.29	1,044.63	917.09	127.54	8.190	
8,300.00	7,141.65	9,349.47	7,074.83	46.63	83.07	-86.33	-3,306.44	-1,196.28	1,043.74	917.61	126.13	8.275	
8,400.00	7,141.08	9,249.47	7,074.73	48.09	80.14	-86.35	-3,306.19	-1,296.28	1,042.85	918.00	124.86	8.353	
8,500.00	7,140.51	9,149.96	7,074.13	49.74	77.26	-86.35	-3,305.95	-1,395.79	1,042.00	918.26	123.74	8.421	
8,600.00	7,139.94	9,049.96	7,073.30	51.53	74.41	-86.33	-3,305.70	-1,495.78	1,041.15	918.44	122.71	8.484	
8,700.00	7,139.37	8,949.97	7,072.48	53.44	71.60	-86.32	-3,305.45	-1,595.77	1,040.31	918.50	121.81	8.540	
8,800.00	7,138.80	8,849.97	7,071.65	55.45	68.85	-86.30	-3,305.21	-1,695.77	1,039.47	918.45	121.02	8.589	
8,900.00	7,138.24	8,749.97	7,070.82	57.55	66.16	-86.28	-3,304.96	-1,795.76	1,038.63	918.29	120.34	8.631	
9,000.00	7,137.67	8,649.98	7,069.99	59.71	63.54	-86.26	-3,304.71	-1,895.75	1,037.79	918.02	119.77	8.665	
9,100.00	7,137.10	8,549.98	7,069.17	61.94	61.01	-86.25	-3,304.46	-1,995.74	1,036.95	917.64	119.30	8.692	
9,200.00	7,136.53	8,449.99	7,068.34	64.22	58.59	-86.23	-3,304.22	-2,095.73	1,036.11	917.15	118.96	8.710	
9,300.00	7,135.96	8,349.99	7,067.51	66.55	56.30	-86.21	-3,303.97	-2,195.73	1,035.26	916.54	118.73	8.720	
9,400.00	7,135.39	8,249.99	7,066.69	68.92	54.17	-86.19	-3,303.72	-2,295.72	1,034.42	915.80	118.62	8.720	
9,500.00	7,134.83	8,150.00	7,065.86	71.33	52.25	-86.18	-3,303.48	-2,395.71	1,033.58	914.93	118.66	8.711	
9,600.00	7,134.26	8,050.00	7,065.03	73.77	50.59	-86.16	-3,303.23	-2,495.70	1,032.74	913.90	118.84	8.690	
9,700.00	7,133.69	7,950.01	7,064.20	76.24	49.23	-86.14	-3,302.98	-2,595.70	1,031.90	912.71	119.19	8.658	
9,800.00	7,133.12	7,850.01	7,063.38	78.74	48.19	-86.12	-3,302.73	-2,695.69	1,031.06	911.34	119.72	8.612	
9,900.00	7,132.55	7,750.01	7,062.55	81.27	47.46	-86.11	-3,302.49	-2,795.68	1,030.22	909.76	120.46	8.553	
10,000.00	7,131.98	7,650.02	7,061.72	83.81	46.96	-86.09	-3,302.24	-2,895.67	1,029.38	907.95	121.43	8.477	
10,069.92	7,131.59	7,588.74	7,061.01	85.60	46.75	-86.07	-3,302.14	-2,956.94	1,028.90	906.43	122.46	8.402 CC	
10,100.00	7,131.42	7,569.10	7,060.07	86.38	46.69	-86.02	-3,302.31	-2,976.56	1,029.05	905.96	123.09	8.360 ES	
10,200.00	7,130.85	7,504.51	7,052.87	88.96	46.53	-85.65	-3,303.96	-3,040.70	1,031.78	906.65	125.14	8.245	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,442.18	7,040.01	91.56	46.39	-84.97	-3,307.16	-3,101.58	1,038.10	910.93	127.16	8.163		
10,400.00	7,129.71	7,382.42	7,022.35	94.18	46.26	-84.04	-3,311.68	-3,158.47	1,048.28	919.16	129.13	8.118		
10,500.00	7,129.14	7,326.70	7,001.31	96.81	46.14	-82.94	-3,317.15	-3,209.75	1,062.69	931.73	130.96	8.115		
10,600.00	7,128.57	7,275.18	6,978.08	99.45	46.03	-81.74	-3,323.23	-3,255.31	1,081.67	948.98	132.70	8.152		
10,700.00	7,128.00	7,228.01	6,953.76	102.11	45.92	-80.51	-3,329.64	-3,295.20	1,105.50	971.37	134.14	8.242		
10,800.00	7,127.44	7,183.10	6,928.01	104.77	45.81	-79.22	-3,336.45	-3,331.35	1,134.37	999.03	135.34	8.382		
10,900.00	7,126.87	7,146.28	6,905.11	107.45	45.71	-78.11	-3,342.53	-3,359.53	1,168.32	1,032.00	136.32	8.570		
11,000.00	7,126.30	7,111.20	6,881.87	110.13	45.61	-76.99	-3,348.72	-3,385.07	1,207.32	1,070.31	137.01	8.812		
11,100.00	7,125.73	7,079.54	6,859.75	112.82	45.51	-75.95	-3,354.61	-3,406.94	1,251.20	1,113.74	137.46	9.103		
11,200.00	7,125.16	7,050.00	6,838.20	115.53	45.42	-74.96	-3,360.37	-3,426.30	1,299.72	1,162.07	137.65	9.442		
11,300.00	7,124.59	7,025.13	6,819.40	118.24	45.33	-74.11	-3,365.40	-3,441.78	1,352.61	1,214.95	137.66	9.826		
11,400.00	7,124.03	7,000.00	6,799.83	120.95	45.24	-73.24	-3,370.64	-3,456.64	1,409.55	1,272.08	137.47	10.253		
11,500.00	7,123.46	6,980.53	6,784.28	123.67	45.16	-72.56	-3,374.80	-3,467.60	1,470.20	1,333.04	137.16	10.719		
11,600.00	7,122.89	6,950.00	6,759.27	126.40	45.05	-71.48	-3,381.51	-3,483.77	1,534.36	1,397.68	136.68	11.226		
11,700.00	7,122.32	6,943.64	6,753.98	129.14	45.02	-71.26	-3,382.93	-3,486.98	1,601.36	1,465.18	136.18	11.759		
11,800.00	7,121.75	6,935.01	6,746.73	131.88	44.98	-70.95	-3,384.88	-3,491.25	1,671.31	1,535.73	135.58	12.327		
11,900.00	7,121.18	6,912.83	6,727.86	134.62	44.89	-70.17	-3,389.95	-3,501.76	1,743.66	1,608.75	134.92	12.924		
12,000.00	7,120.61	6,900.00	6,716.80	137.37	44.83	-69.72	-3,392.92	-3,507.52	1,818.32	1,684.10	134.22	13.547		
12,100.00	7,120.05	6,900.00	6,716.80	140.12	44.83	-69.72	-3,392.92	-3,507.52	1,895.18	1,761.68	133.50	14.196		
12,200.00	7,119.48	6,875.29	6,695.17	142.88	44.72	-68.85	-3,398.74	-3,517.97	1,973.53	1,840.74	132.79	14.862		
12,300.00	7,118.91	6,850.00	6,672.66	145.64	44.60	-67.96	-3,404.80	-3,527.75	2,053.90	1,921.81	132.08	15.550		
12,400.00	7,118.34	6,850.00	6,672.66	148.41	44.60	-67.96	-3,404.80	-3,527.75	2,135.37	2,004.01	131.36	16.256		
12,500.00	7,117.77	6,850.00	6,672.66	151.18	44.60	-67.96	-3,404.80	-3,527.75	2,218.35	2,087.72	130.63	16.982		
12,600.00	7,117.20	6,835.01	6,659.14	153.95	44.53	-67.44	-3,408.44	-3,533.11	2,302.53	2,172.58	129.95	17.718		
12,700.00	7,116.64	6,835.01	6,659.14	156.73	44.53	-67.44	-3,408.44	-3,533.11	2,387.85	2,258.60	129.26	18.473		
12,800.00	7,116.07	6,821.42	6,646.79	159.50	44.46	-66.97	-3,411.77	-3,537.68	2,474.11	2,345.49	128.62	19.236		
12,900.00	7,115.50	6,814.39	6,640.36	162.29	44.42	-66.72	-3,413.50	-3,539.94	2,561.29	2,433.31	127.99	20.012		
13,000.00	7,114.93	6,800.00	6,627.13	165.07	44.35	-66.23	-3,417.07	-3,544.34	2,649.36	2,521.97	127.40	20.796		
13,100.00	7,114.36	6,800.00	6,627.13	167.86	44.35	-66.23	-3,417.07	-3,544.34	2,738.07	2,611.28	126.79	21.596		
13,200.00	7,113.79	6,800.00	6,627.13	170.64	44.35	-66.23	-3,417.07	-3,544.34	2,827.53	2,701.33	126.20	22.405		
13,300.00	7,113.22	6,800.00	6,627.13	173.44	44.35	-66.23	-3,417.07	-3,544.34	2,917.68	2,792.04	125.63	23.223		
13,400.00	7,112.66	6,800.00	6,627.13	176.23	44.35	-66.23	-3,417.07	-3,544.34	3,008.45	2,883.35	125.09	24.050		
13,500.00	7,112.09	6,780.05	6,608.63	179.02	44.24	-65.55	-3,422.06	-3,549.91	3,099.42	2,974.78	124.64	24.867		
13,600.00	7,111.52	6,775.36	6,604.26	181.82	44.22	-65.39	-3,423.24	-3,551.13	3,191.09	3,066.93	124.16	25.702		
13,700.00	7,110.95	6,770.92	6,600.11	184.62	44.19	-65.24	-3,424.36	-3,552.26	3,283.21	3,159.51	123.69	26.543		
13,800.00	7,110.38	6,750.56	6,581.01	187.42	44.08	-64.56	-3,429.52	-3,557.04	3,375.97	3,252.68	123.30	27.381		
13,900.00	7,109.81	6,750.56	6,581.01	190.22	44.08	-64.56	-3,429.52	-3,557.04	3,468.79	3,345.93	122.86	28.233		
14,000.00	7,109.25	6,750.56	6,581.01	193.03	44.08	-64.56	-3,429.52	-3,557.04	3,561.99	3,439.55	122.44	29.091		
14,100.00	7,108.68	6,750.56	6,581.01	195.84	44.08	-64.56	-3,429.52	-3,557.04	3,655.56	3,533.52	122.04	29.954		
14,200.00	7,108.11	6,750.56	6,581.01	198.64	44.08	-64.56	-3,429.52	-3,557.04	3,749.45	3,627.80	121.65	30.821		
14,300.00	7,107.54	6,750.56	6,581.01	201.45	44.08	-64.56	-3,429.52	-3,557.04	3,843.66	3,722.37	121.29	31.691		
14,400.00	7,106.97	6,750.56	6,581.01	204.26	44.08	-64.56	-3,429.52	-3,557.04	3,938.15	3,817.21	120.93	32.565		
14,500.00	7,106.40	6,742.17	6,573.10	207.07	44.04	-64.28	-3,431.66	-3,558.83	4,032.84	3,912.22	120.62	33.434		
14,600.00	7,105.83	6,735.01	6,566.33	209.89	44.00	-64.04	-3,433.49	-3,560.27	4,127.81	4,007.49	120.32	34.307		
14,700.00	7,105.27	6,735.01	6,566.33	212.70	44.00	-64.04	-3,433.49	-3,560.27	4,222.96	4,102.95	120.01	35.189		
14,800.00	7,104.70	6,735.01	6,566.33	215.52	44.00	-64.04	-3,433.49	-3,560.27	4,318.34	4,198.63	119.71	36.073		
14,900.00	7,104.13	6,735.01	6,566.33	218.33	44.00	-64.04	-3,433.49	-3,560.27	4,413.92	4,294.49	119.43	36.960		
15,000.00	7,103.56	6,735.01	6,566.33	221.15	44.00	-64.04	-3,433.49	-3,560.27	4,509.69	4,390.54	119.15	37.848		
15,100.00	7,102.99	6,735.01	6,566.33	223.97	44.00	-64.04	-3,433.49	-3,560.27	4,605.64	4,486.75	118.89	38.738		
15,200.00	7,102.42	6,735.01	6,566.33	226.79	44.00	-64.04	-3,433.49	-3,560.27	4,701.76	4,583.12	118.64	39.630		
15,274.57	7,102.00	6,735.01	6,566.33	228.89	44.00	-64.04	-3,433.49	-3,560.27	4,773.54	4,655.08	118.46	40.296		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER FARM 1-21(PA_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	64.00	3.28	3.28	-123.20	-4,150.79	-6,342.68	7,580.42					
100.00	100.00	36.00	100.00	3.28	3.34	-123.20	-4,150.79	-6,342.68	7,580.15	7,573.53	6.62	1,144.282		
200.00	200.00	136.00	200.00	3.34	4.45	-123.20	-4,150.79	-6,342.68	7,580.15	7,572.37	7.78	973.862		
300.00	299.98	235.98	299.98	3.44	7.27	52.87	-4,150.79	-6,342.68	7,579.10	7,568.38	10.71	707.426		
400.00	399.84	335.84	399.84	3.59	10.50	52.95	-4,150.79	-6,342.68	7,575.94	7,561.84	14.09	537.546		
500.00	499.45	435.45	499.45	3.79	13.85	53.09	-4,150.79	-6,342.68	7,570.68	7,553.04	17.64	429.214		
600.00	598.70	534.70	598.70	4.03	17.24	53.28	-4,150.79	-6,342.68	7,563.34	7,542.08	21.27	355.642		
700.00	697.47	633.47	697.47	4.31	20.63	53.52	-4,150.79	-6,342.68	7,553.94	7,529.00	24.94	302.835		
800.00	795.62	731.62	795.62	4.64	24.02	53.83	-4,150.79	-6,342.68	7,542.50	7,513.85	28.65	263.250		
900.00	893.06	829.06	893.06	5.00	27.39	54.18	-4,150.79	-6,342.68	7,529.06	7,496.68	32.38	232.547		
1,000.00	989.64	925.64	989.64	5.40	30.74	54.59	-4,150.79	-6,342.68	7,513.64	7,477.53	36.11	208.079		
1,100.00	1,085.27	1,021.27	1,085.27	5.83	34.07	55.06	-4,150.79	-6,342.68	7,496.29	7,456.45	39.84	188.145		
1,200.00	1,179.88	1,115.88	1,179.88	6.29	37.35	55.46	-4,150.79	-6,342.68	7,477.18	7,433.61	43.57	171.603		
1,300.00	1,274.26	1,210.26	1,274.26	6.78	40.64	55.66	-4,150.79	-6,342.68	7,457.74	7,410.43	47.31	157.627		
1,400.00	1,368.63	1,304.63	1,368.63	7.28	43.92	55.86	-4,150.79	-6,342.68	7,438.39	7,387.32	51.07	145.650		
1,500.00	1,463.00	1,401.00	1,463.00	7.80	47.28	56.07	-4,150.79	-6,342.68	7,419.15	7,364.23	54.91	135.109		
1,600.00	1,557.38	1,506.62	1,557.38	8.33	50.96	56.27	-4,150.79	-6,342.68	7,400.00	7,340.91	59.09	125.234		
1,700.00	1,651.75	1,587.75	1,651.75	8.87	53.78	56.48	-4,150.79	-6,342.68	7,380.95	7,318.52	62.42	118.242		
1,800.00	1,746.12	1,682.12	1,746.12	9.41	57.07	56.68	-4,150.79	-6,342.68	7,362.00	7,295.77	66.23	111.164		
1,900.00	1,840.49	1,776.49	1,840.49	9.96	60.36	56.89	-4,150.79	-6,342.68	7,343.14	7,273.11	70.04	104.847		
2,000.00	1,934.87	1,870.87	1,934.87	10.52	63.65	57.10	-4,150.79	-6,342.68	7,324.39	7,250.54	73.85	99.174		
2,100.00	2,029.24	1,965.24	2,029.24	11.08	66.94	57.31	-4,150.79	-6,342.68	7,305.74	7,228.07	77.68	94.053		
2,200.00	2,123.61	2,059.61	2,123.61	11.64	70.23	57.52	-4,150.79	-6,342.68	7,287.20	7,205.69	81.50	89.408		
2,300.00	2,217.99	2,153.99	2,217.99	12.21	73.52	57.73	-4,150.79	-6,342.68	7,268.75	7,183.42	85.34	85.177		
2,400.00	2,312.36	2,248.36	2,312.36	12.78	76.81	57.94	-4,150.79	-6,342.68	7,250.41	7,161.24	89.17	81.308		
2,500.00	2,406.73	2,342.73	2,406.73	13.35	80.11	58.15	-4,150.79	-6,342.68	7,232.18	7,139.17	93.01	77.756		
2,600.00	2,501.10	2,437.10	2,501.10	13.93	83.40	58.37	-4,150.79	-6,342.68	7,214.05	7,117.20	96.85	74.484		
2,700.00	2,595.48	2,531.48	2,595.48	14.51	86.69	58.58	-4,150.79	-6,342.68	7,196.03	7,095.33	100.70	71.461		
2,800.00	2,689.85	2,625.85	2,689.85	15.08	89.98	58.80	-4,150.79	-6,342.68	7,178.11	7,073.56	104.55	68.659		
2,900.00	2,784.22	2,720.22	2,784.22	15.66	93.28	59.02	-4,150.79	-6,342.68	7,160.30	7,051.91	108.40	66.056		
3,000.00	2,878.60	2,814.60	2,878.60	16.25	96.57	59.23	-4,150.79	-6,342.68	7,142.60	7,030.36	112.25	63.632		
3,100.00	2,972.97	2,908.97	2,972.97	16.83	99.86	59.45	-4,150.79	-6,342.68	7,125.01	7,008.91	116.10	61.368		
3,200.00	3,067.34	3,003.34	3,067.34	17.41	103.15	59.67	-4,150.79	-6,342.68	7,107.54	6,987.58	119.96	59.249		
3,300.00	3,161.72	3,102.29	3,161.72	18.00	106.61	59.89	-4,150.79	-6,342.68	7,090.17	6,966.19	123.98	57.189		
3,400.00	3,256.09	3,207.91	3,256.09	18.58	110.29	60.12	-4,150.79	-6,342.68	7,072.91	6,944.68	128.23	55.158		
3,500.00	3,350.46	3,286.46	3,350.46	19.17	113.03	60.34	-4,150.79	-6,342.68	7,055.77	6,924.23	131.54	53.640		
3,600.00	3,444.83	3,380.83	3,444.83	19.75	116.33	60.56	-4,150.79	-6,342.68	7,038.74	6,903.34	135.40	51.984		
3,700.00	3,539.21	3,475.21	3,539.21	20.34	119.62	60.79	-4,150.79	-6,342.68	7,021.82	6,882.56	139.27	50.420		
3,800.00	3,633.58	3,569.58	3,633.58	20.93	122.91	61.01	-4,150.79	-6,342.68	7,005.02	6,861.89	143.13	48.941		
3,900.00	3,727.95	3,663.95	3,727.95	21.52	126.21	61.24	-4,150.79	-6,342.68	6,988.34	6,841.34	147.00	47.540		
4,000.00	3,822.33	3,758.33	3,822.33	22.11	129.50	61.47	-4,150.79	-6,342.68	6,971.77	6,820.90	150.87	46.211		
4,100.00	3,916.70	3,852.70	3,916.70	22.70	132.79	61.70	-4,150.79	-6,342.68	6,955.32	6,800.59	154.74	44.949		
4,200.00	4,011.07	3,947.07	4,011.07	23.29	136.09	61.93	-4,150.79	-6,342.68	6,938.99	6,780.38	158.61	43.749		
4,300.00	4,105.44	4,041.44	4,105.44	23.88	139.38	62.16	-4,150.79	-6,342.68	6,922.78	6,760.30	162.48	42.607		
4,400.00	4,199.82	4,135.82	4,199.82	24.47	142.67	62.39	-4,150.79	-6,342.68	6,906.69	6,740.34	166.35	41.518		
4,500.00	4,294.19	4,230.19	4,294.19	25.06	145.97	62.62	-4,150.79	-6,342.68	6,890.72	6,720.49	170.23	40.480		
4,600.00	4,388.56	4,324.56	4,388.56	25.65	149.26	62.86	-4,150.79	-6,342.68	6,874.87	6,700.77	174.10	39.487		
4,700.00	4,482.94	4,418.94	4,482.94	26.24	152.56	63.09	-4,150.79	-6,342.68	6,859.15	6,681.17	177.98	38.539		
4,800.00	4,577.31	4,513.31	4,577.31	26.83	155.85	63.33	-4,150.79	-6,342.68	6,843.55	6,661.69	181.86	37.632		
4,900.00	4,671.68	4,607.68	4,671.68	27.43	159.14	63.57	-4,150.79	-6,342.68	6,828.07	6,642.34	185.73	36.763		
5,000.00	4,766.05	4,702.05	4,766.05	28.02	162.44	63.80	-4,150.79	-6,342.68	6,812.72	6,623.11	189.61	35.929		
5,100.00	4,860.43	4,803.57	4,860.43	28.61	165.98	64.04	-4,150.79	-6,342.68	6,797.50	6,603.75	193.74	35.085		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER FARM 1-21(PA_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,909.20	4,954.80	29.20	169.67	64.28	-4,150.79	-6,342.68	6,782.40	6,584.38	198.02	34.252		
5,300.00	5,049.17	4,985.17	5,049.17	29.80	172.32	64.52	-4,150.79	-6,342.68	6,767.43	6,566.17	201.26	33.626		
5,400.00	5,143.55	5,079.55	5,143.55	30.39	175.61	64.77	-4,150.79	-6,342.68	6,752.59	6,547.45	205.14	32.917		
5,500.00	5,237.92	5,173.92	5,237.92	30.99	178.91	65.01	-4,150.79	-6,342.68	6,737.88	6,528.85	209.02	32.235		
5,600.00	5,332.29	5,268.29	5,332.29	31.58	182.20	65.25	-4,150.79	-6,342.68	6,723.30	6,510.39	212.91	31.578		
5,700.00	5,426.66	5,362.66	5,426.66	32.17	185.49	65.50	-4,150.79	-6,342.68	6,708.85	6,492.05	216.79	30.946		
5,800.00	5,521.04	5,457.04	5,521.04	32.77	188.79	65.74	-4,150.79	-6,342.68	6,694.53	6,473.85	220.68	30.336		
5,900.00	5,615.41	5,551.41	5,615.41	33.36	192.08	65.99	-4,150.79	-6,342.68	6,680.34	6,455.78	224.57	29.748		
6,000.00	5,709.78	5,645.78	5,709.78	33.96	195.38	66.24	-4,150.79	-6,342.68	6,666.29	6,437.84	228.45	29.180		
6,100.00	5,804.16	5,740.16	5,804.16	34.55	198.67	66.48	-4,150.79	-6,342.68	6,652.38	6,420.04	232.34	28.632		
6,200.00	5,898.53	5,834.53	5,898.53	35.14	201.96	66.73	-4,150.79	-6,342.68	6,638.60	6,402.37	236.23	28.102		
6,300.00	5,992.90	5,928.90	5,992.90	35.74	205.26	66.98	-4,150.79	-6,342.68	6,624.96	6,384.83	240.12	27.590		
6,400.00	6,087.27	6,023.27	6,087.27	36.33	208.55	67.24	-4,150.79	-6,342.68	6,611.45	6,367.44	244.01	27.095		
6,500.00	6,181.65	6,117.65	6,181.65	36.93	211.85	67.49	-4,150.79	-6,342.68	6,598.08	6,350.18	247.90	26.615		
6,600.00	6,276.02	6,212.02	6,276.02	37.52	215.14	67.74	-4,150.79	-6,342.68	6,584.85	6,333.06	251.80	26.151		
6,700.00	6,370.39	6,306.39	6,370.39	38.12	218.44	67.99	-4,150.79	-6,342.68	6,571.76	6,316.07	255.69	25.702		
6,800.00	6,464.77	6,400.77	6,464.77	38.71	221.73	68.25	-4,150.79	-6,342.68	6,558.81	6,299.23	259.58	25.267		
6,900.00	6,559.14	6,504.86	6,559.14	39.31	225.36	68.29	-4,150.79	-6,342.68	6,546.01	6,282.19	263.82	24.813		
7,000.00	6,652.92	6,588.92	6,652.92	39.90	228.30	44.73	-4,150.79	-6,342.68	6,525.84	6,258.50	267.33	24.411		
7,100.00	6,744.00	6,680.00	6,744.00	40.44	231.48	27.79	-4,150.79	-6,342.68	6,491.40	6,220.37	271.03	23.951		
7,200.00	6,830.13	6,766.13	6,830.13	40.94	234.48	16.26	-4,150.79	-6,342.68	6,443.48	6,168.99	274.49	23.475		
7,300.00	6,909.19	6,845.19	6,909.19	41.37	237.24	7.57	-4,150.79	-6,342.68	6,383.21	6,105.59	277.62	22.992		
7,400.00	6,979.23	6,915.23	6,979.23	41.75	239.69	-0.26	-4,150.79	-6,342.68	6,312.06	6,031.69	280.36	22.514		
7,500.00	7,038.53	6,974.53	7,038.53	42.08	241.76	-8.94	-4,150.79	-6,342.68	6,231.75	5,949.10	282.64	22.048		
7,600.00	7,085.63	7,021.63	7,085.63	42.37	243.40	-20.73	-4,150.79	-6,342.68	6,144.28	5,859.86	284.42	21.603		
7,700.00	7,119.37	7,055.37	7,119.37	42.64	244.58	-39.07	-4,150.79	-6,342.68	6,051.84	5,766.19	285.64	21.187		
7,800.00	7,138.92	7,074.92	7,138.92	42.91	245.26	-66.25	-4,150.79	-6,342.68	5,956.75	5,670.45	286.30	20.806		
7,900.00	7,143.92	7,079.92	7,143.92	43.25	245.44	-90.98	-4,150.79	-6,342.68	5,861.42	5,575.01	286.41	20.465		
8,000.00	7,143.35	7,079.35	7,143.35	43.72	245.42	-90.96	-4,150.79	-6,342.68	5,766.65	5,480.32	286.32	20.140		
8,100.00	7,142.78	7,078.78	7,142.78	44.42	245.40	-90.94	-4,150.79	-6,342.68	5,672.05	5,385.79	286.26	19.814		
8,200.00	7,142.22	7,078.22	7,142.22	45.39	245.38	-90.92	-4,150.79	-6,342.68	5,577.64	5,291.41	286.23	19.487		
8,300.00	7,141.65	7,077.65	7,141.65	46.63	245.36	-90.91	-4,150.79	-6,342.68	5,483.43	5,197.21	286.23	19.158		
8,400.00	7,141.08	7,077.08	7,141.08	48.09	245.34	-90.89	-4,150.79	-6,342.68	5,389.43	5,103.18	286.26	18.827		
8,500.00	7,140.51	7,076.51	7,140.51	49.74	245.32	-90.87	-4,150.79	-6,342.68	5,295.65	5,009.33	286.32	18.496		
8,600.00	7,139.94	7,075.94	7,139.94	51.53	245.30	-90.85	-4,150.79	-6,342.68	5,202.10	4,915.68	286.42	18.162		
8,700.00	7,139.37	7,075.37	7,139.37	53.44	245.28	-90.84	-4,150.79	-6,342.68	5,108.80	4,822.23	286.57	17.827		
8,800.00	7,138.80	7,074.80	7,138.80	55.45	245.26	-90.82	-4,150.79	-6,342.68	5,015.75	4,728.98	286.77	17.491		
8,900.00	7,138.24	7,074.24	7,138.24	57.55	245.24	-90.80	-4,150.79	-6,342.68	4,922.98	4,635.96	287.02	17.152		
9,000.00	7,137.67	7,073.67	7,137.67	59.71	245.22	-90.78	-4,150.79	-6,342.68	4,830.49	4,543.17	287.32	16.812		
9,100.00	7,137.10	7,073.10	7,137.10	61.94	245.20	-90.77	-4,150.79	-6,342.68	4,738.31	4,450.63	287.68	16.471		
9,200.00	7,136.53	7,072.53	7,136.53	64.22	245.18	-90.75	-4,150.79	-6,342.68	4,646.45	4,358.34	288.11	16.127		
9,300.00	7,135.96	7,071.96	7,135.96	66.55	245.16	-90.73	-4,150.79	-6,342.68	4,554.94	4,266.32	288.61	15.782		
9,400.00	7,135.39	7,071.39	7,135.39	68.92	245.14	-90.71	-4,150.79	-6,342.68	4,463.79	4,174.60	289.19	15.436		
9,500.00	7,134.83	7,070.83	7,134.83	71.33	245.12	-90.70	-4,150.79	-6,342.68	4,373.02	4,083.17	289.85	15.087		
9,600.00	7,134.26	7,070.26	7,134.26	73.77	245.10	-90.68	-4,150.79	-6,342.68	4,282.67	3,992.07	290.59	14.738		
9,700.00	7,133.69	7,069.69	7,133.69	76.24	245.08	-90.66	-4,150.79	-6,342.68	4,192.75	3,901.32	291.43	14.387		
9,800.00	7,133.12	7,069.12	7,133.12	78.74	245.06	-90.64	-4,150.79	-6,342.68	4,103.31	3,810.93	292.37	14.035		
9,900.00	7,132.55	7,068.55	7,132.55	81.27	245.04	-90.63	-4,150.79	-6,342.68	4,014.36	3,720.94	293.42	13.681		
10,000.00	7,131.98	7,067.98	7,131.98	83.81	245.02	-90.61	-4,150.79	-6,342.68	3,925.94	3,631.37	294.57	13.328		
10,100.00	7,131.42	7,067.42	7,131.42	86.38	245.00	-90.59	-4,150.79	-6,342.68	3,838.09	3,542.24	295.84	12.973		
10,200.00	7,130.85	7,066.85	7,130.85	88.96	244.98	-90.57	-4,150.79	-6,342.68	3,750.85	3,453.60	297.24	12.619		
10,300.00	7,130.28	7,066.28	7,130.28	91.56	244.96	-90.56	-4,150.79	-6,342.68	3,664.26	3,365.48	298.77	12.264		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER FARM 1-21(PA_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,129.71	7,065.71	7,129.71	94.18	244.94	-90.54	-4,150.79	-6,342.68	3,578.37	3,277.93	300.44	11.911	
10,500.00	7,129.14	7,065.14	7,129.14	96.81	244.92	-90.52	-4,150.79	-6,342.68	3,493.23	3,190.98	302.25	11.557	
10,600.00	7,128.57	7,064.57	7,128.57	99.45	244.90	-90.50	-4,150.79	-6,342.68	3,408.89	3,104.68	304.21	11.206	
10,700.00	7,128.00	7,064.00	7,128.00	102.11	244.88	-90.48	-4,150.79	-6,342.68	3,325.43	3,019.10	306.33	10.856	
10,800.00	7,127.44	7,063.44	7,127.44	104.77	244.86	-90.47	-4,150.79	-6,342.68	3,242.90	2,934.29	308.61	10.508	
10,900.00	7,126.87	7,062.87	7,126.87	107.45	244.84	-90.45	-4,150.79	-6,342.68	3,161.38	2,850.31	311.07	10.163	
11,000.00	7,126.30	7,062.30	7,126.30	110.13	244.82	-90.43	-4,150.79	-6,342.68	3,080.95	2,767.25	313.70	9.821	
11,100.00	7,125.73	7,061.73	7,125.73	112.82	244.80	-90.41	-4,150.79	-6,342.68	3,001.70	2,685.18	316.52	9.483	
11,200.00	7,125.16	7,061.16	7,125.16	115.53	244.78	-90.40	-4,150.79	-6,342.68	2,923.71	2,604.18	319.53	9.150	
11,300.00	7,124.59	7,060.59	7,124.59	118.24	244.76	-90.38	-4,150.79	-6,342.68	2,847.11	2,524.37	322.74	8.822	
11,400.00	7,124.03	7,060.03	7,124.03	120.95	244.74	-90.36	-4,150.79	-6,342.68	2,771.99	2,445.85	326.14	8.499	
11,500.00	7,123.46	7,059.46	7,123.46	123.67	244.72	-90.34	-4,150.79	-6,342.68	2,698.49	2,368.74	329.76	8.183	
11,600.00	7,122.89	7,058.89	7,122.89	126.40	244.70	-90.33	-4,150.79	-6,342.68	2,626.75	2,293.17	333.58	7.875	
11,700.00	7,122.32	7,058.32	7,122.32	129.14	244.68	-90.31	-4,150.79	-6,342.68	2,556.90	2,219.29	337.60	7.574	
11,800.00	7,121.75	7,057.75	7,121.75	131.88	244.66	-90.29	-4,150.79	-6,342.68	2,489.10	2,147.26	341.84	7.281	
11,900.00	7,121.18	7,057.18	7,121.18	134.62	244.64	-90.27	-4,150.79	-6,342.68	2,423.54	2,077.26	346.28	6.999	
12,000.00	7,120.61	7,056.61	7,120.61	137.37	244.62	-90.26	-4,150.79	-6,342.68	2,360.40	2,009.47	350.92	6.726	
12,100.00	7,120.05	7,056.05	7,120.05	140.12	244.60	-90.24	-4,150.79	-6,342.68	2,299.87	1,944.12	355.75	6.465	
12,200.00	7,119.48	7,055.48	7,119.48	142.88	244.58	-90.22	-4,150.79	-6,342.68	2,242.17	1,881.42	360.74	6.215	
12,300.00	7,118.91	7,054.91	7,118.91	145.64	244.56	-90.20	-4,150.79	-6,342.68	2,187.52	1,821.63	365.89	5.979	
12,400.00	7,118.34	7,054.34	7,118.34	148.41	244.54	-90.19	-4,150.79	-6,342.68	2,136.15	1,765.00	371.15	5.755	
12,500.00	7,117.77	7,053.77	7,117.77	151.18	244.52	-90.17	-4,150.79	-6,342.68	2,088.31	1,711.81	376.51	5.547	
12,600.00	7,117.20	7,053.20	7,117.20	153.95	244.50	-90.15	-4,150.79	-6,342.68	2,044.25	1,662.35	381.91	5.353	
12,700.00	7,116.64	7,052.64	7,116.64	156.73	244.48	-90.13	-4,150.79	-6,342.68	2,004.22	1,616.91	387.30	5.175	
12,800.00	7,116.07	7,052.07	7,116.07	159.50	244.46	-90.12	-4,150.79	-6,342.68	1,968.45	1,575.81	392.64	5.013	
12,900.00	7,115.50	7,051.50	7,115.50	162.29	244.44	-90.10	-4,150.79	-6,342.68	1,937.19	1,539.32	397.87	4.869	
13,000.00	7,114.93	7,050.93	7,114.93	165.07	244.42	-90.08	-4,150.79	-6,342.68	1,910.66	1,507.74	402.92	4.742	
13,100.00	7,114.36	7,050.36	7,114.36	167.86	244.41	-90.06	-4,150.79	-6,342.68	1,889.06	1,481.33	407.72	4.633	
13,200.00	7,113.79	7,049.79	7,113.79	170.64	244.39	-90.05	-4,150.79	-6,342.68	1,872.55	1,460.33	412.22	4.543	
13,300.00	7,113.22	7,049.22	7,113.22	173.44	244.37	-90.03	-4,150.79	-6,342.68	1,861.28	1,444.93	416.35	4.471	
13,400.00	7,112.66	7,048.66	7,112.66	176.23	244.35	-90.01	-4,150.79	-6,342.68	1,855.33	1,435.28	420.05	4.417	
13,460.46	7,112.31	7,048.31	7,112.31	177.92	244.33	-90.00	-4,150.79	-6,342.68	1,854.35	1,432.27	422.07	4.393 CC	
13,500.00	7,112.09	7,048.09	7,112.09	179.02	244.33	-89.99	-4,150.79	-6,342.68	1,854.77	1,431.47	423.30	4.382 ES	
13,600.00	7,111.52	7,047.52	7,111.52	181.82	244.31	-89.98	-4,150.79	-6,342.68	1,859.59	1,433.54	426.05	4.365 SF	
13,700.00	7,110.95	7,046.95	7,110.95	184.62	244.29	-89.96	-4,150.79	-6,342.68	1,869.76	1,441.46	428.29	4.366	
13,800.00	7,110.38	7,046.38	7,110.38	187.42	244.27	-89.94	-4,150.79	-6,342.68	1,885.18	1,455.16	430.02	4.384	
13,900.00	7,109.81	7,045.81	7,109.81	190.22	244.25	-89.92	-4,150.79	-6,342.68	1,905.73	1,474.49	431.24	4.419	
14,000.00	7,109.25	7,045.25	7,109.25	193.03	244.23	-89.91	-4,150.79	-6,342.68	1,931.24	1,499.27	431.97	4.471	
14,100.00	7,108.68	7,044.68	7,108.68	195.84	244.21	-89.89	-4,150.79	-6,342.68	1,961.53	1,529.28	432.26	4.538	
14,200.00	7,108.11	7,044.11	7,108.11	198.64	244.19	-89.87	-4,150.79	-6,342.68	1,996.38	1,564.25	432.12	4.620	
14,300.00	7,107.54	7,043.54	7,107.54	201.45	244.17	-89.85	-4,150.79	-6,342.68	2,035.54	1,603.92	431.62	4.716	
14,400.00	7,106.97	7,042.97	7,106.97	204.26	244.15	-89.83	-4,150.79	-6,342.68	2,078.78	1,648.00	430.78	4.826	
14,500.00	7,106.40	7,042.40	7,106.40	207.07	244.13	-89.82	-4,150.79	-6,342.68	2,125.85	1,696.18	429.66	4.948	
14,600.00	7,105.83	7,041.83	7,105.83	209.89	244.11	-89.80	-4,150.79	-6,342.68	2,176.49	1,748.19	428.31	5.082	
14,700.00	7,105.27	7,041.27	7,105.27	212.70	244.09	-89.78	-4,150.79	-6,342.68	2,230.48	1,803.72	426.76	5.227	
14,800.00	7,104.70	7,040.70	7,104.70	215.52	244.07	-89.76	-4,150.79	-6,342.68	2,287.56	1,862.51	425.05	5.382	
14,900.00	7,104.13	7,040.13	7,104.13	218.33	244.05	-89.75	-4,150.79	-6,342.68	2,347.51	1,924.30	423.22	5.547	
15,000.00	7,103.56	7,039.56	7,103.56	221.15	244.03	-89.73	-4,150.79	-6,342.68	2,410.13	1,988.83	421.29	5.721	
15,100.00	7,102.99	7,038.99	7,102.99	223.97	244.01	-89.71	-4,150.79	-6,342.68	2,475.20	2,055.89	419.31	5.903	
15,200.00	7,102.42	7,038.42	7,102.42	226.79	243.99	-89.69	-4,150.79	-6,342.68	2,542.54	2,125.26	417.28	6.093	
15,274.57	7,102.00	7,038.00	7,102.00	228.89	243.97	-89.68	-4,150.79	-6,342.68	2,594.13	2,178.38	415.75	6.240	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	17.00	3.28	3.28	-67.38	2,648.24	-6,355.12	6,884.84					
100.00	100.00	83.00	100.00	3.28	3.59	-67.38	2,648.24	-6,355.12	6,884.82	6,877.95	6.87	1,002.095		
200.00	200.00	183.00	200.00	3.34	5.68	-67.38	2,648.24	-6,355.12	6,884.82	6,875.80	9.02	763.135		
300.00	299.98	282.98	299.98	3.44	8.77	108.67	2,648.24	-6,355.12	6,885.38	6,873.17	12.21	563.951		
400.00	399.84	382.84	399.84	3.59	12.07	108.68	2,648.24	-6,355.12	6,887.05	6,871.39	15.66	439.725		
500.00	499.45	482.45	499.45	3.79	15.45	108.69	2,648.24	-6,355.12	6,889.86	6,870.62	19.24	358.177		
600.00	598.70	581.70	598.70	4.03	18.85	108.71	2,648.24	-6,355.12	6,893.79	6,870.91	22.88	301.315		
700.00	697.47	680.47	697.47	4.31	22.25	108.74	2,648.24	-6,355.12	6,898.87	6,872.30	26.57	259.683		
800.00	795.62	778.62	795.62	4.64	25.65	108.77	2,648.24	-6,355.12	6,905.11	6,874.82	30.28	228.018		
900.00	893.06	876.06	893.06	5.00	29.02	108.80	2,648.24	-6,355.12	6,912.52	6,878.50	34.02	203.200		
1,000.00	989.64	972.64	989.64	5.40	32.38	108.83	2,648.24	-6,355.12	6,921.13	6,883.37	37.76	183.275		
1,100.00	1,085.27	1,068.27	1,085.27	5.83	35.70	108.87	2,648.24	-6,355.12	6,930.96	6,889.45	41.51	166.963		
1,200.00	1,179.88	1,162.88	1,179.88	6.29	38.99	108.97	2,648.24	-6,355.12	6,941.97	6,896.72	45.26	153.388		
1,300.00	1,274.26	1,257.26	1,274.26	6.78	42.27	109.22	2,648.24	-6,355.12	6,953.36	6,904.34	49.02	141.851		
1,400.00	1,368.63	1,351.63	1,368.63	7.28	45.56	109.46	2,648.24	-6,355.12	6,964.89	6,912.09	52.80	131.919		
1,500.00	1,463.00	1,446.00	1,463.00	7.80	48.84	109.70	2,648.24	-6,355.12	6,976.55	6,919.96	56.59	123.285		
1,600.00	1,557.38	1,540.38	1,557.38	8.33	52.13	109.95	2,648.24	-6,355.12	6,988.36	6,927.96	60.39	115.717		
1,700.00	1,651.75	1,634.75	1,651.75	8.87	55.42	110.19	2,648.24	-6,355.12	7,000.29	6,936.09	64.20	109.033		
1,800.00	1,746.12	1,729.12	1,746.12	9.41	58.71	110.43	2,648.24	-6,355.12	7,012.37	6,944.34	68.02	103.088		
1,900.00	1,840.49	1,823.49	1,840.49	9.96	62.00	110.67	2,648.24	-6,355.12	7,024.58	6,952.73	71.85	97.769		
2,000.00	1,934.87	1,917.87	1,934.87	10.52	65.29	110.91	2,648.24	-6,355.12	7,036.92	6,961.24	75.68	92.984		
2,100.00	2,029.24	2,012.24	2,029.24	11.08	68.58	111.15	2,648.24	-6,355.12	7,049.40	6,969.88	79.51	88.656		
2,200.00	2,123.61	2,106.61	2,123.61	11.64	71.87	111.39	2,648.24	-6,355.12	7,062.00	6,978.65	83.35	84.725		
2,300.00	2,217.99	2,200.99	2,217.99	12.21	75.16	111.62	2,648.24	-6,355.12	7,074.75	6,987.55	87.19	81.139		
2,400.00	2,312.36	2,304.64	2,312.36	12.78	78.78	111.86	2,648.24	-6,355.12	7,087.62	6,996.26	91.36	77.579		
2,500.00	2,406.73	2,389.73	2,406.73	13.35	81.75	112.10	2,648.24	-6,355.12	7,100.62	7,005.74	94.88	74.836		
2,600.00	2,501.10	2,484.10	2,501.10	13.93	85.04	112.33	2,648.24	-6,355.12	7,113.76	7,015.03	98.73	72.053		
2,700.00	2,595.48	2,578.48	2,595.48	14.51	88.33	112.56	2,648.24	-6,355.12	7,127.02	7,024.44	102.58	69.479		
2,800.00	2,689.85	2,672.85	2,689.85	15.08	91.62	112.80	2,648.24	-6,355.12	7,140.41	7,033.98	106.43	67.091		
2,900.00	2,784.22	2,767.22	2,784.22	15.66	94.92	113.03	2,648.24	-6,355.12	7,153.93	7,043.65	110.28	64.871		
3,000.00	2,878.60	2,861.60	2,878.60	16.25	98.21	113.26	2,648.24	-6,355.12	7,167.58	7,053.44	114.13	62.801		
3,100.00	2,972.97	2,955.97	2,972.97	16.83	101.50	113.49	2,648.24	-6,355.12	7,181.35	7,063.36	117.98	60.867		
3,200.00	3,067.34	3,050.34	3,067.34	17.41	104.79	113.72	2,648.24	-6,355.12	7,195.25	7,073.41	121.84	59.056		
3,300.00	3,161.72	3,144.72	3,161.72	18.00	108.09	113.95	2,648.24	-6,355.12	7,209.27	7,083.58	125.69	57.357		
3,400.00	3,256.09	3,239.09	3,256.09	18.58	111.38	114.18	2,648.24	-6,355.12	7,223.42	7,093.87	129.55	55.760		
3,500.00	3,350.46	3,333.46	3,350.46	19.17	114.67	114.41	2,648.24	-6,355.12	7,237.69	7,104.29	133.40	54.256		
3,600.00	3,444.83	3,427.83	3,444.83	19.75	117.97	114.64	2,648.24	-6,355.12	7,252.08	7,114.83	137.25	52.837		
3,700.00	3,539.21	3,522.21	3,539.21	20.34	121.26	114.86	2,648.24	-6,355.12	7,266.60	7,125.49	141.11	51.496		
3,800.00	3,633.58	3,616.58	3,633.58	20.93	124.55	115.09	2,648.24	-6,355.12	7,281.24	7,136.27	144.96	50.228		
3,900.00	3,727.95	3,710.95	3,727.95	21.52	127.85	115.31	2,648.24	-6,355.12	7,295.99	7,147.18	148.82	49.026		
4,000.00	3,822.33	3,805.33	3,822.33	22.11	131.14	115.54	2,648.24	-6,355.12	7,310.87	7,158.20	152.67	47.886		
4,100.00	3,916.70	3,900.30	3,916.70	22.70	134.45	115.76	2,648.24	-6,355.12	7,325.87	7,169.32	156.55	46.796		
4,200.00	4,011.07	4,005.93	4,011.07	23.29	138.14	115.98	2,648.24	-6,355.12	7,340.98	7,180.19	160.79	45.654		
4,300.00	4,105.44	4,088.44	4,105.44	23.88	141.02	116.20	2,648.24	-6,355.12	7,356.21	7,191.98	164.24	44.791		
4,400.00	4,199.82	4,182.82	4,199.82	24.47	144.31	116.42	2,648.24	-6,355.12	7,371.56	7,203.47	168.09	43.855		
4,500.00	4,294.19	4,277.19	4,294.19	25.06	147.61	116.64	2,648.24	-6,355.12	7,387.03	7,215.09	171.94	42.962		
4,600.00	4,388.56	4,371.56	4,388.56	25.65	150.90	116.86	2,648.24	-6,355.12	7,402.61	7,226.81	175.80	42.109		
4,700.00	4,482.94	4,465.94	4,482.94	26.24	154.20	117.08	2,648.24	-6,355.12	7,418.31	7,238.66	179.65	41.293		
4,800.00	4,577.31	4,560.31	4,577.31	26.83	157.49	117.29	2,648.24	-6,355.12	7,434.12	7,250.61	183.50	40.513		
4,900.00	4,671.68	4,654.68	4,671.68	27.43	160.78	117.51	2,648.24	-6,355.12	7,450.04	7,262.68	187.35	39.764		
5,000.00	4,766.05	4,749.05	4,766.05	28.02	164.08	117.73	2,648.24	-6,355.12	7,466.07	7,274.87	191.21	39.047		
5,100.00	4,860.43	4,843.43	4,860.43	28.61	167.37	117.94	2,648.24	-6,355.12	7,482.22	7,287.16	195.06	38.359		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,937.80	4,954.80	29.20	170.66	118.15	2,648.24	-6,355.12	7,498.48	7,299.57	198.91	37.698		
5,300.00	5,049.17	5,032.17	5,049.17	29.80	173.96	118.37	2,648.24	-6,355.12	7,514.85	7,312.09	202.76	37.063		
5,400.00	5,143.55	5,126.55	5,143.55	30.39	177.25	118.58	2,648.24	-6,355.12	7,531.33	7,324.72	206.61	36.452		
5,500.00	5,237.92	5,220.92	5,237.92	30.99	180.55	118.79	2,648.24	-6,355.12	7,547.91	7,337.45	210.46	35.864		
5,600.00	5,332.29	5,315.29	5,332.29	31.58	183.84	119.00	2,648.24	-6,355.12	7,564.61	7,350.30	214.31	35.298		
5,700.00	5,426.66	5,409.66	5,426.66	32.17	187.14	119.21	2,648.24	-6,355.12	7,581.41	7,363.25	218.16	34.752		
5,800.00	5,521.04	5,504.04	5,521.04	32.77	190.43	119.42	2,648.24	-6,355.12	7,598.32	7,376.31	222.01	34.225		
5,900.00	5,615.41	5,601.59	5,615.41	33.36	193.83	119.62	2,648.24	-6,355.12	7,615.34	7,389.37	225.97	33.701		
6,000.00	5,709.78	5,707.22	5,709.78	33.96	197.52	119.83	2,648.24	-6,355.12	7,632.46	7,402.25	230.21	33.155		
6,100.00	5,804.16	5,787.16	5,804.16	34.55	200.31	120.04	2,648.24	-6,355.12	7,649.69	7,416.13	233.55	32.754		
6,200.00	5,898.53	5,881.53	5,898.53	35.14	203.61	120.24	2,648.24	-6,355.12	7,667.02	7,429.62	237.40	32.296		
6,300.00	5,992.90	5,975.90	5,992.90	35.74	206.90	120.45	2,648.24	-6,355.12	7,684.45	7,443.20	241.24	31.853		
6,400.00	6,087.27	6,070.27	6,087.27	36.33	210.19	120.65	2,648.24	-6,355.12	7,701.98	7,456.89	245.09	31.425		
6,500.00	6,181.65	6,164.65	6,181.65	36.93	213.49	120.85	2,648.24	-6,355.12	7,719.62	7,470.69	248.94	31.011		
6,600.00	6,276.02	6,259.02	6,276.02	37.52	216.78	121.05	2,648.24	-6,355.12	7,737.36	7,484.58	252.78	30.609		
6,700.00	6,370.39	6,353.39	6,370.39	38.12	220.08	121.25	2,648.24	-6,355.12	7,755.20	7,498.57	256.62	30.220		
6,800.00	6,464.77	6,447.77	6,464.77	38.71	223.37	121.45	2,648.24	-6,355.12	7,773.14	7,512.67	260.47	29.843		
6,900.00	6,559.14	6,542.14	6,559.14	39.31	226.66	121.43	2,648.24	-6,355.12	7,791.18	7,526.86	264.31	29.477		
7,000.00	6,653.52	6,636.52	6,653.52	39.90	229.94	97.80	2,648.24	-6,355.12	7,809.20	7,534.76	268.14	29.100		
7,100.00	6,747.89	6,730.89	6,747.89	40.44	233.12	82.00	2,648.24	-6,355.12	7,827.04	7,540.19	271.85	28.699		
7,200.00	6,842.26	6,825.26	6,842.26	40.94	236.12	72.96	2,648.24	-6,355.12	7,844.76	7,543.40	275.36	28.286		
7,300.00	6,936.63	6,919.63	6,936.63	41.37	239.43	68.39	2,648.24	-6,355.12	7,862.50	7,548.37	279.13	27.813		
7,400.00	7,031.00	7,014.00	7,031.00	41.75	242.33	66.90	2,648.24	-6,355.12	7,880.24	7,553.56	282.47	27.452		
7,500.00	7,125.37	7,108.37	7,125.37	42.08	245.40	67.77	2,648.24	-6,355.12	7,897.97	7,558.68	285.00	27.044		
7,600.00	7,219.74	7,202.74	7,219.74	42.37	248.04	70.73	2,648.24	-6,355.12	7,915.69	7,563.62	287.13	26.648		
7,700.00	7,314.11	7,297.11	7,314.11	42.64	250.22	75.72	2,648.24	-6,355.12	7,933.41	7,568.37	289.84	26.270		
7,800.00	7,408.48	7,391.48	7,408.48	42.91	252.90	82.73	2,648.24	-6,355.12	7,951.14	7,573.34	292.12	25.915		
7,900.00	7,502.85	7,485.85	7,502.85	43.25	255.08	90.36	2,648.24	-6,355.12	7,968.86	7,578.13	294.95	25.588		
8,000.00	7,597.22	7,580.22	7,597.22	43.72	257.06	90.36	2,648.24	-6,355.12	7,986.58	7,582.57	297.65	25.270		
8,100.00	7,691.59	7,674.59	7,691.59	44.42	259.04	90.35	2,648.24	-6,355.12	7,999.20	7,586.74	299.45	24.948		
8,200.00	7,785.96	7,768.96	7,785.96	45.39	261.02	90.34	2,648.24	-6,355.12	8,011.92	7,590.85	299.35	24.622		
8,300.00	7,880.33	7,863.33	7,880.33	46.63	263.00	90.34	2,648.24	-6,355.12	8,024.64	7,595.53	299.33	24.293		
8,400.00	7,974.70	7,957.70	7,974.70	48.09	265.98	90.33	2,648.24	-6,355.12	8,037.36	7,600.19	299.41	23.960		
8,500.00	8,069.07	8,052.07	8,069.07	49.74	268.96	90.32	2,648.24	-6,355.12	8,050.08	7,604.84	299.58	23.625		
8,600.00	8,163.44	8,146.44	8,163.44	51.53	271.94	90.32	2,648.24	-6,355.12	8,062.79	7,609.13	299.85	23.288		
8,700.00	8,257.81	8,240.81	8,257.81	53.44	274.92	90.31	2,648.24	-6,355.12	8,075.51	7,613.77	299.20	22.949		
8,800.00	8,352.18	8,335.18	8,352.18	55.45	277.90	90.31	2,648.24	-6,355.12	8,088.23	7,618.08	299.64	22.610		
8,900.00	8,446.55	8,429.55	8,446.55	57.55	280.88	90.30	2,648.24	-6,355.12	8,100.95	7,622.59	301.17	22.269		
9,000.00	8,540.92	8,523.92	8,540.92	59.71	283.86	90.29	2,648.24	-6,355.12	8,113.67	7,627.10	302.78	21.929		
9,100.00	8,635.29	8,618.29	8,635.29	61.94	286.84	90.29	2,648.24	-6,355.12	8,126.39	7,631.61	304.48	21.589		
9,200.00	8,729.66	8,712.66	8,729.66	64.22	289.82	90.28	2,648.24	-6,355.12	8,139.11	7,636.12	306.26	21.249		
9,300.00	8,824.03	8,807.03	8,824.03	66.55	292.80	90.27	2,648.24	-6,355.12	8,151.83	7,640.63	308.12	20.912		
9,400.00	8,918.40	8,901.40	8,918.40	68.92	295.78	90.27	2,648.24	-6,355.12	8,164.55	7,645.14	310.06	20.575		
9,500.00	9,012.77	8,995.77	9,012.77	71.33	298.76	90.26	2,648.24	-6,355.12	8,177.27	7,649.65	312.07	20.242		
9,600.00	9,107.14	9,090.14	9,107.14	73.77	301.74	90.25	2,648.24	-6,355.12	8,189.99	7,654.16	314.16	19.911		
9,700.00	9,201.51	9,184.51	9,201.51	76.24	304.72	90.25	2,648.24	-6,355.12	8,202.71	7,658.67	316.33	19.582		
9,800.00	9,295.88	9,278.88	9,295.88	78.74	307.70	90.24	2,648.24	-6,355.12	8,215.43	7,663.18	318.56	19.258		
9,900.00	9,390.25	9,373.25	9,390.25	81.27	310.68	90.23	2,648.24	-6,355.12	8,228.15	7,667.69	320.86	18.937		
10,000.00	9,484.62	9,467.62	9,484.62	83.81	313.66	90.23	2,648.24	-6,355.12	8,240.87	7,672.20	323.23	18.620		
10,100.00	9,579.00	9,562.00	9,579.00	86.38	316.64	90.22	2,648.24	-6,355.12	8,253.59	7,676.71	325.66	18.308		
10,200.00	9,673.37	9,656.37	9,673.37	88.96	319.62	90.21	2,648.24	-6,355.12	8,266.31	7,681.22	328.15	18.000		
10,300.00	9,767.74	9,750.74	9,767.74	91.56	322.60	90.21	2,648.24	-6,355.12	8,279.03	7,685.73	330.71	17.697		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,112.71	7,129.71	94.18	246.58	90.20	2,648.24	-6,355.12	5,799.77	5,466.45	333.32	17.400		
10,500.00	7,129.14	7,112.14	7,129.14	96.81	246.56	90.19	2,648.24	-6,355.12	5,748.14	5,412.15	335.99	17.108		
10,600.00	7,128.57	7,111.57	7,128.57	99.45	246.54	90.19	2,648.24	-6,355.12	5,697.80	5,359.08	338.71	16.822		
10,700.00	7,128.00	7,111.00	7,128.00	102.11	246.52	90.18	2,648.24	-6,355.12	5,648.77	5,307.29	341.48	16.542		
10,800.00	7,127.44	7,110.44	7,127.44	104.77	246.50	90.17	2,648.24	-6,355.12	5,601.11	5,256.81	344.30	16.268		
10,900.00	7,126.87	7,109.87	7,126.87	107.45	246.48	90.17	2,648.24	-6,355.12	5,554.84	5,207.67	347.17	16.001		
11,000.00	7,126.30	7,109.30	7,126.30	110.13	246.46	90.16	2,648.24	-6,355.12	5,509.99	5,159.92	350.07	15.740		
11,100.00	7,125.73	7,108.73	7,125.73	112.82	246.44	90.15	2,648.24	-6,355.12	5,466.60	5,113.59	353.02	15.485		
11,200.00	7,125.16	7,108.16	7,125.16	115.53	246.42	90.15	2,648.24	-6,355.12	5,424.71	5,068.72	356.00	15.238		
11,300.00	7,124.59	7,107.59	7,124.59	118.24	246.40	90.14	2,648.24	-6,355.12	5,384.36	5,025.35	359.01	14.998		
11,400.00	7,124.03	7,107.03	7,124.03	120.95	246.38	90.13	2,648.24	-6,355.12	5,345.56	4,983.52	362.05	14.765		
11,500.00	7,123.46	7,106.46	7,123.46	123.67	246.36	90.13	2,648.24	-6,355.12	5,308.37	4,943.26	365.11	14.539		
11,600.00	7,122.89	7,105.89	7,122.89	126.40	246.34	90.12	2,648.24	-6,355.12	5,272.82	4,904.62	368.19	14.321		
11,700.00	7,122.32	7,105.32	7,122.32	129.14	246.32	90.11	2,648.24	-6,355.12	5,238.93	4,867.63	371.30	14.110		
11,800.00	7,121.75	7,104.75	7,121.75	131.88	246.30	90.11	2,648.24	-6,355.12	5,206.74	4,832.33	374.41	13.907		
11,900.00	7,121.18	7,104.18	7,121.18	134.62	246.28	90.10	2,648.24	-6,355.12	5,176.28	4,798.75	377.53	13.711		
12,000.00	7,120.61	7,103.61	7,120.61	137.37	246.26	90.09	2,648.24	-6,355.12	5,147.59	4,766.93	380.65	13.523		
12,100.00	7,120.05	7,103.05	7,120.05	140.12	246.24	90.09	2,648.24	-6,355.12	5,120.69	4,736.91	383.78	13.343		
12,200.00	7,119.48	7,102.48	7,119.48	142.88	246.22	90.08	2,648.24	-6,355.12	5,095.61	4,708.71	386.89	13.171		
12,300.00	7,118.91	7,101.91	7,118.91	145.64	246.20	90.07	2,648.24	-6,355.12	5,072.37	4,682.37	390.00	13.006		
12,400.00	7,118.34	7,101.34	7,118.34	148.41	246.18	90.07	2,648.24	-6,355.12	5,051.01	4,657.92	393.09	12.850		
12,500.00	7,117.77	7,100.77	7,117.77	151.18	246.16	90.06	2,648.24	-6,355.12	5,031.55	4,635.39	396.16	12.701		
12,600.00	7,117.20	7,100.20	7,117.20	153.95	246.14	90.05	2,648.24	-6,355.12	5,014.01	4,614.80	399.20	12.560		
12,700.00	7,116.64	7,100.37	7,116.64	156.73	246.15	90.05	2,648.24	-6,355.12	4,998.40	4,596.16	402.24	12.426		
12,800.00	7,116.07	7,100.93	7,116.07	159.50	246.17	90.04	2,648.24	-6,355.12	4,984.75	4,579.49	405.26	12.300		
12,900.00	7,115.50	7,101.50	7,115.50	162.29	246.19	90.03	2,648.24	-6,355.12	4,973.08	4,564.84	408.24	12.182		
13,000.00	7,114.93	7,102.07	7,114.93	165.07	246.21	90.03	2,648.24	-6,355.12	4,963.40	4,552.22	411.18	12.071		
13,100.00	7,114.36	7,102.64	7,114.36	167.86	246.23	90.02	2,648.24	-6,355.12	4,955.71	4,541.65	414.06	11.969		
13,200.00	7,113.79	7,103.21	7,113.79	170.64	246.25	90.02	2,648.24	-6,355.12	4,950.03	4,533.14	416.89	11.874		
13,300.00	7,113.22	7,103.78	7,113.22	173.44	246.27	90.01	2,648.24	-6,355.12	4,946.37	4,526.70	419.67	11.786		
13,400.00	7,112.66	7,104.34	7,112.66	176.23	246.29	90.00	2,648.24	-6,355.12	4,944.73	4,522.34	422.38	11.707		
13,431.21	7,112.48	7,104.52	7,112.48	177.10	246.30	90.00	2,648.24	-6,355.12	4,944.63	4,521.41	423.22	11.683 CC		
13,500.00	7,112.09	7,104.91	7,112.09	179.02	246.31	90.00	2,648.24	-6,355.12	4,945.11	4,520.08	425.03	11.635		
13,600.00	7,111.52	7,105.48	7,111.52	181.82	246.33	89.99	2,648.24	-6,355.12	4,947.51	4,519.90	427.61	11.570 ES		
13,700.00	7,110.95	7,106.05	7,110.95	184.62	246.35	89.98	2,648.24	-6,355.12	4,951.93	4,521.81	430.12	11.513		
13,800.00	7,110.38	7,106.62	7,110.38	187.42	246.37	89.98	2,648.24	-6,355.12	4,958.36	4,525.81	432.55	11.463		
13,900.00	7,109.81	7,107.19	7,109.81	190.22	246.39	89.97	2,648.24	-6,355.12	4,966.80	4,531.89	434.91	11.420		
14,000.00	7,109.25	7,107.75	7,109.25	193.03	246.41	89.96	2,648.24	-6,355.12	4,977.23	4,540.05	437.19	11.385		
14,100.00	7,108.68	7,108.32	7,108.68	195.84	246.43	89.96	2,648.24	-6,355.12	4,989.65	4,550.26	439.39	11.356		
14,200.00	7,108.11	7,108.89	7,108.11	198.64	246.45	89.95	2,648.24	-6,355.12	5,004.04	4,562.54	441.50	11.334		
14,300.00	7,107.54	7,109.46	7,107.54	201.45	246.47	89.94	2,648.24	-6,355.12	5,020.37	4,576.84	443.53	11.319 SF		
14,400.00	7,106.97	7,089.97	7,106.97	204.26	245.79	89.94	2,648.24	-6,355.12	5,038.64	4,593.86	444.78	11.329		
14,500.00	7,106.40	7,089.40	7,106.40	207.07	245.77	89.93	2,648.24	-6,355.12	5,058.82	4,612.22	446.60	11.328		
14,600.00	7,105.83	7,088.83	7,105.83	209.89	245.75	89.92	2,648.24	-6,355.12	5,080.88	4,632.55	448.33	11.333		
14,700.00	7,105.27	7,088.27	7,105.27	212.70	245.73	89.92	2,648.24	-6,355.12	5,104.81	4,654.84	449.98	11.345		
14,800.00	7,104.70	7,087.70	7,104.70	215.52	245.71	89.91	2,648.24	-6,355.12	5,130.58	4,679.04	451.54	11.362		
14,900.00	7,104.13	7,087.13	7,104.13	218.33	245.69	89.90	2,648.24	-6,355.12	5,158.16	4,705.14	453.02	11.386		
15,000.00	7,103.56	7,086.56	7,103.56	221.15	245.67	89.90	2,648.24	-6,355.12	5,187.52	4,733.11	454.41	11.416		
15,100.00	7,102.99	7,085.99	7,102.99	223.97	245.65	89.89	2,648.24	-6,355.12	5,218.63	4,762.91	455.72	11.451		
15,200.00	7,102.42	7,085.42	7,102.42	226.79	245.63	89.88	2,648.24	-6,355.12	5,251.46	4,794.51	456.95	11.492		
15,274.57	7,102.00	7,085.00	7,102.00	228.89	245.61	89.88	2,648.24	-6,355.12	5,277.05	4,819.23	457.82	11.527		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	14.00	3.28	3.28	-71.79	2,583.10	-7,851.38	8,265.39					
100.00	100.00	86.00	100.00	3.28	3.61	-71.79	2,583.10	-7,851.38	8,265.38	8,258.49	6.89	1,199.290		
200.00	200.00	186.00	200.00	3.34	5.77	-71.79	2,583.10	-7,851.38	8,265.38	8,256.27	9.11	907.524		
300.00	299.98	285.98	299.98	3.44	8.87	104.26	2,583.10	-7,851.38	8,265.81	8,253.50	12.31	671.670		
400.00	399.84	385.84	399.84	3.59	12.17	104.27	2,583.10	-7,851.38	8,267.10	8,251.34	15.76	524.468		
500.00	499.45	485.45	499.45	3.79	15.55	104.28	2,583.10	-7,851.38	8,269.26	8,249.92	19.34	427.617		
600.00	598.70	584.70	598.70	4.03	18.95	104.31	2,583.10	-7,851.38	8,272.29	8,249.31	22.98	359.949		
700.00	697.47	683.47	697.47	4.31	22.36	104.33	2,583.10	-7,851.38	8,276.21	8,249.54	26.67	310.318		
800.00	795.62	781.62	795.62	4.64	25.75	104.37	2,583.10	-7,851.38	8,281.02	8,250.63	30.39	272.512		
900.00	893.06	879.06	893.06	5.00	29.13	104.40	2,583.10	-7,851.38	8,286.74	8,252.62	34.12	242.841		
1,000.00	989.64	975.64	989.64	5.40	32.48	104.44	2,583.10	-7,851.38	8,293.40	8,255.53	37.87	218.989		
1,100.00	1,085.27	1,071.27	1,085.27	5.83	35.80	104.48	2,583.10	-7,851.38	8,301.02	8,259.40	41.62	199.437		
1,200.00	1,179.88	1,165.88	1,179.88	6.29	39.09	104.58	2,583.10	-7,851.38	8,309.56	8,264.19	45.37	183.146		
1,300.00	1,274.26	1,260.26	1,274.26	6.78	42.38	104.79	2,583.10	-7,851.38	8,318.40	8,269.27	49.14	169.292		
1,400.00	1,368.63	1,354.63	1,368.63	7.28	45.66	105.00	2,583.10	-7,851.38	8,327.37	8,274.45	52.92	157.359		
1,500.00	1,463.00	1,449.00	1,463.00	7.80	48.95	105.20	2,583.10	-7,851.38	8,336.47	8,279.75	56.72	146.985		
1,600.00	1,557.38	1,543.38	1,557.38	8.33	52.24	105.41	2,583.10	-7,851.38	8,345.68	8,285.15	60.52	137.889		
1,700.00	1,651.75	1,637.75	1,651.75	8.87	55.53	105.62	2,583.10	-7,851.38	8,355.01	8,290.67	64.34	129.853		
1,800.00	1,746.12	1,732.12	1,746.12	9.41	58.81	105.83	2,583.10	-7,851.38	8,364.46	8,296.30	68.17	122.706		
1,900.00	1,840.49	1,826.49	1,840.49	9.96	62.10	106.03	2,583.10	-7,851.38	8,374.04	8,302.04	72.00	116.309		
2,000.00	1,934.87	1,920.87	1,934.87	10.52	65.39	106.24	2,583.10	-7,851.38	8,383.73	8,307.90	75.83	110.553		
2,100.00	2,029.24	2,015.24	2,029.24	11.08	68.69	106.44	2,583.10	-7,851.38	8,393.54	8,313.87	79.68	105.347		
2,200.00	2,123.61	2,109.61	2,123.61	11.64	71.98	106.65	2,583.10	-7,851.38	8,403.47	8,319.95	83.52	100.617		
2,300.00	2,217.99	2,203.99	2,217.99	12.21	75.27	106.85	2,583.10	-7,851.38	8,413.52	8,326.16	87.37	96.300		
2,400.00	2,312.36	2,301.64	2,312.36	12.78	78.67	107.06	2,583.10	-7,851.38	8,423.69	8,332.36	91.33	92.231		
2,500.00	2,406.73	2,407.27	2,406.73	13.35	82.36	107.26	2,583.10	-7,851.38	8,433.97	8,338.40	95.58	88.243		
2,600.00	2,501.10	2,487.10	2,501.10	13.93	85.14	107.46	2,583.10	-7,851.38	8,444.38	8,345.45	98.92	85.362		
2,700.00	2,595.48	2,581.48	2,595.48	14.51	88.43	107.67	2,583.10	-7,851.38	8,454.89	8,352.11	102.78	82.262		
2,800.00	2,689.85	2,675.85	2,689.85	15.08	91.73	107.87	2,583.10	-7,851.38	8,465.53	8,358.89	106.64	79.386		
2,900.00	2,784.22	2,770.22	2,784.22	15.66	95.02	108.07	2,583.10	-7,851.38	8,476.28	8,365.78	110.50	76.711		
3,000.00	2,878.60	2,864.60	2,878.60	16.25	98.31	108.27	2,583.10	-7,851.38	8,487.12	8,372.79	114.36	74.217		
3,100.00	2,972.97	2,958.97	2,972.97	16.83	101.61	108.47	2,583.10	-7,851.38	8,498.12	8,379.91	118.22	71.886		
3,200.00	3,067.34	3,053.34	3,067.34	17.41	104.90	108.68	2,583.10	-7,851.38	8,509.22	8,387.14	122.08	69.703		
3,300.00	3,161.72	3,147.72	3,161.72	18.00	108.19	108.88	2,583.10	-7,851.38	8,520.42	8,394.48	125.94	67.655		
3,400.00	3,256.09	3,242.09	3,256.09	18.58	111.48	109.08	2,583.10	-7,851.38	8,531.75	8,401.94	129.80	65.729		
3,500.00	3,350.46	3,336.46	3,350.46	19.17	114.78	109.27	2,583.10	-7,851.38	8,543.18	8,409.52	133.67	63.915		
3,600.00	3,444.83	3,430.83	3,444.83	19.75	118.07	109.47	2,583.10	-7,851.38	8,554.73	8,417.20	137.53	62.203		
3,700.00	3,539.21	3,525.21	3,539.21	20.34	121.36	109.67	2,583.10	-7,851.38	8,566.39	8,425.00	141.39	60.586		
3,800.00	3,633.58	3,619.58	3,633.58	20.93	124.66	109.87	2,583.10	-7,851.38	8,578.16	8,432.90	145.25	59.056		
3,900.00	3,727.95	3,713.95	3,727.95	21.52	127.95	110.07	2,583.10	-7,851.38	8,590.04	8,440.92	149.12	57.605		
4,000.00	3,822.33	3,808.33	3,822.33	22.11	131.24	110.26	2,583.10	-7,851.38	8,602.03	8,449.05	152.98	56.229		
4,100.00	3,916.70	3,902.70	3,916.70	22.70	134.54	110.46	2,583.10	-7,851.38	8,614.14	8,457.29	156.85	54.921		
4,200.00	4,011.07	4,002.93	4,011.07	23.29	138.04	110.65	2,583.10	-7,851.38	8,626.35	8,465.44	160.91	53.608		
4,300.00	4,105.44	4,108.56	4,105.44	23.88	141.72	110.85	2,583.10	-7,851.38	8,638.67	8,473.50	165.17	52.301		
4,400.00	4,199.82	4,185.82	4,199.82	24.47	144.42	111.04	2,583.10	-7,851.38	8,651.10	8,482.67	168.44	51.361		
4,500.00	4,294.19	4,280.19	4,294.19	25.06	147.71	111.24	2,583.10	-7,851.38	8,663.64	8,491.34	172.30	50.282		
4,600.00	4,388.56	4,374.56	4,388.56	25.65	151.01	111.43	2,583.10	-7,851.38	8,676.29	8,500.13	176.16	49.251		
4,700.00	4,482.94	4,468.94	4,482.94	26.24	154.30	111.63	2,583.10	-7,851.38	8,689.05	8,509.02	180.03	48.265		
4,800.00	4,577.31	4,563.31	4,577.31	26.83	157.59	111.82	2,583.10	-7,851.38	8,701.91	8,518.02	183.89	47.321		
4,900.00	4,671.68	4,657.68	4,671.68	27.43	160.89	112.01	2,583.10	-7,851.38	8,714.88	8,527.12	187.75	46.417		
5,000.00	4,766.05	4,752.05	4,766.05	28.02	164.18	112.20	2,583.10	-7,851.38	8,727.95	8,536.34	191.62	45.549		
5,100.00	4,860.43	4,846.43	4,860.43	28.61	167.48	112.39	2,583.10	-7,851.38	8,741.13	8,545.65	195.48	44.717		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,940.80	4,954.80	29.20	170.77	112.58	2,583.10	-7,851.38	8,754.42	8,555.08	199.34	43.917		
5,300.00	5,049.17	5,035.17	5,049.17	29.80	174.06	112.77	2,583.10	-7,851.38	8,767.81	8,564.60	203.20	43.148		
5,400.00	5,143.55	5,129.55	5,143.55	30.39	177.36	112.96	2,583.10	-7,851.38	8,781.30	8,574.24	207.06	42.409		
5,500.00	5,237.92	5,223.92	5,237.92	30.99	180.65	113.15	2,583.10	-7,851.38	8,794.90	8,583.97	210.92	41.697		
5,600.00	5,332.29	5,318.29	5,332.29	31.58	183.95	113.34	2,583.10	-7,851.38	8,808.60	8,593.81	214.79	41.011		
5,700.00	5,426.66	5,412.66	5,426.66	32.17	187.24	113.53	2,583.10	-7,851.38	8,822.40	8,603.76	218.65	40.350		
5,800.00	5,521.04	5,507.04	5,521.04	32.77	190.53	113.72	2,583.10	-7,851.38	8,836.31	8,613.80	222.51	39.713		
5,900.00	5,615.41	5,601.41	5,615.41	33.36	193.83	113.90	2,583.10	-7,851.38	8,850.32	8,623.95	226.37	39.097		
6,000.00	5,709.78	5,704.22	5,709.78	33.96	197.42	114.09	2,583.10	-7,851.38	8,864.42	8,633.91	230.52	38.454		
6,100.00	5,804.16	5,809.84	5,804.16	34.55	201.10	114.27	2,583.10	-7,851.38	8,878.63	8,643.86	234.77	37.818		
6,200.00	5,898.53	5,884.53	5,898.53	35.14	203.71	114.46	2,583.10	-7,851.38	8,892.94	8,655.00	237.94	37.374		
6,300.00	5,992.90	5,978.90	5,992.90	35.74	207.00	114.64	2,583.10	-7,851.38	8,907.35	8,665.55	241.80	36.837		
6,400.00	6,087.27	6,073.27	6,087.27	36.33	210.30	114.83	2,583.10	-7,851.38	8,921.86	8,676.20	245.66	36.318		
6,500.00	6,181.65	6,167.65	6,181.65	36.93	213.59	115.01	2,583.10	-7,851.38	8,936.47	8,686.95	249.52	35.815		
6,600.00	6,276.02	6,262.02	6,276.02	37.52	216.89	115.20	2,583.10	-7,851.38	8,951.18	8,697.80	253.37	35.328		
6,700.00	6,370.39	6,356.39	6,370.39	38.12	220.18	115.38	2,583.10	-7,851.38	8,965.98	8,708.75	257.23	34.856		
6,800.00	6,464.77	6,450.77	6,464.77	38.71	223.48	115.56	2,583.10	-7,851.38	8,980.88	8,719.80	261.09	34.398		
6,900.00	6,559.14	6,545.14	6,559.14	39.31	226.77	115.72	2,583.10	-7,851.38	8,995.88	8,730.94	264.94	33.954		
7,000.00	6,652.92	6,638.92	6,652.92	39.90	230.04	92.11	2,583.10	-7,851.38	9,004.10	8,735.32	268.78	33.500		
7,100.00	6,744.00	6,730.00	6,744.00	40.44	233.22	76.47	2,583.10	-7,851.38	8,998.86	8,726.35	272.50	33.023		
7,200.00	6,830.13	6,816.13	6,830.13	40.94	236.23	67.53	2,583.10	-7,851.38	8,980.38	8,704.37	276.02	32.536		
7,300.00	6,909.19	6,904.81	6,909.19	41.37	239.32	63.06	2,583.10	-7,851.38	8,949.22	8,669.64	279.58	32.010		
7,400.00	6,979.23	6,965.23	6,979.23	41.75	241.43	61.68	2,583.10	-7,851.38	8,906.23	8,624.10	282.13	31.568		
7,500.00	7,038.53	7,024.53	7,038.53	42.08	243.50	62.79	2,583.10	-7,851.38	8,852.52	8,567.89	284.64	31.101		
7,600.00	7,085.63	7,071.63	7,085.63	42.37	245.15	66.24	2,583.10	-7,851.38	8,789.48	8,502.75	286.73	30.654		
7,700.00	7,119.37	7,105.37	7,119.37	42.64	246.33	72.15	2,583.10	-7,851.38	8,718.68	8,430.29	288.39	30.232		
7,800.00	7,138.92	7,124.92	7,138.92	42.91	247.01	80.77	2,583.10	-7,851.38	8,641.84	8,352.26	289.58	29.842		
7,900.00	7,143.92	7,129.92	7,143.92	43.25	247.18	90.47	2,583.10	-7,851.38	8,560.86	8,270.56	290.30	29.489		
8,000.00	7,143.35	7,129.35	7,143.35	43.72	247.16	90.46	2,583.10	-7,851.38	8,478.96	8,188.09	290.88	29.150		
8,100.00	7,142.78	7,128.78	7,142.78	44.42	247.14	90.45	2,583.10	-7,851.38	8,397.46	8,105.94	291.52	28.806		
8,200.00	7,142.22	7,128.22	7,142.22	45.39	247.12	90.45	2,583.10	-7,851.38	8,316.35	8,024.12	292.23	28.458		
8,300.00	7,141.65	7,127.65	7,141.65	46.63	247.10	90.44	2,583.10	-7,851.38	8,235.67	7,942.65	293.02	28.106		
8,400.00	7,141.08	7,127.08	7,141.08	48.09	247.08	90.43	2,583.10	-7,851.38	8,155.41	7,861.53	293.88	27.751		
8,500.00	7,140.51	7,126.51	7,140.51	49.74	247.06	90.43	2,583.10	-7,851.38	8,075.59	7,780.78	294.81	27.392		
8,600.00	7,139.94	7,125.94	7,139.94	51.53	247.04	90.42	2,583.10	-7,851.38	7,996.22	7,700.41	295.82	27.031		
8,700.00	7,139.37	7,125.37	7,139.37	53.44	247.02	90.41	2,583.10	-7,851.38	7,917.33	7,620.43	296.89	26.667		
8,800.00	7,138.80	7,124.80	7,138.80	55.45	247.00	90.41	2,583.10	-7,851.38	7,838.91	7,540.87	298.04	26.301		
8,900.00	7,138.24	7,124.24	7,138.24	57.55	246.98	90.40	2,583.10	-7,851.38	7,760.99	7,461.73	299.27	25.933		
9,000.00	7,137.67	7,123.67	7,137.67	59.71	246.96	90.39	2,583.10	-7,851.38	7,683.58	7,383.02	300.56	25.564		
9,100.00	7,137.10	7,123.10	7,137.10	61.94	246.94	90.39	2,583.10	-7,851.38	7,606.70	7,304.78	301.93	25.194		
9,200.00	7,136.53	7,122.53	7,136.53	64.22	246.92	90.38	2,583.10	-7,851.38	7,530.37	7,227.00	303.36	24.823		
9,300.00	7,135.96	7,121.96	7,135.96	66.55	246.90	90.37	2,583.10	-7,851.38	7,454.59	7,149.71	304.87	24.451		
9,400.00	7,135.39	7,121.39	7,135.39	68.92	246.88	90.37	2,583.10	-7,851.38	7,379.39	7,072.93	306.45	24.080		
9,500.00	7,134.83	7,120.83	7,134.83	71.33	246.86	90.36	2,583.10	-7,851.38	7,304.78	6,996.68	308.10	23.709		
9,600.00	7,134.26	7,120.26	7,134.26	73.77	246.84	90.35	2,583.10	-7,851.38	7,230.78	6,920.97	309.82	23.339		
9,700.00	7,133.69	7,119.69	7,133.69	76.24	246.83	90.35	2,583.10	-7,851.38	7,157.42	6,845.82	311.60	22.970		
9,800.00	7,133.12	7,119.12	7,133.12	78.74	246.81	90.34	2,583.10	-7,851.38	7,084.71	6,771.26	313.46	22.602		
9,900.00	7,132.55	7,118.55	7,132.55	81.27	246.79	90.33	2,583.10	-7,851.38	7,012.68	6,697.30	315.38	22.236		
10,000.00	7,131.98	7,117.98	7,131.98	83.81	246.77	90.33	2,583.10	-7,851.38	6,941.33	6,623.97	317.36	21.872		
10,100.00	7,131.42	7,117.42	7,131.42	86.38	246.75	90.32	2,583.10	-7,851.38	6,870.70	6,551.29	319.42	21.510		
10,200.00	7,130.85	7,116.85	7,130.85	88.96	246.73	90.31	2,583.10	-7,851.38	6,800.81	6,479.27	321.53	21.151		
10,300.00	7,130.28	7,116.28	7,130.28	91.56	246.71	90.31	2,583.10	-7,851.38	6,731.68	6,407.96	323.72	20.795		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 14-9(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,115.71	7,129.71	94.18	246.69	90.30	2,583.10	-7,851.38	6,663.33	6,337.36	325.96	20.442		
10,500.00	7,129.14	7,115.14	7,129.14	96.81	246.67	90.29	2,583.10	-7,851.38	6,595.78	6,267.51	328.28	20.092		
10,600.00	7,128.57	7,114.57	7,128.57	99.45	246.65	90.29	2,583.10	-7,851.38	6,529.08	6,198.43	330.65	19.746		
10,700.00	7,128.00	7,114.00	7,128.00	102.11	246.63	90.28	2,583.10	-7,851.38	6,463.23	6,130.14	333.08	19.404		
10,800.00	7,127.44	7,113.44	7,127.44	104.77	246.61	90.28	2,583.10	-7,851.38	6,398.26	6,062.68	335.58	19.066		
10,900.00	7,126.87	7,112.87	7,126.87	107.45	246.59	90.27	2,583.10	-7,851.38	6,334.21	5,996.07	338.14	18.733		
11,000.00	7,126.30	7,112.30	7,126.30	110.13	246.57	90.26	2,583.10	-7,851.38	6,271.10	5,930.34	340.75	18.404		
11,100.00	7,125.73	7,111.73	7,125.73	112.82	246.55	90.26	2,583.10	-7,851.38	6,208.95	5,865.52	343.43	18.079		
11,200.00	7,125.16	7,111.16	7,125.16	115.53	246.53	90.25	2,583.10	-7,851.38	6,147.81	5,801.65	346.16	17.760		
11,300.00	7,124.59	7,110.59	7,124.59	118.24	246.51	90.24	2,583.10	-7,851.38	6,087.69	5,738.74	348.95	17.446		
11,400.00	7,124.03	7,110.03	7,124.03	120.95	246.49	90.24	2,583.10	-7,851.38	6,028.63	5,676.84	351.80	17.137		
11,500.00	7,123.46	7,109.46	7,123.46	123.67	246.47	90.23	2,583.10	-7,851.38	5,970.67	5,615.97	354.69	16.833		
11,600.00	7,122.89	7,108.89	7,122.89	126.40	246.45	90.22	2,583.10	-7,851.38	5,913.83	5,556.18	357.64	16.536		
11,700.00	7,122.32	7,108.32	7,122.32	129.14	246.43	90.22	2,583.10	-7,851.38	5,858.14	5,497.49	360.64	16.244		
11,800.00	7,121.75	7,107.75	7,121.75	131.88	246.41	90.21	2,583.10	-7,851.38	5,803.64	5,439.94	363.69	15.957		
11,900.00	7,121.18	7,107.18	7,121.18	134.62	246.39	90.20	2,583.10	-7,851.38	5,750.36	5,383.57	366.79	15.678		
12,000.00	7,120.61	7,106.61	7,120.61	137.37	246.37	90.20	2,583.10	-7,851.38	5,698.34	5,328.41	369.93	15.404		
12,100.00	7,120.05	7,106.05	7,120.05	140.12	246.35	90.19	2,583.10	-7,851.38	5,647.62	5,274.50	373.11	15.136		
12,200.00	7,119.48	7,105.48	7,119.48	142.88	246.33	90.18	2,583.10	-7,851.38	5,598.21	5,221.88	376.34	14.875		
12,300.00	7,118.91	7,104.91	7,118.91	145.64	246.31	90.18	2,583.10	-7,851.38	5,550.18	5,170.58	379.60	14.621		
12,400.00	7,118.34	7,104.34	7,118.34	148.41	246.29	90.17	2,583.10	-7,851.38	5,503.53	5,120.64	382.89	14.374		
12,500.00	7,117.77	7,103.77	7,117.77	151.18	246.27	90.16	2,583.10	-7,851.38	5,458.33	5,072.11	386.22	14.133		
12,600.00	7,117.20	7,103.20	7,117.20	153.95	246.25	90.16	2,583.10	-7,851.38	5,414.59	5,025.02	389.57	13.899		
12,700.00	7,116.64	7,102.64	7,116.64	156.73	246.23	90.15	2,583.10	-7,851.38	5,372.36	4,979.41	392.95	13.672		
12,800.00	7,116.07	7,102.07	7,116.07	159.50	246.21	90.14	2,583.10	-7,851.38	5,331.67	4,935.32	396.35	13.452		
12,900.00	7,115.50	7,101.50	7,115.50	162.29	246.19	90.14	2,583.10	-7,851.38	5,292.55	4,892.79	399.76	13.239		
13,000.00	7,114.93	7,100.93	7,114.93	165.07	246.17	90.13	2,583.10	-7,851.38	5,255.05	4,851.86	403.19	13.034		
13,100.00	7,114.36	7,100.36	7,114.36	167.86	246.15	90.12	2,583.10	-7,851.38	5,219.19	4,812.57	406.62	12.836		
13,200.00	7,113.79	7,100.21	7,113.79	170.64	246.15	90.12	2,583.10	-7,851.38	5,185.02	4,774.95	410.07	12.644		
13,300.00	7,113.22	7,100.78	7,113.22	173.44	246.16	90.11	2,583.10	-7,851.38	5,152.56	4,739.01	413.55	12.459		
13,400.00	7,112.66	7,101.34	7,112.66	176.23	246.18	90.10	2,583.10	-7,851.38	5,121.84	4,704.83	417.02	12.282		
13,500.00	7,112.09	7,101.91	7,112.09	179.02	246.20	90.10	2,583.10	-7,851.38	5,092.91	4,672.43	420.47	12.112		
13,600.00	7,111.52	7,102.48	7,111.52	181.82	246.22	90.09	2,583.10	-7,851.38	5,065.78	4,641.87	423.92	11.950		
13,700.00	7,110.95	7,103.05	7,110.95	184.62	246.24	90.08	2,583.10	-7,851.38	5,040.50	4,613.16	427.33	11.795		
13,800.00	7,110.38	7,103.62	7,110.38	187.42	246.26	90.08	2,583.10	-7,851.38	5,017.07	4,586.35	430.73	11.648		
13,900.00	7,109.81	7,104.19	7,109.81	190.22	246.28	90.07	2,583.10	-7,851.38	4,995.54	4,561.46	434.08	11.508		
14,000.00	7,109.25	7,104.75	7,109.25	193.03	246.30	90.06	2,583.10	-7,851.38	4,975.93	4,538.53	437.41	11.376		
14,100.00	7,108.68	7,105.32	7,108.68	195.84	246.32	90.06	2,583.10	-7,851.38	4,958.26	4,517.58	440.68	11.251		
14,200.00	7,108.11	7,105.89	7,108.11	198.64	246.34	90.05	2,583.10	-7,851.38	4,942.55	4,498.64	443.91	11.134		
14,300.00	7,107.54	7,106.46	7,107.54	201.45	246.36	90.04	2,583.10	-7,851.38	4,928.81	4,481.73	447.08	11.024		
14,400.00	7,106.97	7,107.03	7,106.97	204.26	246.38	90.04	2,583.10	-7,851.38	4,917.07	4,466.88	450.20	10.922		
14,500.00	7,106.40	7,107.60	7,106.40	207.07	246.40	90.03	2,583.10	-7,851.38	4,907.35	4,454.10	453.25	10.827		
14,600.00	7,105.83	7,108.17	7,105.83	209.89	246.42	90.02	2,583.10	-7,851.38	4,899.64	4,443.41	456.23	10.739		
14,700.00	7,105.27	7,108.73	7,105.27	212.70	246.44	90.02	2,583.10	-7,851.38	4,893.97	4,434.83	459.14	10.659		
14,800.00	7,104.70	7,109.30	7,104.70	215.52	246.46	90.01	2,583.10	-7,851.38	4,890.33	4,428.37	461.97	10.586		
14,900.00	7,104.13	7,109.87	7,104.13	218.33	246.48	90.00	2,583.10	-7,851.38	4,888.74	4,424.03	464.71	10.520		
14,927.87	7,103.97	7,089.97	7,103.97	219.12	245.79	90.00	2,583.10	-7,851.38	4,888.66	4,423.90	464.76	10.519 CC		
15,000.00	7,103.56	7,089.56	7,103.56	221.15	245.77	90.00	2,583.10	-7,851.38	4,889.19	4,422.55	466.64	10.477		
15,100.00	7,102.99	7,088.99	7,102.99	223.97	245.75	89.99	2,583.10	-7,851.38	4,891.69	4,422.51	469.18	10.426 ES		
15,200.00	7,102.42	7,088.42	7,102.42	226.79	245.73	89.98	2,583.10	-7,851.38	4,896.23	4,424.61	471.62	10.382		
15,274.57	7,102.00	7,088.00	7,102.00	228.89	245.72	89.98	2,583.10	-7,851.38	4,900.94	4,427.56	473.37	10.353 SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	3.00	0.00	3.28	3.28	-53.35	2,698.69	-3,626.84	4,520.72				
100.00	100.00	103.00	100.00	3.28	3.77	-53.35	2,698.69	-3,626.84	4,520.72	4,513.67	7.05	641.186	
200.00	200.00	203.00	200.00	3.34	6.27	-53.35	2,698.69	-3,626.84	4,520.72	4,511.11	9.60	470.664 CC	
300.00	299.98	302.98	299.98	3.44	9.42	122.70	2,698.69	-3,626.84	4,521.66	4,508.80	12.86	351.594	
400.00	399.84	402.84	399.84	3.59	12.75	122.71	2,698.69	-3,626.84	4,524.49	4,508.16	16.34	276.960 ES	
500.00	499.45	502.45	499.45	3.79	16.13	122.72	2,698.69	-3,626.84	4,529.22	4,509.30	19.92	227.369	
600.00	598.70	601.70	598.70	4.03	19.54	122.74	2,698.69	-3,626.84	4,535.84	4,512.27	23.57	192.457	
700.00	697.47	700.47	697.47	4.31	22.94	122.76	2,698.69	-3,626.84	4,544.38	4,517.12	27.26	166.722	
800.00	795.62	801.38	795.62	4.64	26.43	122.78	2,698.69	-3,626.84	4,554.84	4,523.77	31.07	146.608	
900.00	893.06	903.94	893.06	5.00	29.99	122.80	2,698.69	-3,626.84	4,567.25	4,532.27	34.98	130.576	
1,000.00	989.64	1,007.36	989.64	5.40	33.58	122.82	2,698.69	-3,626.84	4,581.62	4,542.66	38.95	117.618	
1,100.00	1,085.27	1,088.27	1,085.27	5.83	36.39	122.84	2,698.69	-3,626.84	4,597.97	4,555.79	42.18	109.007	
1,200.00	1,179.88	1,182.88	1,179.88	6.29	39.68	122.97	2,698.69	-3,626.84	4,616.22	4,570.31	45.91	100.543	
1,300.00	1,274.26	1,277.26	1,274.26	6.78	42.97	123.30	2,698.69	-3,626.84	4,635.04	4,585.38	49.66	93.345	
1,400.00	1,368.63	1,371.63	1,368.63	7.28	46.25	123.62	2,698.69	-3,626.84	4,654.01	4,600.59	53.41	87.132	
1,500.00	1,463.00	1,466.00	1,463.00	7.80	49.54	123.95	2,698.69	-3,626.84	4,673.13	4,615.95	57.18	81.720	
1,600.00	1,557.38	1,560.38	1,557.38	8.33	52.83	124.27	2,698.69	-3,626.84	4,692.42	4,631.45	60.97	76.968	
1,700.00	1,651.75	1,654.75	1,651.75	8.87	56.12	124.59	2,698.69	-3,626.84	4,711.85	4,647.10	64.76	72.764	
1,800.00	1,746.12	1,749.12	1,746.12	9.41	59.41	124.91	2,698.69	-3,626.84	4,731.44	4,662.89	68.55	69.020	
1,900.00	1,840.49	1,843.49	1,840.49	9.96	62.70	125.22	2,698.69	-3,626.84	4,751.18	4,678.82	72.35	65.666	
2,000.00	1,934.87	1,937.87	1,934.87	10.52	65.99	125.53	2,698.69	-3,626.84	4,771.06	4,694.90	76.16	62.645	
2,100.00	2,029.24	2,032.24	2,029.24	11.08	69.28	125.84	2,698.69	-3,626.84	4,791.09	4,711.12	79.97	59.911	
2,200.00	2,123.61	2,126.61	2,123.61	11.64	72.57	126.15	2,698.69	-3,626.84	4,811.27	4,727.48	83.78	57.425	
2,300.00	2,217.99	2,220.99	2,217.99	12.21	75.86	126.46	2,698.69	-3,626.84	4,831.58	4,743.98	87.60	55.155	
2,400.00	2,312.36	2,315.36	2,312.36	12.78	79.15	126.76	2,698.69	-3,626.84	4,852.04	4,760.62	91.42	53.076	
2,500.00	2,406.73	2,409.73	2,406.73	13.35	82.44	127.06	2,698.69	-3,626.84	4,872.63	4,777.40	95.24	51.163	
2,600.00	2,501.10	2,504.10	2,501.10	13.93	85.74	127.36	2,698.69	-3,626.84	4,893.37	4,794.31	99.06	49.399	
2,700.00	2,595.48	2,601.52	2,595.48	14.51	89.13	127.65	2,698.69	-3,626.84	4,914.23	4,811.25	102.99	47.717	
2,800.00	2,689.85	2,707.15	2,689.85	15.08	92.82	127.95	2,698.69	-3,626.84	4,935.23	4,828.03	107.20	46.037	
2,900.00	2,784.22	2,787.22	2,784.22	15.66	95.61	128.24	2,698.69	-3,626.84	4,956.36	4,845.84	110.53	44.843	
3,000.00	2,878.60	2,881.60	2,878.60	16.25	98.91	128.53	2,698.69	-3,626.84	4,977.63	4,863.28	114.35	43.529	
3,100.00	2,972.97	2,975.97	2,972.97	16.83	102.20	128.81	2,698.69	-3,626.84	4,999.02	4,880.84	118.18	42.302	
3,200.00	3,067.34	3,070.34	3,067.34	17.41	105.49	129.10	2,698.69	-3,626.84	5,020.53	4,898.53	122.00	41.152	
3,300.00	3,161.72	3,164.72	3,161.72	18.00	108.78	129.38	2,698.69	-3,626.84	5,042.18	4,916.35	125.83	40.073	
3,400.00	3,256.09	3,259.09	3,256.09	18.58	112.08	129.66	2,698.69	-3,626.84	5,063.94	4,934.29	129.65	39.058	
3,500.00	3,350.46	3,353.46	3,350.46	19.17	115.37	129.94	2,698.69	-3,626.84	5,085.83	4,952.36	133.48	38.103	
3,600.00	3,444.83	3,447.83	3,444.83	19.75	118.66	130.21	2,698.69	-3,626.84	5,107.84	4,970.54	137.30	37.202	
3,700.00	3,539.21	3,542.21	3,539.21	20.34	121.96	130.49	2,698.69	-3,626.84	5,129.97	4,988.84	141.13	36.350	
3,800.00	3,633.58	3,636.58	3,633.58	20.93	125.25	130.76	2,698.69	-3,626.84	5,152.21	5,007.26	144.95	35.545	
3,900.00	3,727.95	3,730.95	3,727.95	21.52	128.54	131.03	2,698.69	-3,626.84	5,174.57	5,025.80	148.77	34.781	
4,000.00	3,822.33	3,825.33	3,822.33	22.11	131.84	131.29	2,698.69	-3,626.84	5,197.04	5,044.45	152.60	34.057	
4,100.00	3,916.70	3,919.70	3,916.70	22.70	135.13	131.56	2,698.69	-3,626.84	5,219.63	5,063.21	156.42	33.369	
4,200.00	4,011.07	4,014.07	4,011.07	23.29	138.42	131.82	2,698.69	-3,626.84	5,242.33	5,082.08	160.25	32.714	
4,300.00	4,105.44	4,108.44	4,105.44	23.88	141.72	132.08	2,698.69	-3,626.84	5,265.14	5,101.07	164.07	32.091	
4,400.00	4,199.82	4,202.82	4,199.82	24.47	145.01	132.34	2,698.69	-3,626.84	5,288.05	5,120.16	167.89	31.497	
4,500.00	4,294.19	4,302.81	4,294.19	25.06	148.50	132.59	2,698.69	-3,626.84	5,311.08	5,139.17	171.91	30.894	
4,600.00	4,388.56	4,408.44	4,388.56	25.65	152.19	132.85	2,698.69	-3,626.84	5,334.21	5,158.08	176.13	30.286	
4,700.00	4,482.94	4,485.94	4,482.94	26.24	154.89	133.10	2,698.69	-3,626.84	5,357.44	5,178.08	179.36	29.870	
4,800.00	4,577.31	4,580.31	4,577.31	26.83	158.19	133.35	2,698.69	-3,626.84	5,380.78	5,197.60	183.18	29.374	
4,900.00	4,671.68	4,674.68	4,671.68	27.43	161.48	133.59	2,698.69	-3,626.84	5,404.22	5,217.21	187.00	28.899	
5,000.00	4,766.05	4,769.05	4,766.05	28.02	164.78	133.84	2,698.69	-3,626.84	5,427.75	5,236.93	190.82	28.444	
5,100.00	4,860.43	4,863.43	4,860.43	28.61	168.07	134.08	2,698.69	-3,626.84	5,451.39	5,256.75	194.64	28.007	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,957.80	4,954.80	29.20	171.36	134.33	2,698.69	-3,626.84	5,475.13	5,276.67	198.46	27.588		
5,300.00	5,049.17	5,052.17	5,049.17	29.80	174.66	134.56	2,698.69	-3,626.84	5,498.96	5,296.68	202.28	27.185		
5,400.00	5,143.55	5,146.55	5,143.55	30.39	177.95	134.80	2,698.69	-3,626.84	5,522.89	5,316.79	206.10	26.797		
5,500.00	5,237.92	5,240.92	5,237.92	30.99	181.25	135.04	2,698.69	-3,626.84	5,546.91	5,336.99	209.92	26.424		
5,600.00	5,332.29	5,335.29	5,332.29	31.58	184.54	135.27	2,698.69	-3,626.84	5,571.02	5,357.28	213.74	26.065		
5,700.00	5,426.66	5,429.66	5,426.66	32.17	187.83	135.50	2,698.69	-3,626.84	5,595.23	5,377.67	217.55	25.719		
5,800.00	5,521.04	5,524.04	5,521.04	32.77	191.13	135.73	2,698.69	-3,626.84	5,619.52	5,398.15	221.37	25.385		
5,900.00	5,615.41	5,618.41	5,615.41	33.36	194.42	135.96	2,698.69	-3,626.84	5,643.91	5,418.72	225.19	25.063		
6,000.00	5,709.78	5,712.78	5,709.78	33.96	197.72	136.19	2,698.69	-3,626.84	5,668.38	5,439.38	229.00	24.752		
6,100.00	5,804.16	5,807.16	5,804.16	34.55	201.01	136.41	2,698.69	-3,626.84	5,692.94	5,460.12	232.82	24.452		
6,200.00	5,898.53	5,901.53	5,898.53	35.14	204.30	136.63	2,698.69	-3,626.84	5,717.58	5,480.95	236.63	24.162		
6,300.00	5,992.90	6,004.10	5,992.90	35.74	207.88	136.86	2,698.69	-3,626.84	5,742.31	5,501.58	240.74	23.853		
6,400.00	6,087.27	6,109.73	6,087.27	36.33	211.57	137.07	2,698.69	-3,626.84	5,767.13	5,522.19	244.94	23.545		
6,500.00	6,181.65	6,184.65	6,181.65	36.93	214.19	137.29	2,698.69	-3,626.84	5,792.03	5,543.95	248.08	23.348		
6,600.00	6,276.02	6,279.02	6,276.02	37.52	217.48	137.51	2,698.69	-3,626.84	5,817.00	5,565.11	251.89	23.093		
6,700.00	6,370.39	6,373.39	6,370.39	38.12	220.77	137.72	2,698.69	-3,626.84	5,842.06	5,586.36	255.70	22.847		
6,800.00	6,464.77	6,467.77	6,464.77	38.71	224.07	137.93	2,698.69	-3,626.84	5,867.20	5,607.68	259.52	22.608		
6,900.00	6,559.14	6,562.14	6,559.14	39.31	227.36	137.91	2,698.69	-3,626.84	5,892.41	5,629.08	263.33	22.377		
7,000.00	6,652.92	6,655.92	6,652.92	39.90	230.64	113.46	2,698.69	-3,626.84	5,912.91	5,645.79	267.12	22.135		
7,100.00	6,744.00	6,747.00	6,744.00	40.44	233.82	96.92	2,698.69	-3,626.84	5,923.89	5,653.07	270.81	21.875		
7,200.00	6,830.13	6,833.13	6,830.13	40.94	236.82	87.17	2,698.69	-3,626.84	5,925.29	5,651.00	274.29	21.602		
7,300.00	6,909.19	6,912.19	6,909.19	41.37	239.58	81.85	2,698.69	-3,626.84	5,917.35	5,639.86	277.50	21.324		
7,400.00	6,979.23	6,982.23	6,979.23	41.75	242.03	79.43	2,698.69	-3,626.84	5,900.56	5,620.18	280.38	21.045		
7,500.00	7,038.53	7,041.53	7,038.53	42.08	244.10	79.06	2,698.69	-3,626.84	5,875.60	5,592.68	282.92	20.768		
7,600.00	7,085.63	7,088.63	7,085.63	42.37	245.74	80.26	2,698.69	-3,626.84	5,843.34	5,558.23	285.11	20.495		
7,700.00	7,119.37	7,122.37	7,119.37	42.64	246.92	82.75	2,698.69	-3,626.84	5,804.75	5,517.83	286.93	20.231		
7,800.00	7,138.92	7,141.92	7,138.92	42.91	247.60	86.32	2,698.69	-3,626.84	5,760.93	5,472.55	288.38	19.977		
7,900.00	7,143.92	7,146.92	7,143.92	43.25	247.78	90.18	2,698.69	-3,626.84	5,713.01	5,423.58	289.44	19.738		
8,000.00	7,143.35	7,146.35	7,143.35	43.72	247.76	90.18	2,698.69	-3,626.84	5,664.63	5,374.20	290.43	19.504		
8,100.00	7,142.78	7,145.78	7,142.78	44.42	247.74	90.17	2,698.69	-3,626.84	5,617.61	5,326.04	291.56	19.267		
8,200.00	7,142.22	7,145.22	7,142.22	45.39	247.72	90.16	2,698.69	-3,626.84	5,571.98	5,279.15	292.83	19.028		
8,300.00	7,141.65	7,144.65	7,141.65	46.63	247.70	90.16	2,698.69	-3,626.84	5,527.79	5,233.56	294.23	18.787		
8,400.00	7,141.08	7,144.08	7,141.08	48.09	247.68	90.15	2,698.69	-3,626.84	5,485.07	5,189.31	295.75	18.546		
8,500.00	7,140.51	7,143.51	7,140.51	49.74	247.66	90.14	2,698.69	-3,626.84	5,443.85	5,146.45	297.39	18.305		
8,600.00	7,139.94	7,142.94	7,139.94	51.53	247.64	90.14	2,698.69	-3,626.84	5,404.16	5,105.02	299.14	18.065		
8,700.00	7,139.37	7,142.37	7,139.37	53.44	247.62	90.13	2,698.69	-3,626.84	5,366.04	5,065.05	301.00	17.828		
8,800.00	7,138.80	7,141.80	7,138.80	55.45	247.60	90.12	2,698.69	-3,626.84	5,329.53	5,026.59	302.94	17.593		
8,900.00	7,138.24	7,141.24	7,138.24	57.55	247.58	90.12	2,698.69	-3,626.84	5,294.66	4,989.68	304.98	17.361		
9,000.00	7,137.67	7,140.67	7,137.67	59.71	247.56	90.11	2,698.69	-3,626.84	5,261.45	4,954.36	307.09	17.133		
9,100.00	7,137.10	7,140.10	7,137.10	61.94	247.54	90.10	2,698.69	-3,626.84	5,229.95	4,920.67	309.28	16.910		
9,200.00	7,136.53	7,139.53	7,136.53	64.22	247.52	90.10	2,698.69	-3,626.84	5,200.18	4,888.64	311.53	16.692		
9,300.00	7,135.96	7,138.96	7,135.96	66.55	247.50	90.09	2,698.69	-3,626.84	5,172.17	4,858.32	313.85	16.480		
9,400.00	7,135.39	7,138.39	7,135.39	68.92	247.48	90.09	2,698.69	-3,626.84	5,145.95	4,829.74	316.21	16.274		
9,500.00	7,134.83	7,137.83	7,134.83	71.33	247.46	90.08	2,698.69	-3,626.84	5,121.55	4,802.93	318.62	16.074		
9,600.00	7,134.26	7,137.26	7,134.26	73.77	247.44	90.07	2,698.69	-3,626.84	5,099.00	4,777.92	321.07	15.881		
9,700.00	7,133.69	7,136.69	7,133.69	76.24	247.42	90.07	2,698.69	-3,626.84	5,078.31	4,754.75	323.56	15.695		
9,800.00	7,133.12	7,136.12	7,133.12	78.74	247.40	90.06	2,698.69	-3,626.84	5,059.52	4,733.45	326.07	15.517		
9,900.00	7,132.55	7,135.55	7,132.55	81.27	247.38	90.05	2,698.69	-3,626.84	5,042.64	4,714.03	328.61	15.346		
10,000.00	7,131.98	7,134.98	7,131.98	83.81	247.36	90.05	2,698.69	-3,626.84	5,027.69	4,696.54	331.15	15.182		
10,100.00	7,131.42	7,134.42	7,131.42	86.38	247.34	90.04	2,698.69	-3,626.84	5,014.70	4,680.98	333.71	15.027		
10,200.00	7,130.85	7,133.85	7,130.85	88.96	247.32	90.03	2,698.69	-3,626.84	5,003.66	4,667.39	336.28	14.880		
10,300.00	7,130.28	7,133.28	7,130.28	91.56	247.30	90.03	2,698.69	-3,626.84	4,994.61	4,655.77	338.84	14.740		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,132.71	7,129.71	94.18	247.28	90.02	2,698.69	-3,626.84	4,987.54	4,646.15	341.40	14.609		
10,500.00	7,129.14	7,132.14	7,129.14	96.81	247.26	90.01	2,698.69	-3,626.84	4,982.48	4,638.53	343.95	14.486		
10,600.00	7,128.57	7,131.57	7,128.57	99.45	247.24	90.01	2,698.69	-3,626.84	4,979.41	4,632.93	346.48	14.371		
10,700.00	7,128.00	7,131.00	7,128.00	102.11	247.22	90.00	2,698.69	-3,626.84	4,978.36	4,629.37	348.99	14.265		
10,702.63	7,127.99	7,130.99	7,127.99	102.18	247.22	90.00	2,698.69	-3,626.84	4,978.36	4,629.30	349.06	14.262		
10,800.00	7,127.44	7,130.44	7,127.44	104.77	247.20	89.99	2,698.69	-3,626.84	4,979.31	4,627.83	351.48	14.167		
10,900.00	7,126.87	7,129.87	7,126.87	107.45	247.18	89.99	2,698.69	-3,626.84	4,982.27	4,628.33	353.94	14.077		
11,000.00	7,126.30	7,129.30	7,126.30	110.13	247.16	89.98	2,698.69	-3,626.84	4,987.23	4,630.87	356.36	13.995		
11,100.00	7,125.73	7,128.73	7,125.73	112.82	247.14	89.97	2,698.69	-3,626.84	4,994.19	4,635.44	358.75	13.921		
11,200.00	7,125.16	7,128.16	7,125.16	115.53	247.12	89.97	2,698.69	-3,626.84	5,003.14	4,642.03	361.10	13.855		
11,300.00	7,124.59	7,127.59	7,124.59	118.24	247.10	89.96	2,698.69	-3,626.84	5,014.07	4,650.65	363.41	13.797		
11,400.00	7,124.03	7,127.03	7,124.03	120.95	247.08	89.95	2,698.69	-3,626.84	5,026.96	4,661.29	365.67	13.747		
11,500.00	7,123.46	7,126.46	7,123.46	123.67	247.06	89.95	2,698.69	-3,626.84	5,041.80	4,673.92	367.89	13.705		
11,600.00	7,122.89	7,125.89	7,122.89	126.40	247.04	89.94	2,698.69	-3,626.84	5,058.58	4,688.53	370.05	13.670		
11,700.00	7,122.32	7,125.32	7,122.32	129.14	247.02	89.93	2,698.69	-3,626.84	5,077.28	4,705.11	372.16	13.643		
11,800.00	7,121.75	7,124.75	7,121.75	131.88	247.00	89.93	2,698.69	-3,626.84	5,097.86	4,723.64	374.22	13.623		
11,900.00	7,121.18	7,124.18	7,121.18	134.62	246.98	89.92	2,698.69	-3,626.84	5,120.32	4,744.10	376.22	13.610		
12,000.00	7,120.61	7,123.61	7,120.61	137.37	246.96	89.92	2,698.69	-3,626.84	5,144.62	4,766.46	378.16	13.604 SF		
12,100.00	7,120.05	7,123.05	7,120.05	140.12	246.94	89.91	2,698.69	-3,626.84	5,170.74	4,790.70	380.05	13.606		
12,200.00	7,119.48	7,122.48	7,119.48	142.88	246.92	89.90	2,698.69	-3,626.84	5,198.66	4,816.79	381.87	13.614		
12,300.00	7,118.91	7,121.91	7,118.91	145.64	246.90	89.90	2,698.69	-3,626.84	5,228.34	4,844.70	383.64	13.628		
12,400.00	7,118.34	7,121.34	7,118.34	148.41	246.88	89.89	2,698.69	-3,626.84	5,259.75	4,874.40	385.35	13.649		
12,500.00	7,117.77	7,120.77	7,117.77	151.18	246.86	89.88	2,698.69	-3,626.84	5,292.87	4,905.87	386.99	13.677		
12,600.00	7,117.20	7,120.20	7,117.20	153.95	246.84	89.88	2,698.69	-3,626.84	5,327.65	4,939.07	388.58	13.711		
12,700.00	7,116.64	7,119.64	7,116.64	156.73	246.82	89.87	2,698.69	-3,626.84	5,364.08	4,973.97	390.11	13.750		
12,800.00	7,116.07	7,119.07	7,116.07	159.50	246.80	89.86	2,698.69	-3,626.84	5,402.11	5,010.54	391.58	13.796		
12,900.00	7,115.50	7,118.50	7,115.50	162.29	246.78	89.86	2,698.69	-3,626.84	5,441.72	5,048.73	392.99	13.847		
13,000.00	7,114.93	7,117.93	7,114.93	165.07	246.76	89.85	2,698.69	-3,626.84	5,482.86	5,088.52	394.34	13.904		
13,100.00	7,114.36	7,117.36	7,114.36	167.86	246.74	89.84	2,698.69	-3,626.84	5,525.50	5,129.87	395.63	13.966		
13,200.00	7,113.79	7,116.79	7,113.79	170.64	246.72	89.84	2,698.69	-3,626.84	5,569.62	5,172.75	396.87	14.034		
13,300.00	7,113.22	7,116.22	7,113.22	173.44	246.70	89.83	2,698.69	-3,626.84	5,615.17	5,217.11	398.06	14.106		
13,400.00	7,112.66	7,115.66	7,112.66	176.23	246.68	89.82	2,698.69	-3,626.84	5,662.12	5,262.93	399.19	14.184		
13,500.00	7,112.09	7,115.09	7,112.09	179.02	246.66	89.82	2,698.69	-3,626.84	5,710.43	5,310.17	400.27	14.267		
13,600.00	7,111.52	7,114.52	7,111.52	181.82	246.64	89.81	2,698.69	-3,626.84	5,760.08	5,358.78	401.29	14.354		
13,700.00	7,110.95	7,113.95	7,110.95	184.62	246.62	89.80	2,698.69	-3,626.84	5,811.02	5,408.75	402.27	14.445		
13,800.00	7,110.38	7,113.38	7,110.38	187.42	246.60	89.80	2,698.69	-3,626.84	5,863.22	5,460.02	403.20	14.542		
13,900.00	7,109.81	7,112.81	7,109.81	190.22	246.59	89.79	2,698.69	-3,626.84	5,916.66	5,512.57	404.09	14.642		
14,000.00	7,109.25	7,112.25	7,109.25	193.03	246.57	89.78	2,698.69	-3,626.84	5,971.29	5,566.36	404.92	14.747		
14,100.00	7,108.68	7,111.68	7,108.68	195.84	246.55	89.78	2,698.69	-3,626.84	6,027.08	5,621.36	405.72	14.855		
14,200.00	7,108.11	7,111.11	7,108.11	198.64	246.53	89.77	2,698.69	-3,626.84	6,084.01	5,677.54	406.47	14.968		
14,300.00	7,107.54	7,110.54	7,107.54	201.45	246.51	89.76	2,698.69	-3,626.84	6,142.04	5,734.85	407.18	15.084		
14,400.00	7,106.97	7,109.97	7,106.97	204.26	246.49	89.76	2,698.69	-3,626.84	6,201.14	5,793.28	407.86	15.204		
14,500.00	7,106.40	7,109.40	7,106.40	207.07	246.47	89.75	2,698.69	-3,626.84	6,261.27	5,852.78	408.49	15.328		
14,600.00	7,105.83	7,108.83	7,105.83	209.89	246.45	89.75	2,698.69	-3,626.84	6,322.42	5,913.33	409.09	15.455		
14,700.00	7,105.27	7,108.27	7,105.27	212.70	246.43	89.74	2,698.69	-3,626.84	6,384.55	5,974.89	409.66	15.585		
14,800.00	7,104.70	7,107.70	7,104.70	215.52	246.41	89.73	2,698.69	-3,626.84	6,447.63	6,037.44	410.19	15.719		
14,900.00	7,104.13	7,107.13	7,104.13	218.33	246.39	89.73	2,698.69	-3,626.84	6,511.63	6,100.94	410.69	15.855		
15,000.00	7,103.56	7,106.56	7,103.56	221.15	246.37	89.72	2,698.69	-3,626.84	6,576.53	6,165.38	411.16	15.995		
15,100.00	7,102.99	7,105.99	7,102.99	223.97	246.35	89.71	2,698.69	-3,626.84	6,642.31	6,230.71	411.59	16.138		
15,200.00	7,102.42	7,105.42	7,102.42	226.79	246.33	89.71	2,698.69	-3,626.84	6,708.92	6,296.92	412.01	16.284		
15,274.57	7,102.00	7,105.00	7,102.00	228.89	246.31	89.70	2,698.69	-3,626.84	6,759.14	6,346.84	412.29	16.394		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	37.00	3.28	3.28	-61.13	2,669.75	-4,842.19	5,529.54				
100.00	100.00	63.00	100.00	3.28	3.46	-61.13	2,669.75	-4,842.19	5,529.41	5,522.67	6.74	819.882	
200.00	200.00	163.00	200.00	3.34	5.13	-61.13	2,669.75	-4,842.19	5,529.41	5,520.94	8.47	653.028	
300.00	299.98	262.98	299.98	3.44	8.13	114.92	2,669.75	-4,842.19	5,530.15	5,518.58	11.57	478.142	
400.00	399.84	362.84	399.84	3.59	11.40	114.93	2,669.75	-4,842.19	5,532.36	5,517.36	14.99	369.018	
500.00	499.45	462.45	499.45	3.79	14.77	114.94	2,669.75	-4,842.19	5,536.04	5,517.49	18.55	298.360	
600.00	598.70	561.70	598.70	4.03	18.16	114.96	2,669.75	-4,842.19	5,541.21	5,519.02	22.19	249.691	
700.00	697.47	660.47	697.47	4.31	21.56	114.98	2,669.75	-4,842.19	5,547.89	5,522.01	25.88	214.402	
800.00	795.62	758.62	795.62	4.64	24.95	115.01	2,669.75	-4,842.19	5,556.07	5,526.48	29.59	187.771	
900.00	893.06	856.06	893.06	5.00	28.33	115.04	2,669.75	-4,842.19	5,565.79	5,532.47	33.32	167.033	
1,000.00	989.64	952.64	989.64	5.40	31.68	115.07	2,669.75	-4,842.19	5,577.07	5,540.01	37.06	150.477	
1,100.00	1,085.27	1,048.27	1,085.27	5.83	35.00	115.09	2,669.75	-4,842.19	5,589.92	5,549.12	40.81	136.988	
1,200.00	1,179.88	1,142.88	1,179.88	6.29	38.29	115.21	2,669.75	-4,842.19	5,604.29	5,559.75	44.55	125.810	
1,300.00	1,274.26	1,237.26	1,274.26	6.78	41.58	115.50	2,669.75	-4,842.19	5,619.14	5,570.84	48.30	116.341	
1,400.00	1,368.63	1,331.63	1,368.63	7.28	44.86	115.79	2,669.75	-4,842.19	5,634.13	5,582.06	52.07	108.207	
1,500.00	1,463.00	1,426.00	1,463.00	7.80	48.15	116.08	2,669.75	-4,842.19	5,649.28	5,593.43	55.85	101.149	
1,600.00	1,557.38	1,520.38	1,557.38	8.33	51.44	116.37	2,669.75	-4,842.19	5,664.59	5,604.94	59.65	94.972	
1,700.00	1,651.75	1,614.75	1,651.75	8.87	54.72	116.65	2,669.75	-4,842.19	5,680.04	5,616.59	63.45	89.523	
1,800.00	1,746.12	1,709.12	1,746.12	9.41	58.01	116.94	2,669.75	-4,842.19	5,695.64	5,628.39	67.26	84.684	
1,900.00	1,840.49	1,803.49	1,840.49	9.96	61.30	117.22	2,669.75	-4,842.19	5,711.40	5,640.32	71.07	80.360	
2,000.00	1,934.87	1,902.13	1,934.87	10.52	64.74	117.50	2,669.75	-4,842.19	5,727.30	5,652.26	75.04	76.322	
2,100.00	2,029.24	2,007.76	2,029.24	11.08	68.42	117.78	2,669.75	-4,842.19	5,743.35	5,664.09	79.26	72.464	
2,200.00	2,123.61	2,086.61	2,123.61	11.64	71.17	118.06	2,669.75	-4,842.19	5,759.54	5,676.99	82.54	69.775	
2,300.00	2,217.99	2,180.99	2,217.99	12.21	74.47	118.34	2,669.75	-4,842.19	5,775.88	5,689.50	86.38	66.870	
2,400.00	2,312.36	2,275.36	2,312.36	12.78	77.76	118.61	2,669.75	-4,842.19	5,792.35	5,702.15	90.21	64.211	
2,500.00	2,406.73	2,369.73	2,406.73	13.35	81.05	118.89	2,669.75	-4,842.19	5,808.98	5,714.93	94.04	61.770	
2,600.00	2,501.10	2,464.10	2,501.10	13.93	84.34	119.16	2,669.75	-4,842.19	5,825.74	5,727.86	97.88	59.521	
2,700.00	2,595.48	2,558.48	2,595.48	14.51	87.63	119.43	2,669.75	-4,842.19	5,842.64	5,740.92	101.71	57.441	
2,800.00	2,689.85	2,652.85	2,689.85	15.08	90.92	119.70	2,669.75	-4,842.19	5,859.68	5,754.12	105.55	55.514	
2,900.00	2,784.22	2,747.22	2,784.22	15.66	94.22	119.97	2,669.75	-4,842.19	5,876.85	5,767.46	109.39	53.723	
3,000.00	2,878.60	2,841.60	2,878.60	16.25	97.51	120.24	2,669.75	-4,842.19	5,894.16	5,780.93	113.23	52.054	
3,100.00	2,972.97	2,935.97	2,972.97	16.83	100.80	120.50	2,669.75	-4,842.19	5,911.61	5,794.53	117.07	50.495	
3,200.00	3,067.34	3,030.34	3,067.34	17.41	104.10	120.76	2,669.75	-4,842.19	5,929.18	5,808.27	120.91	49.037	
3,300.00	3,161.72	3,124.72	3,161.72	18.00	107.39	121.03	2,669.75	-4,842.19	5,946.89	5,822.14	124.75	47.669	
3,400.00	3,256.09	3,219.09	3,256.09	18.58	110.68	121.29	2,669.75	-4,842.19	5,964.73	5,836.14	128.59	46.384	
3,500.00	3,350.46	3,313.46	3,350.46	19.17	113.97	121.55	2,669.75	-4,842.19	5,982.70	5,850.27	132.44	45.175	
3,600.00	3,444.83	3,407.83	3,444.83	19.75	117.27	121.81	2,669.75	-4,842.19	6,000.80	5,864.53	136.28	44.034	
3,700.00	3,539.21	3,502.21	3,539.21	20.34	120.56	122.06	2,669.75	-4,842.19	6,019.03	5,878.91	140.12	42.957	
3,800.00	3,633.58	3,603.42	3,633.58	20.93	124.09	122.32	2,669.75	-4,842.19	6,037.38	5,893.18	144.20	41.869	
3,900.00	3,727.95	3,709.05	3,727.95	21.52	127.78	122.57	2,669.75	-4,842.19	6,055.86	5,907.43	148.43	40.799	
4,000.00	3,822.33	3,785.33	3,822.33	22.11	130.44	122.82	2,669.75	-4,842.19	6,074.46	5,922.82	151.64	40.059	
4,100.00	3,916.70	3,879.70	3,916.70	22.70	133.74	123.08	2,669.75	-4,842.19	6,093.18	5,937.70	155.48	39.190	
4,200.00	4,011.07	3,974.07	4,011.07	23.29	137.03	123.33	2,669.75	-4,842.19	6,112.03	5,952.71	159.32	38.363	
4,300.00	4,105.44	4,068.44	4,105.44	23.88	140.32	123.57	2,669.75	-4,842.19	6,130.99	5,967.84	163.16	37.577	
4,400.00	4,199.82	4,162.82	4,199.82	24.47	143.62	123.82	2,669.75	-4,842.19	6,150.08	5,983.08	167.00	36.827	
4,500.00	4,294.19	4,257.19	4,294.19	25.06	146.91	124.07	2,669.75	-4,842.19	6,169.28	5,998.45	170.84	36.112	
4,600.00	4,388.56	4,351.56	4,388.56	25.65	150.20	124.31	2,669.75	-4,842.19	6,188.60	6,013.93	174.68	35.429	
4,700.00	4,482.94	4,445.94	4,482.94	26.24	153.50	124.55	2,669.75	-4,842.19	6,208.04	6,029.53	178.51	34.776	
4,800.00	4,577.31	4,540.31	4,577.31	26.83	156.79	124.79	2,669.75	-4,842.19	6,227.59	6,045.24	182.35	34.152	
4,900.00	4,671.68	4,634.68	4,671.68	27.43	160.09	125.03	2,669.75	-4,842.19	6,247.26	6,061.07	186.19	33.553	
5,000.00	4,766.05	4,729.05	4,766.05	28.02	163.38	125.27	2,669.75	-4,842.19	6,267.04	6,077.01	190.03	32.980	
5,100.00	4,860.43	4,823.43	4,860.43	28.61	166.67	125.51	2,669.75	-4,842.19	6,286.93	6,093.06	193.86	32.430	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,917.80	4,954.80	29.20	169.97	125.74	2,669.75	-4,842.19	6,306.93	6,109.23	197.70	31.902		
5,300.00	5,049.17	5,012.17	5,049.17	29.80	173.26	125.98	2,669.75	-4,842.19	6,327.04	6,125.50	201.53	31.395		
5,400.00	5,143.55	5,106.55	5,143.55	30.39	176.55	126.21	2,669.75	-4,842.19	6,347.26	6,141.89	205.37	30.907		
5,500.00	5,237.92	5,200.92	5,237.92	30.99	179.85	126.44	2,669.75	-4,842.19	6,367.58	6,158.38	209.20	30.437		
5,600.00	5,332.29	5,304.71	5,332.29	31.58	183.47	126.67	2,669.75	-4,842.19	6,388.02	6,174.65	213.36	29.939		
5,700.00	5,426.66	5,389.66	5,426.66	32.17	186.44	126.90	2,669.75	-4,842.19	6,408.56	6,191.69	216.87	29.550		
5,800.00	5,521.04	5,484.04	5,521.04	32.77	189.73	127.13	2,669.75	-4,842.19	6,429.20	6,208.50	220.70	29.131		
5,900.00	5,615.41	5,578.41	5,615.41	33.36	193.03	127.36	2,669.75	-4,842.19	6,449.95	6,225.41	224.53	28.726		
6,000.00	5,709.78	5,672.78	5,709.78	33.96	196.32	127.58	2,669.75	-4,842.19	6,470.79	6,242.43	228.37	28.335		
6,100.00	5,804.16	5,767.16	5,804.16	34.55	199.61	127.80	2,669.75	-4,842.19	6,491.74	6,259.55	232.20	27.958		
6,200.00	5,898.53	5,861.53	5,898.53	35.14	202.91	128.03	2,669.75	-4,842.19	6,512.80	6,276.77	236.03	27.593		
6,300.00	5,992.90	5,955.90	5,992.90	35.74	206.20	128.25	2,669.75	-4,842.19	6,533.95	6,294.09	239.86	27.241		
6,400.00	6,087.27	6,050.27	6,087.27	36.33	209.50	128.46	2,669.75	-4,842.19	6,555.20	6,311.51	243.69	26.900		
6,500.00	6,181.65	6,144.65	6,181.65	36.93	212.79	128.68	2,669.75	-4,842.19	6,576.54	6,329.03	247.52	26.570		
6,600.00	6,276.02	6,239.02	6,276.02	37.52	216.08	128.90	2,669.75	-4,842.19	6,597.99	6,346.64	251.35	26.251		
6,700.00	6,370.39	6,333.39	6,370.39	38.12	219.38	129.11	2,669.75	-4,842.19	6,619.53	6,364.35	255.18	25.941		
6,800.00	6,464.77	6,427.77	6,464.77	38.71	222.67	129.33	2,669.75	-4,842.19	6,641.16	6,382.16	259.00	25.641		
6,900.00	6,559.14	6,522.14	6,559.14	39.31	225.97	129.31	2,669.75	-4,842.19	6,662.89	6,400.06	262.83	25.351		
7,000.00	6,652.92	6,615.92	6,652.92	39.90	229.24	105.32	2,669.75	-4,842.19	6,679.02	6,412.38	266.64	25.049		
7,100.00	6,744.00	6,707.00	6,744.00	40.44	232.42	89.22	2,669.75	-4,842.19	6,683.93	6,413.59	270.34	24.724		
7,200.00	6,830.13	6,806.87	6,830.13	40.94	235.91	79.90	2,669.75	-4,842.19	6,677.69	6,403.37	274.32	24.343		
7,300.00	6,909.19	6,872.19	6,909.19	41.37	238.19	75.06	2,669.75	-4,842.19	6,660.64	6,383.59	277.05	24.041		
7,400.00	6,979.23	6,942.23	6,979.23	41.75	240.63	73.21	2,669.75	-4,842.19	6,633.41	6,353.47	279.94	23.696		
7,500.00	7,038.53	7,001.53	7,038.53	42.08	242.70	73.56	2,669.75	-4,842.19	6,596.86	6,314.38	282.48	23.354		
7,600.00	7,085.63	7,048.63	7,085.63	42.37	244.34	75.73	2,669.75	-4,842.19	6,552.05	6,267.41	284.64	23.019		
7,700.00	7,119.37	7,082.37	7,119.37	42.64	245.52	79.49	2,669.75	-4,842.19	6,500.21	6,213.80	286.41	22.695		
7,800.00	7,138.92	7,101.92	7,138.92	42.91	246.20	84.69	2,669.75	-4,842.19	6,442.67	6,154.88	287.79	22.387		
7,900.00	7,143.92	7,106.92	7,143.92	43.25	246.38	90.26	2,669.75	-4,842.19	6,380.88	6,092.14	288.74	22.099		
8,000.00	7,143.35	7,106.35	7,143.35	43.72	246.36	90.26	2,669.75	-4,842.19	6,318.39	6,028.78	289.61	21.817		
8,100.00	7,142.78	7,105.78	7,142.78	44.42	246.34	90.25	2,669.75	-4,842.19	6,256.87	5,966.28	290.59	21.532		
8,200.00	7,142.22	7,105.22	7,142.22	45.39	246.32	90.24	2,669.75	-4,842.19	6,196.35	5,904.66	291.69	21.243		
8,300.00	7,141.65	7,104.65	7,141.65	46.63	246.30	90.24	2,669.75	-4,842.19	6,136.87	5,843.96	292.91	20.951		
8,400.00	7,141.08	7,104.08	7,141.08	48.09	246.28	90.23	2,669.75	-4,842.19	6,078.45	5,784.21	294.24	20.658		
8,500.00	7,140.51	7,103.51	7,140.51	49.74	246.26	90.22	2,669.75	-4,842.19	6,021.13	5,725.45	295.68	20.363		
8,600.00	7,139.94	7,102.94	7,139.94	51.53	246.24	90.22	2,669.75	-4,842.19	5,964.93	5,667.70	297.23	20.068		
8,700.00	7,139.37	7,102.37	7,139.37	53.44	246.22	90.21	2,669.75	-4,842.19	5,909.89	5,611.00	298.88	19.773		
8,800.00	7,138.80	7,101.80	7,138.80	55.45	246.20	90.20	2,669.75	-4,842.19	5,856.04	5,555.40	300.63	19.479		
8,900.00	7,138.24	7,101.24	7,138.24	57.55	246.18	90.20	2,669.75	-4,842.19	5,803.41	5,500.93	302.48	19.186		
9,000.00	7,137.67	7,100.67	7,137.67	59.71	246.16	90.19	2,669.75	-4,842.19	5,752.04	5,447.62	304.42	18.895		
9,100.00	7,137.10	7,100.10	7,137.10	61.94	246.14	90.19	2,669.75	-4,842.19	5,701.96	5,395.52	306.44	18.607		
9,200.00	7,136.53	7,100.47	7,136.53	64.22	246.15	90.18	2,669.75	-4,842.19	5,653.20	5,344.63	308.58	18.320		
9,300.00	7,135.96	7,101.04	7,135.96	66.55	246.17	90.17	2,669.75	-4,842.19	5,605.81	5,295.01	310.80	18.037		
9,400.00	7,135.39	7,101.61	7,135.39	68.92	246.19	90.17	2,669.75	-4,842.19	5,559.81	5,246.72	313.09	17.758		
9,500.00	7,134.83	7,102.17	7,134.83	71.33	246.21	90.16	2,669.75	-4,842.19	5,515.24	5,199.78	315.46	17.483		
9,600.00	7,134.26	7,102.74	7,134.26	73.77	246.23	90.15	2,669.75	-4,842.19	5,472.13	5,154.25	317.89	17.214		
9,700.00	7,133.69	7,103.31	7,133.69	76.24	246.25	90.15	2,669.75	-4,842.19	5,430.53	5,110.15	320.37	16.951		
9,800.00	7,133.12	7,103.88	7,133.12	78.74	246.27	90.14	2,669.75	-4,842.19	5,390.45	5,067.54	322.92	16.693		
9,900.00	7,132.55	7,104.45	7,132.55	81.27	246.29	90.13	2,669.75	-4,842.19	5,351.95	5,026.44	325.51	16.442		
10,000.00	7,131.98	7,105.02	7,131.98	83.81	246.31	90.13	2,669.75	-4,842.19	5,315.05	4,986.89	328.16	16.197		
10,100.00	7,131.42	7,105.59	7,131.42	86.38	246.33	90.12	2,669.75	-4,842.19	5,279.79	4,948.94	330.84	15.959		
10,200.00	7,130.85	7,106.15	7,130.85	88.96	246.35	90.11	2,669.75	-4,842.19	5,246.19	4,912.63	333.57	15.728		
10,300.00	7,130.28	7,106.72	7,130.28	91.56	246.37	90.11	2,669.75	-4,842.19	5,214.30	4,877.98	336.32	15.504		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,107.29	7,129.71	94.18	246.39	90.10	2,669.75	-4,842.19	5,184.14	4,845.03	339.11	15.288		
10,500.00	7,129.14	7,107.86	7,129.14	96.81	246.41	90.09	2,669.75	-4,842.19	5,155.74	4,813.82	341.92	15.079		
10,600.00	7,128.57	7,108.43	7,128.57	99.45	246.43	90.09	2,669.75	-4,842.19	5,129.14	4,784.39	344.74	14.878		
10,700.00	7,128.00	7,109.00	7,128.00	102.11	246.45	90.08	2,669.75	-4,842.19	5,104.35	4,756.77	347.59	14.685		
10,800.00	7,127.44	7,109.56	7,127.44	104.77	246.47	90.07	2,669.75	-4,842.19	5,081.42	4,730.98	350.44	14.500		
10,900.00	7,126.87	7,089.87	7,126.87	107.45	245.78	90.07	2,669.75	-4,842.19	5,060.35	4,707.76	352.59	14.352		
11,000.00	7,126.30	7,089.30	7,126.30	110.13	245.76	90.06	2,669.75	-4,842.19	5,041.18	4,685.78	355.41	14.184		
11,100.00	7,125.73	7,088.73	7,125.73	112.82	245.74	90.05	2,669.75	-4,842.19	5,023.93	4,665.71	358.22	14.025		
11,200.00	7,125.16	7,088.16	7,125.16	115.53	245.72	90.05	2,669.75	-4,842.19	5,008.62	4,647.60	361.02	13.873		
11,300.00	7,124.59	7,087.59	7,124.59	118.24	245.70	90.04	2,669.75	-4,842.19	4,995.26	4,631.45	363.81	13.730		
11,400.00	7,124.03	7,087.03	7,124.03	120.95	245.68	90.03	2,669.75	-4,842.19	4,983.88	4,617.30	366.58	13.596		
11,500.00	7,123.46	7,086.46	7,123.46	123.67	245.67	90.03	2,669.75	-4,842.19	4,974.48	4,605.15	369.33	13.469		
11,600.00	7,122.89	7,085.89	7,122.89	126.40	245.65	90.02	2,669.75	-4,842.19	4,967.07	4,595.02	372.05	13.351		
11,700.00	7,122.32	7,085.32	7,122.32	129.14	245.63	90.01	2,669.75	-4,842.19	4,961.67	4,586.94	374.73	13.241		
11,800.00	7,121.75	7,084.75	7,121.75	131.88	245.61	90.01	2,669.75	-4,842.19	4,958.28	4,580.90	377.38	13.139		
11,900.00	7,121.18	7,084.18	7,121.18	134.62	245.59	90.00	2,669.75	-4,842.19	4,956.90	4,576.91	379.99	13.045		
11,918.16	7,121.08	7,084.08	7,121.08	135.12	245.58	90.00	2,669.75	-4,842.19	4,956.87	4,576.41	380.46	13.029 CC		
12,000.00	7,120.61	7,083.61	7,120.61	137.37	245.57	89.99	2,669.75	-4,842.19	4,957.55	4,574.99	382.55	12.959 ES		
12,100.00	7,120.05	7,083.05	7,120.05	140.12	245.55	89.99	2,669.75	-4,842.19	4,960.20	4,575.14	385.07	12.881		
12,200.00	7,119.48	7,082.48	7,119.48	142.88	245.53	89.98	2,669.75	-4,842.19	4,964.88	4,577.34	387.53	12.811		
12,300.00	7,118.91	7,081.91	7,118.91	145.64	245.51	89.97	2,669.75	-4,842.19	4,971.55	4,581.61	389.94	12.749		
12,400.00	7,118.34	7,081.34	7,118.34	148.41	245.49	89.97	2,669.75	-4,842.19	4,980.23	4,587.94	392.29	12.695		
12,500.00	7,117.77	7,080.77	7,117.77	151.18	245.47	89.96	2,669.75	-4,842.19	4,990.90	4,596.32	394.58	12.648		
12,600.00	7,117.20	7,080.20	7,117.20	153.95	245.45	89.96	2,669.75	-4,842.19	5,003.54	4,606.73	396.81	12.609		
12,700.00	7,116.64	7,079.64	7,116.64	156.73	245.43	89.95	2,669.75	-4,842.19	5,018.15	4,619.17	398.98	12.578		
12,800.00	7,116.07	7,079.07	7,116.07	159.50	245.41	89.94	2,669.75	-4,842.19	5,034.70	4,633.62	401.08	12.553		
12,900.00	7,115.50	7,078.50	7,115.50	162.29	245.39	89.94	2,669.75	-4,842.19	5,053.17	4,650.07	403.11	12.536		
13,000.00	7,114.93	7,077.93	7,114.93	165.07	245.37	89.93	2,669.75	-4,842.19	5,073.55	4,668.48	405.07	12.525		
13,100.00	7,114.36	7,077.36	7,114.36	167.86	245.35	89.92	2,669.75	-4,842.19	5,095.81	4,688.85	406.96	12.522 SF		
13,200.00	7,113.79	7,076.79	7,113.79	170.64	245.33	89.92	2,669.75	-4,842.19	5,119.92	4,711.15	408.78	12.525		
13,300.00	7,113.22	7,076.22	7,113.22	173.44	245.31	89.91	2,669.75	-4,842.19	5,145.87	4,735.34	410.53	12.535		
13,400.00	7,112.66	7,075.66	7,112.66	176.23	245.29	89.90	2,669.75	-4,842.19	5,173.62	4,761.42	412.20	12.551		
13,500.00	7,112.09	7,075.09	7,112.09	179.02	245.27	89.90	2,669.75	-4,842.19	5,203.14	4,789.33	413.81	12.574		
13,600.00	7,111.52	7,074.52	7,111.52	181.82	245.25	89.89	2,669.75	-4,842.19	5,234.41	4,819.06	415.35	12.602		
13,700.00	7,110.95	7,073.95	7,110.95	184.62	245.23	89.88	2,669.75	-4,842.19	5,267.39	4,850.58	416.81	12.637		
13,800.00	7,110.38	7,073.38	7,110.38	187.42	245.21	89.88	2,669.75	-4,842.19	5,302.05	4,883.84	418.21	12.678		
13,900.00	7,109.81	7,072.81	7,109.81	190.22	245.19	89.87	2,669.75	-4,842.19	5,338.36	4,918.82	419.54	12.724		
14,000.00	7,109.25	7,072.25	7,109.25	193.03	245.17	89.86	2,669.75	-4,842.19	5,376.29	4,955.49	420.80	12.776		
14,100.00	7,108.68	7,071.68	7,108.68	195.84	245.15	89.86	2,669.75	-4,842.19	5,415.80	4,993.80	422.00	12.834		
14,200.00	7,108.11	7,071.11	7,108.11	198.64	245.13	89.85	2,669.75	-4,842.19	5,456.85	5,033.72	423.13	12.896		
14,300.00	7,107.54	7,070.54	7,107.54	201.45	245.11	89.84	2,669.75	-4,842.19	5,499.41	5,075.22	424.20	12.964		
14,400.00	7,106.97	7,069.97	7,106.97	204.26	245.09	89.84	2,669.75	-4,842.19	5,543.46	5,118.25	425.20	13.037		
14,500.00	7,106.40	7,069.40	7,106.40	207.07	245.07	89.83	2,669.75	-4,842.19	5,588.94	5,162.79	426.15	13.115		
14,600.00	7,105.83	7,068.83	7,105.83	209.89	245.05	89.82	2,669.75	-4,842.19	5,635.83	5,208.80	427.04	13.198		
14,700.00	7,105.27	7,068.27	7,105.27	212.70	245.03	89.82	2,669.75	-4,842.19	5,684.10	5,256.23	427.87	13.285		
14,800.00	7,104.70	7,067.70	7,104.70	215.52	245.01	89.81	2,669.75	-4,842.19	5,733.70	5,305.05	428.65	13.376		
14,900.00	7,104.13	7,067.13	7,104.13	218.33	244.99	89.80	2,669.75	-4,842.19	5,784.61	5,355.23	429.37	13.472		
15,000.00	7,103.56	7,066.56	7,103.56	221.15	244.97	89.80	2,669.75	-4,842.19	5,836.78	5,406.73	430.05	13.572		
15,100.00	7,102.99	7,065.99	7,102.99	223.97	244.95	89.79	2,669.75	-4,842.19	5,890.19	5,459.52	430.67	13.677		
15,200.00	7,102.42	7,065.42	7,102.42	226.79	244.93	89.78	2,669.75	-4,842.19	5,944.80	5,513.55	431.25	13.785		
15,274.57	7,102.00	7,065.00	7,102.00	228.89	244.92	89.78	2,669.75	-4,842.19	5,986.29	5,554.64	431.65	13.868		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	64.00	3.28	3.28	-121.90	-3,951.88	-6,349.31	7,478.98					
100.00	100.00	36.00	100.00	3.28	3.34	-121.90	-3,951.88	-6,349.31	7,478.71	7,472.08	6.62	1,128.968		
200.00	200.00	136.00	200.00	3.34	4.45	-121.90	-3,951.88	-6,349.31	7,478.71	7,470.92	7.78	960.829		
300.00	299.98	235.98	299.98	3.44	7.27	54.17	-3,951.88	-6,349.31	7,477.69	7,466.97	10.71	697.962		
400.00	399.84	335.84	399.84	3.59	10.50	54.25	-3,951.88	-6,349.31	7,474.62	7,460.53	14.09	530.360		
500.00	499.45	435.45	499.45	3.79	13.85	54.39	-3,951.88	-6,349.31	7,469.53	7,451.89	17.64	423.483		
600.00	598.70	534.70	598.70	4.03	17.24	54.58	-3,951.88	-6,349.31	7,462.41	7,441.14	21.27	350.898		
700.00	697.47	633.47	697.47	4.31	20.63	54.83	-3,951.88	-6,349.31	7,453.30	7,428.35	24.94	298.800		
800.00	795.62	731.62	795.62	4.64	24.02	55.13	-3,951.88	-6,349.31	7,442.21	7,413.56	28.65	259.746		
900.00	893.06	829.06	893.06	5.00	27.39	55.49	-3,951.88	-6,349.31	7,429.18	7,396.81	32.38	229.456		
1,000.00	989.64	925.64	989.64	5.40	30.74	55.90	-3,951.88	-6,349.31	7,414.25	7,378.14	36.11	205.316		
1,100.00	1,085.27	1,021.27	1,085.27	5.83	34.07	56.36	-3,951.88	-6,349.31	7,397.45	7,357.61	39.85	185.650		
1,200.00	1,179.88	1,115.88	1,179.88	6.29	37.35	56.77	-3,951.88	-6,349.31	7,378.95	7,335.37	43.58	169.331		
1,300.00	1,274.26	1,210.26	1,274.26	6.78	40.64	56.98	-3,951.88	-6,349.31	7,360.14	7,312.82	47.32	155.543		
1,400.00	1,368.63	1,304.63	1,368.63	7.28	43.92	57.18	-3,951.88	-6,349.31	7,341.43	7,290.35	51.08	143.727		
1,500.00	1,463.00	1,401.00	1,463.00	7.80	47.28	57.39	-3,951.88	-6,349.31	7,322.82	7,267.90	54.92	133.328		
1,600.00	1,557.38	1,506.62	1,557.38	8.33	50.96	57.60	-3,951.88	-6,349.31	7,304.32	7,245.21	59.10	123.588		
1,700.00	1,651.75	1,587.75	1,651.75	8.87	53.78	57.81	-3,951.88	-6,349.31	7,285.91	7,223.48	62.44	116.691		
1,800.00	1,746.12	1,682.12	1,746.12	9.41	57.07	58.02	-3,951.88	-6,349.31	7,267.62	7,201.37	66.24	109.710		
1,900.00	1,840.49	1,776.49	1,840.49	9.96	60.36	58.24	-3,951.88	-6,349.31	7,249.42	7,179.37	70.06	103.479		
2,000.00	1,934.87	1,870.87	1,934.87	10.52	63.65	58.45	-3,951.88	-6,349.31	7,231.33	7,157.46	73.88	97.884		
2,100.00	2,029.24	1,965.24	2,029.24	11.08	66.94	58.67	-3,951.88	-6,349.31	7,213.35	7,135.65	77.70	92.834		
2,200.00	2,123.61	2,059.61	2,123.61	11.64	70.23	58.88	-3,951.88	-6,349.31	7,195.48	7,113.95	81.53	88.254		
2,300.00	2,217.99	2,153.99	2,217.99	12.21	73.52	59.10	-3,951.88	-6,349.31	7,177.71	7,092.35	85.37	84.082		
2,400.00	2,312.36	2,248.36	2,312.36	12.78	76.81	59.32	-3,951.88	-6,349.31	7,160.05	7,070.85	89.20	80.266		
2,500.00	2,406.73	2,342.73	2,406.73	13.35	80.11	59.53	-3,951.88	-6,349.31	7,142.50	7,049.46	93.04	76.764		
2,600.00	2,501.10	2,437.10	2,501.10	13.93	83.40	59.75	-3,951.88	-6,349.31	7,125.07	7,028.18	96.89	73.538		
2,700.00	2,595.48	2,531.48	2,595.48	14.51	86.69	59.98	-3,951.88	-6,349.31	7,107.74	7,007.00	100.74	70.557		
2,800.00	2,689.85	2,625.85	2,689.85	15.08	89.98	60.20	-3,951.88	-6,349.31	7,090.52	6,985.94	104.59	67.796		
2,900.00	2,784.22	2,720.22	2,784.22	15.66	93.28	60.42	-3,951.88	-6,349.31	7,073.42	6,964.98	108.44	65.229		
3,000.00	2,878.60	2,814.60	2,878.60	16.25	96.57	60.64	-3,951.88	-6,349.31	7,056.43	6,944.14	112.29	62.839		
3,100.00	2,972.97	2,908.97	2,972.97	16.83	99.86	60.87	-3,951.88	-6,349.31	7,039.56	6,923.41	116.15	60.607		
3,200.00	3,067.34	3,003.34	3,067.34	17.41	103.15	61.09	-3,951.88	-6,349.31	7,022.80	6,902.79	120.01	58.519		
3,300.00	3,161.72	3,102.29	3,161.72	18.00	106.61	61.32	-3,951.88	-6,349.31	7,006.15	6,882.12	124.03	56.488		
3,400.00	3,256.09	3,207.91	3,256.09	18.58	110.29	61.55	-3,951.88	-6,349.31	6,989.63	6,861.34	128.28	54.486		
3,500.00	3,350.46	3,286.46	3,350.46	19.17	113.03	61.78	-3,951.88	-6,349.31	6,973.22	6,841.62	131.59	52.990		
3,600.00	3,444.83	3,380.83	3,444.83	19.75	116.33	62.01	-3,951.88	-6,349.31	6,956.93	6,821.47	135.46	51.358		
3,700.00	3,539.21	3,475.21	3,539.21	20.34	119.62	62.24	-3,951.88	-6,349.31	6,940.75	6,801.43	139.33	49.817		
3,800.00	3,633.58	3,569.58	3,633.58	20.93	122.91	62.47	-3,951.88	-6,349.31	6,924.70	6,781.51	143.19	48.359		
3,900.00	3,727.95	3,663.95	3,727.95	21.52	126.21	62.70	-3,951.88	-6,349.31	6,908.77	6,761.71	147.06	46.978		
4,000.00	3,822.33	3,758.33	3,822.33	22.11	129.50	62.93	-3,951.88	-6,349.31	6,892.97	6,742.03	150.93	45.669		
4,100.00	3,916.70	3,852.70	3,916.70	22.70	132.79	63.17	-3,951.88	-6,349.31	6,877.28	6,722.47	154.81	44.425		
4,200.00	4,011.07	3,947.07	4,011.07	23.29	136.09	63.40	-3,951.88	-6,349.31	6,861.72	6,703.04	158.68	43.243		
4,300.00	4,105.44	4,041.44	4,105.44	23.88	139.38	63.64	-3,951.88	-6,349.31	6,846.28	6,683.73	162.55	42.117		
4,400.00	4,199.82	4,135.82	4,199.82	24.47	142.67	63.88	-3,951.88	-6,349.31	6,830.97	6,664.54	166.43	41.045		
4,500.00	4,294.19	4,230.19	4,294.19	25.06	145.97	64.12	-3,951.88	-6,349.31	6,815.78	6,645.48	170.30	40.021		
4,600.00	4,388.56	4,324.56	4,388.56	25.65	149.26	64.35	-3,951.88	-6,349.31	6,800.72	6,626.54	174.18	39.044		
4,700.00	4,482.94	4,418.94	4,482.94	26.24	152.56	64.59	-3,951.88	-6,349.31	6,785.79	6,607.73	178.06	38.110		
4,800.00	4,577.31	4,452.00	4,577.31	26.83	155.71	64.88	-3,951.88	-6,349.31	6,771.27	6,591.45	179.82	37.657		
4,900.00	4,671.68	4,452.00	4,671.68	27.43	153.71	64.68	-3,951.88	-6,349.31	6,758.11	6,577.71	180.40	37.462		
5,000.00	4,766.05	4,452.00	4,766.05	28.02	153.71	64.68	-3,951.88	-6,349.31	6,746.41	6,565.46	180.95	37.283		
5,100.00	4,860.43	4,452.00	4,860.43	28.61	153.71	64.68	-3,951.88	-6,349.31	6,736.17	6,554.70	181.47	37.120		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,452.00	4,516.00	29.20	153.71	64.68	-3,951.88	-6,349.31	6,727.41	6,545.46	181.95	36.974		
5,300.00	5,049.17	4,452.00	4,516.00	29.80	153.71	64.68	-3,951.88	-6,349.31	6,720.12	6,537.72	182.40	36.843		
5,400.00	5,143.55	4,452.00	4,516.00	30.39	153.71	64.68	-3,951.88	-6,349.31	6,714.31	6,531.50	182.81	36.729		
5,500.00	5,237.92	4,452.00	4,516.00	30.99	153.71	64.68	-3,951.88	-6,349.31	6,709.99	6,526.81	183.18	36.630		
5,600.00	5,332.29	4,452.00	4,516.00	31.58	153.71	64.68	-3,951.88	-6,349.31	6,707.16	6,523.64	183.52	36.548		
5,700.00	5,426.66	4,452.00	4,516.00	32.17	153.71	64.68	-3,951.88	-6,349.31	6,705.81	6,522.00	183.82	36.481		
5,740.07	5,464.48	4,452.00	4,516.00	32.41	153.71	64.68	-3,951.88	-6,349.31	6,705.69	6,521.77	183.93	36.459		
5,800.00	5,521.04	4,452.00	4,516.00	32.77	153.71	64.68	-3,951.88	-6,349.31	6,705.96	6,521.88	184.08	36.430		
5,900.00	5,615.41	4,452.00	4,516.00	33.36	153.71	64.68	-3,951.88	-6,349.31	6,707.60	6,523.30	184.30	36.394		
6,000.00	5,709.78	4,452.00	4,516.00	33.96	153.71	64.68	-3,951.88	-6,349.31	6,710.73	6,526.24	184.49	36.375		
6,100.00	5,804.16	4,452.00	4,516.00	34.55	153.71	64.68	-3,951.88	-6,349.31	6,715.35	6,530.71	184.64	36.370		
6,200.00	5,898.53	4,452.00	4,516.00	35.14	153.71	64.68	-3,951.88	-6,349.31	6,721.45	6,536.70	184.75	36.381		
6,300.00	5,992.90	4,452.00	4,516.00	35.74	153.71	64.68	-3,951.88	-6,349.31	6,729.03	6,544.21	184.82	36.408		
6,400.00	6,087.27	4,452.00	4,516.00	36.33	153.71	64.68	-3,951.88	-6,349.31	6,738.09	6,553.23	184.86	36.450		
6,500.00	6,181.65	4,452.00	4,516.00	36.93	153.71	64.68	-3,951.88	-6,349.31	6,748.62	6,563.75	184.86	36.506		
6,600.00	6,276.02	4,452.00	4,516.00	37.52	153.71	64.68	-3,951.88	-6,349.31	6,760.61	6,575.78	184.82	36.579		
6,700.00	6,370.39	4,452.00	4,516.00	38.12	153.71	64.68	-3,951.88	-6,349.31	6,774.05	6,589.30	184.75	36.666		
6,800.00	6,464.77	4,452.00	4,516.00	38.71	153.71	64.68	-3,951.88	-6,349.31	6,788.94	6,604.30	184.64	36.768		
6,900.00	6,559.14	4,452.00	4,516.00	39.31	153.71	64.47	-3,951.88	-6,349.31	6,805.27	6,620.77	184.50	36.885		
7,000.00	6,652.92	4,452.00	4,516.00	39.90	153.71	41.57	-3,951.88	-6,349.31	6,815.65	6,631.35	184.30	36.982		
7,100.00	6,744.00	4,452.00	4,516.00	40.44	153.71	25.36	-3,951.88	-6,349.31	6,812.83	6,628.83	184.01	37.025		
7,200.00	6,830.13	4,452.00	4,516.00	40.94	153.71	14.76	-3,951.88	-6,349.31	6,796.88	6,613.25	183.64	37.013		
7,300.00	6,909.19	4,452.00	4,516.00	41.37	153.71	7.40	-3,951.88	-6,349.31	6,768.10	6,584.90	183.21	36.943		
7,400.00	6,979.23	4,452.00	4,516.00	41.75	153.71	1.67	-3,951.88	-6,349.31	6,727.04	6,544.31	182.73	36.814		
7,500.00	7,038.53	4,452.00	4,516.00	42.08	153.71	-3.44	-3,951.88	-6,349.31	6,674.49	6,492.27	182.22	36.628		
7,600.00	7,085.63	4,452.00	4,516.00	42.37	153.71	-8.70	-3,951.88	-6,349.31	6,611.49	6,429.78	181.71	36.385		
7,700.00	7,119.37	4,452.00	4,516.00	42.64	153.71	-14.88	-3,951.88	-6,349.31	6,539.32	6,358.11	181.21	36.087		
7,800.00	7,138.92	4,452.00	4,516.00	42.91	153.71	-22.95	-3,951.88	-6,349.31	6,459.47	6,278.72	180.75	35.737		
7,900.00	7,143.92	4,452.00	4,516.00	43.25	153.71	-32.52	-3,951.88	-6,349.31	6,373.71	6,193.35	180.36	35.339		
8,000.00	7,143.35	4,452.00	4,516.00	43.72	153.71	-32.52	-3,951.88	-6,349.31	6,286.34	6,106.34	180.00	34.924		
8,100.00	7,142.78	4,452.00	4,516.00	44.42	153.71	-32.52	-3,951.88	-6,349.31	6,199.35	6,019.70	179.65	34.508		
8,200.00	7,142.22	4,452.00	4,516.00	45.39	153.71	-32.52	-3,951.88	-6,349.31	6,112.75	5,933.45	179.31	34.091		
8,300.00	7,141.65	4,452.00	4,516.00	46.63	153.71	-32.52	-3,951.88	-6,349.31	6,026.58	5,847.60	178.98	33.673		
8,400.00	7,141.08	4,452.00	4,516.00	48.09	153.71	-32.52	-3,951.88	-6,349.31	5,940.83	5,762.18	178.66	33.253		
8,500.00	7,140.51	4,452.00	4,516.00	49.74	153.71	-32.52	-3,951.88	-6,349.31	5,855.54	5,677.19	178.35	32.831		
8,600.00	7,139.94	4,452.00	4,516.00	51.53	153.71	-32.52	-3,951.88	-6,349.31	5,770.73	5,592.66	178.07	32.408		
8,700.00	7,139.37	4,452.00	4,516.00	53.44	153.71	-32.52	-3,951.88	-6,349.31	5,686.40	5,508.61	177.79	31.983		
8,800.00	7,138.80	4,452.00	4,516.00	55.45	153.71	-32.52	-3,951.88	-6,349.31	5,602.59	5,425.05	177.54	31.557		
8,900.00	7,138.24	4,452.00	4,516.00	57.55	153.71	-32.52	-3,951.88	-6,349.31	5,519.32	5,342.02	177.30	31.129		
9,000.00	7,137.67	4,452.00	4,516.00	59.71	153.71	-32.52	-3,951.88	-6,349.31	5,436.61	5,259.53	177.09	30.700		
9,100.00	7,137.10	4,452.00	4,516.00	61.94	153.71	-32.52	-3,951.88	-6,349.31	5,354.50	5,177.61	176.89	30.270		
9,200.00	7,136.53	4,452.00	4,516.00	64.22	153.71	-32.52	-3,951.88	-6,349.31	5,273.00	5,096.28	176.72	29.838		
9,300.00	7,135.96	4,452.00	4,516.00	66.55	153.71	-32.52	-3,951.88	-6,349.31	5,192.15	5,015.57	176.57	29.405		
9,400.00	7,135.39	4,452.00	4,516.00	68.92	153.71	-32.52	-3,951.88	-6,349.31	5,111.97	4,935.52	176.45	28.971		
9,500.00	7,134.83	4,452.00	4,516.00	71.33	153.71	-32.52	-3,951.88	-6,349.31	5,032.51	4,856.16	176.35	28.537		
9,600.00	7,134.26	4,452.00	4,516.00	73.77	153.71	-32.52	-3,951.88	-6,349.31	4,953.79	4,777.51	176.28	28.101		
9,700.00	7,133.69	4,452.00	4,516.00	76.24	153.71	-32.52	-3,951.88	-6,349.31	4,875.85	4,699.61	176.24	27.666		
9,800.00	7,133.12	4,452.00	4,516.00	78.74	153.71	-32.52	-3,951.88	-6,349.31	4,798.73	4,622.50	176.23	27.231		
9,900.00	7,132.55	4,452.00	4,516.00	81.27	153.71	-32.52	-3,951.88	-6,349.31	4,722.46	4,546.22	176.24	26.796		
10,000.00	7,131.98	4,452.00	4,516.00	83.81	153.71	-32.52	-3,951.88	-6,349.31	4,647.10	4,470.82	176.28	26.362		
10,100.00	7,131.42	4,452.00	4,516.00	86.38	153.71	-32.52	-3,951.88	-6,349.31	4,572.68	4,396.33	176.35	25.929		
10,200.00	7,130.85	4,452.00	4,516.00	88.96	153.71	-32.52	-3,951.88	-6,349.31	4,499.25	4,322.80	176.46	25.498		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	4,452.00	4,516.00	91.56	153.71	-32.52	-3,951.88	-6,349.31	4,426.87	4,250.28	176.59	25.069		
10,400.00	7,129.71	4,452.00	4,516.00	94.18	153.71	-32.52	-3,951.88	-6,349.31	4,355.58	4,178.83	176.75	24.643		
10,500.00	7,129.14	4,452.00	4,516.00	96.81	153.71	-32.52	-3,951.88	-6,349.31	4,285.43	4,108.49	176.94	24.220		
10,600.00	7,128.57	4,452.00	4,516.00	99.45	153.71	-32.52	-3,951.88	-6,349.31	4,216.49	4,039.34	177.15	23.801		
10,700.00	7,128.00	4,452.00	4,516.00	102.11	153.71	-32.52	-3,951.88	-6,349.31	4,148.81	3,971.41	177.40	23.387		
10,800.00	7,127.44	4,452.00	4,516.00	104.77	153.71	-32.52	-3,951.88	-6,349.31	4,082.47	3,904.79	177.67	22.977		
10,900.00	7,126.87	4,452.00	4,516.00	107.45	153.71	-32.52	-3,951.88	-6,349.31	4,017.51	3,839.54	177.97	22.573		
11,000.00	7,126.30	4,452.00	4,516.00	110.13	153.71	-32.52	-3,951.88	-6,349.31	3,954.02	3,775.72	178.30	22.176		
11,100.00	7,125.73	4,452.00	4,516.00	112.82	153.71	-32.52	-3,951.88	-6,349.31	3,892.06	3,713.41	178.65	21.785		
11,200.00	7,125.16	4,452.00	4,516.00	115.53	153.71	-32.52	-3,951.88	-6,349.31	3,831.72	3,652.68	179.03	21.402		
11,300.00	7,124.59	4,452.00	4,516.00	118.24	153.71	-32.52	-3,951.88	-6,349.31	3,773.05	3,593.62	179.44	21.027		
11,400.00	7,124.03	4,452.00	4,516.00	120.95	153.71	-32.52	-3,951.88	-6,349.31	3,716.15	3,536.29	179.86	20.661		
11,500.00	7,123.46	4,452.00	4,516.00	123.67	153.71	-32.52	-3,951.88	-6,349.31	3,661.10	3,480.79	180.32	20.304		
11,600.00	7,122.89	4,452.00	4,516.00	126.40	153.71	-32.52	-3,951.88	-6,349.31	3,607.98	3,427.19	180.79	19.956		
11,700.00	7,122.32	4,452.00	4,516.00	129.14	153.71	-32.52	-3,951.88	-6,349.31	3,556.88	3,375.59	181.30	19.619		
11,800.00	7,121.75	4,452.00	4,516.00	131.88	153.71	-32.52	-3,951.88	-6,349.31	3,507.89	3,326.06	181.83	19.292		
11,900.00	7,121.18	4,452.00	4,516.00	134.62	153.71	-32.52	-3,951.88	-6,349.31	3,461.09	3,278.70	182.39	18.976		
12,000.00	7,120.61	4,452.00	4,516.00	137.37	153.71	-32.52	-3,951.88	-6,349.31	3,416.58	3,233.60	182.98	18.671		
12,100.00	7,120.05	4,452.00	4,516.00	140.12	153.71	-32.52	-3,951.88	-6,349.31	3,374.45	3,190.84	183.61	18.378		
12,200.00	7,119.48	4,452.00	4,516.00	142.88	153.71	-32.52	-3,951.88	-6,349.31	3,334.79	3,150.50	184.29	18.096		
12,300.00	7,118.91	4,452.00	4,516.00	145.64	153.71	-32.52	-3,951.88	-6,349.31	3,297.68	3,112.68	185.00	17.825		
12,400.00	7,118.34	4,452.00	4,516.00	148.41	153.71	-32.52	-3,951.88	-6,349.31	3,263.21	3,077.44	185.77	17.566		
12,500.00	7,117.77	4,452.00	4,516.00	151.18	153.71	-32.52	-3,951.88	-6,349.31	3,231.47	3,044.88	186.60	17.318		
12,600.00	7,117.20	4,452.00	4,516.00	153.95	153.71	-32.52	-3,951.88	-6,349.31	3,202.55	3,015.05	187.49	17.081		
12,700.00	7,116.64	4,452.00	4,516.00	156.73	153.71	-32.52	-3,951.88	-6,349.31	3,176.50	2,988.04	188.47	16.854		
12,800.00	7,116.07	4,452.00	4,516.00	159.50	153.71	-32.52	-3,951.88	-6,349.31	3,153.42	2,963.89	189.53	16.638		
12,900.00	7,115.50	4,452.00	4,516.00	162.29	153.71	-32.52	-3,951.88	-6,349.31	3,133.36	2,942.68	190.68	16.433		
13,000.00	7,114.93	4,452.00	4,516.00	165.07	153.71	-32.52	-3,951.88	-6,349.31	3,116.38	2,924.44	191.93	16.237		
13,100.00	7,114.36	4,452.00	4,516.00	167.86	153.71	-32.52	-3,951.88	-6,349.31	3,102.53	2,909.23	193.30	16.051		
13,200.00	7,113.79	4,452.00	4,516.00	170.64	153.71	-32.52	-3,951.88	-6,349.31	3,091.85	2,897.08	194.77	15.874		
13,300.00	7,113.22	4,452.00	4,516.00	173.44	153.71	-32.52	-3,951.88	-6,349.31	3,084.39	2,888.01	196.37	15.707		
13,400.00	7,112.66	4,452.00	4,516.00	176.23	153.71	-32.52	-3,951.88	-6,349.31	3,080.15	2,882.06	198.09	15.550		
13,480.62	7,112.20	4,452.00	4,516.00	178.48	153.71	-32.52	-3,951.88	-6,349.31	3,079.09	2,879.54	199.55	15.430 CC		
13,500.00	7,112.09	4,452.00	4,516.00	179.02	153.71	-32.52	-3,951.88	-6,349.31	3,079.15	2,879.24	199.92	15.402 ES		
13,600.00	7,111.52	4,452.00	4,516.00	181.82	153.71	-32.52	-3,951.88	-6,349.31	3,081.41	2,879.55	201.85	15.265		
13,700.00	7,110.95	4,452.00	4,516.00	184.62	153.71	-32.52	-3,951.88	-6,349.31	3,086.90	2,883.00	203.89	15.140		
13,800.00	7,110.38	4,452.00	4,516.00	187.42	153.71	-32.52	-3,951.88	-6,349.31	3,095.61	2,889.59	206.02	15.026		
13,900.00	7,109.81	4,452.00	4,516.00	190.22	153.71	-32.52	-3,951.88	-6,349.31	3,107.52	2,899.30	208.22	14.925		
14,000.00	7,109.25	4,452.00	4,516.00	193.03	153.71	-32.52	-3,951.88	-6,349.31	3,122.59	2,912.12	210.47	14.836		
14,100.00	7,108.68	4,452.00	4,516.00	195.84	153.71	-32.52	-3,951.88	-6,349.31	3,140.77	2,928.01	212.76	14.762		
14,200.00	7,108.11	4,452.00	4,516.00	198.64	153.71	-32.52	-3,951.88	-6,349.31	3,162.01	2,946.94	215.07	14.702		
14,300.00	7,107.54	4,452.00	4,516.00	201.45	153.71	-32.52	-3,951.88	-6,349.31	3,186.25	2,968.86	217.39	14.657		
14,400.00	7,106.97	4,452.00	4,516.00	204.26	153.71	-32.52	-3,951.88	-6,349.31	3,213.42	2,993.74	219.68	14.627		
14,500.00	7,106.40	4,452.00	4,516.00	207.07	153.71	-32.52	-3,951.88	-6,349.31	3,243.45	3,021.50	221.95	14.613 SF		
14,600.00	7,105.83	4,452.00	4,516.00	209.89	153.71	-32.52	-3,951.88	-6,349.31	3,276.25	3,052.08	224.17	14.615		
14,700.00	7,105.27	4,452.00	4,516.00	212.70	153.71	-32.52	-3,951.88	-6,349.31	3,311.75	3,085.42	226.33	14.632		
14,800.00	7,104.70	4,452.00	4,516.00	215.52	153.71	-32.52	-3,951.88	-6,349.31	3,349.86	3,121.44	228.42	14.665		
14,900.00	7,104.13	4,452.00	4,516.00	218.33	153.71	-32.52	-3,951.88	-6,349.31	3,390.49	3,160.05	230.44	14.713		
15,000.00	7,103.56	4,452.00	4,516.00	221.15	153.71	-32.52	-3,951.88	-6,349.31	3,433.56	3,201.19	232.37	14.776		
15,100.00	7,102.99	4,452.00	4,516.00	223.97	153.71	-32.52	-3,951.88	-6,349.31	3,478.96	3,244.76	234.21	14.854		
15,200.00	7,102.42	4,452.00	4,516.00	226.79	153.71	-32.52	-3,951.88	-6,349.31	3,526.62	3,290.67	235.95	14.946		
15,274.57	7,102.00	4,452.00	4,516.00	228.89	153.71	-32.52	-3,951.88	-6,349.31	3,563.57	3,326.38	237.20	15.024		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1,355.28	1,283.84	3.28	7.28	-106.02	-2,531.72	-8,815.32	9,261.08					
100.00	100.00	1,377.00	1,305.28	3.28	7.39	-106.01	-2,529.23	-8,812.94	9,247.57	9,237.43	10.15	911.264		
200.00	200.00	1,436.05	1,363.61	3.34	7.68	-105.98	-2,522.31	-8,806.91	9,234.59	9,224.15	10.44	884.780		
300.00	299.98	1,479.90	1,406.94	3.44	7.89	70.34	-2,516.82	-8,802.92	9,221.73	9,211.01	10.71	860.825		
400.00	399.84	1,660.00	1,584.91	3.59	8.77	70.76	-2,495.41	-8,785.60	9,207.34	9,195.69	11.65	790.304		
500.00	499.45	1,700.33	1,624.77	3.79	8.97	71.10	-2,491.05	-8,781.32	9,191.66	9,179.65	12.01	765.516		
600.00	598.70	1,755.00	1,678.96	4.03	9.23	71.47	-2,485.49	-8,776.68	9,176.25	9,163.78	12.47	735.621		
700.00	697.47	700.00	1,708.46	4.31	4.60	71.83	-2,482.34	-8,774.16	9,159.89	9,151.25	8.64	1,059.681		
800.00	795.62	1,986.14	1,907.51	4.64	10.38	72.52	-2,457.77	-8,756.37	9,141.78	9,127.68	14.10	648.162		
900.00	893.06	2,293.91	2,210.87	5.00	12.00	73.54	-2,416.65	-8,724.83	9,121.07	9,105.17	15.90	573.621		
1,000.00	989.64	1,000.00	2,399.29	5.40	5.28	74.42	-2,390.11	-8,702.61	9,098.62	9,088.08	10.54	863.030		
1,100.00	1,085.27	2,546.36	2,459.12	5.83	13.39	75.05	-2,381.91	-8,694.98	9,074.62	9,056.72	17.90	507.008		
1,200.00	1,179.88	2,571.48	2,483.86	6.29	13.53	75.43	-2,378.75	-8,691.98	9,050.58	9,032.12	18.47	490.143		
1,300.00	1,274.26	2,754.01	2,663.57	6.78	14.53	75.92	-2,355.68	-8,669.94	9,026.46	9,006.67	19.79	456.006		
1,400.00	1,368.63	2,792.00	2,700.94	7.28	14.74	76.02	-2,350.71	-8,665.24	9,002.17	8,981.70	20.47	439.818		
1,500.00	1,463.00	2,792.00	2,700.94	7.80	14.74	76.02	-2,350.71	-8,665.24	8,978.79	8,957.82	20.98	427.990		
1,600.00	1,557.38	2,792.00	2,700.94	8.33	14.74	76.02	-2,350.71	-8,665.24	8,956.47	8,934.97	21.50	416.506		
1,700.00	1,651.75	2,844.36	2,752.58	8.87	15.01	76.16	-2,344.36	-8,659.42	8,934.37	8,912.09	22.28	401.007		
1,800.00	1,746.12	2,887.00	2,794.81	9.41	15.23	76.27	-2,339.89	-8,655.55	8,913.79	8,890.77	23.02	387.202		
1,900.00	1,840.49	1,900.00	2,841.52	9.96	10.27	76.40	-2,334.67	-8,651.29	8,893.60	8,874.56	19.04	467.047		
2,000.00	1,934.87	3,075.00	2,980.70	10.52	16.21	76.78	-2,317.97	-8,638.08	8,873.06	8,848.06	25.00	354.886		
2,100.00	2,029.24	3,208.44	3,112.42	11.08	16.91	77.15	-2,300.95	-8,625.20	8,852.36	8,826.17	26.20	337.938		
2,200.00	2,123.61	3,281.77	3,184.88	11.64	17.30	77.36	-2,292.15	-8,618.08	8,832.02	8,804.90	27.11	325.764		
2,300.00	2,217.99	3,391.84	3,293.57	12.21	17.89	77.66	-2,278.80	-8,607.08	8,811.56	8,783.35	28.20	312.449		
2,400.00	2,312.36	3,449.00	3,350.04	12.78	18.19	77.82	-2,271.89	-8,601.53	8,791.57	8,762.51	29.05	302.606		
2,500.00	2,406.73	2,500.00	3,452.06	13.35	13.20	78.11	-2,259.34	-8,591.49	8,771.75	8,746.66	25.09	349.553		
2,600.00	2,501.10	4,109.00	3,998.00	13.93	21.92	79.76	-2,175.77	-8,526.43	8,750.51	8,717.13	33.39	262.092		
2,700.00	2,595.48	4,488.00	4,366.51	14.51	24.30	80.94	-2,112.09	-8,465.89	8,724.50	8,688.66	35.84	243.456		
2,800.00	2,689.85	4,540.55	4,417.49	15.08	24.63	81.11	-2,103.51	-8,456.45	8,697.66	8,660.95	36.71	236.925		
2,900.00	2,784.22	4,583.00	4,458.81	15.66	24.90	81.24	-2,096.87	-8,449.33	8,671.86	8,634.32	37.54	230.994		
3,000.00	2,878.60	4,583.00	4,458.81	16.25	24.90	81.24	-2,096.87	-8,449.33	8,646.77	8,608.60	38.17	226.509		
3,100.00	2,972.97	4,583.00	4,458.81	16.83	24.90	81.24	-2,096.87	-8,449.33	8,622.78	8,583.97	38.81	222.191		
3,200.00	3,067.34	4,583.00	4,458.81	17.41	24.90	81.24	-2,096.87	-8,449.33	8,599.88	8,560.44	39.44	218.035		
3,300.00	3,161.72	4,635.81	4,510.46	18.00	25.21	81.40	-2,089.27	-8,441.39	8,577.20	8,536.88	40.32	212.719		
3,400.00	3,256.09	4,678.00	4,551.95	18.58	25.46	81.52	-2,083.92	-8,435.97	8,556.11	8,514.95	41.15	207.904		
3,500.00	3,350.46	4,678.00	4,551.95	19.17	25.46	81.52	-2,083.92	-8,435.97	8,535.57	8,493.78	41.79	204.239		
3,600.00	3,444.83	4,678.00	4,551.95	19.75	25.46	81.52	-2,083.92	-8,435.97	8,516.15	8,473.72	42.43	200.715		
3,700.00	3,539.21	4,732.93	4,606.15	20.34	25.75	81.68	-2,077.64	-8,429.63	8,497.46	8,454.15	43.31	196.197		
3,800.00	3,633.58	4,772.00	4,644.77	20.93	25.96	81.79	-2,073.51	-8,425.35	8,479.53	8,435.41	44.12	192.179		
3,900.00	3,727.95	4,822.26	4,694.50	21.52	26.22	81.93	-2,068.51	-8,420.08	8,462.28	8,417.30	44.98	188.135		
4,000.00	3,822.33	4,867.00	4,738.81	22.11	26.45	82.06	-2,064.27	-8,415.55	8,445.64	8,399.82	45.81	184.349		
4,100.00	3,916.70	4,905.56	4,777.03	22.70	26.64	82.16	-2,060.79	-8,411.85	8,429.71	8,383.09	46.62	180.832		
4,200.00	4,011.07	4,961.00	4,832.06	23.29	26.92	82.32	-2,056.06	-8,407.00	8,414.63	8,367.14	47.49	177.178		
4,300.00	4,105.44	4,984.64	4,855.54	23.88	27.03	82.38	-2,054.13	-8,405.06	8,400.19	8,351.96	48.23	174.173		
4,400.00	4,199.82	5,043.87	4,914.40	24.47	27.32	82.54	-2,049.47	-8,400.35	8,386.39	8,337.27	49.12	170.742		
4,500.00	4,294.19	5,056.00	4,926.46	25.06	27.37	82.57	-2,048.55	-8,399.41	8,373.32	8,323.52	49.80	168.130		
4,600.00	4,388.56	5,103.02	4,973.24	25.65	27.59	82.70	-2,045.16	-8,396.09	8,360.96	8,310.32	50.63	165.130		
4,700.00	4,482.94	5,150.00	5,020.04	26.24	27.80	82.83	-2,042.07	-8,393.41	8,349.66	8,298.20	51.46	162.250		
4,800.00	4,577.31	5,165.92	5,035.91	26.83	27.87	82.87	-2,041.10	-8,392.61	8,339.07	8,286.91	52.15	159.891		
4,900.00	4,671.68	5,238.47	5,108.26	27.43	28.18	83.06	-2,037.07	-8,389.02	8,329.10	8,276.02	53.08	156.907		
5,000.00	4,766.05	5,272.79	5,142.50	28.02	28.33	83.14	-2,035.41	-8,387.46	8,319.73	8,265.88	53.85	154.508		
5,100.00	4,860.43	5,304.69	5,174.35	28.61	28.46	83.23	-2,034.00	-8,386.23	8,311.18	8,256.59	54.60	152.226		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWDD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	5,336.00	5,205.61	29.20	28.59	83.30	-2,032.75	-8,385.25	8,303.48	8,248.14	55.34	150.035		
5,300.00	5,049.17	5,396.99	5,266.55	29.80	28.82	83.45	-2,030.82	-8,383.64	8,296.45	8,240.25	56.20	147.616		
5,400.00	5,143.55	5,430.00	5,299.54	30.39	28.95	83.53	-2,030.08	-8,382.85	8,290.02	8,233.08	56.95	145.574		
5,500.00	5,237.92	5,515.81	5,385.32	30.99	29.28	83.74	-2,028.25	-8,381.16	8,283.99	8,226.08	57.90	143.066		
5,600.00	5,332.29	5,574.81	5,444.29	31.58	29.50	83.88	-2,026.75	-8,380.31	8,278.56	8,219.81	58.75	140.912		
5,700.00	5,426.66	5,633.67	5,503.13	32.17	29.72	84.03	-2,025.06	-8,379.72	8,273.66	8,214.07	59.60	138.830		
5,800.00	5,521.04	5,711.00	5,580.41	32.77	30.01	84.22	-2,022.53	-8,379.33	8,269.35	8,208.83	60.52	136.646		
5,900.00	5,615.41	5,756.84	5,626.22	33.36	30.18	84.34	-2,020.96	-8,379.28	8,265.49	8,204.18	61.31	134.821		
6,000.00	5,709.78	5,824.03	5,693.37	33.96	30.43	84.51	-2,018.72	-8,379.38	8,262.12	8,199.94	62.19	132.863		
6,100.00	5,804.16	5,891.29	5,760.60	34.55	30.68	84.67	-2,016.56	-8,379.69	8,259.20	8,196.14	63.06	130.968		
6,200.00	5,898.53	5,958.63	5,827.91	35.14	30.93	84.84	-2,014.49	-8,380.21	8,256.74	8,192.80	63.94	129.133		
6,300.00	5,992.90	6,044.10	5,913.34	35.74	31.25	85.05	-2,011.98	-8,381.09	8,254.67	8,189.78	64.89	127.207		
6,400.00	6,087.27	6,150.86	6,020.05	36.33	31.64	85.32	-2,008.99	-8,382.09	8,252.67	8,186.74	65.93	125.170		
6,500.00	6,181.65	6,257.73	6,126.89	36.93	32.03	85.58	-2,006.17	-8,382.92	8,250.67	8,183.70	66.97	123.196		
6,600.00	6,276.02	6,342.57	6,211.68	37.52	32.35	85.79	-2,003.85	-8,383.52	8,248.78	8,180.85	67.93	121.436		
6,700.00	6,370.39	6,421.87	6,290.94	38.12	32.65	85.99	-2,001.15	-8,384.22	8,247.19	8,178.33	68.86	119.767		
6,800.00	6,464.77	6,500.77	6,369.77	38.71	32.96	86.19	-1,997.95	-8,385.06	8,245.92	8,176.13	69.79	118.150		
6,900.00	6,559.14	6,587.70	6,456.60	39.31	33.29	86.20	-1,993.83	-8,386.11	8,244.96	8,174.20	70.76	116.513		
7,000.00	6,652.92	6,705.36	6,574.05	39.90	33.77	86.29	-1,987.11	-8,387.34	8,236.07	8,164.18	71.89	114.572		
7,100.00	6,744.00	6,818.56	6,686.98	40.44	34.23	86.34	-1,979.37	-8,388.16	8,211.63	8,138.68	72.94	112.575		
7,200.00	6,830.13	6,889.25	6,757.47	40.94	34.52	86.39	-1,973.97	-8,388.57	8,172.40	8,098.65	73.75	110.806		
7,300.00	6,909.19	6,942.92	6,810.97	41.37	34.74	86.44	-1,969.75	-8,389.03	8,119.67	8,045.24	74.43	109.094		
7,400.00	6,979.23	6,990.74	6,858.63	41.75	34.94	86.49	-1,965.91	-8,389.57	8,054.64	7,979.63	75.01	107.375		
7,500.00	7,038.53	7,031.57	6,899.32	42.08	35.11	86.54	-1,962.59	-8,390.13	7,978.80	7,903.30	75.51	105.671		
7,600.00	7,085.63	7,064.40	6,932.04	42.37	35.25	86.59	-1,959.88	-8,390.64	7,893.91	7,818.01	75.90	104.006		
7,700.00	7,119.37	7,088.41	6,955.96	42.64	35.35	86.64	-1,957.88	-8,391.05	7,801.95	7,725.76	76.19	102.405		
7,800.00	7,138.92	7,102.94	6,970.43	42.91	35.41	86.69	-1,956.66	-8,391.31	7,705.08	7,628.71	76.37	100.892		
7,900.00	7,143.92	7,107.63	6,975.11	43.25	35.43	86.74	-1,956.27	-8,391.40	7,605.65	7,529.20	76.45	99.484		
8,000.00	7,143.35	7,129.00	6,996.40	43.72	35.52	86.79	-1,954.46	-8,391.81	7,505.81	7,429.22	76.59	97.998		
8,100.00	7,142.78	7,129.00	6,996.40	44.42	35.52	86.84	-1,954.46	-8,391.81	7,405.94	7,329.30	76.63	96.642		
8,200.00	7,142.22	7,129.00	6,996.40	45.39	35.52	86.89	-1,954.46	-8,391.81	7,306.06	7,229.39	76.68	95.285		
8,300.00	7,141.65	7,129.00	6,996.40	46.63	35.52	86.94	-1,954.46	-8,391.81	7,206.19	7,129.47	76.72	93.927		
8,400.00	7,141.08	7,129.00	6,996.40	48.09	35.52	86.99	-1,954.46	-8,391.81	7,106.33	7,029.56	76.77	92.567		
8,500.00	7,140.51	7,129.00	6,996.40	49.74	35.52	87.04	-1,954.46	-8,391.81	7,006.46	6,929.64	76.82	91.206		
8,600.00	7,139.94	7,129.00	6,996.40	51.53	35.52	87.09	-1,954.46	-8,391.81	6,906.60	6,829.73	76.87	89.845		
8,700.00	7,139.37	7,129.00	6,996.40	53.44	35.52	87.14	-1,954.46	-8,391.81	6,806.75	6,729.82	76.93	88.482		
8,800.00	7,138.80	7,129.00	6,996.40	55.45	35.52	87.19	-1,954.46	-8,391.81	6,706.90	6,629.91	76.99	87.117		
8,900.00	7,138.24	7,129.00	6,996.40	57.55	35.52	87.24	-1,954.46	-8,391.81	6,607.05	6,530.01	77.05	85.752		
9,000.00	7,137.67	7,129.00	6,996.40	59.71	35.52	87.29	-1,954.46	-8,391.81	6,507.21	6,430.10	77.11	84.386		
9,100.00	7,137.10	7,129.00	6,996.40	61.94	35.52	87.34	-1,954.46	-8,391.81	6,407.38	6,330.20	77.18	83.019		
9,200.00	7,136.53	7,129.00	6,996.40	64.22	35.52	87.39	-1,954.46	-8,391.81	6,307.55	6,230.29	77.25	81.650		
9,300.00	7,135.96	7,129.00	6,996.40	66.55	35.52	87.44	-1,954.46	-8,391.81	6,207.72	6,130.40	77.32	80.281		
9,400.00	7,135.39	7,129.00	6,996.40	68.92	35.52	87.49	-1,954.46	-8,391.81	6,107.90	6,030.50	77.40	78.911		
9,500.00	7,134.83	7,129.00	6,996.40	71.33	35.52	87.54	-1,954.46	-8,391.81	6,008.09	5,930.60	77.48	77.540		
9,600.00	7,134.26	7,129.00	6,996.40	73.77	35.52	87.59	-1,954.46	-8,391.81	5,908.28	5,830.71	77.57	76.168		
9,700.00	7,133.69	7,129.00	6,996.40	76.24	35.52	87.64	-1,954.46	-8,391.81	5,808.48	5,730.82	77.66	74.795		
9,800.00	7,133.12	7,129.00	6,996.40	78.74	35.52	87.69	-1,954.46	-8,391.81	5,708.68	5,630.93	77.75	73.421		
9,900.00	7,132.55	7,129.00	6,996.40	81.27	35.52	87.74	-1,954.46	-8,391.81	5,608.90	5,531.05	77.85	72.046		
10,000.00	7,131.98	7,129.00	6,996.40	83.81	35.52	87.79	-1,954.46	-8,391.81	5,509.12	5,431.16	77.96	70.670		
10,100.00	7,131.42	7,129.00	6,996.40	86.38	35.52	87.84	-1,954.46	-8,391.81	5,409.35	5,331.28	78.06	69.294		
10,200.00	7,130.85	7,130.42	6,997.81	88.96	35.53	87.89	-1,954.34	-8,391.84	5,309.59	5,231.40	78.18	67.911		
10,300.00	7,130.28	7,131.88	6,999.27	91.56	35.54	87.94	-1,954.22	-8,391.87	5,209.83	5,131.52	78.31	66.527		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,133.34	7,000.72	94.18	35.54	74.26	-1,954.10	-8,391.90	5,110.09	5,031.64	78.45	65.142		
10,500.00	7,129.14	7,134.79	7,002.17	96.81	35.55	74.48	-1,953.97	-8,391.93	5,010.35	4,931.77	78.59	63.757		
10,600.00	7,128.57	7,136.25	7,003.62	99.45	35.55	74.70	-1,953.85	-8,391.96	4,910.63	4,831.90	78.73	62.371		
10,700.00	7,128.00	7,137.71	7,005.07	102.11	35.56	74.93	-1,953.73	-8,391.99	4,810.92	4,732.03	78.89	60.984		
10,800.00	7,127.44	7,139.16	7,006.52	104.77	35.56	75.15	-1,953.61	-8,392.02	4,711.22	4,632.16	79.05	59.597		
10,900.00	7,126.87	7,140.62	7,007.97	107.45	35.57	75.37	-1,953.49	-8,392.04	4,611.53	4,532.30	79.22	58.209		
11,000.00	7,126.30	7,142.07	7,009.42	110.13	35.58	75.60	-1,953.36	-8,392.07	4,511.85	4,432.45	79.41	56.820		
11,100.00	7,125.73	7,143.52	7,010.86	112.82	35.58	75.82	-1,953.24	-8,392.10	4,412.19	4,332.59	79.60	55.431		
11,200.00	7,125.16	7,144.97	7,012.31	115.53	35.59	76.04	-1,953.12	-8,392.13	4,312.54	4,232.74	79.80	54.041		
11,300.00	7,124.59	7,146.42	7,013.76	118.24	35.59	76.27	-1,953.00	-8,392.16	4,212.92	4,132.90	80.02	52.651		
11,400.00	7,124.03	7,147.87	7,015.20	120.95	35.60	76.49	-1,952.88	-8,392.19	4,113.30	4,033.06	80.24	51.260		
11,500.00	7,123.46	7,149.32	7,016.64	123.67	35.61	76.72	-1,952.76	-8,392.22	4,013.71	3,933.22	80.49	49.868		
11,600.00	7,122.89	7,150.77	7,018.08	126.40	35.61	76.94	-1,952.65	-8,392.25	3,914.14	3,833.39	80.75	48.475		
11,700.00	7,122.32	7,152.21	7,019.52	129.14	35.62	77.16	-1,952.53	-8,392.27	3,814.59	3,733.56	81.02	47.082		
11,800.00	7,121.75	7,153.66	7,020.96	131.88	35.62	77.39	-1,952.41	-8,392.30	3,715.06	3,633.74	81.31	45.687		
11,900.00	7,121.18	7,155.10	7,022.40	134.62	35.63	77.61	-1,952.29	-8,392.33	3,615.56	3,533.93	81.63	44.292		
12,000.00	7,120.61	7,156.54	7,023.84	137.37	35.64	77.84	-1,952.17	-8,392.36	3,516.08	3,434.12	81.97	42.897		
12,100.00	7,120.05	7,157.99	7,025.28	140.12	35.64	78.06	-1,952.06	-8,392.39	3,416.64	3,334.31	82.33	41.500		
12,200.00	7,119.48	7,159.43	7,026.72	142.88	35.65	78.29	-1,951.94	-8,392.42	3,317.23	3,234.51	82.72	40.103		
12,300.00	7,118.91	7,160.87	7,028.15	145.64	35.65	78.51	-1,951.82	-8,392.45	3,217.85	3,134.71	83.14	38.705		
12,400.00	7,118.34	7,162.31	7,029.59	148.41	35.66	78.74	-1,951.71	-8,392.47	3,118.51	3,034.92	83.59	37.306		
12,500.00	7,117.77	7,163.75	7,031.02	151.18	35.66	78.96	-1,951.59	-8,392.50	3,019.22	2,935.13	84.09	35.906		
12,600.00	7,117.20	7,165.18	7,032.45	153.95	35.67	79.19	-1,951.48	-8,392.53	2,919.98	2,835.35	84.62	34.506		
12,700.00	7,116.64	7,166.62	7,033.88	156.73	35.68	79.41	-1,951.36	-8,392.56	2,820.78	2,735.58	85.21	33.105		
12,800.00	7,116.07	7,168.06	7,035.31	159.50	35.68	79.64	-1,951.25	-8,392.59	2,721.65	2,635.80	85.84	31.704		
12,900.00	7,115.50	7,169.49	7,036.74	162.29	35.69	79.86	-1,951.13	-8,392.62	2,622.58	2,536.03	86.54	30.303		
13,000.00	7,114.93	7,170.92	7,038.17	165.07	35.69	80.09	-1,951.02	-8,392.64	2,523.58	2,436.27	87.31	28.902		
13,100.00	7,114.36	7,172.36	7,039.60	167.86	35.70	80.31	-1,950.90	-8,392.67	2,424.67	2,336.50	88.16	27.502		
13,200.00	7,113.79	7,173.79	7,041.03	170.64	35.71	80.54	-1,950.79	-8,392.70	2,325.84	2,236.74	89.11	26.102		
13,300.00	7,113.22	7,175.22	7,042.45	173.44	35.71	80.76	-1,950.68	-8,392.73	2,227.12	2,136.97	90.15	24.704		
13,400.00	7,112.66	7,176.65	7,043.88	176.23	35.72	80.99	-1,950.56	-8,392.76	2,128.52	2,037.20	91.32	23.308		
13,500.00	7,112.09	7,178.08	7,045.30	179.02	35.72	81.21	-1,950.45	-8,392.78	2,030.06	1,937.43	92.63	21.916		
13,600.00	7,111.52	7,179.51	7,046.73	181.82	35.73	81.44	-1,950.34	-8,392.81	1,931.75	1,837.64	94.11	20.528		
13,700.00	7,110.95	7,180.93	7,048.15	184.62	35.73	81.66	-1,950.23	-8,392.84	1,833.62	1,737.85	95.77	19.145		
13,800.00	7,110.38	7,182.36	7,049.57	187.42	35.74	81.89	-1,950.12	-8,392.87	1,735.71	1,638.04	97.67	17.771		
13,900.00	7,109.81	7,183.79	7,050.99	190.22	35.75	82.11	-1,950.00	-8,392.90	1,638.05	1,538.20	99.85	16.406		
14,000.00	7,109.25	7,185.21	7,052.41	193.03	35.75	82.34	-1,949.89	-8,392.93	1,540.68	1,438.34	102.34	15.054		
14,100.00	7,108.68	7,186.63	7,053.83	195.84	35.76	82.56	-1,949.78	-8,392.95	1,443.68	1,338.44	105.24	13.718		
14,200.00	7,108.11	7,188.06	7,055.25	198.64	35.76	82.79	-1,949.67	-8,392.98	1,347.11	1,238.50	108.61	12.403		
14,300.00	7,107.54	7,189.48	7,056.67	201.45	35.77	83.01	-1,949.56	-8,393.01	1,251.08	1,138.50	112.58	11.113		
14,400.00	7,106.97	7,190.90	7,058.08	204.26	35.77	83.23	-1,949.45	-8,393.04	1,155.72	1,038.45	117.27	9.855		
14,500.00	7,106.40	7,192.32	7,059.50	207.07	35.78	83.46	-1,949.34	-8,393.06	1,061.22	938.34	122.87	8.637		
14,600.00	7,105.83	7,193.74	7,060.91	209.89	35.79	83.68	-1,949.24	-8,393.09	967.81	838.19	129.63	7.466		
14,700.00	7,105.27	7,195.15	7,062.32	212.70	35.79	83.91	-1,949.13	-8,393.12	875.87	738.03	137.84	6.354		
14,800.00	7,104.70	7,196.57	7,063.74	215.52	35.80	84.13	-1,949.02	-8,393.15	785.89	637.97	147.92	5.313		
14,900.00	7,104.13	7,197.99	7,065.15	218.33	35.80	84.36	-1,948.91	-8,393.18	698.63	538.27	160.36	4.357		
15,000.00	7,103.56	7,199.40	7,066.56	221.15	35.81	84.58	-1,948.80	-8,393.20	615.27	439.51	175.76	3.501		
15,100.00	7,102.99	7,200.82	7,067.97	223.97	35.82	84.80	-1,948.70	-8,393.23	537.61	343.00	194.60	2.763		
15,200.00	7,102.42	7,202.23	7,069.38	226.79	35.82	85.03	-1,948.59	-8,393.26	468.49	251.70	216.79	2.161		
15,274.57	7,102.00	7,203.28	7,070.43	228.89	35.83	85.19	-1,948.51	-8,393.28	425.02	190.53	234.49	1.813 CC, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 17-11(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	28.00	3.28	3.28	-80.94	1,457.84	-9,142.24	9,257.78					
100.00	100.00	72.00	100.00	3.28	3.51	-80.94	1,457.84	-9,142.24	9,257.74	9,250.94	6.80	1,361.984		
200.00	200.00	172.00	200.00	3.34	5.38	-80.94	1,457.84	-9,142.24	9,257.74	9,249.03	8.71	1,062.559		
300.00	299.98	271.98	299.98	3.44	8.41	95.11	1,457.84	-9,142.24	9,257.90	9,246.04	11.85	780.981		
400.00	399.84	371.84	399.84	3.59	11.70	95.13	1,457.84	-9,142.24	9,258.36	9,243.07	15.29	605.411		
500.00	499.45	471.45	499.45	3.79	15.07	95.17	1,457.84	-9,142.24	9,259.15	9,240.29	18.86	490.935		
600.00	598.70	570.70	598.70	4.03	18.47	95.22	1,457.84	-9,142.24	9,260.26	9,237.76	22.50	411.561		
700.00	697.47	669.47	697.47	4.31	21.87	95.29	1,457.84	-9,142.24	9,261.71	9,235.53	26.19	353.680		
800.00	795.62	767.62	795.62	4.64	25.27	95.37	1,457.84	-9,142.24	9,263.52	9,233.61	29.90	309.777		
900.00	893.06	865.06	893.06	5.00	28.64	95.46	1,457.84	-9,142.24	9,265.70	9,232.06	33.64	275.431		
1,000.00	989.64	961.64	989.64	5.40	31.99	95.56	1,457.84	-9,142.24	9,268.27	9,230.88	37.39	247.885		
1,100.00	1,085.27	1,057.27	1,085.27	5.83	35.32	95.68	1,457.84	-9,142.24	9,271.26	9,230.12	41.14	225.343		
1,200.00	1,179.88	1,151.88	1,179.88	6.29	38.61	95.82	1,457.84	-9,142.24	9,274.68	9,229.79	44.90	206.585		
1,300.00	1,274.26	1,246.26	1,274.26	6.78	41.89	96.01	1,457.84	-9,142.24	9,278.29	9,229.63	48.67	190.653		
1,400.00	1,368.63	1,340.63	1,368.63	7.28	45.18	96.20	1,457.84	-9,142.24	9,282.02	9,229.57	52.45	176.954		
1,500.00	1,463.00	1,435.00	1,463.00	7.80	48.46	96.40	1,457.84	-9,142.24	9,285.86	9,229.61	56.26	165.060		
1,600.00	1,557.38	1,529.38	1,557.38	8.33	51.75	96.59	1,457.84	-9,142.24	9,289.82	9,229.75	60.07	154.645		
1,700.00	1,651.75	1,623.75	1,651.75	8.87	55.04	96.78	1,457.84	-9,142.24	9,293.90	9,230.00	63.90	145.454		
1,800.00	1,746.12	1,718.12	1,746.12	9.41	58.33	96.97	1,457.84	-9,142.24	9,298.09	9,230.36	67.73	137.286		
1,900.00	1,840.49	1,812.49	1,840.49	9.96	61.62	97.16	1,457.84	-9,142.24	9,302.39	9,230.83	71.57	129.983		
2,000.00	1,934.87	1,906.87	1,934.87	10.52	64.91	97.35	1,457.84	-9,142.24	9,306.82	9,231.41	75.41	123.416		
2,100.00	2,029.24	2,001.24	2,029.24	11.08	68.20	97.54	1,457.84	-9,142.24	9,311.35	9,232.09	79.26	117.481		
2,200.00	2,123.61	2,104.39	2,123.61	11.64	71.79	97.73	1,457.84	-9,142.24	9,316.01	9,232.59	83.42	111.680		
2,300.00	2,217.99	2,189.99	2,217.99	12.21	74.78	97.92	1,457.84	-9,142.24	9,320.77	9,233.81	86.97	107.177		
2,400.00	2,312.36	2,284.36	2,312.36	12.78	78.07	98.11	1,457.84	-9,142.24	9,325.66	9,234.83	90.83	102.677		
2,500.00	2,406.73	2,378.73	2,406.73	13.35	81.36	98.30	1,457.84	-9,142.24	9,330.65	9,235.97	94.69	98.543		
2,600.00	2,501.10	2,473.10	2,501.10	13.93	84.65	98.49	1,457.84	-9,142.24	9,335.76	9,237.21	98.55	94.732		
2,700.00	2,595.48	2,567.48	2,595.48	14.51	87.95	98.68	1,457.84	-9,142.24	9,340.99	9,238.58	102.41	91.208		
2,800.00	2,689.85	2,661.85	2,689.85	15.08	91.24	98.87	1,457.84	-9,142.24	9,346.33	9,240.05	106.28	87.940		
2,900.00	2,784.22	2,756.22	2,784.22	15.66	94.53	99.06	1,457.84	-9,142.24	9,351.78	9,241.63	110.15	84.901		
3,000.00	2,878.60	2,850.60	2,878.60	16.25	97.82	99.25	1,457.84	-9,142.24	9,357.35	9,243.33	114.02	82.069		
3,100.00	2,972.97	2,944.97	2,972.97	16.83	101.12	99.44	1,457.84	-9,142.24	9,363.03	9,245.14	117.89	79.423		
3,200.00	3,067.34	3,039.34	3,067.34	17.41	104.41	99.63	1,457.84	-9,142.24	9,368.83	9,247.07	121.76	76.945		
3,300.00	3,161.72	3,133.72	3,161.72	18.00	107.70	99.82	1,457.84	-9,142.24	9,374.73	9,249.10	125.63	74.621		
3,400.00	3,256.09	3,228.09	3,256.09	18.58	111.00	100.00	1,457.84	-9,142.24	9,380.75	9,251.25	129.50	72.436		
3,500.00	3,350.46	3,322.46	3,350.46	19.17	114.29	100.19	1,457.84	-9,142.24	9,386.89	9,253.51	133.38	70.378		
3,600.00	3,444.83	3,416.83	3,444.83	19.75	117.58	100.38	1,457.84	-9,142.24	9,393.13	9,255.88	137.25	68.437		
3,700.00	3,539.21	3,511.21	3,539.21	20.34	120.88	100.57	1,457.84	-9,142.24	9,399.49	9,258.36	141.13	66.604		
3,800.00	3,633.58	3,605.58	3,633.58	20.93	124.17	100.75	1,457.84	-9,142.24	9,405.96	9,260.96	145.00	64.868		
3,900.00	3,727.95	3,700.05	3,727.95	21.52	127.47	100.94	1,457.84	-9,142.24	9,412.54	9,263.66	148.88	63.223		
4,000.00	3,822.33	3,805.67	3,822.33	22.11	131.15	101.13	1,457.84	-9,142.24	9,419.23	9,266.09	153.15	61.504		
4,100.00	3,916.70	3,888.70	3,916.70	22.70	134.05	101.32	1,457.84	-9,142.24	9,426.04	9,269.41	156.63	60.182		
4,200.00	4,011.07	3,983.07	4,011.07	23.29	137.34	101.50	1,457.84	-9,142.24	9,432.95	9,272.45	160.50	58.772		
4,300.00	4,105.44	4,077.44	4,105.44	23.88	140.64	101.69	1,457.84	-9,142.24	9,439.98	9,275.60	164.38	57.429		
4,400.00	4,199.82	4,171.82	4,199.82	24.47	143.93	101.87	1,457.84	-9,142.24	9,447.12	9,278.86	168.25	56.148		
4,500.00	4,294.19	4,266.19	4,294.19	25.06	147.22	102.06	1,457.84	-9,142.24	9,454.36	9,282.23	172.13	54.926		
4,600.00	4,388.56	4,360.56	4,388.56	25.65	150.52	102.24	1,457.84	-9,142.24	9,461.72	9,285.71	176.01	53.758		
4,700.00	4,482.94	4,454.94	4,482.94	26.24	153.81	102.43	1,457.84	-9,142.24	9,469.19	9,289.31	179.88	52.641		
4,800.00	4,577.31	4,549.31	4,577.31	26.83	157.11	102.61	1,457.84	-9,142.24	9,476.76	9,293.01	183.76	51.572		
4,900.00	4,671.68	4,643.68	4,671.68	27.43	160.40	102.80	1,457.84	-9,142.24	9,484.45	9,296.82	187.63	50.548		
5,000.00	4,766.05	4,738.05	4,766.05	28.02	163.69	102.98	1,457.84	-9,142.24	9,492.24	9,300.73	191.51	49.565		
5,100.00	4,860.43	4,832.43	4,860.43	28.61	166.99	103.17	1,457.84	-9,142.24	9,500.15	9,304.76	195.38	48.623		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 17-11(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,926.80	4,954.80	29.20	170.28	103.35	1,457.84	-9,142.24	9,508.16	9,308.90	199.26	47.717		
5,300.00	5,049.17	5,021.17	5,049.17	29.80	173.57	103.53	1,457.84	-9,142.24	9,516.28	9,313.14	203.14	46.847		
5,400.00	5,143.55	5,115.55	5,143.55	30.39	176.87	103.72	1,457.84	-9,142.24	9,524.51	9,317.49	207.01	46.010		
5,500.00	5,237.92	5,209.92	5,237.92	30.99	180.16	103.90	1,457.84	-9,142.24	9,532.84	9,321.96	210.89	45.204		
5,600.00	5,332.29	5,304.29	5,332.29	31.58	183.46	104.08	1,457.84	-9,142.24	9,541.28	9,326.52	214.76	44.427		
5,700.00	5,426.66	5,401.34	5,426.66	32.17	186.84	104.27	1,457.84	-9,142.24	9,549.83	9,331.10	218.73	43.660		
5,800.00	5,521.04	5,506.96	5,521.04	32.77	190.53	104.45	1,457.84	-9,142.24	9,558.49	9,335.49	223.00	42.864		
5,900.00	5,615.41	5,587.41	5,615.41	33.36	193.34	104.63	1,457.84	-9,142.24	9,567.25	9,340.87	226.39	42.261		
6,000.00	5,709.78	5,681.78	5,709.78	33.96	196.63	104.81	1,457.84	-9,142.24	9,576.12	9,345.86	230.26	41.588		
6,100.00	5,804.16	5,776.16	5,804.16	34.55	199.93	104.99	1,457.84	-9,142.24	9,585.10	9,350.97	234.13	40.939		
6,200.00	5,898.53	5,870.53	5,898.53	35.14	203.22	105.17	1,457.84	-9,142.24	9,594.18	9,356.17	238.01	40.311		
6,300.00	5,992.90	5,964.90	5,992.90	35.74	206.52	105.35	1,457.84	-9,142.24	9,603.37	9,361.49	241.88	39.703		
6,400.00	6,087.27	6,059.27	6,087.27	36.33	209.81	105.53	1,457.84	-9,142.24	9,612.66	9,366.90	245.75	39.115		
6,500.00	6,181.65	6,153.65	6,181.65	36.93	213.10	105.71	1,457.84	-9,142.24	9,622.05	9,372.43	249.63	38.546		
6,600.00	6,276.02	6,248.02	6,276.02	37.52	216.40	105.89	1,457.84	-9,142.24	9,631.55	9,378.05	253.50	37.995		
6,700.00	6,370.39	6,342.39	6,370.39	38.12	219.69	106.07	1,457.84	-9,142.24	9,641.16	9,383.79	257.37	37.460		
6,800.00	6,464.77	6,436.77	6,464.77	38.71	222.99	106.25	1,457.84	-9,142.24	9,650.87	9,389.62	261.24	36.942		
6,900.00	6,559.14	6,531.14	6,559.14	39.31	226.28	106.21	1,457.84	-9,142.24	9,660.68	9,395.56	265.11	36.440		
7,000.00	6,652.92	6,624.92	6,652.92	39.90	229.55	83.09	1,457.84	-9,142.24	9,663.14	9,394.17	268.96	35.927		
7,100.00	6,744.00	6,716.00	6,744.00	40.44	232.73	67.58	1,457.84	-9,142.24	9,651.09	9,378.39	272.69	35.392		
7,200.00	6,830.13	6,802.13	6,830.13	40.94	235.74	58.66	1,457.84	-9,142.24	9,624.89	9,348.68	276.21	34.847		
7,300.00	6,909.19	6,881.19	6,909.19	41.37	238.50	54.12	1,457.84	-9,142.24	9,585.23	9,305.80	279.43	34.303		
7,400.00	6,979.23	6,951.23	6,979.23	41.75	240.94	52.65	1,457.84	-9,142.24	9,533.12	9,250.83	282.29	33.770		
7,500.00	7,038.53	7,010.53	7,038.53	42.08	243.01	53.76	1,457.84	-9,142.24	9,469.88	9,185.12	284.76	33.255		
7,600.00	7,085.63	7,057.63	7,085.63	42.37	244.66	57.56	1,457.84	-9,142.24	9,397.06	9,110.27	286.79	32.766		
7,700.00	7,119.37	7,108.63	7,119.37	42.64	246.44	64.69	1,457.84	-9,142.24	9,316.45	9,027.50	288.95	32.243		
7,800.00	7,138.92	7,110.92	7,138.92	42.91	246.52	76.29	1,457.84	-9,142.24	9,230.01	8,940.61	289.40	31.894		
7,900.00	7,143.92	7,115.92	7,143.92	43.25	246.69	90.72	1,457.84	-9,142.24	9,139.84	8,849.90	289.94	31.523		
8,000.00	7,143.35	7,115.35	7,143.35	43.72	246.67	90.71	1,457.84	-9,142.24	9,048.84	8,758.54	290.31	31.170		
8,100.00	7,142.78	7,114.78	7,142.78	44.42	246.65	90.70	1,457.84	-9,142.24	8,958.04	8,667.33	290.71	30.814		
8,200.00	7,142.22	7,114.22	7,142.22	45.39	246.63	90.69	1,457.84	-9,142.24	8,867.44	8,576.27	291.16	30.455		
8,300.00	7,141.65	7,113.65	7,141.65	46.63	246.61	90.68	1,457.84	-9,142.24	8,777.04	8,485.38	291.65	30.094		
8,400.00	7,141.08	7,113.08	7,141.08	48.09	246.59	90.68	1,457.84	-9,142.24	8,686.85	8,394.66	292.19	29.730		
8,500.00	7,140.51	7,112.51	7,140.51	49.74	246.57	90.67	1,457.84	-9,142.24	8,596.87	8,304.10	292.77	29.364		
8,600.00	7,139.94	7,111.94	7,139.94	51.53	246.55	90.66	1,457.84	-9,142.24	8,507.12	8,213.73	293.40	28.995		
8,700.00	7,139.37	7,111.37	7,139.37	53.44	246.53	90.65	1,457.84	-9,142.24	8,417.60	8,123.54	294.07	28.625		
8,800.00	7,138.80	7,110.80	7,138.80	55.45	246.52	90.64	1,457.84	-9,142.24	8,328.33	8,033.54	294.79	28.252		
8,900.00	7,138.24	7,110.24	7,138.24	57.55	246.50	90.63	1,457.84	-9,142.24	8,239.29	7,943.73	295.56	27.877		
9,000.00	7,137.67	7,109.67	7,137.67	59.71	246.48	90.62	1,457.84	-9,142.24	8,150.51	7,854.13	296.38	27.500		
9,100.00	7,137.10	7,109.10	7,137.10	61.94	246.46	90.62	1,457.84	-9,142.24	8,062.00	7,764.74	297.25	27.122		
9,200.00	7,136.53	7,108.53	7,136.53	64.22	246.44	90.61	1,457.84	-9,142.24	7,973.75	7,675.58	298.17	26.742		
9,300.00	7,135.96	7,107.96	7,135.96	66.55	246.42	90.60	1,457.84	-9,142.24	7,885.79	7,586.64	299.15	26.361		
9,400.00	7,135.39	7,107.39	7,135.39	68.92	246.40	90.59	1,457.84	-9,142.24	7,798.11	7,497.94	300.17	25.979		
9,500.00	7,134.83	7,106.83	7,134.83	71.33	246.38	90.58	1,457.84	-9,142.24	7,710.74	7,409.48	301.25	25.595		
9,600.00	7,134.26	7,106.26	7,134.26	73.77	246.36	90.57	1,457.84	-9,142.24	7,623.67	7,321.28	302.39	25.211		
9,700.00	7,133.69	7,105.69	7,133.69	76.24	246.34	90.56	1,457.84	-9,142.24	7,536.93	7,233.35	303.58	24.827		
9,800.00	7,133.12	7,105.12	7,133.12	78.74	246.32	90.55	1,457.84	-9,142.24	7,450.52	7,145.69	304.83	24.442		
9,900.00	7,132.55	7,104.55	7,132.55	81.27	246.30	90.55	1,457.84	-9,142.24	7,364.45	7,058.32	306.13	24.056		
10,000.00	7,131.98	7,103.98	7,131.98	83.81	246.28	90.54	1,457.84	-9,142.24	7,278.74	6,971.25	307.49	23.671		
10,100.00	7,131.42	7,103.42	7,131.42	86.38	246.26	90.53	1,457.84	-9,142.24	7,193.40	6,884.48	308.91	23.286		
10,200.00	7,130.85	7,102.85	7,130.85	88.96	246.24	90.52	1,457.84	-9,142.24	7,108.44	6,798.05	310.39	22.902		
10,300.00	7,130.28	7,102.28	7,130.28	91.56	246.22	90.51	1,457.84	-9,142.24	7,023.87	6,711.94	311.93	22.518		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 17-11(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,101.71	7,129.71	94.18	246.20	90.50	1,457.84	-9,142.24	6,939.72	6,626.19	313.53	22.134		
10,500.00	7,129.14	7,101.14	7,129.14	96.81	246.18	90.49	1,457.84	-9,142.24	6,855.99	6,540.80	315.19	21.752		
10,600.00	7,128.57	7,100.57	7,128.57	99.45	246.16	90.49	1,457.84	-9,142.24	6,772.70	6,455.80	316.91	21.371		
10,700.00	7,128.00	7,100.00	7,128.00	102.11	246.14	90.48	1,457.84	-9,142.24	6,689.88	6,371.18	318.69	20.992		
10,800.00	7,127.44	7,100.56	7,127.44	104.77	246.16	90.47	1,457.84	-9,142.24	6,607.52	6,286.94	320.58	20.611		
10,900.00	7,126.87	7,101.13	7,126.87	107.45	246.18	90.46	1,457.84	-9,142.24	6,525.66	6,203.13	322.54	20.232		
11,000.00	7,126.30	7,101.70	7,126.30	110.13	246.20	90.45	1,457.84	-9,142.24	6,444.31	6,119.76	324.55	19.856		
11,100.00	7,125.73	7,102.27	7,125.73	112.82	246.22	90.44	1,457.84	-9,142.24	6,363.50	6,036.86	326.64	19.482		
11,200.00	7,125.16	7,102.84	7,125.16	115.53	246.24	90.43	1,457.84	-9,142.24	6,283.23	5,954.44	328.79	19.110		
11,300.00	7,124.59	7,103.41	7,124.59	118.24	246.26	90.43	1,457.84	-9,142.24	6,203.54	5,872.53	331.01	18.741		
11,400.00	7,124.03	7,103.98	7,124.03	120.95	246.28	90.42	1,457.84	-9,142.24	6,124.44	5,791.14	333.30	18.375		
11,500.00	7,123.46	7,104.54	7,123.46	123.67	246.30	90.41	1,457.84	-9,142.24	6,045.97	5,710.30	335.66	18.012		
11,600.00	7,122.89	7,105.11	7,122.89	126.40	246.32	90.40	1,457.84	-9,142.24	5,968.13	5,630.04	338.09	17.652		
11,700.00	7,122.32	7,105.68	7,122.32	129.14	246.34	90.39	1,457.84	-9,142.24	5,890.97	5,550.37	340.60	17.296		
11,800.00	7,121.75	7,106.25	7,121.75	131.88	246.36	90.38	1,457.84	-9,142.24	5,814.50	5,471.33	343.17	16.943		
11,900.00	7,121.18	7,106.82	7,121.18	134.62	246.38	90.37	1,457.84	-9,142.24	5,738.76	5,392.94	345.82	16.595		
12,000.00	7,120.61	7,107.39	7,120.61	137.37	246.40	90.36	1,457.84	-9,142.24	5,663.76	5,315.22	348.54	16.250		
12,100.00	7,120.05	7,107.95	7,120.05	140.12	246.42	90.36	1,457.84	-9,142.24	5,589.56	5,238.22	351.34	15.909		
12,200.00	7,119.48	7,108.52	7,119.48	142.88	246.44	90.35	1,457.84	-9,142.24	5,516.16	5,161.95	354.21	15.573		
12,300.00	7,118.91	7,109.09	7,118.91	145.64	246.46	90.34	1,457.84	-9,142.24	5,443.61	5,086.46	357.15	15.242		
12,400.00	7,118.34	7,109.66	7,118.34	148.41	246.48	90.33	1,457.84	-9,142.24	5,371.95	5,011.77	360.18	14.915		
12,500.00	7,117.77	7,089.77	7,117.77	151.18	245.78	90.32	1,457.84	-9,142.24	5,301.20	4,938.64	362.56	14.622		
12,600.00	7,117.20	7,089.20	7,117.20	153.95	245.76	90.31	1,457.84	-9,142.24	5,231.41	4,865.71	365.69	14.305		
12,700.00	7,116.64	7,088.64	7,116.64	156.73	245.74	90.30	1,457.84	-9,142.24	5,162.61	4,793.70	368.91	13.994		
12,800.00	7,116.07	7,088.07	7,116.07	159.50	245.72	90.30	1,457.84	-9,142.24	5,094.84	4,722.65	372.19	13.689		
12,900.00	7,115.50	7,087.50	7,115.50	162.29	245.70	90.29	1,457.84	-9,142.24	5,028.15	4,652.60	375.55	13.389		
13,000.00	7,114.93	7,086.93	7,114.93	165.07	245.68	90.28	1,457.84	-9,142.24	4,962.58	4,583.60	378.99	13.094		
13,100.00	7,114.36	7,086.36	7,114.36	167.86	245.66	90.27	1,457.84	-9,142.24	4,898.18	4,515.68	382.49	12.806		
13,200.00	7,113.79	7,085.79	7,113.79	170.64	245.64	90.26	1,457.84	-9,142.24	4,834.98	4,448.91	386.07	12.524		
13,300.00	7,113.22	7,085.22	7,113.22	173.44	245.62	90.25	1,457.84	-9,142.24	4,773.04	4,383.32	389.72	12.247		
13,400.00	7,112.66	7,084.66	7,112.66	176.23	245.60	90.24	1,457.84	-9,142.24	4,712.41	4,318.98	393.44	11.978		
13,500.00	7,112.09	7,084.09	7,112.09	179.02	245.58	90.24	1,457.84	-9,142.24	4,653.14	4,255.92	397.22	11.714		
13,600.00	7,111.52	7,083.52	7,111.52	181.82	245.56	90.23	1,457.84	-9,142.24	4,595.28	4,194.22	401.06	11.458		
13,700.00	7,110.95	7,082.95	7,110.95	184.62	245.54	90.22	1,457.84	-9,142.24	4,538.89	4,133.93	404.96	11.208		
13,800.00	7,110.38	7,082.38	7,110.38	187.42	245.52	90.21	1,457.84	-9,142.24	4,484.01	4,075.10	408.91	10.966		
13,900.00	7,109.81	7,081.81	7,109.81	190.22	245.50	90.20	1,457.84	-9,142.24	4,430.72	4,017.81	412.91	10.730		
14,000.00	7,109.25	7,081.25	7,109.25	193.03	245.48	90.19	1,457.84	-9,142.24	4,379.06	3,962.10	416.96	10.502		
14,100.00	7,108.68	7,080.68	7,108.68	195.84	245.46	90.18	1,457.84	-9,142.24	4,329.09	3,908.05	421.05	10.282		
14,200.00	7,108.11	7,080.11	7,108.11	198.64	245.44	90.17	1,457.84	-9,142.24	4,280.88	3,855.71	425.17	10.069		
14,300.00	7,107.54	7,079.54	7,107.54	201.45	245.42	90.17	1,457.84	-9,142.24	4,234.48	3,805.17	429.31	9.863		
14,400.00	7,106.97	7,078.97	7,106.97	204.26	245.40	90.16	1,457.84	-9,142.24	4,189.96	3,756.48	433.47	9.666		
14,500.00	7,106.40	7,078.40	7,106.40	207.07	245.38	90.15	1,457.84	-9,142.24	4,147.36	3,709.72	437.64	9.477		
14,600.00	7,105.83	7,077.83	7,105.83	209.89	245.36	90.14	1,457.84	-9,142.24	4,106.76	3,664.95	441.81	9.295		
14,700.00	7,105.27	7,077.27	7,105.27	212.70	245.34	90.13	1,457.84	-9,142.24	4,068.22	3,622.24	445.98	9.122		
14,800.00	7,104.70	7,076.70	7,104.70	215.52	245.32	90.12	1,457.84	-9,142.24	4,031.78	3,581.66	450.12	8.957		
14,900.00	7,104.13	7,076.13	7,104.13	218.33	245.30	90.11	1,457.84	-9,142.24	3,997.52	3,543.28	454.23	8.801		
15,000.00	7,103.56	7,075.56	7,103.56	221.15	245.28	90.11	1,457.84	-9,142.24	3,965.48	3,507.17	458.31	8.652		
15,100.00	7,102.99	7,074.99	7,102.99	223.97	245.26	90.10	1,457.84	-9,142.24	3,935.72	3,473.39	462.33	8.513		
15,200.00	7,102.42	7,074.42	7,102.42	226.79	245.25	90.09	1,457.84	-9,142.24	3,908.30	3,442.00	466.30	8.382		
15,274.57	7,102.00	7,074.00	7,102.00	228.89	245.23	90.08	1,457.84	-9,142.24	3,889.40	3,420.20	469.20	8.289	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MONTERA 10-34 (PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	16.55	1.55	3.28	3.28	2.74	2,504.24	119.86	2,507.10					
100.00	100.00	127.86	112.86	3.28	3.30	2.73	2,503.95	119.47	2,506.83	2,500.25	6.58	380.867		
200.00	200.00	237.18	222.17	3.34	3.38	2.73	2,503.13	119.35	2,506.07	2,499.35	6.71	373.236		
225.54	225.54	262.88	247.88	3.36	3.41	178.77	2,502.90	119.36	2,505.96	2,499.19	6.76	370.492 CC, ES		
300.00	299.98	333.93	318.92	3.44	3.50	178.77	2,502.29	119.32	2,506.94	2,500.01	6.94	361.288		
400.00	399.84	423.64	408.63	3.59	3.65	178.76	2,501.81	118.77	2,511.62	2,504.38	7.24	346.798		
500.00	499.45	512.14	497.12	3.79	3.83	178.74	2,501.74	117.99	2,520.21	2,512.58	7.62	330.547		
600.00	598.70	602.62	587.60	4.03	4.05	178.72	2,502.02	117.12	2,532.66	2,524.58	8.08	313.435		
700.00	697.47	690.99	675.97	4.31	4.28	178.71	2,502.61	116.68	2,548.93	2,540.34	8.59	296.748		
800.00	795.62	811.36	796.33	4.64	4.62	178.72	2,503.16	116.73	2,568.47	2,559.23	9.24	277.899		
900.00	893.06	890.39	875.37	5.00	4.87	178.72	2,503.49	116.88	2,591.35	2,581.53	9.82	263.875		
1,000.00	989.64	1,007.86	992.84	5.40	5.25	178.73	2,503.88	117.21	2,617.57	2,607.02	10.56	247.887		
1,100.00	1,085.27	1,100.82	1,085.80	5.83	5.56	178.74	2,503.83	117.63	2,646.77	2,635.52	11.25	235.226		
1,200.00	1,179.88	1,188.85	1,173.82	6.29	5.87	178.76	2,503.89	118.30	2,679.22	2,667.27	11.96	224.097		
1,300.00	1,274.26	1,297.44	1,282.41	6.78	6.26	178.79	2,503.86	119.04	2,712.30	2,699.55	12.74	212.829		
1,400.00	1,368.63	1,384.08	1,369.05	7.28	6.58	178.81	2,503.70	119.21	2,745.21	2,731.74	13.47	203.822		
1,500.00	1,463.00	1,489.68	1,474.65	7.80	6.97	178.83	2,503.53	119.32	2,778.13	2,763.84	14.29	194.454		
1,600.00	1,557.38	1,594.20	1,579.16	8.33	7.37	178.85	2,502.88	119.58	2,810.62	2,795.50	15.12	185.918		
1,700.00	1,651.75	1,688.50	1,673.46	8.87	7.73	178.86	2,502.15	119.40	2,842.95	2,827.03	15.92	178.597		
1,800.00	1,746.12	1,789.13	1,774.08	9.41	8.13	178.86	2,501.33	118.72	2,875.21	2,858.45	16.76	171.577		
1,900.00	1,840.49	1,871.76	1,856.71	9.96	8.45	178.86	2,500.70	117.99	2,907.52	2,889.99	17.53	165.904		
2,000.00	1,934.87	1,973.94	1,958.88	10.52	8.85	178.85	2,500.16	117.18	2,940.06	2,921.67	18.39	159.881		
2,100.00	2,029.24	2,062.72	2,047.65	11.08	9.21	178.85	2,499.47	116.42	2,972.36	2,953.16	19.20	154.828		
2,200.00	2,123.61	2,146.74	2,131.67	11.64	9.54	178.84	2,499.17	115.32	3,005.03	2,985.04	19.99	150.337		
2,300.00	2,217.99	2,228.16	2,213.08	12.21	9.87	178.83	2,499.12	114.47	3,037.99	3,017.22	20.77	146.270		
2,400.00	2,312.36	2,301.39	2,286.31	12.78	10.17	178.83	2,499.52	113.89	3,071.54	3,050.02	21.51	142.781		
2,500.00	2,406.73	2,382.96	2,367.88	13.35	10.50	178.83	2,500.42	113.05	3,105.59	3,083.29	22.30	139.279		
2,600.00	2,501.10	2,460.52	2,445.42	13.93	10.82	178.81	2,501.64	111.89	3,140.07	3,117.00	23.06	136.144		
2,700.00	2,595.48	2,538.47	2,523.34	14.51	11.13	178.80	2,503.29	110.74	3,175.05	3,151.22	23.83	133.215		
2,800.00	2,689.85	2,629.16	2,613.99	15.08	11.51	178.78	2,505.59	109.30	3,210.42	3,185.75	24.67	130.121		
2,900.00	2,784.22	2,737.99	2,722.78	15.66	11.96	178.76	2,507.83	107.64	3,245.32	3,219.71	25.61	126.715		
3,000.00	2,878.60	2,829.43	2,814.19	16.25	12.33	178.74	2,509.76	105.97	3,280.28	3,253.82	26.46	123.972		
3,100.00	2,972.97	2,937.51	2,922.22	16.83	12.78	178.71	2,511.72	103.51	3,314.94	3,287.54	27.40	120.975		
3,200.00	3,067.34	3,028.61	3,013.28	17.41	13.16	178.69	2,513.17	101.59	3,349.42	3,321.16	28.25	118.549		
3,300.00	3,161.72	3,108.16	3,092.81	18.00	13.49	178.67	2,514.73	100.03	3,384.23	3,355.19	29.04	116.528		
3,400.00	3,256.09	3,219.15	3,203.76	18.58	13.95	178.65	2,516.80	98.14	3,418.97	3,388.96	30.01	113.938		
3,500.00	3,350.46	3,280.96	3,265.54	19.17	14.21	178.64	2,518.20	97.16	3,454.03	3,423.33	30.70	112.521		
3,600.00	3,444.83	3,351.52	3,336.08	19.75	14.51	178.63	2,520.22	96.10	3,489.72	3,458.28	31.43	111.019		
3,700.00	3,539.21	3,451.95	3,436.44	20.34	14.93	178.62	2,523.57	95.10	3,525.88	3,493.53	32.34	109.014		
3,800.00	3,633.58	3,555.46	3,539.91	20.93	15.36	178.63	2,526.21	94.83	3,561.31	3,528.04	33.27	107.034		
3,900.00	3,727.95	3,704.18	3,688.59	21.52	15.98	178.63	2,529.56	93.78	3,596.65	3,562.18	34.47	104.353		
4,000.00	3,822.33	3,785.17	3,769.57	22.11	16.32	178.62	2,530.66	93.02	3,630.95	3,595.68	35.27	102.949		
4,100.00	3,916.70	3,895.04	3,879.42	22.70	16.78	178.61	2,532.16	91.42	3,665.23	3,628.99	36.24	101.134		
4,200.00	4,011.07	4,022.10	4,006.44	23.29	17.31	178.58	2,532.95	88.31	3,698.76	3,661.44	37.31	99.124		
4,300.00	4,105.44	4,115.60	4,099.90	23.88	17.71	178.55	2,533.15	85.70	3,731.91	3,693.71	38.19	97.707		
4,400.00	4,199.82	4,192.47	4,176.75	24.47	18.03	178.53	2,533.53	83.85	3,765.33	3,726.35	38.98	96.601		
4,500.00	4,294.19	4,281.55	4,265.81	25.06	18.41	178.51	2,534.23	82.17	3,799.05	3,759.22	39.83	95.376		
4,600.00	4,388.56	4,358.28	4,342.52	25.65	18.73	178.50	2,534.99	81.01	3,832.99	3,792.38	40.61	94.379		
4,700.00	4,482.94	4,437.44	4,421.67	26.24	19.06	178.50	2,536.17	80.30	3,867.41	3,826.00	41.41	93.401		
4,800.00	4,577.31	4,520.06	4,504.28	26.83	19.41	178.50	2,537.60	79.39	3,902.06	3,859.84	42.22	92.420		
4,900.00	4,671.68	4,590.70	4,574.89	27.43	19.71	178.49	2,539.18	78.33	3,937.16	3,894.19	42.96	91.646		
5,000.00	4,766.05	4,718.64	4,702.78	28.02	20.25	178.47	2,541.92	76.07	3,972.17	3,928.11	44.06	90.161		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MONTERA 10-34 (PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	4,837.82	4,821.92	28.61	20.75	178.45	2,543.61	73.49	4,006.49	3,961.39	45.10	88.839		
5,200.00	4,954.80	4,940.57	4,924.63	29.20	21.19	178.42	2,544.42	70.87	4,040.17	3,994.13	46.04	87.754		
5,300.00	5,049.17	5,023.20	5,007.22	29.80	21.54	178.39	2,545.34	68.46	4,074.15	4,027.30	46.86	86.948		
5,400.00	5,143.55	5,128.85	5,112.83	30.39	21.99	178.37	2,546.27	65.92	4,107.94	4,060.12	47.82	85.908		
5,500.00	5,237.92	5,208.16	5,192.14	30.99	22.32	178.36	2,547.07	64.77	4,141.88	4,093.26	48.61	85.198		
5,600.00	5,332.29	5,293.24	5,277.20	31.58	22.68	178.36	2,548.14	63.70	4,176.08	4,126.63	49.45	84.455		
5,700.00	5,426.66	5,388.04	5,371.98	32.17	23.08	178.36	2,549.43	62.76	4,210.38	4,160.04	50.34	83.637		
5,800.00	5,521.04	5,478.94	5,462.88	32.77	23.47	178.37	2,550.65	62.46	4,244.69	4,193.48	51.21	82.887		
5,900.00	5,615.41	5,555.71	5,539.64	33.36	23.79	178.37	2,551.83	62.35	4,279.20	4,227.21	51.99	82.309		
6,000.00	5,709.78	5,648.89	5,632.80	33.96	24.19	178.39	2,553.61	62.72	4,314.07	4,261.19	52.87	81.592		
6,100.00	5,804.16	5,787.22	5,771.12	34.55	24.77	178.42	2,555.38	63.86	4,348.38	4,294.33	54.05	80.455		
6,200.00	5,898.53	5,906.78	5,890.67	35.14	25.28	178.44	2,555.92	64.01	4,381.87	4,326.77	55.10	79.526		
6,300.00	5,992.90	6,045.01	6,028.90	35.74	25.87	178.45	2,555.37	63.56	4,414.51	4,358.24	56.27	78.457		
6,400.00	6,087.27	6,149.49	6,133.37	36.33	26.31	178.46	2,554.40	63.01	4,446.66	4,389.44	57.22	77.709		
6,500.00	6,181.65	6,242.01	6,225.88	36.93	26.70	178.46	2,553.45	62.53	4,478.73	4,420.63	58.10	77.080		
6,600.00	6,276.02	6,326.70	6,310.57	37.52	27.06	178.46	2,552.73	61.84	4,510.96	4,452.02	58.94	76.537		
6,700.00	6,370.39	6,400.01	6,383.88	38.12	27.37	178.46	2,552.29	60.96	4,543.43	4,483.73	59.70	76.104		
6,800.00	6,464.77	6,472.92	6,456.78	38.71	27.68	178.46	2,552.20	59.93	4,576.34	4,515.89	60.46	75.694		
6,900.00	6,559.14	6,577.54	6,561.39	39.31	28.13	178.21	2,552.50	58.54	4,609.63	4,548.21	61.42	75.052		
7,000.00	6,652.92	6,685.58	6,669.42	39.90	28.59	151.93	2,552.30	57.14	4,642.68	4,580.27	62.40	74.401		
7,100.00	6,744.00	6,786.28	6,770.11	40.44	29.01	133.00	2,551.92	55.46	4,675.47	4,612.15	63.32	73.836		
7,200.00	6,830.13	6,873.48	6,857.29	40.94	29.39	120.33	2,551.48	54.09	4,707.53	4,643.39	64.14	73.398		
7,300.00	6,909.19	6,950.74	6,934.54	41.37	29.71	111.60	2,551.12	52.97	4,738.53	4,673.65	64.88	73.039		
7,400.00	6,979.23	7,022.07	7,005.87	41.75	30.02	105.33	2,550.79	52.35	4,768.14	4,702.55	65.59	72.696		
7,500.00	7,038.53	7,091.36	7,075.16	42.08	30.31	100.70	2,550.36	52.09	4,795.98	4,729.64	66.34	72.293		
7,600.00	7,085.63	7,187.24	7,171.03	42.37	30.72	97.59	2,549.18	52.00	4,821.67	4,754.31	67.36	71.577		
7,700.00	7,119.37	7,228.17	7,211.95	42.64	30.89	94.82	2,548.40	51.98	4,845.08	4,776.91	68.16	71.079		
7,800.00	7,138.92	7,247.92	7,231.70	42.91	30.98	92.57	2,548.02	51.96	4,866.27	4,797.29	68.98	70.541		
7,900.00	7,143.92	7,253.04	7,236.82	43.25	31.00	91.05	2,547.92	51.96	4,884.98	4,815.12	69.87	69.920		
8,000.00	7,143.35	7,252.55	7,236.33	43.72	31.00	91.04	2,547.93	51.96	4,903.89	4,833.03	70.86	69.204		
8,100.00	7,142.78	7,252.06	7,235.84	44.42	30.99	91.04	2,547.94	51.96	4,924.77	4,852.78	71.99	68.410		
8,200.00	7,142.22	7,251.57	7,235.34	45.39	30.99	91.03	2,547.95	51.96	4,947.57	4,874.34	73.23	67.561		
8,300.00	7,141.65	7,251.07	7,234.85	46.63	30.99	91.02	2,547.96	51.96	4,972.29	4,897.71	74.57	66.679		
8,400.00	7,141.08	7,250.58	7,234.36	48.09	30.99	91.02	2,547.97	51.96	4,998.88	4,922.88	75.99	65.781		
8,500.00	7,140.51	7,250.09	7,233.87	49.74	30.98	91.01	2,547.98	51.96	5,027.32	4,949.83	77.48	64.883		
8,600.00	7,139.94	7,249.60	7,233.38	51.53	30.98	91.01	2,547.99	51.96	5,057.57	4,978.55	79.03	63.998		
8,700.00	7,139.37	7,249.11	7,232.88	53.44	30.98	91.00	2,548.00	51.96	5,089.62	5,009.00	80.61	63.135		
8,800.00	7,138.80	7,248.61	7,232.39	55.45	30.98	91.00	2,548.01	51.96	5,123.41	5,041.18	82.23	62.303		
8,900.00	7,138.24	7,248.12	7,231.90	57.55	30.98	90.99	2,548.02	51.96	5,158.92	5,075.05	83.88	61.506		
9,000.00	7,137.67	7,247.63	7,231.41	59.71	30.97	90.98	2,548.03	51.96	5,196.12	5,110.58	85.53	60.750		
9,100.00	7,137.10	7,247.14	7,230.92	61.94	30.97	90.98	2,548.03	51.96	5,234.96	5,147.76	87.20	60.037		
9,200.00	7,136.53	7,246.65	7,230.43	64.22	30.97	90.97	2,548.04	51.97	5,275.41	5,186.55	88.86	59.368		
9,300.00	7,135.96	7,246.15	7,229.93	66.55	30.97	90.97	2,548.05	51.97	5,317.43	5,226.91	90.52	58.744		
9,400.00	7,135.39	7,245.66	7,229.44	68.92	30.97	90.96	2,548.06	51.97	5,360.99	5,268.82	92.17	58.165		
9,500.00	7,134.83	7,245.17	7,228.95	71.33	30.96	90.95	2,548.07	51.97	5,406.05	5,312.24	93.80	57.631		
9,600.00	7,134.26	7,244.68	7,228.46	73.77	30.96	90.95	2,548.08	51.97	5,452.56	5,357.14	95.42	57.141		
9,700.00	7,133.69	7,244.19	7,227.97	76.24	30.96	90.94	2,548.09	51.97	5,500.51	5,403.49	97.02	56.693		
9,800.00	7,133.12	7,243.69	7,227.47	78.74	30.96	90.94	2,548.10	51.97	5,549.84	5,451.24	98.60	56.288		
9,900.00	7,132.55	7,243.20	7,226.98	81.27	30.96	90.93	2,548.11	51.97	5,600.52	5,500.38	100.15	55.922		
10,000.00	7,131.98	7,242.71	7,226.49	83.81	30.95	90.93	2,548.12	51.97	5,652.52	5,550.85	101.67	55.595		
10,100.00	7,131.42	7,242.22	7,226.00	86.38	30.95	90.92	2,548.13	51.97	5,705.80	5,602.63	103.17	55.304		
10,200.00	7,130.85	7,241.73	7,225.51	88.96	30.95	90.91	2,548.14	51.97	5,760.32	5,655.68	104.64	55.050		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MONTERA 10-34 (PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,241.23	7,225.01	91.56	30.95	90.91	2,548.15	51.97	5,816.05	5,709.97	106.08	54.829		
10,400.00	7,129.71	7,240.74	7,224.52	94.18	30.95	90.90	2,548.16	51.97	5,872.95	5,765.47	107.48	54.640		
10,500.00	7,129.14	7,240.25	7,224.03	96.81	30.94	90.90	2,548.17	51.97	5,930.99	5,822.13	108.86	54.482		
10,600.00	7,128.57	7,239.76	7,223.54	99.45	30.94	90.89	2,548.18	51.97	5,990.14	5,879.94	110.21	54.354		
10,700.00	7,128.00	7,239.27	7,223.05	102.11	30.94	90.88	2,548.19	51.97	6,050.37	5,938.85	111.52	54.253		
10,800.00	7,127.44	7,238.77	7,222.55	104.77	30.94	90.88	2,548.20	51.97	6,111.64	5,998.83	112.80	54.180		
10,900.00	7,126.87	7,238.28	7,222.06	107.45	30.93	90.87	2,548.20	51.97	6,173.91	6,059.86	114.05	54.131		
11,000.00	7,126.30	7,237.79	7,221.57	110.13	30.93	90.87	2,548.21	51.97	6,237.18	6,121.90	115.28	54.107		
11,100.00	7,125.73	7,237.30	7,221.08	112.82	30.93	90.86	2,548.22	51.97	6,301.39	6,184.92	116.47	54.105 SF		
11,200.00	7,125.16	7,236.81	7,220.59	115.53	30.92	90.85	2,548.23	51.97	6,366.52	6,248.90	117.62	54.126		
11,300.00	7,124.59	7,236.31	7,220.10	118.24	30.93	90.85	2,548.24	51.97	6,432.55	6,313.80	118.75	54.167		
11,400.00	7,124.03	7,235.82	7,219.60	120.95	30.92	90.84	2,548.25	51.97	6,499.45	6,379.60	119.85	54.228		
11,500.00	7,123.46	7,235.33	7,219.11	123.67	30.92	90.84	2,548.26	51.97	6,567.19	6,446.27	120.93	54.308		
11,600.00	7,122.89	7,234.84	7,218.62	126.40	30.92	90.83	2,548.27	51.97	6,635.75	6,513.78	121.97	54.405		
11,700.00	7,122.32	7,234.35	7,218.13	129.14	30.92	90.83	2,548.28	51.97	6,705.09	6,582.11	122.98	54.520		
11,800.00	7,121.75	7,233.85	7,217.64	131.88	30.92	90.82	2,548.29	51.97	6,775.20	6,651.23	123.97	54.651		
11,900.00	7,121.18	7,233.36	7,217.14	134.62	30.91	90.81	2,548.30	51.97	6,846.06	6,721.13	124.93	54.798		
12,000.00	7,120.61	7,232.87	7,216.65	137.37	30.91	90.81	2,548.31	51.97	6,917.63	6,791.76	125.87	54.959		
12,100.00	7,120.05	7,232.38	7,216.16	140.12	30.91	90.80	2,548.32	51.97	6,989.91	6,863.13	126.78	55.135		
12,200.00	7,119.48	7,231.89	7,215.67	142.88	30.91	90.80	2,548.33	51.97	7,062.85	6,935.19	127.66	55.324		
12,300.00	7,118.91	7,231.39	7,215.18	145.64	30.91	90.79	2,548.34	51.98	7,136.46	7,007.93	128.53	55.525		
12,400.00	7,118.34	7,230.90	7,214.68	148.41	30.90	90.78	2,548.35	51.98	7,210.70	7,081.33	129.36	55.739		
12,500.00	7,117.77	7,230.41	7,214.19	151.18	30.90	90.78	2,548.36	51.98	7,285.55	7,155.37	130.18	55.965		
12,600.00	7,117.20	7,229.92	7,213.70	153.95	30.90	90.77	2,548.37	51.98	7,361.01	7,230.03	130.97	56.202		
12,700.00	7,116.64	7,229.43	7,213.21	156.73	30.90	90.77	2,548.37	51.98	7,437.04	7,305.29	131.75	56.450		
12,800.00	7,116.07	7,228.93	7,212.72	159.50	30.89	90.76	2,548.38	51.98	7,513.63	7,381.14	132.50	56.708		
12,900.00	7,115.50	7,228.44	7,212.22	162.29	30.89	90.76	2,548.39	51.98	7,590.77	7,457.54	133.23	56.976		
13,000.00	7,114.93	7,227.95	7,211.73	165.07	30.89	90.75	2,548.40	51.98	7,668.44	7,534.50	133.94	57.253		
13,100.00	7,114.36	7,227.46	7,211.24	167.86	30.89	90.74	2,548.41	51.98	7,746.61	7,611.98	134.63	57.540		
13,200.00	7,113.79	7,226.97	7,210.75	170.64	30.89	90.74	2,548.42	51.98	7,825.29	7,689.98	135.30	57.835		
13,300.00	7,113.22	7,226.47	7,210.26	173.44	30.88	90.73	2,548.43	51.98	7,904.45	7,768.49	135.96	58.138		
13,400.00	7,112.66	7,225.98	7,209.77	176.23	30.88	90.73	2,548.44	51.98	7,984.07	7,847.47	136.60	58.449		
13,500.00	7,112.09	7,225.49	7,209.27	179.02	30.88	90.72	2,548.45	51.98	8,064.15	7,926.93	137.22	58.768		
13,600.00	7,111.52	7,225.00	7,208.78	181.82	30.88	90.71	2,548.46	51.98	8,144.67	8,006.84	137.83	59.094		
13,700.00	7,110.95	7,224.51	7,208.29	184.62	30.88	90.71	2,548.47	51.98	8,225.62	8,087.20	138.42	59.427		
13,800.00	7,110.38	7,224.01	7,207.80	187.42	30.87	90.70	2,548.48	51.98	8,306.98	8,167.99	138.99	59.767		
13,900.00	7,109.81	7,223.52	7,207.31	190.22	30.87	90.70	2,548.49	51.98	8,388.74	8,249.19	139.55	60.113		
14,000.00	7,109.25	7,223.03	7,206.81	193.03	30.87	90.69	2,548.50	51.98	8,470.90	8,330.80	140.09	60.466		
14,100.00	7,108.68	7,222.54	7,206.32	195.84	30.87	90.68	2,548.51	51.98	8,553.43	8,412.81	140.63	60.824		
14,200.00	7,108.11	7,222.05	7,205.83	198.64	30.87	90.68	2,548.52	51.98	8,636.34	8,495.19	141.14	61.188		
14,300.00	7,107.54	7,221.55	7,205.34	201.45	30.86	90.67	2,548.53	51.98	8,719.60	8,577.95	141.65	61.558		
14,400.00	7,106.97	7,221.06	7,204.85	204.26	30.86	90.67	2,548.54	51.98	8,803.21	8,661.07	142.14	61.933		
14,500.00	7,106.40	7,220.57	7,204.35	207.07	30.86	90.66	2,548.54	51.98	8,887.16	8,744.54	142.62	62.313		
14,600.00	7,105.83	7,220.08	7,203.86	209.89	30.86	90.66	2,548.55	51.98	8,971.44	8,828.35	143.09	62.698		
14,700.00	7,105.27	7,219.59	7,203.37	212.70	30.86	90.65	2,548.56	51.98	9,056.04	8,912.50	143.55	63.088		
14,800.00	7,104.70	7,219.09	7,202.88	215.52	30.85	90.64	2,548.57	51.98	9,140.95	8,996.96	143.99	63.483		
14,900.00	7,104.13	7,218.60	7,202.39	218.33	30.85	90.64	2,548.58	51.98	9,226.17	9,081.74	144.43	63.881		
15,000.00	7,103.56	7,218.11	7,201.89	221.15	30.85	90.63	2,548.59	51.98	9,311.67	9,166.82	144.85	64.284		
15,100.00	7,102.99	7,217.62	7,201.40	223.97	30.85	90.63	2,548.60	51.98	9,397.47	9,252.20	145.27	64.692		
15,200.00	7,102.42	7,217.13	7,200.91	226.79	30.84	90.62	2,548.61	51.98	9,483.54	9,337.87	145.67	65.103		
15,274.57	7,102.00	7,216.76	7,200.54	228.89	30.84	90.62	2,548.62	51.98	9,547.90	9,401.93	145.97	65.412		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	58.00	3.28	3.28	-165.09	-3,919.89	-1,044.03	4,056.95					
100.00	100.00	42.00	100.00	3.28	3.36	-165.09	-3,919.89	-1,044.03	4,056.54	4,049.89	6.65	610.405		
200.00	200.00	142.00	200.00	3.34	4.59	-165.09	-3,919.89	-1,044.03	4,056.54	4,048.61	7.93	511.697		
300.00	299.98	241.98	299.98	3.44	7.46	10.97	-3,919.89	-1,044.03	4,054.82	4,043.92	10.90	371.946		
400.00	399.84	341.84	399.84	3.59	10.70	11.00	-3,919.89	-1,044.03	4,049.69	4,035.39	14.30	283.291		
500.00	499.45	441.45	499.45	3.79	14.05	11.06	-3,919.89	-1,044.03	4,041.13	4,023.29	17.85	226.445		
600.00	598.70	540.70	598.70	4.03	17.44	11.14	-3,919.89	-1,044.03	4,029.17	4,007.69	21.48	187.614		
700.00	697.47	639.47	697.47	4.31	20.84	11.24	-3,919.89	-1,044.03	4,013.82	3,988.67	25.15	159.593		
800.00	795.62	737.62	795.62	4.64	24.23	11.37	-3,919.89	-1,044.03	3,995.09	3,966.24	28.85	138.482		
900.00	893.06	835.06	893.06	5.00	27.60	11.52	-3,919.89	-1,044.03	3,973.03	3,940.47	32.56	122.027		
1,000.00	989.64	931.64	989.64	5.40	30.95	11.70	-3,919.89	-1,044.03	3,947.64	3,911.37	36.27	108.847		
1,100.00	1,085.27	1,027.27	1,085.27	5.83	34.27	11.91	-3,919.89	-1,044.03	3,918.97	3,879.00	39.97	98.052		
1,200.00	1,179.88	1,121.88	1,179.88	6.29	37.56	12.10	-3,919.89	-1,044.03	3,887.25	3,843.59	43.66	89.041		
1,300.00	1,274.26	1,216.26	1,274.26	6.78	40.85	12.21	-3,919.89	-1,044.03	3,854.84	3,807.50	47.34	81.431		
1,400.00	1,368.63	1,310.63	1,368.63	7.28	44.13	12.31	-3,919.89	-1,044.03	3,822.44	3,771.41	51.04	74.898		
1,500.00	1,463.00	1,405.00	1,463.00	7.80	47.42	12.42	-3,919.89	-1,044.03	3,790.05	3,735.31	54.75	69.231		
1,600.00	1,557.38	1,500.62	1,557.38	8.33	50.75	12.52	-3,919.89	-1,044.03	3,757.68	3,699.17	58.51	64.224		
1,700.00	1,651.75	1,606.25	1,651.75	8.87	54.43	12.63	-3,919.89	-1,044.03	3,725.32	3,662.69	62.63	59.481		
1,800.00	1,746.12	1,688.12	1,746.12	9.41	57.28	12.75	-3,919.89	-1,044.03	3,692.97	3,627.04	65.93	56.012		
1,900.00	1,840.49	1,782.49	1,840.49	9.96	60.57	12.86	-3,919.89	-1,044.03	3,660.63	3,590.96	69.67	52.539		
2,000.00	1,934.87	1,876.87	1,934.87	10.52	63.86	12.98	-3,919.89	-1,044.03	3,628.31	3,554.89	73.42	49.417		
2,100.00	2,029.24	1,971.24	2,029.24	11.08	67.15	13.09	-3,919.89	-1,044.03	3,596.00	3,518.82	77.18	46.595		
2,200.00	2,123.61	2,065.61	2,123.61	11.64	70.44	13.21	-3,919.89	-1,044.03	3,563.70	3,482.77	80.93	44.032		
2,300.00	2,217.99	2,159.99	2,217.99	12.21	73.73	13.34	-3,919.89	-1,044.03	3,531.42	3,446.73	84.70	41.696		
2,400.00	2,312.36	2,254.36	2,312.36	12.78	77.02	13.46	-3,919.89	-1,044.03	3,499.15	3,410.69	88.46	39.556		
2,500.00	2,406.73	2,348.73	2,406.73	13.35	80.32	13.59	-3,919.89	-1,044.03	3,466.90	3,374.68	92.23	37.591		
2,600.00	2,501.10	2,443.10	2,501.10	13.93	83.61	13.72	-3,919.89	-1,044.03	3,434.67	3,338.67	96.00	35.779		
2,700.00	2,595.48	2,537.48	2,595.48	14.51	86.90	13.85	-3,919.89	-1,044.03	3,402.45	3,302.68	99.77	34.103		
2,800.00	2,689.85	2,631.85	2,689.85	15.08	90.19	13.98	-3,919.89	-1,044.03	3,370.24	3,266.70	103.54	32.549		
2,900.00	2,784.22	2,726.22	2,784.22	15.66	93.48	14.12	-3,919.89	-1,044.03	3,338.06	3,230.74	107.32	31.103		
3,000.00	2,878.60	2,820.60	2,878.60	16.25	96.78	14.26	-3,919.89	-1,044.03	3,305.89	3,194.79	111.10	29.756		
3,100.00	2,972.97	2,914.97	2,972.97	16.83	100.07	14.40	-3,919.89	-1,044.03	3,273.74	3,158.86	114.88	28.497		
3,200.00	3,067.34	3,009.34	3,067.34	17.41	103.36	14.55	-3,919.89	-1,044.03	3,241.61	3,122.94	118.66	27.318		
3,300.00	3,161.72	3,103.72	3,161.72	18.00	106.66	14.69	-3,919.89	-1,044.03	3,209.49	3,087.05	122.44	26.212		
3,400.00	3,256.09	3,201.91	3,256.09	18.58	110.08	14.85	-3,919.89	-1,044.03	3,177.40	3,051.04	126.36	25.145		
3,500.00	3,350.46	3,307.54	3,350.46	19.17	113.77	15.00	-3,919.89	-1,044.03	3,145.33	3,014.78	130.54	24.094		
3,600.00	3,444.83	3,386.83	3,444.83	19.75	116.54	15.16	-3,919.89	-1,044.03	3,113.27	2,979.47	133.80	23.268		
3,700.00	3,539.21	3,481.21	3,539.21	20.34	119.83	15.32	-3,919.89	-1,044.03	3,081.24	2,943.65	137.59	22.394		
3,800.00	3,633.58	3,575.58	3,633.58	20.93	123.12	15.48	-3,919.89	-1,044.03	3,049.23	2,907.85	141.38	21.568		
3,900.00	3,727.95	3,669.95	3,727.95	21.52	126.42	15.65	-3,919.89	-1,044.03	3,017.25	2,872.08	145.17	20.784		
4,000.00	3,822.33	3,764.33	3,822.33	22.11	129.71	15.82	-3,919.89	-1,044.03	2,985.29	2,836.32	148.96	20.041		
4,100.00	3,916.70	3,858.70	3,916.70	22.70	133.00	15.99	-3,919.89	-1,044.03	2,953.35	2,800.59	152.75	19.334		
4,200.00	4,011.07	3,953.07	4,011.07	23.29	136.30	16.17	-3,919.89	-1,044.03	2,921.44	2,764.89	156.55	18.662		
4,300.00	4,105.44	4,047.44	4,105.44	23.88	139.59	16.35	-3,919.89	-1,044.03	2,889.55	2,729.21	160.34	18.021		
4,400.00	4,199.82	4,141.82	4,199.82	24.47	142.88	16.54	-3,919.89	-1,044.03	2,857.69	2,693.55	164.14	17.410		
4,500.00	4,294.19	4,236.19	4,294.19	25.06	146.18	16.73	-3,919.89	-1,044.03	2,825.86	2,657.92	167.93	16.827		
4,600.00	4,388.56	4,330.56	4,388.56	25.65	149.47	16.92	-3,919.89	-1,044.03	2,794.06	2,622.32	171.73	16.270		
4,700.00	4,482.94	4,424.94	4,482.94	26.24	152.76	17.12	-3,919.89	-1,044.03	2,762.28	2,586.75	175.53	15.737		
4,800.00	4,577.31	4,519.31	4,577.31	26.83	156.06	17.32	-3,919.89	-1,044.03	2,730.54	2,551.21	179.33	15.226		
4,900.00	4,671.68	4,613.68	4,671.68	27.43	159.35	17.53	-3,919.89	-1,044.03	2,698.83	2,515.70	183.13	14.737		
5,000.00	4,766.05	4,708.05	4,766.05	28.02	162.65	17.74	-3,919.89	-1,044.03	2,667.16	2,480.22	186.93	14.268		
5,100.00	4,860.43	4,802.43	4,860.43	28.61	165.94	17.96	-3,919.89	-1,044.03	2,635.51	2,444.78	190.74	13.818		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - RUTT-ADAMS HEIRS 2-22 - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,903.20	4,954.80	29.20	169.46	18.19	-3,919.89	-1,044.03	2,603.91	2,409.14	194.76	13.370		
5,300.00	5,049.17	5,008.83	5,049.17	29.80	173.14	18.41	-3,919.89	-1,044.03	2,572.34	2,373.38	198.96	12.929		
5,400.00	5,143.55	5,085.55	5,143.55	30.39	175.82	18.65	-3,919.89	-1,044.03	2,540.80	2,338.65	202.15	12.569		
5,500.00	5,237.92	5,179.92	5,237.92	30.99	179.12	18.89	-3,919.89	-1,044.03	2,509.31	2,303.35	205.96	12.184		
5,600.00	5,332.29	5,274.29	5,332.29	31.58	182.41	19.13	-3,919.89	-1,044.03	2,477.86	2,268.09	209.76	11.813		
5,700.00	5,426.66	5,368.66	5,426.66	32.17	185.70	19.39	-3,919.89	-1,044.03	2,446.45	2,232.88	213.57	11.455		
5,800.00	5,521.04	5,463.04	5,521.04	32.77	189.00	19.65	-3,919.89	-1,044.03	2,415.09	2,197.70	217.39	11.110		
5,900.00	5,615.41	5,557.41	5,615.41	33.36	192.29	19.91	-3,919.89	-1,044.03	2,383.77	2,162.57	221.20	10.777		
6,000.00	5,709.78	5,651.78	5,709.78	33.96	195.59	20.18	-3,919.89	-1,044.03	2,352.50	2,127.49	225.01	10.455		
6,100.00	5,804.16	5,746.16	5,804.16	34.55	198.88	20.46	-3,919.89	-1,044.03	2,321.28	2,092.45	228.83	10.144		
6,200.00	5,898.53	5,840.53	5,898.53	35.14	202.17	20.75	-3,919.89	-1,044.03	2,290.11	2,057.47	232.64	9.844		
6,300.00	5,992.90	5,934.90	5,992.90	35.74	205.47	21.05	-3,919.89	-1,044.03	2,259.00	2,022.54	236.46	9.553		
6,400.00	6,087.27	6,029.27	6,087.27	36.33	208.76	21.35	-3,919.89	-1,044.03	2,227.94	1,987.66	240.28	9.272		
6,500.00	6,181.65	6,123.65	6,181.65	36.93	212.06	21.66	-3,919.89	-1,044.03	2,196.94	1,952.84	244.10	9.000		
6,600.00	6,276.02	6,218.02	6,276.02	37.52	215.35	21.98	-3,919.89	-1,044.03	2,166.00	1,918.08	247.92	8.737		
6,700.00	6,370.39	6,312.39	6,370.39	38.12	218.65	22.31	-3,919.89	-1,044.03	2,135.13	1,883.38	251.75	8.481		
6,800.00	6,464.77	6,406.77	6,464.77	38.71	221.94	22.65	-3,919.89	-1,044.03	2,104.32	1,848.75	255.57	8.234		
6,900.00	6,559.14	6,501.14	6,559.14	39.31	225.23	22.76	-3,919.89	-1,044.03	2,073.59	1,814.19	259.40	7.994		
7,000.00	6,652.92	6,605.08	6,652.92	39.90	228.86	-3.26	-3,919.89	-1,044.03	2,039.56	1,776.02	263.54	7.739		
7,100.00	6,744.00	6,686.00	6,744.00	40.44	231.69	-23.29	-3,919.89	-1,044.03	1,999.55	1,732.76	266.79	7.495		
7,200.00	6,830.13	6,772.13	6,830.13	40.94	234.69	-38.39	-3,919.89	-1,044.03	1,954.75	1,684.60	270.15	7.236		
7,300.00	6,909.19	6,851.19	6,909.19	41.37	237.45	-50.69	-3,919.89	-1,044.03	1,906.77	1,633.58	273.19	6.980		
7,400.00	6,979.23	6,921.23	6,979.23	41.75	239.90	-61.31	-3,919.89	-1,044.03	1,857.61	1,581.74	275.87	6.734		
7,500.00	7,038.53	6,980.53	7,038.53	42.08	241.97	-70.53	-3,919.89	-1,044.03	1,809.57	1,531.40	278.17	6.505		
7,600.00	7,085.63	7,027.63	7,085.63	42.37	243.61	-78.20	-3,919.89	-1,044.03	1,765.12	1,485.00	280.13	6.301		
7,700.00	7,119.37	7,061.37	7,119.37	42.64	244.79	-84.12	-3,919.89	-1,044.03	1,726.71	1,444.93	281.78	6.128		
7,800.00	7,138.92	7,080.92	7,138.92	42.91	245.47	-88.14	-3,919.89	-1,044.03	1,696.54	1,413.35	283.19	5.991		
7,900.00	7,143.92	7,085.92	7,143.92	43.25	245.65	-90.05	-3,919.89	-1,044.03	1,676.28	1,391.90	284.38	5.895		
8,000.00	7,143.35	7,085.35	7,143.35	43.72	245.63	-90.03	-3,919.89	-1,044.03	1,663.68	1,378.01	285.66	5.824		
8,100.00	7,142.78	7,084.78	7,142.78	44.42	245.61	-90.01	-3,919.89	-1,044.03	1,657.03	1,369.81	287.22	5.769		
8,160.40	7,142.44	7,084.44	7,142.44	44.98	245.59	-90.00	-3,919.89	-1,044.03	1,655.93	1,367.65	288.28	5.744 CC		
8,200.00	7,142.22	7,084.22	7,142.22	45.39	245.59	-89.99	-3,919.89	-1,044.03	1,656.40	1,367.42	288.99	5.732 ES		
8,300.00	7,141.65	7,083.65	7,141.65	46.63	245.57	-89.97	-3,919.89	-1,044.03	1,661.80	1,370.90	290.90	5.713		
8,400.00	7,141.08	7,083.08	7,141.08	48.09	245.55	-89.95	-3,919.89	-1,044.03	1,673.17	1,380.26	292.91	5.712 SF		
8,500.00	7,140.51	7,082.51	7,140.51	49.74	245.53	-89.93	-3,919.89	-1,044.03	1,690.39	1,395.44	294.95	5.731		
8,600.00	7,139.94	7,081.94	7,139.94	51.53	245.51	-89.91	-3,919.89	-1,044.03	1,713.28	1,416.32	296.97	5.769		
8,700.00	7,139.37	7,081.37	7,139.37	53.44	245.49	-89.89	-3,919.89	-1,044.03	1,741.62	1,442.69	298.93	5.826		
8,800.00	7,138.80	7,080.80	7,138.80	55.45	245.47	-89.87	-3,919.89	-1,044.03	1,775.15	1,474.35	300.81	5.901		
8,900.00	7,138.24	7,080.24	7,138.24	57.55	245.45	-89.85	-3,919.89	-1,044.03	1,813.58	1,511.02	302.57	5.994		
9,000.00	7,137.67	7,079.67	7,137.67	59.71	245.43	-89.83	-3,919.89	-1,044.03	1,856.61	1,552.40	304.21	6.103		
9,100.00	7,137.10	7,079.10	7,137.10	61.94	245.41	-89.82	-3,919.89	-1,044.03	1,903.92	1,598.21	305.71	6.228		
9,200.00	7,136.53	7,078.53	7,136.53	64.22	245.39	-89.80	-3,919.89	-1,044.03	1,955.21	1,648.12	307.09	6.367		
9,300.00	7,135.96	7,077.96	7,135.96	66.55	245.37	-89.78	-3,919.89	-1,044.03	2,010.16	1,701.83	308.33	6.519		
9,400.00	7,135.39	7,077.39	7,135.39	68.92	245.35	-89.76	-3,919.89	-1,044.03	2,068.49	1,759.04	309.45	6.684		
9,500.00	7,134.83	7,076.83	7,134.83	71.33	245.33	-89.74	-3,919.89	-1,044.03	2,129.92	1,819.47	310.45	6.861		
9,600.00	7,134.26	7,076.26	7,134.26	73.77	245.31	-89.72	-3,919.89	-1,044.03	2,194.19	1,882.84	311.35	7.047		
9,700.00	7,133.69	7,075.69	7,133.69	76.24	245.29	-89.70	-3,919.89	-1,044.03	2,261.06	1,948.92	312.14	7.244		
9,800.00	7,133.12	7,075.12	7,133.12	78.74	245.27	-89.68	-3,919.89	-1,044.03	2,330.30	2,017.45	312.85	7.449		
9,900.00	7,132.55	7,074.55	7,132.55	81.27	245.25	-89.66	-3,919.89	-1,044.03	2,401.71	2,088.24	313.47	7.662		
10,000.00	7,131.98	7,073.98	7,131.98	83.81	245.23	-89.64	-3,919.89	-1,044.03	2,475.10	2,161.08	314.02	7.882		
10,100.00	7,131.42	7,073.42	7,131.42	86.38	245.21	-89.62	-3,919.89	-1,044.03	2,550.30	2,235.79	314.51	8.109		
10,200.00	7,130.85	7,072.85	7,130.85	88.96	245.19	-89.60	-3,919.89	-1,044.03	2,627.15	2,312.22	314.94	8.342		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - RUTT-ADAMS HEIRS 2-22 - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,072.28	7,130.28	91.56	245.17	-89.58	-3,919.89	-1,044.03	2,705.52	2,390.21	315.31	8.580		
10,400.00	7,129.71	7,071.71	7,129.71	94.18	245.15	-89.56	-3,919.89	-1,044.03	2,785.27	2,469.63	315.64	8.824		
10,500.00	7,129.14	7,071.14	7,129.14	96.81	245.13	-89.54	-3,919.89	-1,044.03	2,866.30	2,550.36	315.93	9.073		
10,600.00	7,128.57	7,070.57	7,128.57	99.45	245.11	-89.52	-3,919.89	-1,044.03	2,948.48	2,632.30	316.19	9.325		
10,700.00	7,128.00	7,070.00	7,128.00	102.11	245.09	-89.50	-3,919.89	-1,044.03	3,031.74	2,715.33	316.41	9.582		
10,800.00	7,127.44	7,069.44	7,127.44	104.77	245.07	-89.48	-3,919.89	-1,044.03	3,115.98	2,799.38	316.60	9.842		
10,900.00	7,126.87	7,068.87	7,126.87	107.45	245.05	-89.46	-3,919.89	-1,044.03	3,201.13	2,884.36	316.77	10.105		
11,000.00	7,126.30	7,068.30	7,126.30	110.13	245.03	-89.44	-3,919.89	-1,044.03	3,287.12	2,970.20	316.92	10.372		
11,100.00	7,125.73	7,067.73	7,125.73	112.82	245.01	-89.42	-3,919.89	-1,044.03	3,373.88	3,056.83	317.05	10.641		
11,200.00	7,125.16	7,067.16	7,125.16	115.53	244.99	-89.40	-3,919.89	-1,044.03	3,461.35	3,144.19	317.16	10.913		
11,300.00	7,124.59	7,066.59	7,124.59	118.24	244.97	-89.38	-3,919.89	-1,044.03	3,549.49	3,232.23	317.26	11.188		
11,400.00	7,124.03	7,066.03	7,124.03	120.95	244.95	-89.36	-3,919.89	-1,044.03	3,638.24	3,320.89	317.35	11.465		
11,500.00	7,123.46	7,065.46	7,123.46	123.67	244.93	-89.34	-3,919.89	-1,044.03	3,727.55	3,410.14	317.42	11.743		
11,600.00	7,122.89	7,064.89	7,122.89	126.40	244.91	-89.32	-3,919.89	-1,044.03	3,817.40	3,499.92	317.48	12.024		
11,700.00	7,122.32	7,064.32	7,122.32	129.14	244.89	-89.30	-3,919.89	-1,044.03	3,907.74	3,590.21	317.54	12.306		
11,800.00	7,121.75	7,063.75	7,121.75	131.88	244.87	-89.28	-3,919.89	-1,044.03	3,998.54	3,680.96	317.58	12.591		
11,900.00	7,121.18	7,063.18	7,121.18	134.62	244.85	-89.26	-3,919.89	-1,044.03	4,089.77	3,772.15	317.62	12.876		
12,000.00	7,120.61	7,062.61	7,120.61	137.37	244.83	-89.24	-3,919.89	-1,044.03	4,181.40	3,863.75	317.65	13.163		
12,100.00	7,120.05	7,062.05	7,120.05	140.12	244.81	-89.23	-3,919.89	-1,044.03	4,273.41	3,955.73	317.68	13.452		
12,200.00	7,119.48	7,061.48	7,119.48	142.88	244.79	-89.21	-3,919.89	-1,044.03	4,365.77	4,048.07	317.70	13.742		
12,300.00	7,118.91	7,060.91	7,118.91	145.64	244.77	-89.19	-3,919.89	-1,044.03	4,458.46	4,140.74	317.72	14.033		
12,400.00	7,118.34	7,060.34	7,118.34	148.41	244.75	-89.17	-3,919.89	-1,044.03	4,551.45	4,233.72	317.73	14.325		
12,500.00	7,117.77	7,059.77	7,117.77	151.18	244.73	-89.15	-3,919.89	-1,044.03	4,644.74	4,326.99	317.75	14.618		
12,600.00	7,117.20	7,059.20	7,117.20	153.95	244.71	-89.13	-3,919.89	-1,044.03	4,738.30	4,420.55	317.75	14.912		
12,700.00	7,116.64	7,058.64	7,116.64	156.73	244.69	-89.11	-3,919.89	-1,044.03	4,832.12	4,514.36	317.76	15.207		
12,800.00	7,116.07	7,058.07	7,116.07	159.50	244.67	-89.09	-3,919.89	-1,044.03	4,926.18	4,608.42	317.76	15.503		
12,900.00	7,115.50	7,057.50	7,115.50	162.29	244.65	-89.07	-3,919.89	-1,044.03	5,020.48	4,702.71	317.77	15.799		
13,000.00	7,114.93	7,056.93	7,114.93	165.07	244.63	-89.05	-3,919.89	-1,044.03	5,114.98	4,797.22	317.77	16.097		
13,100.00	7,114.36	7,056.36	7,114.36	167.86	244.61	-89.03	-3,919.89	-1,044.03	5,209.70	4,891.93	317.77	16.395		
13,200.00	7,113.79	7,055.79	7,113.79	170.64	244.59	-89.01	-3,919.89	-1,044.03	5,304.61	4,986.84	317.76	16.693		
13,300.00	7,113.22	7,055.22	7,113.22	173.44	244.57	-88.99	-3,919.89	-1,044.03	5,399.70	5,081.93	317.76	16.993		
13,400.00	7,112.66	7,054.66	7,112.66	176.23	244.56	-88.97	-3,919.89	-1,044.03	5,494.96	5,177.20	317.76	17.293		
13,500.00	7,112.09	7,054.09	7,112.09	179.02	244.54	-88.95	-3,919.89	-1,044.03	5,590.39	5,272.64	317.75	17.593		
13,600.00	7,111.52	7,053.52	7,111.52	181.82	244.52	-88.93	-3,919.89	-1,044.03	5,685.98	5,368.23	317.75	17.894		
13,700.00	7,110.95	7,052.95	7,110.95	184.62	244.50	-88.91	-3,919.89	-1,044.03	5,781.72	5,463.97	317.75	18.196		
13,800.00	7,110.38	7,052.38	7,110.38	187.42	244.48	-88.89	-3,919.89	-1,044.03	5,877.60	5,559.86	317.74	18.498		
13,900.00	7,109.81	7,051.81	7,109.81	190.22	244.46	-88.87	-3,919.89	-1,044.03	5,973.61	5,655.88	317.74	18.801		
14,000.00	7,109.25	7,051.25	7,109.25	193.03	244.44	-88.85	-3,919.89	-1,044.03	6,069.75	5,752.02	317.73	19.103		
14,100.00	7,108.68	7,050.68	7,108.68	195.84	244.42	-88.83	-3,919.89	-1,044.03	6,166.02	5,848.29	317.73	19.407		
14,200.00	7,108.11	7,050.11	7,108.11	198.64	244.40	-88.81	-3,919.89	-1,044.03	6,262.40	5,944.68	317.72	19.710		
14,300.00	7,107.54	7,049.54	7,107.54	201.45	244.38	-88.79	-3,919.89	-1,044.03	6,358.90	6,041.18	317.72	20.014		
14,400.00	7,106.97	7,048.97	7,106.97	204.26	244.36	-88.77	-3,919.89	-1,044.03	6,455.50	6,137.79	317.71	20.319		
14,500.00	7,106.40	7,048.40	7,106.40	207.07	244.34	-88.75	-3,919.89	-1,044.03	6,552.20	6,234.49	317.71	20.623		
14,600.00	7,105.83	7,047.83	7,105.83	209.89	244.32	-88.73	-3,919.89	-1,044.03	6,649.00	6,331.30	317.70	20.928		
14,700.00	7,105.27	7,047.27	7,105.27	212.70	244.30	-88.71	-3,919.89	-1,044.03	6,745.89	6,428.20	317.70	21.234		
14,800.00	7,104.70	7,046.70	7,104.70	215.52	244.28	-88.69	-3,919.89	-1,044.03	6,842.88	6,525.18	317.70	21.539		
14,900.00	7,104.13	7,046.13	7,104.13	218.33	244.26	-88.67	-3,919.89	-1,044.03	6,939.94	6,622.25	317.69	21.845		
15,000.00	7,103.56	7,045.56	7,103.56	221.15	244.24	-88.66	-3,919.89	-1,044.03	7,037.10	6,719.41	317.69	22.151		
15,100.00	7,102.99	7,044.99	7,102.99	223.97	244.22	-88.64	-3,919.89	-1,044.03	7,134.32	6,816.64	317.69	22.457		
15,200.00	7,102.42	7,044.42	7,102.42	226.79	244.20	-88.62	-3,919.89	-1,044.03	7,231.63	6,913.94	317.69	22.763		
15,274.57	7,102.00	7,044.00	7,102.00	228.89	244.18	-88.60	-3,919.89	-1,044.03	7,304.23	6,986.55	317.69	22.992		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	3.00	0.00	3.28	3.28	-38.26	1,470.74	-1,160.06	1,873.18					
100.00	100.00	103.00	100.00	3.28	3.77	-38.26	1,470.74	-1,160.06	1,873.18	1,866.13	7.05	265.678		
200.00	200.00	203.00	200.00	3.34	6.27	-38.26	1,470.74	-1,160.06	1,873.18	1,863.58	9.60	195.022 CC		
300.00	299.98	303.02	299.98	3.44	9.42	137.80	1,470.74	-1,160.06	1,874.47	1,861.61	12.86	145.737 ES		
400.00	399.84	403.16	399.84	3.59	12.76	137.85	1,470.74	-1,160.06	1,878.36	1,862.01	16.35	114.896		
500.00	499.45	503.55	499.45	3.79	16.17	137.94	1,470.74	-1,160.06	1,884.83	1,864.87	19.96	94.434		
600.00	598.70	604.30	598.70	4.03	19.63	138.07	1,470.74	-1,160.06	1,893.92	1,870.26	23.66	80.051		
700.00	697.47	705.53	697.47	4.31	23.12	138.22	1,470.74	-1,160.06	1,905.64	1,878.20	27.43	69.468		
800.00	795.62	807.38	795.62	4.64	26.64	138.41	1,470.74	-1,160.06	1,920.00	1,888.73	31.27	61.398		
900.00	893.06	909.94	893.06	5.00	30.20	138.61	1,470.74	-1,160.06	1,937.04	1,901.87	35.17	55.070		
1,000.00	989.64	986.64	989.64	5.40	32.86	138.84	1,470.74	-1,160.06	1,956.79	1,918.58	38.21	51.210		
1,100.00	1,085.27	1,082.27	1,085.27	5.83	36.19	139.09	1,470.74	-1,160.06	1,979.26	1,937.33	41.93	47.200		
1,200.00	1,179.88	1,176.88	1,179.88	6.29	39.48	139.46	1,470.74	-1,160.06	2,004.34	1,958.69	45.65	43.910		
1,300.00	1,274.26	1,271.26	1,274.26	6.78	42.76	140.06	1,470.74	-1,160.06	2,030.18	1,980.82	49.36	41.130		
1,400.00	1,368.63	1,365.63	1,368.63	7.28	46.05	140.64	1,470.74	-1,160.06	2,056.23	2,003.14	53.09	38.732		
1,500.00	1,463.00	1,460.00	1,463.00	7.80	49.33	141.20	1,470.74	-1,160.06	2,082.48	2,025.65	56.83	36.644		
1,600.00	1,557.38	1,554.38	1,557.38	8.33	52.62	141.75	1,470.74	-1,160.06	2,108.92	2,048.34	60.58	34.813		
1,700.00	1,651.75	1,648.75	1,651.75	8.87	55.91	142.29	1,470.74	-1,160.06	2,135.55	2,071.21	64.34	33.194		
1,800.00	1,746.12	1,743.12	1,746.12	9.41	59.20	142.81	1,470.74	-1,160.06	2,162.35	2,094.25	68.10	31.753		
1,900.00	1,840.49	1,837.49	1,840.49	9.96	62.49	143.33	1,470.74	-1,160.06	2,189.33	2,117.46	71.87	30.464		
2,000.00	1,934.87	1,931.87	1,934.87	10.52	65.78	143.83	1,470.74	-1,160.06	2,216.47	2,140.83	75.64	29.304		
2,100.00	2,029.24	2,026.24	2,029.24	11.08	69.07	144.32	1,470.74	-1,160.06	2,243.77	2,164.35	79.41	28.255		
2,200.00	2,123.61	2,120.61	2,123.61	11.64	72.36	144.79	1,470.74	-1,160.06	2,271.22	2,188.03	83.19	27.302		
2,300.00	2,217.99	2,214.99	2,217.99	12.21	75.65	145.26	1,470.74	-1,160.06	2,298.82	2,211.85	86.97	26.433		
2,400.00	2,312.36	2,309.36	2,312.36	12.78	78.94	145.72	1,470.74	-1,160.06	2,326.56	2,235.81	90.75	25.637		
2,500.00	2,406.73	2,403.73	2,406.73	13.35	82.23	146.16	1,470.74	-1,160.06	2,354.44	2,259.91	94.53	24.906		
2,600.00	2,501.10	2,501.90	2,501.10	13.93	85.66	146.60	1,470.74	-1,160.06	2,382.46	2,284.01	98.45	24.200		
2,700.00	2,595.48	2,607.52	2,595.48	14.51	89.34	147.02	1,470.74	-1,160.06	2,410.60	2,307.97	102.63	23.489		
2,800.00	2,689.85	2,686.85	2,689.85	15.08	92.11	147.44	1,470.74	-1,160.06	2,438.87	2,332.98	105.89	23.032		
2,900.00	2,784.22	2,781.22	2,784.22	15.66	95.40	147.85	1,470.74	-1,160.06	2,467.25	2,357.58	109.68	22.496		
3,000.00	2,878.60	2,875.60	2,878.60	16.25	98.70	148.25	1,470.74	-1,160.06	2,495.75	2,382.29	113.46	21.996		
3,100.00	2,972.97	2,969.97	2,972.97	16.83	101.99	148.63	1,470.74	-1,160.06	2,524.37	2,407.11	117.25	21.529		
3,200.00	3,067.34	3,064.34	3,067.34	17.41	105.28	149.01	1,470.74	-1,160.06	2,553.09	2,432.05	121.04	21.093		
3,300.00	3,161.72	3,158.72	3,161.72	18.00	108.58	149.39	1,470.74	-1,160.06	2,581.91	2,457.08	124.83	20.684		
3,400.00	3,256.09	3,253.09	3,256.09	18.58	111.87	149.75	1,470.74	-1,160.06	2,610.84	2,482.22	128.62	20.299		
3,500.00	3,350.46	3,347.46	3,350.46	19.17	115.16	150.11	1,470.74	-1,160.06	2,639.86	2,507.45	132.41	19.938		
3,600.00	3,444.83	3,441.83	3,444.83	19.75	118.45	150.46	1,470.74	-1,160.06	2,668.97	2,532.78	136.20	19.597		
3,700.00	3,539.21	3,536.21	3,539.21	20.34	121.75	150.80	1,470.74	-1,160.06	2,698.18	2,558.20	139.98	19.275		
3,800.00	3,633.58	3,630.58	3,633.58	20.93	125.04	151.13	1,470.74	-1,160.06	2,727.48	2,583.70	143.77	18.971		
3,900.00	3,727.95	3,724.95	3,727.95	21.52	128.33	151.46	1,470.74	-1,160.06	2,756.86	2,609.30	147.56	18.683		
4,000.00	3,822.33	3,819.33	3,822.33	22.11	131.63	151.78	1,470.74	-1,160.06	2,786.32	2,634.97	151.35	18.409		
4,100.00	3,916.70	3,913.70	3,916.70	22.70	134.92	152.10	1,470.74	-1,160.06	2,815.87	2,660.73	155.14	18.150		
4,200.00	4,011.07	4,008.07	4,011.07	23.29	138.22	152.40	1,470.74	-1,160.06	2,845.49	2,686.56	158.93	17.904		
4,300.00	4,105.44	4,102.44	4,105.44	23.88	141.51	152.71	1,470.74	-1,160.06	2,875.19	2,712.47	162.72	17.669		
4,400.00	4,199.82	4,203.18	4,199.82	24.47	145.03	153.00	1,470.74	-1,160.06	2,904.96	2,738.22	166.73	17.423		
4,500.00	4,294.19	4,308.81	4,294.19	25.06	148.71	153.29	1,470.74	-1,160.06	2,934.80	2,763.88	170.92	17.171		
4,600.00	4,388.56	4,385.56	4,388.56	25.65	151.39	153.58	1,470.74	-1,160.06	2,964.71	2,790.62	174.09	17.030		
4,700.00	4,482.94	4,479.94	4,482.94	26.24	154.68	153.85	1,470.74	-1,160.06	2,994.68	2,816.80	177.88	16.835		
4,800.00	4,577.31	4,574.31	4,577.31	26.83	157.98	154.13	1,470.74	-1,160.06	3,024.72	2,843.05	181.67	16.650		
4,900.00	4,671.68	4,668.68	4,671.68	27.43	161.27	154.40	1,470.74	-1,160.06	3,054.83	2,869.37	185.46	16.472		
5,000.00	4,766.05	4,763.05	4,766.05	28.02	164.57	154.66	1,470.74	-1,160.06	3,084.99	2,895.74	189.25	16.301		
5,100.00	4,860.43	4,857.43	4,860.43	28.61	167.86	154.92	1,470.74	-1,160.06	3,115.21	2,922.18	193.04	16.138		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,951.80	4,954.80	29.20	171.15	155.17	1,470.74	-1,160.06	3,145.49	2,948.67	196.83	15.981		
5,300.00	5,049.17	5,046.17	5,049.17	29.80	174.45	155.42	1,470.74	-1,160.06	3,175.83	2,975.21	200.62	15.830		
5,400.00	5,143.55	5,140.55	5,143.55	30.39	177.74	155.66	1,470.74	-1,160.06	3,206.22	3,001.81	204.41	15.686		
5,500.00	5,237.92	5,234.92	5,237.92	30.99	181.04	155.90	1,470.74	-1,160.06	3,236.66	3,028.47	208.19	15.546		
5,600.00	5,332.29	5,329.29	5,332.29	31.58	184.33	156.13	1,470.74	-1,160.06	3,267.16	3,055.17	211.98	15.412		
5,700.00	5,426.66	5,423.66	5,426.66	32.17	187.62	156.37	1,470.74	-1,160.06	3,297.70	3,081.93	215.77	15.283		
5,800.00	5,521.04	5,518.04	5,521.04	32.77	190.92	156.59	1,470.74	-1,160.06	3,328.29	3,108.73	219.56	15.159		
5,900.00	5,615.41	5,612.41	5,615.41	33.36	194.21	156.81	1,470.74	-1,160.06	3,358.93	3,135.58	223.35	15.039		
6,000.00	5,709.78	5,706.78	5,709.78	33.96	197.51	157.03	1,470.74	-1,160.06	3,389.61	3,162.47	227.14	14.923		
6,100.00	5,804.16	5,801.16	5,804.16	34.55	200.80	157.25	1,470.74	-1,160.06	3,420.34	3,189.41	230.93	14.811		
6,200.00	5,898.53	5,894.47	5,898.53	35.14	204.41	157.46	1,470.74	-1,160.06	3,451.12	3,216.08	235.03	14.684		
6,300.00	5,992.90	5,989.90	5,992.90	35.74	207.39	157.66	1,470.74	-1,160.06	3,481.93	3,243.42	238.51	14.599		
6,400.00	6,087.27	6,084.27	6,087.27	36.33	210.68	157.87	1,470.74	-1,160.06	3,512.79	3,270.49	242.30	14.498		
6,500.00	6,181.65	6,178.65	6,181.65	36.93	213.98	158.07	1,470.74	-1,160.06	3,543.68	3,297.59	246.09	14.400		
6,600.00	6,276.02	6,273.02	6,276.02	37.52	217.27	158.26	1,470.74	-1,160.06	3,574.62	3,324.74	249.88	14.305		
6,700.00	6,370.39	6,367.39	6,370.39	38.12	220.57	158.46	1,470.74	-1,160.06	3,605.59	3,351.92	253.67	14.214		
6,800.00	6,464.77	6,461.77	6,464.77	38.71	223.86	158.65	1,470.74	-1,160.06	3,636.60	3,379.14	257.46	14.125		
6,900.00	6,559.14	6,556.14	6,559.14	39.31	227.15	158.85	1,470.74	-1,160.06	3,667.64	3,406.40	261.25	14.039		
7,000.00	6,653.52	6,649.92	6,653.52	39.90	230.43	133.09	1,470.74	-1,160.06	3,696.41	3,431.40	265.01	13.948		
7,100.00	6,747.90	6,741.00	6,747.90	40.44	233.61	115.38	1,470.74	-1,160.06	3,720.38	3,451.72	268.67	13.848		
7,200.00	6,839.13	6,827.13	6,839.13	40.94	236.61	104.33	1,470.74	-1,160.06	3,739.34	3,467.23	272.11	13.742		
7,300.00	6,909.19	6,906.19	6,909.19	41.37	239.37	97.53	1,470.74	-1,160.06	3,753.32	3,478.04	275.28	13.635		
7,400.00	6,979.23	6,976.23	6,979.23	41.75	241.82	93.40	1,470.74	-1,160.06	3,762.52	3,484.39	278.12	13.528		
7,500.00	7,038.53	7,035.53	7,038.53	42.08	243.89	90.98	1,470.74	-1,160.06	3,767.30	3,486.67	280.63	13.424		
7,600.00	7,085.63	7,082.63	7,085.63	42.37	245.53	89.74	1,470.74	-1,160.06	3,768.10	3,485.30	282.80	13.324		
7,700.00	7,119.37	7,116.37	7,119.37	42.64	246.71	89.31	1,470.74	-1,160.06	3,765.38	3,480.76	284.63	13.229		
7,800.00	7,138.92	7,135.92	7,138.92	42.91	247.39	89.49	1,470.74	-1,160.06	3,759.57	3,473.47	286.10	13.141		
7,900.00	7,143.92	7,140.92	7,143.92	43.25	247.57	90.03	1,470.74	-1,160.06	3,751.06	3,463.85	287.21	13.060		
8,000.00	7,143.35	7,140.35	7,143.35	43.72	247.55	90.02	1,470.74	-1,160.06	3,743.23	3,454.95	288.28	12.985		
8,100.00	7,142.78	7,139.78	7,142.78	44.42	247.53	90.01	1,470.74	-1,160.06	3,738.06	3,448.56	289.50	12.912		
8,200.00	7,142.22	7,139.22	7,142.22	45.39	247.51	90.00	1,470.74	-1,160.06	3,735.56	3,444.72	290.84	12.844		
8,243.38	7,141.97	7,138.97	7,141.97	45.90	247.50	90.00	1,470.74	-1,160.06	3,735.31	3,443.83	291.48	12.815		
8,300.00	7,141.65	7,138.65	7,141.65	46.63	247.49	90.00	1,470.74	-1,160.06	3,735.74	3,443.43	292.31	12.780		
8,400.00	7,141.08	7,138.08	7,141.08	48.09	247.47	89.99	1,470.74	-1,160.06	3,738.59	3,444.72	293.87	12.722		
8,500.00	7,140.51	7,137.51	7,140.51	49.74	247.45	89.98	1,470.74	-1,160.06	3,744.11	3,448.60	295.51	12.670		
8,600.00	7,139.94	7,136.94	7,139.94	51.53	247.43	89.97	1,470.74	-1,160.06	3,752.29	3,455.08	297.21	12.625		
8,700.00	7,139.37	7,136.37	7,139.37	53.44	247.41	89.96	1,470.74	-1,160.06	3,763.11	3,464.14	298.97	12.587		
8,800.00	7,138.80	7,135.80	7,138.80	55.45	247.39	89.95	1,470.74	-1,160.06	3,776.55	3,475.79	300.76	12.557		
8,900.00	7,138.24	7,135.24	7,138.24	57.55	247.37	89.94	1,470.74	-1,160.06	3,792.58	3,490.00	302.58	12.534		
9,000.00	7,137.67	7,134.67	7,137.67	59.71	247.35	89.93	1,470.74	-1,160.06	3,811.16	3,506.75	304.41	12.520		
9,100.00	7,137.10	7,134.10	7,137.10	61.94	247.33	89.93	1,470.74	-1,160.06	3,832.27	3,526.03	306.24	12.514 SF		
9,200.00	7,136.53	7,133.53	7,136.53	64.22	247.31	89.92	1,470.74	-1,160.06	3,855.85	3,547.79	308.06	12.516		
9,300.00	7,135.96	7,132.96	7,135.96	66.55	247.29	89.91	1,470.74	-1,160.06	3,881.87	3,572.00	309.87	12.527		
9,400.00	7,135.39	7,132.39	7,135.39	68.92	247.27	89.90	1,470.74	-1,160.06	3,910.27	3,598.61	311.66	12.547		
9,500.00	7,134.83	7,131.83	7,134.83	71.33	247.25	89.89	1,470.74	-1,160.06	3,941.01	3,627.59	313.42	12.574		
9,600.00	7,134.26	7,131.26	7,134.26	73.77	247.23	89.88	1,470.74	-1,160.06	3,974.02	3,658.88	315.14	12.610		
9,700.00	7,133.69	7,130.69	7,133.69	76.24	247.21	89.87	1,470.74	-1,160.06	4,009.26	3,692.43	316.83	12.654		
9,800.00	7,133.12	7,130.12	7,133.12	78.74	247.19	89.86	1,470.74	-1,160.06	4,046.66	3,728.19	318.48	12.706		
9,900.00	7,132.55	7,129.55	7,132.55	81.27	247.17	89.86	1,470.74	-1,160.06	4,086.17	3,766.09	320.08	12.766		
10,000.00	7,131.98	7,128.98	7,131.98	83.81	247.15	89.85	1,470.74	-1,160.06	4,127.73	3,806.09	321.64	12.834		
10,100.00	7,131.42	7,128.42	7,131.42	86.38	247.13	89.84	1,470.74	-1,160.06	4,171.26	3,848.12	323.14	12.908		
10,200.00	7,130.85	7,127.85	7,130.85	88.96	247.11	89.83	1,470.74	-1,160.06	4,216.72	3,892.12	324.60	12.990		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,127.28	7,130.28	91.56	247.09	89.82	1,470.74	-1,160.06	4,264.04	3,938.03	326.01	13.079		
10,400.00	7,129.71	7,126.71	7,129.71	94.18	247.07	89.81	1,470.74	-1,160.06	4,313.16	3,985.79	327.37	13.175		
10,500.00	7,129.14	7,126.14	7,129.14	96.81	247.05	89.80	1,470.74	-1,160.06	4,364.02	4,035.34	328.68	13.278		
10,600.00	7,128.57	7,125.57	7,128.57	99.45	247.03	89.79	1,470.74	-1,160.06	4,416.56	4,086.62	329.93	13.386		
10,700.00	7,128.00	7,125.00	7,128.00	102.11	247.01	89.79	1,470.74	-1,160.06	4,470.71	4,139.57	331.14	13.501		
10,800.00	7,127.44	7,124.44	7,127.44	104.77	246.99	89.78	1,470.74	-1,160.06	4,526.43	4,194.13	332.30	13.621		
10,900.00	7,126.87	7,123.87	7,126.87	107.45	246.97	89.77	1,470.74	-1,160.06	4,583.66	4,250.24	333.41	13.748		
11,000.00	7,126.30	7,123.30	7,126.30	110.13	246.95	89.76	1,470.74	-1,160.06	4,642.33	4,307.85	334.48	13.879		
11,100.00	7,125.73	7,122.73	7,125.73	112.82	246.93	89.75	1,470.74	-1,160.06	4,702.39	4,366.89	335.50	14.016		
11,200.00	7,125.16	7,122.16	7,125.16	115.53	246.91	89.74	1,470.74	-1,160.06	4,763.80	4,427.33	336.48	14.158		
11,300.00	7,124.59	7,121.59	7,124.59	118.24	246.89	89.73	1,470.74	-1,160.06	4,826.50	4,489.09	337.41	14.305		
11,400.00	7,124.03	7,121.03	7,124.03	120.95	246.87	89.72	1,470.74	-1,160.06	4,890.44	4,552.14	338.30	14.456		
11,500.00	7,123.46	7,120.46	7,123.46	123.67	246.85	89.72	1,470.74	-1,160.06	4,955.58	4,616.42	339.16	14.611		
11,600.00	7,122.89	7,119.89	7,122.89	126.40	246.83	89.71	1,470.74	-1,160.06	5,021.86	4,681.88	339.97	14.771		
11,700.00	7,122.32	7,119.32	7,122.32	129.14	246.81	89.70	1,470.74	-1,160.06	5,089.24	4,748.49	340.75	14.935		
11,800.00	7,121.75	7,118.75	7,121.75	131.88	246.79	89.69	1,470.74	-1,160.06	5,157.68	4,816.19	341.49	15.103		
11,900.00	7,121.18	7,118.18	7,121.18	134.62	246.77	89.68	1,470.74	-1,160.06	5,227.13	4,884.94	342.20	15.275		
12,000.00	7,120.61	7,117.61	7,120.61	137.37	246.75	89.67	1,470.74	-1,160.06	5,297.57	4,954.70	342.87	15.451		
12,100.00	7,120.05	7,117.05	7,120.05	140.12	246.73	89.66	1,470.74	-1,160.06	5,368.94	5,025.42	343.52	15.629		
12,200.00	7,119.48	7,116.48	7,119.48	142.88	246.71	89.66	1,470.74	-1,160.06	5,441.22	5,097.08	344.13	15.811		
12,300.00	7,118.91	7,115.91	7,118.91	145.64	246.69	89.65	1,470.74	-1,160.06	5,514.36	5,169.64	344.72	15.997		
12,400.00	7,118.34	7,115.34	7,118.34	148.41	246.67	89.64	1,470.74	-1,160.06	5,588.33	5,243.05	345.28	16.185		
12,500.00	7,117.77	7,114.77	7,117.77	151.18	246.65	89.63	1,470.74	-1,160.06	5,663.10	5,317.29	345.81	16.376		
12,600.00	7,117.20	7,114.20	7,117.20	153.95	246.63	89.62	1,470.74	-1,160.06	5,738.64	5,392.32	346.32	16.570		
12,700.00	7,116.64	7,113.64	7,116.64	156.73	246.61	89.61	1,470.74	-1,160.06	5,814.92	5,468.12	346.80	16.767		
12,800.00	7,116.07	7,113.07	7,116.07	159.50	246.59	89.60	1,470.74	-1,160.06	5,891.91	5,544.64	347.27	16.967		
12,900.00	7,115.50	7,112.50	7,115.50	162.29	246.57	89.59	1,470.74	-1,160.06	5,969.58	5,621.87	347.71	17.168		
13,000.00	7,114.93	7,111.93	7,114.93	165.07	246.55	89.59	1,470.74	-1,160.06	6,047.91	5,699.78	348.13	17.373		
13,100.00	7,114.36	7,111.36	7,114.36	167.86	246.53	89.58	1,470.74	-1,160.06	6,126.87	5,778.33	348.53	17.579		
13,200.00	7,113.79	7,110.79	7,113.79	170.64	246.51	89.57	1,470.74	-1,160.06	6,206.43	5,857.51	348.92	17.788		
13,300.00	7,113.22	7,110.22	7,113.22	173.44	246.49	89.56	1,470.74	-1,160.06	6,286.58	5,937.30	349.28	17.999		
13,400.00	7,112.66	7,109.66	7,112.66	176.23	246.47	89.55	1,470.74	-1,160.06	6,367.29	6,017.66	349.63	18.211		
13,500.00	7,112.09	7,109.09	7,112.09	179.02	246.46	89.54	1,470.74	-1,160.06	6,448.54	6,098.57	349.96	18.426		
13,600.00	7,111.52	7,108.52	7,111.52	181.82	246.44	89.53	1,470.74	-1,160.06	6,530.31	6,180.03	350.28	18.643		
13,700.00	7,110.95	7,107.95	7,110.95	184.62	246.42	89.52	1,470.74	-1,160.06	6,612.58	6,261.99	350.59	18.861		
13,800.00	7,110.38	7,107.38	7,110.38	187.42	246.40	89.52	1,470.74	-1,160.06	6,695.33	6,344.46	350.88	19.082		
13,900.00	7,109.81	7,106.81	7,109.81	190.22	246.38	89.51	1,470.74	-1,160.06	6,778.55	6,427.40	351.16	19.304		
14,000.00	7,109.25	7,106.25	7,109.25	193.03	246.36	89.50	1,470.74	-1,160.06	6,862.22	6,510.80	351.42	19.527		
14,100.00	7,108.68	7,105.68	7,108.68	195.84	246.34	89.49	1,470.74	-1,160.06	6,946.32	6,594.64	351.68	19.752		
14,200.00	7,108.11	7,105.11	7,108.11	198.64	246.32	89.48	1,470.74	-1,160.06	7,030.84	6,678.92	351.92	19.979		
14,300.00	7,107.54	7,104.54	7,107.54	201.45	246.30	89.47	1,470.74	-1,160.06	7,115.75	6,763.60	352.15	20.206		
14,400.00	7,106.97	7,103.97	7,106.97	204.26	246.28	89.46	1,470.74	-1,160.06	7,201.06	6,848.68	352.37	20.436		
14,500.00	7,106.40	7,103.40	7,106.40	207.07	246.26	89.45	1,470.74	-1,160.06	7,286.73	6,934.15	352.59	20.666		
14,600.00	7,105.83	7,102.83	7,105.83	209.89	246.24	89.45	1,470.74	-1,160.06	7,372.77	7,019.98	352.79	20.898		
14,700.00	7,105.27	7,102.27	7,105.27	212.70	246.22	89.44	1,470.74	-1,160.06	7,459.16	7,106.17	352.99	21.132		
14,800.00	7,104.70	7,101.70	7,104.70	215.52	246.20	89.43	1,470.74	-1,160.06	7,545.88	7,192.71	353.17	21.366		
14,900.00	7,104.13	7,101.13	7,104.13	218.33	246.18	89.42	1,470.74	-1,160.06	7,632.93	7,279.58	353.35	21.601		
15,000.00	7,103.56	7,100.56	7,103.56	221.15	246.16	89.41	1,470.74	-1,160.06	7,720.29	7,366.77	353.53	21.838		
15,100.00	7,102.99	7,100.01	7,102.99	223.97	246.14	89.40	1,470.74	-1,160.06	7,807.96	7,454.27	353.69	22.076		
15,200.00	7,102.42	7,100.58	7,102.42	226.79	246.16	89.39	1,470.74	-1,160.06	7,895.91	7,542.03	353.89	22.312		
15,274.57	7,102.00	7,101.00	7,102.00	228.89	246.17	89.39	1,470.74	-1,160.06	7,961.69	7,607.66	354.03	22.489		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	17.00	3.28	3.28	-81.40	166.52	-1,101.71	1,114.35					
100.00	100.00	83.00	100.00	3.28	3.59	-81.40	166.52	-1,101.71	1,114.22	1,107.35	6.87	162.177		
200.00	200.00	183.00	200.00	3.34	5.68	-81.40	166.52	-1,101.71	1,114.22	1,105.20	9.02	123.504 CC		
300.00	299.98	282.98	299.98	3.44	8.77	94.72	166.52	-1,101.71	1,114.37	1,102.16	12.21	91.273		
400.00	399.84	382.84	399.84	3.59	12.07	94.98	166.52	-1,101.71	1,114.81	1,099.15	15.66	71.180		
500.00	499.45	482.45	499.45	3.79	15.45	95.41	166.52	-1,101.71	1,115.60	1,096.37	19.24	57.998		
600.00	598.70	581.70	598.70	4.03	18.85	96.01	166.52	-1,101.71	1,116.82	1,093.95	22.88	48.816		
700.00	697.47	680.47	697.47	4.31	22.25	96.76	166.52	-1,101.71	1,118.58	1,092.02	26.57	42.105		
800.00	795.62	778.62	795.62	4.64	25.65	97.66	166.52	-1,101.71	1,121.02	1,090.74	30.28	37.016		
900.00	893.06	876.06	893.06	5.00	29.02	98.70	166.52	-1,101.71	1,124.31	1,090.29	34.02	33.047 ES		
1,000.00	989.64	972.64	989.64	5.40	32.38	99.87	166.52	-1,101.71	1,128.63	1,090.86	37.77	29.882		
1,100.00	1,085.27	1,068.27	1,085.27	5.83	35.70	101.16	166.52	-1,101.71	1,134.20	1,092.68	41.52	27.316		
1,200.00	1,179.88	1,162.88	1,179.88	6.29	38.99	102.58	166.52	-1,101.71	1,141.22	1,095.95	45.27	25.209		
1,300.00	1,274.26	1,257.26	1,274.26	6.78	42.27	104.11	166.52	-1,101.71	1,149.28	1,100.24	49.03	23.438		
1,400.00	1,368.63	1,351.63	1,368.63	7.28	45.56	105.61	166.52	-1,101.71	1,158.23	1,105.42	52.81	21.931		
1,500.00	1,463.00	1,446.00	1,463.00	7.80	48.84	107.09	166.52	-1,101.71	1,168.05	1,111.45	56.60	20.636		
1,600.00	1,557.38	1,540.38	1,557.38	8.33	52.13	108.55	166.52	-1,101.71	1,178.72	1,118.31	60.40	19.515		
1,700.00	1,651.75	1,634.75	1,651.75	8.87	55.42	109.99	166.52	-1,101.71	1,190.21	1,126.00	64.21	18.537		
1,800.00	1,746.12	1,729.12	1,746.12	9.41	58.71	111.40	166.52	-1,101.71	1,202.50	1,134.48	68.01	17.680		
1,900.00	1,840.49	1,823.49	1,840.49	9.96	62.00	112.78	166.52	-1,101.71	1,215.56	1,143.74	71.82	16.924		
2,000.00	1,934.87	1,917.87	1,934.87	10.52	65.29	114.13	166.52	-1,101.71	1,229.38	1,153.74	75.64	16.253		
2,100.00	2,029.24	2,012.24	2,029.24	11.08	68.58	115.46	166.52	-1,101.71	1,243.92	1,164.47	79.45	15.656		
2,200.00	2,123.61	2,106.61	2,123.61	11.64	71.87	116.76	166.52	-1,101.71	1,259.16	1,175.90	83.27	15.122		
2,300.00	2,217.99	2,200.99	2,217.99	12.21	75.16	118.03	166.52	-1,101.71	1,275.08	1,188.00	87.08	14.643		
2,400.00	2,312.36	2,304.64	2,312.36	12.78	78.78	119.27	166.52	-1,101.71	1,291.65	1,200.44	91.21	14.161		
2,500.00	2,406.73	2,389.73	2,406.73	13.35	81.75	120.48	166.52	-1,101.71	1,308.85	1,214.15	94.70	13.821		
2,600.00	2,501.10	2,484.10	2,501.10	13.93	85.04	121.66	166.52	-1,101.71	1,326.65	1,228.13	98.51	13.467		
2,700.00	2,595.48	2,578.48	2,595.48	14.51	88.33	122.81	166.52	-1,101.71	1,345.02	1,242.70	102.32	13.145		
2,800.00	2,689.85	2,672.85	2,689.85	15.08	91.62	123.94	166.52	-1,101.71	1,363.95	1,257.82	106.13	12.852		
2,900.00	2,784.22	2,767.22	2,784.22	15.66	94.92	125.03	166.52	-1,101.71	1,383.41	1,273.48	109.93	12.584		
3,000.00	2,878.60	2,861.60	2,878.60	16.25	98.21	126.09	166.52	-1,101.71	1,403.39	1,289.65	113.74	12.339		
3,100.00	2,972.97	2,955.97	2,972.97	16.83	101.50	127.13	166.52	-1,101.71	1,423.84	1,306.31	117.54	12.114		
3,200.00	3,067.34	3,050.34	3,067.34	17.41	104.79	128.14	166.52	-1,101.71	1,444.77	1,323.43	121.34	11.907		
3,300.00	3,161.72	3,144.72	3,161.72	18.00	108.09	129.12	166.52	-1,101.71	1,466.15	1,341.01	125.14	11.716		
3,400.00	3,256.09	3,239.09	3,256.09	18.58	111.38	130.08	166.52	-1,101.71	1,487.95	1,359.01	128.93	11.540		
3,500.00	3,350.46	3,333.46	3,350.46	19.17	114.67	131.01	166.52	-1,101.71	1,510.16	1,377.43	132.73	11.378		
3,600.00	3,444.83	3,427.83	3,444.83	19.75	117.97	131.91	166.52	-1,101.71	1,532.76	1,396.24	136.52	11.227		
3,700.00	3,539.21	3,522.21	3,539.21	20.34	121.26	132.79	166.52	-1,101.71	1,555.74	1,415.42	140.32	11.087		
3,800.00	3,633.58	3,616.58	3,633.58	20.93	124.55	133.65	166.52	-1,101.71	1,579.08	1,434.97	144.11	10.958		
3,900.00	3,727.95	3,710.95	3,727.95	21.52	127.85	134.48	166.52	-1,101.71	1,602.76	1,454.86	147.90	10.837		
4,000.00	3,822.33	3,805.33	3,822.33	22.11	131.14	135.29	166.52	-1,101.71	1,626.76	1,475.08	151.69	10.724		
4,100.00	3,916.70	3,900.30	3,916.70	22.70	134.45	136.07	166.52	-1,101.71	1,651.08	1,495.59	155.50	10.618		
4,200.00	4,011.07	4,005.93	4,011.07	23.29	138.14	136.84	166.52	-1,101.71	1,675.70	1,516.03	159.68	10.494		
4,300.00	4,105.44	4,088.44	4,105.44	23.88	141.02	137.58	166.52	-1,101.71	1,700.61	1,537.56	163.05	10.430		
4,400.00	4,199.82	4,182.82	4,199.82	24.47	144.31	138.30	166.52	-1,101.71	1,725.79	1,558.96	166.83	10.344		
4,500.00	4,294.19	4,277.19	4,294.19	25.06	147.61	139.01	166.52	-1,101.71	1,751.24	1,580.62	170.62	10.264		
4,600.00	4,388.56	4,371.56	4,388.56	25.65	150.90	139.69	166.52	-1,101.71	1,776.93	1,602.53	174.40	10.189		
4,700.00	4,482.94	4,465.94	4,482.94	26.24	154.20	140.35	166.52	-1,101.71	1,802.87	1,624.68	178.19	10.118		
4,800.00	4,577.31	4,560.31	4,577.31	26.83	157.49	141.00	166.52	-1,101.71	1,829.03	1,647.06	181.97	10.051		
4,900.00	4,671.68	4,654.68	4,671.68	27.43	160.78	141.63	166.52	-1,101.71	1,855.42	1,669.67	185.75	9.989		
5,000.00	4,766.05	4,749.05	4,766.05	28.02	164.08	142.24	166.52	-1,101.71	1,882.02	1,692.48	189.53	9.930		
5,100.00	4,860.43	4,843.43	4,860.43	28.61	167.37	142.84	166.52	-1,101.71	1,908.82	1,715.50	193.32	9.874		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.00	4,954.80	4,937.80	4,954.80	29.20	170.66	143.42	166.52	-1,101.71	1,935.81	1,738.71	197.10	9.822		
5,300.00	5,049.17	5,032.17	5,049.17	29.80	173.96	143.98	166.52	-1,101.71	1,962.99	1,762.11	200.88	9.772		
5,400.00	5,143.55	5,126.55	5,143.55	30.39	177.25	144.53	166.52	-1,101.71	1,990.35	1,785.69	204.66	9.725		
5,500.00	5,237.92	5,220.92	5,237.92	30.99	180.55	145.07	166.52	-1,101.71	2,017.88	1,809.44	208.44	9.681		
5,600.00	5,332.29	5,315.29	5,332.29	31.58	183.84	145.59	166.52	-1,101.71	2,045.57	1,833.35	212.22	9.639		
5,700.00	5,426.66	5,409.66	5,426.66	32.17	187.14	146.09	166.52	-1,101.71	2,073.42	1,857.42	216.00	9.599		
5,800.00	5,521.04	5,504.04	5,521.04	32.77	190.43	146.59	166.52	-1,101.71	2,101.43	1,881.65	219.78	9.562		
5,900.00	5,615.41	5,601.59	5,615.41	33.36	193.83	147.07	166.52	-1,101.71	2,129.57	1,905.90	223.67	9.521		
6,000.00	5,709.78	5,707.22	5,709.78	33.96	197.52	147.54	166.52	-1,101.71	2,157.86	1,930.02	227.84	9.471		
6,100.00	5,804.16	5,787.16	5,804.16	34.55	200.31	148.00	166.52	-1,101.71	2,186.28	1,955.17	231.12	9.460		
6,200.00	5,898.53	5,881.53	5,898.53	35.14	203.61	148.45	166.52	-1,101.71	2,214.83	1,979.94	234.90	9.429		
6,300.00	5,992.90	5,975.90	5,992.90	35.74	206.90	148.88	166.52	-1,101.71	2,243.51	2,004.83	238.68	9.400		
6,400.00	6,087.27	6,070.27	6,087.27	36.33	210.19	149.31	166.52	-1,101.71	2,272.30	2,029.85	242.46	9.372		
6,500.00	6,181.65	6,164.65	6,181.65	36.93	213.49	149.72	166.52	-1,101.71	2,301.21	2,054.98	246.24	9.346		
6,600.00	6,276.02	6,259.02	6,276.02	37.52	216.78	150.12	166.52	-1,101.71	2,330.23	2,080.22	250.01	9.320		
6,700.00	6,370.39	6,353.39	6,370.39	38.12	220.08	150.52	166.52	-1,101.71	2,359.36	2,105.57	253.79	9.296		
6,800.00	6,464.77	6,447.77	6,464.77	38.71	223.37	150.90	166.52	-1,101.71	2,388.59	2,131.02	257.57	9.273		
6,900.00	6,559.14	6,542.14	6,559.14	39.31	226.66	151.04	166.52	-1,101.71	2,417.92	2,156.56	261.35	9.251		
7,000.00	6,652.92	6,635.92	6,652.92	39.90	229.94	126.13	166.52	-1,101.71	2,444.11	2,179.00	265.11	9.219		
7,100.00	6,744.00	6,727.00	6,744.00	40.44	233.12	109.18	166.52	-1,101.71	2,463.92	2,195.19	268.74	9.169		
7,200.00	6,830.13	6,813.13	6,830.13	40.94	236.12	99.00	166.52	-1,101.71	2,477.44	2,205.30	272.14	9.103		
7,300.00	6,909.19	6,907.81	6,909.19	41.37	239.43	93.15	166.52	-1,101.71	2,485.07	2,209.25	275.81	9.010		
7,400.00	6,979.23	6,962.23	6,979.23	41.75	241.33	89.98	166.52	-1,101.71	2,487.41	2,209.35	278.06	8.946		
7,500.00	7,038.53	7,021.53	7,038.53	42.08	243.40	88.52	166.52	-1,101.71	2,485.28	2,204.76	280.52	8.860		
7,600.00	7,085.63	7,068.63	7,085.63	42.37	245.04	88.14	166.52	-1,101.71	2,479.51	2,196.89	282.62	8.773		
7,700.00	7,119.37	7,102.37	7,119.37	42.64	246.22	88.45	166.52	-1,101.71	2,470.96	2,186.57	284.39	8.689		
7,800.00	7,138.92	7,121.92	7,138.92	42.91	246.90	89.19	166.52	-1,101.71	2,460.37	2,174.57	285.80	8.609		
7,900.00	7,143.92	7,126.92	7,143.92	43.25	247.08	90.04	166.52	-1,101.71	2,448.36	2,161.51	286.85	8.535		
8,000.00	7,143.35	7,126.35	7,143.35	43.72	247.06	90.03	166.52	-1,101.71	2,438.41	2,150.55	287.86	8.471		
8,100.00	7,142.78	7,125.78	7,142.78	44.42	247.04	90.01	166.52	-1,101.71	2,432.54	2,143.53	289.01	8.417		
8,193.03	7,142.26	7,125.26	7,142.26	45.31	247.02	90.00	166.52	-1,101.71	2,430.76	2,140.57	290.19	8.376		
8,200.00	7,142.22	7,125.22	7,142.22	45.39	247.02	90.00	166.52	-1,101.71	2,430.77	2,140.49	290.28	8.374		
8,300.00	7,141.65	7,124.65	7,141.65	46.63	247.00	89.99	166.52	-1,101.71	2,433.11	2,141.45	291.66	8.342		
8,400.00	7,141.08	7,124.08	7,141.08	48.09	246.98	89.97	166.52	-1,101.71	2,439.55	2,146.44	293.11	8.323		
8,500.00	7,140.51	7,123.51	7,140.51	49.74	246.96	89.96	166.52	-1,101.71	2,450.06	2,155.44	294.62	8.316 SF		
8,600.00	7,139.94	7,122.94	7,139.94	51.53	246.94	89.95	166.52	-1,101.71	2,464.59	2,168.43	296.16	8.322		
8,700.00	7,139.37	7,122.37	7,139.37	53.44	246.92	89.93	166.52	-1,101.71	2,483.06	2,185.34	297.72	8.340		
8,800.00	7,138.80	7,121.80	7,138.80	55.45	246.90	89.92	166.52	-1,101.71	2,505.39	2,206.12	299.27	8.372		
8,900.00	7,138.24	7,121.24	7,138.24	57.55	246.88	89.91	166.52	-1,101.71	2,531.48	2,230.68	300.80	8.416		
9,000.00	7,137.67	7,120.67	7,137.67	59.71	246.86	89.89	166.52	-1,101.71	2,561.20	2,258.91	302.30	8.472		
9,100.00	7,137.10	7,120.10	7,137.10	61.94	246.84	89.88	166.52	-1,101.71	2,594.45	2,290.70	303.75	8.541		
9,200.00	7,136.53	7,119.53	7,136.53	64.22	246.82	89.87	166.52	-1,101.71	2,631.07	2,325.92	305.15	8.622		
9,300.00	7,135.96	7,118.96	7,135.96	66.55	246.80	89.85	166.52	-1,101.71	2,670.94	2,364.45	306.49	8.715		
9,400.00	7,135.39	7,118.39	7,135.39	68.92	246.78	89.84	166.52	-1,101.71	2,713.91	2,406.15	307.76	8.818		
9,500.00	7,134.83	7,117.83	7,134.83	71.33	246.76	89.82	166.52	-1,101.71	2,759.84	2,450.86	308.97	8.932		
9,600.00	7,134.26	7,117.26	7,134.26	73.77	246.74	89.81	166.52	-1,101.71	2,808.57	2,498.46	310.12	9.057		
9,700.00	7,133.69	7,116.69	7,133.69	76.24	246.72	89.80	166.52	-1,101.71	2,859.98	2,548.79	311.19	9.190		
9,800.00	7,133.12	7,116.12	7,133.12	78.74	246.70	89.78	166.52	-1,101.71	2,913.91	2,601.71	312.20	9.334		
9,900.00	7,132.55	7,115.55	7,132.55	81.27	246.68	89.77	166.52	-1,101.71	2,970.22	2,657.09	313.14	9.485		
10,000.00	7,131.98	7,114.98	7,131.98	83.81	246.66	89.76	166.52	-1,101.71	3,028.80	2,714.78	314.01	9.645		
10,100.00	7,131.42	7,114.42	7,131.42	86.38	246.64	89.74	166.52	-1,101.71	3,089.50	2,774.67	314.83	9.813		
10,200.00	7,130.85	7,113.85	7,130.85	88.96	246.62	89.73	166.52	-1,101.71	3,152.20	2,836.61	315.59	9.988		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,113.28	7,130.28	91.56	246.60	89.72	166.52	-1,101.71	3,216.79	2,900.50	316.29	10.170		
10,400.00	7,129.71	7,112.71	7,129.71	94.18	246.58	89.70	166.52	-1,101.71	3,283.16	2,966.22	316.94	10.359		
10,500.00	7,129.14	7,112.14	7,129.14	96.81	246.56	89.69	166.52	-1,101.71	3,351.20	3,033.65	317.55	10.553		
10,600.00	7,128.57	7,111.57	7,128.57	99.45	246.54	89.68	166.52	-1,101.71	3,420.80	3,102.70	318.10	10.754		
10,700.00	7,128.00	7,111.00	7,128.00	102.11	246.52	89.66	166.52	-1,101.71	3,491.89	3,173.27	318.62	10.960		
10,800.00	7,127.44	7,110.44	7,127.44	104.77	246.50	89.65	166.52	-1,101.71	3,564.36	3,245.27	319.09	11.170		
10,900.00	7,126.87	7,109.87	7,126.87	107.45	246.48	89.64	166.52	-1,101.71	3,638.14	3,318.61	319.53	11.386		
11,000.00	7,126.30	7,109.30	7,126.30	110.13	246.46	89.62	166.52	-1,101.71	3,713.14	3,393.21	319.93	11.606		
11,100.00	7,125.73	7,108.73	7,125.73	112.82	246.44	89.61	166.52	-1,101.71	3,789.30	3,468.99	320.30	11.830		
11,200.00	7,125.16	7,108.16	7,125.16	115.53	246.42	89.60	166.52	-1,101.71	3,866.54	3,545.90	320.65	12.059		
11,300.00	7,124.59	7,107.59	7,124.59	118.24	246.40	89.58	166.52	-1,101.71	3,944.81	3,623.85	320.96	12.290		
11,400.00	7,124.03	7,107.03	7,124.03	120.95	246.38	89.57	166.52	-1,101.71	4,024.04	3,702.79	321.26	12.526		
11,500.00	7,123.46	7,106.46	7,123.46	123.67	246.36	89.56	166.52	-1,101.71	4,104.18	3,782.65	321.52	12.765		
11,600.00	7,122.89	7,105.89	7,122.89	126.40	246.34	89.54	166.52	-1,101.71	4,185.17	3,863.40	321.77	13.007		
11,700.00	7,122.32	7,105.32	7,122.32	129.14	246.32	89.53	166.52	-1,101.71	4,266.97	3,944.97	322.00	13.251		
11,800.00	7,121.75	7,104.75	7,121.75	131.88	246.30	89.52	166.52	-1,101.71	4,349.53	4,027.32	322.21	13.499		
11,900.00	7,121.18	7,104.18	7,121.18	134.62	246.28	89.50	166.52	-1,101.71	4,432.81	4,110.40	322.40	13.749		
12,000.00	7,120.61	7,103.61	7,120.61	137.37	246.26	89.49	166.52	-1,101.71	4,516.76	4,194.18	322.58	14.002		
12,100.00	7,120.05	7,103.05	7,120.05	140.12	246.24	89.48	166.52	-1,101.71	4,601.36	4,278.61	322.75	14.257		
12,200.00	7,119.48	7,102.48	7,119.48	142.88	246.22	89.46	166.52	-1,101.71	4,686.56	4,363.66	322.90	14.514		
12,300.00	7,118.91	7,101.91	7,118.91	145.64	246.20	89.45	166.52	-1,101.71	4,772.34	4,449.30	323.04	14.773		
12,400.00	7,118.34	7,101.34	7,118.34	148.41	246.18	89.44	166.52	-1,101.71	4,858.66	4,535.49	323.17	15.034		
12,500.00	7,117.77	7,100.77	7,117.77	151.18	246.16	89.42	166.52	-1,101.71	4,945.50	4,622.21	323.29	15.297		
12,600.00	7,117.20	7,100.20	7,117.20	153.95	246.14	89.41	166.52	-1,101.71	5,032.83	4,709.43	323.40	15.562		
12,700.00	7,116.64	7,100.37	7,116.64	156.73	246.15	89.40	166.52	-1,101.71	5,120.62	4,797.09	323.53	15.827		
12,800.00	7,116.07	7,100.93	7,116.07	159.50	246.17	89.38	166.52	-1,101.71	5,208.84	4,885.18	323.66	16.094		
12,900.00	7,115.50	7,101.50	7,115.50	162.29	246.19	89.37	166.52	-1,101.71	5,297.49	4,973.71	323.79	16.361		
13,000.00	7,114.93	7,102.07	7,114.93	165.07	246.21	89.36	166.52	-1,101.71	5,386.54	5,062.63	323.91	16.630		
13,100.00	7,114.36	7,102.64	7,114.36	167.86	246.23	89.34	166.52	-1,101.71	5,475.96	5,151.94	324.02	16.900		
13,200.00	7,113.79	7,103.21	7,113.79	170.64	246.25	89.33	166.52	-1,101.71	5,565.74	5,241.61	324.13	17.171		
13,300.00	7,113.22	7,103.78	7,113.22	173.44	246.27	89.32	166.52	-1,101.71	5,655.87	5,331.64	324.24	17.444		
13,400.00	7,112.66	7,104.34	7,112.66	176.23	246.29	89.30	166.52	-1,101.71	5,746.32	5,421.99	324.33	17.717		
13,500.00	7,112.09	7,104.91	7,112.09	179.02	246.31	89.29	166.52	-1,101.71	5,837.09	5,512.66	324.43	17.992		
13,600.00	7,111.52	7,105.48	7,111.52	181.82	246.33	89.28	166.52	-1,101.71	5,928.15	5,603.63	324.52	18.267		
13,700.00	7,110.95	7,106.05	7,110.95	184.62	246.35	89.26	166.52	-1,101.71	6,019.49	5,694.89	324.61	18.544		
13,800.00	7,110.38	7,106.62	7,110.38	187.42	246.37	89.25	166.52	-1,101.71	6,111.11	5,786.42	324.69	18.821		
13,900.00	7,109.81	7,107.19	7,109.81	190.22	246.39	89.24	166.52	-1,101.71	6,202.99	5,878.21	324.77	19.099		
14,000.00	7,109.25	7,107.75	7,109.25	193.03	246.41	89.22	166.52	-1,101.71	6,295.11	5,970.26	324.85	19.378		
14,100.00	7,108.68	7,108.32	7,108.68	195.84	246.43	89.21	166.52	-1,101.71	6,387.47	6,062.54	324.93	19.658		
14,200.00	7,108.11	7,108.89	7,108.11	198.64	246.45	89.20	166.52	-1,101.71	6,480.05	6,155.05	325.00	19.939		
14,300.00	7,107.54	7,109.46	7,107.54	201.45	246.47	89.18	166.52	-1,101.71	6,572.86	6,247.79	325.07	20.220		
14,400.00	7,106.97	7,089.97	7,106.97	204.26	245.79	89.17	166.52	-1,101.71	6,665.87	6,341.43	324.44	20.546		
14,500.00	7,106.40	7,089.40	7,106.40	207.07	245.77	89.16	166.52	-1,101.71	6,759.08	6,434.61	324.47	20.831		
14,600.00	7,105.83	7,088.83	7,105.83	209.89	245.75	89.14	166.52	-1,101.71	6,852.48	6,527.99	324.50	21.117		
14,700.00	7,105.27	7,088.27	7,105.27	212.70	245.73	89.13	166.52	-1,101.71	6,946.07	6,621.55	324.52	21.404		
14,800.00	7,104.70	7,087.70	7,104.70	215.52	245.71	89.11	166.52	-1,101.71	7,039.83	6,715.29	324.54	21.691		
14,900.00	7,104.13	7,087.13	7,104.13	218.33	245.69	89.10	166.52	-1,101.71	7,133.76	6,809.20	324.57	21.979		
15,000.00	7,103.56	7,086.56	7,103.56	221.15	245.67	89.09	166.52	-1,101.71	7,227.86	6,903.27	324.59	22.268		
15,100.00	7,102.99	7,085.99	7,102.99	223.97	245.65	89.07	166.52	-1,101.71	7,322.11	6,997.50	324.61	22.557		
15,200.00	7,102.42	7,085.42	7,102.42	226.79	245.63	89.06	166.52	-1,101.71	7,416.51	7,091.88	324.63	22.846		
15,274.57	7,102.00	7,085.00	7,102.00	228.89	245.61	89.05	166.52	-1,101.71	7,487.00	7,162.36	324.64	23.062		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	10.00	0.00	3.28	3.28	-60.19	847.80	-1,479.94	1,705.57				
100.00	100.00	110.00	100.00	3.28	3.89	-60.19	847.80	-1,479.94	1,705.57	1,698.39	7.18	237.662	
200.00	200.00	210.00	200.00	3.34	6.48	-60.19	847.80	-1,479.94	1,705.57	1,695.76	9.81	173.781	CC
300.00	299.98	289.98	299.98	3.44	9.00	115.89	847.80	-1,479.94	1,706.33	1,693.90	12.44	137.205	
400.00	399.84	389.84	399.84	3.59	12.31	116.01	847.80	-1,479.94	1,708.63	1,692.73	15.90	107.475	ES
500.00	499.45	489.45	499.45	3.79	15.69	116.20	847.80	-1,479.94	1,712.47	1,693.00	19.48	87.930	
600.00	598.70	588.70	598.70	4.03	19.09	116.46	847.80	-1,479.94	1,717.91	1,694.79	23.12	74.303	
700.00	697.47	687.47	697.47	4.31	22.49	116.80	847.80	-1,479.94	1,724.99	1,698.18	26.81	64.346	
800.00	795.62	785.62	795.62	4.64	25.89	117.19	847.80	-1,479.94	1,733.78	1,703.26	30.52	56.801	
900.00	893.06	883.06	893.06	5.00	29.27	117.65	847.80	-1,479.94	1,744.36	1,710.10	34.26	50.921	
1,000.00	989.64	979.64	989.64	5.40	32.62	118.16	847.80	-1,479.94	1,756.80	1,718.80	38.00	46.236	
1,100.00	1,085.27	1,075.27	1,085.27	5.83	35.94	118.71	847.80	-1,479.94	1,771.21	1,729.47	41.74	42.437	
1,200.00	1,179.88	1,169.88	1,179.88	6.29	39.23	119.39	847.80	-1,479.94	1,787.57	1,742.10	45.47	39.311	
1,300.00	1,274.26	1,264.26	1,274.26	6.78	42.52	120.27	847.80	-1,479.94	1,804.75	1,755.53	49.22	36.669	
1,400.00	1,368.63	1,358.63	1,368.63	7.28	45.80	121.13	847.80	-1,479.94	1,822.36	1,769.39	52.98	34.399	
1,500.00	1,463.00	1,453.00	1,463.00	7.80	49.09	121.98	847.80	-1,479.94	1,840.40	1,783.65	56.75	32.431	
1,600.00	1,557.38	1,547.38	1,557.38	8.33	52.38	122.81	847.80	-1,479.94	1,858.85	1,798.33	60.53	30.711	
1,700.00	1,651.75	1,641.75	1,651.75	8.87	55.66	123.62	847.80	-1,479.94	1,877.71	1,813.39	64.31	29.196	
1,800.00	1,746.12	1,736.12	1,746.12	9.41	58.95	124.42	847.80	-1,479.94	1,896.95	1,828.84	68.11	27.853	
1,900.00	1,840.49	1,830.49	1,840.49	9.96	62.24	125.21	847.80	-1,479.94	1,916.57	1,844.67	71.90	26.656	
2,000.00	1,934.87	1,924.87	1,934.87	10.52	65.53	125.98	847.80	-1,479.94	1,936.55	1,860.85	75.70	25.582	
2,100.00	2,029.24	2,019.24	2,029.24	11.08	68.82	126.74	847.80	-1,479.94	1,956.90	1,877.39	79.50	24.615	
2,200.00	2,123.61	2,113.61	2,123.61	11.64	72.12	127.48	847.80	-1,479.94	1,977.58	1,894.28	83.30	23.739	
2,300.00	2,217.99	2,207.99	2,217.99	12.21	75.41	128.20	847.80	-1,479.94	1,998.60	1,911.49	87.11	22.944	
2,400.00	2,312.36	2,302.36	2,312.36	12.78	78.70	128.92	847.80	-1,479.94	2,019.94	1,929.03	90.91	22.219	
2,500.00	2,406.73	2,403.27	2,406.73	13.35	82.22	129.61	847.80	-1,479.94	2,041.59	1,946.65	94.95	21.503	
2,600.00	2,501.10	2,508.90	2,501.10	13.93	85.90	130.30	847.80	-1,479.94	2,063.55	1,964.41	99.14	20.814	
2,700.00	2,595.48	2,585.48	2,595.48	14.51	88.57	130.97	847.80	-1,479.94	2,085.80	1,983.47	102.33	20.383	
2,800.00	2,689.85	2,679.85	2,689.85	15.08	91.87	131.63	847.80	-1,479.94	2,108.33	2,002.20	106.13	19.865	
2,900.00	2,784.22	2,774.22	2,784.22	15.66	95.16	132.27	847.80	-1,479.94	2,131.14	2,021.20	109.94	19.385	
3,000.00	2,878.60	2,868.60	2,878.60	16.25	98.45	132.90	847.80	-1,479.94	2,154.22	2,040.47	113.74	18.939	
3,100.00	2,972.97	2,962.97	2,972.97	16.83	101.74	133.52	847.80	-1,479.94	2,177.55	2,060.00	117.55	18.525	
3,200.00	3,067.34	3,057.34	3,067.34	17.41	105.04	134.13	847.80	-1,479.94	2,201.13	2,079.78	121.35	18.139	
3,300.00	3,161.72	3,151.72	3,161.72	18.00	108.33	134.72	847.80	-1,479.94	2,224.95	2,099.80	125.15	17.778	
3,400.00	3,256.09	3,246.09	3,256.09	18.58	111.62	135.30	847.80	-1,479.94	2,249.01	2,120.06	128.96	17.440	
3,500.00	3,350.46	3,340.46	3,350.46	19.17	114.92	135.87	847.80	-1,479.94	2,273.30	2,140.54	132.76	17.124	
3,600.00	3,444.83	3,434.83	3,444.83	19.75	118.21	136.43	847.80	-1,479.94	2,297.80	2,161.24	136.56	16.826	
3,700.00	3,539.21	3,529.21	3,539.21	20.34	121.50	136.98	847.80	-1,479.94	2,322.52	2,182.16	140.36	16.547	
3,800.00	3,633.58	3,623.58	3,633.58	20.93	124.80	137.52	847.80	-1,479.94	2,347.44	2,203.28	144.16	16.283	
3,900.00	3,727.95	3,717.95	3,727.95	21.52	128.09	138.04	847.80	-1,479.94	2,372.56	2,224.60	147.96	16.035	
4,000.00	3,822.33	3,812.33	3,822.33	22.11	131.38	138.56	847.80	-1,479.94	2,397.87	2,246.12	151.76	15.801	
4,100.00	3,916.70	3,906.70	3,916.70	22.70	134.68	139.07	847.80	-1,479.94	2,423.38	2,267.82	155.56	15.579	
4,200.00	4,011.07	4,001.07	4,011.07	23.29	137.97	139.56	847.80	-1,479.94	2,449.06	2,289.70	159.35	15.369	
4,300.00	4,105.44	4,104.56	4,105.44	23.88	141.58	140.05	847.80	-1,479.94	2,474.91	2,311.45	163.47	15.140	
4,400.00	4,199.82	4,189.82	4,199.82	24.47	144.56	140.52	847.80	-1,479.94	2,500.94	2,334.00	166.95	14.980	
4,500.00	4,294.19	4,284.19	4,294.19	25.06	147.85	140.99	847.80	-1,479.94	2,527.13	2,356.39	170.74	14.801	
4,600.00	4,388.56	4,378.56	4,388.56	25.65	151.15	141.44	847.80	-1,479.94	2,553.49	2,378.95	174.54	14.630	
4,700.00	4,482.94	4,472.94	4,482.94	26.24	154.44	141.89	847.80	-1,479.94	2,579.99	2,401.66	178.33	14.467	
4,800.00	4,577.31	4,567.31	4,577.31	26.83	157.73	142.33	847.80	-1,479.94	2,606.65	2,424.52	182.13	14.312	
4,900.00	4,671.68	4,661.68	4,671.68	27.43	161.03	142.76	847.80	-1,479.94	2,633.45	2,447.53	185.92	14.164	
5,000.00	4,766.05	4,756.05	4,766.05	28.02	164.32	143.19	847.80	-1,479.94	2,660.40	2,470.68	189.71	14.023	
5,100.00	4,860.43	4,850.43	4,860.43	28.61	167.62	143.60	847.80	-1,479.94	2,687.48	2,493.97	193.51	13.888	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,944.80	4,954.80	29.20	170.91	144.01	847.80	-1,479.94	2,714.69	2,517.39	197.30	13.759		
5,300.00	5,049.17	5,039.17	5,049.17	29.80	174.20	144.40	847.80	-1,479.94	2,742.03	2,540.94	201.09	13.636		
5,400.00	5,143.55	5,133.55	5,143.55	30.39	177.50	144.80	847.80	-1,479.94	2,769.50	2,564.62	204.88	13.517		
5,500.00	5,237.92	5,227.92	5,237.92	30.99	180.79	145.18	847.80	-1,479.94	2,797.09	2,588.41	208.67	13.404		
5,600.00	5,332.29	5,322.29	5,332.29	31.58	184.09	145.56	847.80	-1,479.94	2,824.79	2,612.33	212.46	13.295		
5,700.00	5,426.66	5,416.66	5,426.66	32.17	187.38	145.92	847.80	-1,479.94	2,852.61	2,636.36	216.26	13.191		
5,800.00	5,521.04	5,511.04	5,521.04	32.77	190.67	146.29	847.80	-1,479.94	2,880.54	2,660.50	220.05	13.091		
5,900.00	5,615.41	5,605.41	5,615.41	33.36	193.97	146.64	847.80	-1,479.94	2,908.58	2,684.75	223.84	12.994		
6,000.00	5,709.78	5,700.22	5,709.78	33.96	197.28	146.99	847.80	-1,479.94	2,936.73	2,709.09	227.64	12.901		
6,100.00	5,804.16	5,805.84	5,804.16	34.55	200.96	147.33	847.80	-1,479.94	2,964.97	2,733.15	231.82	12.790		
6,200.00	5,898.53	5,888.53	5,898.53	35.14	203.85	147.67	847.80	-1,479.94	2,993.32	2,758.11	235.20	12.726		
6,300.00	5,992.90	5,982.90	5,992.90	35.74	207.14	148.00	847.80	-1,479.94	3,021.76	2,782.76	238.99	12.644		
6,400.00	6,087.27	6,077.27	6,087.27	36.33	210.44	148.32	847.80	-1,479.94	3,050.29	2,807.51	242.78	12.564		
6,500.00	6,181.65	6,171.65	6,181.65	36.93	213.73	148.64	847.80	-1,479.94	3,078.92	2,832.35	246.57	12.487		
6,600.00	6,276.02	6,266.02	6,276.02	37.52	217.03	148.96	847.80	-1,479.94	3,107.63	2,857.27	250.36	12.413		
6,700.00	6,370.39	6,360.39	6,370.39	38.12	220.32	149.26	847.80	-1,479.94	3,136.43	2,882.28	254.15	12.341		
6,800.00	6,464.77	6,454.77	6,464.77	38.71	223.61	149.56	847.80	-1,479.94	3,165.31	2,907.37	257.94	12.272		
6,900.00	6,559.14	6,549.14	6,559.14	39.31	226.91	149.62	847.80	-1,479.94	3,194.27	2,932.55	261.72	12.205		
7,000.00	6,652.92	6,642.92	6,652.92	39.90	230.18	124.67	847.80	-1,479.94	3,219.90	2,954.41	265.49	12.128		
7,100.00	6,744.00	6,734.00	6,744.00	40.44	233.36	107.64	847.80	-1,479.94	3,238.71	2,969.57	269.14	12.034		
7,200.00	6,830.13	6,820.13	6,830.13	40.94	236.37	97.37	847.80	-1,479.94	3,250.68	2,978.11	272.57	11.926		
7,300.00	6,909.19	6,900.81	6,909.19	41.37	239.18	91.45	847.80	-1,479.94	3,256.06	2,980.28	275.78	11.807		
7,400.00	6,979.23	6,969.23	6,979.23	41.75	241.57	88.25	847.80	-1,479.94	3,255.34	2,976.79	278.55	11.687		
7,500.00	7,038.53	7,028.53	7,038.53	42.08	243.64	86.85	847.80	-1,479.94	3,249.16	2,968.13	281.04	11.561		
7,600.00	7,085.63	7,075.63	7,085.63	42.37	245.29	86.67	847.80	-1,479.94	3,238.28	2,955.10	283.18	11.435		
7,700.00	7,119.37	7,109.37	7,119.37	42.64	246.46	87.33	847.80	-1,479.94	3,223.47	2,938.48	284.98	11.311		
7,800.00	7,138.92	7,128.92	7,138.92	42.91	247.15	88.60	847.80	-1,479.94	3,205.46	2,919.03	286.43	11.191		
7,900.00	7,143.92	7,133.92	7,143.92	43.25	247.32	90.07	847.80	-1,479.94	3,184.97	2,897.45	287.52	11.077		
8,000.00	7,143.35	7,133.35	7,143.35	43.72	247.30	90.06	847.80	-1,479.94	3,165.54	2,876.97	288.57	10.970		
8,100.00	7,142.78	7,132.78	7,142.78	44.42	247.28	90.05	847.80	-1,479.94	3,149.16	2,859.39	289.77	10.868		
8,200.00	7,142.22	7,132.22	7,142.22	45.39	247.26	90.04	847.80	-1,479.94	3,135.89	2,844.78	291.12	10.772		
8,300.00	7,141.65	7,131.65	7,141.65	46.63	247.24	90.03	847.80	-1,479.94	3,125.77	2,833.18	292.58	10.683		
8,400.00	7,141.08	7,131.08	7,141.08	48.09	247.22	90.02	847.80	-1,479.94	3,118.81	2,824.66	294.16	10.603		
8,500.00	7,140.51	7,130.51	7,140.51	49.74	247.20	90.01	847.80	-1,479.94	3,115.06	2,819.24	295.82	10.530		
8,567.08	7,140.13	7,130.13	7,140.13	50.94	247.19	90.00	847.80	-1,479.94	3,114.33	2,817.35	296.99	10.486		
8,600.00	7,139.94	7,129.94	7,139.94	51.53	247.18	90.00	847.80	-1,479.94	3,114.51	2,816.96	297.55	10.467		
8,700.00	7,139.37	7,129.37	7,139.37	53.44	247.16	89.99	847.80	-1,479.94	3,117.17	2,817.83	299.34	10.413		
8,800.00	7,138.80	7,128.80	7,138.80	55.45	247.14	89.98	847.80	-1,479.94	3,123.03	2,821.87	301.16	10.370		
8,900.00	7,138.24	7,128.24	7,138.24	57.55	247.12	89.97	847.80	-1,479.94	3,132.08	2,829.07	303.01	10.337		
9,000.00	7,137.67	7,127.67	7,137.67	59.71	247.10	89.95	847.80	-1,479.94	3,144.28	2,839.41	304.86	10.314		
9,100.00	7,137.10	7,127.10	7,137.10	61.94	247.08	89.94	847.80	-1,479.94	3,159.60	2,852.89	306.71	10.301		
9,200.00	7,136.53	7,126.53	7,136.53	64.22	247.06	89.93	847.80	-1,479.94	3,177.99	2,869.45	308.55	10.300 SF		
9,300.00	7,135.96	7,125.96	7,135.96	66.55	247.04	89.92	847.80	-1,479.94	3,199.41	2,889.06	310.35	10.309		
9,400.00	7,135.39	7,125.39	7,135.39	68.92	247.02	89.91	847.80	-1,479.94	3,223.79	2,911.67	312.12	10.329		
9,500.00	7,134.83	7,124.83	7,134.83	71.33	247.00	89.90	847.80	-1,479.94	3,251.06	2,937.21	313.85	10.359		
9,600.00	7,134.26	7,124.26	7,134.26	73.77	246.98	89.89	847.80	-1,479.94	3,281.15	2,965.63	315.52	10.399		
9,700.00	7,133.69	7,123.69	7,133.69	76.24	246.96	89.88	847.80	-1,479.94	3,313.99	2,996.85	317.15	10.449		
9,800.00	7,133.12	7,123.12	7,133.12	78.74	246.94	89.87	847.80	-1,479.94	3,349.50	3,030.78	318.71	10.510		
9,900.00	7,132.55	7,122.55	7,132.55	81.27	246.93	89.86	847.80	-1,479.94	3,387.58	3,067.36	320.21	10.579		
10,000.00	7,131.98	7,121.98	7,131.98	83.81	246.91	89.85	847.80	-1,479.94	3,428.16	3,106.50	321.65	10.658		
10,100.00	7,131.42	7,121.42	7,131.42	86.38	246.89	89.84	847.80	-1,479.94	3,471.14	3,148.11	323.03	10.746		
10,200.00	7,130.85	7,120.85	7,130.85	88.96	246.87	89.83	847.80	-1,479.94	3,516.45	3,192.11	324.34	10.842		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-25(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,120.28	7,130.28	91.56	246.85	89.82	847.80	-1,479.94	3,563.98	3,238.40	325.59	10.946		
10,400.00	7,129.71	7,119.71	7,129.71	94.18	246.83	89.81	847.80	-1,479.94	3,613.66	3,286.89	326.77	11.059		
10,500.00	7,129.14	7,119.14	7,129.14	96.81	246.81	89.80	847.80	-1,479.94	3,665.40	3,337.50	327.89	11.179		
10,600.00	7,128.57	7,118.57	7,128.57	99.45	246.79	89.79	847.80	-1,479.94	3,719.10	3,390.15	328.95	11.306		
10,700.00	7,128.00	7,118.00	7,128.00	102.11	246.77	89.78	847.80	-1,479.94	3,774.69	3,444.74	329.95	11.440		
10,800.00	7,127.44	7,117.44	7,127.44	104.77	246.75	89.77	847.80	-1,479.94	3,832.08	3,501.19	330.89	11.581		
10,900.00	7,126.87	7,116.87	7,126.87	107.45	246.73	89.76	847.80	-1,479.94	3,891.20	3,559.42	331.78	11.728		
11,000.00	7,126.30	7,116.30	7,126.30	110.13	246.71	89.75	847.80	-1,479.94	3,951.96	3,619.35	332.61	11.882		
11,100.00	7,125.73	7,115.73	7,125.73	112.82	246.69	89.74	847.80	-1,479.94	4,014.29	3,680.90	333.39	12.041		
11,200.00	7,125.16	7,115.16	7,125.16	115.53	246.67	89.72	847.80	-1,479.94	4,078.13	3,744.00	334.13	12.205		
11,300.00	7,124.59	7,114.59	7,124.59	118.24	246.65	89.71	847.80	-1,479.94	4,143.39	3,808.57	334.82	12.375		
11,400.00	7,124.03	7,114.03	7,124.03	120.95	246.63	89.70	847.80	-1,479.94	4,210.02	3,874.56	335.46	12.550		
11,500.00	7,123.46	7,113.46	7,123.46	123.67	246.61	89.69	847.80	-1,479.94	4,277.94	3,941.88	336.07	12.729		
11,600.00	7,122.89	7,112.89	7,122.89	126.40	246.59	89.68	847.80	-1,479.94	4,347.11	4,010.48	336.63	12.914		
11,700.00	7,122.32	7,112.32	7,122.32	129.14	246.57	89.67	847.80	-1,479.94	4,417.46	4,080.30	337.16	13.102		
11,800.00	7,121.75	7,111.75	7,121.75	131.88	246.55	89.66	847.80	-1,479.94	4,488.93	4,151.28	337.65	13.295		
11,900.00	7,121.18	7,111.18	7,121.18	134.62	246.53	89.65	847.80	-1,479.94	4,561.48	4,223.36	338.11	13.491		
12,000.00	7,120.61	7,110.61	7,120.61	137.37	246.51	89.64	847.80	-1,479.94	4,635.04	4,296.50	338.54	13.691		
12,100.00	7,120.05	7,110.05	7,120.05	140.12	246.49	89.63	847.80	-1,479.94	4,709.58	4,370.64	338.95	13.895		
12,200.00	7,119.48	7,109.48	7,119.48	142.88	246.47	89.62	847.80	-1,479.94	4,785.05	4,445.73	339.32	14.102		
12,300.00	7,118.91	7,108.91	7,118.91	145.64	246.45	89.61	847.80	-1,479.94	4,861.41	4,521.74	339.67	14.312		
12,400.00	7,118.34	7,108.34	7,118.34	148.41	246.43	89.60	847.80	-1,479.94	4,938.61	4,598.61	340.00	14.525		
12,500.00	7,117.77	7,107.77	7,117.77	151.18	246.41	89.59	847.80	-1,479.94	5,016.61	4,676.31	340.30	14.742		
12,600.00	7,117.20	7,107.20	7,117.20	153.95	246.39	89.58	847.80	-1,479.94	5,095.39	4,754.80	340.59	14.961		
12,700.00	7,116.64	7,106.64	7,116.64	156.73	246.37	89.57	847.80	-1,479.94	5,174.90	4,834.04	340.85	15.182		
12,800.00	7,116.07	7,106.07	7,116.07	159.50	246.35	89.56	847.80	-1,479.94	5,255.10	4,914.01	341.10	15.406		
12,900.00	7,115.50	7,105.50	7,115.50	162.29	246.33	89.55	847.80	-1,479.94	5,335.98	4,994.65	341.33	15.633		
13,000.00	7,114.93	7,104.93	7,114.93	165.07	246.31	89.54	847.80	-1,479.94	5,417.49	5,075.95	341.54	15.862		
13,100.00	7,114.36	7,104.36	7,114.36	167.86	246.29	89.53	847.80	-1,479.94	5,499.61	5,157.88	341.74	16.093		
13,200.00	7,113.79	7,103.79	7,113.79	170.64	246.27	89.52	847.80	-1,479.94	5,582.32	5,240.40	341.92	16.326		
13,300.00	7,113.22	7,103.22	7,113.22	173.44	246.25	89.51	847.80	-1,479.94	5,665.59	5,323.49	342.10	16.561		
13,400.00	7,112.66	7,102.66	7,112.66	176.23	246.23	89.49	847.80	-1,479.94	5,749.38	5,407.13	342.26	16.798		
13,500.00	7,112.09	7,102.09	7,112.09	179.02	246.21	89.48	847.80	-1,479.94	5,833.69	5,491.29	342.41	17.037		
13,600.00	7,111.52	7,101.52	7,111.52	181.82	246.19	89.47	847.80	-1,479.94	5,918.49	5,575.95	342.54	17.278		
13,700.00	7,110.95	7,100.95	7,110.95	184.62	246.17	89.46	847.80	-1,479.94	6,003.76	5,661.08	342.67	17.520		
13,800.00	7,110.38	7,100.38	7,110.38	187.42	246.15	89.45	847.80	-1,479.94	6,089.47	5,746.67	342.79	17.764		
13,900.00	7,109.81	7,100.19	7,109.81	190.22	246.14	89.44	847.80	-1,479.94	6,175.61	5,832.69	342.92	18.009		
14,000.00	7,109.25	7,100.75	7,109.25	193.03	246.16	89.43	847.80	-1,479.94	6,262.17	5,919.10	343.06	18.254		
14,100.00	7,108.68	7,101.32	7,108.68	195.84	246.18	89.42	847.80	-1,479.94	6,349.12	6,005.92	343.20	18.500		
14,200.00	7,108.11	7,101.89	7,108.11	198.64	246.20	89.41	847.80	-1,479.94	6,436.44	6,093.12	343.33	18.747		
14,300.00	7,107.54	7,102.46	7,107.54	201.45	246.22	89.40	847.80	-1,479.94	6,524.14	6,180.69	343.45	18.996		
14,400.00	7,106.97	7,103.03	7,106.97	204.26	246.24	89.39	847.80	-1,479.94	6,612.18	6,268.61	343.57	19.246		
14,500.00	7,106.40	7,103.60	7,106.40	207.07	246.26	89.38	847.80	-1,479.94	6,700.56	6,356.88	343.68	19.497		
14,600.00	7,105.83	7,104.17	7,105.83	209.89	246.28	89.37	847.80	-1,479.94	6,789.26	6,445.47	343.78	19.749		
14,700.00	7,105.27	7,104.73	7,105.27	212.70	246.30	89.36	847.80	-1,479.94	6,878.27	6,534.38	343.88	20.002		
14,800.00	7,104.70	7,105.30	7,104.70	215.52	246.32	89.35	847.80	-1,479.94	6,967.57	6,623.59	343.98	20.256		
14,900.00	7,104.13	7,105.87	7,104.13	218.33	246.34	89.34	847.80	-1,479.94	7,057.17	6,713.10	344.07	20.511		
15,000.00	7,103.56	7,106.44	7,103.56	221.15	246.36	89.33	847.80	-1,479.94	7,147.04	6,802.88	344.16	20.766		
15,100.00	7,102.99	7,107.01	7,102.99	223.97	246.38	89.32	847.80	-1,479.94	7,237.18	6,892.93	344.25	21.023		
15,200.00	7,102.42	7,107.58	7,102.42	226.79	246.40	89.31	847.80	-1,479.94	7,327.57	6,983.24	344.33	21.281		
15,274.57	7,102.00	7,108.00	7,102.00	228.89	246.42	89.30	847.80	-1,479.94	7,395.13	7,050.75	344.39	21.473		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	47.00	3.28	3.28	-74.79	1,355.73	-4,987.91	5,169.09					
100.00	100.00	53.00	100.00	3.28	3.41	-74.79	1,355.73	-4,987.91	5,168.87	5,162.18	6.69	772.316		
200.00	200.00	153.00	200.00	3.34	4.87	-74.79	1,355.73	-4,987.91	5,168.87	5,160.67	8.20	630.041		
300.00	299.98	252.98	299.98	3.44	7.81	101.26	1,355.73	-4,987.91	5,169.21	5,157.97	11.25	459.581		
400.00	399.84	352.84	399.84	3.59	11.07	101.30	1,355.73	-4,987.91	5,170.24	5,155.58	14.66	352.733		
500.00	499.45	452.45	499.45	3.79	14.43	101.36	1,355.73	-4,987.91	5,171.96	5,153.74	18.21	283.959		
600.00	598.70	551.70	598.70	4.03	17.82	101.44	1,355.73	-4,987.91	5,174.38	5,152.53	21.85	236.833		
700.00	697.47	650.47	697.47	4.31	21.22	101.55	1,355.73	-4,987.91	5,177.54	5,152.01	25.53	202.793		
800.00	795.62	748.62	795.62	4.64	24.61	101.67	1,355.73	-4,987.91	5,181.45	5,152.20	29.25	177.169		
900.00	893.06	846.06	893.06	5.00	27.98	101.82	1,355.73	-4,987.91	5,186.14	5,153.16	32.98	157.248		
1,000.00	989.64	942.64	989.64	5.40	31.33	101.98	1,355.73	-4,987.91	5,191.66	5,154.93	36.73	141.358		
1,100.00	1,085.27	1,038.27	1,085.27	5.83	34.66	102.16	1,355.73	-4,987.91	5,198.04	5,157.56	40.48	128.417		
1,200.00	1,179.88	1,132.88	1,179.88	6.29	37.95	102.40	1,355.73	-4,987.91	5,205.29	5,161.06	44.23	117.695		
1,300.00	1,274.26	1,227.26	1,274.26	6.78	41.23	102.73	1,355.73	-4,987.91	5,212.89	5,164.90	47.99	108.617		
1,400.00	1,368.63	1,321.63	1,368.63	7.28	44.51	103.07	1,355.73	-4,987.91	5,220.69	5,168.91	51.78	100.830		
1,500.00	1,463.00	1,416.00	1,463.00	7.80	47.80	103.40	1,355.73	-4,987.91	5,228.69	5,173.12	55.57	94.084		
1,600.00	1,557.38	1,510.38	1,557.38	8.33	51.09	103.74	1,355.73	-4,987.91	5,236.88	5,177.50	59.38	88.187		
1,700.00	1,651.75	1,604.75	1,651.75	8.87	54.38	104.07	1,355.73	-4,987.91	5,245.28	5,182.07	63.20	82.993		
1,800.00	1,746.12	1,700.88	1,746.12	9.41	57.73	104.40	1,355.73	-4,987.91	5,253.86	5,186.77	67.09	78.313		
1,900.00	1,840.49	1,806.51	1,840.49	9.96	61.41	104.73	1,355.73	-4,987.91	5,262.64	5,191.33	71.31	73.797		
2,000.00	1,934.87	1,887.87	1,934.87	10.52	64.24	105.06	1,355.73	-4,987.91	5,271.61	5,196.92	74.69	70.575		
2,100.00	2,029.24	1,982.24	2,029.24	11.08	67.53	105.39	1,355.73	-4,987.91	5,280.78	5,202.24	78.54	67.240		
2,200.00	2,123.61	2,076.61	2,123.61	11.64	70.83	105.72	1,355.73	-4,987.91	5,290.13	5,207.75	82.38	64.216		
2,300.00	2,217.99	2,170.99	2,217.99	12.21	74.12	106.04	1,355.73	-4,987.91	5,299.68	5,213.45	86.23	61.462		
2,400.00	2,312.36	2,265.36	2,312.36	12.78	77.41	106.37	1,355.73	-4,987.91	5,309.41	5,219.33	90.08	58.943		
2,500.00	2,406.73	2,359.73	2,406.73	13.35	80.70	106.69	1,355.73	-4,987.91	5,319.33	5,225.40	93.93	56.632		
2,600.00	2,501.10	2,454.10	2,501.10	13.93	83.99	107.01	1,355.73	-4,987.91	5,329.44	5,231.66	97.78	54.504		
2,700.00	2,595.48	2,548.48	2,595.48	14.51	87.28	107.34	1,355.73	-4,987.91	5,339.73	5,238.10	101.64	52.538		
2,800.00	2,689.85	2,642.85	2,689.85	15.08	90.58	107.66	1,355.73	-4,987.91	5,350.21	5,244.72	105.49	50.717		
2,900.00	2,784.22	2,737.22	2,784.22	15.66	93.87	107.98	1,355.73	-4,987.91	5,360.87	5,251.53	109.35	49.026		
3,000.00	2,878.60	2,831.60	2,878.60	16.25	97.16	108.30	1,355.73	-4,987.91	5,371.72	5,258.51	113.20	47.451		
3,100.00	2,972.97	2,925.97	2,972.97	16.83	100.45	108.61	1,355.73	-4,987.91	5,382.74	5,265.68	117.06	45.982		
3,200.00	3,067.34	3,020.34	3,067.34	17.41	103.75	108.93	1,355.73	-4,987.91	5,393.95	5,273.03	120.92	44.607		
3,300.00	3,161.72	3,114.72	3,161.72	18.00	107.04	109.24	1,355.73	-4,987.91	5,405.33	5,280.55	124.78	43.319		
3,400.00	3,256.09	3,209.09	3,256.09	18.58	110.33	109.56	1,355.73	-4,987.91	5,416.90	5,288.26	128.64	42.110		
3,500.00	3,350.46	3,303.46	3,350.46	19.17	113.63	109.87	1,355.73	-4,987.91	5,428.64	5,296.14	132.50	40.972		
3,600.00	3,444.83	3,402.17	3,444.83	19.75	117.07	110.18	1,355.73	-4,987.91	5,440.55	5,304.05	136.51	39.856		
3,700.00	3,539.21	3,507.79	3,539.21	20.34	120.76	110.49	1,355.73	-4,987.91	5,452.64	5,311.89	140.76	38.738		
3,800.00	3,633.58	3,586.58	3,633.58	20.93	123.51	110.80	1,355.73	-4,987.91	5,464.91	5,320.83	144.07	37.932		
3,900.00	3,727.95	3,680.95	3,727.95	21.52	126.80	111.11	1,355.73	-4,987.91	5,477.34	5,329.41	147.93	37.026		
4,000.00	3,822.33	3,775.33	3,822.33	22.11	130.09	111.42	1,355.73	-4,987.91	5,489.95	5,338.16	151.79	36.168		
4,100.00	3,916.70	3,869.70	3,916.70	22.70	133.39	111.72	1,355.73	-4,987.91	5,502.73	5,347.08	155.65	35.354		
4,200.00	4,011.07	3,964.07	4,011.07	23.29	136.68	112.02	1,355.73	-4,987.91	5,515.67	5,356.17	159.50	34.580		
4,300.00	4,105.44	4,058.44	4,105.44	23.88	139.97	112.33	1,355.73	-4,987.91	5,528.79	5,365.42	163.36	33.844		
4,400.00	4,199.82	4,152.82	4,199.82	24.47	143.27	112.63	1,355.73	-4,987.91	5,542.06	5,374.85	167.22	33.143		
4,500.00	4,294.19	4,247.19	4,294.19	25.06	146.56	112.93	1,355.73	-4,987.91	5,555.51	5,384.43	171.07	32.474		
4,600.00	4,388.56	4,341.56	4,388.56	25.65	149.85	113.23	1,355.73	-4,987.91	5,569.12	5,394.19	174.93	31.836		
4,700.00	4,482.94	4,435.94	4,482.94	26.24	153.15	113.52	1,355.73	-4,987.91	5,582.89	5,404.10	178.79	31.227		
4,800.00	4,577.31	4,530.31	4,577.31	26.83	156.44	113.82	1,355.73	-4,987.91	5,596.82	5,414.18	182.64	30.644		
4,900.00	4,671.68	4,624.68	4,671.68	27.43	159.74	114.11	1,355.73	-4,987.91	5,610.91	5,424.42	186.49	30.086		
5,000.00	4,766.05	4,719.05	4,766.05	28.02	163.03	114.41	1,355.73	-4,987.91	5,625.17	5,434.82	190.35	29.552		
5,100.00	4,860.43	4,813.43	4,860.43	28.61	166.32	114.70	1,355.73	-4,987.91	5,639.58	5,445.38	194.20	29.040		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,907.80	4,954.80	29.20	169.62	114.99	1,355.73	-4,987.91	5,654.14	5,456.09	198.05	28.549		
5,300.00	5,049.17	5,002.17	5,049.17	29.80	172.91	115.28	1,355.73	-4,987.91	5,668.87	5,466.96	201.91	28.077		
5,400.00	5,143.55	5,103.45	5,143.55	30.39	176.45	115.57	1,355.73	-4,987.91	5,683.74	5,477.75	206.00	27.591		
5,500.00	5,237.92	5,209.08	5,237.92	30.99	180.13	115.85	1,355.73	-4,987.91	5,698.77	5,488.53	210.24	27.106		
5,600.00	5,332.29	5,285.29	5,332.29	31.58	182.79	116.14	1,355.73	-4,987.91	5,713.95	5,500.50	213.46	26.769		
5,700.00	5,426.66	5,379.66	5,426.66	32.17	186.09	116.42	1,355.73	-4,987.91	5,729.29	5,511.98	217.31	26.365		
5,800.00	5,521.04	5,474.04	5,521.04	32.77	189.38	116.70	1,355.73	-4,987.91	5,744.77	5,523.61	221.16	25.976		
5,900.00	5,615.41	5,568.41	5,615.41	33.36	192.68	116.98	1,355.73	-4,987.91	5,760.40	5,535.40	225.00	25.601		
6,000.00	5,709.78	5,662.78	5,709.78	33.96	195.97	117.26	1,355.73	-4,987.91	5,776.18	5,547.33	228.85	25.240		
6,100.00	5,804.16	5,757.16	5,804.16	34.55	199.26	117.54	1,355.73	-4,987.91	5,792.10	5,559.40	232.70	24.891		
6,200.00	5,898.53	5,851.53	5,898.53	35.14	202.56	117.82	1,355.73	-4,987.91	5,808.17	5,571.62	236.54	24.554		
6,300.00	5,992.90	5,945.90	5,992.90	35.74	205.85	118.09	1,355.73	-4,987.91	5,824.38	5,583.99	240.39	24.229		
6,400.00	6,087.27	6,040.27	6,087.27	36.33	209.15	118.37	1,355.73	-4,987.91	5,840.73	5,596.50	244.23	23.915		
6,500.00	6,181.65	6,134.65	6,181.65	36.93	212.44	118.64	1,355.73	-4,987.91	5,857.23	5,609.15	248.08	23.611		
6,600.00	6,276.02	6,229.02	6,276.02	37.52	215.73	118.91	1,355.73	-4,987.91	5,873.86	5,621.94	251.92	23.316		
6,700.00	6,370.39	6,323.39	6,370.39	38.12	219.03	119.18	1,355.73	-4,987.91	5,890.63	5,634.87	255.76	23.032		
6,800.00	6,464.77	6,417.77	6,464.77	38.71	222.32	119.45	1,355.73	-4,987.91	5,907.54	5,647.94	259.60	22.756		
6,900.00	6,559.14	6,512.14	6,559.14	39.31	225.62	119.49	1,355.73	-4,987.91	5,924.59	5,661.15	263.44	22.489		
7,000.00	6,652.92	6,605.92	6,652.92	39.90	228.89	96.02	1,355.73	-4,987.91	5,935.21	5,667.94	267.27	22.207		
7,100.00	6,744.00	6,703.00	6,744.00	40.44	232.28	80.37	1,355.73	-4,987.91	5,933.01	5,661.83	271.18	21.878		
7,200.00	6,830.13	6,783.13	6,830.13	40.94	235.08	71.48	1,355.73	-4,987.91	5,918.23	5,643.76	274.47	21.562		
7,300.00	6,909.19	6,862.19	6,909.19	41.37	237.84	67.07	1,355.73	-4,987.91	5,891.39	5,613.71	277.68	21.216		
7,400.00	6,979.23	6,932.23	6,979.23	41.75	240.28	65.75	1,355.73	-4,987.91	5,853.32	5,572.76	280.56	20.863		
7,500.00	7,038.53	7,008.47	7,038.53	42.08	242.94	66.81	1,355.73	-4,987.91	5,805.09	5,521.43	283.66	20.465		
7,600.00	7,085.63	7,038.63	7,085.63	42.37	244.00	70.00	1,355.73	-4,987.91	5,748.01	5,462.84	285.17	20.156		
7,700.00	7,119.37	7,072.37	7,119.37	42.64	245.17	75.24	1,355.73	-4,987.91	5,683.56	5,396.70	286.86	19.813		
7,800.00	7,138.92	7,108.08	7,138.92	42.91	246.42	82.52	1,355.73	-4,987.91	5,613.34	5,324.66	288.68	19.445		
7,900.00	7,143.92	7,103.08	7,143.92	43.25	246.25	90.37	1,355.73	-4,987.91	5,539.09	5,249.94	289.14	19.157		
8,000.00	7,143.35	7,103.65	7,143.35	43.72	246.27	90.36	1,355.73	-4,987.91	5,464.17	5,174.29	289.87	18.850		
8,100.00	7,142.78	7,104.22	7,142.78	44.42	246.29	90.36	1,355.73	-4,987.91	5,390.06	5,099.36	290.70	18.542		
8,200.00	7,142.22	7,104.78	7,142.22	45.39	246.30	90.35	1,355.73	-4,987.91	5,316.80	5,025.17	291.63	18.231		
8,300.00	7,141.65	7,105.35	7,141.65	46.63	246.32	90.34	1,355.73	-4,987.91	5,244.43	4,951.77	292.66	17.920		
8,400.00	7,141.08	7,105.92	7,141.08	48.09	246.34	90.33	1,355.73	-4,987.91	5,172.97	4,879.18	293.80	17.607		
8,500.00	7,140.51	7,106.49	7,140.51	49.74	246.36	90.32	1,355.73	-4,987.91	5,102.48	4,807.44	295.04	17.294		
8,600.00	7,139.94	7,107.06	7,139.94	51.53	246.38	90.31	1,355.73	-4,987.91	5,032.98	4,736.60	296.38	16.981		
8,700.00	7,139.37	7,107.63	7,139.37	53.44	246.40	90.30	1,355.73	-4,987.91	4,964.53	4,666.70	297.83	16.669		
8,800.00	7,138.80	7,108.20	7,138.80	55.45	246.42	90.29	1,355.73	-4,987.91	4,897.16	4,597.78	299.38	16.357		
8,900.00	7,138.24	7,108.76	7,138.24	57.55	246.44	90.28	1,355.73	-4,987.91	4,830.93	4,529.88	301.04	16.047		
9,000.00	7,137.67	7,109.33	7,137.67	59.71	246.46	90.27	1,355.73	-4,987.91	4,765.87	4,463.06	302.80	15.739		
9,100.00	7,137.10	7,109.90	7,137.10	61.94	246.48	90.27	1,355.73	-4,987.91	4,702.03	4,397.37	304.66	15.434		
9,200.00	7,136.53	7,089.53	7,136.53	64.22	245.77	90.26	1,355.73	-4,987.91	4,639.48	4,333.58	305.89	15.167		
9,300.00	7,135.96	7,088.96	7,135.96	66.55	245.75	90.25	1,355.73	-4,987.91	4,578.25	4,270.34	307.91	14.869		
9,400.00	7,135.39	7,088.39	7,135.39	68.92	245.73	90.24	1,355.73	-4,987.91	4,518.41	4,208.38	310.02	14.574		
9,500.00	7,134.83	7,087.83	7,134.83	71.33	245.71	90.23	1,355.73	-4,987.91	4,460.00	4,147.77	312.23	14.284		
9,600.00	7,134.26	7,087.26	7,134.26	73.77	245.69	90.22	1,355.73	-4,987.91	4,403.10	4,088.57	314.53	13.999		
9,700.00	7,133.69	7,086.69	7,133.69	76.24	245.67	90.21	1,355.73	-4,987.91	4,347.75	4,030.84	316.91	13.719		
9,800.00	7,133.12	7,086.12	7,133.12	78.74	245.65	90.20	1,355.73	-4,987.91	4,294.01	3,974.64	319.37	13.445		
9,900.00	7,132.55	7,085.55	7,132.55	81.27	245.63	90.19	1,355.73	-4,987.91	4,241.95	3,920.04	321.92	13.177		
10,000.00	7,131.98	7,084.98	7,131.98	83.81	245.61	90.19	1,355.73	-4,987.91	4,191.63	3,867.10	324.53	12.916		
10,100.00	7,131.42	7,084.42	7,131.42	86.38	245.59	90.18	1,355.73	-4,987.91	4,143.12	3,815.89	327.22	12.661		
10,200.00	7,130.85	7,083.85	7,130.85	88.96	245.57	90.17	1,355.73	-4,987.91	4,096.47	3,766.49	329.98	12.414		
10,300.00	7,130.28	7,083.28	7,130.28	91.56	245.55	90.16	1,355.73	-4,987.91	4,051.75	3,718.96	332.79	12.175		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,082.71	7,129.71	94.18	245.53	90.15	1,355.73	-4,987.91	4,009.03	3,673.37	335.65	11.944		
10,500.00	7,129.14	7,082.14	7,129.14	96.81	245.51	90.14	1,355.73	-4,987.91	3,968.36	3,629.80	338.57	11.721		
10,600.00	7,128.57	7,081.57	7,128.57	99.45	245.49	90.13	1,355.73	-4,987.91	3,929.83	3,588.31	341.52	11.507		
10,700.00	7,128.00	7,081.00	7,128.00	102.11	245.47	90.12	1,355.73	-4,987.91	3,893.48	3,548.97	344.51	11.302		
10,800.00	7,127.44	7,080.44	7,127.44	104.77	245.45	90.11	1,355.73	-4,987.91	3,859.38	3,511.86	347.52	11.106		
10,900.00	7,126.87	7,079.87	7,126.87	107.45	245.44	90.10	1,355.73	-4,987.91	3,827.58	3,477.04	350.55	10.919		
11,000.00	7,126.30	7,079.30	7,126.30	110.13	245.42	90.10	1,355.73	-4,987.91	3,798.16	3,444.58	353.58	10.742		
11,100.00	7,125.73	7,078.73	7,125.73	112.82	245.40	90.09	1,355.73	-4,987.91	3,771.16	3,414.54	356.62	10.575		
11,200.00	7,125.16	7,078.16	7,125.16	115.53	245.38	90.08	1,355.73	-4,987.91	3,746.63	3,386.98	359.65	10.417		
11,300.00	7,124.59	7,077.59	7,124.59	118.24	245.36	90.07	1,355.73	-4,987.91	3,724.63	3,361.97	362.66	10.270		
11,400.00	7,124.03	7,077.03	7,124.03	120.95	245.34	90.06	1,355.73	-4,987.91	3,705.20	3,339.55	365.64	10.133		
11,500.00	7,123.46	7,076.46	7,123.46	123.67	245.32	90.05	1,355.73	-4,987.91	3,688.38	3,319.78	368.59	10.007		
11,600.00	7,122.89	7,075.89	7,122.89	126.40	245.30	90.04	1,355.73	-4,987.91	3,674.20	3,302.70	371.49	9.890		
11,700.00	7,122.32	7,075.32	7,122.32	129.14	245.28	90.03	1,355.73	-4,987.91	3,662.70	3,288.36	374.34	9.784		
11,800.00	7,121.75	7,074.75	7,121.75	131.88	245.26	90.02	1,355.73	-4,987.91	3,653.90	3,276.77	377.13	9.689		
11,900.00	7,121.18	7,074.18	7,121.18	134.62	245.24	90.02	1,355.73	-4,987.91	3,647.82	3,267.98	379.84	9.604		
12,000.00	7,120.61	7,073.61	7,120.61	137.37	245.22	90.01	1,355.73	-4,987.91	3,644.48	3,262.00	382.48	9.529		
12,071.93	7,120.21	7,073.21	7,120.21	139.35	245.20	90.00	1,355.73	-4,987.91	3,643.77	3,259.45	384.32	9.481 CC		
12,100.00	7,120.05	7,073.05	7,120.05	140.12	245.20	90.00	1,355.73	-4,987.91	3,643.87	3,258.85	385.02	9.464		
12,200.00	7,119.48	7,072.48	7,119.48	142.88	245.18	89.99	1,355.73	-4,987.91	3,646.02	3,258.54	387.48	9.410 ES		
12,300.00	7,118.91	7,071.91	7,118.91	145.64	245.16	89.98	1,355.73	-4,987.91	3,650.90	3,261.06	389.84	9.365		
12,400.00	7,118.34	7,071.34	7,118.34	148.41	245.14	89.97	1,355.73	-4,987.91	3,658.50	3,266.42	392.09	9.331		
12,500.00	7,117.77	7,070.77	7,117.77	151.18	245.12	89.96	1,355.73	-4,987.91	3,668.82	3,274.59	394.23	9.306		
12,600.00	7,117.20	7,070.20	7,117.20	153.95	245.10	89.95	1,355.73	-4,987.91	3,681.83	3,285.56	396.27	9.291		
12,700.00	7,116.64	7,069.64	7,116.64	156.73	245.08	89.94	1,355.73	-4,987.91	3,697.50	3,299.31	398.19	9.286 SF		
12,800.00	7,116.07	7,069.07	7,116.07	159.50	245.06	89.93	1,355.73	-4,987.91	3,715.79	3,315.80	399.99	9.290		
12,900.00	7,115.50	7,068.50	7,115.50	162.29	245.04	89.93	1,355.73	-4,987.91	3,736.67	3,335.00	401.67	9.303		
13,000.00	7,114.93	7,067.93	7,114.93	165.07	245.02	89.92	1,355.73	-4,987.91	3,760.10	3,356.85	403.24	9.325		
13,100.00	7,114.36	7,067.36	7,114.36	167.86	245.00	89.91	1,355.73	-4,987.91	3,786.02	3,381.32	404.69	9.355		
13,200.00	7,113.79	7,066.79	7,113.79	170.64	244.98	89.90	1,355.73	-4,987.91	3,814.38	3,408.35	406.03	9.394		
13,300.00	7,113.22	7,066.22	7,113.22	173.44	244.96	89.89	1,355.73	-4,987.91	3,845.14	3,437.89	407.25	9.442		
13,400.00	7,112.66	7,065.66	7,112.66	176.23	244.94	89.88	1,355.73	-4,987.91	3,878.24	3,469.87	408.37	9.497		
13,500.00	7,112.09	7,065.09	7,112.09	179.02	244.92	89.87	1,355.73	-4,987.91	3,913.61	3,504.24	409.37	9.560		
13,600.00	7,111.52	7,064.52	7,111.52	181.82	244.90	89.86	1,355.73	-4,987.91	3,951.20	3,540.92	410.27	9.631		
13,700.00	7,110.95	7,063.95	7,110.95	184.62	244.88	89.85	1,355.73	-4,987.91	3,990.93	3,579.86	411.07	9.709		
13,800.00	7,110.38	7,063.38	7,110.38	187.42	244.86	89.85	1,355.73	-4,987.91	4,032.76	3,620.99	411.78	9.794		
13,900.00	7,109.81	7,062.81	7,109.81	190.22	244.84	89.84	1,355.73	-4,987.91	4,076.61	3,664.23	412.39	9.885		
14,000.00	7,109.25	7,062.25	7,109.25	193.03	244.82	89.83	1,355.73	-4,987.91	4,122.42	3,709.51	412.91	9.984		
14,100.00	7,108.68	7,061.68	7,108.68	195.84	244.80	89.82	1,355.73	-4,987.91	4,170.13	3,756.78	413.35	10.089		
14,200.00	7,108.11	7,061.11	7,108.11	198.64	244.78	89.81	1,355.73	-4,987.91	4,219.66	3,805.95	413.71	10.199		
14,300.00	7,107.54	7,060.54	7,107.54	201.45	244.76	89.80	1,355.73	-4,987.91	4,270.97	3,856.97	414.00	10.316		
14,400.00	7,106.97	7,059.97	7,106.97	204.26	244.74	89.79	1,355.73	-4,987.91	4,323.98	3,909.76	414.22	10.439		
14,500.00	7,106.40	7,059.40	7,106.40	207.07	244.72	89.78	1,355.73	-4,987.91	4,378.63	3,964.25	414.37	10.567		
14,600.00	7,105.83	7,058.83	7,105.83	209.89	244.70	89.77	1,355.73	-4,987.91	4,434.86	4,020.39	414.47	10.700		
14,700.00	7,105.27	7,058.27	7,105.27	212.70	244.68	89.77	1,355.73	-4,987.91	4,492.61	4,078.11	414.50	10.839		
14,800.00	7,104.70	7,057.70	7,104.70	215.52	244.66	89.76	1,355.73	-4,987.91	4,551.83	4,137.34	414.49	10.982		
14,900.00	7,104.13	7,057.13	7,104.13	218.33	244.64	89.75	1,355.73	-4,987.91	4,612.46	4,198.03	414.43	11.130		
15,000.00	7,103.56	7,056.56	7,103.56	221.15	244.62	89.74	1,355.73	-4,987.91	4,674.44	4,260.12	414.32	11.282		
15,100.00	7,102.99	7,055.99	7,102.99	223.97	244.60	89.73	1,355.73	-4,987.91	4,737.72	4,323.54	414.17	11.439		
15,200.00	7,102.42	7,055.42	7,102.42	226.79	244.58	89.72	1,355.73	-4,987.91	4,802.24	4,388.26	413.99	11.600		
15,274.57	7,102.00	7,055.00	7,102.00	228.89	244.57	89.71	1,355.73	-4,987.91	4,851.14	4,437.32	413.83	11.723		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	45.00	3.28	3.28	-74.95	1,376.52	-5,117.79	5,299.87					
100.00	100.00	55.00	100.00	3.28	3.42	-74.95	1,376.52	-5,117.79	5,299.68	5,292.97	6.70	790.721		
200.00	200.00	155.00	200.00	3.34	4.92	-74.95	1,376.52	-5,117.79	5,299.68	5,291.42	8.26	641.931		
300.00	299.98	254.98	299.98	3.44	7.87	101.11	1,376.52	-5,117.79	5,300.01	5,288.70	11.31	468.568		
400.00	399.84	354.84	399.84	3.59	11.14	101.14	1,376.52	-5,117.79	5,301.02	5,286.30	14.72	360.017		
500.00	499.45	454.45	499.45	3.79	14.50	101.20	1,376.52	-5,117.79	5,302.72	5,284.44	18.28	290.055		
600.00	598.70	553.70	598.70	4.03	17.89	101.28	1,376.52	-5,117.79	5,305.11	5,283.20	21.92	242.057		
700.00	697.47	652.47	697.47	4.31	21.29	101.39	1,376.52	-5,117.79	5,308.23	5,282.62	25.60	207.351		
800.00	795.62	750.62	795.62	4.64	24.68	101.51	1,376.52	-5,117.79	5,312.08	5,282.77	29.32	181.207		
900.00	893.06	848.06	893.06	5.00	28.05	101.65	1,376.52	-5,117.79	5,316.71	5,283.66	33.05	160.869		
1,000.00	989.64	944.64	989.64	5.40	31.40	101.81	1,376.52	-5,117.79	5,322.15	5,285.35	36.80	144.637		
1,100.00	1,085.27	1,040.27	1,085.27	5.83	34.73	101.98	1,376.52	-5,117.79	5,328.44	5,287.89	40.55	131.412		
1,200.00	1,179.88	1,134.88	1,179.88	6.29	38.02	102.21	1,376.52	-5,117.79	5,335.58	5,291.28	44.30	120.451		
1,300.00	1,274.26	1,229.26	1,274.26	6.78	41.30	102.54	1,376.52	-5,117.79	5,343.07	5,295.01	48.06	111.167		
1,400.00	1,368.63	1,323.63	1,368.63	7.28	44.58	102.87	1,376.52	-5,117.79	5,350.75	5,298.91	51.85	103.202		
1,500.00	1,463.00	1,418.00	1,463.00	7.80	47.87	103.19	1,376.52	-5,117.79	5,358.63	5,302.99	55.65	96.300		
1,600.00	1,557.38	1,512.38	1,557.38	8.33	51.16	103.52	1,376.52	-5,117.79	5,366.70	5,307.25	59.45	90.266		
1,700.00	1,651.75	1,606.75	1,651.75	8.87	54.45	103.84	1,376.52	-5,117.79	5,374.96	5,311.69	63.27	84.949		
1,800.00	1,746.12	1,701.12	1,746.12	9.41	57.73	104.17	1,376.52	-5,117.79	5,383.41	5,316.31	67.10	80.232		
1,900.00	1,840.49	1,804.51	1,840.49	9.96	61.34	104.49	1,376.52	-5,117.79	5,392.05	5,320.81	71.24	75.684		
2,000.00	1,934.87	1,899.87	1,934.87	10.52	64.31	104.81	1,376.52	-5,117.79	5,400.88	5,326.11	74.77	72.236		
2,100.00	2,029.24	1,984.24	2,029.24	11.08	67.60	105.13	1,376.52	-5,117.79	5,409.90	5,331.29	78.61	68.821		
2,200.00	2,123.61	2,078.61	2,123.61	11.64	70.89	105.45	1,376.52	-5,117.79	5,419.10	5,336.65	82.45	65.724		
2,300.00	2,217.99	2,172.99	2,217.99	12.21	74.19	105.77	1,376.52	-5,117.79	5,428.49	5,342.19	86.30	62.903		
2,400.00	2,312.36	2,267.36	2,312.36	12.78	77.48	106.09	1,376.52	-5,117.79	5,438.07	5,347.92	90.15	60.323		
2,500.00	2,406.73	2,361.73	2,406.73	13.35	80.77	106.41	1,376.52	-5,117.79	5,447.82	5,353.82	94.00	57.955		
2,600.00	2,501.10	2,456.10	2,501.10	13.93	84.06	106.72	1,376.52	-5,117.79	5,457.77	5,359.91	97.86	55.774		
2,700.00	2,595.48	2,550.48	2,595.48	14.51	87.35	107.04	1,376.52	-5,117.79	5,467.89	5,366.18	101.71	53.759		
2,800.00	2,689.85	2,644.85	2,689.85	15.08	90.65	107.35	1,376.52	-5,117.79	5,478.19	5,372.63	105.57	51.893		
2,900.00	2,784.22	2,739.22	2,784.22	15.66	93.94	107.66	1,376.52	-5,117.79	5,488.68	5,379.25	109.42	50.160		
3,000.00	2,878.60	2,833.60	2,878.60	16.25	97.23	107.98	1,376.52	-5,117.79	5,499.34	5,386.06	113.28	48.546		
3,100.00	2,972.97	2,927.97	2,972.97	16.83	100.52	108.29	1,376.52	-5,117.79	5,510.18	5,393.04	117.14	47.039		
3,200.00	3,067.34	3,022.34	3,067.34	17.41	103.82	108.60	1,376.52	-5,117.79	5,521.20	5,400.20	121.00	45.630		
3,300.00	3,161.72	3,116.72	3,161.72	18.00	107.11	108.90	1,376.52	-5,117.79	5,532.39	5,407.54	124.86	44.310		
3,400.00	3,256.09	3,211.09	3,256.09	18.58	110.40	109.21	1,376.52	-5,117.79	5,543.76	5,415.05	128.72	43.069		
3,500.00	3,350.46	3,305.46	3,350.46	19.17	113.70	109.52	1,376.52	-5,117.79	5,555.30	5,422.73	132.58	41.903		
3,600.00	3,444.83	3,400.17	3,444.83	19.75	117.00	109.82	1,376.52	-5,117.79	5,567.02	5,430.57	136.45	40.800		
3,700.00	3,539.21	3,505.79	3,539.21	20.34	120.69	110.13	1,376.52	-5,117.79	5,578.91	5,438.21	140.70	39.651		
3,800.00	3,633.58	3,598.58	3,633.58	20.93	123.58	110.43	1,376.52	-5,117.79	5,590.96	5,446.81	144.15	38.784		
3,900.00	3,727.95	3,682.95	3,727.95	21.52	126.87	110.73	1,376.52	-5,117.79	5,603.19	5,455.17	148.01	37.856		
4,000.00	3,822.33	3,777.33	3,822.33	22.11	130.16	111.03	1,376.52	-5,117.79	5,615.58	5,463.71	151.87	36.976		
4,100.00	3,916.70	3,871.70	3,916.70	22.70	133.46	111.33	1,376.52	-5,117.79	5,628.14	5,472.41	155.73	36.140		
4,200.00	4,011.07	3,966.07	4,011.07	23.29	136.75	111.63	1,376.52	-5,117.79	5,640.87	5,481.28	159.59	35.346		
4,300.00	4,105.44	4,060.44	4,105.44	23.88	140.04	111.92	1,376.52	-5,117.79	5,653.76	5,490.31	163.45	34.591		
4,400.00	4,199.82	4,154.82	4,199.82	24.47	143.34	112.22	1,376.52	-5,117.79	5,666.82	5,499.51	167.31	33.871		
4,500.00	4,294.19	4,249.19	4,294.19	25.06	146.63	112.51	1,376.52	-5,117.79	5,680.03	5,508.87	171.16	33.185		
4,600.00	4,388.56	4,343.56	4,388.56	25.65	149.92	112.81	1,376.52	-5,117.79	5,693.41	5,518.39	175.02	32.530		
4,700.00	4,482.94	4,437.94	4,482.94	26.24	153.22	113.10	1,376.52	-5,117.79	5,706.95	5,528.08	178.88	31.905		
4,800.00	4,577.31	4,532.31	4,577.31	26.83	156.51	113.39	1,376.52	-5,117.79	5,720.65	5,537.92	182.73	31.306		
4,900.00	4,671.68	4,626.68	4,671.68	27.43	159.81	113.68	1,376.52	-5,117.79	5,734.51	5,547.92	186.59	30.734		
5,000.00	4,766.05	4,721.05	4,766.05	28.02	163.10	113.96	1,376.52	-5,117.79	5,748.52	5,558.08	190.44	30.185		
5,100.00	4,860.43	4,815.43	4,860.43	28.61	166.39	114.25	1,376.52	-5,117.79	5,762.69	5,568.39	194.30	29.659		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,909.80	4,954.80	29.20	169.69	114.54	1,376.52	-5,117.79	5,777.01	5,578.86	198.15	29.155		
5,300.00	5,049.17	5,004.17	5,049.17	29.80	172.98	114.82	1,376.52	-5,117.79	5,791.49	5,589.49	202.00	28.670		
5,400.00	5,143.55	5,101.45	5,143.55	30.39	176.38	115.10	1,376.52	-5,117.79	5,806.12	5,600.16	205.96	28.191		
5,500.00	5,237.92	5,207.08	5,237.92	30.99	180.06	115.38	1,376.52	-5,117.79	5,820.90	5,610.70	210.20	27.692		
5,600.00	5,332.29	5,287.29	5,332.29	31.58	182.86	115.66	1,376.52	-5,117.79	5,835.83	5,622.27	213.56	27.327		
5,700.00	5,426.66	5,381.66	5,426.66	32.17	186.16	115.94	1,376.52	-5,117.79	5,850.91	5,633.50	217.41	26.912		
5,800.00	5,521.04	5,476.04	5,521.04	32.77	189.45	116.22	1,376.52	-5,117.79	5,866.14	5,644.88	221.26	26.513		
5,900.00	5,615.41	5,570.41	5,615.41	33.36	192.75	116.50	1,376.52	-5,117.79	5,881.51	5,656.41	225.11	26.128		
6,000.00	5,709.78	5,664.78	5,709.78	33.96	196.04	116.77	1,376.52	-5,117.79	5,897.03	5,668.08	228.96	25.756		
6,100.00	5,804.16	5,759.16	5,804.16	34.55	199.33	117.04	1,376.52	-5,117.79	5,912.70	5,679.89	232.80	25.398		
6,200.00	5,898.53	5,853.53	5,898.53	35.14	202.63	117.32	1,376.52	-5,117.79	5,928.50	5,691.85	236.65	25.052		
6,300.00	5,992.90	5,947.90	5,992.90	35.74	205.92	117.59	1,376.52	-5,117.79	5,944.45	5,703.95	240.50	24.717		
6,400.00	6,087.27	6,042.27	6,087.27	36.33	209.22	117.86	1,376.52	-5,117.79	5,960.54	5,716.20	244.34	24.394		
6,500.00	6,181.65	6,136.65	6,181.65	36.93	212.51	118.12	1,376.52	-5,117.79	5,976.77	5,728.58	248.19	24.082		
6,600.00	6,276.02	6,231.02	6,276.02	37.52	215.80	118.39	1,376.52	-5,117.79	5,993.14	5,741.10	252.03	23.779		
6,700.00	6,370.39	6,325.39	6,370.39	38.12	219.10	118.66	1,376.52	-5,117.79	6,009.64	5,753.76	255.88	23.486		
6,800.00	6,464.77	6,419.77	6,464.77	38.71	222.39	118.92	1,376.52	-5,117.79	6,026.28	5,766.56	259.72	23.203		
6,900.00	6,559.14	6,514.14	6,559.14	39.31	225.69	118.96	1,376.52	-5,117.79	6,043.06	5,779.50	263.56	22.928		
7,000.00	6,652.92	6,607.92	6,652.92	39.90	228.96	95.51	1,376.52	-5,117.79	6,053.36	5,785.97	267.39	22.639		
7,100.00	6,744.00	6,701.00	6,744.00	40.44	232.21	79.87	1,376.52	-5,117.79	6,050.77	5,779.60	271.17	22.314		
7,200.00	6,830.13	6,785.13	6,830.13	40.94	235.15	70.98	1,376.52	-5,117.79	6,035.51	5,760.92	274.59	21.980		
7,300.00	6,909.19	6,864.19	6,909.19	41.37	237.91	66.58	1,376.52	-5,117.79	6,008.12	5,730.31	277.81	21.627		
7,400.00	6,979.23	6,934.23	6,979.23	41.75	240.35	65.26	1,376.52	-5,117.79	5,969.42	5,688.74	280.68	21.267		
7,500.00	7,038.53	7,006.47	7,038.53	42.08	242.87	66.35	1,376.52	-5,117.79	5,920.52	5,636.88	283.64	20.873		
7,600.00	7,085.63	7,040.63	7,085.63	42.37	244.07	69.58	1,376.52	-5,117.79	5,862.71	5,577.42	285.29	20.550		
7,700.00	7,119.37	7,074.37	7,119.37	42.64	245.24	74.91	1,376.52	-5,117.79	5,797.49	5,510.51	286.98	20.202		
7,800.00	7,138.92	7,106.08	7,138.92	42.91	246.35	82.34	1,376.52	-5,117.79	5,726.48	5,437.83	288.65	19.839		
7,900.00	7,143.92	7,101.08	7,143.92	43.25	246.18	90.38	1,376.52	-5,117.79	5,651.43	5,362.33	289.10	19.548		
8,000.00	7,143.35	7,101.65	7,143.35	43.72	246.20	90.37	1,376.52	-5,117.79	5,575.69	5,285.87	289.82	19.238		
8,100.00	7,142.78	7,102.22	7,142.78	44.42	246.22	90.36	1,376.52	-5,117.79	5,500.73	5,210.10	290.63	18.927		
8,200.00	7,142.22	7,102.78	7,142.22	45.39	246.24	90.36	1,376.52	-5,117.79	5,426.58	5,135.03	291.55	18.613		
8,300.00	7,141.65	7,103.35	7,141.65	46.63	246.25	90.35	1,376.52	-5,117.79	5,353.26	5,060.71	292.56	18.298		
8,400.00	7,141.08	7,103.92	7,141.08	48.09	246.27	90.34	1,376.52	-5,117.79	5,280.82	4,987.16	293.67	17.982		
8,500.00	7,140.51	7,104.49	7,140.51	49.74	246.29	90.33	1,376.52	-5,117.79	5,209.30	4,914.42	294.88	17.666		
8,600.00	7,139.94	7,105.06	7,139.94	51.53	246.31	90.32	1,376.52	-5,117.79	5,138.72	4,842.52	296.20	17.349		
8,700.00	7,139.37	7,105.63	7,139.37	53.44	246.33	90.31	1,376.52	-5,117.79	5,069.14	4,771.52	297.62	17.032		
8,800.00	7,138.80	7,106.20	7,138.80	55.45	246.35	90.30	1,376.52	-5,117.79	5,000.59	4,701.44	299.14	16.716		
8,900.00	7,138.24	7,106.76	7,138.24	57.55	246.37	90.29	1,376.52	-5,117.79	4,933.11	4,632.34	300.77	16.402		
9,000.00	7,137.67	7,107.33	7,137.67	59.71	246.39	90.28	1,376.52	-5,117.79	4,866.75	4,564.25	302.49	16.089		
9,100.00	7,137.10	7,107.90	7,137.10	61.94	246.41	90.28	1,376.52	-5,117.79	4,801.55	4,497.23	304.32	15.778		
9,200.00	7,136.53	7,108.47	7,136.53	64.22	246.43	90.27	1,376.52	-5,117.79	4,737.57	4,431.33	306.24	15.470		
9,300.00	7,135.96	7,109.04	7,135.96	66.55	246.45	90.26	1,376.52	-5,117.79	4,674.86	4,366.59	308.27	15.165		
9,400.00	7,135.39	7,109.61	7,135.39	68.92	246.47	90.25	1,376.52	-5,117.79	4,613.45	4,303.07	310.38	14.864		
9,500.00	7,134.83	7,089.83	7,134.83	71.33	245.78	90.24	1,376.52	-5,117.79	4,553.42	4,241.54	311.88	14.600		
9,600.00	7,134.26	7,089.26	7,134.26	73.77	245.76	90.23	1,376.52	-5,117.79	4,494.81	4,180.67	314.14	14.308		
9,700.00	7,133.69	7,088.69	7,133.69	76.24	245.74	90.22	1,376.52	-5,117.79	4,437.68	4,121.19	316.49	14.022		
9,800.00	7,133.12	7,088.12	7,133.12	78.74	245.72	90.21	1,376.52	-5,117.79	4,382.09	4,063.17	318.92	13.741		
9,900.00	7,132.55	7,087.55	7,132.55	81.27	245.70	90.20	1,376.52	-5,117.79	4,328.09	4,006.66	321.43	13.465		
10,000.00	7,131.98	7,086.98	7,131.98	83.81	245.68	90.20	1,376.52	-5,117.79	4,275.75	3,951.73	324.02	13.196		
10,100.00	7,131.42	7,086.42	7,131.42	86.38	245.66	90.19	1,376.52	-5,117.79	4,225.13	3,898.45	326.68	12.934		
10,200.00	7,130.85	7,085.85	7,130.85	88.96	245.64	90.18	1,376.52	-5,117.79	4,176.29	3,846.88	329.41	12.678		
10,300.00	7,130.28	7,085.28	7,130.28	91.56	245.62	90.17	1,376.52	-5,117.79	4,129.29	3,797.09	332.20	12.430		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH												Offset Well Error:	3.28 ft
Survey Program: 100-2" Cone@2.448 Sigma													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,400.00	7,129.71	7,084.71	7,129.71	94.18	245.60	90.16	1,376.52	-5,117.79	4,084.21	3,749.15	335.05	12.190	
10,500.00	7,129.14	7,084.14	7,129.14	96.81	245.58	90.15	1,376.52	-5,117.79	4,041.09	3,703.13	337.96	11.957	
10,600.00	7,128.57	7,083.57	7,128.57	99.45	245.56	90.14	1,376.52	-5,117.79	4,000.01	3,659.10	340.91	11.733	
10,700.00	7,128.00	7,083.00	7,128.00	102.11	245.54	90.13	1,376.52	-5,117.79	3,961.03	3,617.14	343.90	11.518	
10,800.00	7,127.44	7,082.44	7,127.44	104.77	245.52	90.12	1,376.52	-5,117.79	3,924.21	3,577.30	346.92	11.312	
10,900.00	7,126.87	7,081.87	7,126.87	107.45	245.50	90.12	1,376.52	-5,117.79	3,889.62	3,539.65	349.96	11.114	
11,000.00	7,126.30	7,081.30	7,126.30	110.13	245.49	90.11	1,376.52	-5,117.79	3,857.30	3,504.28	353.02	10.926	
11,100.00	7,125.73	7,080.73	7,125.73	112.82	245.47	90.10	1,376.52	-5,117.79	3,827.33	3,471.23	356.10	10.748	
11,200.00	7,125.16	7,080.16	7,125.16	115.53	245.45	90.09	1,376.52	-5,117.79	3,799.75	3,440.59	359.17	10.579	
11,300.00	7,124.59	7,079.59	7,124.59	118.24	245.43	90.08	1,376.52	-5,117.79	3,774.62	3,412.40	362.23	10.421	
11,400.00	7,124.03	7,079.03	7,124.03	120.95	245.41	90.07	1,376.52	-5,117.79	3,751.99	3,386.72	365.27	10.272	
11,500.00	7,123.46	7,078.46	7,123.46	123.67	245.39	90.06	1,376.52	-5,117.79	3,731.91	3,363.62	368.29	10.133	
11,600.00	7,122.89	7,077.89	7,122.89	126.40	245.37	90.05	1,376.52	-5,117.79	3,714.40	3,343.13	371.27	10.005	
11,700.00	7,122.32	7,077.32	7,122.32	129.14	245.35	90.04	1,376.52	-5,117.79	3,699.52	3,325.32	374.21	9.886	
11,800.00	7,121.75	7,076.75	7,121.75	131.88	245.33	90.04	1,376.52	-5,117.79	3,687.29	3,310.21	377.09	9.778	
11,900.00	7,121.18	7,076.18	7,121.18	134.62	245.31	90.03	1,376.52	-5,117.79	3,677.74	3,297.84	379.91	9.681	
12,000.00	7,120.61	7,075.61	7,120.61	137.37	245.29	90.02	1,376.52	-5,117.79	3,670.89	3,288.24	382.65	9.593	
12,100.00	7,120.05	7,075.05	7,120.05	140.12	245.27	90.01	1,376.52	-5,117.79	3,666.76	3,281.44	385.32	9.516	
12,200.00	7,119.48	7,074.48	7,119.48	142.88	245.25	90.00	1,376.52	-5,117.79	3,665.35	3,277.45	387.90	9.449	
12,201.68	7,119.47	7,074.47	7,119.47	142.93	245.25	90.00	1,376.52	-5,117.79	3,665.35	3,277.40	387.95	9.448 CC	
12,300.00	7,118.91	7,073.91	7,118.91	145.64	245.23	89.99	1,376.52	-5,117.79	3,666.67	3,276.28	390.39	9.392 ES	
12,400.00	7,118.34	7,073.34	7,118.34	148.41	245.21	89.98	1,376.52	-5,117.79	3,670.71	3,277.93	392.78	9.345	
12,500.00	7,117.77	7,072.77	7,117.77	151.18	245.19	89.97	1,376.52	-5,117.79	3,677.47	3,282.40	395.07	9.308	
12,600.00	7,117.20	7,072.20	7,117.20	153.95	245.17	89.96	1,376.52	-5,117.79	3,686.93	3,289.68	397.24	9.281	
12,700.00	7,116.64	7,071.64	7,116.64	156.73	245.15	89.96	1,376.52	-5,117.79	3,699.07	3,299.76	399.31	9.264	
12,800.00	7,116.07	7,071.07	7,116.07	159.50	245.13	89.95	1,376.52	-5,117.79	3,713.86	3,312.60	401.26	9.256 SF	
12,900.00	7,115.50	7,070.50	7,115.50	162.29	245.11	89.94	1,376.52	-5,117.79	3,731.28	3,328.19	403.09	9.257	
13,000.00	7,114.93	7,069.93	7,114.93	165.07	245.09	89.93	1,376.52	-5,117.79	3,751.28	3,346.47	404.80	9.267	
13,100.00	7,114.36	7,069.36	7,114.36	167.86	245.07	89.92	1,376.52	-5,117.79	3,773.82	3,367.42	406.40	9.286	
13,200.00	7,113.79	7,068.79	7,113.79	170.64	245.05	89.91	1,376.52	-5,117.79	3,798.87	3,390.99	407.88	9.314	
13,300.00	7,113.22	7,068.22	7,113.22	173.44	245.03	89.90	1,376.52	-5,117.79	3,826.36	3,417.12	409.24	9.350	
13,400.00	7,112.66	7,067.66	7,112.66	176.23	245.01	89.89	1,376.52	-5,117.79	3,856.26	3,445.77	410.48	9.394	
13,500.00	7,112.09	7,067.09	7,112.09	179.02	244.99	89.88	1,376.52	-5,117.79	3,888.49	3,476.87	411.62	9.447	
13,600.00	7,111.52	7,066.52	7,111.52	181.82	244.97	89.88	1,376.52	-5,117.79	3,923.01	3,510.37	412.64	9.507	
13,700.00	7,110.95	7,065.95	7,110.95	184.62	244.95	89.87	1,376.52	-5,117.79	3,959.76	3,546.20	413.56	9.575	
13,800.00	7,110.38	7,065.38	7,110.38	187.42	244.93	89.86	1,376.52	-5,117.79	3,998.67	3,584.29	414.37	9.650	
13,900.00	7,109.81	7,064.81	7,109.81	190.22	244.91	89.85	1,376.52	-5,117.79	4,039.68	3,624.59	415.09	9.732	
14,000.00	7,109.25	7,064.25	7,109.25	193.03	244.89	89.84	1,376.52	-5,117.79	4,082.72	3,667.01	415.71	9.821	
14,100.00	7,108.68	7,063.68	7,108.68	195.84	244.87	89.83	1,376.52	-5,117.79	4,127.75	3,711.50	416.24	9.917	
14,200.00	7,108.11	7,063.11	7,108.11	198.64	244.85	89.82	1,376.52	-5,117.79	4,174.68	3,757.99	416.69	10.019	
14,300.00	7,107.54	7,062.54	7,107.54	201.45	244.83	89.81	1,376.52	-5,117.79	4,223.46	3,806.40	417.05	10.127	
14,400.00	7,106.97	7,061.97	7,106.97	204.26	244.81	89.80	1,376.52	-5,117.79	4,274.02	3,856.67	417.34	10.241	
14,500.00	7,106.40	7,061.40	7,106.40	207.07	244.79	89.80	1,376.52	-5,117.79	4,326.30	3,908.74	417.56	10.361	
14,600.00	7,105.83	7,060.83	7,105.83	209.89	244.77	89.79	1,376.52	-5,117.79	4,380.24	3,962.53	417.72	10.486	
14,700.00	7,105.27	7,060.27	7,105.27	212.70	244.75	89.78	1,376.52	-5,117.79	4,435.78	4,017.98	417.81	10.617	
14,800.00	7,104.70	7,059.70	7,104.70	215.52	244.73	89.77	1,376.52	-5,117.79	4,492.86	4,075.03	417.84	10.753	
14,900.00	7,104.13	7,059.13	7,104.13	218.33	244.71	89.76	1,376.52	-5,117.79	4,551.43	4,133.61	417.82	10.893	
15,000.00	7,103.56	7,058.56	7,103.56	221.15	244.69	89.75	1,376.52	-5,117.79	4,611.41	4,193.66	417.75	11.039	
15,100.00	7,102.99	7,057.99	7,102.99	223.97	244.67	89.74	1,376.52	-5,117.79	4,672.77	4,255.14	417.63	11.189	
15,200.00	7,102.42	7,057.42	7,102.42	226.79	244.65	89.73	1,376.52	-5,117.79	4,735.44	4,317.97	417.47	11.343	
15,274.57	7,102.00	7,057.00	7,102.00	228.89	244.64	89.73	1,376.52	-5,117.79	4,783.00	4,365.67	417.33	11.461	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	52.00	3.28	3.28	-91.11	-95.31	-4,915.05	4,916.25					
100.00	100.00	48.00	100.00	3.28	3.39	-91.11	-95.31	-4,915.05	4,915.97	4,909.30	6.67	737.023		
200.00	200.00	148.00	200.00	3.34	4.74	-91.11	-95.31	-4,915.05	4,915.97	4,907.90	8.08	608.674		
300.00	299.98	247.98	299.98	3.44	7.65	84.96	-95.31	-4,915.05	4,915.82	4,904.73	11.09	443.282		
400.00	399.84	347.84	399.84	3.59	10.90	85.03	-95.31	-4,915.05	4,915.36	4,900.87	14.49	339.203		
500.00	499.45	447.45	499.45	3.79	14.26	85.14	-95.31	-4,915.05	4,914.61	4,896.57	18.04	272.374		
600.00	598.70	546.70	598.70	4.03	17.65	85.30	-95.31	-4,915.05	4,913.59	4,891.91	21.68	226.680		
700.00	697.47	645.47	697.47	4.31	21.04	85.51	-95.31	-4,915.05	4,912.32	4,886.96	25.36	193.714		
800.00	795.62	743.62	795.62	4.64	24.44	85.75	-95.31	-4,915.05	4,910.84	4,881.77	29.07	168.913		
900.00	893.06	841.06	893.06	5.00	27.81	86.04	-95.31	-4,915.05	4,909.19	4,876.38	32.81	149.632		
1,000.00	989.64	937.64	989.64	5.40	31.16	86.37	-95.31	-4,915.05	4,907.42	4,870.86	36.56	134.243		
1,100.00	1,085.27	1,033.27	1,085.27	5.83	34.48	86.73	-95.31	-4,915.05	4,905.58	4,865.27	40.31	121.699		
1,200.00	1,179.88	1,127.88	1,179.88	6.29	37.77	87.11	-95.31	-4,915.05	4,903.74	4,859.68	44.06	111.293		
1,300.00	1,274.26	1,222.26	1,274.26	6.78	41.05	87.48	-95.31	-4,915.05	4,902.09	4,854.26	47.83	102.484		
1,400.00	1,368.63	1,316.63	1,368.63	7.28	44.34	87.84	-95.31	-4,915.05	4,900.66	4,849.04	51.62	94.933		
1,500.00	1,463.00	1,411.00	1,463.00	7.80	47.63	88.21	-95.31	-4,915.05	4,899.45	4,844.02	55.43	88.396		
1,600.00	1,557.38	1,505.38	1,557.38	8.33	50.91	88.57	-95.31	-4,915.05	4,898.47	4,839.22	59.24	82.685		
1,700.00	1,651.75	1,600.25	1,651.75	8.87	54.22	88.94	-95.31	-4,915.05	4,897.70	4,834.62	63.09	77.636		
1,800.00	1,746.12	1,705.88	1,746.12	9.41	57.90	89.30	-95.31	-4,915.05	4,897.16	4,829.85	67.31	72.753		
1,900.00	1,840.49	1,788.49	1,840.49	9.96	60.78	89.67	-95.31	-4,915.05	4,896.85	4,826.11	70.74	69.221		
1,991.26	1,926.62	1,874.62	1,926.62	10.47	63.78	90.00	-95.31	-4,915.05	4,896.76	4,822.50	74.25	65.947		
2,000.00	1,934.87	1,882.87	1,934.87	10.52	64.07	90.03	-95.31	-4,915.05	4,896.76	4,822.17	74.59	65.650		
2,100.00	2,029.24	1,977.24	2,029.24	11.08	67.36	90.40	-95.31	-4,915.05	4,896.89	4,818.45	78.44	62.429		
2,200.00	2,123.61	2,071.61	2,123.61	11.64	70.65	90.76	-95.31	-4,915.05	4,897.24	4,814.95	82.29	59.509		
2,300.00	2,217.99	2,165.99	2,217.99	12.21	73.94	91.13	-95.31	-4,915.05	4,897.82	4,811.67	86.15	56.850		
2,400.00	2,312.36	2,260.36	2,312.36	12.78	77.23	91.49	-95.31	-4,915.05	4,898.62	4,808.61	90.01	54.420		
2,500.00	2,406.73	2,354.73	2,406.73	13.35	80.53	91.86	-95.31	-4,915.05	4,899.65	4,805.77	93.88	52.191		
2,600.00	2,501.10	2,449.10	2,501.10	13.93	83.82	92.22	-95.31	-4,915.05	4,900.89	4,803.15	97.74	50.140		
2,700.00	2,595.48	2,543.48	2,595.48	14.51	87.11	92.59	-95.31	-4,915.05	4,902.36	4,800.75	101.61	48.246		
2,800.00	2,689.85	2,637.85	2,689.85	15.08	90.40	92.95	-95.31	-4,915.05	4,904.06	4,798.57	105.48	46.492		
2,900.00	2,784.22	2,732.22	2,784.22	15.66	93.69	93.31	-95.31	-4,915.05	4,905.97	4,796.62	109.35	44.864		
3,000.00	2,878.60	2,826.60	2,878.60	16.25	96.99	93.68	-95.31	-4,915.05	4,908.11	4,794.88	113.22	43.348		
3,100.00	2,972.97	2,920.97	2,972.97	16.83	100.28	94.04	-95.31	-4,915.05	4,910.47	4,793.37	117.10	41.935		
3,200.00	3,067.34	3,015.34	3,067.34	17.41	103.57	94.41	-95.31	-4,915.05	4,913.05	4,792.07	120.97	40.613		
3,300.00	3,161.72	3,109.72	3,161.72	18.00	106.87	94.77	-95.31	-4,915.05	4,915.85	4,791.00	124.85	39.375		
3,400.00	3,256.09	3,204.09	3,256.09	18.58	110.16	95.13	-95.31	-4,915.05	4,918.87	4,790.15	128.72	38.213		
3,500.00	3,350.46	3,301.54	3,350.46	19.17	113.56	95.49	-95.31	-4,915.05	4,922.11	4,789.41	132.70	37.091		
3,600.00	3,444.83	3,407.17	3,444.83	19.75	117.24	95.85	-95.31	-4,915.05	4,925.57	4,788.60	136.97	35.960		
3,700.00	3,539.21	3,487.21	3,539.21	20.34	120.04	96.22	-95.31	-4,915.05	4,929.26	4,788.91	140.35	35.121		
3,800.00	3,633.58	3,581.58	3,633.58	20.93	123.33	96.58	-95.31	-4,915.05	4,933.16	4,788.93	144.23	34.205		
3,900.00	3,727.95	3,675.95	3,727.95	21.52	126.62	96.94	-95.31	-4,915.05	4,937.28	4,789.18	148.10	33.337		
4,000.00	3,822.33	3,770.33	3,822.33	22.11	129.92	97.30	-95.31	-4,915.05	4,941.61	4,789.64	151.98	32.515		
4,100.00	3,916.70	3,864.70	3,916.70	22.70	133.21	97.66	-95.31	-4,915.05	4,946.17	4,790.31	155.85	31.736		
4,200.00	4,011.07	3,959.07	4,011.07	23.29	136.51	98.01	-95.31	-4,915.05	4,950.94	4,791.21	159.73	30.995		
4,300.00	4,105.44	4,053.44	4,105.44	23.88	139.80	98.37	-95.31	-4,915.05	4,955.93	4,792.32	163.61	30.292		
4,400.00	4,199.82	4,147.82	4,199.82	24.47	143.09	98.73	-95.31	-4,915.05	4,961.13	4,793.65	167.48	29.622		
4,500.00	4,294.19	4,242.19	4,294.19	25.06	146.39	99.08	-95.31	-4,915.05	4,966.55	4,795.19	171.36	28.983		
4,600.00	4,388.56	4,336.56	4,388.56	25.65	149.68	99.44	-95.31	-4,915.05	4,972.18	4,796.95	175.23	28.374		
4,700.00	4,482.94	4,430.94	4,482.94	26.24	152.97	99.80	-95.31	-4,915.05	4,978.03	4,798.92	179.11	27.793		
4,800.00	4,577.31	4,525.31	4,577.31	26.83	156.27	100.15	-95.31	-4,915.05	4,984.08	4,801.10	182.98	27.238		
4,900.00	4,671.68	4,619.68	4,671.68	27.43	159.56	100.50	-95.31	-4,915.05	4,990.35	4,803.49	186.86	26.706		
5,000.00	4,766.05	4,714.05	4,766.05	28.02	162.86	100.86	-95.31	-4,915.05	4,996.83	4,806.10	190.73	26.198		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	4,808.43	4,860.43	28.61	166.15	101.21	-95.31	-4,915.05	5,003.52	4,808.92	194.61	25.711		
5,200.00	4,954.80	4,902.80	4,954.80	29.20	169.44	101.56	-95.31	-4,915.05	5,010.42	4,811.94	198.48	25.244		
5,300.00	5,049.17	5,002.83	5,049.17	29.80	172.93	101.91	-95.31	-4,915.05	5,017.53	4,814.98	202.55	24.772		
5,400.00	5,143.55	5,108.45	5,143.55	30.39	176.62	102.26	-95.31	-4,915.05	5,024.85	4,818.04	206.81	24.296		
5,500.00	5,237.92	5,185.92	5,237.92	30.99	179.33	102.61	-95.31	-4,915.05	5,032.37	4,822.28	210.10	23.953		
5,600.00	5,332.29	5,280.29	5,332.29	31.58	182.62	102.95	-95.31	-4,915.05	5,040.10	4,826.14	213.97	23.556		
5,700.00	5,426.66	5,374.66	5,426.66	32.17	185.91	103.30	-95.31	-4,915.05	5,048.03	4,830.20	217.84	23.174		
5,800.00	5,521.04	5,469.04	5,521.04	32.77	189.21	103.65	-95.31	-4,915.05	5,056.17	4,834.47	221.71	22.806		
5,900.00	5,615.41	5,563.41	5,615.41	33.36	192.50	103.99	-95.31	-4,915.05	5,064.51	4,838.94	225.57	22.452		
6,000.00	5,709.78	5,657.78	5,709.78	33.96	195.80	104.33	-95.31	-4,915.05	5,073.06	4,843.61	229.44	22.110		
6,100.00	5,804.16	5,752.16	5,804.16	34.55	199.09	104.68	-95.31	-4,915.05	5,081.80	4,848.49	233.31	21.781		
6,200.00	5,898.53	5,846.53	5,898.53	35.14	202.38	105.02	-95.31	-4,915.05	5,090.74	4,853.56	237.18	21.464		
6,300.00	5,992.90	5,940.90	5,992.90	35.74	205.68	105.36	-95.31	-4,915.05	5,099.88	4,858.84	241.04	21.158		
6,400.00	6,087.27	6,035.27	6,087.27	36.33	208.97	105.70	-95.31	-4,915.05	5,109.22	4,864.32	244.91	20.862		
6,500.00	6,181.65	6,129.65	6,181.65	36.93	212.27	106.03	-95.31	-4,915.05	5,118.76	4,869.99	248.77	20.576		
6,600.00	6,276.02	6,224.02	6,276.02	37.52	215.56	106.37	-95.31	-4,915.05	5,128.49	4,875.86	252.64	20.300		
6,700.00	6,370.39	6,318.39	6,370.39	38.12	218.85	106.71	-95.31	-4,915.05	5,138.42	4,881.92	256.50	20.033		
6,800.00	6,464.77	6,412.77	6,464.77	38.71	222.15	107.04	-95.31	-4,915.05	5,148.54	4,888.18	260.36	19.775		
6,900.00	6,559.14	6,507.14	6,559.14	39.31	225.44	107.15	-95.31	-4,915.05	5,158.85	4,894.63	264.22	19.525		
7,000.00	6,652.92	6,600.92	6,652.92	39.90	228.72	84.17	-95.31	-4,915.05	5,161.95	4,893.89	268.06	19.257		
7,100.00	6,744.00	6,708.00	6,744.00	40.44	232.45	68.84	-95.31	-4,915.05	5,150.78	4,878.44	272.34	18.913		
7,200.00	6,830.13	6,778.13	6,830.13	40.94	234.90	60.14	-95.31	-4,915.05	5,125.71	4,850.44	275.28	18.620		
7,300.00	6,909.19	6,857.19	6,909.19	41.37	237.66	55.87	-95.31	-4,915.05	5,087.48	4,808.99	278.48	18.269		
7,400.00	6,979.23	6,927.23	6,979.23	41.75	240.11	54.71	-95.31	-4,915.05	5,037.10	4,755.76	281.34	17.904		
7,500.00	7,038.53	6,986.53	7,038.53	42.08	242.18	56.14	-95.31	-4,915.05	4,975.89	4,692.08	283.80	17.533		
7,600.00	7,085.63	7,033.63	7,085.63	42.37	243.82	60.19	-95.31	-4,915.05	4,905.39	4,619.55	285.83	17.162		
7,700.00	7,119.37	7,067.37	7,119.37	42.64	245.00	67.28	-95.31	-4,915.05	4,827.34	4,539.93	287.40	16.796		
7,800.00	7,138.92	7,086.92	7,138.92	42.91	245.68	78.05	-95.31	-4,915.05	4,743.64	4,455.14	288.50	16.443		
7,900.00	7,143.92	7,108.08	7,143.92	43.25	246.42	90.61	-95.31	-4,915.05	4,656.29	4,366.63	289.66	16.075		
8,000.00	7,143.35	7,108.65	7,143.35	43.72	246.44	90.60	-95.31	-4,915.05	4,568.31	4,278.17	290.14	15.745		
8,100.00	7,142.78	7,109.22	7,142.78	44.42	246.46	90.58	-95.31	-4,915.05	4,480.84	4,190.15	290.69	15.415		
8,200.00	7,142.22	7,109.78	7,142.22	45.39	246.48	90.57	-95.31	-4,915.05	4,393.90	4,102.60	291.30	15.084		
8,300.00	7,141.65	7,089.65	7,141.65	46.63	245.78	90.55	-95.31	-4,915.05	4,307.52	4,016.26	291.26	14.789		
8,400.00	7,141.08	7,089.08	7,141.08	48.09	245.76	90.54	-95.31	-4,915.05	4,221.75	3,929.77	291.99	14.459		
8,500.00	7,140.51	7,088.51	7,140.51	49.74	245.74	90.52	-95.31	-4,915.05	4,136.62	3,843.83	292.79	14.128		
8,600.00	7,139.94	7,087.94	7,139.94	51.53	245.72	90.51	-95.31	-4,915.05	4,052.17	3,758.48	293.68	13.798		
8,700.00	7,139.37	7,087.37	7,139.37	53.44	245.70	90.49	-95.31	-4,915.05	3,968.44	3,673.77	294.67	13.467		
8,800.00	7,138.80	7,086.80	7,138.80	55.45	245.68	90.48	-95.31	-4,915.05	3,885.47	3,589.73	295.75	13.138		
8,900.00	7,138.24	7,086.24	7,138.24	57.55	245.66	90.46	-95.31	-4,915.05	3,803.33	3,506.40	296.93	12.809		
9,000.00	7,137.67	7,085.67	7,137.67	59.71	245.64	90.45	-95.31	-4,915.05	3,722.06	3,423.85	298.21	12.481		
9,100.00	7,137.10	7,085.10	7,137.10	61.94	245.62	90.43	-95.31	-4,915.05	3,641.73	3,342.12	299.61	12.155		
9,200.00	7,136.53	7,084.53	7,136.53	64.22	245.60	90.42	-95.31	-4,915.05	3,562.39	3,261.27	301.12	11.831		
9,300.00	7,135.96	7,083.96	7,135.96	66.55	245.58	90.40	-95.31	-4,915.05	3,484.11	3,181.37	302.75	11.508		
9,400.00	7,135.39	7,083.39	7,135.39	68.92	245.56	90.39	-95.31	-4,915.05	3,406.97	3,102.48	304.50	11.189		
9,500.00	7,134.83	7,082.83	7,134.83	71.33	245.54	90.37	-95.31	-4,915.05	3,331.05	3,024.68	306.37	10.873		
9,600.00	7,134.26	7,082.26	7,134.26	73.77	245.52	90.36	-95.31	-4,915.05	3,256.43	2,948.05	308.38	10.560		
9,700.00	7,133.69	7,081.69	7,133.69	76.24	245.50	90.34	-95.31	-4,915.05	3,183.20	2,872.68	310.52	10.251		
9,800.00	7,133.12	7,081.12	7,133.12	78.74	245.48	90.33	-95.31	-4,915.05	3,111.46	2,798.67	312.79	9.948		
9,900.00	7,132.55	7,080.55	7,132.55	81.27	245.46	90.31	-95.31	-4,915.05	3,041.31	2,726.12	315.19	9.649		
10,000.00	7,131.98	7,079.98	7,131.98	83.81	245.44	90.30	-95.31	-4,915.05	2,972.88	2,655.14	317.73	9.356		
10,100.00	7,131.42	7,079.42	7,131.42	86.38	245.42	90.28	-95.31	-4,915.05	2,906.27	2,585.86	320.41	9.070		
10,200.00	7,130.85	7,078.85	7,130.85	88.96	245.40	90.27	-95.31	-4,915.05	2,841.62	2,518.40	323.22	8.792		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
10,300.00	7,130.28	7,078.28	7,130.28	91.56	245.38	90.25	-95.31	-4,915.05	2,779.07	2,452.91	326.16	8.520	
10,400.00	7,129.71	7,077.71	7,129.71	94.18	245.36	90.24	-95.31	-4,915.05	2,718.76	2,389.53	329.23	8.258	
10,500.00	7,129.14	7,077.14	7,129.14	96.81	245.34	90.22	-95.31	-4,915.05	2,660.84	2,328.43	332.42	8.005	
10,600.00	7,128.57	7,076.57	7,128.57	99.45	245.32	90.21	-95.31	-4,915.05	2,605.48	2,269.77	335.71	7.761	
10,700.00	7,128.00	7,076.00	7,128.00	102.11	245.30	90.19	-95.31	-4,915.05	2,552.83	2,213.72	339.10	7.528	
10,800.00	7,127.44	7,075.44	7,127.44	104.77	245.28	90.18	-95.31	-4,915.05	2,503.06	2,160.49	342.58	7.307	
10,900.00	7,126.87	7,074.87	7,126.87	107.45	245.26	90.16	-95.31	-4,915.05	2,456.37	2,110.25	346.12	7.097	
11,000.00	7,126.30	7,074.30	7,126.30	110.13	245.24	90.15	-95.31	-4,915.05	2,412.91	2,063.21	349.71	6.900	
11,100.00	7,125.73	7,073.73	7,125.73	112.82	245.22	90.13	-95.31	-4,915.05	2,372.88	2,019.56	353.32	6.716	
11,200.00	7,125.16	7,073.16	7,125.16	115.53	245.20	90.12	-95.31	-4,915.05	2,336.45	1,979.51	356.93	6.546	
11,300.00	7,124.59	7,072.59	7,124.59	118.24	245.18	90.11	-95.31	-4,915.05	2,303.78	1,943.26	360.51	6.390	
11,400.00	7,124.03	7,072.03	7,124.03	120.95	245.16	90.09	-95.31	-4,915.05	2,275.04	1,911.00	364.04	6.249	
11,500.00	7,123.46	7,071.46	7,123.46	123.67	245.14	90.08	-95.31	-4,915.05	2,250.38	1,882.91	367.47	6.124	
11,600.00	7,122.89	7,070.89	7,122.89	126.40	245.12	90.06	-95.31	-4,915.05	2,229.94	1,859.16	370.78	6.014	
11,700.00	7,122.32	7,070.32	7,122.32	129.14	245.10	90.05	-95.31	-4,915.05	2,213.83	1,839.89	373.93	5.920	
11,800.00	7,121.75	7,069.75	7,121.75	131.88	245.08	90.03	-95.31	-4,915.05	2,202.15	1,825.24	376.91	5.843	
11,900.00	7,121.18	7,069.18	7,121.18	134.62	245.06	90.02	-95.31	-4,915.05	2,194.96	1,815.29	379.67	5.781	
12,000.00	7,120.61	7,068.61	7,120.61	137.37	245.04	90.00	-95.31	-4,915.05	2,192.32	1,810.12	382.20	5.736	
12,007.97	7,120.57	7,068.57	7,120.57	137.59	245.04	90.00	-95.31	-4,915.05	2,192.30	1,809.91	382.39	5.733 CC	
12,100.00	7,120.05	7,068.05	7,120.05	140.12	245.02	89.99	-95.31	-4,915.05	2,194.23	1,809.76	384.48	5.707 ES	
12,200.00	7,119.48	7,067.48	7,119.48	142.88	245.00	89.97	-95.31	-4,915.05	2,200.70	1,814.21	386.49	5.694 SF	
12,300.00	7,118.91	7,066.91	7,118.91	145.64	244.98	89.96	-95.31	-4,915.05	2,211.67	1,823.45	388.22	5.697	
12,400.00	7,118.34	7,066.34	7,118.34	148.41	244.96	89.94	-95.31	-4,915.05	2,227.08	1,837.40	389.68	5.715	
12,500.00	7,117.77	7,065.77	7,117.77	151.18	244.94	89.93	-95.31	-4,915.05	2,246.84	1,855.98	390.85	5.749	
12,600.00	7,117.20	7,065.20	7,117.20	153.95	244.92	89.91	-95.31	-4,915.05	2,270.83	1,879.07	391.76	5.796	
12,700.00	7,116.64	7,064.64	7,116.64	156.73	244.90	89.90	-95.31	-4,915.05	2,298.93	1,906.53	392.41	5.859	
12,800.00	7,116.07	7,064.07	7,116.07	159.50	244.88	89.88	-95.31	-4,915.05	2,330.99	1,938.18	392.81	5.934	
12,900.00	7,115.50	7,063.50	7,115.50	162.29	244.86	89.87	-95.31	-4,915.05	2,366.83	1,973.85	392.98	6.023	
13,000.00	7,114.93	7,062.93	7,114.93	165.07	244.84	89.85	-95.31	-4,915.05	2,406.30	2,013.36	392.94	6.124	
13,100.00	7,114.36	7,062.36	7,114.36	167.86	244.82	89.84	-95.31	-4,915.05	2,449.22	2,056.51	392.71	6.237	
13,200.00	7,113.79	7,061.79	7,113.79	170.64	244.80	89.82	-95.31	-4,915.05	2,495.41	2,103.10	392.31	6.361	
13,300.00	7,113.22	7,061.22	7,113.22	173.44	244.78	89.81	-95.31	-4,915.05	2,544.70	2,152.93	391.76	6.495	
13,400.00	7,112.66	7,060.66	7,112.66	176.23	244.76	89.79	-95.31	-4,915.05	2,596.90	2,205.81	391.09	6.640	
13,500.00	7,112.09	7,060.09	7,112.09	179.02	244.74	89.78	-95.31	-4,915.05	2,651.85	2,261.54	390.30	6.794	
13,600.00	7,111.52	7,059.52	7,111.52	181.82	244.72	89.76	-95.31	-4,915.05	2,709.37	2,319.95	389.42	6.957	
13,700.00	7,110.95	7,058.95	7,110.95	184.62	244.70	89.75	-95.31	-4,915.05	2,769.31	2,380.85	388.46	7.129	
13,800.00	7,110.38	7,058.38	7,110.38	187.42	244.69	89.73	-95.31	-4,915.05	2,831.51	2,444.07	387.45	7.308	
13,900.00	7,109.81	7,057.81	7,109.81	190.22	244.67	89.72	-95.31	-4,915.05	2,895.84	2,509.46	386.38	7.495	
14,000.00	7,109.25	7,057.25	7,109.25	193.03	244.65	89.70	-95.31	-4,915.05	2,962.14	2,576.87	385.27	7.688	
14,100.00	7,108.68	7,056.68	7,108.68	195.84	244.63	89.69	-95.31	-4,915.05	3,030.29	2,646.15	384.14	7.889	
14,200.00	7,108.11	7,056.11	7,108.11	198.64	244.61	89.67	-95.31	-4,915.05	3,100.17	2,717.18	382.99	8.095	
14,300.00	7,107.54	7,055.54	7,107.54	201.45	244.59	89.66	-95.31	-4,915.05	3,171.66	2,789.84	381.82	8.307	
14,400.00	7,106.97	7,054.97	7,106.97	204.26	244.57	89.64	-95.31	-4,915.05	3,244.66	2,864.00	380.66	8.524	
14,500.00	7,106.40	7,054.40	7,106.40	207.07	244.55	89.63	-95.31	-4,915.05	3,319.07	2,939.58	379.49	8.746	
14,600.00	7,105.83	7,053.83	7,105.83	209.89	244.53	89.61	-95.31	-4,915.05	3,394.79	3,016.46	378.34	8.973	
14,700.00	7,105.27	7,053.27	7,105.27	212.70	244.51	89.60	-95.31	-4,915.05	3,471.74	3,094.56	377.19	9.204	
14,800.00	7,104.70	7,052.70	7,104.70	215.52	244.49	89.59	-95.31	-4,915.05	3,549.84	3,173.79	376.05	9.440	
14,900.00	7,104.13	7,052.13	7,104.13	218.33	244.47	89.57	-95.31	-4,915.05	3,629.02	3,254.08	374.94	9.679	
15,000.00	7,103.56	7,051.56	7,103.56	221.15	244.45	89.56	-95.31	-4,915.05	3,709.20	3,335.36	373.84	9.922	
15,100.00	7,102.99	7,050.99	7,102.99	223.97	244.43	89.54	-95.31	-4,915.05	3,790.32	3,417.57	372.76	10.168	
15,200.00	7,102.42	7,050.42	7,102.42	226.79	244.41	89.53	-95.31	-4,915.05	3,872.33	3,500.63	371.70	10.418	
15,274.57	7,102.00	7,050.00	7,102.00	228.89	244.39	89.51	-95.31	-4,915.05	3,934.02	3,563.10	370.93	10.606	

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-1(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	55.00	3.28	3.28	-110.12	-2,802.86	-7,652.81	8,150.12					
100.00	100.00	45.00	100.00	3.28	3.37	-110.12	-2,802.86	-7,652.81	8,149.94	8,143.28	6.66	1,224.181		
200.00	200.00	145.00	200.00	3.34	4.66	-110.12	-2,802.86	-7,652.81	8,149.94	8,141.94	8.00	1,018.552		
300.00	299.98	244.98	299.98	3.44	7.56	65.95	-2,802.86	-7,652.81	8,149.23	8,138.23	11.00	741.160		
400.00	399.84	344.84	399.84	3.59	10.80	66.02	-2,802.86	-7,652.81	8,147.09	8,132.70	14.39	566.096		
500.00	499.45	444.45	499.45	3.79	14.16	66.15	-2,802.86	-7,652.81	8,143.55	8,125.61	17.94	453.865		
600.00	598.70	543.70	598.70	4.03	17.54	66.31	-2,802.86	-7,652.81	8,138.61	8,117.03	21.57	377.238		
700.00	697.47	642.47	697.47	4.31	20.94	66.53	-2,802.86	-7,652.81	8,132.28	8,107.03	25.25	322.011		
800.00	795.62	740.62	795.62	4.64	24.33	66.79	-2,802.86	-7,652.81	8,124.60	8,095.64	28.97	280.485		
900.00	893.06	838.06	893.06	5.00	27.71	67.10	-2,802.86	-7,652.81	8,115.60	8,082.90	32.70	248.205		
1,000.00	989.64	934.64	989.64	5.40	31.06	67.46	-2,802.86	-7,652.81	8,105.30	8,068.87	36.44	222.438		
1,100.00	1,085.27	1,030.27	1,085.27	5.83	34.38	67.86	-2,802.86	-7,652.81	8,093.76	8,053.58	40.18	201.422		
1,200.00	1,179.88	1,124.88	1,179.88	6.29	37.67	68.21	-2,802.86	-7,652.81	8,081.08	8,037.16	43.93	183.972		
1,300.00	1,274.26	1,219.26	1,274.26	6.78	40.95	68.42	-2,802.86	-7,652.81	8,068.24	8,020.56	47.68	169.204		
1,400.00	1,368.63	1,313.63	1,368.63	7.28	44.24	68.63	-2,802.86	-7,652.81	8,055.52	8,004.06	51.46	156.540		
1,500.00	1,463.00	1,408.00	1,463.00	7.80	47.52	68.84	-2,802.86	-7,652.81	8,042.91	7,987.66	55.25	145.571		
1,600.00	1,557.38	1,502.38	1,557.38	8.33	50.81	69.05	-2,802.86	-7,652.81	8,030.41	7,971.36	59.05	135.984		
1,700.00	1,651.75	1,603.25	1,651.75	8.87	54.32	69.26	-2,802.86	-7,652.81	8,018.04	7,954.94	63.09	127.081		
1,800.00	1,746.12	1,708.88	1,746.12	9.41	58.00	69.47	-2,802.86	-7,652.81	8,005.78	7,938.47	67.31	118.942		
1,900.00	1,840.49	1,785.49	1,840.49	9.96	60.67	69.68	-2,802.86	-7,652.81	7,993.64	7,923.12	70.52	113.355		
2,000.00	1,934.87	1,879.87	1,934.87	10.52	63.96	69.89	-2,802.86	-7,652.81	7,981.61	7,907.26	74.35	107.346		
2,100.00	2,029.24	1,974.24	2,029.24	11.08	67.26	70.10	-2,802.86	-7,652.81	7,969.71	7,891.52	78.19	101.922		
2,200.00	2,123.61	2,068.61	2,123.61	11.64	70.55	70.31	-2,802.86	-7,652.81	7,957.93	7,875.89	82.04	97.001		
2,300.00	2,217.99	2,162.99	2,217.99	12.21	73.84	70.53	-2,802.86	-7,652.81	7,946.26	7,860.38	85.89	92.518		
2,400.00	2,312.36	2,257.36	2,312.36	12.78	77.13	70.74	-2,802.86	-7,652.81	7,934.72	7,844.98	89.74	88.417		
2,500.00	2,406.73	2,351.73	2,406.73	13.35	80.42	70.96	-2,802.86	-7,652.81	7,923.30	7,829.70	93.60	84.652		
2,600.00	2,501.10	2,446.10	2,501.10	13.93	83.71	71.17	-2,802.86	-7,652.81	7,912.00	7,814.54	97.46	81.184		
2,700.00	2,595.48	2,540.48	2,595.48	14.51	87.00	71.39	-2,802.86	-7,652.81	7,900.82	7,799.50	101.32	77.980		
2,800.00	2,689.85	2,634.85	2,689.85	15.08	90.30	71.60	-2,802.86	-7,652.81	7,889.77	7,784.59	105.18	75.010		
2,900.00	2,784.22	2,729.22	2,784.22	15.66	93.59	71.82	-2,802.86	-7,652.81	7,878.84	7,769.79	109.05	72.251		
3,000.00	2,878.60	2,823.60	2,878.60	16.25	96.88	72.04	-2,802.86	-7,652.81	7,868.03	7,755.11	112.92	69.680		
3,100.00	2,972.97	2,917.97	2,972.97	16.83	100.17	72.25	-2,802.86	-7,652.81	7,857.35	7,740.56	116.79	67.280		
3,200.00	3,067.34	3,012.34	3,067.34	17.41	103.47	72.47	-2,802.86	-7,652.81	7,846.79	7,726.13	120.66	65.034		
3,300.00	3,161.72	3,106.72	3,161.72	18.00	106.76	72.69	-2,802.86	-7,652.81	7,836.35	7,711.82	124.53	62.927		
3,400.00	3,256.09	3,201.09	3,256.09	18.58	110.05	72.91	-2,802.86	-7,652.81	7,826.05	7,697.64	128.40	60.948		
3,500.00	3,350.46	3,304.54	3,350.46	19.17	113.66	73.13	-2,802.86	-7,652.81	7,815.87	7,683.27	132.60	58.945		
3,600.00	3,444.83	3,389.83	3,444.83	19.75	116.64	73.35	-2,802.86	-7,652.81	7,805.81	7,669.66	136.16	57.330		
3,700.00	3,539.21	3,484.21	3,539.21	20.34	119.93	73.57	-2,802.86	-7,652.81	7,795.89	7,655.85	140.03	55.671		
3,800.00	3,633.58	3,578.58	3,633.58	20.93	123.23	73.79	-2,802.86	-7,652.81	7,786.09	7,642.17	143.91	54.102		
3,900.00	3,727.95	3,672.95	3,727.95	21.52	126.52	74.01	-2,802.86	-7,652.81	7,776.42	7,628.62	147.79	52.617		
4,000.00	3,822.33	3,767.33	3,822.33	22.11	129.81	74.24	-2,802.86	-7,652.81	7,766.88	7,615.20	151.67	51.207		
4,100.00	3,916.70	3,861.70	3,916.70	22.70	133.11	74.46	-2,802.86	-7,652.81	7,757.46	7,601.91	155.56	49.869		
4,200.00	4,011.07	3,956.07	4,011.07	23.29	136.40	74.68	-2,802.86	-7,652.81	7,748.18	7,588.74	159.44	48.596		
4,300.00	4,105.44	4,050.44	4,105.44	23.88	139.69	74.91	-2,802.86	-7,652.81	7,739.03	7,575.70	163.32	47.385		
4,400.00	4,199.82	4,144.82	4,199.82	24.47	142.99	75.13	-2,802.86	-7,652.81	7,730.01	7,562.80	167.21	46.230		
4,500.00	4,294.19	4,239.19	4,294.19	25.06	146.28	75.36	-2,802.86	-7,652.81	7,721.11	7,550.02	171.09	45.128		
4,600.00	4,388.56	4,333.56	4,388.56	25.65	149.58	75.58	-2,802.86	-7,652.81	7,712.36	7,537.38	174.98	44.076		
4,700.00	4,482.94	4,427.94	4,482.94	26.24	152.87	75.81	-2,802.86	-7,652.81	7,703.73	7,524.86	178.86	43.070		
4,800.00	4,577.31	4,522.31	4,577.31	26.83	156.16	76.03	-2,802.86	-7,652.81	7,695.23	7,512.48	182.75	42.108		
4,900.00	4,671.68	4,616.68	4,671.68	27.43	159.46	76.26	-2,802.86	-7,652.81	7,686.87	7,500.23	186.64	41.186		
5,000.00	4,766.05	4,711.05	4,766.05	28.02	162.75	76.49	-2,802.86	-7,652.81	7,678.64	7,488.12	190.53	40.302		
5,100.00	4,860.43	4,805.43	4,860.43	28.61	166.04	76.71	-2,802.86	-7,652.81	7,670.55	7,476.13	194.42	39.454		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-1(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,900.20	4,954.80	29.20	169.35	76.94	-2,802.86	-7,652.81	7,662.59	7,464.27	198.32	38.638		
5,300.00	5,049.17	5,005.83	5,049.17	29.80	173.04	77.17	-2,802.86	-7,652.81	7,654.76	7,452.16	202.60	37.782		
5,400.00	5,143.55	5,088.55	5,143.55	30.39	175.93	77.40	-2,802.86	-7,652.81	7,647.07	7,440.99	206.08	37.107		
5,500.00	5,237.92	5,182.92	5,237.92	30.99	179.22	77.63	-2,802.86	-7,652.81	7,639.52	7,429.54	209.97	36.383		
5,600.00	5,332.29	5,277.29	5,332.29	31.58	182.51	77.86	-2,802.86	-7,652.81	7,632.10	7,418.23	213.87	35.686		
5,700.00	5,426.66	5,371.66	5,426.66	32.17	185.81	78.09	-2,802.86	-7,652.81	7,624.81	7,407.06	217.76	35.015		
5,800.00	5,521.04	5,466.04	5,521.04	32.77	189.10	78.32	-2,802.86	-7,652.81	7,617.67	7,396.02	221.65	34.368		
5,900.00	5,615.41	5,560.41	5,615.41	33.36	192.40	78.55	-2,802.86	-7,652.81	7,610.66	7,385.12	225.54	33.744		
6,000.00	5,709.78	5,654.78	5,709.78	33.96	195.69	78.78	-2,802.86	-7,652.81	7,603.78	7,374.35	229.43	33.142		
6,100.00	5,804.16	5,749.16	5,804.16	34.55	198.98	79.01	-2,802.86	-7,652.81	7,597.05	7,363.72	233.33	32.560		
6,200.00	5,898.53	5,843.53	5,898.53	35.14	202.28	79.24	-2,802.86	-7,652.81	7,590.45	7,353.23	237.22	31.998		
6,300.00	5,992.90	5,937.90	5,992.90	35.74	205.57	79.47	-2,802.86	-7,652.81	7,583.99	7,342.88	241.11	31.454		
6,400.00	6,087.27	6,032.27	6,087.27	36.33	208.87	79.71	-2,802.86	-7,652.81	7,577.68	7,332.67	245.01	30.928		
6,500.00	6,181.65	6,126.65	6,181.65	36.93	212.16	79.94	-2,802.86	-7,652.81	7,571.50	7,322.59	248.90	30.420		
6,600.00	6,276.02	6,221.02	6,276.02	37.52	215.46	80.17	-2,802.86	-7,652.81	7,565.46	7,312.66	252.80	29.927		
6,700.00	6,370.39	6,315.39	6,370.39	38.12	218.75	80.41	-2,802.86	-7,652.81	7,559.55	7,302.86	256.69	29.450		
6,800.00	6,464.77	6,409.77	6,464.77	38.71	222.04	80.64	-2,802.86	-7,652.81	7,553.79	7,293.21	260.58	28.988		
6,900.00	6,559.14	6,504.14	6,559.14	39.31	225.34	80.66	-2,802.86	-7,652.81	7,548.17	7,283.69	264.48	28.540		
7,000.00	6,652.92	6,602.08	6,652.92	39.90	228.76	57.55	-2,802.86	-7,652.81	7,534.79	7,266.30	268.49	28.064		
7,100.00	6,744.00	6,689.00	6,744.00	40.44	231.79	41.43	-2,802.86	-7,652.81	7,506.25	7,234.19	272.06	27.590		
7,200.00	6,830.13	6,775.13	6,830.13	40.94	234.80	31.20	-2,802.86	-7,652.81	7,463.25	7,187.70	275.54	27.086		
7,300.00	6,909.19	6,854.19	6,909.19	41.37	237.56	24.51	-2,802.86	-7,652.81	7,406.79	7,128.08	278.71	26.575		
7,400.00	6,979.23	6,924.23	6,979.23	41.75	240.00	19.75	-2,802.86	-7,652.81	7,338.25	7,056.75	281.49	26.069		
7,500.00	7,038.53	6,983.53	7,038.53	42.08	242.07	15.87	-2,802.86	-7,652.81	7,259.27	6,975.44	283.83	25.576		
7,600.00	7,085.63	7,030.63	7,085.63	42.37	243.72	11.90	-2,802.86	-7,652.81	7,171.77	6,886.10	285.67	25.105		
7,700.00	7,119.37	7,064.37	7,119.37	42.64	244.89	5.85	-2,802.86	-7,652.81	7,077.89	6,790.92	286.97	24.664		
7,800.00	7,138.92	7,083.92	7,138.92	42.91	245.58	-12.23	-2,802.86	-7,652.81	6,979.92	6,692.22	287.70	24.261		
7,900.00	7,143.92	7,088.92	7,143.92	43.25	245.75	-94.48	-2,802.86	-7,652.81	6,880.28	6,592.41	287.87	23.901		
8,000.00	7,143.35	7,088.35	7,143.35	43.72	245.73	-94.41	-2,802.86	-7,652.81	6,780.55	6,492.73	287.82	23.559		
8,100.00	7,142.78	7,087.78	7,142.78	44.42	245.71	-94.35	-2,802.86	-7,652.81	6,680.83	6,393.06	287.77	23.216		
8,200.00	7,142.22	7,087.22	7,142.22	45.39	245.69	-94.28	-2,802.86	-7,652.81	6,581.11	6,293.39	287.72	22.873		
8,300.00	7,141.65	7,086.65	7,141.65	46.63	245.67	-94.22	-2,802.86	-7,652.81	6,481.40	6,193.73	287.67	22.530		
8,400.00	7,141.08	7,086.08	7,141.08	48.09	245.65	-94.15	-2,802.86	-7,652.81	6,381.71	6,094.08	287.63	22.187		
8,500.00	7,140.51	7,085.51	7,140.51	49.74	245.63	-94.09	-2,802.86	-7,652.81	6,282.02	5,994.43	287.59	21.844		
8,600.00	7,139.94	7,084.94	7,139.94	51.53	245.61	-94.02	-2,802.86	-7,652.81	6,182.34	5,894.80	287.54	21.501		
8,700.00	7,139.37	7,084.37	7,139.37	53.44	245.59	-93.96	-2,802.86	-7,652.81	6,082.67	5,795.17	287.50	21.157		
8,800.00	7,138.80	7,083.80	7,138.80	55.45	245.57	-93.89	-2,802.86	-7,652.81	5,983.01	5,695.55	287.46	20.813		
8,900.00	7,138.24	7,083.24	7,138.24	57.55	245.55	-93.83	-2,802.86	-7,652.81	5,883.37	5,595.94	287.43	20.469		
9,000.00	7,137.67	7,082.67	7,137.67	59.71	245.53	-93.76	-2,802.86	-7,652.81	5,783.74	5,496.35	287.39	20.125		
9,100.00	7,137.10	7,082.10	7,137.10	61.94	245.51	-93.70	-2,802.86	-7,652.81	5,684.12	5,396.76	287.36	19.781		
9,200.00	7,136.53	7,081.53	7,136.53	64.22	245.49	-93.63	-2,802.86	-7,652.81	5,584.51	5,297.18	287.33	19.436		
9,300.00	7,135.96	7,080.96	7,135.96	66.55	245.47	-93.56	-2,802.86	-7,652.81	5,484.92	5,197.62	287.30	19.091		
9,400.00	7,135.39	7,080.39	7,135.39	68.92	245.45	-93.50	-2,802.86	-7,652.81	5,385.34	5,098.07	287.27	18.746		
9,500.00	7,134.83	7,079.83	7,134.83	71.33	245.43	-93.43	-2,802.86	-7,652.81	5,285.78	4,998.53	287.25	18.401		
9,600.00	7,134.26	7,079.26	7,134.26	73.77	245.41	-93.37	-2,802.86	-7,652.81	5,186.24	4,899.00	287.23	18.056		
9,700.00	7,133.69	7,078.69	7,133.69	76.24	245.39	-93.30	-2,802.86	-7,652.81	5,086.71	4,799.49	287.22	17.710		
9,800.00	7,133.12	7,078.12	7,133.12	78.74	245.37	-93.24	-2,802.86	-7,652.81	4,987.20	4,700.00	287.21	17.365		
9,900.00	7,132.55	7,077.55	7,132.55	81.27	245.35	-93.17	-2,802.86	-7,652.81	4,887.72	4,600.51	287.20	17.018		
10,000.00	7,131.98	7,076.98	7,131.98	83.81	245.33	-93.11	-2,802.86	-7,652.81	4,788.25	4,501.05	287.20	16.672		
10,100.00	7,131.42	7,076.42	7,131.42	86.38	245.31	-93.04	-2,802.86	-7,652.81	4,688.81	4,401.60	287.20	16.326		
10,200.00	7,130.85	7,075.85	7,130.85	88.96	245.29	-92.98	-2,802.86	-7,652.81	4,589.39	4,302.17	287.22	15.979		
10,300.00	7,130.28	7,075.28	7,130.28	91.56	245.27	-92.91	-2,802.86	-7,652.81	4,489.99	4,202.76	287.23	15.632		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-1(SI_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,129.71	7,074.71	7,129.71	94.18	245.26	-92.85	-2,802.86	-7,652.81	4,390.63	4,103.36	287.26	15.284		
10,500.00	7,129.14	7,074.14	7,129.14	96.81	245.24	-92.78	-2,802.86	-7,652.81	4,291.29	4,003.99	287.30	14.937		
10,600.00	7,128.57	7,073.57	7,128.57	99.45	245.22	-92.72	-2,802.86	-7,652.81	4,191.98	3,904.64	287.34	14.589		
10,700.00	7,128.00	7,073.00	7,128.00	102.11	245.20	-92.65	-2,802.86	-7,652.81	4,092.71	3,805.31	287.40	14.241		
10,800.00	7,127.44	7,072.44	7,127.44	104.77	245.18	-92.59	-2,802.86	-7,652.81	3,993.48	3,706.01	287.47	13.892		
10,900.00	7,126.87	7,071.87	7,126.87	107.45	245.16	-92.52	-2,802.86	-7,652.81	3,894.28	3,606.73	287.55	13.543		
11,000.00	7,126.30	7,071.30	7,126.30	110.13	245.14	-92.46	-2,802.86	-7,652.81	3,795.12	3,507.47	287.65	13.194		
11,100.00	7,125.73	7,070.73	7,125.73	112.82	245.12	-92.39	-2,802.86	-7,652.81	3,696.02	3,408.25	287.77	12.844		
11,200.00	7,125.16	7,070.16	7,125.16	115.53	245.10	-92.33	-2,802.86	-7,652.81	3,596.96	3,309.05	287.91	12.494		
11,300.00	7,124.59	7,069.59	7,124.59	118.24	245.08	-92.26	-2,802.86	-7,652.81	3,497.95	3,209.88	288.07	12.143		
11,400.00	7,124.03	7,069.03	7,124.03	120.95	245.06	-92.20	-2,802.86	-7,652.81	3,399.00	3,110.75	288.25	11.792		
11,500.00	7,123.46	7,068.46	7,123.46	123.67	245.04	-92.13	-2,802.86	-7,652.81	3,300.12	3,011.65	288.47	11.440		
11,600.00	7,122.89	7,067.89	7,122.89	126.40	245.02	-92.07	-2,802.86	-7,652.81	3,201.30	2,912.58	288.72	11.088		
11,700.00	7,122.32	7,067.32	7,122.32	129.14	245.00	-92.00	-2,802.86	-7,652.81	3,102.56	2,813.55	289.01	10.735		
11,800.00	7,121.75	7,066.75	7,121.75	131.88	244.98	-91.94	-2,802.86	-7,652.81	3,003.90	2,714.57	289.34	10.382		
11,900.00	7,121.18	7,066.18	7,121.18	134.62	244.96	-91.87	-2,802.86	-7,652.81	2,905.34	2,615.62	289.72	10.028		
12,000.00	7,120.61	7,065.61	7,120.61	137.37	244.94	-91.80	-2,802.86	-7,652.81	2,806.88	2,516.71	290.16	9.673		
12,100.00	7,120.05	7,065.05	7,120.05	140.12	244.92	-91.74	-2,802.86	-7,652.81	2,708.52	2,417.86	290.67	9.318		
12,200.00	7,119.48	7,064.48	7,119.48	142.88	244.90	-91.67	-2,802.86	-7,652.81	2,610.30	2,319.05	291.25	8.962		
12,300.00	7,118.91	7,063.91	7,118.91	145.64	244.88	-91.61	-2,802.86	-7,652.81	2,512.21	2,220.29	291.92	8.606		
12,400.00	7,118.34	7,063.34	7,118.34	148.41	244.86	-91.54	-2,802.86	-7,652.81	2,414.28	2,121.59	292.69	8.248		
12,500.00	7,117.77	7,062.77	7,117.77	151.18	244.84	-91.48	-2,802.86	-7,652.81	2,316.53	2,022.95	293.59	7.890		
12,600.00	7,117.20	7,062.20	7,117.20	153.95	244.82	-91.41	-2,802.86	-7,652.81	2,218.98	1,924.37	294.61	7.532		
12,700.00	7,116.64	7,061.64	7,116.64	156.73	244.80	-91.35	-2,802.86	-7,652.81	2,121.65	1,825.85	295.80	7.173		
12,800.00	7,116.07	7,061.07	7,116.07	159.50	244.78	-91.28	-2,802.86	-7,652.81	2,024.59	1,727.42	297.18	6.813		
12,900.00	7,115.50	7,060.50	7,115.50	162.29	244.76	-91.22	-2,802.86	-7,652.81	1,927.83	1,629.06	298.77	6.453		
13,000.00	7,114.93	7,059.93	7,114.93	165.07	244.74	-91.15	-2,802.86	-7,652.81	1,831.41	1,530.79	300.62	6.092		
13,100.00	7,114.36	7,059.36	7,114.36	167.86	244.72	-91.09	-2,802.86	-7,652.81	1,735.40	1,432.63	302.77	5.732		
13,200.00	7,113.79	7,058.79	7,113.79	170.64	244.70	-91.02	-2,802.86	-7,652.81	1,639.87	1,334.59	305.28	5.372		
13,300.00	7,113.22	7,058.22	7,113.22	173.44	244.68	-90.96	-2,802.86	-7,652.81	1,544.90	1,236.69	308.21	5.012		
13,400.00	7,112.66	7,057.66	7,112.66	176.23	244.66	-90.89	-2,802.86	-7,652.81	1,450.60	1,138.96	311.65	4.655		
13,500.00	7,112.09	7,057.09	7,112.09	179.02	244.64	-90.82	-2,802.86	-7,652.81	1,357.13	1,041.45	315.68	4.299		
13,600.00	7,111.52	7,056.52	7,111.52	181.82	244.62	-90.76	-2,802.86	-7,652.81	1,264.65	944.21	320.44	3.947		
13,700.00	7,110.95	7,055.95	7,110.95	184.62	244.60	-90.69	-2,802.86	-7,652.81	1,173.41	847.34	326.07	3.599		
13,800.00	7,110.38	7,055.38	7,110.38	187.42	244.58	-90.63	-2,802.86	-7,652.81	1,083.71	750.97	332.75	3.257		
13,900.00	7,109.81	7,054.81	7,109.81	190.22	244.56	-90.56	-2,802.86	-7,652.81	995.98	655.30	340.68	2.924		
14,000.00	7,109.25	7,054.25	7,109.25	193.03	244.54	-90.50	-2,802.86	-7,652.81	910.78	560.66	350.12	2.601		
14,100.00	7,108.68	7,053.68	7,108.68	195.84	244.52	-90.43	-2,802.86	-7,652.81	828.89	467.56	361.33	2.294		
14,200.00	7,108.11	7,053.11	7,108.11	198.64	244.50	-90.37	-2,802.86	-7,652.81	751.40	376.85	374.55	2.006		
14,300.00	7,107.54	7,052.54	7,107.54	201.45	244.48	-90.30	-2,802.86	-7,652.81	679.81	289.93	389.88	1.744		
14,400.00	7,106.97	7,051.97	7,106.97	204.26	244.46	-90.24	-2,802.86	-7,652.81	616.18	209.12	407.06	1.514		
14,500.00	7,106.40	7,051.40	7,106.40	207.07	244.44	-90.17	-2,802.86	-7,652.81	563.22	138.12	425.10	1.325 Level 3		
14,600.00	7,105.83	7,050.83	7,105.83	209.89	244.42	-90.11	-2,802.86	-7,652.81	524.17	82.25	441.92	1.186 Level 2		
14,700.00	7,105.27	7,050.27	7,105.27	212.70	244.40	-90.04	-2,802.86	-7,652.81	502.29	47.87	454.42	1.105 Level 2		
14,762.32	7,104.91	7,049.91	7,104.91	214.46	244.39	-90.00	-2,802.86	-7,652.81	498.41	39.71	458.70	1.087 Level 2, CC, ES, SF		
14,800.00	7,104.70	7,049.70	7,104.70	215.52	244.38	-89.98	-2,802.86	-7,652.81	499.83	40.08	459.75	1.087 Level 2		
14,900.00	7,104.13	7,049.13	7,104.13	218.33	244.36	-89.91	-2,802.86	-7,652.81	517.08	60.01	457.07	1.131 Level 2		
15,000.00	7,103.56	7,048.56	7,103.56	221.15	244.34	-89.84	-2,802.86	-7,652.81	552.18	104.12	448.06	1.232 Level 2		
15,100.00	7,102.99	7,047.99	7,102.99	223.97	244.32	-89.78	-2,802.86	-7,652.81	602.03	166.43	435.60	1.382 Level 3		
15,200.00	7,102.42	7,047.42	7,102.42	226.79	244.30	-89.71	-2,802.86	-7,652.81	663.30	241.15	422.15	1.571		
15,274.57	7,102.00	7,047.00	7,102.00	228.89	244.29	-89.67	-2,802.86	-7,652.81	714.71	302.29	412.42	1.733		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	42.00	3.28	3.28	-101.37	-1,310.99	-6,517.19	6,647.88					
100.00	100.00	58.00	100.00	3.28	3.43	-101.37	-1,310.99	-6,517.19	6,647.74	6,641.03	6.72	989.629		
200.00	200.00	158.00	200.00	3.34	5.00	-101.37	-1,310.99	-6,517.19	6,647.74	6,639.41	8.33	797.630		
300.00	299.98	257.98	299.98	3.44	7.97	74.69	-1,310.99	-6,517.19	6,647.28	6,635.88	11.41	582.766		
400.00	399.84	357.84	399.84	3.59	11.24	74.76	-1,310.99	-6,517.19	6,645.90	6,631.08	14.82	448.303		
500.00	499.45	457.45	499.45	3.79	14.60	74.88	-1,310.99	-6,517.19	6,643.61	6,625.23	18.38	361.382		
600.00	598.70	556.70	598.70	4.03	17.99	75.04	-1,310.99	-6,517.19	6,640.43	6,618.41	22.02	301.567		
700.00	697.47	655.47	697.47	4.31	21.39	75.25	-1,310.99	-6,517.19	6,636.37	6,610.67	25.70	258.192		
800.00	795.62	753.62	795.62	4.64	24.78	75.50	-1,310.99	-6,517.19	6,631.47	6,602.05	29.42	225.423		
900.00	893.06	851.06	893.06	5.00	28.16	75.80	-1,310.99	-6,517.19	6,625.75	6,592.60	33.15	199.858		
1,000.00	989.64	947.64	989.64	5.40	31.51	76.13	-1,310.99	-6,517.19	6,619.27	6,582.37	36.90	179.393		
1,100.00	1,085.27	1,043.27	1,085.27	5.83	34.83	76.51	-1,310.99	-6,517.19	6,612.05	6,571.41	40.65	162.665		
1,200.00	1,179.88	1,137.88	1,179.88	6.29	38.12	76.87	-1,310.99	-6,517.19	6,604.21	6,559.82	44.40	148.752		
1,300.00	1,274.26	1,232.26	1,274.26	6.78	41.40	77.13	-1,310.99	-6,517.19	6,596.35	6,548.19	48.16	136.956		
1,400.00	1,368.63	1,326.63	1,368.63	7.28	44.69	77.40	-1,310.99	-6,517.19	6,588.65	6,536.70	51.95	126.828		
1,500.00	1,463.00	1,421.00	1,463.00	7.80	47.97	77.66	-1,310.99	-6,517.19	6,581.11	6,525.36	55.75	118.048		
1,600.00	1,557.38	1,515.38	1,557.38	8.33	51.26	77.93	-1,310.99	-6,517.19	6,573.72	6,514.16	59.56	110.369		
1,700.00	1,651.75	1,609.75	1,651.75	8.87	54.55	78.20	-1,310.99	-6,517.19	6,566.49	6,503.11	63.38	103.599		
1,800.00	1,746.12	1,704.12	1,746.12	9.41	57.84	78.46	-1,310.99	-6,517.19	6,559.42	6,492.20	67.21	97.590		
1,900.00	1,840.49	1,801.51	1,840.49	9.96	61.23	78.73	-1,310.99	-6,517.19	6,552.51	6,481.35	71.16	92.085		
2,000.00	1,934.87	1,907.13	1,934.87	10.52	64.92	79.00	-1,310.99	-6,517.19	6,545.76	6,470.36	75.39	86.822		
2,100.00	2,029.24	1,987.24	2,029.24	11.08	67.71	79.27	-1,310.99	-6,517.19	6,539.16	6,460.42	78.74	83.043		
2,200.00	2,123.61	2,081.61	2,123.61	11.64	71.00	79.54	-1,310.99	-6,517.19	6,532.73	6,450.14	82.60	79.091		
2,300.00	2,217.99	2,175.99	2,217.99	12.21	74.29	79.81	-1,310.99	-6,517.19	6,526.46	6,440.01	86.46	75.489		
2,400.00	2,312.36	2,270.36	2,312.36	12.78	77.58	80.08	-1,310.99	-6,517.19	6,520.36	6,430.04	90.32	72.195		
2,500.00	2,406.73	2,364.73	2,406.73	13.35	80.87	80.35	-1,310.99	-6,517.19	6,514.41	6,420.23	94.18	69.170		
2,600.00	2,501.10	2,459.10	2,501.10	13.93	84.17	80.62	-1,310.99	-6,517.19	6,508.63	6,410.58	98.05	66.383		
2,700.00	2,595.48	2,553.48	2,595.48	14.51	87.46	80.89	-1,310.99	-6,517.19	6,503.01	6,401.09	101.91	63.808		
2,800.00	2,689.85	2,647.85	2,689.85	15.08	90.75	81.17	-1,310.99	-6,517.19	6,497.55	6,391.77	105.79	61.422		
2,900.00	2,784.22	2,742.22	2,784.22	15.66	94.04	81.44	-1,310.99	-6,517.19	6,492.26	6,382.60	109.66	59.205		
3,000.00	2,878.60	2,836.60	2,878.60	16.25	97.34	81.71	-1,310.99	-6,517.19	6,487.13	6,373.60	113.53	57.139		
3,100.00	2,972.97	2,930.97	2,972.97	16.83	100.63	81.98	-1,310.99	-6,517.19	6,482.17	6,364.76	117.41	55.211		
3,200.00	3,067.34	3,025.34	3,067.34	17.41	103.92	82.26	-1,310.99	-6,517.19	6,477.37	6,356.09	121.29	53.406		
3,300.00	3,161.72	3,119.72	3,161.72	18.00	107.21	82.53	-1,310.99	-6,517.19	6,472.74	6,347.57	125.16	51.714		
3,400.00	3,256.09	3,214.09	3,256.09	18.58	110.51	82.81	-1,310.99	-6,517.19	6,468.27	6,339.23	129.04	50.125		
3,500.00	3,350.46	3,308.46	3,350.46	19.17	113.80	83.08	-1,310.99	-6,517.19	6,463.97	6,331.05	132.92	48.629		
3,600.00	3,444.83	3,402.83	3,444.83	19.75	117.09	83.36	-1,310.99	-6,517.19	6,459.84	6,323.03	136.81	47.219		
3,700.00	3,539.21	3,502.79	3,539.21	20.34	120.58	83.63	-1,310.99	-6,517.19	6,455.87	6,314.98	140.88	45.824		
3,800.00	3,633.58	3,608.42	3,633.58	20.93	124.27	83.91	-1,310.99	-6,517.19	6,452.07	6,306.91	145.16	44.448		
3,900.00	3,727.95	3,685.95	3,727.95	21.52	126.97	84.18	-1,310.99	-6,517.19	6,448.43	6,299.98	148.46	43.437		
4,000.00	3,822.33	3,780.33	3,822.33	22.11	130.27	84.46	-1,310.99	-6,517.19	6,444.97	6,292.63	152.34	42.306		
4,100.00	3,916.70	3,874.70	3,916.70	22.70	133.56	84.74	-1,310.99	-6,517.19	6,441.67	6,285.45	156.23	41.233		
4,200.00	4,011.07	3,969.07	4,011.07	23.29	136.85	85.01	-1,310.99	-6,517.19	6,438.54	6,278.43	160.11	40.213		
4,300.00	4,105.44	4,063.44	4,105.44	23.88	140.15	85.29	-1,310.99	-6,517.19	6,435.58	6,271.58	164.00	39.242		
4,400.00	4,199.82	4,157.82	4,199.82	24.47	143.44	85.57	-1,310.99	-6,517.19	6,432.79	6,264.90	167.88	38.317		
4,500.00	4,294.19	4,252.19	4,294.19	25.06	146.74	85.84	-1,310.99	-6,517.19	6,430.16	6,258.39	171.77	37.434		
4,600.00	4,388.56	4,346.56	4,388.56	25.65	150.03	86.12	-1,310.99	-6,517.19	6,427.71	6,252.05	175.66	36.592		
4,700.00	4,482.94	4,440.94	4,482.94	26.24	153.32	86.40	-1,310.99	-6,517.19	6,425.42	6,245.88	179.55	35.787		
4,800.00	4,577.31	4,535.31	4,577.31	26.83	156.62	86.68	-1,310.99	-6,517.19	6,423.31	6,239.87	183.43	35.017		
4,900.00	4,671.68	4,629.68	4,671.68	27.43	159.91	86.96	-1,310.99	-6,517.19	6,421.36	6,234.04	187.32	34.280		
5,000.00	4,766.05	4,724.05	4,766.05	28.02	163.20	87.23	-1,310.99	-6,517.19	6,419.59	6,228.38	191.21	33.573		
5,100.00	4,860.43	4,818.43	4,860.43	28.61	166.50	87.51	-1,310.99	-6,517.19	6,417.98	6,222.88	195.10	32.896		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.00	4,954.80	4,912.80	4,954.80	29.20	169.79	87.79	-1,310.99	-6,517.19	6,416.54	6,217.56	198.99	32.246		
5,300.00	5,049.17	5,007.17	5,049.17	29.80	173.09	88.07	-1,310.99	-6,517.19	6,415.28	6,212.40	202.88	31.621		
5,400.00	5,143.55	5,101.55	5,143.55	30.39	176.38	88.35	-1,310.99	-6,517.19	6,414.18	6,207.42	206.77	31.021		
5,500.00	5,237.92	5,204.08	5,237.92	30.99	179.96	88.63	-1,310.99	-6,517.19	6,413.26	6,202.32	210.94	30.403		
5,600.00	5,332.29	5,309.71	5,332.29	31.58	183.65	88.90	-1,310.99	-6,517.19	6,412.50	6,197.28	215.22	29.795		
5,700.00	5,426.66	5,384.66	5,426.66	32.17	186.26	89.18	-1,310.99	-6,517.19	6,411.92	6,193.48	218.43	29.354		
5,800.00	5,521.04	5,479.04	5,521.04	32.77	189.56	89.46	-1,310.99	-6,517.19	6,411.50	6,189.18	222.32	28.839		
5,900.00	5,615.41	5,573.41	5,615.41	33.36	192.85	89.74	-1,310.99	-6,517.19	6,411.26	6,185.05	226.21	28.342		
5,992.65	5,702.85	5,660.85	5,702.85	33.91	195.90	90.00	-1,310.99	-6,517.19	6,411.19	6,181.37	229.81	27.897		
6,000.00	5,709.78	5,667.78	5,709.78	33.96	196.14	90.02	-1,310.99	-6,517.19	6,411.19	6,181.09	230.10	27.863		
6,100.00	5,804.16	5,762.16	5,804.16	34.55	199.44	90.30	-1,310.99	-6,517.19	6,411.29	6,177.30	233.99	27.400		
6,200.00	5,898.53	5,856.53	5,898.53	35.14	202.73	90.58	-1,310.99	-6,517.19	6,411.55	6,173.68	237.88	26.953		
6,300.00	5,992.90	5,950.90	5,992.90	35.74	206.03	90.86	-1,310.99	-6,517.19	6,411.99	6,170.23	241.77	26.521		
6,400.00	6,087.27	6,045.27	6,087.27	36.33	209.32	91.14	-1,310.99	-6,517.19	6,412.60	6,166.95	245.65	26.104		
6,500.00	6,181.65	6,139.65	6,181.65	36.93	212.62	91.41	-1,310.99	-6,517.19	6,413.38	6,163.84	249.54	25.701		
6,600.00	6,276.02	6,234.02	6,276.02	37.52	215.91	91.69	-1,310.99	-6,517.19	6,414.33	6,160.90	253.43	25.310		
6,700.00	6,370.39	6,328.39	6,370.39	38.12	219.20	91.97	-1,310.99	-6,517.19	6,415.45	6,158.14	257.32	24.932		
6,800.00	6,464.77	6,422.77	6,464.77	38.71	222.50	92.25	-1,310.99	-6,517.19	6,416.74	6,155.54	261.21	24.566		
6,900.00	6,559.14	6,517.14	6,559.14	39.31	225.79	92.31	-1,310.99	-6,517.19	6,418.21	6,153.11	265.09	24.211		
7,000.00	6,652.92	6,610.92	6,652.92	39.90	229.07	92.43	-1,310.99	-6,517.19	6,419.92	6,142.97	268.95	23.840		
7,100.00	6,744.00	6,702.00	6,744.00	40.44	232.24	92.58	-1,310.99	-6,517.19	6,390.41	6,117.73	272.68	23.436		
7,200.00	6,830.13	6,788.13	6,830.13	40.94	235.25	92.86	-1,310.99	-6,517.19	6,354.23	6,078.05	276.18	23.008		
7,300.00	6,909.19	6,867.19	6,909.19	41.37	238.01	93.40	-1,310.99	-6,517.19	6,304.26	6,024.89	279.37	22.566		
7,400.00	6,979.23	6,937.23	6,979.23	41.75	240.46	93.94	-1,310.99	-6,517.19	6,241.72	5,959.52	282.20	22.118		
7,500.00	7,038.53	7,003.47	7,038.53	42.08	242.77	94.41	-1,310.99	-6,517.19	6,168.14	5,883.30	284.84	21.655		
7,600.00	7,085.63	7,043.63	7,085.63	42.37	244.17	94.86	-1,310.99	-6,517.19	6,085.29	5,798.76	286.53	21.238		
7,700.00	7,119.37	7,077.37	7,119.37	42.64	245.35	95.37	-1,310.99	-6,517.19	5,995.17	5,707.23	287.94	20.821		
7,800.00	7,138.92	7,103.08	7,138.92	42.91	246.25	95.83	-1,310.99	-6,517.19	5,899.95	5,610.93	289.02	20.414		
7,900.00	7,143.92	7,101.92	7,143.92	43.25	246.20	96.25	-1,310.99	-6,517.19	5,801.94	5,512.82	289.12	20.067		
8,000.00	7,143.35	7,101.35	7,143.35	43.72	246.19	96.63	-1,310.99	-6,517.19	5,703.42	5,414.19	289.24	19.719		
8,100.00	7,142.78	7,100.78	7,142.78	44.42	246.17	96.97	-1,310.99	-6,517.19	5,604.96	5,315.60	289.36	19.370		
8,200.00	7,142.22	7,100.22	7,142.22	45.39	246.15	97.29	-1,310.99	-6,517.19	5,506.55	5,217.05	289.50	19.021		
8,300.00	7,141.65	7,100.35	7,141.65	46.63	246.15	97.56	-1,310.99	-6,517.19	5,408.20	5,118.52	289.68	18.670		
8,400.00	7,141.08	7,100.92	7,141.08	48.09	246.17	97.79	-1,310.99	-6,517.19	5,309.91	5,020.03	289.88	18.318		
8,500.00	7,140.51	7,101.49	7,140.51	49.74	246.19	97.99	-1,310.99	-6,517.19	5,211.68	4,921.58	290.10	17.965		
8,600.00	7,139.94	7,102.06	7,139.94	51.53	246.21	98.16	-1,310.99	-6,517.19	5,113.53	4,823.19	290.34	17.612		
8,700.00	7,139.37	7,102.63	7,139.37	53.44	246.23	98.30	-1,310.99	-6,517.19	5,015.45	4,724.85	290.60	17.259		
8,800.00	7,138.80	7,103.20	7,138.80	55.45	246.25	98.41	-1,310.99	-6,517.19	4,917.44	4,626.57	290.87	16.906		
8,900.00	7,138.24	7,103.76	7,138.24	57.55	246.27	98.49	-1,310.99	-6,517.19	4,819.52	4,528.35	291.17	16.552		
9,000.00	7,137.67	7,104.33	7,137.67	59.71	246.29	98.55	-1,310.99	-6,517.19	4,721.68	4,430.19	291.49	16.199		
9,100.00	7,137.10	7,104.90	7,137.10	61.94	246.31	98.59	-1,310.99	-6,517.19	4,623.94	4,332.11	291.83	15.845		
9,200.00	7,136.53	7,105.47	7,136.53	64.22	246.33	98.62	-1,310.99	-6,517.19	4,526.29	4,234.09	292.20	15.490		
9,300.00	7,135.96	7,106.04	7,135.96	66.55	246.35	98.64	-1,310.99	-6,517.19	4,428.75	4,136.15	292.60	15.136		
9,400.00	7,135.39	7,106.61	7,135.39	68.92	246.37	98.65	-1,310.99	-6,517.19	4,331.32	4,038.29	293.02	14.781		
9,500.00	7,134.83	7,107.17	7,134.83	71.33	246.39	98.66	-1,310.99	-6,517.19	4,234.01	3,940.52	293.49	14.427		
9,600.00	7,134.26	7,107.74	7,134.26	73.77	246.41	98.66	-1,310.99	-6,517.19	4,136.83	3,842.84	293.99	14.072		
9,700.00	7,133.69	7,108.31	7,133.69	76.24	246.43	98.65	-1,310.99	-6,517.19	4,039.79	3,745.26	294.52	13.716		
9,800.00	7,133.12	7,108.88	7,133.12	78.74	246.45	98.64	-1,310.99	-6,517.19	3,942.89	3,647.78	295.11	13.361		
9,900.00	7,132.55	7,109.45	7,132.55	81.27	246.47	98.63	-1,310.99	-6,517.19	3,846.15	3,550.42	295.73	13.005		
10,000.00	7,131.98	7,089.98	7,131.98	83.81	245.79	98.62	-1,310.99	-6,517.19	3,749.59	3,453.87	295.71	12.680		
10,100.00	7,131.42	7,089.42	7,131.42	86.38	245.77	98.61	-1,310.99	-6,517.19	3,653.21	3,356.80	296.41	12.325		
10,200.00	7,130.85	7,088.85	7,130.85	88.96	245.75	98.60	-1,310.99	-6,517.19	3,557.03	3,259.86	297.16	11.970		

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

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,300.00	7,130.28	7,088.28	7,130.28	91.56	245.73	91.10	-1,310.99	-6,517.19	3,461.06	3,163.08	297.98	11.615		
10,400.00	7,129.71	7,087.71	7,129.71	94.18	245.71	91.06	-1,310.99	-6,517.19	3,365.33	3,066.45	298.88	11.260		
10,500.00	7,129.14	7,087.14	7,129.14	96.81	245.69	91.03	-1,310.99	-6,517.19	3,269.86	2,970.01	299.85	10.905		
10,600.00	7,128.57	7,086.57	7,128.57	99.45	245.67	91.00	-1,310.99	-6,517.19	3,174.66	2,873.75	300.91	10.550		
10,700.00	7,128.00	7,086.00	7,128.00	102.11	245.65	90.96	-1,310.99	-6,517.19	3,079.77	2,777.71	302.06	10.196		
10,800.00	7,127.44	7,085.44	7,127.44	104.77	245.63	90.93	-1,310.99	-6,517.19	2,985.21	2,681.90	303.31	9.842		
10,900.00	7,126.87	7,084.87	7,126.87	107.45	245.61	90.90	-1,310.99	-6,517.19	2,891.02	2,586.34	304.68	9.489		
11,000.00	7,126.30	7,084.30	7,126.30	110.13	245.59	90.86	-1,310.99	-6,517.19	2,797.23	2,491.05	306.18	9.136		
11,100.00	7,125.73	7,083.73	7,125.73	112.82	245.57	90.83	-1,310.99	-6,517.19	2,703.89	2,396.08	307.81	8.784		
11,200.00	7,125.16	7,083.16	7,125.16	115.53	245.55	90.80	-1,310.99	-6,517.19	2,611.04	2,301.45	309.59	8.434		
11,300.00	7,124.59	7,082.59	7,124.59	118.24	245.53	90.77	-1,310.99	-6,517.19	2,518.73	2,207.20	311.54	8.085		
11,400.00	7,124.03	7,082.03	7,124.03	120.95	245.51	90.73	-1,310.99	-6,517.19	2,427.04	2,113.37	313.67	7.738		
11,500.00	7,123.46	7,081.46	7,123.46	123.67	245.49	90.70	-1,310.99	-6,517.19	2,336.03	2,020.03	316.00	7.393		
11,600.00	7,122.89	7,080.89	7,122.89	126.40	245.47	90.67	-1,310.99	-6,517.19	2,245.78	1,927.23	318.55	7.050		
11,700.00	7,122.32	7,080.32	7,122.32	129.14	245.45	90.63	-1,310.99	-6,517.19	2,156.39	1,835.04	321.35	6.710		
11,800.00	7,121.75	7,079.75	7,121.75	131.88	245.43	90.60	-1,310.99	-6,517.19	2,067.98	1,743.56	324.41	6.375		
11,900.00	7,121.18	7,079.18	7,121.18	134.62	245.41	90.57	-1,310.99	-6,517.19	1,980.66	1,652.89	327.77	6.043		
12,000.00	7,120.61	7,078.61	7,120.61	137.37	245.39	90.53	-1,310.99	-6,517.19	1,894.60	1,563.15	331.46	5.716		
12,100.00	7,120.05	7,078.05	7,120.05	140.12	245.37	90.50	-1,310.99	-6,517.19	1,809.98	1,474.48	335.49	5.395		
12,200.00	7,119.48	7,077.48	7,119.48	142.88	245.35	90.47	-1,310.99	-6,517.19	1,727.00	1,387.08	339.92	5.081		
12,300.00	7,118.91	7,076.91	7,118.91	145.64	245.33	90.43	-1,310.99	-6,517.19	1,645.91	1,301.16	344.75	4.774		
12,400.00	7,118.34	7,076.34	7,118.34	148.41	245.31	90.40	-1,310.99	-6,517.19	1,567.01	1,216.98	350.03	4.477		
12,500.00	7,117.77	7,075.77	7,117.77	151.18	245.29	90.37	-1,310.99	-6,517.19	1,490.64	1,134.87	355.77	4.190		
12,600.00	7,117.20	7,075.20	7,117.20	153.95	245.27	90.34	-1,310.99	-6,517.19	1,417.22	1,055.24	361.97	3.915		
12,700.00	7,116.64	7,074.64	7,116.64	156.73	245.25	90.30	-1,310.99	-6,517.19	1,347.22	978.58	368.64	3.655		
12,800.00	7,116.07	7,074.07	7,116.07	159.50	245.23	90.27	-1,310.99	-6,517.19	1,281.21	905.47	375.74	3.410		
12,900.00	7,115.50	7,073.50	7,115.50	162.29	245.21	90.24	-1,310.99	-6,517.19	1,219.83	836.65	383.19	3.183		
13,000.00	7,114.93	7,072.93	7,114.93	165.07	245.19	90.20	-1,310.99	-6,517.19	1,163.82	772.97	390.86	2.978		
13,100.00	7,114.36	7,072.36	7,114.36	167.86	245.17	90.17	-1,310.99	-6,517.19	1,113.99	715.43	398.56	2.795		
13,200.00	7,113.79	7,071.79	7,113.79	170.64	245.15	90.14	-1,310.99	-6,517.19	1,071.20	665.17	406.03	2.638		
13,300.00	7,113.22	7,071.22	7,113.22	173.44	245.13	90.10	-1,310.99	-6,517.19	1,036.32	623.37	412.95	2.510		
13,400.00	7,112.66	7,070.66	7,112.66	176.23	245.11	90.07	-1,310.99	-6,517.19	1,010.17	591.22	418.95	2.411		
13,500.00	7,112.09	7,070.09	7,112.09	179.02	245.09	90.04	-1,310.99	-6,517.19	993.45	569.77	423.67	2.345		
13,600.00	7,111.52	7,069.52	7,111.52	181.82	245.07	90.01	-1,310.99	-6,517.19	986.62	559.79	426.83	2.312		
13,617.56	7,111.42	7,069.42	7,111.42	182.31	245.07	90.00	-1,310.99	-6,517.19	986.47	559.26	427.21	2.309	CC, ES, SF	
13,700.00	7,110.95	7,068.95	7,110.95	184.62	245.05	89.97	-1,310.99	-6,517.19	989.91	561.65	428.25	2.312		
13,800.00	7,110.38	7,068.38	7,110.38	187.42	245.03	89.94	-1,310.99	-6,517.19	1,003.20	575.27	427.93	2.344		
13,900.00	7,109.81	7,067.81	7,109.81	190.22	245.01	89.91	-1,310.99	-6,517.19	1,026.10	600.11	426.00	2.409		
14,000.00	7,109.25	7,067.25	7,109.25	193.03	244.99	89.87	-1,310.99	-6,517.19	1,058.01	635.29	422.72	2.503		
14,100.00	7,108.68	7,066.68	7,108.68	195.84	244.97	89.84	-1,310.99	-6,517.19	1,098.12	679.70	418.41	2.624		
14,200.00	7,108.11	7,066.11	7,108.11	198.64	244.95	89.81	-1,310.99	-6,517.19	1,145.58	732.17	413.41	2.771		
14,300.00	7,107.54	7,065.54	7,107.54	201.45	244.93	89.77	-1,310.99	-6,517.19	1,199.51	791.53	407.98	2.940		
14,400.00	7,106.97	7,064.97	7,106.97	204.26	244.92	89.74	-1,310.99	-6,517.19	1,259.09	856.71	402.39	3.129		
14,500.00	7,106.40	7,064.40	7,106.40	207.07	244.90	89.71	-1,310.99	-6,517.19	1,323.56	926.76	396.80	3.336		
14,600.00	7,105.83	7,063.83	7,105.83	209.89	244.88	89.68	-1,310.99	-6,517.19	1,392.22	1,000.88	391.34	3.558		
14,700.00	7,105.27	7,063.27	7,105.27	212.70	244.86	89.64	-1,310.99	-6,517.19	1,464.50	1,078.40	386.10	3.793		
14,800.00	7,104.70	7,062.70	7,104.70	215.52	244.84	89.61	-1,310.99	-6,517.19	1,539.89	1,158.76	381.13	4.040		
14,900.00	7,104.13	7,062.13	7,104.13	218.33	244.82	89.58	-1,310.99	-6,517.19	1,617.94	1,241.50	376.44	4.298		
15,000.00	7,103.56	7,061.56	7,103.56	221.15	244.80	89.54	-1,310.99	-6,517.19	1,698.30	1,326.24	372.06	4.565		
15,100.00	7,102.99	7,060.99	7,102.99	223.97	244.78	89.51	-1,310.99	-6,517.19	1,780.64	1,412.67	367.97	4.839		
15,200.00	7,102.42	7,060.42	7,102.42	226.79	244.76	89.48	-1,310.99	-6,517.19	1,864.72	1,500.55	364.17	5.120		
15,274.57	7,102.00	7,060.00	7,102.00	228.89	244.74	89.45	-1,310.99	-6,517.19	1,928.40	1,566.89	361.51	5.334		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-3(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	37.00	3.28	3.28	-91.30	-174.40	-7,655.89	7,657.96					
100.00	100.00	110.08	147.08	3.28	3.29	-91.30	-174.00	-7,655.50	7,657.62	7,651.05	6.58	1,164.628		
200.00	200.00	181.82	218.82	3.34	3.33	-91.30	-173.51	-7,655.20	7,657.19	7,650.52	6.67	1,148.730		
300.00	299.98	255.57	292.57	3.44	3.40	84.76	-173.05	-7,655.16	7,656.96	7,650.12	6.84	1,120.094		
400.00	399.84	331.39	368.38	3.59	3.49	84.80	-172.85	-7,655.36	7,656.74	7,649.66	7.08	1,080.989		
500.00	499.45	413.47	450.46	3.79	3.63	84.86	-172.93	-7,655.82	7,656.51	7,649.09	7.42	1,032.336		
600.00	598.70	521.64	558.63	4.03	3.85	84.96	-173.20	-7,656.41	7,655.98	7,648.10	7.88	971.531		
700.00	697.47	612.25	649.24	4.31	4.07	85.08	-173.87	-7,656.92	7,655.18	7,646.80	8.38	913.298		
800.00	795.62	699.37	736.35	4.64	4.30	85.21	-174.74	-7,657.52	7,654.25	7,645.32	8.94	856.424		
900.00	893.06	799.24	836.22	5.00	4.59	85.40	-175.76	-7,658.27	7,653.14	7,643.56	9.59	798.292		
1,000.00	989.64	900.53	937.50	5.40	4.90	85.61	-176.76	-7,658.98	7,651.78	7,641.48	10.30	743.120		
1,100.00	1,085.27	1,000.71	1,037.67	5.83	5.23	85.86	-177.61	-7,659.62	7,650.19	7,639.13	11.05	692.022		
1,200.00	1,179.88	1,095.82	1,132.77	6.29	5.55	86.11	-178.16	-7,660.21	7,648.45	7,636.61	11.84	645.958		
1,300.00	1,274.26	1,187.33	1,224.29	6.78	5.87	86.33	-178.50	-7,660.79	7,646.81	7,634.16	12.65	604.534		
1,400.00	1,368.63	1,292.62	1,329.57	7.28	6.25	86.59	-178.79	-7,661.42	7,645.27	7,631.74	13.53	564.956		
1,500.00	1,463.00	1,381.19	1,418.14	7.80	6.58	86.81	-179.02	-7,661.90	7,643.83	7,629.45	14.38	531.699		
1,600.00	1,557.38	1,474.80	1,511.74	8.33	6.93	87.04	-179.38	-7,662.47	7,642.58	7,627.33	15.26	500.982		
1,700.00	1,651.75	1,564.14	1,601.08	8.87	7.27	87.25	-179.72	-7,663.03	7,641.49	7,625.36	16.13	473.684		
1,800.00	1,746.12	1,659.44	1,696.38	9.41	7.63	87.49	-179.97	-7,663.68	7,640.60	7,623.56	17.04	448.301		
1,900.00	1,840.49	1,755.24	1,792.18	9.96	8.01	87.72	-180.07	-7,664.28	7,639.81	7,621.84	17.97	425.208		
2,000.00	1,934.87	1,850.95	1,887.89	10.52	8.38	87.96	-180.22	-7,664.89	7,639.16	7,620.26	18.90	404.203		
2,100.00	2,029.24	1,943.13	1,980.06	11.08	8.75	88.19	-180.44	-7,665.46	7,638.63	7,618.80	19.82	385.305		
2,200.00	2,123.61	2,049.86	2,086.80	11.64	9.17	88.45	-180.63	-7,666.16	7,638.28	7,617.47	20.81	366.961		
2,300.00	2,217.99	2,167.38	2,204.31	12.21	9.65	88.74	-180.70	-7,666.49	7,637.71	7,615.86	21.85	349.488		
2,400.00	2,312.36	2,260.44	2,317.37	12.78	10.10	89.02	-181.31	-7,666.60	7,637.11	7,614.23	22.88	333.798		
2,500.00	2,406.73	2,373.41	2,410.34	13.35	10.48	89.24	-181.87	-7,666.55	7,636.49	7,612.66	23.83	320.485		
2,600.00	2,501.10	2,467.02	2,503.95	13.93	10.86	89.47	-182.30	-7,666.55	7,636.06	7,611.28	24.78	308.123		
2,700.00	2,595.48	2,585.20	2,622.12	14.51	11.34	89.76	-182.70	-7,666.39	7,635.67	7,609.83	25.84	295.503		
2,800.00	2,689.85	2,698.85	2,735.77	15.08	11.80	90.05	-182.82	-7,665.85	7,635.10	7,608.22	26.88	284.037		
2,900.00	2,784.22	2,786.01	2,822.94	15.66	12.16	90.26	-182.62	-7,665.35	7,634.61	7,606.79	27.82	274.456		
2,964.71	2,845.29	2,824.22	2,861.14	16.04	12.32	90.36	-182.45	-7,665.18	7,634.47	7,606.12	28.35	269.289		
3,000.00	2,878.60	2,841.79	2,878.71	16.25	12.39	90.40	-182.34	-7,665.15	7,634.51	7,605.88	28.63	266.680		
3,100.00	2,972.97	2,900.01	2,936.93	16.83	12.63	90.55	-181.85	-7,665.31	7,635.11	7,605.66	29.45	259.259		
3,200.00	3,067.34	2,946.39	2,983.31	17.41	12.82	90.67	-181.37	-7,665.69	7,636.37	7,606.14	30.22	252.665		
3,300.00	3,161.72	3,003.39	3,040.30	18.00	13.05	90.82	-180.70	-7,666.40	7,638.25	7,607.21	31.04	246.068		
3,400.00	3,256.09	3,085.98	3,122.87	18.58	13.40	91.03	-179.61	-7,667.69	7,640.58	7,608.62	31.97	239.009		
3,500.00	3,350.46	3,143.13	3,180.01	19.17	13.64	91.17	-178.74	-7,668.72	7,643.34	7,610.55	32.79	233.119		
3,600.00	3,444.83	3,200.01	3,236.86	19.75	13.87	91.32	-177.80	-7,670.07	7,646.75	7,613.15	33.61	227.546		
3,700.00	3,539.21	3,262.03	3,298.85	20.34	14.13	91.48	-176.69	-7,671.82	7,650.75	7,616.31	34.45	222.113		
3,800.00	3,633.58	3,340.33	3,377.09	20.93	14.46	91.69	-175.12	-7,674.23	7,655.19	7,619.84	35.36	216.519		
3,900.00	3,727.95	3,440.91	3,477.60	21.52	14.88	91.95	-172.63	-7,677.34	7,659.85	7,623.49	36.36	210.643		
4,000.00	3,822.33	3,563.45	3,600.05	22.11	15.40	92.27	-169.26	-7,680.75	7,664.41	7,626.95	37.47	204.553		
4,100.00	3,916.70	3,669.81	3,706.33	22.70	15.84	92.55	-166.63	-7,683.41	7,668.85	7,630.34	38.50	199.168		
4,200.00	4,011.07	3,770.31	3,806.78	23.29	16.27	92.81	-164.50	-7,685.88	7,673.35	7,633.84	39.51	194.190		
4,300.00	4,105.44	3,869.45	3,905.88	23.88	16.68	93.07	-162.61	-7,688.25	7,677.93	7,637.41	40.52	189.486		
4,400.00	4,199.82	3,973.52	4,009.90	24.47	17.12	93.34	-160.93	-7,690.70	7,682.58	7,641.04	41.55	184.915		
4,500.00	4,294.19	4,082.44	4,118.78	25.06	17.58	93.61	-159.42	-7,693.10	7,687.23	7,644.63	42.60	180.471		
4,600.00	4,388.56	4,177.57	4,213.89	25.65	17.98	93.85	-158.02	-7,695.07	7,691.90	7,648.32	43.58	176.484		
4,700.00	4,482.94	4,279.55	4,315.84	26.24	18.41	94.11	-156.85	-7,697.20	7,696.70	7,652.10	44.60	172.558		
4,800.00	4,577.31	4,386.08	4,422.34	26.83	18.86	94.38	-155.95	-7,699.31	7,701.51	7,655.87	45.64	168.733		
4,900.00	4,671.68	4,497.12	4,533.36	27.43	19.33	94.65	-155.36	-7,701.36	7,706.29	7,659.58	46.70	165.007		
5,000.00	4,766.05	4,636.18	4,672.41	28.02	19.91	94.99	-154.88	-7,703.29	7,710.71	7,662.83	47.89	161.025		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-3(PR_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)					
5,100.00	4,860.43	4,727.22	4,763.44	28.61	20.30	95.22	-154.60	-7,704.38	7,715.14	7,666.28	48.86	157.909	
5,200.00	4,954.80	4,820.12	4,856.33	29.20	20.69	95.44	-154.33	-7,705.55	7,719.75	7,669.91	49.84	154.892	
5,300.00	5,049.17	4,923.20	4,959.40	29.80	21.13	95.70	-153.98	-7,706.74	7,724.42	7,673.55	50.87	151.860	
5,400.00	5,143.55	5,017.94	5,054.14	30.39	21.53	95.93	-153.59	-7,707.80	7,729.20	7,677.35	51.85	149.055	
5,500.00	5,237.92	5,121.21	5,157.40	30.99	21.97	96.18	-153.12	-7,708.85	7,734.05	7,681.17	52.88	146.252	
5,600.00	5,332.29	5,215.22	5,251.41	31.58	22.36	96.41	-152.78	-7,709.79	7,739.00	7,685.13	53.87	143.666	
5,700.00	5,426.66	5,331.86	5,368.04	32.17	22.86	96.70	-152.42	-7,710.88	7,744.03	7,689.08	54.95	140.919	
5,800.00	5,521.04	5,427.44	5,508.61	32.77	23.45	97.05	-151.54	-7,711.23	7,748.58	7,692.44	56.14	138.018	
5,900.00	5,615.41	5,554.41	5,590.58	33.36	23.80	97.25	-150.99	-7,711.28	7,753.15	7,696.08	57.08	135.841	
6,000.00	5,709.78	5,636.29	5,672.46	33.96	24.14	97.45	-150.72	-7,711.59	7,758.09	7,700.08	58.01	133.741	
6,100.00	5,804.16	5,728.60	5,764.77	34.55	24.54	97.67	-150.43	-7,711.98	7,763.20	7,704.21	58.99	131.609	
6,200.00	5,898.53	5,812.81	5,848.98	35.14	24.89	97.88	-150.11	-7,712.41	7,768.55	7,708.62	59.93	129.628	
6,300.00	5,992.90	5,904.81	5,940.98	35.74	25.28	98.10	-149.71	-7,712.93	7,774.10	7,713.20	60.91	127.639	
6,400.00	6,087.27	5,978.46	6,014.62	36.33	25.60	98.28	-149.45	-7,713.48	7,779.94	7,718.14	61.80	125.885	
6,500.00	6,181.65	6,082.03	6,118.19	36.93	26.04	98.53	-149.26	-7,714.42	7,786.04	7,723.21	62.83	123.922	
6,600.00	6,276.02	6,156.04	6,192.20	37.52	26.35	98.71	-149.17	-7,715.08	7,792.24	7,728.52	63.73	122.277	
6,700.00	6,370.39	6,233.75	6,269.90	38.12	26.68	98.90	-149.13	-7,716.06	7,798.89	7,734.25	64.64	120.655	
6,800.00	6,464.77	6,331.32	6,367.46	38.71	27.10	99.13	-149.30	-7,717.37	7,805.70	7,740.06	65.64	118.919	
6,900.00	6,559.14	6,436.56	6,472.70	39.31	27.55	99.16	-149.55	-7,718.76	7,812.63	7,745.95	66.67	117.176	
7,000.00	6,652.92	6,556.26	6,592.39	39.90	28.06	76.24	-150.10	-7,720.01	7,811.60	7,743.83	67.77	115.266	
7,100.00	6,744.00	6,653.18	6,689.30	40.44	28.47	60.75	-150.68	-7,720.89	7,795.43	7,726.69	68.73	113.415	
7,200.00	6,830.13	6,733.41	6,769.52	40.94	28.81	51.69	-151.61	-7,721.72	7,764.68	7,695.10	69.57	111.605	
7,300.00	6,909.19	6,797.77	6,833.87	41.37	29.08	46.83	-152.49	-7,722.54	7,720.28	7,649.99	70.29	109.832	
7,400.00	6,979.23	6,857.90	6,893.99	41.75	29.34	44.91	-153.30	-7,723.41	7,663.33	7,592.38	70.95	108.012	
7,500.00	7,038.53	6,900.01	6,936.09	42.08	29.52	45.40	-153.78	-7,724.06	7,595.16	7,523.67	71.49	106.243	
7,600.00	7,085.63	6,938.26	6,974.34	42.37	29.68	48.58	-154.17	-7,724.70	7,517.44	7,445.46	71.98	104.436	
7,700.00	7,119.37	6,961.20	6,997.27	42.64	29.78	55.41	-154.38	-7,725.14	7,432.03	7,359.65	72.38	102.681	
7,800.00	7,138.92	6,975.16	7,011.22	42.91	29.84	68.41	-154.50	-7,725.42	7,340.91	7,268.20	72.71	100.955	
7,900.00	7,143.92	6,979.77	7,015.83	43.25	29.86	87.64	-154.54	-7,725.51	7,246.26	7,173.27	72.99	99.283	
8,000.00	7,143.35	6,980.78	7,016.84	43.72	29.86	87.66	-154.55	-7,725.53	7,150.83	7,077.59	73.24	97.631	
8,100.00	7,142.78	6,981.79	7,017.85	44.42	29.87	87.69	-154.56	-7,725.56	7,055.53	6,982.01	73.53	95.959	
8,200.00	7,142.22	6,982.81	7,018.87	45.39	29.87	87.72	-154.57	-7,725.58	6,960.36	6,886.53	73.84	94.268	
8,300.00	7,141.65	6,983.84	7,019.90	46.63	29.88	87.74	-154.58	-7,725.60	6,865.33	6,791.16	74.17	92.557	
8,400.00	7,141.08	6,984.88	7,020.94	48.09	29.88	87.77	-154.59	-7,725.62	6,770.44	6,695.90	74.54	90.828	
8,500.00	7,140.51	6,985.93	7,021.99	49.74	29.88	87.80	-154.59	-7,725.64	6,675.71	6,600.77	74.94	89.081	
8,600.00	7,139.94	6,986.99	7,023.05	51.53	29.89	87.83	-154.60	-7,725.67	6,581.12	6,505.75	75.37	87.317	
8,700.00	7,139.37	6,988.06	7,024.12	53.44	29.89	87.86	-154.61	-7,725.69	6,486.70	6,410.86	75.84	85.536	
8,800.00	7,138.80	6,989.14	7,025.20	55.45	29.90	87.89	-154.62	-7,725.71	6,392.45	6,316.11	76.34	83.739	
8,900.00	7,138.24	6,990.23	7,026.28	57.55	29.90	87.91	-154.63	-7,725.74	6,298.37	6,221.50	76.88	81.928	
9,000.00	7,137.67	7,000.01	7,036.07	59.71	29.94	88.17	-154.70	-7,725.95	6,204.49	6,127.00	77.50	80.061	
9,100.00	7,137.10	7,000.01	7,036.07	61.94	29.94	88.17	-154.70	-7,725.95	6,110.79	6,032.68	78.11	78.231	
9,200.00	7,136.53	7,000.01	7,036.07	64.22	29.94	88.17	-154.70	-7,725.95	6,017.30	5,938.53	78.77	76.391	
9,300.00	7,135.96	7,000.01	7,036.07	66.55	29.94	88.17	-154.70	-7,725.95	5,924.02	5,844.54	79.47	74.541	
9,400.00	7,135.39	7,000.01	7,036.07	68.92	29.94	88.17	-154.70	-7,725.95	5,830.95	5,750.73	80.22	72.683	
9,500.00	7,134.83	7,000.01	7,036.07	71.33	29.94	88.17	-154.70	-7,725.95	5,738.13	5,657.10	81.02	70.820	
9,600.00	7,134.26	7,000.01	7,036.07	73.77	29.94	88.17	-154.70	-7,725.95	5,645.55	5,563.67	81.88	68.952	
9,700.00	7,133.69	7,000.01	7,036.07	76.24	29.94	88.17	-154.70	-7,725.95	5,553.22	5,470.44	82.78	67.082	
9,800.00	7,133.12	7,000.01	7,036.07	78.74	29.95	88.19	-154.71	-7,725.97	5,461.17	5,377.42	83.75	65.210	
9,900.00	7,132.55	7,002.10	7,038.15	81.27	29.95	88.23	-154.72	-7,726.00	5,369.40	5,284.62	84.78	63.336	
10,000.00	7,131.98	7,003.59	7,039.64	83.81	29.96	88.27	-154.73	-7,726.03	5,277.92	5,192.06	85.87	61.467	
10,100.00	7,131.42	7,005.08	7,041.13	86.38	29.97	88.31	-154.74	-7,726.07	5,186.77	5,099.75	87.02	59.604	
10,200.00	7,130.85	7,006.57	7,042.62	88.96	29.97	88.35	-154.75	-7,726.10	5,095.94	5,007.70	88.24	57.750	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-3(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,008.06	7,044.11	91.56	29.98	88.39	-154.76	-7,726.13	5,005.46	4,915.93	89.53	55.907		
10,400.00	7,129.71	7,009.55	7,045.61	94.18	29.99	88.43	-154.77	-7,726.17	4,915.35	4,824.46	90.89	54.078		
10,500.00	7,129.14	7,011.05	7,047.10	96.81	29.99	88.47	-154.79	-7,726.20	4,825.63	4,733.30	92.33	52.263		
10,600.00	7,128.57	7,012.55	7,048.60	99.45	30.00	88.51	-154.80	-7,726.23	4,736.33	4,642.47	93.85	50.466		
10,700.00	7,128.00	7,014.05	7,050.10	102.11	30.00	88.55	-154.81	-7,726.27	4,647.45	4,552.00	95.45	48.689		
10,800.00	7,127.44	7,015.55	7,051.60	104.77	30.01	88.59	-154.82	-7,726.30	4,559.04	4,461.90	97.14	46.934		
10,900.00	7,126.87	7,017.05	7,053.10	107.45	30.02	88.63	-154.83	-7,726.33	4,471.11	4,372.20	98.91	45.203		
11,000.00	7,126.30	7,018.56	7,054.61	110.13	30.02	88.67	-154.84	-7,726.37	4,383.71	4,282.93	100.78	43.498		
11,100.00	7,125.73	7,020.06	7,056.11	112.82	30.03	88.71	-154.85	-7,726.40	4,296.85	4,194.10	102.75	41.820		
11,200.00	7,125.16	7,021.57	7,057.62	115.53	30.04	88.75	-154.86	-7,726.44	4,210.57	4,105.76	104.81	40.173		
11,300.00	7,124.59	7,023.08	7,059.13	118.24	30.04	88.79	-154.87	-7,726.47	4,124.91	4,017.93	106.98	38.557		
11,400.00	7,124.03	7,024.59	7,060.64	120.95	30.05	88.83	-154.88	-7,726.50	4,039.91	3,930.65	109.26	36.975		
11,500.00	7,123.46	7,026.10	7,062.15	123.67	30.06	88.87	-154.89	-7,726.54	3,955.61	3,843.96	111.65	35.427		
11,600.00	7,122.89	7,027.62	7,063.67	126.40	30.06	88.91	-154.90	-7,726.57	3,872.06	3,757.90	114.16	33.916		
11,700.00	7,122.32	7,029.14	7,065.18	129.14	30.07	88.95	-154.91	-7,726.61	3,789.31	3,672.51	116.80	32.443		
11,800.00	7,121.75	7,030.65	7,066.70	131.88	30.08	88.99	-154.92	-7,726.64	3,707.40	3,587.85	119.56	31.010		
11,900.00	7,121.18	7,032.17	7,068.22	134.62	30.08	89.03	-154.93	-7,726.68	3,626.40	3,503.96	122.45	29.616		
12,000.00	7,120.61	7,033.70	7,069.74	137.37	30.09	89.07	-154.94	-7,726.71	3,546.37	3,420.90	125.47	28.264		
12,100.00	7,120.05	7,035.22	7,071.27	140.12	30.09	89.11	-154.95	-7,726.74	3,467.38	3,338.75	128.64	26.955		
12,200.00	7,119.48	7,036.74	7,072.79	142.88	30.10	89.15	-154.95	-7,726.78	3,389.50	3,257.55	131.94	25.689		
12,300.00	7,118.91	7,038.27	7,074.32	145.64	30.11	89.19	-154.96	-7,726.81	3,312.80	3,177.40	135.40	24.467		
12,400.00	7,118.34	7,039.80	7,075.84	148.41	30.11	89.23	-154.97	-7,726.85	3,237.37	3,098.37	139.00	23.291		
12,500.00	7,117.77	7,041.33	7,077.37	151.18	30.12	89.27	-154.98	-7,726.88	3,163.31	3,020.56	142.75	22.159		
12,600.00	7,117.20	7,042.86	7,078.91	153.95	30.13	89.32	-154.99	-7,726.92	3,090.71	2,944.04	146.66	21.074		
12,700.00	7,116.64	7,044.40	7,080.44	156.73	30.13	89.36	-155.00	-7,726.95	3,019.67	2,868.95	150.72	20.035		
12,800.00	7,116.07	7,045.93	7,081.97	159.50	30.14	89.40	-155.01	-7,726.99	2,950.31	2,795.37	154.93	19.042		
12,900.00	7,115.50	7,047.47	7,083.51	162.29	30.15	89.44	-155.02	-7,727.02	2,882.75	2,723.45	159.30	18.097		
13,000.00	7,114.93	7,049.01	7,085.05	165.07	30.15	89.48	-155.03	-7,727.06	2,817.12	2,653.31	163.80	17.198		
13,100.00	7,114.36	7,050.55	7,086.59	167.86	30.16	89.52	-155.03	-7,727.09	2,753.55	2,585.11	168.45	16.347		
13,200.00	7,113.79	7,052.09	7,088.13	170.64	30.17	89.56	-155.04	-7,727.13	2,692.20	2,518.98	173.22	15.542		
13,300.00	7,113.22	7,053.63	7,089.68	173.44	30.17	89.60	-155.05	-7,727.16	2,633.22	2,455.11	178.11	14.784		
13,400.00	7,112.66	7,055.18	7,091.22	176.23	30.18	89.64	-155.06	-7,727.20	2,576.77	2,393.67	183.10	14.073		
13,500.00	7,112.09	7,056.73	7,092.77	179.02	30.19	89.69	-155.07	-7,727.23	2,523.02	2,334.85	188.17	13.408		
13,600.00	7,111.52	7,058.28	7,094.32	181.82	30.19	89.73	-155.07	-7,727.27	2,472.15	2,278.85	193.30	12.789		
13,700.00	7,110.95	7,059.83	7,095.87	184.62	30.20	89.77	-155.08	-7,727.30	2,424.33	2,225.88	198.45	12.216		
13,800.00	7,110.38	7,061.38	7,097.42	187.42	30.21	89.81	-155.09	-7,727.34	2,379.76	2,176.16	203.61	11.688		
13,900.00	7,109.81	7,062.94	7,098.98	190.22	30.21	89.85	-155.10	-7,727.37	2,338.62	2,129.90	208.72	11.205		
14,000.00	7,109.25	7,064.49	7,100.53	193.03	30.22	89.89	-155.11	-7,727.41	2,301.09	2,087.34	213.75	10.765		
14,100.00	7,108.68	7,066.05	7,102.09	195.84	30.23	89.93	-155.11	-7,727.44	2,267.35	2,048.69	218.65	10.370		
14,200.00	7,108.11	7,067.61	7,103.65	198.64	30.23	89.98	-155.12	-7,727.48	2,237.57	2,014.18	223.39	10.016		
14,300.00	7,107.54	7,069.18	7,105.21	201.45	30.24	90.02	-155.13	-7,727.51	2,211.91	1,984.00	227.91	9.705		
14,400.00	7,106.97	7,070.74	7,106.78	204.26	30.25	90.06	-155.13	-7,727.55	2,190.52	1,958.36	232.16	9.435		
14,500.00	7,106.40	7,072.31	7,108.34	207.07	30.25	90.10	-155.14	-7,727.59	2,173.53	1,937.42	236.11	9.206		
14,600.00	7,105.83	7,073.87	7,109.91	209.89	30.26	90.14	-155.15	-7,727.62	2,161.03	1,921.33	239.70	9.016		
14,700.00	7,105.27	7,075.44	7,111.48	212.70	30.27	90.18	-155.15	-7,727.66	2,153.11	1,910.21	242.90	8.864		
14,800.00	7,104.70	7,077.01	7,113.05	215.52	30.27	90.23	-155.16	-7,727.69	2,149.81	1,904.13	245.68	8.750		
14,820.93	7,104.58	7,077.34	7,113.38	216.11	30.27	90.23	-155.16	-7,727.70	2,149.71	1,903.50	246.21	8.731 CC		
14,900.00	7,104.13	7,078.59	7,114.62	218.33	30.28	90.27	-155.17	-7,727.73	2,151.16	1,903.14	248.02	8.673 ES		
15,000.00	7,103.56	7,080.16	7,116.20	221.15	30.29	90.31	-155.17	-7,727.77	2,157.15	1,907.25	249.91	8.632		
15,100.00	7,102.99	7,081.74	7,117.77	223.97	30.29	90.35	-155.18	-7,727.80	2,167.75	1,916.41	251.33	8.625 SF		
15,200.00	7,102.42	7,083.32	7,119.35	226.79	30.30	90.39	-155.19	-7,727.84	2,182.87	1,930.57	252.30	8.652		
15,274.57	7,102.00	7,084.49	7,120.53	228.89	30.30	90.43	-155.19	-7,727.87	2,197.04	1,944.31	252.73	8.693		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	60.00	3.28	3.28	-109.54	-1,265.33	-3,565.67	3,784.00					
100.00	100.00	40.00	100.00	3.28	3.35	-109.54	-1,265.33	-3,565.67	3,783.53	3,776.89	6.64	569.962		
200.00	200.00	140.00	200.00	3.34	4.54	-109.54	-1,265.33	-3,565.67	3,783.53	3,775.65	7.88	480.201		
300.00	299.98	239.98	299.98	3.44	7.40	66.54	-1,265.33	-3,565.67	3,782.83	3,771.99	10.84	349.022		
400.00	399.84	339.84	399.84	3.59	10.64	66.65	-1,265.33	-3,565.67	3,780.75	3,766.52	14.23	265.773		
500.00	499.45	439.45	499.45	3.79	13.99	66.84	-1,265.33	-3,565.67	3,777.30	3,759.53	17.77	212.532		
600.00	598.70	538.70	598.70	4.03	17.37	67.10	-1,265.33	-3,565.67	3,772.50	3,751.10	21.40	176.263		
700.00	697.47	637.47	697.47	4.31	20.77	67.42	-1,265.33	-3,565.67	3,766.39	3,741.31	25.08	150.161		
800.00	795.62	735.62	795.62	4.64	24.16	67.83	-1,265.33	-3,565.67	3,759.01	3,730.21	28.79	130.550		
900.00	893.06	833.06	893.06	5.00	27.53	68.30	-1,265.33	-3,565.67	3,750.41	3,717.89	32.52	115.310		
1,000.00	989.64	929.64	989.64	5.40	30.88	68.84	-1,265.33	-3,565.67	3,740.67	3,704.40	36.27	103.144		
1,100.00	1,085.27	1,025.27	1,085.27	5.83	34.20	69.44	-1,265.33	-3,565.67	3,729.85	3,689.83	40.01	93.218		
1,200.00	1,179.88	1,119.88	1,179.88	6.29	37.49	70.03	-1,265.33	-3,565.67	3,718.10	3,674.34	43.76	84.972		
1,300.00	1,274.26	1,214.26	1,274.26	6.78	40.78	70.49	-1,265.33	-3,565.67	3,706.34	3,658.83	47.52	78.000		
1,400.00	1,368.63	1,308.63	1,368.63	7.28	44.06	70.95	-1,265.33	-3,565.67	3,694.85	3,643.55	51.30	72.029		
1,500.00	1,463.00	1,403.00	1,463.00	7.80	47.35	71.41	-1,265.33	-3,565.67	3,683.62	3,628.52	55.09	66.863		
1,600.00	1,557.38	1,502.62	1,557.38	8.33	50.82	71.88	-1,265.33	-3,565.67	3,672.65	3,613.56	59.08	62.161		
1,700.00	1,651.75	1,608.25	1,651.75	8.87	54.50	72.34	-1,265.33	-3,565.67	3,661.94	3,598.65	63.29	57.857		
1,800.00	1,746.12	1,686.12	1,746.12	9.41	57.21	72.81	-1,265.33	-3,565.67	3,651.51	3,584.96	66.55	54.872		
1,900.00	1,840.49	1,780.49	1,840.49	9.96	60.50	73.28	-1,265.33	-3,565.67	3,641.34	3,570.96	70.38	51.738		
2,000.00	1,934.87	1,874.87	1,934.87	10.52	63.79	73.76	-1,265.33	-3,565.67	3,631.45	3,557.22	74.22	48.926		
2,100.00	2,029.24	1,969.24	2,029.24	11.08	67.08	74.23	-1,265.33	-3,565.67	3,621.83	3,543.76	78.07	46.392		
2,200.00	2,123.61	2,063.61	2,123.61	11.64	70.37	74.71	-1,265.33	-3,565.67	3,612.49	3,530.57	81.92	44.096		
2,300.00	2,217.99	2,157.99	2,217.99	12.21	73.66	75.19	-1,265.33	-3,565.67	3,603.43	3,517.65	85.78	42.008		
2,400.00	2,312.36	2,252.36	2,312.36	12.78	76.95	75.67	-1,265.33	-3,565.67	3,594.65	3,505.01	89.64	40.101		
2,500.00	2,406.73	2,346.73	2,406.73	13.35	80.25	76.16	-1,265.33	-3,565.67	3,586.15	3,492.65	93.50	38.353		
2,600.00	2,501.10	2,441.10	2,501.10	13.93	83.54	76.65	-1,265.33	-3,565.67	3,577.94	3,480.57	97.37	36.745		
2,700.00	2,595.48	2,535.48	2,595.48	14.51	86.83	77.14	-1,265.33	-3,565.67	3,570.02	3,468.78	101.24	35.263		
2,800.00	2,689.85	2,629.85	2,689.85	15.08	90.12	77.63	-1,265.33	-3,565.67	3,562.38	3,457.27	105.11	33.891		
2,900.00	2,784.22	2,724.22	2,784.22	15.66	93.41	78.12	-1,265.33	-3,565.67	3,555.04	3,446.05	108.99	32.619		
3,000.00	2,878.60	2,818.60	2,878.60	16.25	96.71	78.61	-1,265.33	-3,565.67	3,547.99	3,435.13	112.86	31.436		
3,100.00	2,972.97	2,912.97	2,972.97	16.83	100.00	79.11	-1,265.33	-3,565.67	3,541.24	3,424.49	116.74	30.334		
3,200.00	3,067.34	3,007.34	3,067.34	17.41	103.29	79.61	-1,265.33	-3,565.67	3,534.78	3,414.16	120.62	29.305		
3,300.00	3,161.72	3,101.72	3,161.72	18.00	106.59	80.11	-1,265.33	-3,565.67	3,528.62	3,404.11	124.50	28.341		
3,400.00	3,256.09	3,203.91	3,256.09	18.58	110.15	80.61	-1,265.33	-3,565.67	3,522.76	3,394.10	128.66	27.381		
3,500.00	3,350.46	3,309.54	3,350.46	19.17	113.84	81.11	-1,265.33	-3,565.67	3,517.20	3,384.26	132.94	26.458		
3,600.00	3,444.83	3,384.83	3,444.83	19.75	116.47	81.61	-1,265.33	-3,565.67	3,511.94	3,375.79	136.15	25.794		
3,700.00	3,539.21	3,479.21	3,539.21	20.34	119.76	82.12	-1,265.33	-3,565.67	3,506.99	3,366.95	140.04	25.043		
3,800.00	3,633.58	3,573.58	3,633.58	20.93	123.05	82.62	-1,265.33	-3,565.67	3,502.34	3,358.42	143.93	24.334		
3,900.00	3,727.95	3,667.95	3,727.95	21.52	126.35	83.13	-1,265.33	-3,565.67	3,498.00	3,350.19	147.81	23.665		
4,000.00	3,822.33	3,762.33	3,822.33	22.11	129.64	83.64	-1,265.33	-3,565.67	3,493.97	3,342.27	151.70	23.032		
4,100.00	3,916.70	3,856.70	3,916.70	22.70	132.93	84.15	-1,265.33	-3,565.67	3,490.24	3,334.65	155.59	22.432		
4,200.00	4,011.07	3,951.07	4,011.07	23.29	136.23	84.66	-1,265.33	-3,565.67	3,486.83	3,327.35	159.48	21.864		
4,300.00	4,105.44	4,045.44	4,105.44	23.88	139.52	85.17	-1,265.33	-3,565.67	3,483.73	3,320.36	163.37	21.324		
4,400.00	4,199.82	4,139.82	4,199.82	24.47	142.81	85.68	-1,265.33	-3,565.67	3,480.93	3,313.68	167.26	20.812		
4,500.00	4,294.19	4,234.19	4,294.19	25.06	146.11	86.20	-1,265.33	-3,565.67	3,478.45	3,307.31	171.15	20.324		
4,600.00	4,388.56	4,328.56	4,388.56	25.65	149.40	86.71	-1,265.33	-3,565.67	3,476.29	3,301.25	175.04	19.860		
4,700.00	4,482.94	4,422.94	4,482.94	26.24	152.69	87.22	-1,265.33	-3,565.67	3,474.43	3,295.51	178.93	19.418		
4,800.00	4,577.31	4,517.31	4,577.31	26.83	155.99	87.74	-1,265.33	-3,565.67	3,472.89	3,290.08	182.81	18.997		
4,900.00	4,671.68	4,611.68	4,671.68	27.43	159.28	88.25	-1,265.33	-3,565.67	3,471.67	3,284.96	186.70	18.595		
5,000.00	4,766.05	4,706.05	4,766.05	28.02	162.58	88.77	-1,265.33	-3,565.67	3,470.76	3,280.16	190.59	18.210		
5,100.00	4,860.43	4,800.43	4,860.43	28.61	165.87	89.28	-1,265.33	-3,565.67	3,470.16	3,275.68	194.48	17.843		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	4,954.80	4,905.20	4,954.80	29.20	169.53	89.80	-1,265.33	-3,565.67	3,469.88	3,271.15	198.73	17.460		
5,239.05	4,991.65	4,931.65	4,991.65	29.44	170.45	90.00	-1,265.33	-3,565.67	3,469.86	3,269.97	199.89	17.359		
5,300.00	5,049.17	4,989.17	5,049.17	29.80	172.46	90.31	-1,265.33	-3,565.67	3,469.91	3,267.66	202.26	17.156		
5,400.00	5,143.55	5,083.55	5,143.55	30.39	175.75	90.83	-1,265.33	-3,565.67	3,470.26	3,264.12	206.14	16.834		
5,500.00	5,237.92	5,177.92	5,237.92	30.99	179.05	91.34	-1,265.33	-3,565.67	3,470.93	3,260.90	210.03	16.526		
5,600.00	5,332.29	5,272.29	5,332.29	31.58	182.34	91.86	-1,265.33	-3,565.67	3,471.91	3,257.99	213.92	16.230		
5,700.00	5,426.66	5,366.66	5,426.66	32.17	185.63	92.37	-1,265.33	-3,565.67	3,473.20	3,255.40	217.80	15.947		
5,800.00	5,521.04	5,461.04	5,521.04	32.77	188.93	92.89	-1,265.33	-3,565.67	3,474.81	3,253.13	221.69	15.675		
5,900.00	5,615.41	5,555.41	5,615.41	33.36	192.22	93.40	-1,265.33	-3,565.67	3,476.73	3,251.17	225.57	15.413		
6,000.00	5,709.78	5,649.78	5,709.78	33.96	195.52	93.92	-1,265.33	-3,565.67	3,478.97	3,249.52	229.45	15.162		
6,100.00	5,804.16	5,744.16	5,804.16	34.55	198.81	94.43	-1,265.33	-3,565.67	3,481.52	3,248.19	233.33	14.921		
6,200.00	5,898.53	5,838.53	5,898.53	35.14	202.10	94.94	-1,265.33	-3,565.67	3,484.38	3,247.17	237.21	14.689		
6,300.00	5,992.90	5,932.90	5,992.90	35.74	205.40	95.45	-1,265.33	-3,565.67	3,487.55	3,246.46	241.09	14.466		
6,400.00	6,087.27	6,027.27	6,087.27	36.33	208.69	95.96	-1,265.33	-3,565.67	3,491.03	3,246.06	244.97	14.251		
6,500.00	6,181.65	6,121.65	6,181.65	36.93	211.99	96.47	-1,265.33	-3,565.67	3,494.83	3,245.98	248.85	14.044		
6,600.00	6,276.02	6,216.02	6,276.02	37.52	215.28	96.98	-1,265.33	-3,565.67	3,498.93	3,246.20	252.73	13.845		
6,700.00	6,370.39	6,310.39	6,370.39	38.12	218.58	97.49	-1,265.33	-3,565.67	3,503.33	3,246.73	256.60	13.653		
6,800.00	6,464.77	6,404.77	6,464.77	38.71	221.87	97.99	-1,265.33	-3,565.67	3,508.05	3,247.57	260.48	13.468		
6,900.00	6,559.14	6,500.86	6,559.14	39.31	225.22	98.28	-1,265.33	-3,565.67	3,513.07	3,248.66	264.41	13.287		
7,000.00	6,652.92	6,607.08	6,652.92	39.90	228.93	75.62	-1,265.33	-3,565.67	3,510.62	3,241.93	268.69	13.066		
7,100.00	6,744.00	6,684.00	6,744.00	40.44	231.62	60.45	-1,265.33	-3,565.67	3,493.35	3,221.44	271.91	12.847		
7,200.00	6,830.13	6,770.13	6,830.13	40.94	234.62	51.77	-1,265.33	-3,565.67	3,461.77	3,186.37	275.41	12.570		
7,300.00	6,909.19	6,849.19	6,909.19	41.37	237.38	47.41	-1,265.33	-3,565.67	3,416.73	3,138.13	278.60	12.264		
7,400.00	6,979.23	6,919.23	6,979.23	41.75	239.83	46.09	-1,265.33	-3,565.67	3,359.38	3,077.94	281.44	11.936		
7,500.00	7,038.53	6,978.53	7,038.53	42.08	241.90	47.37	-1,265.33	-3,565.67	3,291.16	3,007.30	283.87	11.594		
7,600.00	7,085.63	7,025.63	7,085.63	42.37	243.54	51.51	-1,265.33	-3,565.67	3,213.75	2,927.91	285.84	11.243		
7,700.00	7,119.37	7,059.37	7,119.37	42.64	244.72	59.49	-1,265.33	-3,565.67	3,129.01	2,841.68	287.33	10.890		
7,800.00	7,138.92	7,078.92	7,138.92	42.91	245.40	73.15	-1,265.33	-3,565.67	3,038.97	2,750.65	288.32	10.540		
7,900.00	7,143.92	7,083.92	7,143.92	43.25	245.58	90.89	-1,265.33	-3,565.67	2,945.76	2,656.97	288.79	10.200		
8,000.00	7,143.35	7,083.35	7,143.35	43.72	245.56	90.86	-1,265.33	-3,565.67	2,852.08	2,562.99	289.09	9.866		
8,100.00	7,142.78	7,082.78	7,142.78	44.42	245.54	90.82	-1,265.33	-3,565.67	2,758.84	2,469.40	289.44	9.532		
8,200.00	7,142.22	7,082.22	7,142.22	45.39	245.52	90.79	-1,265.33	-3,565.67	2,666.10	2,376.25	289.85	9.198		
8,300.00	7,141.65	7,081.65	7,141.65	46.63	245.50	90.76	-1,265.33	-3,565.67	2,573.90	2,283.57	290.33	8.866		
8,400.00	7,141.08	7,081.08	7,141.08	48.09	245.48	90.73	-1,265.33	-3,565.67	2,482.30	2,191.42	290.88	8.534		
8,500.00	7,140.51	7,080.51	7,140.51	49.74	245.46	90.70	-1,265.33	-3,565.67	2,391.37	2,099.86	291.51	8.203		
8,600.00	7,139.94	7,079.94	7,139.94	51.53	245.44	90.66	-1,265.33	-3,565.67	2,301.20	2,008.95	292.25	7.874		
8,700.00	7,139.37	7,079.37	7,139.37	53.44	245.42	90.63	-1,265.33	-3,565.67	2,211.87	1,918.78	293.09	7.547		
8,800.00	7,138.80	7,078.80	7,138.80	55.45	245.40	90.60	-1,265.33	-3,565.67	2,123.50	1,829.43	294.07	7.221		
8,900.00	7,138.24	7,078.24	7,138.24	57.55	245.38	90.57	-1,265.33	-3,565.67	2,036.20	1,741.02	295.18	6.898		
9,000.00	7,137.67	7,077.67	7,137.67	59.71	245.36	90.54	-1,265.33	-3,565.67	1,950.12	1,653.66	296.46	6.578		
9,100.00	7,137.10	7,077.10	7,137.10	61.94	245.34	90.50	-1,265.33	-3,565.67	1,865.43	1,567.51	297.92	6.262		
9,200.00	7,136.53	7,076.53	7,136.53	64.22	245.32	90.47	-1,265.33	-3,565.67	1,782.32	1,482.74	299.58	5.949		
9,300.00	7,135.96	7,075.96	7,135.96	66.55	245.30	90.44	-1,265.33	-3,565.67	1,701.04	1,399.56	301.48	5.642		
9,400.00	7,135.39	7,075.39	7,135.39	68.92	245.28	90.41	-1,265.33	-3,565.67	1,621.85	1,318.23	303.62	5.342		
9,500.00	7,134.83	7,074.83	7,134.83	71.33	245.26	90.37	-1,265.33	-3,565.67	1,545.07	1,239.04	306.03	5.049		
9,600.00	7,134.26	7,074.26	7,134.26	73.77	245.24	90.34	-1,265.33	-3,565.67	1,471.09	1,162.36	308.73	4.765		
9,700.00	7,133.69	7,073.69	7,133.69	76.24	245.22	90.31	-1,265.33	-3,565.67	1,400.34	1,088.61	311.73	4.492		
9,800.00	7,133.12	7,073.12	7,133.12	78.74	245.20	90.28	-1,265.33	-3,565.67	1,333.34	1,018.31	315.03	4.232		
9,900.00	7,132.55	7,072.55	7,132.55	81.27	245.18	90.25	-1,265.33	-3,565.67	1,270.69	952.08	318.61	3.988		
10,000.00	7,131.98	7,071.98	7,131.98	83.81	245.16	90.21	-1,265.33	-3,565.67	1,213.06	890.61	322.44	3.762		
10,100.00	7,131.42	7,071.42	7,131.42	86.38	245.14	90.18	-1,265.33	-3,565.67	1,161.19	834.73	326.45	3.557		
10,200.00	7,130.85	7,070.85	7,130.85	88.96	245.12	90.15	-1,265.33	-3,565.67	1,115.89	785.35	330.54	3.376		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STOCKOVER 16-1(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,070.28	7,130.28	91.56	245.10	90.12	-1,265.33	-3,565.67	1,077.99	743.43	334.55	3.222		
10,400.00	7,129.71	7,069.71	7,129.71	94.18	245.08	90.09	-1,265.33	-3,565.67	1,048.29	709.95	338.34	3.098		
10,500.00	7,129.14	7,069.14	7,129.14	96.81	245.06	90.05	-1,265.33	-3,565.67	1,027.50	685.80	341.70	3.007		
10,600.00	7,128.57	7,068.57	7,128.57	99.45	245.04	90.02	-1,265.33	-3,565.67	1,016.17	671.71	344.46	2.950		
10,665.77	7,128.20	7,068.20	7,128.20	101.20	245.03	90.00	-1,265.33	-3,565.67	1,014.04	668.16	345.88	2.932 CC		
10,700.00	7,128.00	7,068.00	7,128.00	102.11	245.02	89.99	-1,265.33	-3,565.67	1,014.62	668.13	346.48	2.928 ES, SF		
10,800.00	7,127.44	7,067.44	7,127.44	104.77	245.00	89.96	-1,265.33	-3,565.67	1,022.88	675.19	347.69	2.942		
10,900.00	7,126.87	7,066.87	7,126.87	107.45	244.98	89.92	-1,265.33	-3,565.67	1,040.74	692.65	348.09	2.990		
11,000.00	7,126.30	7,066.30	7,126.30	110.13	244.96	89.89	-1,265.33	-3,565.67	1,067.70	719.96	347.74	3.070		
11,100.00	7,125.73	7,065.73	7,125.73	112.82	244.94	89.86	-1,265.33	-3,565.67	1,103.10	756.35	346.75	3.181		
11,200.00	7,125.16	7,065.16	7,125.16	115.53	244.92	89.83	-1,265.33	-3,565.67	1,146.15	800.88	345.28	3.320		
11,300.00	7,124.59	7,064.59	7,124.59	118.24	244.90	89.80	-1,265.33	-3,565.67	1,196.04	852.59	343.45	3.482		
11,400.00	7,124.03	7,064.03	7,124.03	120.95	244.88	89.76	-1,265.33	-3,565.67	1,251.94	910.54	341.40	3.667		
11,500.00	7,123.46	7,063.46	7,123.46	123.67	244.86	89.73	-1,265.33	-3,565.67	1,313.09	973.85	339.23	3.871		
11,600.00	7,122.89	7,062.89	7,122.89	126.40	244.84	89.70	-1,265.33	-3,565.67	1,378.78	1,041.75	337.03	4.091		
11,700.00	7,122.32	7,062.32	7,122.32	129.14	244.82	89.67	-1,265.33	-3,565.67	1,448.41	1,113.55	334.85	4.326		
11,800.00	7,121.75	7,061.75	7,121.75	131.88	244.80	89.64	-1,265.33	-3,565.67	1,521.42	1,188.68	332.74	4.572		
11,900.00	7,121.18	7,061.18	7,121.18	134.62	244.78	89.60	-1,265.33	-3,565.67	1,597.36	1,266.65	330.71	4.830		
12,000.00	7,120.61	7,060.61	7,120.61	137.37	244.76	89.57	-1,265.33	-3,565.67	1,675.83	1,347.04	328.79	5.097		
12,100.00	7,120.05	7,060.05	7,120.05	140.12	244.74	89.54	-1,265.33	-3,565.67	1,756.48	1,429.51	326.98	5.372		
12,200.00	7,119.48	7,059.48	7,119.48	142.88	244.72	89.51	-1,265.33	-3,565.67	1,839.04	1,513.76	325.28	5.654		
12,300.00	7,118.91	7,058.91	7,118.91	145.64	244.70	89.48	-1,265.33	-3,565.67	1,923.26	1,599.56	323.69	5.942		
12,400.00	7,118.34	7,058.34	7,118.34	148.41	244.68	89.44	-1,265.33	-3,565.67	2,008.92	1,686.70	322.21	6.235		
12,500.00	7,117.77	7,057.77	7,117.77	151.18	244.66	89.41	-1,265.33	-3,565.67	2,095.85	1,775.01	320.84	6.532		
12,600.00	7,117.20	7,057.20	7,117.20	153.95	244.64	89.38	-1,265.33	-3,565.67	2,183.90	1,864.34	319.56	6.834		
12,700.00	7,116.64	7,056.64	7,116.64	156.73	244.62	89.35	-1,265.33	-3,565.67	2,272.94	1,954.57	318.36	7.139		
12,800.00	7,116.07	7,056.07	7,116.07	159.50	244.60	89.31	-1,265.33	-3,565.67	2,362.85	2,045.60	317.26	7.448		
12,900.00	7,115.50	7,055.50	7,115.50	162.29	244.58	89.28	-1,265.33	-3,565.67	2,453.55	2,137.33	316.22	7.759		
13,000.00	7,114.93	7,054.93	7,114.93	165.07	244.56	89.25	-1,265.33	-3,565.67	2,544.95	2,229.68	315.26	8.072		
13,100.00	7,114.36	7,054.36	7,114.36	167.86	244.54	89.22	-1,265.33	-3,565.67	2,636.96	2,322.60	314.37	8.388		
13,200.00	7,113.79	7,053.79	7,113.79	170.64	244.52	89.19	-1,265.33	-3,565.67	2,729.54	2,416.01	313.53	8.706		
13,300.00	7,113.22	7,053.22	7,113.22	173.44	244.51	89.15	-1,265.33	-3,565.67	2,822.63	2,509.88	312.75	9.025		
13,400.00	7,112.66	7,052.66	7,112.66	176.23	244.49	89.12	-1,265.33	-3,565.67	2,916.17	2,604.15	312.02	9.346		
13,500.00	7,112.09	7,052.09	7,112.09	179.02	244.47	89.09	-1,265.33	-3,565.67	3,010.13	2,698.79	311.34	9.668		
13,600.00	7,111.52	7,051.52	7,111.52	181.82	244.45	89.06	-1,265.33	-3,565.67	3,104.47	2,793.77	310.70	9.992		
13,700.00	7,110.95	7,050.95	7,110.95	184.62	244.43	89.03	-1,265.33	-3,565.67	3,199.15	2,889.05	310.10	10.316		
13,800.00	7,110.38	7,050.38	7,110.38	187.42	244.41	88.99	-1,265.33	-3,565.67	3,294.14	2,984.60	309.54	10.642		
13,900.00	7,109.81	7,049.81	7,109.81	190.22	244.39	88.96	-1,265.33	-3,565.67	3,389.43	3,080.41	309.02	10.968		
14,000.00	7,109.25	7,049.25	7,109.25	193.03	244.37	88.93	-1,265.33	-3,565.67	3,484.97	3,176.45	308.52	11.296		
14,100.00	7,108.68	7,048.68	7,108.68	195.84	244.35	88.90	-1,265.33	-3,565.67	3,580.76	3,272.71	308.05	11.624		
14,200.00	7,108.11	7,048.11	7,108.11	198.64	244.33	88.87	-1,265.33	-3,565.67	3,676.78	3,369.16	307.62	11.952		
14,300.00	7,107.54	7,047.54	7,107.54	201.45	244.31	88.83	-1,265.33	-3,565.67	3,773.00	3,465.79	307.20	12.282		
14,400.00	7,106.97	7,046.97	7,106.97	204.26	244.29	88.80	-1,265.33	-3,565.67	3,869.41	3,562.60	306.81	12.612		
14,500.00	7,106.40	7,046.40	7,106.40	207.07	244.27	88.77	-1,265.33	-3,565.67	3,966.00	3,659.55	306.45	12.942		
14,600.00	7,105.83	7,045.83	7,105.83	209.89	244.25	88.74	-1,265.33	-3,565.67	4,062.75	3,756.65	306.10	13.273		
14,700.00	7,105.27	7,045.27	7,105.27	212.70	244.23	88.70	-1,265.33	-3,565.67	4,159.66	3,853.89	305.77	13.604		
14,800.00	7,104.70	7,044.70	7,104.70	215.52	244.21	88.67	-1,265.33	-3,565.67	4,256.71	3,951.25	305.46	13.935		
14,900.00	7,104.13	7,044.13	7,104.13	218.33	244.19	88.64	-1,265.33	-3,565.67	4,353.90	4,048.73	305.17	14.267		
15,000.00	7,103.56	7,043.56	7,103.56	221.15	244.17	88.61	-1,265.33	-3,565.67	4,451.21	4,146.31	304.89	14.599		
15,100.00	7,102.99	7,042.99	7,102.99	223.97	244.15	88.58	-1,265.33	-3,565.67	4,548.63	4,244.00	304.63	14.932		
15,200.00	7,102.42	7,042.42	7,102.42	226.79	244.13	88.54	-1,265.33	-3,565.67	4,646.17	4,341.78	304.38	15.264		
15,274.57	7,102.00	7,042.00	7,102.00	228.89	244.11	88.52	-1,265.33	-3,565.67	4,718.97	4,414.76	304.21	15.512		

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



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	57.88	3.28	3.28	-90.34	-53.79	-9,142.58	9,142.92					
100.00	100.00	185.51	209.49	3.28	3.34	-90.33	-52.34	-9,141.01	9,141.82	9,135.20	6.62	1,380.440		
200.00	200.00	290.14	314.11	3.34	3.45	-90.32	-51.83	-9,139.68	9,140.54	9,133.75	6.79	1,346.484		
300.00	299.98	370.59	394.56	3.44	3.58	85.75	-51.66	-9,138.77	9,139.28	9,132.26	7.02	1,302.724		
400.00	399.84	465.79	489.75	3.59	3.76	85.81	-51.42	-9,137.81	9,137.88	9,130.53	7.35	1,243.232		
500.00	499.45	548.72	572.68	3.79	3.95	85.89	-51.20	-9,137.05	9,136.33	9,128.60	7.74	1,180.826		
600.00	598.70	625.06	649.02	4.03	4.15	85.98	-51.33	-9,136.53	9,134.77	9,126.60	8.17	1,117.517		
700.00	697.47	738.28	762.24	4.31	4.47	86.12	-51.48	-9,135.96	9,133.19	9,124.41	8.78	1,040.603		
800.00	795.62	846.24	870.19	4.64	4.80	86.29	-51.33	-9,135.14	9,131.13	9,121.70	9.43	967.883		
900.00	893.06	927.16	951.11	5.00	5.06	86.45	-51.20	-9,134.54	9,128.91	9,118.85	10.06	907.541		
1,000.00	989.64	984.00	1,007.95	5.40	5.26	86.59	-51.26	-9,134.22	9,126.77	9,116.13	10.65	857.183		
1,100.00	1,085.27	984.00	1,007.95	5.83	5.26	86.62	-51.26	-9,134.22	9,125.30	9,114.22	11.08	823.609		
1,200.00	1,179.88	1,044.84	1,068.78	6.29	5.46	86.75	-51.27	-9,134.44	9,124.01	9,112.27	11.74	776.941		
1,275.34	1,250.98	1,064.82	1,088.76	6.66	5.52	86.79	-51.22	-9,134.74	9,123.72	9,111.54	12.18	749.246		
1,300.00	1,274.26	1,112.00	1,135.93	6.78	5.68	86.89	-51.03	-9,135.89	9,124.05	9,111.59	12.46	732.371		
1,326.78	1,299.53	1,112.00	1,135.93	6.91	5.68	86.89	-51.03	-9,135.89	9,124.01	9,111.42	12.59	724.566		
1,400.00	1,368.63	1,112.00	1,135.93	7.28	5.68	86.89	-51.03	-9,135.89	9,124.30	9,111.34	12.96	703.887		
1,500.00	1,463.00	1,112.00	1,135.93	7.80	5.68	86.89	-51.03	-9,135.89	9,125.65	9,112.17	13.48	676.984		
1,600.00	1,557.38	1,112.00	1,135.93	8.33	5.68	86.89	-51.03	-9,135.89	9,128.10	9,114.09	14.01	651.689		
1,700.00	1,651.75	1,170.24	1,194.12	8.87	5.88	87.01	-50.74	-9,138.24	9,130.90	9,116.16	14.74	619.623		
1,800.00	1,746.12	1,193.86	1,217.70	9.41	5.96	87.06	-50.65	-9,139.52	9,134.81	9,119.45	15.36	594.821		
1,900.00	1,840.49	1,241.00	1,264.74	9.96	6.12	87.16	-50.51	-9,142.60	9,139.69	9,123.63	16.06	568.928		
2,000.00	1,934.87	1,241.00	1,264.74	10.52	6.12	87.16	-50.51	-9,142.60	9,145.18	9,128.56	16.61	550.462		
2,100.00	2,029.24	1,241.00	1,264.74	11.08	6.12	87.16	-50.51	-9,142.60	9,151.75	9,134.59	17.16	533.168		
2,200.00	2,123.61	1,241.00	1,264.74	11.64	6.12	87.16	-50.51	-9,142.60	9,159.42	9,141.70	17.72	516.970		
2,300.00	2,217.99	1,307.64	1,331.14	12.21	6.36	87.30	-50.34	-9,148.27	9,167.14	9,148.63	18.51	495.247		
2,400.00	2,312.36	1,369.00	1,392.14	12.78	6.58	87.43	-50.19	-9,154.87	9,176.53	9,157.24	19.29	475.747		
2,500.00	2,406.73	1,369.00	1,392.14	13.35	6.58	87.43	-50.19	-9,154.87	9,186.13	9,166.28	19.84	462.932		
2,600.00	2,501.10	1,369.00	1,392.14	13.93	6.58	87.43	-50.19	-9,154.87	9,196.80	9,176.40	20.40	450.887		
2,700.00	2,595.48	1,369.00	1,392.14	14.51	6.58	87.43	-50.19	-9,154.87	9,208.55	9,187.60	20.95	439.558		
2,800.00	2,689.85	1,424.48	1,447.17	15.08	6.79	87.54	-50.22	-9,161.91	9,220.74	9,199.03	21.71	424.697		
2,900.00	2,784.22	1,449.42	1,471.87	15.66	6.88	87.59	-50.33	-9,165.38	9,233.94	9,211.58	22.36	413.012		
3,000.00	2,878.60	1,498.00	1,519.90	16.25	7.07	87.68	-50.75	-9,172.68	9,248.05	9,224.96	23.10	400.397		
3,100.00	2,972.97	1,498.00	1,519.90	16.83	7.07	87.68	-50.75	-9,172.68	9,262.75	9,239.10	23.64	391.771		
3,200.00	3,067.34	1,498.00	1,519.90	17.41	7.07	87.68	-50.75	-9,172.68	9,278.50	9,254.31	24.19	383.625		
3,300.00	3,161.72	1,544.76	1,566.01	18.00	7.26	87.78	-51.31	-9,180.42	9,294.81	9,269.89	24.92	373.029		
3,400.00	3,256.09	1,567.49	1,588.37	18.58	7.36	87.82	-51.61	-9,184.45	9,312.07	9,286.52	25.55	364.483		
3,500.00	3,350.46	1,626.00	1,645.80	19.17	7.60	87.93	-52.43	-9,195.61	9,330.42	9,304.09	26.33	354.380		
3,600.00	3,444.83	1,626.00	1,645.80	19.75	7.60	87.93	-52.43	-9,195.61	9,349.06	9,322.19	26.86	348.052		
3,700.00	3,539.21	1,626.00	1,645.80	20.34	7.60	87.93	-52.43	-9,195.61	9,368.72	9,341.33	27.39	342.058		
3,800.00	3,633.58	1,626.00	1,645.80	20.93	7.60	87.93	-52.43	-9,195.61	9,389.41	9,361.49	27.91	336.378		
3,900.00	3,727.95	1,677.89	1,696.53	21.52	7.84	88.03	-53.29	-9,206.50	9,410.49	9,381.82	28.66	328.323		
4,000.00	3,822.33	1,699.29	1,717.39	22.11	7.94	88.07	-53.70	-9,211.27	9,432.58	9,403.31	29.27	322.210		
4,100.00	3,916.70	1,754.00	1,770.54	22.70	8.19	88.17	-54.85	-9,224.19	9,455.73	9,425.70	30.04	314.823		
4,200.00	4,011.07	1,754.00	1,770.54	23.29	8.19	88.17	-54.85	-9,224.19	9,479.19	9,448.65	30.54	310.338		
4,300.00	4,105.44	1,754.00	1,770.54	23.88	8.19	88.17	-54.85	-9,224.19	9,503.65	9,472.60	31.05	306.081		
4,400.00	4,199.82	1,754.00	1,770.54	24.47	8.19	88.17	-54.85	-9,224.19	9,529.09	9,497.54	31.55	302.040		
4,500.00	4,294.19	1,817.36	1,831.80	25.06	8.52	88.28	-56.16	-9,240.29	9,554.76	9,522.41	32.35	295.388		
4,600.00	4,388.56	1,883.00	1,894.99	25.65	8.86	88.40	-57.25	-9,258.03	9,581.71	9,548.55	33.16	288.970		
4,700.00	4,482.94	1,883.00	1,894.99	26.24	8.86	88.40	-57.25	-9,258.03	9,608.83	9,575.18	33.65	285.579		
4,800.00	4,577.31	1,883.00	1,894.99	26.83	8.86	88.40	-57.25	-9,258.03	9,636.91	9,602.78	34.13	282.358		
4,900.00	4,671.68	1,926.59	1,936.79	27.43	9.11	88.48	-57.90	-9,270.38	9,665.64	9,630.81	34.83	277.512		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error: 0.00 ft	
Survey Program: 78-MWD													Offset Well Error: 3.28 ft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,000.00	4,766.05	1,956.50	1,965.40	28.02	9.28	88.54	-58.37	-9,279.07	9,695.06	9,659.61	35.46	273.425		
5,100.00	4,860.43	2,011.00	2,017.39	28.61	9.60	88.63	-59.26	-9,295.40	9,725.24	9,689.03	36.21	268.562		
5,200.00	4,954.80	2,011.00	2,017.39	29.20	9.60	88.63	-59.26	-9,295.40	9,755.89	9,719.21	36.68	265.984		
5,300.00	5,049.17	2,059.76	2,063.77	29.80	9.90	88.72	-60.09	-9,310.42	9,787.19	9,749.79	37.40	261.672		
5,400.00	5,143.55	2,101.33	2,103.24	30.39	10.16	88.79	-60.79	-9,323.44	9,819.04	9,780.95	38.09	257.806		
5,500.00	5,237.92	2,151.00	2,351.09	30.99	33.59	89.25	-64.48	-9,403.72	9,850.69	9,795.43	55.26	178.268		
5,600.00	5,332.29	2,449.82	2,435.04	31.58	12.49	89.40	-65.83	-9,429.86	9,881.20	9,840.23	40.96	241.217		
5,700.00	5,426.66	2,492.42	2,475.65	32.17	12.78	89.48	-66.44	-9,442.70	9,912.18	9,870.51	41.67	237.879		
5,800.00	5,521.04	2,525.00	2,506.67	32.77	13.01	89.53	-66.86	-9,452.65	9,943.69	9,901.38	42.31	235.000		
5,900.00	5,615.41	2,586.11	2,564.79	33.36	13.45	89.64	-67.44	-9,471.55	9,975.65	9,932.52	43.13	231.315		
7,700.00	7,119.37	7,028.55	6,878.47	42.64	39.71	48.99	-93.66	-10,303.55	9,947.19	9,872.81	74.38	133.733		
7,800.00	7,138.92	7,049.82	6,899.73	42.91	39.78	62.19	-94.17	-10,304.19	9,854.05	9,779.34	74.71	131.892		
7,900.00	7,143.92	7,057.36	6,907.26	43.25	39.81	85.31	-94.34	-10,304.42	9,757.48	9,682.54	74.95	130.191		
8,000.00	7,143.35	7,059.64	6,909.54	43.72	39.82	85.37	-94.39	-10,304.48	9,660.17	9,585.02	75.15	128.543		
8,100.00	7,142.78	7,061.91	6,911.81	44.42	39.83	85.43	-94.44	-10,304.55	9,562.90	9,487.53	75.37	126.880		
8,200.00	7,142.22	7,064.17	6,914.07	45.39	39.84	85.48	-94.49	-10,304.62	9,465.70	9,390.09	75.60	125.202		
8,300.00	7,141.65	7,066.43	6,916.32	46.63	39.84	85.54	-94.54	-10,304.69	9,368.55	9,292.70	75.85	123.508		
8,400.00	7,141.08	7,068.68	6,918.57	48.09	39.85	85.60	-94.58	-10,304.75	9,271.46	9,195.34	76.12	121.799		
8,500.00	7,140.51	7,070.92	6,920.82	49.74	39.86	85.66	-94.63	-10,304.82	9,174.44	9,098.03	76.41	120.075		
8,600.00	7,139.94	7,073.16	6,923.05	51.53	39.87	85.71	-94.68	-10,304.89	9,077.47	9,000.76	76.71	118.337		
8,700.00	7,139.37	7,075.39	6,925.28	53.44	39.88	85.77	-94.72	-10,304.95	8,980.58	8,903.55	77.03	116.584		
8,800.00	7,138.80	7,077.61	6,927.50	55.45	39.88	85.83	-94.77	-10,305.02	8,883.75	8,806.38	77.37	114.818		
8,900.00	7,138.24	7,079.83	6,929.72	57.55	39.89	85.88	-94.81	-10,305.08	8,786.99	8,709.26	77.73	113.039		
9,000.00	7,137.67	7,082.04	6,931.93	59.71	39.90	85.94	-94.86	-10,305.15	8,690.31	8,612.19	78.12	111.246		
9,100.00	7,137.10	7,084.24	6,934.13	61.94	39.91	86.00	-94.90	-10,305.21	8,593.70	8,515.18	78.52	109.442		
9,200.00	7,136.53	7,086.44	6,936.32	64.22	39.92	86.05	-94.94	-10,305.28	8,497.17	8,418.22	78.95	107.626		
9,300.00	7,135.96	7,088.63	6,938.51	66.55	39.92	86.11	-94.98	-10,305.34	8,400.72	8,321.31	79.40	105.800		
9,400.00	7,135.39	7,090.81	6,940.70	68.92	39.93	86.16	-95.02	-10,305.41	8,304.35	8,224.47	79.88	103.963		
9,500.00	7,134.83	7,092.99	6,942.87	71.33	39.94	86.22	-95.07	-10,305.47	8,208.07	8,127.69	80.38	102.116		
9,600.00	7,134.26	7,095.16	6,945.04	73.77	39.95	86.28	-95.11	-10,305.54	8,111.88	8,030.97	80.91	100.262		
9,700.00	7,133.69	7,097.33	6,947.20	76.24	39.95	86.33	-95.14	-10,305.60	8,015.78	7,934.31	81.46	98.399		
9,800.00	7,133.12	7,099.48	6,949.36	78.74	39.96	86.39	-95.18	-10,305.66	7,919.77	7,837.73	82.04	96.530		
9,900.00	7,132.55	7,101.64	6,951.51	81.27	39.97	86.44	-95.22	-10,305.73	7,823.87	7,741.21	82.66	94.654		
10,000.00	7,131.98	7,103.78	6,953.65	83.81	39.98	86.50	-95.26	-10,305.79	7,728.07	7,644.77	83.30	92.774		
10,100.00	7,131.42	7,105.92	6,955.79	86.38	39.99	86.55	-95.30	-10,305.85	7,632.37	7,548.40	83.97	90.890		
10,200.00	7,130.85	7,108.05	6,957.92	88.96	39.99	86.61	-95.33	-10,305.91	7,536.79	7,452.11	84.68	89.004		
10,300.00	7,130.28	7,110.18	6,960.05	91.56	40.00	86.66	-95.37	-10,305.97	7,441.32	7,355.91	85.42	87.115		
10,400.00	7,129.71	7,112.30	6,962.17	94.18	40.01	86.71	-95.41	-10,306.04	7,345.98	7,259.78	86.19	85.227		
10,500.00	7,129.14	7,114.41	6,964.28	96.81	40.02	86.77	-95.44	-10,306.10	7,250.76	7,163.75	87.00	83.338		
10,600.00	7,128.57	7,116.52	6,966.39	99.45	40.02	86.82	-95.47	-10,306.16	7,155.66	7,067.81	87.85	81.452		
10,700.00	7,128.00	7,118.62	6,968.49	102.11	40.03	86.88	-95.51	-10,306.22	7,060.70	6,971.97	88.74	79.568		
10,800.00	7,127.44	7,120.72	6,970.58	104.77	40.04	86.93	-95.54	-10,306.28	6,965.89	6,876.22	89.66	77.689		
10,900.00	7,126.87	7,122.81	6,972.67	107.45	40.05	86.98	-95.57	-10,306.34	6,871.22	6,780.58	90.63	75.815		
11,000.00	7,126.30	7,124.89	6,974.75	110.13	40.05	87.04	-95.61	-10,306.40	6,776.70	6,685.06	91.64	73.948		
11,100.00	7,125.73	7,126.97	6,976.83	112.82	40.06	87.09	-95.64	-10,306.46	6,682.34	6,589.64	92.70	72.089		
11,200.00	7,125.16	7,129.04	6,978.90	115.53	40.07	87.14	-95.67	-10,306.52	6,588.14	6,494.35	93.80	70.239		
11,300.00	7,124.59	7,131.10	6,980.96	118.24	40.08	87.20	-95.70	-10,306.58	6,494.12	6,399.18	94.94	68.399		
11,400.00	7,124.03	7,133.16	6,983.02	120.95	40.08	87.25	-95.73	-10,306.64	6,400.28	6,304.14	96.14	66.572		
11,500.00	7,123.46	7,135.21	6,985.07	123.67	40.09	87.30	-95.76	-10,306.70	6,306.63	6,209.24	97.39	64.757		
11,600.00	7,122.89	7,137.26	6,987.12	126.40	40.10	87.35	-95.79	-10,306.76	6,213.17	6,114.48	98.69	62.956		
11,700.00	7,122.32	7,139.30	6,989.16	129.14	40.11	87.41	-95.82	-10,306.82	6,119.92	6,019.87	100.05	61.170		
11,800.00	7,121.75	7,141.34	6,991.19	131.88	40.11	87.46	-95.85	-10,306.87	6,026.89	5,925.43	101.46	59.401		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
11,900.00	7,121.18	7,143.37	6,993.22	134.62	40.12	87.51	-95.87	-10,306.93	5,934.08	5,831.14	102.93	57.649		
12,000.00	7,120.61	7,145.39	6,995.24	137.37	40.13	87.56	-95.90	-10,306.99	5,841.51	5,737.04	104.47	55.916		
12,100.00	7,120.05	7,147.60	6,997.45	140.12	40.14	87.62	-95.93	-10,307.05	5,749.18	5,643.12	106.07	54.203		
12,200.00	7,119.48	7,150.55	7,000.39	142.88	40.15	87.70	-95.97	-10,307.14	5,657.12	5,549.39	107.74	52.509		
12,300.00	7,118.91	7,153.45	7,003.29	145.64	40.16	87.77	-96.01	-10,307.22	5,565.33	5,455.86	109.47	50.838		
12,400.00	7,118.34	7,156.31	7,006.15	148.41	40.17	87.84	-96.04	-10,307.30	5,473.83	5,362.55	111.28	49.189		
12,500.00	7,117.77	7,159.12	7,008.97	151.18	40.18	87.92	-96.08	-10,307.38	5,382.62	5,269.46	113.16	47.565		
12,600.00	7,117.20	7,161.90	7,011.74	153.95	40.19	87.99	-96.12	-10,307.45	5,291.74	5,176.61	115.12	45.966		
12,700.00	7,116.64	7,164.63	7,014.48	156.73	40.20	88.06	-96.15	-10,307.53	5,201.18	5,084.02	117.16	44.392		
12,800.00	7,116.07	7,167.33	7,017.17	159.50	40.21	88.13	-96.18	-10,307.60	5,110.98	4,991.69	119.29	42.845		
12,900.00	7,115.50	7,169.99	7,019.83	162.29	40.22	88.20	-96.22	-10,307.68	5,021.15	4,899.65	121.50	41.326		
13,000.00	7,114.93	7,172.61	7,022.45	165.07	40.23	88.26	-96.25	-10,307.75	4,931.71	4,807.90	123.80	39.835		
13,100.00	7,114.36	7,175.19	7,025.03	167.86	40.24	88.33	-96.28	-10,307.82	4,842.68	4,716.48	126.20	38.373		
13,200.00	7,113.79	7,177.74	7,027.58	170.64	40.24	88.39	-96.31	-10,307.88	4,754.08	4,625.39	128.70	36.941		
13,300.00	7,113.22	7,180.25	7,030.09	173.44	40.25	88.46	-96.34	-10,307.95	4,665.95	4,534.65	131.29	35.538		
13,400.00	7,112.66	7,182.73	7,032.56	176.23	40.26	88.52	-96.37	-10,308.02	4,578.30	4,444.30	134.00	34.167		
13,500.00	7,112.09	7,185.17	7,035.01	179.02	40.27	88.59	-96.40	-10,308.08	4,491.17	4,354.35	136.81	32.827		
13,600.00	7,111.52	7,187.58	7,037.42	181.82	40.28	88.65	-96.43	-10,308.14	4,404.58	4,264.83	139.74	31.519		
13,700.00	7,110.95	7,189.96	7,039.79	184.62	40.29	88.71	-96.46	-10,308.21	4,318.57	4,175.77	142.79	30.243		
13,800.00	7,110.38	7,192.31	7,042.14	187.42	40.30	88.77	-96.48	-10,308.27	4,233.17	4,087.20	145.97	29.000		
13,900.00	7,109.81	7,194.62	7,044.45	190.22	40.31	88.83	-96.51	-10,308.33	4,148.43	3,999.15	149.28	27.790		
14,000.00	7,109.25	7,196.91	7,046.74	193.03	40.31	88.89	-96.53	-10,308.39	4,064.37	3,911.66	152.72	26.614		
14,100.00	7,108.68	7,199.16	7,048.99	195.84	40.32	88.95	-96.56	-10,308.44	3,981.06	3,824.76	156.30	25.471		
14,200.00	7,108.11	7,201.39	7,051.22	198.64	40.33	89.00	-96.59	-10,308.50	3,898.53	3,738.50	160.02	24.362		
14,300.00	7,107.54	7,203.59	7,053.41	201.45	40.34	89.06	-96.61	-10,308.56	3,816.83	3,652.93	163.90	23.288		
14,400.00	7,106.97	7,205.75	7,055.58	204.26	40.35	89.12	-96.63	-10,308.61	3,736.02	3,568.09	167.93	22.247		
14,500.00	7,106.40	7,207.90	7,057.72	207.07	40.35	89.17	-96.66	-10,308.66	3,656.16	3,484.04	172.12	21.242		
14,600.00	7,105.83	7,210.01	7,059.83	209.89	40.36	89.23	-96.68	-10,308.72	3,577.31	3,400.83	176.47	20.271		
14,700.00	7,105.27	7,212.10	7,061.92	212.70	40.37	89.28	-96.70	-10,308.77	3,499.54	3,318.54	181.00	19.335		
14,800.00	7,104.70	7,214.16	7,063.98	215.52	40.38	89.33	-96.73	-10,308.82	3,422.92	3,237.24	185.69	18.434		
14,900.00	7,104.13	7,216.19	7,066.01	218.33	40.38	89.38	-96.75	-10,308.87	3,347.54	3,156.99	190.55	17.567		
15,000.00	7,103.56	7,218.20	7,068.02	221.15	40.39	89.44	-96.77	-10,308.92	3,273.47	3,077.88	195.60	16.736		
15,100.00	7,102.99	7,220.19	7,070.00	223.97	40.40	89.49	-96.79	-10,308.97	3,200.82	3,000.00	200.81	15.939		
15,200.00	7,102.42	7,222.15	7,071.96	226.79	40.40	89.54	-96.81	-10,309.01	3,129.67	2,923.46	206.21	15.177		
15,274.57	7,102.00	7,223.59	7,073.41	228.89	40.41	89.58	-96.83	-10,309.05	3,077.66	2,867.32	210.34	14.632 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	37.00	3.28	3.28	-90.00	0.61	-9,145.56	9,145.63				
100.00	100.00	63.00	100.00	3.28	3.46	-90.00	0.61	-9,145.56	9,145.56	9,138.81	6.74	1,356.072	
200.00	200.00	163.00	200.00	3.34	5.13	-90.00	0.61	-9,145.56	9,145.56	9,137.09	8.47	1,080.098	
300.00	299.98	262.98	299.98	3.44	8.13	86.06	0.61	-9,145.56	9,145.44	9,133.87	11.57	790.733	
400.00	399.84	362.84	399.84	3.59	11.40	86.10	0.61	-9,145.56	9,145.08	9,130.09	14.99	610.022	
500.00	499.45	462.45	499.45	3.79	14.77	86.17	0.61	-9,145.56	9,144.49	9,125.93	18.55	492.867	
600.00	598.70	561.70	598.70	4.03	18.16	86.26	0.61	-9,145.56	9,143.68	9,121.49	22.19	412.042	
700.00	697.47	660.47	697.47	4.31	21.56	86.37	0.61	-9,145.56	9,142.66	9,116.78	25.88	353.326	
800.00	795.62	758.62	795.62	4.64	24.95	86.52	0.61	-9,145.56	9,141.45	9,111.86	29.59	308.915	
900.00	893.06	856.06	893.06	5.00	28.33	86.68	0.61	-9,145.56	9,140.08	9,106.76	33.33	274.241	
1,000.00	989.64	952.64	989.64	5.40	31.68	86.87	0.61	-9,145.56	9,138.58	9,101.50	37.08	246.476	
1,100.00	1,085.27	1,048.27	1,085.27	5.83	35.00	87.07	0.61	-9,145.56	9,136.96	9,096.13	40.83	223.777	
1,200.00	1,179.88	1,142.88	1,179.88	6.29	38.29	87.29	0.61	-9,145.56	9,135.28	9,090.70	44.58	204.904	
1,300.00	1,274.26	1,237.26	1,274.26	6.78	41.58	87.48	0.61	-9,145.56	9,133.68	9,085.33	48.35	188.889	
1,400.00	1,368.63	1,331.63	1,368.63	7.28	44.86	87.68	0.61	-9,145.56	9,132.21	9,080.06	52.14	175.133	
1,500.00	1,463.00	1,426.00	1,463.00	7.80	48.15	87.88	0.61	-9,145.56	9,130.85	9,074.90	55.95	163.201	
1,600.00	1,557.38	1,520.38	1,557.38	8.33	51.44	88.07	0.61	-9,145.56	9,129.61	9,069.84	59.76	152.760	
1,700.00	1,651.75	1,614.75	1,651.75	8.87	54.72	88.27	0.61	-9,145.56	9,128.49	9,064.90	63.59	143.551	
1,800.00	1,746.12	1,709.12	1,746.12	9.41	58.01	88.46	0.61	-9,145.56	9,127.49	9,060.06	67.42	135.374	
1,900.00	1,840.49	1,803.49	1,840.49	9.96	61.30	88.66	0.61	-9,145.56	9,126.61	9,055.34	71.26	128.066	
2,000.00	1,934.87	1,902.13	1,934.87	10.52	64.74	88.85	0.61	-9,145.56	9,125.85	9,050.59	75.26	121.258	
2,100.00	2,029.24	2,007.76	2,029.24	11.08	68.42	89.05	0.61	-9,145.56	9,125.21	9,045.70	79.50	114.778	
2,200.00	2,123.61	2,086.61	2,123.61	11.64	71.17	89.25	0.61	-9,145.56	9,124.68	9,041.87	82.82	110.178	
2,300.00	2,217.99	2,180.99	2,217.99	12.21	74.47	89.44	0.61	-9,145.56	9,124.28	9,037.61	86.68	105.269	
2,400.00	2,312.36	2,275.36	2,312.36	12.78	77.76	89.64	0.61	-9,145.56	9,124.00	9,033.46	90.54	100.775	
2,500.00	2,406.73	2,369.73	2,406.73	13.35	81.05	89.83	0.61	-9,145.56	9,123.84	9,029.44	94.40	96.648	
2,584.64	2,486.61	2,449.61	2,486.61	13.84	83.83	90.00	0.61	-9,145.56	9,123.80	9,026.12	97.68	93.409	
2,600.00	2,501.10	2,464.10	2,501.10	13.93	84.34	90.03	0.61	-9,145.56	9,123.80	9,025.53	98.27	92.845	
2,700.00	2,595.48	2,558.48	2,595.48	14.51	87.63	90.23	0.61	-9,145.56	9,123.88	9,021.74	102.14	89.329	
2,800.00	2,689.85	2,652.85	2,689.85	15.08	90.92	90.42	0.61	-9,145.56	9,124.08	9,018.07	106.01	86.069	
2,900.00	2,784.22	2,747.22	2,784.22	15.66	94.22	90.62	0.61	-9,145.56	9,124.39	9,014.51	109.88	83.039	
3,000.00	2,878.60	2,841.60	2,878.60	16.25	97.51	90.81	0.61	-9,145.56	9,124.83	9,011.08	113.76	80.215	
3,100.00	2,972.97	2,935.97	2,972.97	16.83	100.80	91.01	0.61	-9,145.56	9,125.39	9,007.76	117.63	77.577	
3,200.00	3,067.34	3,030.34	3,067.34	17.41	104.10	91.21	0.61	-9,145.56	9,126.07	9,004.56	121.51	75.108	
3,300.00	3,161.72	3,124.72	3,161.72	18.00	107.39	91.40	0.61	-9,145.56	9,126.86	9,001.48	125.38	72.792	
3,400.00	3,256.09	3,219.09	3,256.09	18.58	110.68	91.60	0.61	-9,145.56	9,127.78	8,998.52	129.26	70.615	
3,500.00	3,350.46	3,313.46	3,350.46	19.17	113.97	91.79	0.61	-9,145.56	9,128.82	8,995.68	133.14	68.566	
3,600.00	3,444.83	3,407.83	3,444.83	19.75	117.27	91.99	0.61	-9,145.56	9,129.98	8,992.96	137.02	66.633	
3,700.00	3,539.21	3,502.21	3,539.21	20.34	120.56	92.19	0.61	-9,145.56	9,131.25	8,990.35	140.90	64.807	
3,800.00	3,633.58	3,603.42	3,633.58	20.93	124.09	92.38	0.61	-9,145.56	9,132.65	8,987.63	145.02	62.976	
3,900.00	3,727.95	3,709.05	3,727.95	21.52	127.78	92.58	0.61	-9,145.56	9,134.16	8,984.87	149.29	61.183	
4,000.00	3,822.33	3,785.33	3,822.33	22.11	130.44	92.77	0.61	-9,145.56	9,135.80	8,983.25	152.54	59.890	
4,100.00	3,916.70	3,879.70	3,916.70	22.70	133.74	92.97	0.61	-9,145.56	9,137.55	8,981.13	156.42	58.415	
4,200.00	4,011.07	3,974.07	4,011.07	23.29	137.03	93.16	0.61	-9,145.56	9,139.42	8,979.12	160.31	57.012	
4,300.00	4,105.44	4,068.44	4,105.44	23.88	140.32	93.36	0.61	-9,145.56	9,141.42	8,977.23	164.19	55.676	
4,400.00	4,199.82	4,162.82	4,199.82	24.47	143.62	93.55	0.61	-9,145.56	9,143.53	8,975.46	168.07	54.402	
4,500.00	4,294.19	4,257.19	4,294.19	25.06	146.91	93.75	0.61	-9,145.56	9,145.76	8,973.81	171.96	53.187	
4,600.00	4,388.56	4,351.56	4,388.56	25.65	150.20	93.94	0.61	-9,145.56	9,148.11	8,972.27	175.84	52.026	
4,700.00	4,482.94	4,445.94	4,482.94	26.24	153.50	94.14	0.61	-9,145.56	9,150.58	8,970.86	179.72	50.915	
4,800.00	4,577.31	4,540.31	4,577.31	26.83	156.79	94.33	0.61	-9,145.56	9,153.17	8,969.56	183.61	49.852	
4,900.00	4,671.68	4,634.68	4,671.68	27.43	160.09	94.53	0.61	-9,145.56	9,155.87	8,968.38	187.49	48.834	
5,000.00	4,766.05	4,729.05	4,766.05	28.02	163.38	94.72	0.61	-9,145.56	9,158.70	8,967.33	191.37	47.858	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	4,823.43	4,860.43	28.61	166.67	94.92	0.61	-9,145.56	9,161.64	8,966.39	195.26	46.921		
5,200.00	4,954.80	4,917.80	4,954.80	29.20	169.97	95.11	0.61	-9,145.56	9,164.71	8,965.56	199.14	46.021		
5,300.00	5,049.17	5,012.17	5,049.17	29.80	173.26	95.31	0.61	-9,145.56	9,167.89	8,964.86	203.02	45.156		
5,400.00	5,143.55	5,106.55	5,143.55	30.39	176.55	95.50	0.61	-9,145.56	9,171.18	8,964.28	206.91	44.325		
5,500.00	5,237.92	5,200.92	5,237.92	30.99	179.85	95.70	0.61	-9,145.56	9,174.60	8,963.81	210.79	43.524		
5,600.00	5,332.29	5,304.71	5,332.29	31.58	183.47	95.89	0.61	-9,145.56	9,178.14	8,963.13	215.00	42.688		
5,700.00	5,426.66	5,389.66	5,426.66	32.17	186.44	96.08	0.61	-9,145.56	9,181.79	8,963.23	218.56	42.010		
5,800.00	5,521.04	5,484.04	5,521.04	32.77	189.73	96.28	0.61	-9,145.56	9,185.56	8,963.11	222.44	41.294		
5,900.00	5,615.41	5,578.41	5,615.41	33.36	193.03	96.47	0.61	-9,145.56	9,189.45	8,963.12	226.33	40.602		
6,000.00	5,709.78	5,672.78	5,709.78	33.96	196.32	96.66	0.61	-9,145.56	9,193.45	8,963.24	230.21	39.935		
6,100.00	5,804.16	5,767.16	5,804.16	34.55	199.61	96.86	0.61	-9,145.56	9,197.57	8,963.48	234.09	39.290		
6,200.00	5,898.53	5,861.53	5,898.53	35.14	202.91	97.05	0.61	-9,145.56	9,201.81	8,963.83	237.98	38.667		
6,300.00	5,992.90	5,955.90	5,992.90	35.74	206.20	97.24	0.61	-9,145.56	9,206.17	8,964.31	241.86	38.064		
6,400.00	6,087.27	6,050.27	6,087.27	36.33	209.50	97.44	0.61	-9,145.56	9,210.64	8,964.90	245.74	37.481		
6,500.00	6,181.65	6,144.65	6,181.65	36.93	212.79	97.63	0.61	-9,145.56	9,215.23	8,965.60	249.63	36.916		
6,600.00	6,276.02	6,239.02	6,276.02	37.52	216.08	97.82	0.61	-9,145.56	9,219.93	8,966.42	253.51	36.369		
6,700.00	6,370.39	6,333.39	6,370.39	38.12	219.38	98.01	0.61	-9,145.56	9,224.75	8,967.36	257.39	35.840		
6,800.00	6,464.77	6,427.77	6,464.77	38.71	222.67	98.21	0.61	-9,145.56	9,229.69	8,968.42	261.27	35.326		
6,900.00	6,559.14	6,522.14	6,559.14	39.31	225.97	98.18	0.61	-9,145.56	9,234.74	8,969.59	265.15	34.828		
7,000.00	6,652.92	6,615.92	6,652.92	39.90	229.24	75.20	0.61	-9,145.56	9,232.13	8,963.12	269.01	34.319		
7,100.00	6,744.00	6,707.00	6,744.00	40.44	232.42	59.66	0.61	-9,145.56	9,214.45	8,941.70	272.74	33.785		
7,200.00	6,830.13	6,806.87	6,830.13	40.94	235.91	50.56	0.61	-9,145.56	9,182.16	8,905.43	276.73	33.181		
7,300.00	6,909.19	6,872.19	6,909.19	41.37	238.19	45.69	0.61	-9,145.56	9,136.08	8,856.63	279.45	32.693		
7,400.00	6,979.23	6,942.23	6,979.23	41.75	240.63	43.74	0.61	-9,145.56	9,077.36	8,795.06	282.30	32.155		
7,500.00	7,038.53	7,001.53	7,038.53	42.08	242.70	44.27	0.61	-9,145.56	9,007.44	8,722.71	284.73	31.635		
7,600.00	7,085.63	7,048.63	7,085.63	42.37	244.34	47.55	0.61	-9,145.56	8,928.02	8,641.32	286.69	31.141		
7,700.00	7,119.37	7,082.37	7,119.37	42.64	245.52	54.84	0.61	-9,145.56	8,841.03	8,552.87	288.16	30.681		
7,800.00	7,138.92	7,101.92	7,138.92	42.91	246.20	69.23	0.61	-9,145.56	8,748.59	8,459.49	289.10	30.262		
7,900.00	7,143.92	7,106.92	7,143.92	43.25	246.38	91.17	0.61	-9,145.56	8,652.93	8,363.44	289.50	29.890		
8,000.00	7,143.35	7,106.35	7,143.35	43.72	246.36	91.16	0.61	-9,145.56	8,556.62	8,266.92	289.70	29.536		
8,100.00	7,142.78	7,105.78	7,142.78	44.42	246.34	91.15	0.61	-9,145.56	8,460.39	8,170.47	289.92	29.182		
8,200.00	7,142.22	7,105.22	7,142.22	45.39	246.32	91.13	0.61	-9,145.56	8,364.25	8,074.08	290.17	28.826		
8,300.00	7,141.65	7,104.65	7,141.65	46.63	246.30	91.12	0.61	-9,145.56	8,268.20	7,977.77	290.43	28.469		
8,400.00	7,141.08	7,104.08	7,141.08	48.09	246.28	91.10	0.61	-9,145.56	8,172.25	7,881.53	290.72	28.110		
8,500.00	7,140.51	7,103.51	7,140.51	49.74	246.26	91.09	0.61	-9,145.56	8,076.39	7,785.36	291.03	27.751		
8,600.00	7,139.94	7,102.94	7,139.94	51.53	246.24	91.07	0.61	-9,145.56	7,980.64	7,689.27	291.37	27.390		
8,700.00	7,139.37	7,102.37	7,139.37	53.44	246.22	91.06	0.61	-9,145.56	7,884.99	7,593.26	291.73	27.028		
8,800.00	7,138.80	7,101.80	7,138.80	55.45	246.20	91.05	0.61	-9,145.56	7,789.45	7,497.33	292.12	26.665		
8,900.00	7,138.24	7,101.24	7,138.24	57.55	246.18	91.03	0.61	-9,145.56	7,694.02	7,401.48	292.54	26.301		
9,000.00	7,137.67	7,100.67	7,137.67	59.71	246.16	91.02	0.61	-9,145.56	7,598.71	7,305.73	292.99	25.935		
9,100.00	7,137.10	7,100.10	7,137.10	61.94	246.14	91.00	0.61	-9,145.56	7,503.53	7,210.06	293.46	25.569		
9,200.00	7,136.53	7,100.47	7,136.53	64.22	246.15	90.99	0.61	-9,145.56	7,408.47	7,114.46	294.00	25.198		
9,300.00	7,135.96	7,101.04	7,135.96	66.55	246.17	90.98	0.61	-9,145.56	7,313.54	7,018.96	294.59	24.827		
9,400.00	7,135.39	7,101.61	7,135.39	68.92	246.19	90.96	0.61	-9,145.56	7,218.75	6,923.55	295.20	24.454		
9,500.00	7,134.83	7,102.17	7,134.83	71.33	246.21	90.95	0.61	-9,145.56	7,124.10	6,828.25	295.85	24.080		
9,600.00	7,134.26	7,102.74	7,134.26	73.77	246.23	90.93	0.61	-9,145.56	7,029.60	6,733.07	296.53	23.706		
9,700.00	7,133.69	7,103.31	7,133.69	76.24	246.25	90.92	0.61	-9,145.56	6,935.25	6,638.00	297.26	23.331		
9,800.00	7,133.12	7,103.88	7,133.12	78.74	246.27	90.91	0.61	-9,145.56	6,841.07	6,543.05	298.02	22.955		
9,900.00	7,132.55	7,104.45	7,132.55	81.27	246.29	90.89	0.61	-9,145.56	6,747.05	6,448.23	298.82	22.579		
10,000.00	7,131.98	7,105.02	7,131.98	83.81	246.31	90.88	0.61	-9,145.56	6,653.21	6,353.54	299.67	22.202		
10,100.00	7,131.42	7,105.59	7,131.42	86.38	246.33	90.86	0.61	-9,145.56	6,559.54	6,258.98	300.56	21.824		
10,200.00	7,130.85	7,106.15	7,130.85	88.96	246.35	90.85	0.61	-9,145.56	6,466.07	6,164.58	301.49	21.447		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-08(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,130.28	7,106.72	7,130.28	91.56	246.37	90.84	0.61	-9,145.56	6,372.80	6,070.32	302.48	21.069		
10,400.00	7,129.71	7,107.29	7,129.71	94.18	246.39	90.82	0.61	-9,145.56	6,279.73	5,976.22	303.51	20.691		
10,500.00	7,129.14	7,107.86	7,129.14	96.81	246.41	90.81	0.61	-9,145.56	6,186.88	5,882.29	304.59	20.312		
10,600.00	7,128.57	7,108.43	7,128.57	99.45	246.43	90.79	0.61	-9,145.56	6,094.25	5,788.53	305.72	19.934		
10,700.00	7,128.00	7,109.00	7,128.00	102.11	246.45	90.78	0.61	-9,145.56	6,001.87	5,694.96	306.91	19.556		
10,800.00	7,127.44	7,109.56	7,127.44	104.77	246.47	90.77	0.61	-9,145.56	5,909.73	5,601.57	308.15	19.178		
10,900.00	7,126.87	7,089.87	7,126.87	107.45	245.78	90.75	0.61	-9,145.56	5,817.84	5,509.10	308.75	18.843		
11,000.00	7,126.30	7,089.30	7,126.30	110.13	245.76	90.74	0.61	-9,145.56	5,726.24	5,416.17	310.07	18.468		
11,100.00	7,125.73	7,088.73	7,125.73	112.82	245.74	90.72	0.61	-9,145.56	5,634.91	5,323.46	311.45	18.092		
11,200.00	7,125.16	7,088.16	7,125.16	115.53	245.72	90.71	0.61	-9,145.56	5,543.89	5,230.98	312.90	17.718		
11,300.00	7,124.59	7,087.59	7,124.59	118.24	245.70	90.69	0.61	-9,145.56	5,453.18	5,138.76	314.42	17.344		
11,400.00	7,124.03	7,087.03	7,124.03	120.95	245.68	90.68	0.61	-9,145.56	5,362.80	5,046.79	316.01	16.970		
11,500.00	7,123.46	7,086.46	7,123.46	123.67	245.67	90.67	0.61	-9,145.56	5,272.77	4,955.10	317.67	16.598		
11,600.00	7,122.89	7,085.89	7,122.89	126.40	245.65	90.65	0.61	-9,145.56	5,183.10	4,863.70	319.40	16.228		
11,700.00	7,122.32	7,085.32	7,122.32	129.14	245.63	90.64	0.61	-9,145.56	5,093.82	4,772.60	321.21	15.858		
11,800.00	7,121.75	7,084.75	7,121.75	131.88	245.61	90.62	0.61	-9,145.56	5,004.94	4,681.83	323.11	15.490		
11,900.00	7,121.18	7,084.18	7,121.18	134.62	245.59	90.61	0.61	-9,145.56	4,916.49	4,591.40	325.09	15.124		
12,000.00	7,120.61	7,083.61	7,120.61	137.37	245.57	90.60	0.61	-9,145.56	4,828.49	4,501.34	327.15	14.759		
12,100.00	7,120.05	7,083.05	7,120.05	140.12	245.55	90.58	0.61	-9,145.56	4,740.97	4,411.66	329.31	14.397		
12,200.00	7,119.48	7,082.48	7,119.48	142.88	245.53	90.57	0.61	-9,145.56	4,653.95	4,322.39	331.56	14.037		
12,300.00	7,118.91	7,081.91	7,118.91	145.64	245.51	90.55	0.61	-9,145.56	4,567.46	4,233.55	333.90	13.679		
12,400.00	7,118.34	7,081.34	7,118.34	148.41	245.49	90.54	0.61	-9,145.56	4,481.53	4,145.18	336.35	13.324		
12,500.00	7,117.77	7,080.77	7,117.77	151.18	245.47	90.53	0.61	-9,145.56	4,396.20	4,057.29	338.91	12.972		
12,600.00	7,117.20	7,080.20	7,117.20	153.95	245.45	90.51	0.61	-9,145.56	4,311.50	3,969.93	341.57	12.623		
12,700.00	7,116.64	7,079.64	7,116.64	156.73	245.43	90.50	0.61	-9,145.56	4,227.47	3,883.12	344.34	12.277		
12,800.00	7,116.07	7,079.07	7,116.07	159.50	245.41	90.48	0.61	-9,145.56	4,144.14	3,796.91	347.24	11.935		
12,900.00	7,115.50	7,078.50	7,115.50	162.29	245.39	90.47	0.61	-9,145.56	4,061.57	3,711.32	350.25	11.596		
13,000.00	7,114.93	7,077.93	7,114.93	165.07	245.37	90.46	0.61	-9,145.56	3,979.80	3,626.42	353.39	11.262		
13,100.00	7,114.36	7,077.36	7,114.36	167.86	245.35	90.44	0.61	-9,145.56	3,898.88	3,542.23	356.65	10.932		
13,200.00	7,113.79	7,076.79	7,113.79	170.64	245.33	90.43	0.61	-9,145.56	3,818.86	3,458.81	360.05	10.606		
13,300.00	7,113.22	7,076.22	7,113.22	173.44	245.31	90.41	0.61	-9,145.56	3,739.81	3,376.22	363.58	10.286		
13,400.00	7,112.66	7,075.66	7,112.66	176.23	245.29	90.40	0.61	-9,145.56	3,661.78	3,294.52	367.26	9.971		
13,500.00	7,112.09	7,075.09	7,112.09	179.02	245.27	90.39	0.61	-9,145.56	3,584.84	3,213.76	371.08	9.661		
13,600.00	7,111.52	7,074.52	7,111.52	181.82	245.25	90.37	0.61	-9,145.56	3,509.06	3,134.02	375.04	9.357		
13,700.00	7,110.95	7,073.95	7,110.95	184.62	245.23	90.36	0.61	-9,145.56	3,434.52	3,055.38	379.14	9.059		
13,800.00	7,110.38	7,073.38	7,110.38	187.42	245.21	90.34	0.61	-9,145.56	3,361.31	2,977.90	383.40	8.767		
13,900.00	7,109.81	7,072.81	7,109.81	190.22	245.19	90.33	0.61	-9,145.56	3,289.50	2,901.69	387.81	8.482		
14,000.00	7,109.25	7,072.25	7,109.25	193.03	245.17	90.31	0.61	-9,145.56	3,219.20	2,826.84	392.36	8.205		
14,100.00	7,108.68	7,071.68	7,108.68	195.84	245.15	90.30	0.61	-9,145.56	3,150.51	2,753.45	397.06	7.935		
14,200.00	7,108.11	7,071.11	7,108.11	198.64	245.13	90.29	0.61	-9,145.56	3,083.53	2,681.62	401.90	7.672		
14,300.00	7,107.54	7,070.54	7,107.54	201.45	245.11	90.27	0.61	-9,145.56	3,018.37	2,611.49	406.88	7.418		
14,400.00	7,106.97	7,069.97	7,106.97	204.26	245.09	90.26	0.61	-9,145.56	2,955.17	2,543.17	411.99	7.173		
14,500.00	7,106.40	7,069.40	7,106.40	207.07	245.07	90.24	0.61	-9,145.56	2,894.04	2,476.81	417.22	6.936		
14,600.00	7,105.83	7,068.83	7,105.83	209.89	245.05	90.23	0.61	-9,145.56	2,835.12	2,412.56	422.56	6.709		
14,700.00	7,105.27	7,068.27	7,105.27	212.70	245.03	90.22	0.61	-9,145.56	2,778.55	2,350.56	427.98	6.492		
14,800.00	7,104.70	7,067.70	7,104.70	215.52	245.01	90.20	0.61	-9,145.56	2,724.47	2,290.99	433.48	6.285		
14,900.00	7,104.13	7,067.13	7,104.13	218.33	244.99	90.19	0.61	-9,145.56	2,673.05	2,234.02	439.03	6.089		
15,000.00	7,103.56	7,066.56	7,103.56	221.15	244.97	90.17	0.61	-9,145.56	2,624.43	2,179.82	444.60	5.903		
15,100.00	7,102.99	7,065.99	7,102.99	223.97	244.95	90.16	0.61	-9,145.56	2,578.77	2,128.60	450.17	5.728		
15,200.00	7,102.42	7,065.42	7,102.42	226.79	244.93	90.15	0.61	-9,145.56	2,536.23	2,080.54	455.69	5.566		
15,274.57	7,102.00	7,065.00	7,102.00	228.89	244.92	90.14	0.61	-9,145.56	2,506.64	2,046.88	459.77	5.452 CC, ES, SF		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I17-17D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	24.00	3.28	3.28	-90.18	-28.53	-9,142.79	9,142.86					
100.00	100.00	112.28	136.28	3.28	3.29	-90.18	-28.81	-9,142.42	9,142.54	9,135.96	6.58	1,389.930		
200.00	200.00	186.35	210.34	3.34	3.34	-90.18	-28.73	-9,142.23	9,142.28	9,135.61	6.67	1,370.050		
300.00	299.98	261.33	285.33	3.44	3.41	85.87	-28.68	-9,142.25	9,142.18	9,135.34	6.85	1,335.131		
400.00	399.84	348.29	372.29	3.59	3.53	85.90	-28.77	-9,142.45	9,142.04	9,134.92	7.12	1,284.889		
500.00	499.45	436.47	460.47	3.79	3.68	85.96	-28.89	-9,142.78	9,141.78	9,134.32	7.47	1,223.856		
600.00	598.70	616.10	640.10	4.03	4.09	86.11	-29.41	-9,143.05	9,141.22	9,133.10	8.12	1,125.482		
700.00	697.47	679.44	703.44	4.31	4.26	86.19	-29.73	-9,142.88	9,139.89	9,131.31	8.58	1,065.797		
800.00	795.62	727.00	750.99	4.64	4.40	86.27	-29.96	-9,142.92	9,138.77	9,129.73	9.03	1,011.652		
900.00	893.06	727.00	750.99	5.00	4.40	86.28	-29.96	-9,142.92	9,138.32	9,128.92	9.40	972.590		
978.43	968.89	790.07	814.06	5.31	4.58	86.38	-29.91	-9,143.53	9,137.89	9,128.00	9.89	923.887		
1,000.00	989.64	796.71	820.70	5.40	4.60	86.39	-29.86	-9,143.64	9,137.91	9,127.91	10.00	913.961		
1,100.00	1,085.27	856.00	879.96	5.83	4.78	86.50	-29.12	-9,145.14	9,138.44	9,127.83	10.61	861.110		
1,200.00	1,179.88	856.00	879.96	6.29	4.78	86.49	-29.12	-9,145.14	9,139.28	9,128.20	11.08	825.128		
1,300.00	1,274.26	856.00	879.96	6.78	4.78	86.49	-29.12	-9,145.14	9,141.15	9,129.59	11.56	790.422		
1,400.00	1,368.63	902.75	926.66	7.28	4.93	86.59	-28.12	-9,147.01	9,143.64	9,131.42	12.22	748.474		
1,500.00	1,463.00	925.50	949.38	7.80	5.01	86.64	-27.52	-9,148.18	9,147.11	9,134.30	12.81	714.269		
1,600.00	1,557.38	984.00	1,007.72	8.33	5.20	86.78	-25.61	-9,152.00	9,151.73	9,138.20	13.53	676.647		
1,700.00	1,651.75	984.00	1,007.72	8.87	5.20	86.78	-25.61	-9,152.00	9,156.67	9,142.61	14.06	651.300		
1,800.00	1,746.12	984.00	1,007.72	9.41	5.20	86.78	-25.61	-9,152.00	9,162.70	9,148.10	14.60	627.634		
1,900.00	1,840.49	984.00	1,007.72	9.96	5.20	86.78	-25.61	-9,152.00	9,169.81	9,154.67	15.14	605.552		
2,000.00	1,934.87	1,043.91	1,067.36	10.52	5.41	86.92	-22.86	-9,157.00	9,177.28	9,161.38	15.90	577.308		
2,100.00	2,029.24	1,112.00	1,134.95	11.08	5.65	87.08	-18.46	-9,163.92	9,186.22	9,169.53	16.69	550.479		
2,200.00	2,123.61	1,112.00	1,134.95	11.64	5.65	87.08	-18.46	-9,163.92	9,195.30	9,178.06	17.24	533.392		
2,300.00	2,217.99	1,112.00	1,134.95	12.21	5.65	87.08	-18.46	-9,163.92	9,205.45	9,187.66	17.79	517.405		
2,400.00	2,312.36	1,153.82	1,176.36	12.78	5.81	87.19	-15.11	-9,168.72	9,216.43	9,197.93	18.50	498.205		
2,500.00	2,406.73	1,188.16	1,210.31	13.35	5.94	87.27	-12.03	-9,172.86	9,228.15	9,208.97	19.18	481.097		
2,600.00	2,501.10	1,241.00	1,262.44	13.93	6.15	87.41	-6.69	-9,179.60	9,240.65	9,220.71	19.94	463.486		
2,700.00	2,595.48	1,264.40	1,285.49	14.51	6.25	87.47	-4.06	-9,182.69	9,253.76	9,233.18	20.58	449.588		
2,800.00	2,689.85	1,316.48	1,336.67	15.08	6.47	87.62	2.59	-9,189.65	9,267.51	9,246.17	21.35	434.168		
2,900.00	2,784.22	1,369.00	1,388.11	15.66	6.70	87.77	10.39	-9,196.77	9,281.83	9,259.72	22.11	419.757		
3,000.00	2,878.60	1,369.00	1,388.11	16.25	6.70	87.77	10.39	-9,196.77	9,296.94	9,274.28	22.66	410.293		
3,100.00	2,972.97	1,436.91	1,454.38	16.83	7.01	87.97	21.76	-9,206.36	9,312.48	9,288.98	23.51	396.174		
3,200.00	3,067.34	1,498.00	1,513.73	17.41	7.31	88.16	32.96	-9,215.52	9,329.00	9,304.68	24.32	383.519		
3,300.00	3,161.72	1,498.00	1,513.73	18.00	7.31	88.16	32.96	-9,215.52	9,346.06	9,321.19	24.87	375.870		
3,400.00	3,256.09	1,536.47	1,550.98	18.58	7.50	88.28	40.43	-9,221.56	9,363.94	9,338.35	25.59	365.942		
3,500.00	3,350.46	1,568.46	1,581.89	19.17	7.67	88.38	46.83	-9,226.75	9,382.57	9,356.29	26.28	357.037		
3,600.00	3,444.83	1,626.00	1,637.33	19.75	7.98	88.56	58.76	-9,236.48	9,402.03	9,374.94	27.09	347.020		
3,700.00	3,539.21	1,626.00	1,637.33	20.34	7.98	88.56	58.76	-9,236.48	9,422.05	9,394.43	27.62	341.111		
3,800.00	3,633.58	1,665.19	1,674.95	20.93	8.20	88.68	67.30	-9,243.36	9,442.88	9,414.52	28.35	333.044		
3,900.00	3,727.95	1,697.87	1,706.23	21.52	8.39	88.79	74.76	-9,249.23	9,464.43	9,435.38	29.05	325.819		
4,000.00	3,822.33	1,754.00	1,759.70	22.11	8.72	88.98	88.31	-9,259.60	9,486.78	9,456.91	29.87	317.641		
4,100.00	3,916.70	1,754.00	1,759.70	22.70	8.72	88.98	88.31	-9,259.60	9,509.71	9,479.33	30.38	313.033		
4,200.00	4,011.07	1,754.00	1,759.70	23.29	8.72	88.98	88.31	-9,259.60	9,533.63	9,502.74	30.89	308.659		
4,300.00	4,105.44	1,803.57	1,806.66	23.88	9.04	89.14	100.90	-9,269.22	9,558.06	9,526.38	31.68	301.713		
4,400.00	4,199.82	1,825.32	1,827.20	24.47	9.18	89.22	106.57	-9,273.62	9,583.43	9,551.13	32.31	296.647		
4,500.00	4,294.19	1,883.00	1,881.40	25.06	9.56	89.41	122.01	-9,285.87	9,609.85	9,576.71	33.14	289.976		
4,600.00	4,388.56	1,883.00	1,881.40	25.65	9.56	89.41	122.01	-9,285.87	9,636.59	9,602.96	33.63	286.543		
4,700.00	4,482.94	1,966.81	1,959.93	26.24	10.15	89.70	145.06	-9,303.96	9,664.19	9,629.55	34.64	278.994		
4,800.00	4,577.31	2,106.85	2,091.33	26.83	11.16	90.18	183.62	-9,333.24	9,691.49	9,655.47	36.02	269.093		
4,900.00	4,671.68	2,188.70	2,168.40	27.43	11.76	90.45	205.28	-9,350.31	9,718.87	9,681.85	37.03	262.490		
5,000.00	4,766.05	2,257.48	2,233.25	28.02	12.27	90.68	222.96	-9,364.85	9,746.62	9,708.67	37.95	256.823		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I17-17D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	4,860.43	2,414.61	2,381.88	28.61	13.43	91.19	261.66	-9,398.01	9,774.43	9,734.98	39.45	247.759		
5,200.00	4,954.80	2,443.93	2,409.61	29.20	13.66	91.28	268.92	-9,404.21	9,802.41	9,762.29	40.12	244.329		
5,300.00	5,049.17	2,486.76	2,450.05	29.80	13.98	91.42	279.70	-9,413.32	9,830.97	9,790.10	40.87	240.529		
5,400.00	5,143.55	2,534.83	2,495.32	30.39	14.35	91.58	292.14	-9,423.66	9,860.10	9,818.44	41.66	236.693		
5,500.00	5,237.92	2,635.01	2,589.57	30.99	15.14	91.90	318.41	-9,445.13	9,889.54	9,846.73	42.80	231.041		
5,600.00	5,332.29	2,653.00	2,606.50	31.58	15.28	91.96	323.15	-9,448.96	9,919.35	9,875.97	43.38	228.650		
5,700.00	5,426.66	2,709.26	2,659.32	32.17	15.73	92.15	338.22	-9,461.11	9,949.65	9,905.42	44.23	224.956		
5,800.00	5,521.04	2,739.79	2,687.89	32.77	15.98	92.25	346.60	-9,467.86	9,980.71	9,935.82	44.89	222.337		
7,400.00	6,979.23	7,317.84	7,161.74	41.75	39.00	48.26	802.08	-9,864.61	9,989.24	9,913.95	75.28	132.686		
7,500.00	7,038.53	7,359.57	7,203.46	42.08	39.13	49.21	801.40	-9,864.06	9,920.81	9,845.02	75.79	130.905		
7,600.00	7,085.63	7,392.66	7,236.55	42.37	39.23	53.02	800.87	-9,863.68	9,843.09	9,766.86	76.23	129.128		
7,700.00	7,119.37	7,428.85	7,272.73	42.64	39.35	60.90	800.29	-9,863.29	9,757.92	9,681.27	76.65	127.300		
7,800.00	7,138.92	7,455.66	7,299.54	42.91	39.43	75.01	799.87	-9,862.97	9,667.31	9,590.29	77.02	125.512		
7,900.00	7,143.92	7,461.13	7,305.01	43.25	39.45	93.90	799.79	-9,862.90	9,573.49	9,496.19	77.30	123.849		
8,000.00	7,143.35	7,458.54	7,302.41	43.72	39.44	93.85	799.83	-9,862.93	9,479.02	9,401.47	77.55	122.226		
8,100.00	7,142.78	7,455.97	7,299.84	44.42	39.43	93.81	799.87	-9,862.97	9,384.67	9,306.84	77.83	120.574		
8,200.00	7,142.22	7,453.43	7,297.30	45.39	39.42	93.76	799.91	-9,863.00	9,290.44	9,212.29	78.14	118.893		
8,300.00	7,141.65	7,450.91	7,294.78	46.63	39.42	93.71	799.94	-9,863.03	9,196.32	9,117.84	78.48	117.184		
8,400.00	7,141.08	7,448.42	7,292.30	48.09	39.41	93.67	799.98	-9,863.06	9,102.33	9,023.49	78.84	115.449		
8,500.00	7,140.51	7,445.96	7,289.84	49.74	39.40	93.62	800.02	-9,863.09	9,008.47	8,929.23	79.24	113.688		
8,600.00	7,139.94	7,443.53	7,287.40	51.53	39.39	93.58	800.06	-9,863.12	8,914.75	8,835.08	79.67	111.902		
8,700.00	7,139.37	7,441.12	7,285.00	53.44	39.38	93.53	800.10	-9,863.15	8,821.16	8,741.03	80.13	110.092		
8,800.00	7,138.80	7,438.74	7,282.61	55.45	39.38	93.49	800.13	-9,863.17	8,727.71	8,647.09	80.62	108.260		
8,900.00	7,138.24	7,436.38	7,280.26	57.55	39.37	93.45	800.17	-9,863.20	8,634.41	8,553.26	81.14	106.408		
9,000.00	7,137.67	7,434.05	7,277.92	59.71	39.36	93.40	800.21	-9,863.23	8,541.26	8,459.55	81.71	104.537		
9,100.00	7,137.10	7,431.74	7,275.62	61.94	39.35	93.36	800.24	-9,863.25	8,448.27	8,365.96	82.30	102.648		
9,200.00	7,136.53	7,429.45	7,273.33	64.22	39.35	93.32	800.28	-9,863.28	8,355.43	8,272.50	82.94	100.743		
9,300.00	7,135.96	7,427.19	7,271.07	66.55	39.34	93.28	800.31	-9,863.31	8,262.77	8,179.16	83.61	98.825		
9,400.00	7,135.39	7,424.96	7,268.83	68.92	39.33	93.24	800.35	-9,863.33	8,170.27	8,085.95	84.32	96.895		
9,500.00	7,134.83	7,422.74	7,266.62	71.33	39.33	93.20	800.39	-9,863.36	8,077.96	7,992.89	85.07	94.955		
9,600.00	7,134.26	7,420.55	7,264.43	73.77	39.32	93.16	800.42	-9,863.38	7,985.83	7,899.97	85.86	93.006		
9,700.00	7,133.69	7,418.38	7,262.26	76.24	39.31	93.12	800.45	-9,863.40	7,893.89	7,807.19	86.70	91.052		
9,800.00	7,133.12	7,416.23	7,260.11	78.74	39.31	93.08	800.49	-9,863.43	7,802.15	7,714.58	87.57	89.094		
9,900.00	7,132.55	7,414.10	7,257.98	81.27	39.30	93.04	800.52	-9,863.45	7,710.61	7,622.12	88.49	87.134		
10,000.00	7,131.98	7,411.99	7,255.87	83.81	39.29	93.00	800.56	-9,863.47	7,619.29	7,529.83	89.46	85.174		
10,100.00	7,131.42	7,409.91	7,253.79	86.38	39.29	92.96	800.59	-9,863.50	7,528.18	7,437.72	90.47	83.216		
10,200.00	7,130.85	7,407.84	7,251.72	88.96	39.28	92.92	800.62	-9,863.52	7,437.31	7,345.79	91.52	81.262		
10,300.00	7,130.28	7,405.80	7,249.68	91.56	39.27	92.89	800.66	-9,863.54	7,346.67	7,254.04	92.63	79.315		
10,400.00	7,129.71	7,404.00	7,247.88	94.18	39.27	92.85	800.69	-9,863.56	7,256.28	7,162.49	93.78	77.375		
10,500.00	7,129.14	7,404.00	7,247.88	96.81	39.27	92.85	800.69	-9,863.56	7,166.14	7,071.15	94.99	75.440		
10,600.00	7,128.57	7,404.00	7,247.88	99.45	39.27	92.85	800.69	-9,863.56	7,076.26	6,980.01	96.25	73.517		
10,700.00	7,128.00	7,400.08	7,243.96	102.11	39.25	92.78	800.75	-9,863.60	6,986.66	6,889.11	97.55	71.619		
10,800.00	7,127.44	7,398.80	7,242.69	104.77	39.25	92.76	800.77	-9,863.61	6,897.35	6,798.43	98.92	69.729		
10,900.00	7,126.87	7,397.52	7,241.40	107.45	39.25	92.73	800.79	-9,863.63	6,808.33	6,708.00	100.33	67.856		
11,000.00	7,126.30	7,396.22	7,240.11	110.13	39.24	92.71	800.81	-9,863.64	6,719.62	6,617.82	101.81	66.002		
11,100.00	7,125.73	7,394.92	7,238.80	112.82	39.24	92.69	800.83	-9,863.65	6,631.24	6,527.90	103.34	64.169		
11,200.00	7,125.16	7,393.61	7,237.49	115.53	39.23	92.66	800.85	-9,863.67	6,543.18	6,438.25	104.93	62.357		
11,300.00	7,124.59	7,392.29	7,236.17	118.24	39.23	92.64	800.87	-9,863.68	6,455.48	6,348.90	106.58	60.569		
11,400.00	7,124.03	7,390.96	7,234.84	120.95	39.23	92.61	800.90	-9,863.70	6,368.14	6,259.84	108.29	58.804		
11,500.00	7,123.46	7,389.62	7,233.50	123.67	39.22	92.59	800.92	-9,863.71	6,281.17	6,171.10	110.07	57.066		
11,600.00	7,122.89	7,388.27	7,232.16	126.40	39.22	92.56	800.94	-9,863.73	6,194.60	6,082.69	111.91	55.354		
11,700.00	7,122.32	7,386.91	7,230.80	129.14	39.21	92.54	800.96	-9,863.74	6,108.43	5,994.62	113.82	53.669		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I17-17D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
11,800.00	7,121.75	7,385.55	7,229.43	131.88	39.21	92.51	800.98	-9,863.76	6,022.70	5,906.91	115.79	52.013		
11,900.00	7,121.18	7,384.17	7,228.06	134.62	39.20	92.49	801.01	-9,863.77	5,937.41	5,819.57	117.84	50.387		
12,000.00	7,120.61	7,382.79	7,226.67	137.37	39.20	92.46	801.03	-9,863.79	5,852.58	5,732.63	119.95	48.790		
12,100.00	7,120.05	7,381.39	7,225.28	140.12	39.20	92.44	801.05	-9,863.80	5,768.24	5,646.10	122.14	47.225		
12,200.00	7,119.48	7,379.99	7,223.87	142.88	39.19	92.41	801.07	-9,863.82	5,684.41	5,560.00	124.41	45.691		
12,300.00	7,118.91	7,378.57	7,222.46	145.64	39.19	92.39	801.10	-9,863.84	5,601.11	5,474.36	126.75	44.189		
12,400.00	7,118.34	7,377.15	7,221.03	148.41	39.18	92.36	801.12	-9,863.85	5,518.36	5,389.19	129.18	42.720		
12,500.00	7,117.77	7,375.71	7,219.60	151.18	39.18	92.33	801.14	-9,863.87	5,436.20	5,304.52	131.68	41.284		
12,600.00	7,117.20	7,374.26	7,218.15	153.95	39.17	92.31	801.17	-9,863.89	5,354.63	5,220.37	134.27	39.881		
12,700.00	7,116.64	7,372.81	7,216.70	156.73	39.17	92.28	801.19	-9,863.90	5,273.71	5,136.77	136.94	38.512		
12,800.00	7,116.07	7,371.34	7,215.23	159.50	39.16	92.25	801.21	-9,863.92	5,193.44	5,053.75	139.70	37.177		
12,900.00	7,115.50	7,369.87	7,213.75	162.29	39.16	92.23	801.24	-9,863.94	5,113.88	4,971.33	142.54	35.876		
13,000.00	7,114.93	7,368.38	7,212.27	165.07	39.16	92.20	801.26	-9,863.95	5,035.04	4,889.56	145.48	34.609		
13,100.00	7,114.36	7,366.88	7,210.77	167.86	39.15	92.17	801.29	-9,863.97	4,956.96	4,808.45	148.51	33.377		
13,200.00	7,113.79	7,365.37	7,209.26	170.64	39.15	92.14	801.31	-9,863.99	4,879.68	4,728.04	151.64	32.179		
13,300.00	7,113.22	7,363.85	7,207.74	173.44	39.14	92.12	801.33	-9,864.01	4,803.25	4,648.38	154.86	31.016		
13,400.00	7,112.66	7,362.32	7,206.21	176.23	39.14	92.09	801.36	-9,864.03	4,727.69	4,569.50	158.18	29.887		
13,500.00	7,112.09	7,360.78	7,204.67	179.02	39.13	92.06	801.38	-9,864.05	4,653.05	4,491.45	161.60	28.793		
13,600.00	7,111.52	7,359.22	7,203.11	181.82	39.13	92.03	801.41	-9,864.07	4,579.38	4,414.25	165.12	27.733		
13,700.00	7,110.95	7,357.66	7,201.55	184.62	39.12	92.00	801.43	-9,864.09	4,506.72	4,337.98	168.74	26.707		
13,800.00	7,110.38	7,356.08	7,199.97	187.42	39.12	91.97	801.46	-9,864.10	4,435.13	4,262.66	172.47	25.716		
13,900.00	7,109.81	7,354.49	7,198.38	190.22	39.11	91.94	801.49	-9,864.12	4,364.65	4,188.35	176.30	24.758		
14,000.00	7,109.25	7,352.89	7,196.78	193.03	39.11	91.92	801.51	-9,864.14	4,295.34	4,115.12	180.22	23.833		
14,100.00	7,108.68	7,351.28	7,195.17	195.84	39.10	91.89	801.54	-9,864.16	4,227.27	4,043.01	184.26	22.942		
14,200.00	7,108.11	7,349.65	7,193.54	198.64	39.10	91.86	801.56	-9,864.19	4,160.48	3,972.09	188.39	22.085		
14,300.00	7,107.54	7,348.01	7,191.91	201.45	39.09	91.83	801.59	-9,864.21	4,095.04	3,902.42	192.62	21.260		
14,400.00	7,106.97	7,346.36	7,190.26	204.26	39.09	91.80	801.62	-9,864.23	4,031.02	3,834.07	196.95	20.467		
14,500.00	7,106.40	7,344.70	7,188.60	207.07	39.08	91.76	801.64	-9,864.25	3,968.49	3,767.12	201.38	19.707		
14,600.00	7,105.83	7,343.03	7,186.92	209.89	39.08	91.73	801.67	-9,864.27	3,907.52	3,701.63	205.89	18.979		
14,700.00	7,105.27	7,341.34	7,185.23	212.70	39.07	91.70	801.70	-9,864.29	3,848.18	3,637.69	210.49	18.282		
14,800.00	7,104.70	7,339.64	7,183.53	215.52	39.07	91.67	801.73	-9,864.31	3,790.55	3,575.37	215.17	17.616		
14,900.00	7,104.13	7,337.92	7,181.82	218.33	39.06	91.64	801.75	-9,864.34	3,734.70	3,514.77	219.93	16.981		
15,000.00	7,103.56	7,336.20	7,180.09	221.15	39.05	91.61	801.78	-9,864.36	3,680.73	3,455.98	224.75	16.377		
15,100.00	7,102.99	7,334.45	7,178.35	223.97	39.05	91.58	801.81	-9,864.38	3,628.70	3,399.07	229.63	15.802		
15,200.00	7,102.42	7,332.70	7,176.60	226.79	39.04	91.54	801.84	-9,864.41	3,578.72	3,344.16	234.56	15.257		
15,274.57	7,102.00	7,331.38	7,175.28	228.89	39.04	91.52	801.86	-9,864.42	3,542.82	3,304.57	238.25	14.870 CC, ES, SF		

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB @ 4819.00ft

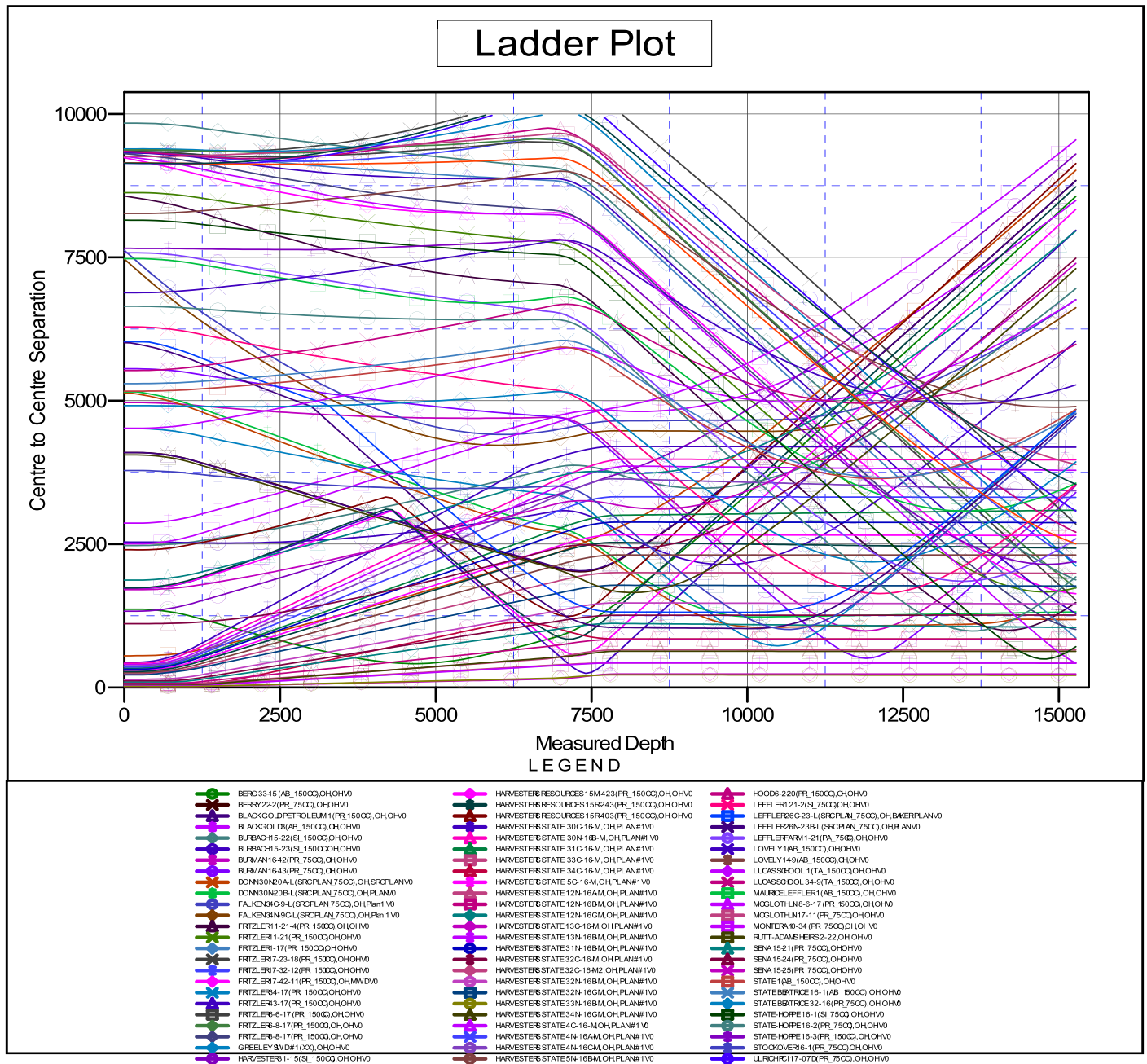
Offset Depths are relative to Offset Datum

Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 33N-16C-M

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.48°

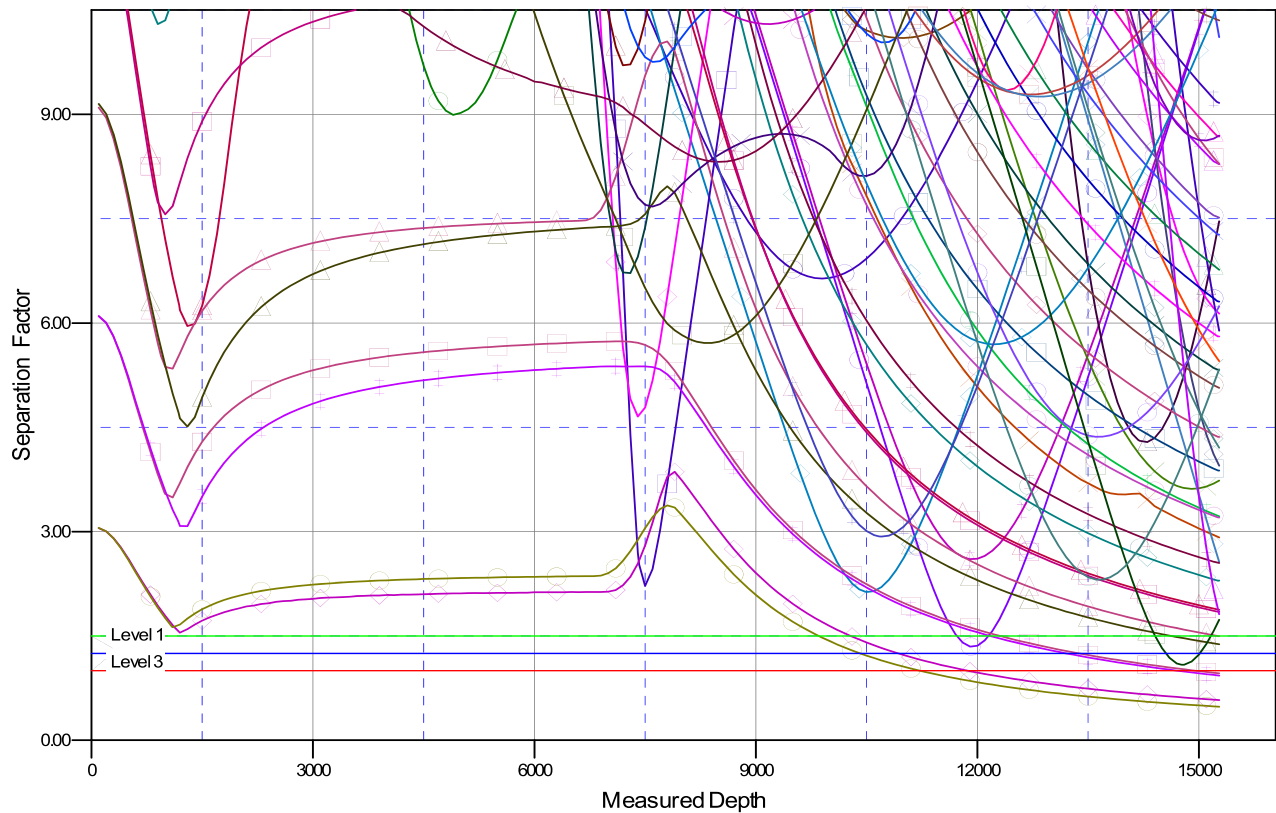


Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 33N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4819.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4819.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 33N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to KB @ 4819.00ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 33N-16C-M
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.48°

Separation Factor Plot



LEGEND

BERG 33-45 (AB_1500Q, OH, OHV0)	HARVESTERS RESOURCES 15M423 (PR_1500Q, OH, OHV0)	H006-220 (PR_1500Q, OH, OHV0)
BERR 22-21 (PR_750Q, OH, OHV0)	HARVESTERS RESOURCES 15N43 (PR_1500Q, OH, OHV0)	LEFFLER 21-21 (SL_750Q, OH, OHV0)
BLACK GOLD PETROLEUM 1 (PR_1500Q, OH, OHV0)	HARVESTERS RESOURCES 15R403 (PR_1500Q, OH, OHV0)	LEFFLER 26-23-L (SRCP, PLAN_750Q, OH, OHV0)
BLACK GOLD (AB_1500Q, OH, OHV0)	HARVESTERS STATE 30C-16M, OH, PLAN#1 V0	LEFFLER 26N-23L (SRCP, PLAN_750Q, OH, OHV0)
BURBACH 15-22 (SL_1500Q, OH, OHV0)	HARVESTERS STATE 30N-16M, OH, PLAN#1 V0	LEFFLER FARM 1-21 (PA_750Q, OH, OHV0)
BURBACH 15-23 (SL_1500Q, OH, OHV0)	HARVESTERS STATE 31C-16M, OH, PLAN#1 V0	LOVELY 149 (AB_1500Q, OH, OHV0)
BURMAN 16-42 (PR_750Q, OH, OHV0)	HARVESTERS STATE 33C-16M, OH, PLAN#1 V0	LOVELY 149 (AB_1500Q, OH, OHV0)
BURMAN 16-43 (PR_750Q, OH, OHV0)	HARVESTERS STATE 34C-16M, OH, PLAN#1 V0	LUCAS SCHOOL 1 (TA_1500Q, OH, OHV0)
DOHN 01020-A-L (SRCP, PLAN_750Q, OH, OHV0)	HARVESTERS STATE 5C-16M, OH, PLAN#1 V0	LUCAS SCHOOL 34-9 (TA_1500Q, OH, OHV0)
DOHN 01020-B-L (SRCP, PLAN_750Q, OH, OHV0)	HARVESTERS STATE 12N-16AM, OH, PLAN#1 V0	MAURICE LEFFLER 1 (AB_1500Q, OH, OHV0)
FALKEN 31G-9-L (SRCP, PLAN_750Q, OH, OHV0)	HARVESTERS STATE 12N-16BM, OH, PLAN#1 V0	MOGLOTHUN 6-17 (PR_1500Q, OH, OHV0)
FALKEN 31N-9C-L (SRCP, PLAN_750Q, OH, OHV0)	HARVESTERS STATE 12N-16CM, OH, PLAN#1 V0	MOGLOTHUN 17-11 (PR_750Q, OH, OHV0)
FITZLER 11-21-4 (PR_1500Q, OH, OHV0)	HARVESTERS STATE 13C-16M, OH, PLAN#1 V0	MONTEWA 10-34 (PR_750Q, OH, OHV0)
FITZLER 11-21 (PR_1500Q, OH, OHV0)	HARVESTERS STATE 13N-16BM, OH, PLAN#1 V0	RUTT-ADAMS HERS 2-22 (OH, OHV0)
FITZLER 16-17 (PR_1500Q, OH, OHV0)	HARVESTERS STATE 31N-16BM, OH, PLAN#1 V0	SENA 15-21 (PR_750Q, OH, OHV0)
FITZLER 17-23-16 (PR_1500Q, OH, OHV0)	HARVESTERS STATE 32C-16M, OH, PLAN#1 V0	SENA 15-24 (PR_750Q, OH, OHV0)
FITZLER 17-32-12 (PR_1500Q, OH, OHV0)	HARVESTERS STATE 32C-16M2, OH, PLAN#1 V0	SENA 15-25 (PR_750Q, OH, OHV0)
FITZLER 17-42-11 (PR_1500Q, OH, OHV0)	HARVESTERS STATE 32N-16BM, OH, PLAN#1 V0	STATE 1 (AB_1500Q, OH, OHV0)
FITZLER 16-17 (PR_1500Q, OH, OHV0)	HARVESTERS STATE 32N-16CM, OH, PLAN#1 V0	STATEBATRICE 16-11 (AB_1500Q, OH, OHV0)
FITZLER 16-17 (PR_1500Q, OH, OHV0)	HARVESTERS STATE 33N-16BM, OH, PLAN#1 V0	STATEBATRICE 32-16 (PR_750Q, OH, OHV0)
FITZLER 16-17 (PR_1500Q, OH, OHV0)	HARVESTERS STATE 34N-16CM, OH, PLAN#1 V0	STATE HOPE 16-11 (SL_750Q, OH, OHV0)
FITZLER 16-17 (PR_1500Q, OH, OHV0)	HARVESTERS STATE 41-16M, OH, PLAN#1 V0	STATE HOPE 16-2 (PR_750Q, OH, OHV0)
FITZLER 16-17 (PR_1500Q, OH, OHV0)	HARVESTERS STATE 4N-16AM, OH, PLAN#1 V0	STATE HOPE 16-3 (PR_1500Q, OH, OHV0)
GRIFFIN 30D-1 (OH, OHV0)	HARVESTERS STATE 4N-16CM, OH, PLAN#1 V0	STOCKOVER 6-11 (PR_750Q, OH, OHV0)
HARVESTERS 11-15 (SL_1500Q, OH, OHV0)	HARVESTERS STATE 5N-16BM, OH, PLAN#1 V0	ULRICH 11-07 (PR_750Q, OH, OHV0)