



SRC ENERGY

**SECTION 15, T6N, R66W
HARVESTERS STATE 7-15 PAD
HARVESTERS STATE 32N-16C-M**

**OH
PLAN #1**

Anticollision Report

03 October, 2017





Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	10/3/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	14,909.68	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	6,629.64	6,530.70	1,032.92	975.45	17.972	CC, ES
BERG 33-15 (AB_150CC) - OH - OH	6,800.00	6,714.42	1,042.86	983.84	17.670	SF
BERRY 22-2(PR_75CC) - OH - OH	6,885.42	6,811.06	3,674.88	3,615.39	61.766	CC
BERRY 22-2(PR_75CC) - OH - OH	6,900.00	6,822.03	3,674.93	3,615.33	61.651	ES
BERRY 22-2(PR_75CC) - OH - OH	9,400.00	7,046.16	4,740.88	4,648.37	51.246	SF
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	6,882.23	6,898.31	3,692.70	3,632.86	61.715	CC
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	6,900.00	6,916.33	3,692.76	3,632.77	61.560	ES
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	9,400.00	7,309.70	4,751.63	4,657.99	50.743	SF
BLACKGOLD 3(AB_150CC) - OH - OH	600.00	635.17	2,665.87	2,657.70	326.369	CC, ES
BLACKGOLD 3(AB_150CC) - OH - OH	9,600.00	7,140.70	3,460.14	3,358.67	34.099	SF
BURBACH 15-22(SI_150CC) - OH - OH	8,904.00	7,104.06	1,694.94	1,385.87	5.484	CC, ES
BURBACH 15-22(SI_150CC) - OH - OH	9,100.00	7,103.21	1,706.23	1,392.97	5.447	SF
BURBACH 15-23(SI_150CC) - OH - OH	9,284.40	7,087.41	364.53	46.45	1.146	Level 2, CC, ES, SF
BURMAN 16-42(PR_75CC) - OH - OH	11,554.97	7,066.56	786.94	408.19	2.078	CC, ES
BURMAN 16-42(PR_75CC) - OH - OH	11,600.00	7,066.36	788.22	408.27	2.075	SF
BURMAN 16-43(PR_75CC) - OH - OH	11,572.49	7,063.48	2,287.78	1,908.65	6.034	CC
BURMAN 16-43(PR_75CC) - OH - OH	11,600.00	7,063.36	2,287.94	1,908.03	6.022	ES
BURMAN 16-43(PR_75CC) - OH - OH	11,900.00	7,062.06	2,311.10	1,923.85	5.968	SF
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	9,882.29	7,286.01	2,815.27	2,692.22	22.880	CC
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	14,909.96	12,343.33	2,948.33	2,539.83	7.218	ES, SF
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	9,832.77	7,350.00	3,008.45	2,886.80	24.732	CC
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	14,909.96	12,379.50	3,087.53	2,680.43	7.584	ES, SF
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	6,986.46	16,106.02	2,855.12	2,568.54	9.963	CC
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	10,100.00	19,118.26	2,892.10	2,456.18	6.634	ES
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	10,300.00	19,118.26	2,903.49	2,463.64	6.601	SF
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	6,909.22	16,006.96	2,680.39	2,394.40	9.373	CC
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	10,100.00	19,018.34	2,689.17	2,253.78	6.177	ES
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	10,300.00	19,018.34	2,701.37	2,262.57	6.156	SF
FRITZLER 11-21-4(PR_150CC) - OH - OH	13,842.68	7,174.00	2,771.61	2,540.08	11.971	CC
FRITZLER 11-21-4(PR_150CC) - OH - OH	13,900.00	7,176.28	2,772.20	2,538.94	11.884	ES
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,400.00	7,196.56	2,827.02	2,582.38	11.556	SF
FRITZLER 11-21(PR_150CC) - OH - OH	14,440.69	7,033.04	3,437.86	2,979.26	7.496	CC
FRITZLER 11-21(PR_150CC) - OH - OH	14,500.00	7,032.78	3,438.37	2,978.09	7.470	ES
FRITZLER 11-21(PR_150CC) - OH - OH	14,909.96	7,031.00	3,469.74	2,999.57	7.380	SF
FRITZLER 1-17(PR_150CC) - OH - OH	14,909.96	7,046.00	2,264.38	1,808.28	4.965	CC, ES, SF
FRITZLER 17-23-18(PR_150CC) - OH - OH	14,909.96	7,342.74	3,228.30	3,073.84	20.902	CC, ES, SF
FRITZLER 17-32-12(PR_150CC) - OH - OH	14,909.96	7,467.08	1,485.16	1,392.50	16.028	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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 17-42-11(PR_150CC) - OH - MWD	14,909.96	7,443.70	204.06	9.22	1.047	Level 2, CC, ES, SF
FRITZLER 34-17(PR_150CC) - OH - OH	14,909.96	7,107.60	3,023.96	2,824.33	15.148	CC, ES, SF
FRITZLER 43-17(PR_150CC) - OH - OH	14,909.96	7,239.96	1,148.39	956.80	5.994	CC, ES, SF
FRITZLER 6-6-17 (PR_150CC) - OH - OH	14,909.96	7,096.92	2,112.35	1,917.86	10.861	CC, ES, SF
FRITZLER 6-8-17(PR_150CC) - OH - OH	14,909.96	7,173.88	3,093.53	2,862.03	13.363	CC, ES, SF
FRITZLER 8-8-17(PR_150CC) - OH - OH	14,909.96	7,094.44	2,772.71	2,512.32	10.648	CC, ES, SF
GREELEY SWD #1(XX) - OH - OH	10,141.58	7,054.69	2,506.81	2,167.24	7.382	CC
GREELEY SWD #1(XX) - OH - OH	10,200.00	7,054.44	2,507.49	2,166.31	7.349	ES
GREELEY SWD #1(XX) - OH - OH	10,500.00	7,053.14	2,532.30	2,183.60	7.262	SF
HARVESTER 31-15(SI_150CC) - OH - OH	0.00	0.00	1,129.42			
HARVESTER 31-15(SI_150CC) - OH - OH	400.00	382.78	1,130.00	1,122.82	157.400	ES
HARVESTER 31-15(SI_150CC) - OH - OH	6,800.00	6,764.56	1,800.37	1,741.53	30.598	SF
HARVESTER 32-15(SI_150CC) - OH - OH	424.08	403.11	520.75	513.49	71.673	CC
HARVESTER 32-15(SI_150CC) - OH - OH	600.00	577.00	521.24	513.21	64.898	ES
HARVESTER 32-15(SI_150CC) - OH - OH	6,600.00	6,544.98	886.85	829.56	15.481	SF
HARVESTER STATE 30C-16-M - OH - PLAN #1	200.00	201.00	219.67	213.00	32.911	CC, ES
HARVESTER STATE 30C-16-M - OH - PLAN #1	14,909.96	15,216.01	2,422.65	1,966.59	5.312	SF
HARVESTER STATE 30N-16B-M - OH - PLAN #1	300.00	301.00	200.01	193.12	29.024	CC, ES
HARVESTER STATE 30N-16B-M - OH - PLAN #1	14,909.96	14,942.37	2,200.59	1,743.77	4.817	SF
HARVESTER STATE 31C-16-M - OH - PLAN #1	500.00	500.00	119.85	112.24	15.745	CC
HARVESTER STATE 31C-16-M - OH - PLAN #1	600.00	600.00	119.92	111.83	14.823	ES
HARVESTER STATE 31C-16-M - OH - PLAN #1	14,909.96	14,994.79	1,325.21	870.70	2.916	SF
HARVESTER STATE 33C-16-M - OH - PLAN #1	200.00	199.00	179.99	173.31	26.971	CC, ES
HARVESTER STATE 33C-16-M - OH - PLAN #1	14,909.96	15,241.98	1,355.01	900.67	2.982	SF
HARVESTER STATE 34C-16-M - OH - PLAN #1	200.00	198.00	300.20	293.53	44.991	CC, ES
HARVESTER STATE 34C-16-M - OH - PLAN #1	14,909.96	15,761.18	2,615.44	2,159.74	5.739	SF
HARVESTER STATE 5C-16-M - OH - PLAN #1	500.00	500.00	79.78	72.16	10.480	CC
HARVESTER STATE 5C-16-M - OH - PLAN #1	600.00	600.00	79.84	71.75	9.870	ES
HARVESTER STATE 5C-16-M - OH - PLAN #1	14,909.96	14,991.56	887.76	435.14	1.961	SF
HARVESTER STATE 12N-16B-M - OH - PLAN #1	200.00	199.00	140.28	133.60	21.021	CC, ES
HARVESTER STATE 12N-16B-M - OH - PLAN #1	14,909.96	14,968.17	933.18	477.37	2.047	SF
HARVESTER STATE 13C-16-M - OH - PLAN #1	200.00	198.00	240.10	233.43	35.984	CC, ES
HARVESTER STATE 13C-16-M - OH - PLAN #1	14,909.96	15,412.64	1,985.18	1,530.08	4.362	SF
HARVESTER STATE 33N-16C-M - OH - PLAN #1	200.00	198.00	220.06	213.39	32.981	CC, ES
HARVESTER STATE 33N-16C-M - OH - PLAN #1	14,909.96	15,252.31	1,770.79	1,314.62	3.882	SF
HARVESTER STATE 4C-16-M - OH - PLAN #1	500.00	501.00	179.97	174.23	31.348	CC, ES
HARVESTER STATE 4C-16-M - OH - PLAN #1	14,909.96	15,116.21	2,018.99	1,563.38	4.431	SF
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,079.52	9,309.07	291.94	226.24	4.443	CC
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,100.00	9,309.95	292.99	223.44	4.213	ES
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,200.00	9,313.52	326.03	242.86	3.920	SF
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	6,975.55	9,381.90	517.42	444.76	7.121	CC
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,000.00	9,384.14	518.46	443.46	6.912	ES
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	7,100.00	9,392.69	543.64	460.86	6.567	SF
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,795.36	9,238.01	936.66	855.44	11.532	CC
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,800.00	9,238.61	936.69	855.28	11.506	ES
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,900.00	9,251.12	950.88	865.91	11.191	SF
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,787.71	9,395.77	1,269.55	1,184.71	14.964	CC
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,800.00	9,396.84	1,269.73	1,184.58	14.911	ES
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,900.00	9,405.16	1,284.26	1,196.84	14.690	SF
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	200.00	199.00	160.31	153.64	24.023	CC, ES
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	14,909.96	14,901.28	1,154.43	702.01	2.552	SF
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	200.00	199.00	120.23	113.56	18.017	CC, ES
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	14,909.96	14,984.68	722.63	266.89	1.586	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 32N-16C-M
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Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
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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 13N-16B-M - OH - PLAN #1	200.00	198.00	260.13	253.46	38.985	CC, ES
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	14,909.96	15,315.79	2,192.46	1,736.15	4.805	SF
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	500.00	500.00	99.82	92.21	13.114	CC, ES
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	14,909.96	14,817.75	1,113.53	661.65	2.464	SF
HARVESTERS STATE 32C-16-M - OH - PLAN #1	200.00	199.00	100.19	93.52	15.014	CC
HARVESTERS STATE 32C-16-M - OH - PLAN #1	14,909.96	15,077.36	523.31	38.44	1.079	Level 2, ES, SF
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	795.41	803.37	14.11	4.96	1.542	CC
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	14,909.96	15,004.11	246.34	-164.86	0.599	Level 1, ES, SF
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	300.00	299.00	80.16	73.27	11.636	CC
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	14,909.96	14,868.44	318.65	-130.58	0.709	Level 1, ES, SF
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	200.00	199.00	200.01	193.34	29.972	CC, ES
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	14,909.96	15,124.56	1,564.56	1,108.44	3.430	SF
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	200.00	198.00	280.17	273.49	41.988	CC, ES
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	14,909.96	15,461.38	2,402.10	1,945.82	5.265	SF
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	500.00	500.00	139.89	132.28	18.378	CC
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	600.00	600.00	139.96	131.87	17.300	ES
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	14,909.96	14,732.12	1,550.36	1,096.26	3.414	SF
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	500.00	500.00	159.93	152.32	21.011	CC
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	600.00	600.00	160.00	151.91	19.778	ES
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	14,909.96	14,969.16	1,661.06	1,205.07	3.643	SF
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	665.69	666.80	34.68	26.28	4.129	CC, ES
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	14,909.96	14,806.62	544.60	91.95	1.203	Level 2, SF
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	500.00	500.00	59.74	52.13	7.849	CC
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	600.00	600.02	59.82	51.74	7.401	ES
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	14,905.67	14,879.60	660.09	204.00	1.447	Level 3, SF
HOOD 41-20(PR_150CC) - OH - OH	14,909.96	7,038.00	3,558.74	3,094.08	7.659	CC, ES, SF
HOOD 6-2-20(PR_150CC) - OH - OH	14,909.96	7,437.05	4,328.19	4,079.38	17.396	CC, ES, SF
LEFFLER 1 21-2(SI_75CC) - OH - OH	11,788.18	7,013.63	3,414.92	3,244.68	20.060	CC
LEFFLER 1 21-2(SI_75CC) - OH - OH	11,900.00	7,019.19	3,416.75	3,243.35	19.704	ES
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,800.00	7,064.14	3,561.24	3,368.26	18.454	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	9,731.80	7,723.44	3,088.52	2,966.92	25.400	CC
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	9,900.00	7,635.51	3,090.70	2,965.63	24.711	ES
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	11,400.00	7,129.55	3,354.48	3,198.53	21.510	SF
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	9,738.69	7,582.15	2,806.37	2,684.91	23.106	CC
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	9,900.00	7,510.90	2,808.96	2,683.97	22.473	ES
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	11,200.00	7,100.00	3,041.37	2,889.87	20.075	SF
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,124.12	7,040.75	3,628.07	3,206.34	8.603	CC
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,200.00	7,040.42	3,628.87	3,204.98	8.561	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,700.00	7,038.25	3,673.49	3,237.47	8.425	SF
LOVELY 1(AB_150CC) - OH - OH	13,083.70	7,087.92	3,170.85	2,748.60	7.510	CC
LOVELY 1(AB_150CC) - OH - OH	13,200.00	7,087.42	3,172.98	2,747.71	7.461	ES
LOVELY 1(AB_150CC) - OH - OH	13,500.00	7,086.12	3,198.06	2,766.11	7.404	SF
LOVELY 14-9(AB_150CC) - OH - OH	14,580.43	7,084.43	3,117.34	2,653.00	6.713	CC
LOVELY 14-9(AB_150CC) - OH - OH	14,700.00	7,083.91	3,119.63	2,652.20	6.674	ES
LOVELY 14-9(AB_150CC) - OH - OH	14,909.96	7,083.00	3,134.71	2,662.65	6.640	SF
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,355.08	7,119.76	3,200.09	2,852.48	9.206	CC
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,400.00	7,119.57	3,200.40	2,851.63	9.176	ES
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,900.00	7,117.40	3,246.15	2,885.74	9.007	SF
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,570.63	7,074.49	3,180.60	2,801.14	8.382	CC
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,700.00	7,073.93	3,183.23	2,800.43	8.316	ES
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	12,100.00	7,072.19	3,224.35	2,832.65	8.232	SF
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,140.43	4,452.00	4,296.53	4,025.95	15.878	CC
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,200.00	4,452.00	4,296.95	4,024.96	15.798	ES

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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						
MAURICE LEFFLER 1(AB_150CC) - OH - OH	14,300.00	4,452.00	4,450.26	4,155.66	15.106	SF
MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH	14,909.96	7,312.06	1,426.86	1,169.87	5.552	CC, ES, SF
MCGLOTHLIN 17-11(PR_75CC) - OH - OH	14,909.96	7,069.00	2,224.76	1,772.54	4.920	CC, ES, SF
MONTERA 10-34 (PR_75CC) - OH - OH	478.72	491.73	2,284.62	2,277.07	302.725	CC
MONTERA 10-34 (PR_75CC) - OH - OH	600.00	603.05	2,284.96	2,276.87	282.439	ES
MONTERA 10-34 (PR_75CC) - OH - OH	8,800.00	7,199.14	3,693.18	3,611.16	45.033	SF
RUTT-ADAMS HEIRS 2-22 - OH - OH	7,823.78	7,069.75	3,438.37	3,153.91	12.088	CC
RUTT-ADAMS HEIRS 2-22 - OH - OH	7,900.00	7,069.42	3,439.21	3,153.41	12.034	ES
RUTT-ADAMS HEIRS 2-22 - OH - OH	8,700.00	7,065.95	3,548.25	3,246.04	11.741	SF
SENA 15-21(PR_75CC) - OH - OH	500.00	505.00	1,707.18	1,687.15	85.252	CC
SENA 15-21(PR_75CC) - OH - OH	7,900.00	7,124.42	1,953.00	1,665.33	6.789	ES
SENA 15-21(PR_75CC) - OH - OH	8,100.00	7,123.55	1,963.43	1,672.33	6.745	SF
SENA 15-24(PR_75CC) - OH - OH	7,849.69	7,110.64	648.37	362.04	2.264	CC, ES, SF
SENA 15-25(PR_75CC) - OH - OH	8,222.61	7,116.02	1,332.56	1,038.84	4.537	CC, ES
SENA 15-25(PR_75CC) - OH - OH	8,300.00	7,115.68	1,334.80	1,039.64	4.522	SF
STATE 1(AB_150CC) - OH - OH	11,726.56	7,063.81	1,867.75	1,484.33	4.871	CC
STATE 1(AB_150CC) - OH - OH	11,800.00	7,063.49	1,869.20	1,483.97	4.852	ES
STATE 1(AB_150CC) - OH - OH	11,900.00	7,063.06	1,875.79	1,488.43	4.842	SF
STATE BEATRICE 16-1(AB_150CC) - OH - OH	11,856.28	7,065.25	1,889.55	1,502.47	4.882	CC
STATE BEATRICE 16-1(AB_150CC) - OH - OH	11,900.00	7,065.06	1,890.05	1,501.87	4.869	ES
STATE BEATRICE 16-1(AB_150CC) - OH - OH	12,000.00	7,064.63	1,895.01	1,504.57	4.854	SF
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,664.99	7,059.08	416.19	34.65	1.091	Level 2, CC, ES, SF
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,423.74	7,044.11	2,269.99	1,811.49	4.951	CC
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,500.00	7,043.78	2,271.27	1,810.64	4.931	ES
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,600.00	7,043.35	2,276.83	1,813.77	4.917	SF
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,276.55	7,062.09	787.00	360.23	1.844	CC
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,300.00	7,061.99	787.35	359.91	1.842	ES, SF
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,477.74	7,064.58	378.26	132.25	1.538	CC, ES, SF
STOCKOVER 16-1(PR_75CC) - OH - OH	10,324.73	7,056.90	764.28	419.69	2.218	CC, ES
STOCKOVER 16-1(PR_75CC) - OH - OH	10,400.00	7,056.57	767.98	421.50	2.217	SF
ULRICH PC I 17-07D(PR_75CC) - OH - OH	14,909.96	7,197.03	2,196.86	2,103.11	23.434	CC, ES, SF
ULRICH PC I 17-08(PR_75CC) - OH - OH	14,909.96	7,060.00	1,125.44	763.38	3.108	CC, ES, SF
ULRICH PC I17-17D(PR_75CC) - OH - OH	14,909.96	7,300.13	2,171.01	1,992.19	12.141	CC, ES, SF

Offset Design												Offset Site Error:	0.00 ft
HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH												Offset Well Error:	3.28 ft
Survey Program: 100-GYRO-NS													
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)	Offset Wellbore Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
0.00	0.00	0.00	38.00	3.28	3.28	167.19	-1,540.29	350.20	1,580.06				
100.00	100.00	58.84	96.84	3.28	3.28	167.19	-1,540.35	350.20	1,579.66	1,573.10	6.57	240.540	
200.00	200.00	157.08	195.08	3.34	3.31	167.19	-1,540.66	350.18	1,579.96	1,573.32	6.65	237.621	
300.00	300.00	259.56	297.55	3.44	3.40	167.20	-1,540.98	349.98	1,580.22	1,573.37	6.85	230.834	
400.00	400.00	360.49	398.49	3.60	3.54	167.21	-1,541.09	349.90	1,580.31	1,573.17	7.14	221.243	
500.00	500.00	460.17	498.17	3.81	3.72	167.21	-1,541.20	349.92	1,580.42	1,572.90	7.53	209.962	
600.00	600.00	556.31	594.31	4.04	3.93	-25.95	-1,541.35	350.05	1,580.55	1,572.57	7.98	198.155	
700.00	699.96	653.02	691.01	4.29	4.18	-26.00	-1,541.84	350.16	1,578.86	1,570.40	8.47	186.463	
800.00	799.78	755.11	793.11	4.57	4.46	-26.13	-1,542.43	350.00	1,574.07	1,565.04	9.03	174.308	
900.00	899.34	857.94	895.93	4.88	4.77	-26.33	-1,542.88	349.45	1,565.92	1,556.28	9.65	162.331	
1,000.00	998.72	959.22	997.21	5.20	5.09	-26.50	-1,543.16	348.92	1,556.13	1,545.84	10.29	151.220	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
1,100.00	1,098.10	1,056.74	1,094.72	5.54	5.42	-26.65	-1,543.43	348.25	1,546.32	1,535.36	10.96	141.151		
1,200.00	1,197.49	1,154.51	1,192.49	5.90	5.76	-26.81	-1,543.88	347.67	1,536.71	1,525.07	11.65	131.936		
1,300.00	1,296.87	1,254.05	1,292.03	6.28	6.11	-26.97	-1,544.36	347.01	1,527.13	1,514.76	12.37	123.468		
1,400.00	1,396.25	1,355.12	1,393.10	6.66	6.48	-27.12	-1,544.87	346.19	1,517.53	1,504.41	13.11	115.719		
1,500.00	1,495.64	1,458.18	1,496.15	7.06	6.87	-27.29	-1,545.16	345.39	1,507.75	1,493.87	13.88	108.612		
1,600.00	1,595.02	1,560.09	1,598.06	7.46	7.26	-27.46	-1,545.21	344.62	1,497.75	1,483.09	14.66	102.174		
1,700.00	1,694.40	1,658.15	1,696.12	7.87	7.63	-27.61	-1,545.28	343.55	1,487.71	1,472.28	15.43	96.394		
1,800.00	1,793.79	1,754.87	1,792.83	8.29	8.01	-27.77	-1,545.50	342.65	1,477.87	1,461.65	16.21	91.151		
1,900.00	1,893.17	1,853.71	1,891.67	8.71	8.40	-27.93	-1,545.86	341.70	1,468.16	1,451.15	17.01	86.314		
2,000.00	1,992.55	1,952.03	1,989.98	9.13	8.79	-28.09	-1,546.23	340.70	1,458.47	1,440.66	17.81	81.885		
2,100.00	2,091.94	2,050.37	2,088.31	9.56	9.18	-28.25	-1,546.79	339.53	1,448.92	1,430.30	18.62	77.818		
2,200.00	2,191.32	2,149.28	2,187.22	9.99	9.58	-28.41	-1,547.31	338.52	1,439.40	1,419.96	19.44	74.062		
2,300.00	2,290.70	2,247.28	2,285.21	10.42	9.97	-28.59	-1,547.84	337.86	1,429.98	1,409.73	20.25	70.607		
2,400.00	2,390.09	2,349.19	2,387.12	10.86	10.39	-28.76	-1,548.46	337.00	1,420.60	1,399.51	21.09	67.364		
2,500.00	2,489.47	2,452.28	2,490.20	11.29	10.81	-28.95	-1,548.77	336.00	1,410.91	1,388.97	21.93	64.331		
2,600.00	2,588.86	2,552.77	2,590.69	11.73	11.22	-29.14	-1,548.87	335.30	1,401.11	1,378.34	22.77	61.536		
2,700.00	2,688.24	2,650.74	2,688.66	12.18	11.62	-29.34	-1,548.89	334.77	1,391.30	1,367.70	23.60	58.952		
2,800.00	2,787.62	2,747.98	2,785.90	12.62	12.02	-29.53	-1,549.12	334.27	1,381.71	1,357.27	24.43	56.552		
2,900.00	2,887.01	2,847.87	2,885.79	13.06	12.43	-29.74	-1,549.40	333.74	1,372.18	1,346.90	25.28	54.287		
3,000.00	2,986.39	2,946.75	2,984.66	13.51	12.84	-29.95	-1,549.60	333.32	1,362.62	1,336.50	26.12	52.169		
3,100.00	3,085.77	3,043.72	3,081.63	13.95	13.25	-30.15	-1,549.96	332.85	1,353.23	1,326.27	26.96	50.199		
3,200.00	3,185.16	3,143.19	3,181.10	14.40	13.66	-30.36	-1,550.48	332.37	1,343.99	1,316.18	27.81	48.333		
3,300.00	3,284.54	3,242.62	3,282.52	14.85	14.10	-30.61	-1,550.71	332.17	1,334.57	1,305.90	28.67	46.542		
3,400.00	3,383.92	3,353.43	3,391.33	15.30	14.54	-30.84	-1,550.53	331.56	1,324.69	1,295.15	29.55	44.834		
3,500.00	3,483.31	3,452.97	3,490.87	15.75	14.95	-31.07	-1,550.05	330.92	1,314.52	1,284.12	30.40	43.241		
3,600.00	3,582.69	3,548.31	3,586.21	16.20	15.35	-31.28	-1,549.86	330.18	1,304.59	1,273.35	31.24	41.759		
3,700.00	3,682.07	3,641.84	3,679.73	16.65	15.74	-31.49	-1,550.00	329.49	1,295.03	1,262.95	32.08	40.372		
3,800.00	3,781.46	3,735.82	3,773.71	17.10	16.14	-31.69	-1,550.71	328.72	1,286.02	1,253.11	32.92	39.068		
3,900.00	3,880.84	3,836.27	3,874.15	17.56	16.56	-31.91	-1,551.63	327.92	1,277.20	1,243.42	33.78	37.809		
4,000.00	3,980.22	3,938.90	3,976.78	18.01	16.99	-32.14	-1,552.26	327.22	1,268.14	1,233.49	34.65	36.598		
4,100.00	4,079.61	4,038.88	4,076.75	18.46	17.41	-32.37	-1,552.77	326.47	1,258.99	1,223.48	35.51	35.452		
4,200.00	4,178.99	4,139.29	4,177.16	18.92	17.83	-32.60	-1,553.27	325.66	1,249.83	1,213.45	36.38	34.357		
4,300.00	4,278.38	4,246.36	4,284.23	19.37	18.29	-32.87	-1,553.47	324.97	1,240.46	1,203.19	37.26	33.289		
4,400.00	4,377.76	4,351.10	4,388.96	19.83	18.73	-33.13	-1,552.82	324.06	1,230.26	1,192.12	38.14	32.256		
4,500.00	4,477.14	4,449.47	4,487.32	20.28	19.14	-33.39	-1,552.26	323.25	1,220.16	1,181.16	39.00	31.286		
4,600.00	4,576.53	4,555.91	4,593.76	20.74	19.59	-33.66	-1,551.50	322.15	1,209.88	1,170.00	39.88	30.336		
4,700.00	4,675.91	4,654.75	4,692.58	21.19	20.00	-33.93	-1,550.14	321.23	1,199.04	1,158.29	40.75	29.428		
4,800.00	4,775.29	4,752.64	4,790.47	21.65	20.42	-34.25	-1,548.88	321.31	1,188.66	1,147.05	41.61	28.568		
4,900.00	4,874.68	4,846.56	4,884.37	22.10	20.81	-34.51	-1,547.96	320.34	1,178.23	1,135.77	42.46	27.749		
5,000.00	4,974.06	4,934.09	4,971.89	22.56	21.18	-34.72	-1,548.17	319.24	1,168.85	1,125.55	43.30	26.997		
5,100.00	5,073.44	5,033.76	5,071.57	23.02	21.60	-35.02	-1,548.64	319.14	1,160.13	1,115.96	44.16	26.268		
5,200.00	5,172.83	5,145.71	5,183.51	23.47	22.07	-35.41	-1,547.90	319.44	1,150.53	1,105.46	45.07	25.530		
5,300.00	5,272.21	5,246.98	5,284.76	23.93	22.50	-35.80	-1,546.43	320.13	1,140.41	1,094.47	45.94	24.824		
5,400.00	5,371.59	5,340.84	5,378.61	24.39	22.89	-36.18	-1,545.06	321.07	1,130.47	1,083.67	46.80	24.156		
5,500.00	5,470.98	5,431.34	5,469.10	24.85	23.27	-36.56	-1,544.34	322.34	1,121.34	1,073.69	47.65	23.534		
5,600.00	5,570.36	5,528.90	5,566.66	25.30	23.68	-36.93	-1,544.38	323.20	1,112.81	1,064.29	48.52	22.937		
5,700.00	5,669.75	5,632.71	5,670.46	25.76	24.12	-37.34	-1,544.01	324.07	1,103.96	1,054.56	49.40	22.347		
5,800.00	5,769.13	5,731.63	5,769.38	26.22	24.53	-37.76	-1,543.49	325.36	1,095.21	1,044.94	50.27	21.785		
5,900.00	5,868.51	5,833.97	5,871.71	26.68	24.96	-38.15	-1,543.06	325.63	1,086.17	1,035.01	51.15	21.233		
6,000.00	5,967.90	5,928.22	5,965.96	27.14	25.36	-38.52	-1,542.76	326.09	1,077.37	1,025.36	52.02	20.713		
6,100.00	6,067.28	6,020.94	6,058.66	27.60	25.75	-38.95	-1,542.50	327.67	1,069.19	1,016.31	52.87	20.222		
6,200.00	6,166.66	6,115.59	6,153.29	28.05	26.15	-39.40	-1,542.76	329.62	1,061.71	1,007.97	53.74	19.758		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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)			
6,300.00	6,266.05	6,223.11	6,260.80	28.51	26.60	-39.88	-1,542.92	331.17	1,053.91	999.28	54.64	19.290	17.972 CC, ES	
6,400.00	6,365.43	6,319.66	6,357.34	28.97	27.01	-40.35	-1,542.69	332.94	1,046.03	990.52	55.51	18.845		
6,500.00	6,464.81	6,412.69	6,450.35	29.43	27.40	-40.80	-1,542.86	334.69	1,038.61	982.25	56.37	18.426		
6,600.00	6,564.10	6,498.11	6,535.75	29.89	27.77	-71.79	-1,543.99	336.34	1,033.20	976.00	57.20	18.063		
6,629.64	6,593.32	6,530.70	6,568.32	30.02	27.90	-82.46	-1,544.62	336.96	1,032.92	975.45	57.47			
6,700.00	6,661.75	6,608.98	6,646.58	30.34	28.24	-96.36	-1,545.94	337.75	1,034.57	976.45	58.12	17.800		
6,800.00	6,755.38	6,714.42	6,752.02	30.77	28.68	-105.46	-1,546.80	337.65	1,042.86	983.84	59.02	17.670 SF		
6,900.00	6,842.67	6,793.40	6,830.99	31.17	29.02	-109.74	-1,547.57	337.80	1,060.77	1,000.94	59.84	17.728		
7,000.00	6,921.48	6,872.10	6,909.69	31.54	29.36	-112.01	-1,548.44	338.06	1,089.09	1,028.43	60.65	17.955		
7,100.00	6,989.86	6,940.33	6,977.92	31.91	29.65	-112.56	-1,549.20	338.28	1,128.16	1,066.71	61.45	18.358		
7,200.00	7,046.13	6,996.41	7,033.99	32.35	29.89	-111.30	-1,549.82	338.46	1,177.97	1,115.75	62.22	18.931		
7,300.00	7,088.91	7,038.95	7,076.53	32.98	30.07	-107.92	-1,550.29	338.60	1,237.82	1,174.86	62.95	19.662		
7,400.00	7,117.14	7,066.91	7,104.49	33.84	30.19	-101.92	-1,550.60	338.69	1,306.31	1,242.70	63.61	20.535		
7,500.00	7,130.13	7,079.60	7,117.18	34.90	30.24	-92.86	-1,550.74	338.73	1,381.52	1,317.35	64.17	21.528		
7,600.00	7,130.72	7,079.88	7,117.46	36.13	30.24	-88.78	-1,550.74	338.73	1,461.02	1,396.39	64.64	22.604		
7,700.00	7,130.29	7,079.13	7,116.71	37.54	30.24	-88.73	-1,550.73	338.73	1,542.98	1,477.91	65.07	23.712		
7,800.00	7,129.85	7,078.38	7,115.96	39.12	30.23	-88.68	-1,550.72	338.72	1,626.95	1,561.47	65.48	24.846		
7,900.00	7,129.42	7,077.63	7,115.21	40.83	30.23	-88.63	-1,550.72	338.72	1,712.64	1,646.78	65.87	26.002		
8,000.00	7,128.98	7,076.88	7,114.46	42.67	30.23	-88.58	-1,550.71	338.72	1,799.82	1,733.59	66.22	27.177		
8,100.00	7,128.55	7,076.13	7,113.71	44.62	30.22	-88.53	-1,550.70	338.72	1,888.26	1,821.70	66.56	28.370		
8,200.00	7,128.12	7,075.39	7,112.96	46.66	30.22	-88.48	-1,550.69	338.71	1,977.80	1,910.94	66.87	29.579		
8,300.00	7,127.68	7,074.64	7,112.21	48.79	30.22	-88.43	-1,550.68	338.71	2,068.31	2,001.15	67.15	30.800		
8,400.00	7,127.25	7,073.89	7,111.47	50.98	30.21	-88.38	-1,550.67	338.71	2,159.65	2,092.23	67.42	32.033		
8,500.00	7,126.81	7,073.14	7,110.72	53.24	30.21	-88.33	-1,550.67	338.71	2,251.72	2,184.06	67.67	33.277		
8,600.00	7,126.38	7,072.39	7,109.97	55.56	30.21	-88.28	-1,550.66	338.70	2,344.45	2,276.55	67.90	34.530		
8,700.00	7,125.95	7,071.64	7,109.22	57.92	30.21	-88.23	-1,550.65	338.70	2,437.75	2,369.63	68.11	35.791		
8,800.00	7,125.51	7,070.89	7,108.47	60.33	30.20	-88.18	-1,550.64	338.70	2,531.56	2,463.24	68.31	37.058		
8,900.00	7,125.08	7,070.14	7,107.72	62.77	30.20	-88.13	-1,550.63	338.70	2,625.82	2,557.32	68.50	38.333		
9,000.00	7,124.64	7,069.39	7,106.97	65.25	30.20	-88.08	-1,550.62	338.69	2,720.50	2,651.82	68.68	39.612		
9,100.00	7,124.21	7,068.64	7,106.22	67.76	30.19	-88.03	-1,550.62	338.69	2,815.55	2,746.70	68.85	40.896		
9,200.00	7,123.78	7,067.89	7,105.47	70.29	30.19	-87.98	-1,550.61	338.69	2,910.92	2,841.92	69.00	42.185		
9,300.00	7,123.34	7,067.14	7,104.72	72.85	30.19	-87.93	-1,550.60	338.69	3,006.60	2,937.45	69.15	43.477		
9,400.00	7,122.91	7,066.40	7,103.97	75.43	30.18	-87.88	-1,550.59	338.69	3,102.55	3,033.25	69.30	44.772		
9,500.00	7,122.48	7,065.65	7,103.22	78.03	30.18	-87.83	-1,550.58	338.68	3,198.75	3,129.32	69.43	46.070		
9,600.00	7,122.04	7,064.90	7,102.48	80.65	30.18	-87.78	-1,550.57	338.68	3,295.17	3,225.61	69.56	47.371		
9,700.00	7,121.61	7,064.15	7,101.73	83.28	30.17	-87.73	-1,550.57	338.68	3,391.80	3,322.12	69.69	48.673		
9,800.00	7,121.17	7,063.40	7,100.98	85.93	30.17	-87.68	-1,550.56	338.68	3,488.62	3,418.82	69.80	49.977		
9,900.00	7,120.74	7,062.65	7,100.23	88.59	30.17	-87.63	-1,550.55	338.67	3,585.62	3,515.70	69.92	51.283		
10,000.00	7,120.31	7,061.90	7,099.48	91.26	30.16	-87.58	-1,550.54	338.67	3,682.77	3,612.74	70.03	52.590		
10,100.00	7,119.87	7,061.15	7,098.73	93.95	30.16	-87.53	-1,550.53	338.67	3,780.08	3,709.94	70.13	53.898		
10,200.00	7,119.44	7,060.40	7,097.98	96.64	30.16	-87.48	-1,550.52	338.67	3,877.52	3,807.28	70.24	55.206		
10,300.00	7,119.00	7,059.65	7,097.23	99.34	30.15	-87.43	-1,550.52	338.66	3,975.08	3,904.75	70.34	56.515		
10,400.00	7,118.57	7,058.90	7,096.48	102.05	30.15	-87.38	-1,550.51	338.66	4,072.77	4,002.34	70.43	57.825		
10,500.00	7,118.14	7,058.15	7,095.73	104.77	30.15	-87.33	-1,550.50	338.66	4,170.56	4,100.04	70.53	59.134		
10,600.00	7,117.70	7,057.40	7,094.98	107.50	30.14	-87.28	-1,550.49	338.66	4,268.46	4,197.84	70.62	60.443		
10,700.00	7,117.27	7,056.66	7,094.23	110.23	30.14	-87.23	-1,550.48	338.65	4,366.45	4,295.75	70.71	61.753		
10,800.00	7,116.83	7,055.91	7,093.49	112.97	30.14	-87.18	-1,550.47	338.65	4,464.54	4,393.74	70.80	63.062		
10,900.00	7,116.40	7,055.16	7,092.74	115.72	30.14	-87.13	-1,550.47	338.65	4,562.70	4,491.82	70.88	64.370		
11,000.00	7,115.97	7,054.41	7,091.99	118.47	30.13	-87.08	-1,550.46	338.65	4,660.94	4,589.98	70.97	65.678		
11,100.00	7,115.53	7,053.66	7,091.24	121.22	30.13	-87.03	-1,550.45	338.64	4,759.26	4,688.21	71.05	66.985		
11,200.00	7,115.10	7,052.91	7,090.49	123.98	30.13	-86.98	-1,550.44	338.64	4,857.64	4,786.51	71.13	68.292		
11,300.00	7,114.66	7,052.16	7,089.74	126.74	30.12	-86.93	-1,550.43	338.64	4,956.09	4,884.88	71.21	69.597		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	
11,400.00	7,114.23	7,051.41	7,088.99	129.51	30.12	-86.88	-1,550.43	338.64	5,054.60	4,983.31	71.29	70.901	
11,500.00	7,113.80	7,050.66	7,088.24	132.29	30.12	-86.83	-1,550.42	338.63	5,153.17	5,081.80	71.37	72.205	
11,600.00	7,113.36	7,049.91	7,087.49	135.06	30.11	-86.78	-1,550.41	338.63	5,251.79	5,180.34	71.45	73.507	
11,700.00	7,112.93	7,049.16	7,086.74	137.84	30.11	-86.73	-1,550.40	338.63	5,350.46	5,278.94	71.52	74.808	
11,800.00	7,112.49	7,048.41	7,085.99	140.62	30.11	-86.68	-1,550.39	338.63	5,449.18	5,377.58	71.60	76.107	
11,900.00	7,112.06	7,047.66	7,085.24	143.41	30.10	-86.63	-1,550.38	338.62	5,547.95	5,476.27	71.67	77.405	
12,000.00	7,111.63	7,046.92	7,084.50	146.20	30.10	-86.58	-1,550.38	338.62	5,646.75	5,575.01	71.75	78.702	
12,100.00	7,111.19	7,046.17	7,083.75	148.99	30.10	-86.53	-1,550.37	338.62	5,745.61	5,673.78	71.82	79.996	
12,200.00	7,110.76	7,045.42	7,083.00	151.78	30.09	-86.48	-1,550.36	338.62	5,844.49	5,772.60	71.90	81.290	
12,300.00	7,110.33	7,044.67	7,082.25	154.58	30.09	-86.43	-1,550.35	338.61	5,943.42	5,871.45	71.97	82.581	
12,400.00	7,109.89	7,043.92	7,081.50	157.37	30.09	-86.38	-1,550.34	338.61	6,042.38	5,970.34	72.04	83.871	
12,500.00	7,109.46	7,043.17	7,080.75	160.17	30.08	-86.33	-1,550.33	338.61	6,141.38	6,069.26	72.12	85.158	
12,600.00	7,109.02	7,042.42	7,080.00	162.98	30.08	-86.28	-1,550.33	338.61	6,240.41	6,168.22	72.19	86.444	
12,700.00	7,108.59	7,041.67	7,079.25	165.78	30.08	-86.23	-1,550.32	338.61	6,339.46	6,267.20	72.26	87.728	
12,800.00	7,108.16	7,040.92	7,078.50	168.59	30.07	-86.18	-1,550.31	338.60	6,438.55	6,366.21	72.34	89.010	
12,900.00	7,107.72	7,040.17	7,077.75	171.39	30.07	-86.13	-1,550.30	338.60	6,537.66	6,465.26	72.41	90.290	
13,000.00	7,107.29	7,039.42	7,077.00	174.20	30.07	-86.08	-1,550.29	338.60	6,636.81	6,564.33	72.48	91.567	
13,100.00	7,106.85	7,038.67	7,076.25	177.01	30.06	-86.03	-1,550.28	338.60	6,735.97	6,663.42	72.55	92.842	
13,200.00	7,106.42	7,037.92	7,075.51	179.83	30.06	-85.98	-1,550.28	338.59	6,835.16	6,762.54	72.63	94.116	
13,300.00	7,105.99	7,037.18	7,074.76	182.64	30.06	-85.93	-1,550.27	338.59	6,934.38	6,861.68	72.70	95.386	
13,400.00	7,105.55	7,036.43	7,074.01	185.45	30.06	-85.89	-1,550.26	338.59	7,033.61	6,960.84	72.77	96.655	
13,500.00	7,105.12	7,035.68	7,073.26	188.27	30.05	-85.84	-1,550.25	338.59	7,132.87	7,060.03	72.84	97.921	
13,600.00	7,104.68	7,034.93	7,072.51	191.09	30.05	-85.79	-1,550.24	338.58	7,232.15	7,159.23	72.92	99.184	
13,700.00	7,104.25	7,034.18	7,071.76	193.91	30.05	-85.74	-1,550.23	338.58	7,331.44	7,258.45	72.99	100.446	
13,800.00	7,103.82	7,033.43	7,071.01	196.73	30.04	-85.69	-1,550.23	338.58	7,430.76	7,357.70	73.06	101.704	
13,900.00	7,103.38	7,032.68	7,070.26	199.55	30.04	-85.64	-1,550.22	338.58	7,530.09	7,456.96	73.14	102.960	
14,000.00	7,102.95	7,031.93	7,069.51	202.37	30.04	-85.59	-1,550.21	338.57	7,629.44	7,556.23	73.21	104.214	
14,100.00	7,102.51	7,031.18	7,068.76	205.19	30.03	-85.54	-1,550.20	338.57	7,728.81	7,655.53	73.28	105.465	
14,200.00	7,102.08	7,030.43	7,068.01	208.02	30.03	-85.49	-1,550.19	338.57	7,828.20	7,754.84	73.36	106.713	
14,300.00	7,101.65	7,029.68	7,067.26	210.84	30.03	-85.44	-1,550.18	338.57	7,927.60	7,854.16	73.43	107.958	
14,400.00	7,101.21	7,028.93	7,066.52	213.67	30.02	-85.39	-1,550.18	338.56	8,027.01	7,953.50	73.51	109.201	
14,500.00	7,100.78	7,028.19	7,065.77	216.50	30.02	-85.34	-1,550.17	338.56	8,126.44	8,052.86	73.58	110.441	
14,600.00	7,100.35	7,027.44	7,065.02	219.32	30.02	-85.29	-1,550.16	338.56	8,225.88	8,152.22	73.66	111.678	
14,700.00	7,099.91	7,026.69	7,064.27	222.15	30.01	-85.24	-1,550.15	338.56	8,325.34	8,251.60	73.73	112.913	
14,800.00	7,099.48	7,025.94	7,063.52	224.98	30.01	-85.19	-1,550.14	338.55	8,424.80	8,351.00	73.81	114.144	
14,900.00	7,099.04	7,025.19	7,062.77	227.81	30.01	-85.14	-1,550.14	338.55	8,524.28	8,450.40	73.88	115.373	
14,909.96	7,099.00	7,025.11	7,062.70	228.09	30.01	-85.14	-1,550.13	338.55	8,534.20	8,460.31	73.89	115.495	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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-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	70.00	3.28	3.28	172.73	-4,279.49	545.80	4,314.73				
100.00	100.00	29.35	99.35	3.28	3.28	172.73	-4,279.50	545.79	4,314.16	4,307.60	6.57	657.116	
200.00	200.00	124.87	194.87	3.34	3.30	172.73	-4,279.57	545.58	4,314.21	4,307.58	6.63	650.449	
300.00	300.00	215.15	285.15	3.44	3.36	172.74	-4,279.82	545.31	4,314.45	4,307.65	6.80	634.448	
400.00	400.00	309.96	379.96	3.60	3.46	172.74	-4,280.23	545.22	4,314.86	4,307.79	7.07	610.551	
500.00	500.00	412.58	482.58	3.81	3.63	172.74	-4,280.67	545.26	4,315.29	4,307.85	7.44	580.391	
600.00	600.00	511.18	581.17	4.04	3.83	-20.41	-4,281.09	545.27	4,315.65	4,307.78	7.87	548.166	
700.00	699.96	614.57	684.57	4.29	4.08	-20.43	-4,281.54	545.02	4,313.76	4,305.39	8.37	515.550	
800.00	799.78	718.22	788.22	4.57	4.36	-20.49	-4,281.90	544.52	4,308.49	4,299.56	8.92	482.778	
900.00	899.34	810.92	880.91	4.88	4.63	-20.58	-4,282.33	543.81	4,300.03	4,290.53	9.50	452.534	
1,000.00	998.72	910.80	980.78	5.20	4.94	-20.62	-4,282.86	542.75	4,290.04	4,279.90	10.13	423.331	
1,100.00	1,098.10	991.97	1,061.94	5.54	5.20	-20.64	-4,283.53	541.61	4,280.28	4,269.55	10.74	398.596	
1,200.00	1,197.49	1,080.75	1,150.71	5.90	5.51	-20.67	-4,284.60	540.12	4,270.88	4,259.48	11.39	374.837	
1,300.00	1,296.87	1,176.24	1,246.17	6.28	5.84	-20.69	-4,285.94	538.43	4,261.65	4,249.55	12.10	352.344	
1,400.00	1,396.25	1,284.60	1,354.50	6.66	6.23	-20.72	-4,287.43	536.36	4,252.38	4,239.52	12.86	330.610	
1,500.00	1,495.64	1,390.91	1,460.77	7.06	6.62	-20.74	-4,288.68	534.11	4,242.90	4,229.26	13.64	311.070	
1,600.00	1,595.02	1,489.87	1,559.71	7.46	7.00	-20.77	-4,289.77	532.07	4,233.34	4,218.94	14.40	293.898	
1,700.00	1,694.40	1,581.90	1,651.72	7.87	7.35	-20.79	-4,290.85	530.28	4,223.88	4,208.72	15.15	278.732	
1,800.00	1,793.79	1,701.42	1,771.21	8.29	7.81	-20.82	-4,292.15	528.03	4,214.34	4,198.32	16.02	263.111	
1,900.00	1,893.17	1,786.90	1,856.67	8.71	8.14	-20.85	-4,292.96	526.52	4,204.68	4,187.92	16.76	250.875	
2,000.00	1,992.55	1,880.65	1,950.40	9.13	8.51	-20.88	-4,294.06	525.01	4,195.25	4,177.71	17.54	239.162	
2,100.00	2,091.94	1,973.40	2,043.13	9.56	8.88	-20.90	-4,295.29	523.40	4,185.96	4,167.64	18.33	228.424	
2,200.00	2,191.32	2,063.59	2,133.29	9.99	9.24	-20.92	-4,296.67	521.72	4,176.87	4,157.76	19.11	218.624	
2,300.00	2,290.70	2,160.34	2,230.01	10.42	9.63	-20.95	-4,298.34	519.87	4,167.96	4,148.04	19.92	209.281	
2,400.00	2,390.09	2,295.95	2,365.58	10.86	10.18	-20.99	-4,300.25	517.32	4,158.77	4,137.89	20.88	199.158	
2,500.00	2,489.47	2,462.45	2,532.06	11.29	10.86	-21.04	-4,300.32	514.76	4,148.29	4,126.32	21.97	188.843	
2,600.00	2,588.86	2,580.77	2,650.36	11.73	11.34	-21.09	-4,298.89	513.01	4,136.52	4,113.65	22.87	180.886	
2,700.00	2,688.24	2,681.11	2,750.68	12.18	11.75	-21.12	-4,297.59	511.42	4,124.67	4,100.97	23.70	174.005	
2,800.00	2,787.62	2,775.93	2,845.48	12.62	12.14	-21.16	-4,296.40	509.79	4,112.86	4,088.33	24.52	167.716	
2,900.00	2,887.01	2,873.26	2,942.79	13.06	12.55	-21.19	-4,295.30	508.02	4,101.15	4,075.79	25.35	161.759	
3,000.00	2,986.39	2,967.09	3,036.60	13.51	12.93	-21.22	-4,294.30	506.27	4,089.50	4,063.33	26.17	156.248	
3,100.00	3,085.77	3,068.62	3,138.10	13.95	13.36	-21.25	-4,293.33	504.27	4,077.95	4,050.92	27.02	150.899	
3,200.00	3,185.16	3,175.89	3,245.34	14.40	13.80	-21.28	-4,292.14	502.11	4,066.24	4,038.34	27.90	145.748	
3,300.00	3,284.54	3,266.28	3,335.71	14.85	14.18	-21.31	-4,291.09	500.37	4,054.49	4,025.78	28.71	141.213	
3,400.00	3,383.92	3,363.15	3,422.56	15.30	14.54	-21.34	-4,290.37	498.60	4,043.06	4,013.54	29.51	136.993	
3,500.00	3,483.31	3,443.38	3,512.76	15.75	14.92	-21.36	-4,289.92	496.46	4,031.90	4,001.57	30.33	132.941	
3,600.00	3,582.69	3,535.99	3,605.34	16.20	15.31	-21.38	-4,289.66	494.01	4,020.92	3,989.76	31.15	129.062	
3,700.00	3,682.07	3,630.36	3,699.68	16.65	15.70	-21.40	-4,289.54	491.63	4,010.11	3,978.12	31.99	125.358	
3,800.00	3,781.46	3,727.49	3,796.79	17.10	16.11	-21.43	-4,289.40	489.65	3,999.35	3,966.51	32.83	121.803	
3,900.00	3,880.84	3,821.06	3,890.34	17.56	16.50	-21.46	-4,289.41	487.69	3,988.74	3,955.07	33.67	118.475	
4,000.00	3,980.22	3,923.91	3,993.17	18.01	16.94	-21.49	-4,289.39	485.78	3,978.13	3,943.59	34.54	115.186	
4,100.00	4,079.61	4,025.05	4,094.30	18.46	17.36	-21.53	-4,289.28	484.08	3,967.45	3,932.05	35.40	112.077	
4,200.00	4,178.99	4,127.17	4,196.41	18.92	17.79	-21.57	-4,289.06	482.86	3,956.75	3,920.48	36.27	109.101	
4,300.00	4,278.38	4,240.02	4,309.25	19.37	18.26	-21.64	-4,288.37	483.03	3,945.86	3,908.68	37.17	106.144	
4,400.00	4,377.76	4,375.83	4,445.04	19.83	18.83	-21.74	-4,286.61	484.04	3,934.41	3,896.24	38.17	103.086	
4,500.00	4,477.14	4,480.03	4,549.23	20.28	19.26	-21.82	-4,284.53	484.81	3,922.24	3,883.20	39.04	100.462	
4,600.00	4,576.53	4,559.15	4,628.33	20.74	19.60	-21.88	-4,283.12	485.47	3,910.33	3,870.50	39.83	98.180	
4,700.00	4,675.91	4,631.45	4,700.62	21.19	19.90	-21.93	-4,282.33	485.85	3,899.04	3,858.45	40.59	96.062	
4,800.00	4,775.29	4,700.94	4,770.11	21.65	20.19	-21.98	-4,282.11	486.18	3,888.50	3,847.17	41.34	94.065	
4,900.00	4,874.68	4,801.26	4,870.43	22.10	20.61	-22.05	-4,282.15	486.71	3,878.34	3,836.13	42.20	91.896	
5,000.00	4,974.06	4,900.07	4,969.24	22.56	21.02	-22.11	-4,282.21	487.06	3,868.17	3,825.11	43.06	89.825	
5,100.00	5,073.44	4,998.54	5,067.71	23.02	21.43	-22.18	-4,282.30	487.34	3,858.03	3,814.11	43.92	87.836	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,102.65	5,171.82	23.47	21.87	-22.25	-4,282.31	487.91	3,847.85	3,803.05	44.80	85.882		
5,300.00	5,272.21	5,219.44	5,288.60	23.93	22.36	-22.34	-4,282.00	488.71	3,837.44	3,791.70	45.73	83.912		
5,400.00	5,371.59	5,356.10	5,425.25	24.39	22.94	-22.45	-4,280.45	489.99	3,826.19	3,779.46	46.73	81.880		
5,500.00	5,470.98	5,526.77	5,595.78	24.85	23.66	-22.64	-4,275.48	494.39	3,813.40	3,765.56	47.84	79.715		
5,600.00	5,570.36	5,600.01	5,668.95	25.30	23.97	-22.72	-4,273.04	496.53	3,800.33	3,751.72	48.62	78.170		
5,700.00	5,669.75	5,662.12	5,731.02	25.76	24.23	-22.79	-4,271.56	497.94	3,788.08	3,738.73	49.35	76.753		
5,800.00	5,769.13	5,735.03	5,803.92	26.22	24.54	-22.85	-4,270.47	499.06	3,776.62	3,726.49	50.13	75.341		
5,900.00	5,868.51	5,815.84	5,884.72	26.68	24.88	-22.92	-4,269.84	499.64	3,765.75	3,714.83	50.93	73.944		
6,000.00	5,967.90	5,911.45	5,980.32	27.14	25.29	-22.99	-4,269.45	499.94	3,755.19	3,703.41	51.78	72.523		
6,100.00	6,067.28	6,023.76	6,092.64	27.60	25.76	-23.06	-4,268.80	499.99	3,744.40	3,691.71	52.69	71.062		
6,200.00	6,166.66	6,120.38	6,189.26	28.05	26.17	-23.13	-4,268.24	499.84	3,733.60	3,680.05	53.55	69.723		
6,300.00	6,266.05	6,233.54	6,302.41	28.51	26.65	-23.20	-4,267.36	499.61	3,722.60	3,668.13	54.46	68.350		
6,400.00	6,365.43	6,335.30	6,404.17	28.97	27.09	-23.27	-4,266.30	499.32	3,711.33	3,655.99	55.34	67.065		
6,500.00	6,464.81	6,426.64	6,495.50	29.43	27.47	-23.33	-4,265.49	499.13	3,700.22	3,644.05	56.18	65.865		
6,600.00	6,564.10	6,524.05	6,592.91	29.89	27.89	-23.42	-4,264.79	498.59	3,689.58	3,632.54	57.04	64.683		
6,700.00	6,661.75	6,626.19	6,695.05	30.34	28.32	-23.46	-4,264.03	498.19	3,681.46	3,623.54	57.92	63.566		
6,800.00	6,755.38	6,731.55	6,800.40	30.77	28.77	-23.46	-4,262.81	498.43	3,676.36	3,617.57	58.79	62.535		
6,885.42	6,830.43	6,811.06	6,879.90	31.11	29.11	-23.45	-4,261.79	498.33	3,674.88	3,615.39	59.50	61.766 CC		
6,900.00	6,842.67	6,822.03	6,890.87	31.17	29.15	-23.45	-4,261.65	498.30	3,674.93	3,615.33	59.61	61.651 ES		
7,000.00	6,921.48	6,898.63	6,967.46	31.54	29.48	-23.46	-4,260.69	498.08	3,677.92	3,617.52	60.40	60.894		
7,100.00	6,989.86	6,966.23	7,035.06	31.91	29.77	-23.46	-4,259.79	498.27	3,685.87	3,624.65	61.21	60.213		
7,200.00	7,046.13	7,014.86	7,083.67	32.35	29.97	-23.46	-4,259.05	498.83	3,699.17	3,637.11	62.06	59.605		
7,300.00	7,088.91	7,044.31	7,113.12	32.98	30.10	-23.46	-4,258.68	499.25	3,718.14	3,655.16	62.97	59.043		
7,400.00	7,117.14	7,063.29	7,132.10	33.84	30.18	-23.46	-4,258.48	499.54	3,742.58	3,678.59	63.99	58.487		
7,500.00	7,130.13	7,071.39	7,140.19	34.90	30.21	-23.46	-4,258.41	499.67	3,772.03	3,706.94	65.09	57.948		
7,600.00	7,130.72	7,070.69	7,139.50	36.13	30.21	-23.46	-4,258.42	499.66	3,805.46	3,739.20	66.26	57.429		
7,700.00	7,130.29	7,069.28	7,138.09	37.54	30.20	-23.46	-4,258.43	499.63	3,841.32	3,773.77	67.55	56.867		
7,800.00	7,129.85	7,067.87	7,136.68	39.12	30.20	-23.46	-4,258.44	499.61	3,879.42	3,810.49	68.93	56.282		
7,900.00	7,129.42	7,066.47	7,135.28	40.83	30.19	-23.46	-4,258.46	499.59	3,919.70	3,849.32	70.38	55.693		
8,000.00	7,128.98	7,065.07	7,133.88	42.67	30.19	-23.46	-4,258.47	499.57	3,962.10	3,890.22	71.88	55.118		
8,100.00	7,128.55	7,063.69	7,132.49	44.62	30.18	-23.46	-4,258.48	499.55	4,006.54	3,933.12	73.42	54.567		
8,200.00	7,128.12	7,062.30	7,131.11	46.66	30.17	-23.46	-4,258.49	499.53	4,052.97	3,977.98	74.98	54.051		
8,300.00	7,127.68	7,060.92	7,129.73	48.79	30.17	-23.46	-4,258.51	499.50	4,101.30	4,024.75	76.55	53.574		
8,400.00	7,127.25	7,059.55	7,128.36	50.98	30.16	-23.46	-4,258.52	499.48	4,151.49	4,073.36	78.12	53.141		
8,500.00	7,126.81	7,058.19	7,127.00	53.24	30.16	-23.46	-4,258.53	499.46	4,203.45	4,123.77	79.68	52.754		
8,600.00	7,126.38	7,056.83	7,125.64	55.56	30.15	-23.46	-4,258.55	499.44	4,257.12	4,175.90	81.22	52.413		
8,700.00	7,125.95	7,055.48	7,124.28	57.92	30.15	-23.46	-4,258.56	499.42	4,312.45	4,229.71	82.74	52.118		
8,800.00	7,125.51	7,054.13	7,122.94	60.33	30.14	-23.46	-4,258.57	499.40	4,369.36	4,285.13	84.24	51.869		
8,900.00	7,125.08	7,052.79	7,121.60	62.77	30.13	-23.46	-4,258.59	499.38	4,427.81	4,342.10	85.70	51.665		
9,000.00	7,124.64	7,051.45	7,120.26	65.25	30.13	-23.46	-4,258.60	499.36	4,487.71	4,400.58	87.14	51.503		
9,100.00	7,124.21	7,050.12	7,118.93	67.76	30.12	-23.46	-4,258.61	499.34	4,549.03	4,460.50	88.53	51.382		
9,200.00	7,123.78	7,048.79	7,117.60	70.29	30.12	-23.46	-4,258.63	499.32	4,611.70	4,521.80	89.90	51.300		
9,300.00	7,123.34	7,047.48	7,116.29	72.85	30.11	-23.46	-4,258.64	499.30	4,675.67	4,584.45	91.22	51.256		
9,400.00	7,122.91	7,046.16	7,114.97	75.43	30.11	-23.46	-4,258.66	499.28	4,740.88	4,648.37	92.51	51.246 SF		
9,500.00	7,122.48	7,044.85	7,113.67	78.03	30.10	-23.46	-4,258.67	499.26	4,807.29	4,713.53	93.76	51.271		
9,600.00	7,122.04	7,043.55	7,112.36	80.65	30.09	-23.46	-4,258.69	499.24	4,874.85	4,779.87	94.98	51.326		
9,700.00	7,121.61	7,042.25	7,111.07	83.28	30.09	-23.46	-4,258.70	499.22	4,943.50	4,847.35	96.15	51.412		
9,800.00	7,121.17	7,040.96	7,109.77	85.93	30.08	-23.46	-4,258.71	499.20	5,013.21	4,915.91	97.29	51.526		
9,900.00	7,120.74	7,039.68	7,108.49	88.59	30.08	-23.46	-4,258.73	499.19	5,083.93	4,985.53	98.40	51.666		
10,000.00	7,120.31	7,038.40	7,107.21	91.26	30.07	-23.46	-4,258.74	499.17	5,155.62	5,056.15	99.47	51.832		
10,100.00	7,119.87	7,037.12	7,105.93	93.95	30.07	-23.46	-4,258.76	499.15	5,228.24	5,127.73	100.50	52.021		
10,200.00	7,119.44	7,035.85	7,104.66	96.64	30.06	-23.46	-4,258.77	499.13	5,301.74	5,200.24	101.50	52.232		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,119.00	7,034.59	7,103.40	99.34	30.06	-89.47	-4,258.79	499.11	5,376.11	5,273.64	102.47	52.464	
10,400.00	7,118.57	7,033.33	7,102.14	102.05	30.05	-89.45	-4,258.81	499.09	5,451.29	5,347.88	103.41	52.716	
10,500.00	7,118.14	7,032.07	7,100.89	104.77	30.05	-89.43	-4,258.82	499.08	5,527.26	5,422.95	104.31	52.987	
10,600.00	7,117.70	7,030.82	7,099.64	107.50	30.04	-89.41	-4,258.84	499.06	5,603.98	5,498.79	105.19	53.275	
10,700.00	7,117.27	7,029.58	7,098.39	110.23	30.04	-89.39	-4,258.85	499.04	5,681.43	5,575.40	106.04	53.580	
10,800.00	7,116.83	7,028.34	7,097.16	112.97	30.03	-89.37	-4,258.87	499.02	5,759.57	5,652.72	106.86	53.901	
10,900.00	7,116.40	7,027.11	7,095.92	115.72	30.02	-89.35	-4,258.88	499.00	5,838.38	5,730.74	107.65	54.236	
11,000.00	7,115.97	7,025.88	7,094.69	118.47	30.02	-89.33	-4,258.90	498.99	5,917.83	5,809.42	108.41	54.586	
11,100.00	7,115.53	7,024.66	7,093.47	121.22	30.01	-89.31	-4,258.92	498.97	5,997.89	5,888.74	109.15	54.949	
11,200.00	7,115.10	7,023.44	7,092.25	123.98	30.01	-89.29	-4,258.93	498.95	6,078.55	5,968.68	109.87	55.325	
11,300.00	7,114.66	7,022.22	7,091.04	126.74	30.00	-89.27	-4,258.95	498.93	6,159.77	6,049.20	110.56	55.713	
11,400.00	7,114.23	7,021.02	7,089.83	129.51	30.00	-89.25	-4,258.97	498.92	6,241.53	6,130.30	111.23	56.112	
11,500.00	7,113.80	7,019.81	7,088.63	132.29	29.99	-89.23	-4,258.98	498.90	6,323.82	6,211.94	111.88	56.521	
11,600.00	7,113.36	7,018.61	7,087.43	135.06	29.99	-89.21	-4,259.00	498.88	6,406.61	6,294.10	112.51	56.941	
11,700.00	7,112.93	7,017.42	7,086.24	137.84	29.98	-89.19	-4,259.01	498.87	6,489.89	6,376.77	113.12	57.371	
11,800.00	7,112.49	7,016.23	7,085.05	140.62	29.98	-89.17	-4,259.03	498.85	6,573.63	6,459.92	113.71	57.810	
11,900.00	7,112.06	7,015.05	7,083.86	143.41	29.97	-89.16	-4,259.05	498.83	6,657.82	6,543.54	114.28	58.257	
12,000.00	7,111.63	7,013.87	7,082.68	146.20	29.97	-89.14	-4,259.07	498.82	6,742.45	6,627.61	114.84	58.713	
12,100.00	7,111.19	7,012.69	7,081.51	148.99	29.96	-89.12	-4,259.08	498.80	6,827.49	6,712.11	115.37	59.177	
12,200.00	7,110.76	7,000.01	7,068.83	151.78	29.91	-88.91	-4,259.27	498.63	6,912.94	6,797.09	115.85	59.673	
12,300.00	7,110.33	7,000.01	7,068.83	154.58	29.91	-88.91	-4,259.27	498.63	6,998.76	6,882.40	116.36	60.149	
12,400.00	7,109.89	7,000.01	7,068.83	157.37	29.91	-88.91	-4,259.27	498.63	7,084.95	6,968.10	116.85	60.632	
12,500.00	7,109.46	7,000.01	7,068.83	160.17	29.91	-88.91	-4,259.27	498.63	7,171.50	7,054.17	117.33	61.121	
12,600.00	7,109.02	7,000.01	7,068.83	162.98	29.91	-88.91	-4,259.27	498.63	7,258.40	7,140.60	117.80	61.617	
12,700.00	7,108.59	7,000.01	7,068.83	165.78	29.91	-88.91	-4,259.27	498.63	7,345.63	7,227.38	118.25	62.119	
12,800.00	7,108.16	7,000.01	7,068.83	168.59	29.91	-88.91	-4,259.27	498.63	7,433.18	7,314.49	118.69	62.626	
12,900.00	7,107.72	7,000.01	7,068.83	171.39	29.91	-88.91	-4,259.27	498.63	7,521.05	7,401.93	119.12	63.139	
13,000.00	7,107.29	7,000.01	7,068.83	174.20	29.91	-88.91	-4,259.27	498.63	7,609.21	7,489.67	119.54	63.657	
13,100.00	7,106.85	7,000.01	7,068.83	177.01	29.91	-88.91	-4,259.27	498.63	7,697.66	7,577.72	119.94	64.179	
13,200.00	7,106.42	7,000.01	7,068.83	179.83	29.91	-88.91	-4,259.27	498.63	7,786.39	7,666.06	120.33	64.707	
13,300.00	7,105.99	7,000.01	7,068.83	182.64	29.91	-88.91	-4,259.27	498.63	7,875.39	7,754.68	120.72	65.239	
13,400.00	7,105.55	7,000.01	7,068.83	185.45	29.91	-88.91	-4,259.27	498.63	7,964.65	7,843.56	121.09	65.775	
13,500.00	7,105.12	7,000.01	7,068.83	188.27	29.91	-88.91	-4,259.27	498.63	8,054.17	7,932.72	121.45	66.316	
13,600.00	7,104.68	7,000.01	7,068.83	191.09	29.91	-88.91	-4,259.27	498.63	8,143.93	8,022.12	121.81	66.860	
13,700.00	7,104.25	7,000.01	7,068.83	193.91	29.91	-88.91	-4,259.27	498.63	8,233.92	8,111.77	122.15	67.408	
13,800.00	7,103.82	7,000.01	7,068.83	196.73	29.91	-88.91	-4,259.27	498.63	8,324.14	8,201.66	122.49	67.960	
13,900.00	7,103.38	7,000.01	7,068.83	199.55	29.91	-88.91	-4,259.27	498.63	8,414.59	8,291.77	122.81	68.515	
14,000.00	7,102.95	7,000.01	7,068.83	202.37	29.91	-88.91	-4,259.27	498.63	8,505.25	8,382.11	123.13	69.073	
14,100.00	7,102.51	7,000.01	7,068.83	205.19	29.91	-88.91	-4,259.27	498.63	8,596.11	8,472.66	123.45	69.635	
14,200.00	7,102.08	7,000.01	7,068.83	208.02	29.91	-88.91	-4,259.27	498.63	8,687.18	8,563.43	123.75	70.200	
14,300.00	7,101.65	7,000.01	7,068.83	210.84	29.91	-88.91	-4,259.27	498.63	8,778.44	8,654.39	124.05	70.767	
14,400.00	7,101.21	7,000.01	7,068.83	213.67	29.91	-88.91	-4,259.27	498.63	8,869.88	8,745.55	124.34	71.338	
14,500.00	7,100.78	7,000.01	7,068.83	216.50	29.91	-88.91	-4,259.27	498.63	8,961.52	8,836.90	124.62	71.910	
14,600.00	7,100.35	7,000.01	7,068.83	219.32	29.91	-88.91	-4,259.27	498.63	9,053.32	8,928.43	124.90	72.486	
14,700.00	7,099.91	7,000.01	7,068.83	222.15	29.91	-88.91	-4,259.27	498.63	9,145.30	9,020.14	125.17	73.064	
14,800.00	7,099.48	7,000.01	7,068.83	224.98	29.91	-88.91	-4,259.27	498.63	9,237.45	9,112.02	125.43	73.644	
14,900.00	7,099.04	7,000.01	7,068.83	227.81	29.91	-88.91	-4,259.27	498.63	9,329.76	9,204.07	125.69	74.227	
14,909.96	7,099.00	7,000.01	7,068.83	228.09	29.91	-88.91	-4,259.27	498.63	9,338.97	9,213.25	125.72	74.285	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	20.25	-1.75	3.28	3.28	172.73	-4,279.50	545.80	4,314.16				
100.00	100.00	113.05	91.05	3.28	3.29	172.73	-4,279.64	545.70	4,314.30	4,307.72	6.58	656.083	
200.00	200.00	211.92	189.92	3.34	3.35	172.74	-4,279.88	545.58	4,314.53	4,307.84	6.69	644.955	
300.00	300.00	318.27	296.27	3.44	3.48	172.74	-4,280.06	545.38	4,314.67	4,307.75	6.92	623.480	
400.00	400.00	418.49	396.49	3.60	3.64	172.74	-4,280.20	545.03	4,314.76	4,307.52	7.24	595.729	
500.00	500.00	520.87	498.86	3.81	3.85	172.75	-4,280.28	544.72	4,314.81	4,307.15	7.66	563.643	
600.00	600.00	619.12	597.12	4.04	4.09	-20.40	-4,280.39	544.35	4,314.80	4,306.67	8.13	530.839	
700.00	699.96	720.84	698.84	4.29	4.36	-20.42	-4,280.46	544.06	4,312.54	4,303.89	8.65	498.591	
800.00	799.78	817.23	795.22	4.57	4.65	-20.49	-4,280.56	543.85	4,307.06	4,297.85	9.21	467.645	
900.00	899.34	918.04	896.03	4.88	4.96	-20.59	-4,280.68	543.53	4,298.32	4,288.49	9.83	437.198	
1,000.00	998.72	1,016.10	994.09	5.20	5.29	-20.63	-4,280.82	543.25	4,288.04	4,277.57	10.47	409.418	
1,100.00	1,098.10	1,118.05	1,096.04	5.54	5.63	-20.68	-4,280.92	542.96	4,277.72	4,266.56	11.16	383.319	
1,200.00	1,197.49	1,212.40	1,190.39	5.90	5.97	-20.73	-4,281.07	542.61	4,267.44	4,255.60	11.85	360.271	
1,300.00	1,296.87	1,303.68	1,281.67	6.28	6.30	-20.77	-4,281.36	542.22	4,257.33	4,244.79	12.54	339.491	
1,400.00	1,396.25	1,405.68	1,383.67	6.66	6.68	-20.82	-4,281.77	541.72	4,247.29	4,234.00	13.29	319.534	
1,500.00	1,495.64	1,513.20	1,491.19	7.06	7.08	-20.87	-4,282.07	541.06	4,237.12	4,223.04	14.08	300.935	
1,600.00	1,595.02	1,609.71	1,587.69	7.46	7.45	-20.91	-4,282.31	540.41	4,226.91	4,212.07	14.84	284.843	
1,700.00	1,694.40	1,708.59	1,686.58	7.87	7.84	-20.95	-4,282.58	539.79	4,216.73	4,201.11	15.62	269.978	
1,800.00	1,793.79	1,803.11	1,781.09	8.29	8.21	-21.00	-4,282.90	539.14	4,206.61	4,190.22	16.39	256.645	
1,900.00	1,893.17	1,896.82	1,874.79	8.71	8.58	-21.03	-4,283.36	538.36	4,196.62	4,179.46	17.17	244.448	
2,000.00	1,992.55	1,995.13	1,973.10	9.13	8.97	-21.07	-4,283.95	537.33	4,186.72	4,168.75	17.97	232.990	
2,100.00	2,091.94	2,104.85	2,082.81	9.56	9.41	-21.11	-4,284.51	536.01	4,176.72	4,157.89	18.82	221.911	
2,200.00	2,191.32	2,209.82	2,187.77	9.99	9.83	-21.15	-4,284.88	534.63	4,166.53	4,146.87	19.66	211.923	
2,300.00	2,290.70	2,322.78	2,300.72	10.42	10.29	-21.20	-4,284.99	533.13	4,156.10	4,135.56	20.54	202.390	
2,400.00	2,390.09	2,428.47	2,406.40	10.86	10.72	-21.24	-4,284.80	531.82	4,145.41	4,124.02	21.39	193.845	
2,500.00	2,489.47	2,527.87	2,505.79	11.29	11.13	-21.28	-4,284.56	530.80	4,134.69	4,112.47	22.21	186.127	
2,600.00	2,588.86	2,629.79	2,607.71	11.73	11.54	-21.32	-4,284.24	529.92	4,123.92	4,100.86	23.06	178.863	
2,700.00	2,688.24	2,726.78	2,704.70	12.18	11.94	-21.37	-4,283.92	529.09	4,113.14	4,089.26	23.88	172.226	
2,800.00	2,787.62	2,821.15	2,799.07	12.62	12.33	-21.41	-4,283.73	528.31	4,102.49	4,077.79	24.70	166.088	
2,900.00	2,887.01	2,920.90	2,898.81	13.06	12.74	-21.46	-4,283.50	527.59	4,091.84	4,066.29	25.54	160.198	
3,000.00	2,986.39	3,005.09	2,983.00	13.51	13.09	-21.50	-4,283.48	527.13	4,081.41	4,055.09	26.33	155.034	
3,100.00	3,085.77	3,097.07	3,074.98	13.95	13.48	-21.55	-4,283.71	526.69	4,071.26	4,044.12	27.14	150.000	
3,200.00	3,185.16	3,200.94	3,178.84	14.40	13.91	-21.60	-4,284.02	526.14	4,061.16	4,033.15	28.01	145.011	
3,300.00	3,284.54	3,288.49	3,266.40	14.85	14.27	-21.64	-4,284.36	525.64	4,051.15	4,022.34	28.81	140.626	
3,400.00	3,383.92	3,379.06	3,356.96	15.30	14.65	-21.68	-4,284.96	525.08	4,041.39	4,011.77	29.62	136.425	
3,500.00	3,483.31	3,523.64	3,501.54	15.75	15.26	-21.76	-4,285.32	524.31	4,031.29	4,000.64	30.65	131.529	
3,600.00	3,582.69	3,645.04	3,622.93	16.20	15.76	-21.83	-4,284.40	524.15	4,020.21	3,988.63	31.58	127.285	
3,700.00	3,682.07	3,756.12	3,734.00	16.65	16.22	-21.89	-4,283.15	523.90	4,008.77	3,976.29	32.48	123.419	
3,800.00	3,781.46	3,852.62	3,830.50	17.10	16.63	-21.95	-4,281.88	523.71	3,997.15	3,963.83	33.32	119.949	
3,900.00	3,880.84	3,941.55	3,919.42	17.56	17.00	-22.00	-4,280.95	523.40	3,985.78	3,951.64	34.14	116.750	
4,000.00	3,980.22	4,033.64	4,011.51	18.01	17.39	-22.05	-4,280.20	523.01	3,974.63	3,939.66	34.97	113.665	
4,100.00	4,079.61	4,123.74	4,101.60	18.46	17.76	-22.10	-4,279.64	522.48	3,963.65	3,927.86	35.79	110.748	
4,200.00	4,178.99	4,206.55	4,184.42	18.92	18.11	-22.15	-4,279.44	521.98	3,953.04	3,916.46	36.58	108.051	
4,300.00	4,278.38	4,309.32	4,287.18	19.37	18.55	-22.20	-4,279.35	521.39	3,942.59	3,905.13	37.46	105.258	
4,400.00	4,377.76	4,402.38	4,380.24	19.83	18.94	-22.25	-4,279.30	520.90	3,932.19	3,893.89	38.29	102.689	
4,500.00	4,477.14	4,503.50	4,481.36	20.28	19.37	-22.31	-4,279.29	520.45	3,921.83	3,882.67	39.16	100.152	
4,600.00	4,576.53	4,605.94	4,583.80	20.74	19.80	-22.36	-4,279.21	519.98	3,911.42	3,871.39	40.03	97.710	
4,700.00	4,675.91	4,696.38	4,674.24	21.19	20.18	-22.41	-4,279.23	519.50	3,901.10	3,860.24	40.86	95.478	
4,800.00	4,775.29	4,785.54	4,763.39	21.65	20.56	-22.46	-4,279.43	519.23	3,891.02	3,849.33	41.68	93.351	
4,900.00	4,874.68	4,883.90	4,861.76	22.10	20.97	-22.53	-4,279.76	519.27	3,881.10	3,838.56	42.54	91.234	
5,000.00	4,974.06	4,983.41	4,961.26	22.56	21.39	-22.59	-4,280.09	519.29	3,871.18	3,827.78	43.40	89.190	
5,100.00	5,073.44	5,079.61	5,057.47	23.02	21.80	-22.65	-4,280.44	519.32	3,861.30	3,817.05	44.26	87.251	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,176.73	5,154.59	23.47	22.21	-22.71	-4,280.87	519.38	3,851.51	3,806.40	45.11	85.379		
5,300.00	5,272.21	5,280.00	5,257.86	23.93	22.64	-22.78	-4,281.33	519.43	3,841.72	3,795.73	45.99	83.534		
5,400.00	5,371.59	5,381.32	5,359.17	24.39	23.07	-22.84	-4,281.69	519.33	3,831.83	3,784.96	46.86	81.768		
5,500.00	5,470.98	5,476.75	5,454.60	24.85	23.48	-22.90	-4,282.05	519.28	3,821.96	3,774.25	47.71	80.104		
5,600.00	5,570.36	5,618.84	5,596.69	25.30	24.07	-22.99	-4,281.89	519.46	3,811.67	3,762.93	48.73	78.213		
5,700.00	5,669.75	5,716.41	5,694.25	25.76	24.49	-23.06	-4,281.14	519.69	3,800.74	3,751.15	49.59	76.639		
5,800.00	5,769.13	5,796.28	5,774.12	26.22	24.82	-23.12	-4,280.82	519.73	3,790.15	3,739.76	50.39	75.219		
5,900.00	5,868.51	5,887.54	5,865.38	26.68	25.21	-23.18	-4,280.82	519.65	3,779.93	3,728.70	51.22	73.791		
6,000.00	5,967.90	5,990.13	5,967.98	27.14	25.65	-23.24	-4,280.92	519.40	3,769.79	3,717.68	52.10	72.352		
6,100.00	6,067.28	6,085.75	6,063.60	27.60	26.05	-23.30	-4,281.03	518.97	3,759.63	3,706.67	52.96	70.995		
6,200.00	6,166.66	6,185.34	6,163.18	28.05	26.48	-23.36	-4,281.23	518.45	3,749.54	3,695.72	53.82	69.663		
6,300.00	6,266.05	6,305.20	6,283.03	28.51	26.99	-23.43	-4,281.20	517.61	3,739.22	3,684.45	54.76	68.278		
6,400.00	6,365.43	6,414.87	6,392.70	28.97	27.45	-23.49	-4,280.74	516.53	3,728.45	3,672.79	55.67	66.976		
6,500.00	6,464.81	6,512.07	6,489.90	29.43	27.87	-23.54	-4,280.27	515.55	3,717.63	3,661.10	56.53	65.766		
6,600.00	6,564.10	6,621.68	6,599.50	29.89	28.33	-23.60	-4,279.57	514.21	3,706.95	3,649.52	57.43	64.545		
6,700.00	6,661.75	6,717.50	6,695.30	30.34	28.74	-23.66	-4,278.91	512.89	3,698.77	3,640.49	58.28	63.461		
6,800.00	6,755.38	6,811.81	6,789.60	30.77	29.14	-23.72	-4,278.36	511.29	3,693.96	3,634.84	59.12	62.482		
6,882.23	6,827.72	6,898.31	6,876.08	31.10	29.51	-23.78	-4,277.79	509.21	3,692.70	3,632.86	59.83	61.715 CC		
6,900.00	6,842.67	6,916.33	6,894.08	31.17	29.59	-23.84	-4,277.65	508.69	3,692.76	3,632.77	59.99	61.560 ES		
7,000.00	6,921.48	7,004.51	6,982.23	31.54	29.96	-23.90	-4,276.86	506.10	3,695.67	3,634.85	60.82	60.769		
7,100.00	6,989.86	7,084.82	7,062.48	31.91	30.31	-23.96	-4,276.03	503.33	3,703.28	3,641.61	61.67	60.049		
7,200.00	7,046.13	7,146.11	7,123.72	32.35	30.57	-24.02	-4,275.37	500.90	3,716.08	3,653.52	62.56	59.399		
7,300.00	7,088.91	7,192.39	7,169.96	32.98	30.77	-24.08	-4,274.86	499.05	3,734.40	3,670.87	63.53	58.779		
7,400.00	7,117.14	7,224.37	7,201.91	33.84	30.90	-24.14	-4,274.51	497.77	3,758.22	3,693.63	64.60	58.180		
7,500.00	7,130.13	7,241.27	7,218.80	34.90	30.98	-24.20	-4,274.33	497.10	3,787.23	3,721.50	65.73	57.615		
7,600.00	7,130.72	7,245.85	7,223.37	36.13	30.99	-24.26	-4,274.28	496.92	3,820.45	3,753.52	66.92	57.086		
7,700.00	7,130.29	7,249.39	7,226.91	37.54	31.01	-24.32	-4,274.24	496.77	3,856.10	3,787.87	68.23	56.517		
7,800.00	7,129.85	7,252.94	7,230.46	39.12	31.03	-24.38	-4,274.20	496.63	3,893.99	3,824.36	69.63	55.924		
7,900.00	7,129.42	7,256.49	7,234.00	40.83	31.04	-24.44	-4,274.17	496.49	3,934.05	3,862.95	71.10	55.328		
8,000.00	7,128.98	7,260.04	7,237.55	42.67	31.06	-24.50	-4,274.13	496.35	3,976.22	3,903.59	72.63	54.745		
8,100.00	7,128.55	7,263.58	7,241.09	44.62	31.07	-24.56	-4,274.09	496.21	4,020.44	3,946.24	74.19	54.188		
8,200.00	7,128.12	7,267.13	7,244.64	46.66	31.09	-24.62	-4,274.05	496.07	4,066.63	3,990.85	75.78	53.663		
8,300.00	7,127.68	7,270.68	7,248.18	48.79	31.10	-24.68	-4,274.01	495.93	4,114.73	4,037.35	77.38	53.179		
8,400.00	7,127.25	7,274.23	7,251.72	50.98	31.12	-24.74	-4,273.97	495.78	4,164.67	4,085.70	78.97	52.738		
8,500.00	7,126.81	7,277.77	7,255.27	53.24	31.13	-24.80	-4,273.93	495.64	4,216.39	4,135.83	80.55	52.342		
8,600.00	7,126.38	7,281.32	7,258.81	55.56	31.15	-24.86	-4,273.89	495.50	4,269.82	4,187.70	82.12	51.992		
8,700.00	7,125.95	7,284.87	7,262.36	57.92	31.16	-24.92	-4,273.86	495.36	4,324.91	4,241.23	83.67	51.689		
8,800.00	7,125.51	7,288.42	7,265.90	60.33	31.18	-24.98	-4,273.82	495.22	4,381.57	4,296.38	85.19	51.430		
8,900.00	7,125.08	7,291.96	7,269.45	62.77	31.19	-25.04	-4,273.78	495.08	4,439.77	4,353.08	86.69	51.216		
9,000.00	7,124.64	7,295.51	7,272.99	65.25	31.21	-25.10	-4,273.74	494.93	4,499.43	4,411.29	88.15	51.044		
9,100.00	7,124.21	7,299.06	7,276.54	67.76	31.22	-25.16	-4,273.70	494.79	4,560.51	4,470.93	89.58	50.912		
9,200.00	7,123.78	7,302.61	7,280.08	70.29	31.24	-25.22	-4,273.66	494.65	4,622.93	4,531.97	90.97	50.820		
9,300.00	7,123.34	7,306.15	7,283.62	72.85	31.25	-25.28	-4,273.62	494.51	4,686.66	4,594.34	92.32	50.764		
9,400.00	7,122.91	7,309.70	7,287.17	75.43	31.27	-25.34	-4,273.59	494.37	4,751.63	4,657.99	93.64	50.743 SF		
9,500.00	7,122.48	7,313.25	7,290.71	78.03	31.28	-25.40	-4,273.55	494.23	4,817.81	4,722.88	94.92	50.756		
9,600.00	7,122.04	7,316.80	7,294.26	80.65	31.30	-25.46	-4,273.51	494.09	4,885.12	4,788.96	96.16	50.799		
9,700.00	7,121.61	7,320.34	7,297.80	83.28	31.31	-25.52	-4,273.47	493.94	4,953.55	4,856.17	97.37	50.873		
9,800.00	7,121.17	7,323.89	7,301.35	85.93	31.33	-25.58	-4,273.43	493.80	5,023.02	4,924.48	98.54	50.974		
9,900.00	7,120.74	7,327.44	7,304.89	88.59	31.34	-25.64	-4,273.39	493.66	5,093.51	4,993.84	99.67	51.101		
10,000.00	7,120.31	7,330.99	7,308.44	91.26	31.36	-25.70	-4,273.35	493.52	5,164.97	5,064.20	100.77	51.253		
10,100.00	7,119.87	7,334.53	7,311.98	93.95	31.37	-25.76	-4,273.32	493.38	5,237.37	5,135.53	101.84	51.429		
10,200.00	7,119.44	7,338.08	7,315.52	96.64	31.39	-25.82	-4,273.28	493.24	5,310.66	5,207.79	102.87	51.626		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,119.00	7,341.63	7,319.07	99.34	31.40	-92.92	-4,273.24	493.09	5,384.80	5,280.94	103.86	51.845		
10,400.00	7,118.57	7,345.18	7,322.61	102.05	31.42	-92.97	-4,273.20	492.95	5,459.77	5,354.94	104.83	52.082		
10,500.00	7,118.14	7,348.72	7,326.16	104.77	31.44	-93.03	-4,273.16	492.81	5,535.53	5,429.76	105.76	52.339		
10,600.00	7,117.70	7,352.27	7,329.70	107.50	31.45	-93.09	-4,273.12	492.67	5,612.04	5,505.37	106.67	52.612		
10,700.00	7,117.27	7,355.82	7,333.25	110.23	31.47	-93.14	-4,273.08	492.53	5,689.28	5,581.74	107.54	52.902		
10,800.00	7,116.83	7,359.37	7,336.79	112.97	31.48	-93.20	-4,273.05	492.39	5,767.22	5,658.83	108.39	53.208		
10,900.00	7,116.40	7,362.91	7,340.34	115.72	31.50	-93.26	-4,273.01	492.25	5,845.82	5,736.61	109.21	53.528		
11,000.00	7,115.97	7,366.46	7,343.88	118.47	31.51	-93.31	-4,272.97	492.10	5,925.07	5,815.07	110.00	53.862		
11,100.00	7,115.53	7,370.01	7,347.43	121.22	31.53	-93.37	-4,272.93	491.96	6,004.94	5,894.17	110.77	54.210		
11,200.00	7,115.10	7,373.56	7,350.97	123.98	31.54	-93.43	-4,272.89	491.82	6,085.40	5,973.88	111.52	54.569		
11,300.00	7,114.66	7,377.10	7,354.51	126.74	31.56	-93.48	-4,272.85	491.68	6,166.43	6,054.19	112.24	54.941		
11,400.00	7,114.23	7,380.65	7,358.06	129.51	31.57	-93.54	-4,272.81	491.54	6,248.01	6,135.07	112.94	55.323		
11,500.00	7,113.80	7,384.20	7,361.60	132.29	31.59	-93.60	-4,272.78	491.40	6,330.11	6,216.50	113.61	55.716		
11,600.00	7,113.36	7,387.75	7,365.15	135.06	31.60	-93.65	-4,272.74	491.25	6,412.72	6,298.45	114.27	56.119		
11,700.00	7,112.93	7,391.29	7,368.69	137.84	31.62	-93.71	-4,272.70	491.11	6,495.82	6,380.91	114.91	56.532		
11,800.00	7,112.49	7,394.84	7,372.24	140.62	31.63	-93.77	-4,272.66	490.97	6,579.39	6,463.86	115.52	56.953		
11,900.00	7,112.06	7,398.39	7,375.78	143.41	31.65	-93.82	-4,272.62	490.83	6,663.40	6,547.28	116.12	57.384		
12,000.00	7,111.63	7,401.94	7,379.33	146.20	31.66	-93.88	-4,272.58	490.69	6,747.85	6,631.15	116.70	57.822		
12,100.00	7,111.19	7,405.48	7,382.87	148.99	31.68	-93.93	-4,272.54	490.55	6,832.72	6,715.46	117.26	58.268		
12,200.00	7,110.76	7,409.03	7,386.41	151.78	31.69	-93.99	-4,272.51	490.41	6,917.99	6,800.18	117.81	58.721		
12,300.00	7,110.33	7,412.58	7,389.96	154.58	31.71	-94.05	-4,272.47	490.26	7,003.65	6,885.31	118.34	59.181		
12,400.00	7,109.89	7,416.13	7,393.50	157.37	31.72	-94.10	-4,272.43	490.12	7,089.68	6,970.83	118.86	59.648		
12,500.00	7,109.46	7,419.67	7,397.05	160.17	31.74	-94.16	-4,272.39	489.98	7,176.08	7,056.72	119.36	60.121		
12,600.00	7,109.02	7,423.22	7,400.59	162.98	31.75	-94.22	-4,272.35	489.84	7,262.82	7,142.97	119.85	60.601		
12,700.00	7,108.59	7,426.77	7,404.14	165.78	31.77	-94.27	-4,272.31	489.70	7,349.89	7,229.57	120.32	61.086		
12,800.00	7,108.16	7,430.32	7,407.69	168.59	31.79	-94.33	-4,272.27	489.56	7,437.35	7,316.70	120.76	61.571		
12,900.00	7,107.72	7,433.87	7,411.24	171.39	31.81	-94.38	-4,272.23	489.42	7,525.08	7,403.99	121.19	62.056		
13,000.00	7,107.29	7,437.42	7,414.79	174.20	31.83	-94.44	-4,272.19	489.28	7,613.11	7,491.59	121.59	62.541		
13,100.00	7,106.85	7,440.97	7,418.34	177.01	31.85	-94.49	-4,272.15	489.14	7,701.43	7,579.51	121.99	63.026		
13,200.00	7,106.42	7,444.52	7,421.89	179.83	31.87	-94.55	-4,272.11	489.00	7,790.03	7,667.71	122.39	63.511		
13,300.00	7,105.99	7,448.07	7,425.44	182.64	31.89	-94.60	-4,272.07	488.86	7,878.91	7,756.20	122.79	64.000		
13,400.00	7,105.55	7,451.62	7,428.99	185.45	31.91	-94.66	-4,272.03	488.72	7,968.05	7,844.96	123.19	64.489		
13,500.00	7,105.12	7,455.17	7,432.54	188.27	31.93	-94.71	-4,271.99	488.58	8,057.44	7,933.98	123.59	64.978		
13,600.00	7,104.68	7,458.72	7,436.09	191.09	31.95	-94.77	-4,271.95	488.44	8,147.08	8,023.27	123.99	65.467		
13,700.00	7,104.25	7,462.27	7,439.64	193.91	31.97	-94.82	-4,271.91	488.30	8,236.96	8,112.80	124.39	65.956		
13,800.00	7,103.82	7,465.82	7,443.19	196.73	31.99	-94.88	-4,271.87	488.16	8,327.07	8,202.57	124.79	66.445		
13,900.00	7,103.38	7,469.37	7,446.74	199.55	32.01	-94.93	-4,271.83	488.02	8,417.41	8,292.57	125.19	66.934		
14,000.00	7,102.95	7,472.92	7,450.29	202.37	32.03	-94.99	-4,271.79	487.88	8,507.96	8,382.80	125.59	67.423		
14,100.00	7,102.51	7,476.47	7,453.84	205.19	32.05	-95.04	-4,271.75	487.74	8,598.71	8,473.24	125.99	67.912		
14,200.00	7,102.08	7,480.02	7,457.39	208.02	32.07	-95.10	-4,271.71	487.60	8,689.68	8,563.89	126.39	68.401		
14,300.00	7,101.65	7,483.57	7,460.94	210.84	32.09	-95.15	-4,271.67	487.46	8,780.84	8,654.75	126.79	68.890		
14,400.00	7,101.21	7,487.12	7,464.49	213.67	32.11	-95.21	-4,271.63	487.32	8,872.18	8,745.80	127.19	69.379		
14,500.00	7,100.78	7,490.67	7,468.04	216.50	32.13	-95.26	-4,271.59	487.18	8,963.72	8,837.05	127.59	69.868		
14,600.00	7,100.35	7,494.22	7,471.59	219.32	32.15	-95.32	-4,271.55	487.04	9,055.43	8,928.48	127.99	70.357		
14,700.00	7,099.91	7,497.77	7,475.14	222.15	32.17	-95.37	-4,271.51	486.90	9,147.32	9,020.10	128.39	70.846		
14,800.00	7,099.48	7,501.32	7,478.69	224.98	32.19	-95.43	-4,271.47	486.76	9,239.37	9,111.88	128.79	71.335		
14,900.00	7,099.04	7,504.87	7,482.24	227.81	32.21	-95.48	-4,271.43	486.62	9,331.59	9,203.84	129.19	71.824		
14,909.96	7,099.00	7,504.83	7,482.20	228.09	32.21	-95.48	-4,271.43	486.62	9,340.79	9,213.01	127.78	73.101		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	22.84	-0.16	3.28	3.28	-25.69	2,402.61	-1,155.56	2,666.06					
100.00	100.00	120.88	97.88	3.28	3.29	-25.69	2,402.54	-1,155.77	2,666.08	2,659.50	6.58	405.259		
200.00	200.00	218.71	195.71	3.34	3.36	-25.69	2,402.70	-1,155.85	2,666.27	2,659.57	6.70	398.220		
300.00	300.00	328.31	305.31	3.44	3.49	-25.68	2,402.70	-1,155.50	2,666.11	2,659.18	6.93	384.496		
341.81	341.81	364.81	341.81	3.51	3.55	-25.68	2,402.70	-1,155.41	2,666.07	2,659.02	7.05	378.130		
400.00	400.00	419.92	396.92	3.60	3.64	-25.68	2,402.79	-1,155.38	2,666.14	2,658.89	7.24	368.019		
500.00	500.00	528.25	505.25	3.81	3.86	-25.68	2,402.72	-1,155.32	2,666.06	2,658.39	7.67	347.565		
591.27	591.27	624.43	601.43	4.02	4.10	141.17	2,402.59	-1,155.09	2,666.08	2,657.96	8.12	328.395		
600.00	600.00	635.17	612.16	4.04	4.12	141.17	2,402.56	-1,155.05	2,665.87	2,657.70	8.17	326.369 CC, ES		
700.00	699.96	740.98	717.98	4.29	4.41	141.20	2,402.00	-1,154.44	2,667.04	2,658.33	8.71	306.372		
800.00	799.78	838.97	815.96	4.57	4.71	141.23	2,401.70	-1,153.95	2,671.17	2,661.90	9.27	288.016		
900.00	899.34	946.09	923.08	4.88	5.04	141.30	2,401.05	-1,153.13	2,677.64	2,667.72	9.92	269.947		
1,000.00	998.72	1,038.17	1,015.16	5.20	5.35	141.44	2,400.56	-1,152.55	2,685.57	2,675.02	10.55	254.612		
1,100.00	1,098.10	1,134.25	1,111.24	5.54	5.68	141.59	2,400.26	-1,152.05	2,693.77	2,682.55	11.22	240.103		
1,200.00	1,197.49	1,236.56	1,213.54	5.90	6.04	141.74	2,399.88	-1,151.53	2,701.93	2,689.99	11.94	226.325		
1,300.00	1,296.87	1,334.26	1,311.24	6.28	6.40	141.89	2,399.45	-1,151.08	2,710.08	2,697.41	12.66	214.029		
1,400.00	1,396.25	1,430.15	1,407.13	6.66	6.76	142.04	2,399.28	-1,150.45	2,718.39	2,704.99	13.40	202.918		
1,500.00	1,495.64	1,533.11	1,510.08	7.06	7.15	142.20	2,399.06	-1,149.85	2,726.73	2,712.55	14.17	192.392		
1,600.00	1,595.02	1,636.38	1,613.35	7.46	7.54	142.35	2,398.49	-1,149.48	2,734.86	2,719.90	14.96	182.768		
1,700.00	1,694.40	1,730.12	1,707.09	7.87	7.91	142.47	2,397.80	-1,149.68	2,743.08	2,727.35	15.73	174.415		
1,800.00	1,793.79	1,828.53	1,805.49	8.29	8.29	142.60	2,397.32	-1,149.93	2,751.57	2,735.05	16.52	166.575		
1,900.00	1,893.17	1,937.13	1,914.09	8.71	8.72	142.74	2,396.37	-1,150.08	2,759.65	2,742.29	17.36	158.972		
2,000.00	1,992.55	2,028.41	2,005.37	9.13	9.08	142.85	2,395.61	-1,150.56	2,767.94	2,749.81	18.14	152.619		
2,100.00	2,091.94	2,132.95	2,109.91	9.56	9.50	142.98	2,394.80	-1,151.03	2,776.28	2,757.31	18.97	146.322		
2,200.00	2,191.32	2,236.53	2,213.48	9.99	9.92	143.11	2,393.80	-1,151.27	2,784.37	2,764.55	19.81	140.532		
2,300.00	2,290.70	2,332.12	2,309.07	10.42	10.30	143.23	2,392.91	-1,151.67	2,792.57	2,771.95	20.62	135.409		
2,400.00	2,390.09	2,432.25	2,409.19	10.86	10.71	143.35	2,391.86	-1,152.35	2,800.79	2,779.33	21.46	130.533		
2,500.00	2,489.47	2,528.78	2,505.71	11.29	11.10	143.45	2,390.81	-1,153.23	2,809.08	2,786.80	22.28	126.092		
2,600.00	2,588.86	2,623.63	2,600.55	11.73	11.49	143.55	2,389.88	-1,154.16	2,817.49	2,794.40	23.09	121.996		
2,700.00	2,688.24	2,713.96	2,690.87	12.18	11.86	143.66	2,389.30	-1,154.94	2,826.18	2,802.28	23.89	118.279		
2,800.00	2,787.62	2,802.08	2,778.99	12.62	12.23	143.76	2,389.04	-1,155.79	2,835.25	2,810.56	24.68	114.857		
2,900.00	2,887.01	2,905.83	2,882.73	13.06	12.65	143.87	2,388.85	-1,156.85	2,844.44	2,818.89	25.55	111.343		
3,000.00	2,986.39	3,003.74	2,980.63	13.51	13.06	143.97	2,388.49	-1,158.18	2,853.60	2,827.21	26.39	108.152		
3,100.00	3,085.77	3,102.92	3,079.79	13.95	13.47	144.07	2,388.06	-1,159.74	2,862.79	2,835.56	27.23	105.128		
3,200.00	3,185.16	3,194.81	3,171.67	14.40	13.85	144.16	2,387.73	-1,161.34	2,872.14	2,844.09	28.05	102.407		
3,300.00	3,284.54	3,288.23	3,265.08	14.85	14.24	144.24	2,387.47	-1,163.39	2,881.72	2,852.85	28.87	99.818		
3,400.00	3,383.92	3,385.53	3,362.34	15.30	14.65	144.32	2,387.23	-1,165.79	2,891.46	2,861.75	29.71	97.315		
3,500.00	3,483.31	3,491.11	3,467.89	15.75	15.09	144.41	2,386.95	-1,168.32	2,901.15	2,870.55	30.59	94.826		
3,600.00	3,582.69	3,586.05	3,562.81	16.20	15.48	144.49	2,386.69	-1,170.44	2,910.77	2,879.34	31.43	92.616		
3,700.00	3,682.07	3,723.22	3,699.93	16.65	16.06	144.60	2,385.51	-1,173.50	2,919.87	2,887.41	32.46	89.957		
3,800.00	3,781.46	3,832.64	3,809.32	17.10	16.52	144.68	2,383.62	-1,175.78	2,928.11	2,894.75	33.36	87.766		
3,900.00	3,880.84	3,933.26	3,909.90	17.56	16.94	144.76	2,381.74	-1,177.79	2,936.20	2,901.97	34.23	85.783		
4,000.00	3,980.22	4,032.60	4,009.20	18.01	17.36	144.83	2,379.85	-1,179.89	2,944.30	2,909.21	35.09	83.911		
4,100.00	4,079.61	4,134.26	4,110.82	18.46	17.79	144.90	2,377.85	-1,182.10	2,952.37	2,916.40	35.96	82.100		
4,200.00	4,178.99	4,235.86	4,212.38	18.92	18.22	144.97	2,375.80	-1,184.24	2,960.37	2,923.54	36.83	80.373		
4,300.00	4,278.38	4,336.50	4,312.97	19.37	18.64	145.04	2,373.71	-1,186.32	2,968.31	2,930.61	37.70	78.732		
4,400.00	4,377.76	4,435.68	4,412.10	19.83	19.06	145.11	2,371.67	-1,188.37	2,976.27	2,937.71	38.56	77.178		
4,500.00	4,477.14	4,536.78	4,513.16	20.28	19.49	145.18	2,369.51	-1,190.59	2,984.21	2,944.78	39.44	75.673		
4,600.00	4,576.53	4,636.42	4,612.75	20.74	19.91	145.25	2,367.33	-1,192.79	2,992.11	2,951.81	40.30	74.243		
4,700.00	4,675.91	4,741.35	4,717.63	21.19	20.35	145.32	2,365.05	-1,195.12	3,000.03	2,958.84	41.19	72.829		
4,800.00	4,775.29	4,852.65	4,828.87	21.65	20.82	145.39	2,362.17	-1,197.43	3,007.52	2,965.40	42.11	71.415		
4,900.00	4,874.68	4,950.70	4,926.87	22.10	21.24	145.46	2,359.52	-1,199.39	3,014.87	2,971.90	42.97	70.157		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,000.00	4,974.06	5,045.44	5,021.56	22.56	21.64	145.52	2,357.13	-1,201.24	3,022.38	2,978.56	43.82	68.975		
5,100.00	5,073.44	5,139.54	5,115.61	23.02	22.04	145.59	2,354.95	-1,202.96	3,030.05	2,985.39	44.66	67.845		
5,200.00	5,172.83	5,232.13	5,208.17	23.47	22.43	145.65	2,353.04	-1,204.65	3,037.95	2,992.45	45.50	66.774		
5,300.00	5,272.21	5,325.35	5,301.36	23.93	22.83	145.72	2,351.35	-1,206.25	3,046.06	2,999.72	46.33	65.741		
5,400.00	5,371.59	5,417.77	5,393.76	24.39	23.22	145.80	2,350.10	-1,207.41	3,054.42	3,007.25	47.17	64.757		
5,500.00	5,470.98	5,515.94	5,491.92	24.85	23.64	145.89	2,348.93	-1,208.49	3,062.89	3,014.86	48.03	63.772		
5,600.00	5,570.36	5,607.30	5,583.27	25.30	24.02	145.97	2,347.95	-1,209.63	3,071.54	3,022.68	48.86	62.868		
5,700.00	5,669.75	5,693.08	5,669.04	25.76	24.39	146.05	2,347.42	-1,210.55	3,080.55	3,030.89	49.66	62.037		
5,800.00	5,769.13	5,820.80	5,796.76	26.22	24.93	146.19	2,346.70	-1,210.77	3,089.29	3,038.63	50.66	60.979		
5,900.00	5,868.51	5,922.57	5,898.52	26.68	25.36	146.30	2,345.78	-1,210.57	3,097.62	3,046.08	51.54	60.100		
6,000.00	5,967.90	6,064.91	6,040.85	27.14	25.97	146.48	2,344.23	-1,209.10	3,105.61	3,053.00	52.61	59.031		
6,100.00	6,067.28	6,187.72	6,163.59	27.60	26.49	146.65	2,341.39	-1,206.37	3,111.90	3,058.31	53.58	58.074		
6,200.00	6,166.66	6,349.68	6,325.37	28.05	27.18	146.88	2,335.72	-1,201.35	3,116.67	3,061.95	54.72	56.954		
6,300.00	6,266.05	6,426.76	6,402.35	28.51	27.51	146.98	2,332.36	-1,199.44	3,121.09	3,065.59	55.50	56.236		
6,400.00	6,365.43	6,482.83	6,458.39	28.97	27.75	147.04	2,330.45	-1,198.68	3,126.74	3,070.56	56.18	55.656		
6,500.00	6,464.81	6,545.68	6,521.21	29.43	28.01	147.11	2,329.01	-1,198.36	3,133.71	3,076.83	56.88	55.092		
6,600.00	6,564.10	6,615.64	6,591.17	29.89	28.31	116.57	2,328.09	-1,198.32	3,141.12	3,083.52	57.61	54.525		
6,700.00	6,661.75	6,704.50	6,680.03	30.34	28.69	93.23	2,327.33	-1,198.55	3,144.57	3,086.15	58.42	53.825		
6,800.00	6,755.38	6,786.41	6,761.94	30.77	29.04	86.03	2,326.82	-1,199.06	3,143.35	3,084.16	59.19	53.108		
6,900.00	6,842.67	6,851.16	6,826.68	31.17	29.31	83.37	2,326.67	-1,199.72	3,138.06	3,078.19	59.86	52.421		
7,000.00	6,921.48	6,911.46	6,886.97	31.54	29.57	82.72	2,326.96	-1,200.58	3,129.53	3,069.00	60.54	51.696		
7,100.00	6,989.86	6,985.54	6,961.05	31.91	29.88	83.43	2,327.44	-1,201.64	3,118.11	3,056.76	61.35	50.826		
7,200.00	7,046.13	7,042.25	7,017.75	32.35	30.12	84.67	2,327.78	-1,202.37	3,104.58	3,042.39	62.18	49.925		
7,300.00	7,088.91	7,084.64	7,060.13	32.98	30.30	86.16	2,328.06	-1,202.91	3,090.04	3,026.93	63.10	48.967		
7,400.00	7,117.14	7,113.16	7,088.66	33.84	30.42	87.69	2,328.26	-1,203.27	3,075.41	3,011.27	64.14	47.948		
7,500.00	7,130.13	7,126.90	7,102.39	34.90	30.48	89.07	2,328.36	-1,203.43	3,061.46	2,996.18	65.28	46.896		
7,600.00	7,130.72	7,128.56	7,104.05	36.13	30.49	89.52	2,328.37	-1,203.45	3,049.11	2,982.58	66.52	45.835		
7,700.00	7,130.29	7,129.22	7,104.71	37.54	30.49	89.54	2,328.38	-1,203.46	3,039.88	2,971.94	67.93	44.749		
7,800.00	7,129.85	7,129.88	7,105.37	39.12	30.49	89.55	2,328.38	-1,203.47	3,033.91	2,964.43	69.49	43.662		
7,900.00	7,129.42	7,130.53	7,106.02	40.83	30.50	89.56	2,328.39	-1,203.47	3,031.24	2,960.08	71.16	42.595		
7,931.09	7,129.28	7,130.73	7,106.22	41.40	30.50	89.56	2,328.39	-1,203.48	3,031.08	2,959.36	71.72	42.263		
8,000.00	7,128.98	7,131.17	7,106.66	42.67	30.50	89.57	2,328.39	-1,203.48	3,031.86	2,958.92	72.94	41.565		
8,100.00	7,128.55	7,131.81	7,107.30	44.62	30.50	89.58	2,328.40	-1,203.49	3,035.78	2,960.99	74.80	40.588		
8,200.00	7,128.12	7,132.44	7,107.93	46.66	30.51	89.60	2,328.40	-1,203.49	3,042.98	2,966.28	76.70	39.671		
8,300.00	7,127.68	7,133.06	7,108.55	48.79	30.51	89.61	2,328.40	-1,203.50	3,053.45	2,974.80	78.65	38.824		
8,400.00	7,127.25	7,133.68	7,109.17	50.98	30.51	89.62	2,328.41	-1,203.51	3,067.13	2,986.52	80.61	38.049		
8,500.00	7,126.81	7,134.30	7,109.79	53.24	30.51	89.63	2,328.41	-1,203.51	3,084.01	3,001.43	82.57	37.349		
8,600.00	7,126.38	7,134.91	7,110.39	55.56	30.52	89.64	2,328.42	-1,203.52	3,104.01	3,019.48	84.52	36.723		
8,700.00	7,125.95	7,135.51	7,111.00	57.92	30.52	89.65	2,328.42	-1,203.53	3,127.08	3,040.63	86.45	36.172		
8,800.00	7,125.51	7,136.11	7,111.59	60.33	30.52	89.67	2,328.43	-1,203.53	3,153.16	3,064.82	88.34	35.693		
8,900.00	7,125.08	7,136.70	7,112.19	62.77	30.52	89.68	2,328.43	-1,203.54	3,182.17	3,091.98	90.19	35.283		
9,000.00	7,124.64	7,137.28	7,112.77	65.25	30.53	89.69	2,328.44	-1,203.55	3,214.03	3,122.04	91.99	34.940		
9,100.00	7,124.21	7,137.87	7,113.35	67.76	30.53	89.70	2,328.44	-1,203.55	3,248.65	3,154.93	93.73	34.661		
9,200.00	7,123.78	7,138.44	7,113.93	70.29	30.53	89.71	2,328.45	-1,203.56	3,285.96	3,190.55	95.41	34.441		
9,300.00	7,123.34	7,139.01	7,114.50	72.85	30.53	89.72	2,328.45	-1,203.57	3,325.85	3,228.83	97.02	34.279		
9,400.00	7,122.91	7,139.58	7,115.07	75.43	30.54	89.73	2,328.45	-1,203.57	3,368.24	3,269.67	98.57	34.170		
9,500.00	7,122.48	7,140.14	7,115.63	78.03	30.54	89.74	2,328.46	-1,203.58	3,413.04	3,312.98	100.06	34.111		
9,600.00	7,122.04	7,140.70	7,116.18	80.65	30.54	89.75	2,328.46	-1,203.58	3,460.14	3,358.67	101.47	34.099 SF		
9,700.00	7,121.61	7,141.25	7,116.74	83.28	30.54	89.76	2,328.47	-1,203.59	3,509.47	3,406.65	102.82	34.131		
9,800.00	7,121.17	7,141.79	7,117.28	85.93	30.54	89.77	2,328.47	-1,203.60	3,560.92	3,456.81	104.10	34.205		
9,900.00	7,120.74	7,142.34	7,117.82	88.59	30.55	89.78	2,328.48	-1,203.60	3,614.40	3,509.08	105.32	34.318		
10,000.00	7,120.31	7,142.87	7,118.36	91.26	30.55	89.79	2,328.48	-1,203.61	3,669.83	3,563.36	106.47	34.467		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,100.00	7,119.87	7,143.41	7,118.89	93.95	30.55	89.80	2,328.48	-1,203.61	3,727.12	3,619.56	107.57	34.650		
10,200.00	7,119.44	7,143.93	7,119.42	96.64	30.55	89.81	2,328.49	-1,203.62	3,786.19	3,677.59	108.60	34.865		
10,300.00	7,119.00	7,144.46	7,119.95	99.34	30.56	89.82	2,328.49	-1,203.62	3,846.94	3,737.37	109.57	35.109		
10,400.00	7,118.57	7,144.98	7,120.47	102.05	30.56	89.83	2,328.50	-1,203.63	3,909.31	3,798.82	110.49	35.382		
10,500.00	7,118.14	7,145.49	7,120.98	104.77	30.56	89.84	2,328.50	-1,203.63	3,973.22	3,861.87	111.36	35.680		
10,600.00	7,117.70	7,146.00	7,121.49	107.50	30.56	89.85	2,328.50	-1,203.64	4,038.60	3,926.42	112.17	36.003		
10,700.00	7,117.27	7,146.51	7,122.00	110.23	30.56	89.86	2,328.51	-1,203.65	4,105.36	3,992.42	112.94	36.349		
10,800.00	7,116.83	7,147.01	7,122.50	112.97	30.57	89.87	2,328.51	-1,203.65	4,173.46	4,059.80	113.67	36.717		
10,900.00	7,116.40	7,147.51	7,123.00	115.72	30.57	89.88	2,328.52	-1,203.66	4,242.82	4,128.48	114.35	37.105		
11,000.00	7,115.97	7,148.00	7,123.49	118.47	30.57	89.89	2,328.52	-1,203.66	4,313.39	4,198.40	114.99	37.511		
11,100.00	7,115.53	7,148.49	7,123.98	121.22	30.57	89.90	2,328.52	-1,203.67	4,385.10	4,269.50	115.59	37.936		
11,200.00	7,115.10	7,148.98	7,124.47	123.98	30.58	89.91	2,328.53	-1,203.67	4,457.89	4,341.74	116.16	38.378		
11,300.00	7,114.66	7,149.46	7,124.95	126.74	30.58	89.92	2,328.53	-1,203.68	4,531.73	4,415.04	116.69	38.835		
11,400.00	7,114.23	7,149.94	7,125.43	129.51	30.58	89.93	2,328.53	-1,203.68	4,606.55	4,489.36	117.19	39.307		
11,500.00	7,113.80	7,150.41	7,125.90	132.29	30.58	89.94	2,328.54	-1,203.69	4,682.32	4,564.65	117.67	39.793		
11,600.00	7,113.36	7,150.88	7,126.37	135.06	30.58	89.94	2,328.54	-1,203.69	4,758.98	4,640.86	118.11	40.292		
11,700.00	7,112.93	7,151.35	7,126.84	137.84	30.59	89.95	2,328.55	-1,203.70	4,836.49	4,717.96	118.53	40.804		
11,800.00	7,112.49	7,151.81	7,127.30	140.62	30.59	89.96	2,328.55	-1,203.70	4,914.81	4,795.89	118.92	41.328		
11,900.00	7,112.06	7,152.27	7,127.76	143.41	30.59	89.97	2,328.55	-1,203.70	4,993.91	4,874.61	119.29	41.862		
12,000.00	7,111.63	7,152.73	7,128.22	146.20	30.59	89.98	2,328.56	-1,203.71	5,073.74	4,954.10	119.64	42.407		
12,100.00	7,111.19	7,153.18	7,128.67	148.99	30.59	89.99	2,328.56	-1,203.71	5,154.28	5,034.31	119.97	42.962		
12,200.00	7,110.76	7,153.63	7,129.12	151.78	30.59	90.00	2,328.56	-1,203.72	5,235.49	5,115.21	120.28	43.527		
12,300.00	7,110.33	7,154.07	7,129.56	154.58	30.60	90.01	2,328.57	-1,203.72	5,317.34	5,196.77	120.57	44.100		
12,400.00	7,109.89	7,154.52	7,130.00	157.37	30.60	90.01	2,328.57	-1,203.73	5,399.80	5,278.95	120.85	44.682		
12,500.00	7,109.46	7,154.95	7,130.44	160.17	30.60	90.02	2,328.57	-1,203.73	5,482.85	5,361.74	121.11	45.271		
12,600.00	7,109.02	7,155.39	7,130.88	162.98	30.60	90.03	2,328.58	-1,203.74	5,566.45	5,445.10	121.36	45.869		
12,700.00	7,108.59	7,155.82	7,131.31	165.78	30.60	90.04	2,328.58	-1,203.74	5,650.59	5,529.00	121.59	46.473		
12,800.00	7,108.16	7,156.25	7,131.74	168.59	30.61	90.05	2,328.58	-1,203.74	5,735.23	5,613.43	121.81	47.084		
12,900.00	7,107.72	7,156.67	7,132.16	171.39	30.61	90.05	2,328.59	-1,203.75	5,820.37	5,698.35	122.02	47.702		
13,000.00	7,107.29	7,157.10	7,132.58	174.20	30.61	90.06	2,328.59	-1,203.75	5,905.96	5,783.75	122.21	48.326		
13,100.00	7,106.85	7,157.51	7,133.00	177.01	30.61	90.07	2,328.59	-1,203.76	5,992.01	5,869.61	122.40	48.955		
13,200.00	7,106.42	7,157.93	7,133.42	179.83	30.61	90.08	2,328.60	-1,203.76	6,078.48	5,955.90	122.57	49.590		
13,300.00	7,105.99	7,158.34	7,133.83	182.64	30.61	90.09	2,328.60	-1,203.76	6,165.36	6,042.62	122.74	50.231		
13,400.00	7,105.55	7,158.75	7,134.24	185.45	30.62	90.09	2,328.60	-1,203.77	6,252.63	6,129.73	122.90	50.876		
13,500.00	7,105.12	7,159.16	7,134.64	188.27	30.62	90.10	2,328.61	-1,203.77	6,340.28	6,217.23	123.05	51.526		
13,600.00	7,104.68	7,159.56	7,135.05	191.09	30.62	90.11	2,328.61	-1,203.78	6,428.29	6,305.10	123.19	52.180		
13,700.00	7,104.25	7,159.96	7,135.45	193.91	30.62	90.12	2,328.61	-1,203.78	6,516.64	6,393.31	123.33	52.839		
13,800.00	7,103.82	7,160.36	7,135.84	196.73	30.62	90.12	2,328.62	-1,203.78	6,605.33	6,481.87	123.46	53.502		
13,900.00	7,103.38	7,160.75	7,136.24	199.55	30.62	90.13	2,328.62	-1,203.79	6,694.34	6,570.75	123.58	54.169		
14,000.00	7,102.95	7,161.14	7,136.63	202.37	30.63	90.14	2,328.62	-1,203.79	6,783.65	6,659.95	123.70	54.840		
14,100.00	7,102.51	7,161.53	7,137.02	205.19	30.63	90.15	2,328.63	-1,203.80	6,873.25	6,749.44	123.81	55.514		
14,200.00	7,102.08	7,161.92	7,137.40	208.02	30.63	90.15	2,328.63	-1,203.80	6,963.14	6,839.22	123.92	56.191		
14,300.00	7,101.65	7,162.30	7,137.79	210.84	30.63	90.16	2,328.63	-1,203.80	7,053.31	6,929.28	124.02	56.872		
14,400.00	7,101.21	7,162.68	7,138.17	213.67	30.63	90.17	2,328.64	-1,203.81	7,143.73	7,019.61	124.12	57.555		
14,500.00	7,100.78	7,163.06	7,138.54	216.50	30.63	90.18	2,328.64	-1,203.81	7,234.40	7,110.19	124.21	58.242		
14,600.00	7,100.35	7,163.43	7,138.92	219.32	30.64	90.18	2,328.64	-1,203.81	7,325.32	7,201.02	124.30	58.931		
14,700.00	7,099.91	7,163.80	7,139.29	222.15	30.64	90.19	2,328.65	-1,203.82	7,416.47	7,292.08	124.39	59.623		
14,800.00	7,099.48	7,164.17	7,139.66	224.98	30.64	90.20	2,328.65	-1,203.82	7,507.85	7,383.38	124.47	60.318		
14,900.00	7,099.04	7,164.54	7,140.03	227.81	30.64	90.20	2,328.65	-1,203.82	7,599.45	7,474.89	124.55	61.014		
14,909.96	7,099.00	7,164.58	7,140.06	228.09	30.64	90.20	2,328.65	-1,203.83	7,608.58	7,484.02	124.56	61.084		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	21.00	3.28	3.28	-65.55	984.81	-2,166.06	2,379.51				
100.00	100.00	79.00	100.00	3.28	3.56	-65.55	984.81	-2,166.06	2,379.42	2,372.58	6.84	347.727	
200.00	200.00	179.00	200.00	3.34	5.57	-65.55	984.81	-2,166.06	2,379.42	2,370.51	8.91	267.102	
300.00	300.00	279.00	300.00	3.44	8.64	-65.55	984.81	-2,166.06	2,379.42	2,367.34	12.09	196.874	
400.00	400.00	379.00	400.00	3.60	11.94	-65.55	984.81	-2,166.06	2,379.42	2,363.87	15.55	153.038	
500.00	500.00	479.00	500.00	3.81	15.33	-65.55	984.81	-2,166.06	2,379.42	2,360.28	19.14	124.334	
502.78	502.78	481.78	502.78	3.81	15.43	101.30	984.81	-2,166.06	2,379.42	2,360.18	19.24	123.682	
600.00	600.00	579.00	600.00	4.04	18.76	101.30	984.81	-2,166.06	2,379.44	2,356.64	22.80	104.361	
700.00	699.96	678.96	699.96	4.29	22.20	101.35	984.81	-2,166.06	2,379.92	2,353.42	26.49	89.836	
800.00	799.78	778.78	799.78	4.57	25.65	101.46	984.81	-2,166.06	2,381.09	2,350.87	30.22	78.792	
900.00	899.34	878.34	899.34	4.88	29.10	101.65	984.81	-2,166.06	2,382.98	2,349.01	33.97	70.144	
1,000.00	998.72	977.72	998.72	5.20	32.55	101.91	984.81	-2,166.06	2,385.26	2,347.51	37.75	63.188	
1,100.00	1,098.10	1,077.10	1,098.10	5.54	36.01	102.17	984.81	-2,166.06	2,387.59	2,346.04	41.55	57.466	
1,200.00	1,197.49	1,176.49	1,197.49	5.90	39.46	102.42	984.81	-2,166.06	2,389.96	2,344.60	45.36	52.683	
1,300.00	1,296.87	1,275.87	1,296.87	6.28	42.92	102.68	984.81	-2,166.06	2,392.38	2,343.19	49.20	48.628	
1,400.00	1,396.25	1,375.25	1,396.25	6.66	46.38	102.94	984.81	-2,166.06	2,394.86	2,341.81	53.04	45.149	
1,500.00	1,495.64	1,474.64	1,495.64	7.06	49.84	103.20	984.81	-2,166.06	2,397.38	2,340.48	56.90	42.134	
1,600.00	1,595.02	1,574.02	1,595.02	7.46	53.30	103.45	984.81	-2,166.06	2,399.95	2,339.18	60.76	39.497	
1,700.00	1,694.40	1,673.40	1,694.40	7.87	56.77	103.71	984.81	-2,166.06	2,402.57	2,337.93	64.64	37.171	
1,800.00	1,793.79	1,772.79	1,793.79	8.29	60.23	103.96	984.81	-2,166.06	2,405.23	2,336.72	68.51	35.106	
1,900.00	1,893.17	1,872.17	1,893.17	8.71	63.70	104.22	984.81	-2,166.06	2,407.95	2,335.55	72.40	33.261	
2,000.00	1,992.55	1,971.55	1,992.55	9.13	67.16	104.47	984.81	-2,166.06	2,410.71	2,334.43	76.28	31.602	
2,100.00	2,091.94	2,070.94	2,091.94	9.56	70.63	104.72	984.81	-2,166.06	2,413.52	2,333.34	80.18	30.103	
2,200.00	2,191.32	2,170.32	2,191.32	9.99	74.09	104.98	984.81	-2,166.06	2,416.38	2,332.31	84.07	28.742	
2,300.00	2,290.70	2,269.70	2,290.70	10.42	77.56	105.23	984.81	-2,166.06	2,419.28	2,331.31	87.97	27.502	
2,400.00	2,390.09	2,369.09	2,390.09	10.86	81.03	105.48	984.81	-2,166.06	2,422.24	2,330.37	91.87	26.366	
2,500.00	2,489.47	2,468.47	2,489.47	11.29	84.49	105.73	984.81	-2,166.06	2,425.24	2,329.46	95.77	25.323	
2,600.00	2,588.86	2,567.86	2,588.86	11.73	87.96	105.98	984.81	-2,166.06	2,428.28	2,328.60	99.68	24.361	
2,700.00	2,688.24	2,667.24	2,688.24	12.18	91.43	106.23	984.81	-2,166.06	2,431.38	2,327.79	103.58	23.472	
2,800.00	2,787.62	2,766.62	2,787.62	12.62	94.89	106.48	984.81	-2,166.06	2,434.52	2,327.02	107.49	22.648	
2,900.00	2,887.01	2,866.01	2,887.01	13.06	98.36	106.73	984.81	-2,166.06	2,437.70	2,326.30	111.40	21.882	
3,000.00	2,986.39	2,965.39	2,986.39	13.51	101.83	106.98	984.81	-2,166.06	2,440.93	2,325.62	115.31	21.168	
3,100.00	3,085.77	3,064.77	3,085.77	13.95	105.30	107.22	984.81	-2,166.06	2,444.21	2,324.99	119.23	20.501	
3,200.00	3,185.16	3,164.16	3,185.16	14.40	108.76	107.47	984.81	-2,166.06	2,447.54	2,324.40	123.14	19.876	
3,300.00	3,284.54	3,263.54	3,284.54	14.85	112.23	107.72	984.81	-2,166.06	2,450.91	2,323.85	127.05	19.290	
3,400.00	3,383.92	3,362.92	3,383.92	15.30	115.70	107.96	984.81	-2,166.06	2,454.32	2,323.35	130.97	18.740	
3,500.00	3,483.31	3,462.31	3,483.31	15.75	119.17	108.21	984.81	-2,166.06	2,457.78	2,322.90	134.88	18.221	
3,600.00	3,582.69	3,561.69	3,582.69	16.20	122.64	108.45	984.81	-2,166.06	2,461.29	2,322.49	138.80	17.733	
3,700.00	3,682.07	3,661.07	3,682.07	16.65	126.11	108.69	984.81	-2,166.06	2,464.84	2,322.12	142.72	17.271	
3,800.00	3,781.46	3,760.46	3,781.46	17.10	129.57	108.94	984.81	-2,166.06	2,468.43	2,321.80	146.63	16.834	
3,900.00	3,880.84	3,859.84	3,880.84	17.56	133.04	109.18	984.81	-2,166.06	2,472.07	2,321.52	150.55	16.420	
4,000.00	3,980.22	3,959.22	3,980.22	18.01	136.51	109.42	984.81	-2,166.06	2,475.76	2,321.29	154.47	16.027	
4,100.00	4,079.61	4,058.61	4,079.61	18.46	139.98	109.66	984.81	-2,166.06	2,479.49	2,321.10	158.39	15.654	
4,200.00	4,178.99	4,157.99	4,178.99	18.92	143.45	109.90	984.81	-2,166.06	2,483.26	2,320.95	162.31	15.300	
4,300.00	4,278.38	4,257.38	4,278.38	19.37	146.92	110.14	984.81	-2,166.06	2,487.07	2,320.85	166.23	14.962	
4,400.00	4,377.76	4,356.76	4,377.76	19.83	150.39	110.38	984.81	-2,166.06	2,490.93	2,320.78	170.15	14.640	
4,500.00	4,477.14	4,456.14	4,477.14	20.28	153.85	110.61	984.81	-2,166.06	2,494.84	2,320.77	174.07	14.332	
4,600.00	4,576.53	4,555.53	4,576.53	20.74	157.32	110.85	984.81	-2,166.06	2,498.78	2,320.79	177.99	14.039	
4,700.00	4,675.91	4,654.91	4,675.91	21.19	160.79	111.09	984.81	-2,166.06	2,502.77	2,320.86	181.91	13.758	
4,800.00	4,775.29	4,754.29	4,775.29	21.65	164.26	111.32	984.81	-2,166.06	2,506.80	2,320.97	185.83	13.490	
4,900.00	4,874.68	4,853.68	4,874.68	22.10	167.73	111.55	984.81	-2,166.06	2,510.88	2,321.12	189.75	13.232	
5,000.00	4,974.06	4,953.06	4,974.06	22.56	171.20	111.79	984.81	-2,166.06	2,514.99	2,321.32	193.67	12.986	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,100.00	5,073.44	5,052.44	5,073.44	23.02	174.67	112.02	984.81	-2,166.06	2,519.15	2,321.55	197.60	12.749		
5,200.00	5,172.83	5,151.83	5,172.83	23.47	178.14	112.25	984.81	-2,166.06	2,523.35	2,321.83	201.52	12.522		
5,300.00	5,272.21	5,251.21	5,272.21	23.93	181.60	112.48	984.81	-2,166.06	2,527.59	2,322.15	205.44	12.303		
5,400.00	5,371.59	5,350.59	5,371.59	24.39	185.07	112.72	984.81	-2,166.06	2,531.87	2,322.51	209.36	12.093		
5,500.00	5,470.98	5,449.98	5,470.98	24.85	188.54	112.95	984.81	-2,166.06	2,536.20	2,322.91	213.28	11.891		
5,600.00	5,570.36	5,549.36	5,570.36	25.30	192.01	113.17	984.81	-2,166.06	2,540.56	2,323.36	217.21	11.697		
5,700.00	5,669.75	5,648.75	5,669.75	25.76	195.48	113.40	984.81	-2,166.06	2,544.97	2,323.84	221.13	11.509		
5,800.00	5,769.13	5,748.13	5,769.13	26.22	198.95	113.63	984.81	-2,166.06	2,549.42	2,324.37	225.05	11.328		
5,900.00	5,868.51	5,847.51	5,868.51	26.68	202.42	113.86	984.81	-2,166.06	2,553.90	2,324.93	228.97	11.154		
6,000.00	5,967.90	5,946.90	5,967.90	27.14	205.89	114.08	984.81	-2,166.06	2,558.43	2,325.54	232.90	10.985		
6,100.00	6,067.28	6,046.28	6,067.28	27.60	209.36	114.31	984.81	-2,166.06	2,563.00	2,326.18	236.82	10.823		
6,200.00	6,166.66	6,145.66	6,166.66	28.05	212.83	114.53	984.81	-2,166.06	2,567.61	2,326.86	240.74	10.665		
6,300.00	6,266.05	6,245.05	6,266.05	28.51	216.29	114.76	984.81	-2,166.06	2,572.25	2,327.59	244.66	10.513		
6,400.00	6,365.43	6,344.43	6,365.43	28.97	219.76	114.98	984.81	-2,166.06	2,576.94	2,328.35	248.59	10.366		
6,500.00	6,464.81	6,443.81	6,464.81	29.43	223.23	115.20	984.81	-2,166.06	2,581.66	2,329.15	252.51	10.224		
6,600.00	6,564.10	6,543.10	6,564.10	29.89	226.70	85.05	984.81	-2,166.06	2,584.91	2,328.48	256.43	10.080		
6,700.00	6,661.75	6,640.75	6,661.75	30.34	230.11	62.54	984.81	-2,166.06	2,577.59	2,317.30	260.28	9.903		
6,800.00	6,755.38	6,734.38	6,755.38	30.77	233.38	56.50	984.81	-2,166.06	2,558.57	2,294.59	263.98	9.692		
6,900.00	6,842.67	6,821.67	6,842.67	31.17	236.42	55.58	984.81	-2,166.06	2,528.64	2,261.19	267.45	9.455		
7,000.00	6,921.48	6,900.48	6,921.48	31.54	239.17	57.34	984.81	-2,166.06	2,488.93	2,218.32	270.61	9.197		
7,100.00	6,989.86	6,968.86	6,989.86	31.91	241.56	61.02	984.81	-2,166.06	2,440.87	2,167.44	273.43	8.927		
7,200.00	7,046.13	7,025.13	7,046.13	32.35	243.52	66.28	984.81	-2,166.06	2,386.15	2,110.27	275.88	8.649		
7,300.00	7,088.91	7,067.91	7,088.91	32.98	245.02	72.78	984.81	-2,166.06	2,326.61	2,048.66	277.94	8.371		
7,400.00	7,117.14	7,103.86	7,117.14	33.84	246.27	80.06	984.81	-2,166.06	2,264.19	1,984.29	279.89	8.090		
7,500.00	7,130.13	7,109.13	7,130.13	34.90	246.46	87.55	984.81	-2,166.06	2,200.81	1,919.90	280.91	7.835		
7,600.00	7,130.72	7,109.72	7,130.72	36.13	246.48	90.19	984.81	-2,166.06	2,138.50	1,856.58	281.92	7.585		
7,700.00	7,130.29	7,109.29	7,130.29	37.54	246.46	90.18	984.81	-2,166.06	2,079.04	1,795.94	283.10	7.344		
7,800.00	7,129.85	7,108.85	7,129.85	39.12	246.45	90.16	984.81	-2,166.06	2,022.77	1,738.28	284.49	7.110		
7,900.00	7,129.42	7,108.42	7,129.42	40.83	246.43	90.15	984.81	-2,166.06	1,969.97	1,683.90	286.08	6.886		
8,000.00	7,128.98	7,107.98	7,128.98	42.67	246.42	90.13	984.81	-2,166.06	1,920.94	1,633.07	287.87	6.673		
8,100.00	7,128.55	7,107.55	7,128.55	44.62	246.40	90.12	984.81	-2,166.06	1,875.96	1,586.10	289.85	6.472		
8,200.00	7,128.12	7,107.12	7,128.12	46.66	246.39	90.10	984.81	-2,166.06	1,835.32	1,543.32	292.00	6.285		
8,300.00	7,127.68	7,106.68	7,127.68	48.79	246.37	90.09	984.81	-2,166.06	1,799.34	1,505.04	294.30	6.114		
8,400.00	7,127.25	7,106.25	7,127.25	50.98	246.36	90.07	984.81	-2,166.06	1,768.28	1,471.58	296.70	5.960		
8,500.00	7,126.81	7,105.81	7,126.81	53.24	246.34	90.06	984.81	-2,166.06	1,742.42	1,443.25	299.17	5.824		
8,600.00	7,126.38	7,105.38	7,126.38	55.56	246.33	90.04	984.81	-2,166.06	1,721.98	1,420.30	301.68	5.708		
8,700.00	7,125.95	7,104.95	7,125.95	57.92	246.31	90.03	984.81	-2,166.06	1,707.17	1,402.99	304.18	5.612		
8,800.00	7,125.51	7,104.51	7,125.51	60.33	246.30	90.02	984.81	-2,166.06	1,698.12	1,391.50	306.62	5.538		
8,900.00	7,125.08	7,104.08	7,125.08	62.77	246.28	90.00	984.81	-2,166.06	1,694.94	1,385.97	308.97	5.486		
8,904.00	7,125.06	7,104.06	7,125.06	62.87	246.28	90.00	984.81	-2,166.06	1,694.94	1,385.87	309.07	5.484 CC, ES		
9,000.00	7,124.64	7,103.64	7,124.64	65.25	246.27	89.99	984.81	-2,166.06	1,697.65	1,386.46	311.20	5.455		
9,100.00	7,124.21	7,103.21	7,124.21	67.76	246.25	89.97	984.81	-2,166.06	1,706.23	1,392.97	313.26	5.447 SF		
9,200.00	7,123.78	7,102.78	7,123.78	70.29	246.23	89.96	984.81	-2,166.06	1,720.59	1,405.45	315.14	5.460		
9,300.00	7,123.34	7,102.34	7,123.34	72.85	246.22	89.94	984.81	-2,166.06	1,740.58	1,423.76	316.83	5.494		
9,400.00	7,122.91	7,101.91	7,122.91	75.43	246.20	89.93	984.81	-2,166.06	1,766.02	1,447.72	318.30	5.548		
9,500.00	7,122.48	7,101.48	7,122.48	78.03	246.19	89.91	984.81	-2,166.06	1,796.67	1,477.10	319.57	5.622		
9,600.00	7,122.04	7,101.04	7,122.04	80.65	246.17	89.90	984.81	-2,166.06	1,832.27	1,511.63	320.64	5.714		
9,700.00	7,121.61	7,100.61	7,121.61	83.28	246.16	89.88	984.81	-2,166.06	1,872.54	1,551.02	321.52	5.824		
9,800.00	7,121.17	7,100.17	7,121.17	85.93	246.14	89.87	984.81	-2,166.06	1,917.19	1,594.97	322.22	5.950		
9,900.00	7,120.74	7,100.26	7,120.74	88.59	246.15	89.85	984.81	-2,166.06	1,965.91	1,643.13	322.78	6.090		
10,000.00	7,120.31	7,100.69	7,120.31	91.26	246.16	89.84	984.81	-2,166.06	2,018.42	1,695.21	323.21	6.245		
10,100.00	7,119.87	7,101.13	7,119.87	93.95	246.18	89.82	984.81	-2,166.06	2,074.42	1,750.91	323.51	6.412		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	
10,200.00	7,119.44	7,101.56	7,119.44	96.64	246.19	89.81	984.81	-2,166.06	2,133.64	1,809.93	323.70	6.591	
10,300.00	7,119.00	7,102.00	7,119.00	99.34	246.21	89.80	984.81	-2,166.06	2,195.82	1,872.01	323.80	6.781	
10,400.00	7,118.57	7,102.43	7,118.57	102.05	246.22	89.78	984.81	-2,166.06	2,260.71	1,936.89	323.82	6.981	
10,500.00	7,118.14	7,102.86	7,118.14	104.77	246.24	89.77	984.81	-2,166.06	2,328.09	2,004.32	323.77	7.191	
10,600.00	7,117.70	7,103.30	7,117.70	107.50	246.25	89.75	984.81	-2,166.06	2,397.75	2,074.08	323.66	7.408	
10,700.00	7,117.27	7,103.73	7,117.27	110.23	246.27	89.74	984.81	-2,166.06	2,469.49	2,145.98	323.51	7.633	
10,800.00	7,116.83	7,104.17	7,116.83	112.97	246.28	89.72	984.81	-2,166.06	2,543.14	2,219.82	323.33	7.866	
10,900.00	7,116.40	7,104.60	7,116.40	115.72	246.30	89.71	984.81	-2,166.06	2,618.54	2,295.43	323.11	8.104	
11,000.00	7,115.97	7,105.03	7,115.97	118.47	246.31	89.69	984.81	-2,166.06	2,695.55	2,372.67	322.88	8.349	
11,100.00	7,115.53	7,105.47	7,115.53	121.22	246.33	89.68	984.81	-2,166.06	2,774.01	2,451.39	322.62	8.598	
11,200.00	7,115.10	7,105.90	7,115.10	123.98	246.34	89.66	984.81	-2,166.06	2,853.83	2,531.48	322.35	8.853	
11,300.00	7,114.66	7,106.34	7,114.66	126.74	246.36	89.65	984.81	-2,166.06	2,934.88	2,612.80	322.08	9.112	
11,400.00	7,114.23	7,106.77	7,114.23	129.51	246.37	89.63	984.81	-2,166.06	3,017.07	2,695.27	321.80	9.376	
11,500.00	7,113.80	7,107.20	7,113.80	132.29	246.39	89.62	984.81	-2,166.06	3,100.31	2,778.79	321.52	9.643	
11,600.00	7,113.36	7,107.64	7,113.36	135.06	246.40	89.60	984.81	-2,166.06	3,184.51	2,863.28	321.23	9.913	
11,700.00	7,112.93	7,108.07	7,112.93	137.84	246.42	89.59	984.81	-2,166.06	3,269.60	2,948.65	320.95	10.187	
11,800.00	7,112.49	7,108.51	7,112.49	140.62	246.43	89.58	984.81	-2,166.06	3,355.52	3,034.85	320.67	10.464	
11,900.00	7,112.06	7,108.94	7,112.06	143.41	246.45	89.56	984.81	-2,166.06	3,442.19	3,121.80	320.40	10.744	
12,000.00	7,111.63	7,109.37	7,111.63	146.20	246.47	89.55	984.81	-2,166.06	3,529.57	3,209.45	320.13	11.026	
12,100.00	7,111.19	7,109.81	7,111.19	148.99	246.48	89.53	984.81	-2,166.06	3,617.60	3,297.74	319.86	11.310	
12,200.00	7,110.76	7,089.76	7,110.76	151.78	245.78	89.52	984.81	-2,166.06	3,706.25	3,387.36	318.89	11.622	
12,300.00	7,110.33	7,089.33	7,110.33	154.58	245.77	89.50	984.81	-2,166.06	3,795.45	3,476.85	318.60	11.913	
12,400.00	7,109.89	7,088.89	7,109.89	157.37	245.75	89.49	984.81	-2,166.06	3,885.18	3,566.85	318.33	12.205	
12,500.00	7,109.46	7,088.46	7,109.46	160.17	245.73	89.47	984.81	-2,166.06	3,975.40	3,657.34	318.06	12.499	
12,600.00	7,109.02	7,088.02	7,109.02	162.98	245.72	89.46	984.81	-2,166.06	4,066.08	3,748.28	317.80	12.795	
12,700.00	7,108.59	7,087.59	7,108.59	165.78	245.70	89.44	984.81	-2,166.06	4,157.19	3,839.64	317.54	13.092	
12,800.00	7,108.16	7,087.16	7,108.16	168.59	245.69	89.43	984.81	-2,166.06	4,248.69	3,931.39	317.30	13.390	
12,900.00	7,107.72	7,086.72	7,107.72	171.39	245.67	89.41	984.81	-2,166.06	4,340.57	4,023.52	317.06	13.690	
13,000.00	7,107.29	7,086.29	7,107.29	174.20	245.66	89.40	984.81	-2,166.06	4,432.80	4,115.98	316.82	13.991	
13,100.00	7,106.85	7,085.85	7,106.85	177.01	245.64	89.38	984.81	-2,166.06	4,525.37	4,208.77	316.60	14.294	
13,200.00	7,106.42	7,085.42	7,106.42	179.83	245.63	89.37	984.81	-2,166.06	4,618.24	4,301.86	316.38	14.597	
13,300.00	7,105.99	7,084.99	7,105.99	182.64	245.61	89.36	984.81	-2,166.06	4,711.40	4,395.23	316.17	14.902	
13,400.00	7,105.55	7,084.55	7,105.55	185.45	245.60	89.34	984.81	-2,166.06	4,804.84	4,488.88	315.96	15.207	
13,500.00	7,105.12	7,084.12	7,105.12	188.27	245.58	89.33	984.81	-2,166.06	4,898.54	4,582.77	315.77	15.513	
13,600.00	7,104.68	7,083.68	7,104.68	191.09	245.57	89.31	984.81	-2,166.06	4,992.48	4,676.91	315.57	15.820	
13,700.00	7,104.25	7,083.25	7,104.25	193.91	245.55	89.30	984.81	-2,166.06	5,086.65	4,771.26	315.39	16.128	
13,800.00	7,103.82	7,082.82	7,103.82	196.73	245.54	89.28	984.81	-2,166.06	5,181.04	4,865.84	315.21	16.437	
13,900.00	7,103.38	7,082.38	7,103.38	199.55	245.52	89.27	984.81	-2,166.06	5,275.64	4,960.61	315.04	16.746	
14,000.00	7,102.95	7,081.95	7,102.95	202.37	245.51	89.25	984.81	-2,166.06	5,370.44	5,055.57	314.87	17.056	
14,100.00	7,102.51	7,081.51	7,102.51	205.19	245.49	89.24	984.81	-2,166.06	5,465.42	5,150.71	314.71	17.367	
14,200.00	7,102.08	7,081.08	7,102.08	208.02	245.48	89.22	984.81	-2,166.06	5,560.57	5,246.02	314.55	17.678	
14,300.00	7,101.65	7,080.65	7,101.65	210.84	245.46	89.21	984.81	-2,166.06	5,655.89	5,341.49	314.40	17.990	
14,400.00	7,101.21	7,080.21	7,101.21	213.67	245.45	89.19	984.81	-2,166.06	5,751.37	5,437.12	314.25	18.302	
14,500.00	7,100.78	7,079.78	7,100.78	216.50	245.43	89.18	984.81	-2,166.06	5,847.01	5,532.89	314.11	18.614	
14,600.00	7,100.35	7,079.35	7,100.35	219.32	245.42	89.16	984.81	-2,166.06	5,942.78	5,628.81	313.98	18.927	
14,700.00	7,099.91	7,078.91	7,099.91	222.15	245.40	89.15	984.81	-2,166.06	6,038.70	5,724.85	313.85	19.241	
14,800.00	7,099.48	7,078.48	7,099.48	224.98	245.39	89.14	984.81	-2,166.06	6,134.74	5,821.02	313.72	19.555	
14,900.00	7,099.04	7,078.04	7,099.04	227.81	245.37	89.12	984.81	-2,166.06	6,230.91	5,917.31	313.60	19.869	
14,909.96	7,099.00	7,078.00	7,099.00	228.09	245.37	89.12	984.81	-2,166.06	6,240.50	5,926.91	313.59	19.900	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	36.00	3.28	3.28	-97.82	-348.51	-2,536.10	2,560.19					
100.00	100.00	64.00	100.00	3.28	3.47	-97.82	-348.51	-2,536.10	2,559.94	2,553.19	6.75	379.265		
200.00	200.00	164.00	200.00	3.34	5.16	-97.82	-348.51	-2,536.10	2,559.94	2,551.44	8.49	301.374		
300.00	300.00	264.00	300.00	3.44	8.16	-97.82	-348.51	-2,536.10	2,559.94	2,548.33	11.60	220.609		
400.00	400.00	364.00	400.00	3.60	11.44	-97.82	-348.51	-2,536.10	2,559.94	2,544.89	15.05	170.149		
500.00	500.00	464.00	500.00	3.81	14.82	-97.82	-348.51	-2,536.10	2,559.94	2,541.31	18.63	137.437		
600.00	600.00	564.00	600.00	4.04	18.24	69.02	-348.51	-2,536.10	2,559.91	2,537.63	22.28	114.873		
700.00	699.96	663.96	699.96	4.29	21.68	69.09	-348.51	-2,536.10	2,559.04	2,533.07	25.97	98.524		
800.00	799.78	763.78	799.78	4.57	25.13	69.26	-348.51	-2,536.10	2,556.93	2,527.23	29.70	86.090		
900.00	899.34	863.34	899.34	4.88	28.58	69.51	-348.51	-2,536.10	2,553.60	2,520.15	33.45	76.334		
1,000.00	998.72	962.72	998.72	5.20	32.03	69.75	-348.51	-2,536.10	2,549.72	2,512.49	37.23	68.491		
1,100.00	1,098.10	1,062.10	1,098.10	5.54	35.48	69.98	-348.51	-2,536.10	2,545.88	2,504.86	41.02	62.058		
1,200.00	1,197.49	1,161.49	1,197.49	5.90	38.94	70.21	-348.51	-2,536.10	2,542.09	2,497.25	44.84	56.691		
1,300.00	1,296.87	1,260.87	1,296.87	6.28	42.40	70.45	-348.51	-2,536.10	2,538.34	2,489.66	48.67	52.151		
1,400.00	1,396.25	1,360.25	1,396.25	6.66	45.86	70.68	-348.51	-2,536.10	2,534.63	2,482.11	52.52	48.263		
1,500.00	1,495.64	1,459.64	1,495.64	7.06	49.32	70.92	-348.51	-2,536.10	2,530.96	2,474.59	56.37	44.897		
1,600.00	1,595.02	1,559.02	1,595.02	7.46	52.78	71.15	-348.51	-2,536.10	2,527.34	2,467.10	60.24	41.957		
1,700.00	1,694.40	1,658.40	1,694.40	7.87	56.25	71.39	-348.51	-2,536.10	2,523.76	2,459.65	64.11	39.368		
1,800.00	1,793.79	1,757.79	1,793.79	8.29	59.71	71.63	-348.51	-2,536.10	2,520.22	2,452.24	67.99	37.070		
1,900.00	1,893.17	1,857.17	1,893.17	8.71	63.17	71.87	-348.51	-2,536.10	2,516.73	2,444.86	71.87	35.019		
2,000.00	1,992.55	1,956.55	1,992.55	9.13	66.64	72.10	-348.51	-2,536.10	2,513.28	2,437.52	75.76	33.176		
2,100.00	2,091.94	2,055.94	2,091.94	9.56	70.10	72.34	-348.51	-2,536.10	2,509.88	2,430.23	79.65	31.512		
2,200.00	2,191.32	2,155.32	2,191.32	9.99	73.57	72.58	-348.51	-2,536.10	2,506.52	2,422.97	83.54	30.002		
2,300.00	2,290.70	2,254.70	2,290.70	10.42	77.04	72.82	-348.51	-2,536.10	2,503.20	2,415.76	87.44	28.627		
2,400.00	2,390.09	2,354.09	2,390.09	10.86	80.50	73.07	-348.51	-2,536.10	2,499.93	2,408.59	91.34	27.368		
2,500.00	2,489.47	2,453.47	2,489.47	11.29	83.97	73.31	-348.51	-2,536.10	2,496.71	2,401.46	95.25	26.213		
2,600.00	2,588.86	2,552.86	2,588.86	11.73	87.44	73.55	-348.51	-2,536.10	2,493.53	2,394.37	99.15	25.148		
2,700.00	2,688.24	2,652.24	2,688.24	12.18	90.90	73.79	-348.51	-2,536.10	2,490.39	2,387.33	103.06	24.164		
2,800.00	2,787.62	2,751.62	2,787.62	12.62	94.37	74.04	-348.51	-2,536.10	2,487.30	2,380.33	106.97	23.252		
2,900.00	2,887.01	2,851.01	2,887.01	13.06	97.84	74.28	-348.51	-2,536.10	2,484.26	2,373.38	110.88	22.404		
3,000.00	2,986.39	2,950.39	2,986.39	13.51	101.31	74.53	-348.51	-2,536.10	2,481.26	2,366.47	114.80	21.615		
3,100.00	3,085.77	3,049.77	3,085.77	13.95	104.77	74.77	-348.51	-2,536.10	2,478.31	2,359.60	118.71	20.877		
3,200.00	3,185.16	3,149.16	3,185.16	14.40	108.24	75.02	-348.51	-2,536.10	2,475.41	2,352.78	122.62	20.187		
3,300.00	3,284.54	3,248.54	3,284.54	14.85	111.71	75.27	-348.51	-2,536.10	2,472.55	2,346.01	126.54	19.540		
3,400.00	3,383.92	3,347.92	3,383.92	15.30	115.18	75.51	-348.51	-2,536.10	2,469.73	2,339.28	130.46	18.931		
3,500.00	3,483.31	3,447.31	3,483.31	15.75	118.65	75.76	-348.51	-2,536.10	2,466.97	2,332.59	134.38	18.359		
3,600.00	3,582.69	3,546.69	3,582.69	16.20	122.11	76.01	-348.51	-2,536.10	2,464.25	2,325.95	138.29	17.819		
3,700.00	3,682.07	3,646.07	3,682.07	16.65	125.58	76.26	-348.51	-2,536.10	2,461.57	2,319.36	142.21	17.309		
3,800.00	3,781.46	3,745.46	3,781.46	17.10	129.05	76.51	-348.51	-2,536.10	2,458.95	2,312.82	146.13	16.827		
3,900.00	3,880.84	3,844.84	3,880.84	17.56	132.52	76.76	-348.51	-2,536.10	2,456.37	2,306.32	150.06	16.370		
4,000.00	3,980.22	3,944.22	3,980.22	18.01	135.99	77.01	-348.51	-2,536.10	2,453.84	2,299.86	153.98	15.936		
4,100.00	4,079.61	4,043.61	4,079.61	18.46	139.46	77.26	-348.51	-2,536.10	2,451.36	2,293.46	157.90	15.525		
4,200.00	4,178.99	4,142.99	4,178.99	18.92	142.92	77.51	-348.51	-2,536.10	2,448.92	2,287.10	161.82	15.133		
4,300.00	4,278.38	4,242.38	4,278.38	19.37	146.39	77.76	-348.51	-2,536.10	2,446.53	2,280.79	165.74	14.761		
4,400.00	4,377.76	4,341.76	4,377.76	19.83	149.86	78.01	-348.51	-2,536.10	2,444.19	2,274.53	169.67	14.406		
4,500.00	4,477.14	4,441.14	4,477.14	20.28	153.33	78.27	-348.51	-2,536.10	2,441.90	2,268.31	173.59	14.067		
4,600.00	4,576.53	4,540.53	4,576.53	20.74	156.80	78.52	-348.51	-2,536.10	2,439.66	2,262.14	177.52	13.743		
4,700.00	4,675.91	4,639.91	4,675.91	21.19	160.27	78.78	-348.51	-2,536.10	2,437.46	2,256.02	181.44	13.434		
4,800.00	4,775.29	4,739.29	4,775.29	21.65	163.74	79.03	-348.51	-2,536.10	2,435.32	2,249.95	185.37	13.138		
4,900.00	4,874.68	4,838.68	4,874.68	22.10	167.21	79.28	-348.51	-2,536.10	2,433.22	2,243.93	189.29	12.854		
5,000.00	4,974.06	4,938.06	4,974.06	22.56	170.67	79.54	-348.51	-2,536.10	2,431.17	2,237.95	193.22	12.583		
5,100.00	5,073.44	5,037.44	5,073.44	23.02	174.14	79.79	-348.51	-2,536.10	2,429.17	2,232.02	197.14	12.322		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	
5,200.00	5,172.83	5,136.83	5,172.83	23.47	177.61	80.05	-348.51	-2,536.10	2,427.22	2,226.15	201.07	12.072	
5,300.00	5,272.21	5,236.21	5,272.21	23.93	181.08	80.31	-348.51	-2,536.10	2,425.31	2,220.32	205.00	11.831	
5,400.00	5,371.59	5,335.59	5,371.59	24.39	184.55	80.56	-348.51	-2,536.10	2,423.46	2,214.54	208.92	11.600	
5,500.00	5,470.98	5,434.98	5,470.98	24.85	188.02	80.82	-348.51	-2,536.10	2,421.66	2,208.81	212.85	11.377	
5,600.00	5,570.36	5,534.36	5,570.36	25.30	191.49	81.08	-348.51	-2,536.10	2,419.90	2,203.13	216.78	11.163	
5,700.00	5,669.75	5,633.75	5,669.75	25.76	194.96	81.34	-348.51	-2,536.10	2,418.20	2,197.49	220.71	10.957	
5,800.00	5,769.13	5,733.13	5,769.13	26.22	198.43	81.60	-348.51	-2,536.10	2,416.54	2,191.91	224.63	10.758	
5,900.00	5,868.51	5,832.51	5,868.51	26.68	201.89	81.85	-348.51	-2,536.10	2,414.94	2,186.38	228.56	10.566	
6,000.00	5,967.90	5,931.90	5,967.90	27.14	205.36	82.11	-348.51	-2,536.10	2,413.38	2,180.89	232.49	10.381	
6,100.00	6,067.28	6,031.28	6,067.28	27.60	208.83	82.37	-348.51	-2,536.10	2,411.88	2,175.46	236.42	10.202	
6,200.00	6,166.66	6,130.66	6,166.66	28.05	212.30	82.63	-348.51	-2,536.10	2,410.42	2,170.08	240.34	10.029	
6,300.00	6,266.05	6,230.05	6,266.05	28.51	215.77	82.89	-348.51	-2,536.10	2,409.02	2,164.74	244.27	9.862	
6,400.00	6,365.43	6,329.43	6,365.43	28.97	219.24	83.15	-348.51	-2,536.10	2,407.66	2,159.46	248.20	9.700	
6,500.00	6,464.81	6,428.81	6,464.81	29.43	222.71	83.41	-348.51	-2,536.10	2,406.36	2,154.23	252.13	9.544	
6,600.00	6,564.10	6,528.10	6,564.10	29.89	226.17	83.66	-348.51	-2,536.10	2,405.16	2,149.11	256.05	9.385	
6,700.00	6,663.49	6,627.49	6,663.49	30.34	229.64	83.91	-348.51	-2,536.10	2,404.02	2,148.08	259.91	9.182	
6,800.00	6,762.88	6,726.88	6,762.88	30.79	233.11	84.16	-348.51	-2,536.10	2,402.92	2,147.04	263.78	8.933	
6,900.00	6,862.27	6,826.27	6,862.27	31.24	236.58	84.41	-348.51	-2,536.10	2,401.86	2,146.00	267.64	8.646	
7,000.00	6,961.66	6,925.66	6,961.66	31.69	240.05	84.66	-348.51	-2,536.10	2,400.82	2,144.96	271.50	8.329	
7,100.00	7,061.05	7,025.05	7,061.05	32.14	243.52	84.91	-348.51	-2,536.10	2,399.78	2,143.92	275.36	7.989	
7,200.00	7,160.44	7,124.44	7,160.44	32.59	246.99	85.16	-348.51	-2,536.10	2,398.74	2,142.88	279.22	7.633	
7,300.00	7,259.83	7,223.83	7,259.83	33.04	250.46	85.41	-348.51	-2,536.10	2,397.69	2,141.84	283.08	7.268	
7,400.00	7,359.22	7,323.22	7,359.22	33.49	253.93	85.66	-348.51	-2,536.10	2,396.65	2,140.80	286.94	6.900	
7,500.00	7,458.61	7,422.61	7,458.61	33.94	257.40	85.91	-348.51	-2,536.10	2,395.61	2,139.76	290.80	6.528	
7,600.00	7,558.00	7,522.00	7,558.00	34.39	260.87	86.16	-348.51	-2,536.10	2,394.57	2,138.72	294.66	6.174	
7,700.00	7,657.39	7,621.39	7,657.39	34.84	264.34	86.41	-348.51	-2,536.10	2,393.53	2,137.68	298.52	5.820	
7,800.00	7,756.78	7,720.78	7,756.78	35.29	267.81	86.66	-348.51	-2,536.10	2,392.49	2,136.64	302.38	5.467	
7,900.00	7,856.17	7,820.17	7,856.17	35.74	271.28	86.91	-348.51	-2,536.10	2,391.45	2,135.60	306.24	5.115	
8,000.00	7,955.56	7,919.56	7,955.56	36.19	274.75	87.16	-348.51	-2,536.10	2,390.41	2,134.56	310.10	4.763	
8,100.00	8,054.95	8,018.95	8,054.95	36.64	278.22	87.41	-348.51	-2,536.10	2,389.37	2,133.52	313.96	4.413	
8,200.00	8,154.34	8,118.34	8,154.34	37.09	281.69	87.66	-348.51	-2,536.10	2,388.33	2,132.48	317.82	4.065	
8,300.00	8,253.73	8,217.73	8,253.73	37.54	285.16	87.91	-348.51	-2,536.10	2,387.29	2,131.44	321.68	3.719	
8,400.00	8,353.12	8,317.12	8,353.12	37.99	288.63	88.16	-348.51	-2,536.10	2,386.25	2,130.40	325.54	3.376	
8,500.00	8,452.51	8,416.51	8,452.51	38.44	292.10	88.41	-348.51	-2,536.10	2,385.21	2,129.36	329.40	3.037	
8,600.00	8,551.90	8,515.90	8,551.90	38.89	295.57	88.66	-348.51	-2,536.10	2,384.17	2,128.32	333.26	2.705	
8,700.00	8,651.29	8,615.29	8,651.29	39.34	299.04	88.91	-348.51	-2,536.10	2,383.13	2,127.28	337.12	2.387	
8,800.00	8,750.68	8,714.68	8,750.68	39.79	302.51	89.16	-348.51	-2,536.10	2,382.09	2,126.24	340.98	2.076	
8,900.00	8,850.07	8,814.07	8,850.07	40.24	305.98	89.41	-348.51	-2,536.10	2,381.05	2,125.20	344.84	1.786	
9,000.00	8,949.46	8,913.46	8,949.46	40.69	309.45	89.66	-348.51	-2,536.10	2,380.01	2,124.16	348.70	1.529	
9,100.00	9,048.85	9,012.85	9,048.85	41.14	312.92	89.91	-348.51	-2,536.10	2,378.97	2,123.12	352.56	1.322 Level 3	
9,200.00	9,148.24	9,112.24	9,148.24	41.59	316.39	90.16	-348.51	-2,536.10	2,377.93	2,122.08	356.42	1.187 Level 2	
9,300.00	9,247.63	9,211.63	9,247.63	42.04	319.86	90.41	-348.51	-2,536.10	2,376.89	2,121.04	360.28	1.146 Level 2, CC, ES, SF	
9,400.00	9,347.02	9,311.02	9,347.02	42.49	323.33	90.66	-348.51	-2,536.10	2,375.85	2,120.00	364.14	1.146 Level 2	
9,500.00	9,446.41	9,410.41	9,446.41	42.94	326.80	90.91	-348.51	-2,536.10	2,374.81	2,118.96	368.00	1.205 Level 2	
9,600.00	9,545.80	9,509.80	9,545.80	43.39	330.27	91.16	-348.51	-2,536.10	2,373.77	2,117.92	371.86	1.352 Level 3	
9,700.00	9,645.19	9,609.19	9,645.19	43.84	333.74	91.41	-348.51	-2,536.10	2,372.73	2,116.88	375.72	1.564	
9,800.00	9,744.58	9,708.58	9,744.58	44.29	337.21	91.66	-348.51	-2,536.10	2,371.69	2,115.84	379.58	1.820	
9,900.00	9,843.97	9,807.97	9,843.97	44.74	340.68	91.91	-348.51	-2,536.10	2,370.65	2,114.80	383.44	2.106	
10,000.00	9,943.36	9,907.36	9,943.36	45.19	344.15	92.16	-348.51	-2,536.10	2,369.61	2,113.76	387.30	2.412	
10,100.00	10,042.75	10,006.75	10,042.75	45.64	347.62	92.41	-348.51	-2,536.10	2,368.57	2,112.72	391.16	2.731	
10,200.00	10,142.14	10,106.14	10,142.14	46.09	351.09	92.66	-348.51	-2,536.10	2,367.53	2,111.68	395.02	3.059	
10,300.00	10,241.53	10,205.53	10,241.53	46.54	354.56	92.91	-348.51	-2,536.10	2,366.49	2,110.64	398.88	3.394	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	7,083.00	7,119.00	99.34	245.54	89.31	-348.51	-2,536.10	1,079.03	789.95	289.08	3.733		
10,400.00	7,118.57	7,082.57	7,118.57	102.05	245.53	89.24	-348.51	-2,536.10	1,173.64	885.64	288.00	4.075		
10,500.00	7,118.14	7,082.14	7,118.14	104.77	245.51	89.17	-348.51	-2,536.10	1,269.07	981.97	287.10	4.420		
10,600.00	7,117.70	7,081.70	7,117.70	107.50	245.50	89.10	-348.51	-2,536.10	1,365.16	1,078.80	286.36	4.767		
10,700.00	7,117.27	7,081.27	7,117.27	110.23	245.48	89.03	-348.51	-2,536.10	1,461.77	1,176.04	285.73	5.116		
10,800.00	7,116.83	7,080.83	7,116.83	112.97	245.47	88.97	-348.51	-2,536.10	1,558.81	1,273.61	285.20	5.466		
10,900.00	7,116.40	7,080.40	7,116.40	115.72	245.45	88.90	-348.51	-2,536.10	1,656.20	1,371.46	284.74	5.817		
11,000.00	7,115.97	7,079.97	7,115.97	118.47	245.44	88.83	-348.51	-2,536.10	1,753.89	1,469.53	284.35	6.168		
11,100.00	7,115.53	7,079.53	7,115.53	121.22	245.42	88.76	-348.51	-2,536.10	1,851.82	1,567.80	284.01	6.520		
11,200.00	7,115.10	7,079.10	7,115.10	123.98	245.41	88.69	-348.51	-2,536.10	1,949.96	1,666.24	283.72	6.873		
11,300.00	7,114.66	7,078.66	7,114.66	126.74	245.39	88.63	-348.51	-2,536.10	2,048.28	1,764.81	283.47	7.226		
11,400.00	7,114.23	7,078.23	7,114.23	129.51	245.38	88.56	-348.51	-2,536.10	2,146.76	1,863.51	283.24	7.579		
11,500.00	7,113.80	7,077.80	7,113.80	132.29	245.36	88.49	-348.51	-2,536.10	2,245.37	1,962.32	283.05	7.933		
11,600.00	7,113.36	7,077.36	7,113.36	135.06	245.35	88.42	-348.51	-2,536.10	2,344.10	2,061.22	282.88	8.287		
11,700.00	7,112.93	7,076.93	7,112.93	137.84	245.33	88.35	-348.51	-2,536.10	2,442.93	2,160.20	282.73	8.641		
11,800.00	7,112.49	7,076.49	7,112.49	140.62	245.32	88.28	-348.51	-2,536.10	2,541.85	2,259.25	282.60	8.995		
11,900.00	7,112.06	7,076.06	7,112.06	143.41	245.30	88.22	-348.51	-2,536.10	2,640.86	2,358.37	282.48	9.349		
12,000.00	7,111.63	7,075.63	7,111.63	146.20	245.29	88.15	-348.51	-2,536.10	2,739.93	2,457.55	282.38	9.703		
12,100.00	7,111.19	7,075.19	7,111.19	148.99	245.27	88.08	-348.51	-2,536.10	2,839.07	2,556.78	282.29	10.057		
12,200.00	7,110.76	7,074.76	7,110.76	151.78	245.26	88.01	-348.51	-2,536.10	2,938.27	2,656.06	282.21	10.411		
12,300.00	7,110.33	7,074.33	7,110.33	154.58	245.24	87.94	-348.51	-2,536.10	3,037.53	2,755.38	282.15	10.766		
12,400.00	7,109.89	7,073.89	7,109.89	157.37	245.23	87.88	-348.51	-2,536.10	3,136.82	2,854.74	282.09	11.120		
12,500.00	7,109.46	7,073.46	7,109.46	160.17	245.21	87.81	-348.51	-2,536.10	3,236.17	2,954.13	282.04	11.474		
12,600.00	7,109.02	7,073.02	7,109.02	162.98	245.20	87.74	-348.51	-2,536.10	3,335.55	3,053.55	282.00	11.828		
12,700.00	7,108.59	7,072.59	7,108.59	165.78	245.18	87.67	-348.51	-2,536.10	3,434.97	3,153.00	281.96	12.182		
12,800.00	7,108.16	7,072.16	7,108.16	168.59	245.17	87.60	-348.51	-2,536.10	3,534.42	3,252.48	281.93	12.536		
12,900.00	7,107.72	7,071.72	7,107.72	171.39	245.15	87.54	-348.51	-2,536.10	3,633.90	3,351.99	281.91	12.890		
13,000.00	7,107.29	7,071.29	7,107.29	174.20	245.14	87.47	-348.51	-2,536.10	3,733.40	3,451.51	281.89	13.244		
13,100.00	7,106.85	7,070.85	7,106.85	177.01	245.12	87.40	-348.51	-2,536.10	3,832.94	3,551.06	281.88	13.598		
13,200.00	7,106.42	7,070.42	7,106.42	179.83	245.11	87.33	-348.51	-2,536.10	3,932.50	3,650.63	281.87	13.951		
13,300.00	7,105.99	7,069.99	7,105.99	182.64	245.09	87.26	-348.51	-2,536.10	4,032.08	3,750.21	281.87	14.305		
13,400.00	7,105.55	7,069.55	7,105.55	185.45	245.07	87.20	-348.51	-2,536.10	4,131.67	3,849.81	281.87	14.658		
13,500.00	7,105.12	7,069.12	7,105.12	188.27	245.06	87.13	-348.51	-2,536.10	4,231.29	3,949.42	281.87	15.011		
13,600.00	7,104.68	7,068.68	7,104.68	191.09	245.04	87.06	-348.51	-2,536.10	4,330.93	4,049.05	281.88	15.365		
13,700.00	7,104.25	7,068.25	7,104.25	193.91	245.03	86.99	-348.51	-2,536.10	4,430.58	4,148.69	281.89	15.718		
13,800.00	7,103.82	7,067.82	7,103.82	196.73	245.01	86.92	-348.51	-2,536.10	4,530.25	4,248.35	281.90	16.070		
13,900.00	7,103.38	7,067.38	7,103.38	199.55	245.00	86.86	-348.51	-2,536.10	4,629.93	4,348.01	281.92	16.423		
14,000.00	7,102.95	7,066.95	7,102.95	202.37	244.98	86.79	-348.51	-2,536.10	4,729.63	4,447.69	281.94	16.775		
14,100.00	7,102.51	7,066.51	7,102.51	205.19	244.97	86.72	-348.51	-2,536.10	4,829.33	4,547.37	281.96	17.128		
14,200.00	7,102.08	7,066.08	7,102.08	208.02	244.95	86.65	-348.51	-2,536.10	4,929.05	4,647.07	281.98	17.480		
14,300.00	7,101.65	7,065.65	7,101.65	210.84	244.94	86.58	-348.51	-2,536.10	5,028.78	4,746.77	282.01	17.832		
14,400.00	7,101.21	7,065.21	7,101.21	213.67	244.92	86.52	-348.51	-2,536.10	5,128.52	4,846.48	282.04	18.184		
14,500.00	7,100.78	7,064.78	7,100.78	216.50	244.91	86.45	-348.51	-2,536.10	5,228.28	4,946.20	282.07	18.535		
14,600.00	7,100.35	7,064.35	7,100.35	219.32	244.89	86.38	-348.51	-2,536.10	5,328.04	5,045.93	282.11	18.887		
14,700.00	7,099.91	7,063.91	7,099.91	222.15	244.88	86.31	-348.51	-2,536.10	5,427.80	5,145.66	282.14	19.238		
14,800.00	7,099.48	7,063.48	7,099.48	224.98	244.86	86.24	-348.51	-2,536.10	5,527.58	5,245.40	282.18	19.589		
14,900.00	7,099.04	7,063.04	7,099.04	227.81	244.85	86.18	-348.51	-2,536.10	5,627.37	5,345.15	282.22	19.940		
14,909.96	7,099.00	7,063.00	7,099.00	228.09	244.85	86.17	-348.51	-2,536.10	5,637.31	5,355.09	282.22	19.975		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	47.00	3.28	3.28	-107.55	-1,517.60	-4,797.63	5,032.15				
100.00	100.00	53.00	100.00	3.28	3.41	-107.55	-1,517.60	-4,797.63	5,031.93	5,025.24	6.69	751.855	
200.00	200.00	153.00	200.00	3.34	4.87	-107.55	-1,517.60	-4,797.63	5,031.93	5,023.73	8.20	613.349	
300.00	300.00	253.00	300.00	3.44	7.81	-107.55	-1,517.60	-4,797.63	5,031.93	5,020.68	11.25	447.128	
400.00	400.00	353.00	400.00	3.60	11.07	-107.55	-1,517.60	-4,797.63	5,031.93	5,017.26	14.68	342.823	
500.00	500.00	453.00	500.00	3.81	14.45	-107.55	-1,517.60	-4,797.63	5,031.93	5,013.68	18.25	275.692	
600.00	600.00	553.00	600.00	4.04	17.86	59.30	-1,517.60	-4,797.63	5,031.90	5,009.99	21.91	229.692	
700.00	699.96	652.96	699.96	4.29	21.30	59.34	-1,517.60	-4,797.63	5,030.65	5,005.06	25.59	196.552	
800.00	799.78	752.78	799.78	4.57	24.75	59.45	-1,517.60	-4,797.63	5,027.63	4,998.31	29.32	171.472	
900.00	899.34	852.34	899.34	4.88	28.20	59.62	-1,517.60	-4,797.63	5,022.84	4,989.77	33.07	151.873	
1,000.00	998.72	951.72	998.72	5.20	31.65	59.73	-1,517.60	-4,797.63	5,017.22	4,980.37	36.85	136.170	
1,100.00	1,098.10	1,051.10	1,098.10	5.54	35.10	59.84	-1,517.60	-4,797.63	5,011.61	4,970.97	40.64	123.313	
1,200.00	1,197.49	1,150.49	1,197.49	5.90	38.56	59.95	-1,517.60	-4,797.63	5,006.03	4,961.57	44.46	112.606	
1,300.00	1,296.87	1,249.87	1,296.87	6.28	42.02	60.06	-1,517.60	-4,797.63	5,000.46	4,952.17	48.29	103.559	
1,400.00	1,396.25	1,349.25	1,396.25	6.66	45.48	60.17	-1,517.60	-4,797.63	4,994.91	4,942.78	52.13	95.819	
1,500.00	1,495.64	1,448.64	1,495.64	7.06	48.94	60.28	-1,517.60	-4,797.63	4,989.38	4,933.40	55.98	89.125	
1,600.00	1,595.02	1,548.02	1,595.02	7.46	52.40	60.39	-1,517.60	-4,797.63	4,983.86	4,924.02	59.84	83.281	
1,700.00	1,694.40	1,647.40	1,694.40	7.87	55.86	60.50	-1,517.60	-4,797.63	4,978.37	4,914.66	63.71	78.137	
1,800.00	1,793.79	1,746.79	1,793.79	8.29	59.33	60.61	-1,517.60	-4,797.63	4,972.90	4,905.31	67.59	73.576	
1,900.00	1,893.17	1,846.17	1,893.17	8.71	62.79	60.72	-1,517.60	-4,797.63	4,967.44	4,895.97	71.47	69.504	
2,000.00	1,992.55	1,945.55	1,992.55	9.13	66.26	60.83	-1,517.60	-4,797.63	4,962.00	4,886.65	75.36	65.848	
2,100.00	2,091.94	2,044.94	2,091.94	9.56	69.72	60.94	-1,517.60	-4,797.63	4,956.58	4,877.34	79.25	62.547	
2,200.00	2,191.32	2,144.32	2,191.32	9.99	73.19	61.06	-1,517.60	-4,797.63	4,951.18	4,868.04	83.14	59.553	
2,300.00	2,290.70	2,243.70	2,290.70	10.42	76.65	61.17	-1,517.60	-4,797.63	4,945.80	4,858.76	87.03	56.825	
2,400.00	2,390.09	2,343.09	2,390.09	10.86	80.12	61.28	-1,517.60	-4,797.63	4,940.44	4,849.50	90.93	54.330	
2,500.00	2,489.47	2,442.47	2,489.47	11.29	83.59	61.39	-1,517.60	-4,797.63	4,935.09	4,840.26	94.84	52.038	
2,600.00	2,588.86	2,541.86	2,588.86	11.73	87.05	61.51	-1,517.60	-4,797.63	4,929.77	4,831.03	98.74	49.927	
2,700.00	2,688.24	2,641.24	2,688.24	12.18	90.52	61.62	-1,517.60	-4,797.63	4,924.47	4,821.82	102.64	47.976	
2,800.00	2,787.62	2,740.62	2,787.62	12.62	93.99	61.73	-1,517.60	-4,797.63	4,919.18	4,812.63	106.55	46.167	
2,900.00	2,887.01	2,840.01	2,887.01	13.06	97.45	61.84	-1,517.60	-4,797.63	4,913.91	4,803.45	110.46	44.486	
3,000.00	2,986.39	2,939.39	2,986.39	13.51	100.92	61.96	-1,517.60	-4,797.63	4,908.67	4,794.30	114.37	42.919	
3,100.00	3,085.77	3,038.77	3,085.77	13.95	104.39	62.07	-1,517.60	-4,797.63	4,903.44	4,785.16	118.28	41.455	
3,200.00	3,185.16	3,138.16	3,185.16	14.40	107.86	62.19	-1,517.60	-4,797.63	4,898.23	4,776.04	122.20	40.085	
3,300.00	3,284.54	3,237.54	3,284.54	14.85	111.33	62.30	-1,517.60	-4,797.63	4,893.04	4,766.93	126.11	38.800	
3,400.00	3,383.92	3,336.92	3,383.92	15.30	114.79	62.41	-1,517.60	-4,797.63	4,887.87	4,757.85	130.02	37.592	
3,500.00	3,483.31	3,436.31	3,483.31	15.75	118.26	62.53	-1,517.60	-4,797.63	4,882.73	4,748.79	133.94	36.455	
3,600.00	3,582.69	3,535.69	3,582.69	16.20	121.73	62.64	-1,517.60	-4,797.63	4,877.60	4,739.74	137.86	35.382	
3,700.00	3,682.07	3,635.07	3,682.07	16.65	125.20	62.76	-1,517.60	-4,797.63	4,872.49	4,730.71	141.77	34.368	
3,800.00	3,781.46	3,734.46	3,781.46	17.10	128.67	62.87	-1,517.60	-4,797.63	4,867.40	4,721.71	145.69	33.409	
3,900.00	3,880.84	3,833.84	3,880.84	17.56	132.13	62.99	-1,517.60	-4,797.63	4,862.33	4,712.72	149.61	32.500	
4,000.00	3,980.22	3,933.22	3,980.22	18.01	135.60	63.11	-1,517.60	-4,797.63	4,857.28	4,703.75	153.53	31.638	
4,100.00	4,079.61	4,032.61	4,079.61	18.46	139.07	63.22	-1,517.60	-4,797.63	4,852.25	4,694.80	157.45	30.818	
4,200.00	4,178.99	4,131.99	4,178.99	18.92	142.54	63.34	-1,517.60	-4,797.63	4,847.24	4,685.87	161.37	30.038	
4,300.00	4,278.38	4,231.38	4,278.38	19.37	146.01	63.46	-1,517.60	-4,797.63	4,842.25	4,676.96	165.29	29.296	
4,400.00	4,377.76	4,330.76	4,377.76	19.83	149.48	63.57	-1,517.60	-4,797.63	4,837.28	4,668.07	169.21	28.587	
4,500.00	4,477.14	4,430.14	4,477.14	20.28	152.95	63.69	-1,517.60	-4,797.63	4,832.33	4,659.20	173.13	27.911	
4,600.00	4,576.53	4,529.53	4,576.53	20.74	156.41	63.81	-1,517.60	-4,797.63	4,827.41	4,650.35	177.05	27.265	
4,700.00	4,675.91	4,628.91	4,675.91	21.19	159.88	63.92	-1,517.60	-4,797.63	4,822.50	4,641.52	180.98	26.647	
4,800.00	4,775.29	4,728.29	4,775.29	21.65	163.35	64.04	-1,517.60	-4,797.63	4,817.61	4,632.71	184.90	26.055	
4,900.00	4,874.68	4,827.68	4,874.68	22.10	166.82	64.16	-1,517.60	-4,797.63	4,812.74	4,623.92	188.82	25.488	
5,000.00	4,974.06	4,927.06	4,974.06	22.56	170.29	64.28	-1,517.60	-4,797.63	4,807.90	4,615.15	192.75	24.944	
5,100.00	5,073.44	5,026.44	5,073.44	23.02	173.76	64.40	-1,517.60	-4,797.63	4,803.07	4,606.40	196.67	24.422	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,125.83	5,172.83	23.47	177.23	64.52	-1,517.60	-4,797.63	4,798.27	4,597.67	200.59	23.920		
5,300.00	5,272.21	5,225.21	5,272.21	23.93	180.70	64.64	-1,517.60	-4,797.63	4,793.48	4,588.97	204.52	23.438		
5,400.00	5,371.59	5,324.59	5,371.59	24.39	184.17	64.75	-1,517.60	-4,797.63	4,788.72	4,580.28	208.44	22.974		
5,500.00	5,470.98	5,423.98	5,470.98	24.85	187.63	64.87	-1,517.60	-4,797.63	4,783.98	4,571.61	212.37	22.527		
5,600.00	5,570.36	5,523.36	5,570.36	25.30	191.10	64.99	-1,517.60	-4,797.63	4,779.26	4,562.97	216.29	22.096		
5,700.00	5,669.75	5,622.75	5,669.75	25.76	194.57	65.11	-1,517.60	-4,797.63	4,774.56	4,554.34	220.22	21.681		
5,800.00	5,769.13	5,722.13	5,769.13	26.22	198.04	65.23	-1,517.60	-4,797.63	4,769.88	4,545.74	224.14	21.280		
5,900.00	5,868.51	5,821.51	5,868.51	26.68	201.51	65.35	-1,517.60	-4,797.63	4,765.22	4,537.15	228.07	20.894		
6,000.00	5,967.90	5,920.90	5,967.90	27.14	204.98	65.48	-1,517.60	-4,797.63	4,760.59	4,528.59	232.00	20.520		
6,100.00	6,067.28	6,020.28	6,067.28	27.60	208.45	65.60	-1,517.60	-4,797.63	4,755.97	4,520.05	235.92	20.159		
6,200.00	6,166.66	6,119.66	6,166.66	28.05	211.92	65.72	-1,517.60	-4,797.63	4,751.38	4,511.53	239.85	19.810		
6,300.00	6,266.05	6,219.05	6,266.05	28.51	215.39	65.84	-1,517.60	-4,797.63	4,746.81	4,503.03	243.77	19.472		
6,400.00	6,365.43	6,318.43	6,365.43	28.97	218.86	65.96	-1,517.60	-4,797.63	4,742.26	4,494.55	247.70	19.145		
6,500.00	6,464.81	6,417.81	6,464.81	29.43	222.33	66.08	-1,517.60	-4,797.63	4,737.73	4,486.10	251.63	18.828		
6,600.00	6,564.10	6,517.10	6,564.10	29.89	225.79	35.79	-1,517.60	-4,797.63	4,733.30	4,475.75	255.55	18.514		
6,700.00	6,661.75	6,614.75	6,661.75	30.34	229.20	12.18	-1,517.60	-4,797.63	4,711.53	4,452.12	259.40	18.163		
6,800.00	6,755.38	6,708.38	6,755.38	30.77	232.47	3.79	-1,517.60	-4,797.63	4,676.93	4,413.85	263.08	17.777		
6,900.00	6,842.67	6,804.33	6,842.67	31.17	235.82	-0.88	-1,517.60	-4,797.63	4,628.36	4,361.55	266.81	17.347		
7,000.00	6,921.48	6,874.48	6,921.48	31.54	238.27	-4.54	-1,517.60	-4,797.63	4,567.02	4,297.43	269.58	16.941		
7,100.00	6,989.86	6,942.86	6,989.86	31.91	240.65	-8.38	-1,517.60	-4,797.63	4,494.40	4,222.17	272.23	16.509		
7,200.00	7,046.13	7,000.87	7,046.13	32.35	242.68	-13.50	-1,517.60	-4,797.63	4,412.33	4,137.87	274.46	16.077		
7,300.00	7,088.91	7,041.91	7,088.91	32.98	244.11	-21.90	-1,517.60	-4,797.63	4,322.83	4,046.80	276.02	15.661		
7,400.00	7,117.14	7,070.14	7,117.14	33.84	245.10	-38.68	-1,517.60	-4,797.63	4,228.13	3,951.04	277.08	15.259		
7,500.00	7,130.13	7,083.13	7,130.13	34.90	245.55	-74.44	-1,517.60	-4,797.63	4,130.59	3,853.02	277.57	14.881		
7,600.00	7,130.72	7,083.72	7,130.72	36.13	245.57	-91.25	-1,517.60	-4,797.63	4,032.46	3,754.86	277.60	14.526		
7,700.00	7,130.29	7,083.29	7,130.29	37.54	245.55	-91.22	-1,517.60	-4,797.63	3,934.43	3,656.83	277.60	14.173		
7,800.00	7,129.85	7,082.85	7,129.85	39.12	245.54	-91.19	-1,517.60	-4,797.63	3,836.51	3,558.88	277.62	13.819		
7,900.00	7,129.42	7,082.42	7,129.42	40.83	245.52	-91.15	-1,517.60	-4,797.63	3,738.69	3,461.03	277.66	13.465		
8,000.00	7,128.98	7,081.98	7,128.98	42.67	245.51	-91.12	-1,517.60	-4,797.63	3,640.99	3,363.27	277.72	13.110		
8,100.00	7,128.55	7,081.55	7,128.55	44.62	245.49	-91.09	-1,517.60	-4,797.63	3,543.42	3,265.61	277.81	12.755		
8,200.00	7,128.12	7,081.12	7,128.12	46.66	245.48	-91.06	-1,517.60	-4,797.63	3,445.99	3,168.07	277.92	12.399		
8,300.00	7,127.68	7,080.68	7,127.68	48.79	245.46	-91.03	-1,517.60	-4,797.63	3,348.71	3,070.65	278.06	12.043		
8,400.00	7,127.25	7,080.25	7,127.25	50.98	245.45	-91.00	-1,517.60	-4,797.63	3,251.60	2,973.36	278.24	11.686		
8,500.00	7,126.81	7,079.81	7,126.81	53.24	245.43	-90.97	-1,517.60	-4,797.63	3,154.67	2,876.20	278.46	11.329		
8,600.00	7,126.38	7,079.38	7,126.38	55.56	245.42	-90.93	-1,517.60	-4,797.63	3,057.93	2,779.20	278.73	10.971		
8,700.00	7,125.95	7,078.95	7,125.95	57.92	245.40	-90.90	-1,517.60	-4,797.63	2,961.41	2,682.36	279.05	10.613		
8,800.00	7,125.51	7,078.51	7,125.51	60.33	245.39	-90.87	-1,517.60	-4,797.63	2,865.13	2,585.70	279.43	10.254		
8,900.00	7,125.08	7,078.08	7,125.08	62.77	245.37	-90.84	-1,517.60	-4,797.63	2,769.11	2,489.23	279.88	9.894		
9,000.00	7,124.64	7,077.64	7,124.64	65.25	245.36	-90.81	-1,517.60	-4,797.63	2,673.39	2,392.98	280.41	9.534		
9,100.00	7,124.21	7,077.21	7,124.21	67.76	245.34	-90.78	-1,517.60	-4,797.63	2,577.99	2,296.96	281.03	9.173		
9,200.00	7,123.78	7,076.78	7,123.78	70.29	245.33	-90.74	-1,517.60	-4,797.63	2,482.95	2,201.20	281.75	8.813		
9,300.00	7,123.34	7,076.34	7,123.34	72.85	245.31	-90.71	-1,517.60	-4,797.63	2,388.31	2,105.72	282.59	8.451		
9,400.00	7,122.91	7,075.91	7,122.91	75.43	245.30	-90.68	-1,517.60	-4,797.63	2,294.14	2,010.57	283.57	8.090		
9,500.00	7,122.48	7,075.48	7,122.48	78.03	245.28	-90.65	-1,517.60	-4,797.63	2,200.47	1,915.77	284.70	7.729		
9,600.00	7,122.04	7,075.04	7,122.04	80.65	245.27	-90.62	-1,517.60	-4,797.63	2,107.39	1,821.38	286.01	7.368		
9,700.00	7,121.61	7,074.61	7,121.61	83.28	245.25	-90.59	-1,517.60	-4,797.63	2,014.97	1,727.46	287.51	7.008		
9,800.00	7,121.17	7,074.17	7,121.17	85.93	245.24	-90.55	-1,517.60	-4,797.63	1,923.31	1,634.07	289.24	6.649		
9,900.00	7,120.74	7,073.74	7,120.74	88.59	245.22	-90.52	-1,517.60	-4,797.63	1,832.52	1,541.29	291.23	6.292		
10,000.00	7,120.31	7,073.31	7,120.31	91.26	245.21	-90.49	-1,517.60	-4,797.63	1,742.74	1,449.22	293.52	5.937		
10,100.00	7,119.87	7,072.87	7,119.87	93.95	245.19	-90.46	-1,517.60	-4,797.63	1,654.13	1,358.00	296.13	5.586		
10,200.00	7,119.44	7,072.44	7,119.44	96.64	245.18	-90.43	-1,517.60	-4,797.63	1,566.90	1,267.77	299.12	5.238		
10,300.00	7,119.00	7,072.00	7,119.00	99.34	245.16	-90.40	-1,517.60	-4,797.63	1,481.28	1,178.74	302.54	4.896		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,400.00	7,118.57	7,071.57	7,118.57	102.05	245.15	-90.36	-1,517.60	-4,797.63	1,397.57	1,091.14	306.43	4.561		
10,500.00	7,118.14	7,071.14	7,118.14	104.77	245.13	-90.33	-1,517.60	-4,797.63	1,316.13	1,005.28	310.85	4.234		
10,600.00	7,117.70	7,070.70	7,117.70	107.50	245.12	-90.30	-1,517.60	-4,797.63	1,237.42	921.58	315.84	3.918		
10,700.00	7,117.27	7,070.27	7,117.27	110.23	245.10	-90.27	-1,517.60	-4,797.63	1,161.99	840.54	321.46	3.615		
10,800.00	7,116.83	7,069.83	7,116.83	112.97	245.08	-90.24	-1,517.60	-4,797.63	1,090.52	762.81	327.71	3.328		
10,900.00	7,116.40	7,069.40	7,116.40	115.72	245.07	-90.21	-1,517.60	-4,797.63	1,023.84	689.26	334.58	3.060		
11,000.00	7,115.97	7,068.97	7,115.97	118.47	245.05	-90.18	-1,517.60	-4,797.63	962.94	620.95	341.99	2.816		
11,100.00	7,115.53	7,068.53	7,115.53	121.22	245.04	-90.14	-1,517.60	-4,797.63	908.99	559.23	349.76	2.599		
11,200.00	7,115.10	7,068.10	7,115.10	123.98	245.02	-90.11	-1,517.60	-4,797.63	863.29	505.70	357.59	2.414		
11,300.00	7,114.66	7,067.66	7,114.66	126.74	245.01	-90.08	-1,517.60	-4,797.63	827.21	462.16	365.05	2.266		
11,400.00	7,114.23	7,067.23	7,114.23	129.51	244.99	-90.05	-1,517.60	-4,797.63	802.05	430.44	371.61	2.158		
11,500.00	7,113.80	7,066.80	7,113.80	132.29	244.98	-90.02	-1,517.60	-4,797.63	788.85	412.14	376.72	2.094		
11,554.97	7,113.56	7,066.56	7,113.56	133.81	244.97	-90.00	-1,517.60	-4,797.63	786.94	408.19	378.75	2.078 CC, ES		
11,600.00	7,113.36	7,066.36	7,113.36	135.06	244.96	-89.99	-1,517.60	-4,797.63	788.22	408.27	379.95	2.075 SF		
11,700.00	7,112.93	7,065.93	7,112.93	137.84	244.95	-89.95	-1,517.60	-4,797.63	800.19	419.03	381.16	2.099		
11,800.00	7,112.49	7,065.49	7,112.49	140.62	244.93	-89.92	-1,517.60	-4,797.63	824.20	443.77	380.43	2.166		
11,900.00	7,112.06	7,065.06	7,112.06	143.41	244.92	-89.89	-1,517.60	-4,797.63	859.25	481.13	378.13	2.272		
12,000.00	7,111.63	7,064.63	7,111.63	146.20	244.90	-89.86	-1,517.60	-4,797.63	904.06	529.38	374.68	2.413		
12,100.00	7,111.19	7,064.19	7,111.19	148.99	244.89	-89.83	-1,517.60	-4,797.63	957.25	586.71	370.54	2.583		
12,200.00	7,110.76	7,063.76	7,110.76	151.78	244.87	-89.80	-1,517.60	-4,797.63	1,017.51	651.46	366.05	2.780		
12,300.00	7,110.33	7,063.33	7,110.33	154.58	244.86	-89.76	-1,517.60	-4,797.63	1,083.67	722.16	361.50	2.998		
12,400.00	7,109.89	7,062.89	7,109.89	157.37	244.84	-89.73	-1,517.60	-4,797.63	1,154.70	797.65	357.06	3.234		
12,500.00	7,109.46	7,062.46	7,109.46	160.17	244.83	-89.70	-1,517.60	-4,797.63	1,229.77	876.95	352.82	3.486		
12,600.00	7,109.02	7,062.02	7,109.02	162.98	244.81	-89.67	-1,517.60	-4,797.63	1,308.18	959.33	348.85	3.750		
12,700.00	7,108.59	7,061.59	7,108.59	165.78	244.80	-89.64	-1,517.60	-4,797.63	1,389.37	1,044.20	345.17	4.025		
12,800.00	7,108.16	7,061.16	7,108.16	168.59	244.78	-89.61	-1,517.60	-4,797.63	1,472.87	1,131.09	341.78	4.309		
12,900.00	7,107.72	7,060.72	7,107.72	171.39	244.77	-89.58	-1,517.60	-4,797.63	1,558.32	1,219.65	338.66	4.601		
13,000.00	7,107.29	7,060.29	7,107.29	174.20	244.75	-89.54	-1,517.60	-4,797.63	1,645.40	1,309.59	335.81	4.900		
13,100.00	7,106.85	7,059.85	7,106.85	177.01	244.74	-89.51	-1,517.60	-4,797.63	1,733.88	1,400.68	333.20	5.204		
13,200.00	7,106.42	7,059.42	7,106.42	179.83	244.72	-89.48	-1,517.60	-4,797.63	1,823.55	1,492.74	330.81	5.512		
13,300.00	7,105.99	7,058.99	7,105.99	182.64	244.71	-89.45	-1,517.60	-4,797.63	1,914.25	1,585.63	328.62	5.825		
13,400.00	7,105.55	7,058.55	7,105.55	185.45	244.69	-89.42	-1,517.60	-4,797.63	2,005.83	1,679.22	326.61	6.141		
13,500.00	7,105.12	7,058.12	7,105.12	188.27	244.68	-89.39	-1,517.60	-4,797.63	2,098.18	1,773.41	324.77	6.461		
13,600.00	7,104.68	7,057.68	7,104.68	191.09	244.66	-89.35	-1,517.60	-4,797.63	2,191.20	1,868.13	323.07	6.782		
13,700.00	7,104.25	7,057.25	7,104.25	193.91	244.65	-89.32	-1,517.60	-4,797.63	2,284.81	1,963.30	321.51	7.107		
13,800.00	7,103.82	7,056.82	7,103.82	196.73	244.63	-89.29	-1,517.60	-4,797.63	2,378.94	2,058.87	320.06	7.433		
13,900.00	7,103.38	7,056.38	7,103.38	199.55	244.62	-89.26	-1,517.60	-4,797.63	2,473.53	2,154.80	318.73	7.761		
14,000.00	7,102.95	7,055.95	7,102.95	202.37	244.60	-89.23	-1,517.60	-4,797.63	2,568.53	2,251.04	317.49	8.090		
14,100.00	7,102.51	7,055.51	7,102.51	205.19	244.58	-89.20	-1,517.60	-4,797.63	2,663.90	2,347.55	316.35	8.421		
14,200.00	7,102.08	7,055.08	7,102.08	208.02	244.57	-89.16	-1,517.60	-4,797.63	2,759.59	2,444.31	315.28	8.753		
14,300.00	7,101.65	7,054.65	7,101.65	210.84	244.55	-89.13	-1,517.60	-4,797.63	2,855.58	2,541.29	314.29	9.086		
14,400.00	7,101.21	7,054.21	7,101.21	213.67	244.54	-89.10	-1,517.60	-4,797.63	2,951.84	2,638.47	313.36	9.420		
14,500.00	7,100.78	7,053.78	7,100.78	216.50	244.52	-89.07	-1,517.60	-4,797.63	3,048.33	2,735.83	312.50	9.755		
14,600.00	7,100.35	7,053.35	7,100.35	219.32	244.51	-89.04	-1,517.60	-4,797.63	3,145.05	2,833.35	311.70	10.090		
14,700.00	7,099.91	7,052.91	7,099.91	222.15	244.49	-89.01	-1,517.60	-4,797.63	3,241.96	2,931.02	310.94	10.426		
14,800.00	7,099.48	7,052.48	7,099.48	224.98	244.48	-88.97	-1,517.60	-4,797.63	3,339.06	3,028.82	310.23	10.763		
14,900.00	7,099.04	7,052.04	7,099.04	227.81	244.46	-88.94	-1,517.60	-4,797.63	3,436.32	3,126.75	309.57	11.100		
14,909.96	7,099.00	7,052.00	7,099.00	228.09	244.46	-88.94	-1,517.60	-4,797.63	3,446.02	3,136.51	309.51	11.134		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	50.00	3.28	3.28	-122.15	-3,018.53	-4,803.49	5,673.40					
100.00	100.00	50.00	100.00	3.28	3.39	-122.15	-3,018.53	-4,803.49	5,673.18	5,666.50	6.68	849.425		
200.00	200.00	150.00	200.00	3.34	4.79	-122.15	-3,018.53	-4,803.49	5,673.18	5,665.06	8.13	698.051		
300.00	300.00	250.00	300.00	3.44	7.71	-122.15	-3,018.53	-4,803.49	5,673.18	5,662.02	11.16	508.397		
400.00	400.00	350.00	400.00	3.60	10.97	-122.15	-3,018.53	-4,803.49	5,673.18	5,658.60	14.58	389.162		
500.00	500.00	450.00	500.00	3.81	14.34	-122.15	-3,018.53	-4,803.49	5,673.18	5,655.03	18.15	312.571		
600.00	600.00	550.00	600.00	4.04	17.76	44.70	-3,018.53	-4,803.49	5,673.13	5,651.33	21.80	260.185		
700.00	699.96	649.96	699.96	4.29	21.20	44.74	-3,018.53	-4,803.49	5,671.40	5,645.91	25.49	222.483		
800.00	799.78	749.78	799.78	4.57	24.65	44.85	-3,018.53	-4,803.49	5,667.18	5,637.97	29.22	193.964		
900.00	899.34	849.34	899.34	4.88	28.10	45.01	-3,018.53	-4,803.49	5,660.51	5,627.54	32.97	171.682		
1,000.00	998.72	948.72	998.72	5.20	31.55	45.09	-3,018.53	-4,803.49	5,652.65	5,615.91	36.74	153.848		
1,100.00	1,098.10	1,048.10	1,098.10	5.54	35.00	45.16	-3,018.53	-4,803.49	5,644.80	5,604.27	40.54	139.256		
1,200.00	1,197.49	1,147.49	1,197.49	5.90	38.45	45.24	-3,018.53	-4,803.49	5,636.97	5,592.62	44.35	127.108		
1,300.00	1,296.87	1,246.87	1,296.87	6.28	41.91	45.32	-3,018.53	-4,803.49	5,629.14	5,580.97	48.18	116.848		
1,400.00	1,396.25	1,346.25	1,396.25	6.66	45.37	45.40	-3,018.53	-4,803.49	5,621.33	5,569.31	52.01	108.072		
1,500.00	1,495.64	1,445.64	1,495.64	7.06	48.83	45.48	-3,018.53	-4,803.49	5,613.53	5,557.66	55.86	100.484		
1,600.00	1,595.02	1,545.02	1,595.02	7.46	52.29	45.57	-3,018.53	-4,803.49	5,605.74	5,546.01	59.72	93.862		
1,700.00	1,694.40	1,644.40	1,694.40	7.87	55.76	45.65	-3,018.53	-4,803.49	5,597.95	5,534.37	63.59	88.033		
1,800.00	1,793.79	1,743.79	1,793.79	8.29	59.22	45.73	-3,018.53	-4,803.49	5,590.19	5,522.72	67.46	82.865		
1,900.00	1,893.17	1,843.17	1,893.17	8.71	62.69	45.81	-3,018.53	-4,803.49	5,582.43	5,511.09	71.34	78.252		
2,000.00	1,992.55	1,942.55	1,992.55	9.13	66.15	45.89	-3,018.53	-4,803.49	5,574.68	5,499.46	75.22	74.110		
2,100.00	2,091.94	2,041.94	2,091.94	9.56	69.62	45.97	-3,018.53	-4,803.49	5,566.94	5,487.84	79.11	70.372		
2,200.00	2,191.32	2,141.32	2,191.32	9.99	73.08	46.05	-3,018.53	-4,803.49	5,559.22	5,476.22	83.00	66.981		
2,300.00	2,290.70	2,240.70	2,290.70	10.42	76.55	46.14	-3,018.53	-4,803.49	5,551.51	5,464.62	86.89	63.891		
2,400.00	2,390.09	2,340.09	2,390.09	10.86	80.01	46.22	-3,018.53	-4,803.49	5,543.81	5,453.02	90.79	61.065		
2,500.00	2,489.47	2,439.47	2,489.47	11.29	83.48	46.30	-3,018.53	-4,803.49	5,536.12	5,441.43	94.68	58.470		
2,600.00	2,588.86	2,538.86	2,588.86	11.73	86.95	46.38	-3,018.53	-4,803.49	5,528.44	5,429.86	98.58	56.079		
2,700.00	2,688.24	2,638.24	2,688.24	12.18	90.42	46.47	-3,018.53	-4,803.49	5,520.77	5,418.29	102.48	53.869		
2,800.00	2,787.62	2,737.62	2,787.62	12.62	93.88	46.55	-3,018.53	-4,803.49	5,513.12	5,406.73	106.39	51.821		
2,900.00	2,887.01	2,837.01	2,887.01	13.06	97.35	46.63	-3,018.53	-4,803.49	5,505.47	5,395.18	110.29	49.917		
3,000.00	2,986.39	2,936.39	2,986.39	13.51	100.82	46.72	-3,018.53	-4,803.49	5,497.84	5,383.64	114.20	48.142		
3,100.00	3,085.77	3,035.77	3,085.77	13.95	104.29	46.80	-3,018.53	-4,803.49	5,490.22	5,372.11	118.11	46.485		
3,200.00	3,185.16	3,135.16	3,185.16	14.40	107.75	46.88	-3,018.53	-4,803.49	5,482.61	5,360.60	122.02	44.934		
3,300.00	3,284.54	3,234.54	3,284.54	14.85	111.22	46.97	-3,018.53	-4,803.49	5,475.02	5,349.09	125.93	43.478		
3,400.00	3,383.92	3,333.92	3,383.92	15.30	114.69	47.05	-3,018.53	-4,803.49	5,467.43	5,337.60	129.84	42.110		
3,500.00	3,483.31	3,433.31	3,483.31	15.75	118.16	47.14	-3,018.53	-4,803.49	5,459.86	5,326.11	133.75	40.822		
3,600.00	3,582.69	3,532.69	3,582.69	16.20	121.63	47.22	-3,018.53	-4,803.49	5,452.30	5,314.64	137.66	39.607		
3,700.00	3,682.07	3,632.07	3,682.07	16.65	125.09	47.31	-3,018.53	-4,803.49	5,444.75	5,303.18	141.57	38.459		
3,800.00	3,781.46	3,731.46	3,781.46	17.10	128.56	47.39	-3,018.53	-4,803.49	5,437.21	5,291.73	145.49	37.372		
3,900.00	3,880.84	3,830.84	3,880.84	17.56	132.03	47.48	-3,018.53	-4,803.49	5,429.69	5,280.29	149.40	36.343		
4,000.00	3,980.22	3,930.22	3,980.22	18.01	135.50	47.57	-3,018.53	-4,803.49	5,422.18	5,268.86	153.32	35.366		
4,100.00	4,079.61	4,029.61	4,079.61	18.46	138.97	47.65	-3,018.53	-4,803.49	5,414.68	5,257.45	157.23	34.437		
4,200.00	4,178.99	4,128.99	4,178.99	18.92	142.44	47.74	-3,018.53	-4,803.49	5,407.19	5,246.04	161.15	33.554		
4,300.00	4,278.38	4,228.38	4,278.38	19.37	145.90	47.83	-3,018.53	-4,803.49	5,399.72	5,234.65	165.07	32.712		
4,400.00	4,377.76	4,327.76	4,377.76	19.83	149.37	47.91	-3,018.53	-4,803.49	5,392.26	5,223.27	168.98	31.910		
4,500.00	4,477.14	4,427.14	4,477.14	20.28	152.84	48.00	-3,018.53	-4,803.49	5,384.81	5,211.90	172.90	31.144		
4,600.00	4,576.53	4,526.53	4,576.53	20.74	156.31	48.09	-3,018.53	-4,803.49	5,377.37	5,200.55	176.82	30.412		
4,700.00	4,675.91	4,625.91	4,675.91	21.19	159.78	48.18	-3,018.53	-4,803.49	5,369.94	5,189.21	180.74	29.711		
4,800.00	4,775.29	4,725.29	4,775.29	21.65	163.25	48.26	-3,018.53	-4,803.49	5,362.53	5,177.87	184.66	29.040		
4,900.00	4,874.68	4,824.68	4,874.68	22.10	166.72	48.35	-3,018.53	-4,803.49	5,355.13	5,166.56	188.58	28.398		
5,000.00	4,974.06	4,924.06	4,974.06	22.56	170.19	48.44	-3,018.53	-4,803.49	5,347.75	5,155.25	192.50	27.781		
5,100.00	5,073.44	5,023.44	5,073.44	23.02	173.65	48.53	-3,018.53	-4,803.49	5,340.37	5,143.96	196.42	27.189		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,122.83	5,172.83	23.47	177.12	48.62	-3,018.53	-4,803.49	5,333.01	5,132.67	200.34	26.620		
5,300.00	5,272.21	5,222.21	5,272.21	23.93	180.59	48.71	-3,018.53	-4,803.49	5,325.66	5,121.41	204.26	26.073		
5,400.00	5,371.59	5,321.59	5,371.59	24.39	184.06	48.80	-3,018.53	-4,803.49	5,318.33	5,110.15	208.18	25.547		
5,500.00	5,470.98	5,420.98	5,470.98	24.85	187.53	48.89	-3,018.53	-4,803.49	5,311.01	5,098.91	212.10	25.040		
5,600.00	5,570.36	5,520.36	5,570.36	25.30	191.00	48.98	-3,018.53	-4,803.49	5,303.70	5,087.68	216.02	24.552		
5,700.00	5,669.75	5,619.75	5,669.75	25.76	194.47	49.07	-3,018.53	-4,803.49	5,296.40	5,076.46	219.94	24.081		
5,800.00	5,769.13	5,719.13	5,769.13	26.22	197.94	49.16	-3,018.53	-4,803.49	5,289.12	5,065.25	223.86	23.627		
5,900.00	5,868.51	5,818.51	5,868.51	26.68	201.41	49.25	-3,018.53	-4,803.49	5,281.85	5,054.06	227.78	23.188		
6,000.00	5,967.90	5,917.90	5,967.90	27.14	204.87	49.34	-3,018.53	-4,803.49	5,274.59	5,042.89	231.71	22.764		
6,100.00	6,067.28	6,017.28	6,067.28	27.60	208.34	49.43	-3,018.53	-4,803.49	5,267.35	5,031.72	235.63	22.354		
6,200.00	6,166.66	6,116.66	6,166.66	28.05	211.81	49.52	-3,018.53	-4,803.49	5,260.12	5,020.57	239.55	21.958		
6,300.00	6,266.05	6,216.05	6,266.05	28.51	215.28	49.61	-3,018.53	-4,803.49	5,252.90	5,009.43	243.47	21.575		
6,400.00	6,365.43	6,315.43	6,365.43	28.97	218.75	49.70	-3,018.53	-4,803.49	5,245.70	4,998.30	247.40	21.204		
6,500.00	6,464.81	6,414.81	6,464.81	29.43	222.22	49.80	-3,018.53	-4,803.49	5,238.51	4,987.19	251.32	20.844		
6,600.00	6,564.10	6,514.10	6,564.10	29.89	225.69	19.32	-3,018.53	-4,803.49	5,229.60	4,974.36	255.24	20.489		
6,700.00	6,661.75	6,611.75	6,661.75	30.34	229.09	-4.92	-3,018.53	-4,803.49	5,208.60	4,949.52	259.08	20.104		
6,800.00	6,755.38	6,705.38	6,755.38	30.77	232.36	-14.37	-3,018.53	-4,803.49	5,174.27	4,911.51	262.76	19.692		
6,900.00	6,842.67	6,807.33	6,842.67	31.17	235.92	-20.64	-3,018.53	-4,803.49	5,127.47	4,860.79	266.68	19.227		
7,000.00	6,921.48	6,871.48	6,921.48	31.54	238.16	-26.54	-3,018.53	-4,803.49	5,069.42	4,800.18	269.24	18.829		
7,100.00	6,989.86	6,939.86	6,989.86	31.91	240.55	-33.37	-3,018.53	-4,803.49	5,001.61	4,729.72	271.89	18.396		
7,200.00	7,046.13	7,003.87	7,046.13	32.35	242.78	-42.11	-3,018.53	-4,803.49	4,925.83	4,651.48	274.35	17.954		
7,300.00	7,088.91	7,038.91	7,088.91	32.98	244.01	-53.65	-3,018.53	-4,803.49	4,844.04	4,568.27	275.77	17.566		
7,400.00	7,117.14	7,067.14	7,117.14	33.84	244.99	-68.25	-3,018.53	-4,803.49	4,758.39	4,481.45	276.94	17.182		
7,500.00	7,130.13	7,080.13	7,130.13	34.90	245.44	-84.61	-3,018.53	-4,803.49	4,671.10	4,393.50	277.60	16.827		
7,600.00	7,130.72	7,080.72	7,130.72	36.13	245.46	-90.43	-3,018.53	-4,803.49	4,584.14	4,306.27	277.86	16.498		
7,700.00	7,130.29	7,080.29	7,130.29	37.54	245.45	-90.42	-3,018.53	-4,803.49	4,497.76	4,219.57	278.18	16.168		
7,800.00	7,129.85	7,079.85	7,129.85	39.12	245.43	-90.41	-3,018.53	-4,803.49	4,411.95	4,133.36	278.60	15.836		
7,900.00	7,129.42	7,079.42	7,129.42	40.83	245.42	-90.40	-3,018.53	-4,803.49	4,326.76	4,047.65	279.11	15.502		
8,000.00	7,128.98	7,078.98	7,128.98	42.67	245.40	-90.39	-3,018.53	-4,803.49	4,242.21	3,962.48	279.74	15.165		
8,100.00	7,128.55	7,078.55	7,128.55	44.62	245.39	-90.38	-3,018.53	-4,803.49	4,158.35	3,877.88	280.47	14.826		
8,200.00	7,128.12	7,078.12	7,128.12	46.66	245.37	-90.37	-3,018.53	-4,803.49	4,075.22	3,793.89	281.33	14.486		
8,300.00	7,127.68	7,077.68	7,127.68	48.79	245.36	-90.36	-3,018.53	-4,803.49	3,992.86	3,710.55	282.31	14.143		
8,400.00	7,127.25	7,077.25	7,127.25	50.98	245.34	-90.34	-3,018.53	-4,803.49	3,911.32	3,627.90	283.43	13.800		
8,500.00	7,126.81	7,076.81	7,126.81	53.24	245.33	-90.33	-3,018.53	-4,803.49	3,830.66	3,545.99	284.67	13.456		
8,600.00	7,126.38	7,076.38	7,126.38	55.56	245.31	-90.32	-3,018.53	-4,803.49	3,750.93	3,464.87	286.06	13.113		
8,700.00	7,125.95	7,075.95	7,125.95	57.92	245.30	-90.31	-3,018.53	-4,803.49	3,672.19	3,384.61	287.58	12.769		
8,800.00	7,125.51	7,075.51	7,125.51	60.33	245.28	-90.30	-3,018.53	-4,803.49	3,594.51	3,305.25	289.25	12.427		
8,900.00	7,125.08	7,075.08	7,125.08	62.77	245.27	-90.29	-3,018.53	-4,803.49	3,517.95	3,226.88	291.07	12.086		
9,000.00	7,124.64	7,074.64	7,124.64	65.25	245.25	-90.28	-3,018.53	-4,803.49	3,442.60	3,149.57	293.03	11.748		
9,100.00	7,124.21	7,074.21	7,124.21	67.76	245.24	-90.27	-3,018.53	-4,803.49	3,368.53	3,073.39	295.15	11.413		
9,200.00	7,123.78	7,073.78	7,123.78	70.29	245.22	-90.26	-3,018.53	-4,803.49	3,295.84	2,998.42	297.41	11.082		
9,300.00	7,123.34	7,073.34	7,123.34	72.85	245.21	-90.25	-3,018.53	-4,803.49	3,224.60	2,924.77	299.83	10.755		
9,400.00	7,122.91	7,072.91	7,122.91	75.43	245.19	-90.24	-3,018.53	-4,803.49	3,154.93	2,852.53	302.40	10.433		
9,500.00	7,122.48	7,072.48	7,122.48	78.03	245.18	-90.23	-3,018.53	-4,803.49	3,086.92	2,781.80	305.12	10.117		
9,600.00	7,122.04	7,072.04	7,122.04	80.65	245.16	-90.21	-3,018.53	-4,803.49	3,020.69	2,712.70	307.99	9.808		
9,700.00	7,121.61	7,071.61	7,121.61	83.28	245.15	-90.20	-3,018.53	-4,803.49	2,956.36	2,645.36	311.00	9.506		
9,800.00	7,121.17	7,071.17	7,121.17	85.93	245.13	-90.19	-3,018.53	-4,803.49	2,894.06	2,579.90	314.16	9.212		
9,900.00	7,120.74	7,070.74	7,120.74	88.59	245.12	-90.18	-3,018.53	-4,803.49	2,833.92	2,516.47	317.45	8.927		
10,000.00	7,120.31	7,070.31	7,120.31	91.26	245.10	-90.17	-3,018.53	-4,803.49	2,776.08	2,455.20	320.88	8.651		
10,100.00	7,119.87	7,069.87	7,119.87	93.95	245.09	-90.16	-3,018.53	-4,803.49	2,720.68	2,396.25	324.43	8.386		
10,200.00	7,119.44	7,069.44	7,119.44	96.64	245.07	-90.15	-3,018.53	-4,803.49	2,667.89	2,339.80	328.09	8.132		
10,300.00	7,119.00	7,069.00	7,119.00	99.34	245.06	-90.14	-3,018.53	-4,803.49	2,617.85	2,286.00	331.85	7.889		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,118.57	7,068.57	7,118.57	102.05	245.04	-90.13	-3,018.53	-4,803.49	2,570.73	2,235.03	335.70	7.658		
10,500.00	7,118.14	7,068.14	7,118.14	104.77	245.03	-90.12	-3,018.53	-4,803.49	2,526.69	2,187.08	339.61	7.440		
10,600.00	7,117.70	7,067.70	7,117.70	107.50	245.01	-90.11	-3,018.53	-4,803.49	2,485.89	2,142.32	343.57	7.235		
10,700.00	7,117.27	7,067.27	7,117.27	110.23	245.00	-90.09	-3,018.53	-4,803.49	2,448.50	2,100.95	347.55	7.045		
10,800.00	7,116.83	7,066.83	7,116.83	112.97	244.98	-90.08	-3,018.53	-4,803.49	2,414.68	2,063.14	351.53	6.869		
10,900.00	7,116.40	7,066.40	7,116.40	115.72	244.96	-90.07	-3,018.53	-4,803.49	2,384.57	2,029.08	355.49	6.708		
11,000.00	7,115.97	7,065.97	7,115.97	118.47	244.95	-90.06	-3,018.53	-4,803.49	2,358.32	1,998.94	359.38	6.562		
11,100.00	7,115.53	7,065.53	7,115.53	121.22	244.93	-90.05	-3,018.53	-4,803.49	2,336.06	1,972.87	363.19	6.432		
11,200.00	7,115.10	7,065.10	7,115.10	123.98	244.92	-90.04	-3,018.53	-4,803.49	2,317.90	1,951.02	366.88	6.318		
11,300.00	7,114.66	7,064.66	7,114.66	126.74	244.90	-90.03	-3,018.53	-4,803.49	2,303.95	1,933.52	370.43	6.220		
11,400.00	7,114.23	7,064.23	7,114.23	129.51	244.89	-90.02	-3,018.53	-4,803.49	2,294.27	1,920.48	373.80	6.138		
11,500.00	7,113.80	7,063.80	7,113.80	132.29	244.87	-90.01	-3,018.53	-4,803.49	2,288.93	1,911.96	376.96	6.072		
11,572.49	7,113.48	7,063.48	7,113.48	134.30	244.86	-90.00	-3,018.53	-4,803.49	2,287.78	1,908.65	379.12	6.034 CC		
11,600.00	7,113.36	7,063.36	7,113.36	135.06	244.86	-90.00	-3,018.53	-4,803.49	2,287.94	1,908.03	379.91	6.022 ES		
11,700.00	7,112.93	7,062.93	7,112.93	137.84	244.84	-89.99	-3,018.53	-4,803.49	2,291.33	1,908.71	382.62	5.989		
11,800.00	7,112.49	7,062.49	7,112.49	140.62	244.83	-89.98	-3,018.53	-4,803.49	2,299.06	1,914.00	385.07	5.971		
11,900.00	7,112.06	7,062.06	7,112.06	143.41	244.81	-89.96	-3,018.53	-4,803.49	2,311.10	1,923.85	387.25	5.968 SF		
12,000.00	7,111.63	7,061.63	7,111.63	146.20	244.80	-89.95	-3,018.53	-4,803.49	2,327.38	1,938.22	389.16	5.980		
12,100.00	7,111.19	7,061.19	7,111.19	148.99	244.78	-89.94	-3,018.53	-4,803.49	2,347.81	1,957.00	390.81	6.008		
12,200.00	7,110.76	7,060.76	7,110.76	151.78	244.77	-89.93	-3,018.53	-4,803.49	2,372.28	1,980.09	392.18	6.049		
12,300.00	7,110.33	7,060.33	7,110.33	154.58	244.75	-89.92	-3,018.53	-4,803.49	2,400.67	2,007.36	393.30	6.104		
12,400.00	7,109.89	7,059.89	7,109.89	157.37	244.74	-89.91	-3,018.53	-4,803.49	2,432.84	2,038.66	394.18	6.172		
12,500.00	7,109.46	7,059.46	7,109.46	160.17	244.72	-89.90	-3,018.53	-4,803.49	2,468.64	2,073.83	394.82	6.253		
12,600.00	7,109.02	7,059.02	7,109.02	162.98	244.71	-89.89	-3,018.53	-4,803.49	2,507.93	2,112.69	395.24	6.345		
12,700.00	7,108.59	7,058.59	7,108.59	165.78	244.69	-89.88	-3,018.53	-4,803.49	2,550.53	2,155.06	395.46	6.449		
12,800.00	7,108.16	7,058.16	7,108.16	168.59	244.68	-89.87	-3,018.53	-4,803.49	2,596.28	2,200.78	395.51	6.564		
12,900.00	7,107.72	7,057.72	7,107.72	171.39	244.66	-89.86	-3,018.53	-4,803.49	2,645.03	2,249.64	395.39	6.690		
13,000.00	7,107.29	7,057.29	7,107.29	174.20	244.65	-89.84	-3,018.53	-4,803.49	2,696.61	2,301.49	395.12	6.825		
13,100.00	7,106.85	7,056.85	7,106.85	177.01	244.63	-89.83	-3,018.53	-4,803.49	2,750.85	2,356.12	394.73	6.969		
13,200.00	7,106.42	7,056.42	7,106.42	179.83	244.62	-89.82	-3,018.53	-4,803.49	2,807.61	2,413.39	394.22	7.122		
13,300.00	7,105.99	7,055.99	7,105.99	182.64	244.60	-89.81	-3,018.53	-4,803.49	2,866.73	2,473.12	393.62	7.283		
13,400.00	7,105.55	7,055.55	7,105.55	185.45	244.59	-89.80	-3,018.53	-4,803.49	2,928.08	2,535.15	392.93	7.452		
13,500.00	7,105.12	7,055.12	7,105.12	188.27	244.57	-89.79	-3,018.53	-4,803.49	2,991.51	2,599.33	392.18	7.628		
13,600.00	7,104.68	7,054.68	7,104.68	191.09	244.56	-89.78	-3,018.53	-4,803.49	3,056.90	2,665.53	391.37	7.811		
13,700.00	7,104.25	7,054.25	7,104.25	193.91	244.54	-89.77	-3,018.53	-4,803.49	3,124.12	2,733.61	390.52	8.000		
13,800.00	7,103.82	7,053.82	7,103.82	196.73	244.53	-89.76	-3,018.53	-4,803.49	3,193.06	2,803.44	389.62	8.195		
13,900.00	7,103.38	7,053.38	7,103.38	199.55	244.51	-89.75	-3,018.53	-4,803.49	3,263.61	2,874.90	388.70	8.396		
14,000.00	7,102.95	7,052.95	7,102.95	202.37	244.50	-89.74	-3,018.53	-4,803.49	3,335.66	2,947.90	387.76	8.602		
14,100.00	7,102.51	7,052.51	7,102.51	205.19	244.48	-89.73	-3,018.53	-4,803.49	3,409.12	3,022.32	386.81	8.814		
14,200.00	7,102.08	7,052.08	7,102.08	208.02	244.47	-89.71	-3,018.53	-4,803.49	3,483.91	3,098.07	385.84	9.029		
14,300.00	7,101.65	7,051.65	7,101.65	210.84	244.45	-89.70	-3,018.53	-4,803.49	3,559.93	3,175.06	384.87	9.250		
14,400.00	7,101.21	7,051.21	7,101.21	213.67	244.43	-89.69	-3,018.53	-4,803.49	3,637.11	3,253.21	383.90	9.474		
14,500.00	7,100.78	7,050.78	7,100.78	216.50	244.42	-89.68	-3,018.53	-4,803.49	3,715.39	3,332.45	382.93	9.702		
14,600.00	7,100.35	7,050.35	7,100.35	219.32	244.40	-89.67	-3,018.53	-4,803.49	3,794.68	3,412.70	381.97	9.934		
14,700.00	7,099.91	7,049.91	7,099.91	222.15	244.39	-89.66	-3,018.53	-4,803.49	3,874.93	3,493.91	381.02	10.170		
14,800.00	7,099.48	7,049.48	7,099.48	224.98	244.37	-89.65	-3,018.53	-4,803.49	3,956.08	3,576.00	380.08	10.408		
14,900.00	7,099.04	7,049.04	7,099.04	227.81	244.36	-89.64	-3,018.53	-4,803.49	4,038.07	3,658.92	379.16	10.650		
14,909.96	7,099.00	7,049.00	7,099.00	228.09	244.36	-89.64	-3,018.53	-4,803.49	4,046.29	3,667.23	379.06	10.674		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	68.00	3.28	3.28	-142.04	-4,189.65	-3,268.13	5,313.99					
100.00	100.00	907.70	945.40	3.28	5.18	-142.23	-4,140.66	-3,208.34	5,305.96	5,297.47	8.49	625.251		
200.00	200.00	1,006.35	1,042.73	3.34	5.60	-142.27	-4,130.44	-3,195.88	5,290.03	5,281.15	8.88	595.979		
300.00	300.00	1,105.01	1,140.06	3.44	6.03	-142.31	-4,120.23	-3,183.42	5,274.10	5,264.76	9.33	564.990		
400.00	400.00	1,203.67	1,237.39	3.60	6.49	-142.35	-4,110.01	-3,170.95	5,258.17	5,248.32	9.86	533.540		
500.00	500.00	1,302.32	1,334.73	3.81	6.95	-142.39	-4,099.80	-3,158.49	5,242.25	5,231.82	10.43	502.625		
600.00	600.00	1,400.97	1,432.05	4.04	7.43	24.45	-4,089.58	-3,146.03	5,226.26	5,215.21	11.05	473.006		
700.00	699.96	1,500.72	1,529.03	4.29	7.92	24.57	-4,079.41	-3,133.61	5,208.15	5,196.46	11.69	445.339		
800.00	799.78	1,596.99	1,625.43	4.57	8.40	24.74	-4,069.29	-3,121.26	5,186.93	5,174.57	12.36	419.526		
900.00	899.34	1,693.98	1,721.12	4.88	8.89	24.95	-4,059.25	-3,109.01	5,162.62	5,149.55	13.07	395.012		
1,000.00	998.72	1,790.59	1,816.44	5.20	9.38	24.96	-4,049.24	-3,096.80	5,136.83	5,123.05	13.78	372.793		
1,100.00	1,098.10	1,887.21	1,911.75	5.54	9.88	24.97	-4,039.24	-3,084.60	5,111.04	5,096.53	14.51	352.206		
1,200.00	1,197.49	1,983.82	2,007.07	5.90	10.38	24.98	-4,029.24	-3,072.39	5,085.26	5,069.99	15.26	333.183		
1,300.00	1,296.87	2,080.43	2,102.38	6.28	10.88	24.99	-4,019.24	-3,060.18	5,059.47	5,043.44	16.03	315.631		
1,400.00	1,396.25	2,177.04	2,197.70	6.66	11.38	25.00	-4,009.23	-3,047.98	5,033.68	5,016.87	16.81	299.440		
1,500.00	1,495.64	2,273.66	2,293.01	7.06	11.89	25.02	-3,999.23	-3,035.77	5,007.89	4,990.29	17.60	284.499		
1,600.00	1,595.02	2,370.27	2,388.33	7.46	12.40	25.03	-3,989.23	-3,023.57	4,982.10	4,963.70	18.40	270.700		
1,700.00	1,694.40	2,466.88	2,483.64	7.87	12.91	25.04	-3,979.22	-3,011.36	4,956.32	4,937.10	19.22	257.940		
1,800.00	1,793.79	2,563.49	2,578.96	8.29	13.42	25.05	-3,969.22	-2,999.16	4,930.53	4,910.50	20.03	246.122		
1,900.00	1,893.17	2,660.11	2,674.27	8.71	13.94	25.07	-3,959.22	-2,986.95	4,904.74	4,883.88	20.86	235.159		
2,000.00	1,992.55	2,756.72	2,769.59	9.13	14.45	25.08	-3,949.22	-2,974.74	4,878.95	4,857.27	21.69	224.971		
2,100.00	2,091.94	2,853.33	2,864.90	9.56	14.97	25.09	-3,939.21	-2,962.54	4,853.17	4,830.65	22.52	215.488		
2,200.00	2,191.32	2,949.94	2,960.22	9.99	15.49	25.10	-3,929.21	-2,950.33	4,827.38	4,804.02	23.36	206.644		
2,300.00	2,290.70	3,046.55	3,055.53	10.42	16.00	25.12	-3,919.21	-2,938.13	4,801.59	4,777.39	24.20	198.382		
2,400.00	2,390.09	3,143.17	3,150.84	10.86	16.52	25.13	-3,909.20	-2,925.92	4,775.81	4,750.76	25.05	190.650		
2,500.00	2,489.47	3,239.78	3,246.16	11.29	17.04	25.14	-3,899.20	-2,913.72	4,750.02	4,724.12	25.90	183.402		
2,600.00	2,588.86	3,336.39	3,341.47	11.73	17.56	25.16	-3,889.20	-2,901.51	4,724.24	4,697.49	26.75	176.597		
2,700.00	2,688.24	3,433.00	3,436.79	12.18	18.08	25.17	-3,879.20	-2,889.30	4,698.45	4,670.85	27.61	170.196		
2,800.00	2,787.62	3,529.62	3,532.10	12.62	18.61	25.19	-3,869.19	-2,877.10	4,672.67	4,644.20	28.46	164.167		
2,900.00	2,887.01	3,626.23	3,627.42	13.06	19.13	25.20	-3,859.19	-2,864.89	4,646.88	4,617.56	29.32	158.479		
3,000.00	2,986.39	3,722.71	3,722.73	13.51	19.67	25.21	-3,849.19	-2,852.69	4,621.10	4,590.89	30.20	153.006		
3,100.00	3,085.77	3,830.56	3,818.05	13.95	20.23	25.23	-3,839.18	-2,840.48	4,595.31	4,564.22	31.10	147.781		
3,200.00	3,185.16	3,916.07	3,913.36	14.40	20.70	25.24	-3,829.18	-2,828.27	4,569.53	4,537.62	31.91	143.208		
3,300.00	3,284.54	4,012.68	4,008.68	14.85	21.22	25.26	-3,819.18	-2,816.07	4,543.74	4,510.97	32.77	138.641		
3,400.00	3,383.92	4,109.29	4,103.99	15.30	21.75	25.27	-3,809.17	-2,803.86	4,517.96	4,484.32	33.64	134.303		
3,500.00	3,483.31	4,205.90	4,199.31	15.75	22.27	25.29	-3,799.17	-2,791.66	4,492.18	4,457.67	34.51	130.180		
3,600.00	3,582.69	4,302.51	4,294.62	16.20	22.79	25.30	-3,789.17	-2,779.45	4,466.39	4,431.02	35.38	126.254		
3,700.00	3,682.07	4,400.87	4,389.94	16.65	23.33	25.32	-3,779.17	-2,767.25	4,440.61	4,404.36	36.25	122.486		
3,800.00	3,781.46	4,495.74	4,485.25	17.10	23.84	25.33	-3,769.16	-2,755.04	4,414.83	4,377.71	37.12	118.945		
3,900.00	3,880.84	4,592.35	4,580.57	17.56	24.37	25.35	-3,759.16	-2,742.83	4,389.05	4,351.06	37.99	115.538		
4,000.00	3,980.22	4,688.96	4,675.88	18.01	24.90	25.36	-3,749.16	-2,730.63	4,363.27	4,324.41	38.86	112.281		
4,100.00	4,079.61	4,785.58	4,771.20	18.46	25.42	25.38	-3,739.15	-2,718.42	4,337.48	4,297.75	39.73	109.165		
4,200.00	4,178.99	4,882.19	4,866.51	18.92	25.95	25.40	-3,729.15	-2,706.22	4,311.70	4,271.10	40.61	106.181		
4,300.00	4,278.38	4,978.80	4,961.82	19.37	26.47	25.41	-3,719.15	-2,694.01	4,285.92	4,244.44	41.48	103.321		
4,400.00	4,377.76	5,075.41	5,057.14	19.83	27.00	25.43	-3,709.15	-2,681.81	4,260.14	4,217.79	42.36	100.578		
4,500.00	4,477.14	5,172.02	5,152.45	20.28	27.53	25.45	-3,699.14	-2,669.60	4,234.36	4,191.13	43.23	97.945		
4,600.00	4,576.53	5,268.64	5,247.77	20.74	28.06	25.46	-3,689.14	-2,657.39	4,208.58	4,164.47	44.11	95.415		
4,700.00	4,675.91	5,365.25	5,343.08	21.19	28.58	25.48	-3,679.14	-2,645.19	4,182.80	4,137.82	44.98	92.983		
4,800.00	4,775.29	5,461.86	5,438.40	21.65	29.11	25.50	-3,669.13	-2,632.98	4,157.02	4,111.16	45.86	90.642		
4,900.00	4,874.68	5,558.47	5,533.71	22.10	29.64	25.52	-3,659.13	-2,620.78	4,131.25	4,084.51	46.74	88.389		
5,000.00	4,974.06	5,655.09	5,629.03	22.56	30.16	25.53	-3,649.13	-2,608.57	4,105.47	4,057.85	47.62	86.218		
5,100.00	5,073.44	5,751.70	5,724.34	23.02	30.69	25.55	-3,639.13	-2,596.37	4,079.69	4,031.19	48.50	84.125		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 (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	5,172.83	5,848.31	5,819.66	23.47	31.22	25.57	-3,629.12	-2,584.16	4,053.91	4,004.54	49.37	82.105		
5,300.00	5,272.21	5,944.92	5,914.97	23.93	31.75	25.59	-3,619.12	-2,571.95	4,028.13	3,977.88	50.25	80.156		
5,400.00	5,371.59	6,041.54	6,010.29	24.39	32.28	25.61	-3,609.12	-2,559.75	4,002.36	3,951.22	51.13	78.273		
5,500.00	5,470.98	6,138.15	6,105.60	24.85	32.80	25.63	-3,599.11	-2,547.54	3,976.58	3,924.57	52.01	76.454		
5,600.00	5,570.36	6,234.76	6,200.92	25.30	33.33	25.65	-3,589.11	-2,535.34	3,950.81	3,897.91	52.89	74.694		
5,700.00	5,669.75	6,260.38	6,226.19	25.76	33.47	25.65	-3,586.46	-2,532.10	3,925.67	3,872.12	53.55	73.305		
5,800.00	5,769.13	6,300.00	6,265.41	26.22	33.68	25.67	-3,582.37	-2,528.32	3,902.14	3,847.90	54.24	71.940		
5,900.00	5,868.51	6,314.62	6,279.93	26.68	33.74	25.69	-3,580.87	-2,527.55	3,880.63	3,825.80	54.83	70.772		
6,000.00	5,967.90	6,334.66	6,299.86	27.14	33.83	25.72	-3,578.83	-2,527.03	3,861.11	3,805.69	55.42	69.668		
6,100.00	6,067.28	6,350.00	6,315.12	27.60	33.90	25.74	-3,577.27	-2,527.06	3,843.60	3,787.63	55.97	68.670		
6,200.00	6,166.66	6,374.87	6,339.85	28.05	33.99	25.79	-3,574.77	-2,527.90	3,828.08	3,771.55	56.53	67.717		
6,300.00	6,266.05	6,400.00	6,364.79	28.51	34.08	25.86	-3,572.27	-2,529.72	3,814.63	3,757.56	57.07	66.840		
6,400.00	6,365.43	6,414.96	6,379.59	28.97	34.13	25.90	-3,570.79	-2,531.28	3,803.22	3,745.67	57.55	66.090		
6,500.00	6,464.81	6,434.86	6,399.22	29.43	34.18	25.96	-3,568.85	-2,533.90	3,793.91	3,735.90	58.01	65.396		
6,600.00	6,564.10	6,450.00	6,414.10	29.89	34.23	-4.65	-3,567.38	-2,536.30	3,785.49	3,727.05	58.44	64.781		
6,700.00	6,661.75	6,474.58	6,438.12	30.34	34.28	-29.02	-3,565.04	-2,540.95	3,770.53	3,711.67	58.86	64.058		
6,800.00	6,755.38	6,500.00	6,462.76	30.77	34.34	-38.47	-3,562.66	-2,546.73	3,748.10	3,688.85	59.26	63.252		
6,900.00	6,842.67	6,513.93	6,476.16	31.17	34.37	-44.43	-3,561.37	-2,550.32	3,718.59	3,659.02	59.57	62.426		
7,000.00	6,921.48	6,525.01	6,486.76	31.54	34.39	-49.42	-3,560.36	-2,553.39	3,682.71	3,622.86	59.85	61.533		
7,100.00	6,989.86	6,550.00	6,510.46	31.91	34.44	-54.39	-3,558.12	-2,560.97	3,641.08	3,580.86	60.22	60.467		
7,200.00	7,046.13	6,550.00	6,510.46	32.35	34.44	-59.41	-3,558.12	-2,560.97	3,594.97	3,534.46	60.52	59.402		
7,300.00	7,088.91	6,600.00	6,556.91	32.98	34.51	-65.29	-3,553.79	-2,578.93	3,544.98	3,483.80	61.18	57.946		
7,400.00	7,117.14	6,600.00	6,556.91	33.84	34.51	-70.95	-3,553.79	-2,578.93	3,492.44	3,430.68	61.75	56.555		
7,500.00	7,130.13	6,609.61	6,565.67	34.90	34.52	-76.83	-3,552.98	-2,582.80	3,438.97	3,376.41	62.56	54.968		
7,600.00	7,130.72	6,625.01	6,579.58	36.13	34.53	-79.16	-3,551.71	-2,589.27	3,386.02	3,322.42	63.60	53.239		
7,700.00	7,130.29	6,625.01	6,579.58	37.54	34.53	-79.16	-3,551.71	-2,589.27	3,334.99	3,270.20	64.79	51.477		
7,800.00	7,129.85	6,650.00	6,601.82	39.12	34.55	-79.59	-3,549.70	-2,600.49	3,286.09	3,219.82	66.27	49.583		
7,900.00	7,129.42	6,650.00	6,601.82	40.83	34.55	-79.59	-3,549.70	-2,600.49	3,239.33	3,171.45	67.87	47.726		
8,000.00	7,128.98	6,666.75	6,616.48	42.67	34.56	-79.87	-3,548.39	-2,608.50	3,194.85	3,125.13	69.72	45.824		
8,100.00	7,128.55	6,680.92	6,628.70	44.62	34.57	-80.11	-3,547.30	-2,615.56	3,152.71	3,080.98	71.73	43.950		
8,200.00	7,128.12	6,700.00	6,644.92	46.66	34.58	-80.42	-3,545.87	-2,625.52	3,112.99	3,039.06	73.92	42.111		
8,300.00	7,127.68	6,712.87	6,655.69	48.79	34.58	-80.63	-3,544.94	-2,632.50	3,075.71	2,999.47	76.25	40.339		
8,400.00	7,127.25	6,725.01	6,665.72	50.98	34.59	-80.82	-3,544.07	-2,639.29	3,040.99	2,962.28	78.70	38.638		
8,500.00	7,126.81	6,750.00	6,685.94	53.24	34.59	-81.22	-3,542.34	-2,653.86	3,008.79	2,927.49	81.30	37.008		
8,600.00	7,126.38	6,772.07	6,703.32	55.56	34.59	-81.56	-3,540.87	-2,667.39	2,979.21	2,895.22	83.99	35.470		
8,700.00	7,125.95	6,800.00	6,724.63	57.92	34.59	-81.98	-3,539.11	-2,685.35	2,952.26	2,865.48	86.77	34.023		
8,800.00	7,125.51	6,825.01	6,743.03	60.33	34.59	-82.34	-3,537.62	-2,702.22	2,927.91	2,838.29	89.62	32.670		
8,900.00	7,125.08	6,850.00	6,760.75	62.77	34.59	-82.69	-3,536.21	-2,719.79	2,906.18	2,813.65	92.52	31.410		
9,000.00	7,124.64	6,880.01	6,781.10	65.25	34.58	-83.10	-3,534.64	-2,741.78	2,887.02	2,791.54	95.48	30.237		
9,100.00	7,124.21	6,913.67	6,802.67	67.76	34.58	-83.53	-3,533.02	-2,767.56	2,870.39	2,771.92	98.47	29.151		
9,200.00	7,123.78	6,950.00	6,824.40	70.29	34.57	-83.96	-3,531.47	-2,796.64	2,856.20	2,754.71	101.48	28.144		
9,300.00	7,123.34	7,000.00	6,851.54	72.85	34.58	-84.51	-3,529.66	-2,838.57	2,844.38	2,739.83	104.55	27.207		
9,400.00	7,122.91	7,033.99	6,868.08	75.43	34.60	-84.84	-3,528.65	-2,868.24	2,834.73	2,727.13	107.60	26.344		
9,500.00	7,122.48	7,080.83	6,888.26	78.03	34.66	-85.25	-3,527.56	-2,910.49	2,827.20	2,716.49	110.72	25.535		
9,600.00	7,122.04	7,130.90	6,906.35	80.65	34.75	-85.62	-3,526.78	-2,957.16	2,821.63	2,707.77	113.86	24.781		
9,700.00	7,121.61	7,183.88	6,921.45	83.28	34.93	-85.93	-3,526.39	-3,007.92	2,817.87	2,700.80	117.07	24.071		
9,800.00	7,121.17	7,239.21	6,932.69	85.93	35.21	-86.16	-3,526.48	-3,062.08	2,815.79	2,695.47	120.32	23.403		
9,882.29	7,120.82	7,286.01	6,938.52	88.12	35.53	-86.29	-3,526.95	-3,108.50	2,815.27	2,692.22	123.04	22.880 CC		
9,900.00	7,120.74	7,300.00	6,939.60	88.59	35.64	-86.31	-3,527.16	-3,122.45	2,815.29	2,691.63	123.66	22.766		
10,000.00	7,120.31	7,360.34	6,940.94	91.26	36.20	-86.34	-3,528.40	-3,182.74	2,816.29	2,689.24	127.05	22.166		
10,100.00	7,119.87	7,460.32	6,940.53	93.95	37.41	-86.35	-3,530.72	-3,282.70	2,817.84	2,686.81	131.03	21.506		
10,200.00	7,119.44	7,560.31	6,940.11	96.64	38.92	-86.35	-3,533.05	-3,382.66	2,819.38	2,684.14	135.24	20.847		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 (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	7,119.00	7,660.30	6,939.69	99.34	40.68	-86.35	-3,535.37	-3,482.62	2,820.93	2,681.24	139.69	20.194		
10,400.00	7,118.57	7,760.29	6,939.28	102.05	42.63	-86.35	-3,537.70	-3,582.58	2,822.47	2,678.14	144.33	19.556		
10,500.00	7,118.14	7,860.28	6,938.86	104.77	44.75	-86.36	-3,540.02	-3,682.54	2,824.01	2,674.87	149.14	18.935		
10,600.00	7,117.70	7,960.26	6,938.44	107.50	47.01	-86.36	-3,542.35	-3,782.50	2,825.56	2,671.46	154.10	18.336		
10,700.00	7,117.27	8,060.25	6,938.03	110.23	49.39	-86.36	-3,544.67	-3,882.46	2,827.10	2,667.91	159.19	17.759		
10,800.00	7,116.83	8,160.24	6,937.61	112.97	51.88	-86.36	-3,547.00	-3,982.42	2,828.64	2,664.25	164.40	17.206		
10,900.00	7,116.40	8,260.23	6,937.19	115.72	54.45	-86.37	-3,549.32	-4,082.38	2,830.19	2,660.49	169.70	16.678		
11,000.00	7,115.97	8,360.22	6,936.77	118.47	57.10	-86.37	-3,551.65	-4,182.34	2,831.73	2,656.65	175.08	16.174		
11,100.00	7,115.53	8,460.20	6,936.36	121.22	59.82	-86.37	-3,553.97	-4,282.30	2,833.28	2,652.74	180.54	15.693		
11,200.00	7,115.10	8,560.19	6,935.94	123.98	62.59	-86.37	-3,556.30	-4,382.26	2,834.82	2,648.76	186.06	15.236		
11,300.00	7,114.66	8,660.18	6,935.52	126.74	65.42	-86.37	-3,558.62	-4,482.22	2,836.36	2,644.72	191.64	14.801		
11,400.00	7,114.23	8,760.17	6,935.11	129.51	68.29	-86.38	-3,560.95	-4,582.18	2,837.91	2,640.64	197.27	14.386		
11,500.00	7,113.80	8,860.16	6,934.69	132.29	71.20	-86.38	-3,563.27	-4,682.14	2,839.45	2,636.51	202.94	13.992		
11,600.00	7,113.36	8,960.14	6,934.27	135.06	74.14	-86.38	-3,565.60	-4,782.10	2,841.00	2,632.35	208.65	13.616		
11,700.00	7,112.93	9,060.13	6,933.85	137.84	77.12	-86.38	-3,567.92	-4,882.06	2,842.54	2,628.15	214.39	13.258		
11,800.00	7,112.49	9,160.12	6,933.44	140.62	80.12	-86.39	-3,570.25	-4,982.02	2,844.08	2,623.91	220.17	12.918		
11,900.00	7,112.06	9,260.11	6,933.02	143.41	83.14	-86.39	-3,572.57	-5,081.98	2,845.63	2,619.65	225.97	12.593		
12,000.00	7,111.63	9,360.10	6,932.60	146.20	86.19	-86.39	-3,574.90	-5,181.94	2,847.17	2,615.37	231.80	12.283		
12,100.00	7,111.19	9,460.08	6,932.19	148.99	89.26	-86.39	-3,577.22	-5,281.90	2,848.72	2,611.06	237.65	11.987		
12,200.00	7,110.76	9,560.07	6,931.77	151.78	92.35	-86.40	-3,579.55	-5,381.86	2,850.26	2,606.74	243.52	11.704		
12,300.00	7,110.33	9,660.06	6,931.35	154.58	95.45	-86.40	-3,581.87	-5,481.82	2,851.80	2,602.39	249.41	11.434		
12,400.00	7,109.89	9,760.05	6,930.93	157.37	98.56	-86.40	-3,584.20	-5,581.78	2,853.35	2,598.03	255.32	11.176		
12,500.00	7,109.46	9,860.04	6,930.52	160.17	101.69	-86.40	-3,586.52	-5,681.74	2,854.89	2,593.65	261.24	10.928		
12,600.00	7,109.02	9,960.02	6,930.10	162.98	104.84	-86.40	-3,588.85	-5,781.70	2,856.43	2,589.26	267.18	10.691		
12,700.00	7,108.59	10,060.01	6,929.68	165.78	107.99	-86.41	-3,591.17	-5,881.66	2,857.98	2,584.85	273.12	10.464		
12,800.00	7,108.16	10,160.00	6,929.27	168.59	111.15	-86.41	-3,593.50	-5,981.62	2,859.52	2,580.44	279.08	10.246		
12,900.00	7,107.72	10,259.99	6,928.85	171.39	114.32	-86.41	-3,595.82	-6,081.58	2,861.07	2,576.01	285.06	10.037		
13,000.00	7,107.29	10,359.98	6,928.43	174.20	117.50	-86.41	-3,598.15	-6,181.54	2,862.61	2,571.57	291.04	9.836		
13,100.00	7,106.85	10,459.96	6,928.02	177.01	120.69	-86.42	-3,600.47	-6,281.50	2,864.15	2,567.13	297.03	9.643		
13,200.00	7,106.42	10,500.00	6,927.85	179.83	121.97	-86.42	-3,601.63	-6,321.52	2,866.56	2,565.61	300.95	9.525		
13,300.00	7,105.99	10,576.97	6,927.53	182.64	124.42	-86.42	-3,605.48	-6,398.40	2,870.73	2,564.62	306.11	9.378		
13,400.00	7,105.55	10,676.87	6,927.11	185.45	127.60	-86.43	-3,610.70	-6,498.16	2,875.16	2,563.06	312.11	9.212		
13,500.00	7,105.12	10,745.99	6,926.82	188.27	129.81	-86.43	-3,614.41	-6,567.17	2,879.87	2,562.91	316.96	9.086		
13,600.00	7,104.68	10,800.00	6,926.60	191.09	131.53	-86.44	-3,618.57	-6,621.02	2,886.50	2,565.31	321.19	8.987		
13,700.00	7,104.25	10,825.02	6,926.49	193.91	132.32	-86.44	-3,621.02	-6,645.93	2,895.03	2,570.90	324.12	8.932		
13,800.00	7,103.82	10,864.99	6,926.32	196.73	133.58	-86.44	-3,625.59	-6,685.63	2,905.70	2,578.19	327.51	8.872		
13,900.00	7,103.38	10,900.00	6,926.18	199.55	134.68	-86.45	-3,630.29	-6,720.32	2,918.42	2,587.90	330.52	8.830		
14,000.00	7,102.95	10,943.43	6,926.00	202.37	136.03	-86.46	-3,636.99	-6,763.23	2,933.16	2,599.38	333.78	8.788		
14,100.00	7,102.51	10,992.19	6,925.79	205.19	137.54	-86.47	-3,645.67	-6,811.21	2,949.97	2,612.78	337.19	8.749		
14,200.00	7,102.08	11,633.38	6,923.11	208.02	157.98	-86.53	-3,699.76	-7,448.32	2,953.94	2,588.64	365.30	8.086		
14,300.00	7,101.65	11,733.38	6,922.70	210.84	161.24	-86.53	-3,699.75	-7,548.32	2,953.15	2,581.78	371.37	7.952		
14,400.00	7,101.21	11,833.38	6,922.28	213.67	164.50	-86.53	-3,699.73	-7,648.31	2,952.36	2,574.91	377.45	7.822		
14,500.00	7,100.78	11,933.37	6,921.86	216.50	167.77	-86.53	-3,699.72	-7,748.31	2,951.57	2,568.04	383.53	7.696		
14,600.00	7,100.35	12,033.37	6,921.45	219.32	171.04	-86.53	-3,699.71	-7,848.30	2,950.78	2,561.16	389.62	7.574		
14,700.00	7,099.91	12,133.37	6,921.03	222.15	174.31	-86.53	-3,699.69	-7,948.30	2,949.99	2,554.28	395.70	7.455		
14,800.00	7,099.48	12,233.37	6,920.61	224.98	177.58	-86.52	-3,699.68	-8,048.30	2,949.20	2,547.40	401.79	7.340		
14,900.00	7,099.04	12,333.36	6,920.19	227.81	180.85	-86.52	-3,699.67	-8,148.29	2,948.41	2,540.52	407.89	7.228		
14,909.96	7,099.00	12,343.33	6,920.15	228.09	181.18	-86.52	-3,699.67	-8,158.26	2,948.33	2,539.83	408.50	7.218 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
0.00	0.00	25.00	68.00	3.28	0.00	-142.18	-4,209.69	-3,268.13	5,329.80					
100.00	100.00	57.00	100.00	3.28	0.07	-142.18	-4,209.69	-3,268.13	5,329.37	5,326.01	3.36	1,588.468		
200.00	200.00	889.92	929.58	3.34	3.78	-142.39	-4,180.92	-3,220.47	5,327.65	5,320.46	7.18	741.556		
300.00	300.00	988.84	1,027.42	3.44	4.29	-142.45	-4,173.42	-3,208.04	5,313.96	5,306.23	7.73	687.452		
400.00	400.00	1,087.75	1,125.27	3.60	4.79	-142.51	-4,165.92	-3,195.61	5,300.27	5,291.94	8.33	636.498		
500.00	500.00	1,186.67	1,223.11	3.81	5.31	-142.57	-4,158.42	-3,183.18	5,286.59	5,277.62	8.97	589.319		
600.00	600.00	1,285.58	1,320.95	4.04	5.82	24.25	-4,150.92	-3,170.75	5,272.85	5,263.20	9.65	546.304		
700.00	699.96	1,384.21	1,418.52	4.29	6.33	24.33	-4,143.44	-3,158.36	5,256.98	5,246.63	10.35	508.066		
800.00	799.78	1,482.34	1,515.59	4.57	6.85	24.46	-4,136.00	-3,146.03	5,237.97	5,226.90	11.07	473.068		
900.00	899.34	1,579.85	1,612.04	4.88	7.36	24.63	-4,128.61	-3,133.78	5,215.86	5,204.04	11.82	441.119		
1,000.00	998.72	1,677.03	1,708.16	5.20	7.87	24.62	-4,121.24	-3,121.57	5,192.26	5,179.68	12.58	412.806		
1,100.00	1,098.10	1,774.20	1,804.28	5.54	8.38	24.61	-4,113.87	-3,109.36	5,168.66	5,155.31	13.35	387.141		
1,200.00	1,197.49	1,871.37	1,900.40	5.90	8.89	24.60	-4,106.50	-3,097.15	5,145.05	5,130.91	14.14	363.873		
1,300.00	1,296.87	1,968.54	1,996.52	6.28	9.40	24.59	-4,099.13	-3,084.94	5,121.45	5,106.51	14.94	342.758		
1,400.00	1,396.25	2,065.71	2,092.64	6.66	9.91	24.59	-4,091.77	-3,072.73	5,097.85	5,082.09	15.76	323.563		
1,500.00	1,495.64	2,162.88	2,188.76	7.06	10.42	24.58	-4,084.40	-3,060.52	5,074.25	5,057.67	16.58	306.078		
1,600.00	1,595.02	2,260.06	2,284.88	7.46	10.94	24.57	-4,077.03	-3,048.31	5,050.64	5,033.24	17.41	290.112		
1,700.00	1,694.40	2,357.23	2,381.00	7.87	11.45	24.56	-4,069.66	-3,036.10	5,027.04	5,008.80	18.25	275.497		
1,800.00	1,793.79	2,454.40	2,477.12	8.29	11.96	24.55	-4,062.29	-3,023.89	5,003.44	4,984.35	19.09	262.084		
1,900.00	1,893.17	2,551.57	2,573.24	8.71	12.47	24.54	-4,054.92	-3,011.68	4,979.84	4,959.90	19.94	249.743		
2,000.00	1,992.55	2,648.74	2,669.36	9.13	12.99	24.53	-4,047.56	-2,999.47	4,956.24	4,935.44	20.79	238.358		
2,100.00	2,091.94	2,745.92	2,765.48	9.56	13.50	24.52	-4,040.19	-2,987.26	4,932.63	4,910.98	21.65	227.831		
2,200.00	2,191.32	2,843.09	2,861.60	9.99	14.01	24.51	-4,032.82	-2,975.05	4,909.03	4,886.52	22.51	218.073		
2,300.00	2,290.70	2,940.26	2,957.72	10.42	14.53	24.51	-4,025.45	-2,962.85	4,885.43	4,862.06	23.37	209.006		
2,400.00	2,390.09	3,037.43	3,053.84	10.86	15.04	24.50	-4,018.08	-2,950.64	4,861.83	4,837.59	24.24	200.564		
2,500.00	2,489.47	3,134.60	3,149.96	11.29	15.56	24.49	-4,010.71	-2,938.43	4,838.23	4,813.12	25.11	192.686		
2,600.00	2,588.86	3,231.78	3,246.08	11.73	16.07	24.48	-4,003.35	-2,926.22	4,814.63	4,788.65	25.98	185.321		
2,700.00	2,688.24	3,328.95	3,342.20	12.18	16.59	24.47	-3,995.98	-2,914.01	4,791.03	4,764.17	26.85	178.420		
2,800.00	2,787.62	3,426.12	3,438.32	12.62	17.10	24.46	-3,988.61	-2,901.80	4,767.43	4,739.70	27.73	171.944		
2,900.00	2,887.01	3,523.29	3,534.44	13.06	17.63	24.45	-3,981.24	-2,889.59	4,743.82	4,715.21	28.62	165.761		
3,000.00	2,986.39	3,620.46	3,630.56	13.51	18.18	24.44	-3,973.87	-2,877.38	4,720.22	4,690.70	29.52	159.888		
3,100.00	3,085.77	3,717.64	3,726.68	13.95	18.64	24.43	-3,966.51	-2,865.17	4,696.62	4,666.27	30.36	154.709		
3,200.00	3,185.16	3,814.81	3,822.80	14.40	19.16	24.42	-3,959.14	-2,852.96	4,673.02	4,641.79	31.24	149.597		
3,300.00	3,284.54	3,911.98	3,918.92	14.85	19.67	24.41	-3,951.77	-2,840.75	4,649.42	4,617.31	32.12	144.761		
3,400.00	3,383.92	4,009.15	4,015.04	15.30	20.19	24.40	-3,944.40	-2,828.54	4,625.82	4,592.82	33.00	140.179		
3,500.00	3,483.31	4,106.32	4,111.15	15.75	20.70	24.39	-3,937.03	-2,816.33	4,602.22	4,568.34	33.88	135.832		
3,600.00	3,582.69	4,203.49	4,207.27	16.20	21.22	24.38	-3,929.66	-2,804.12	4,578.62	4,543.86	34.76	131.702		
3,700.00	3,682.07	4,300.67	4,303.39	16.65	21.73	24.37	-3,922.30	-2,791.91	4,555.02	4,519.37	35.65	127.775		
3,800.00	3,781.46	4,402.16	4,399.51	17.10	22.27	24.36	-3,914.93	-2,779.70	4,531.42	4,494.87	36.55	123.966		
3,900.00	3,880.84	4,495.01	4,495.63	17.56	22.76	24.34	-3,907.56	-2,767.49	4,507.82	4,470.41	37.42	120.469		
4,000.00	3,980.22	4,592.18	4,591.75	18.01	23.27	24.33	-3,900.19	-2,755.28	4,484.23	4,445.92	38.30	117.067		
4,100.00	4,079.61	4,689.35	4,687.87	18.46	23.79	24.32	-3,892.82	-2,743.07	4,460.63	4,421.44	39.19	113.817		
4,200.00	4,178.99	4,786.53	4,783.99	18.92	24.30	24.31	-3,885.45	-2,730.86	4,437.03	4,396.95	40.08	110.709		
4,300.00	4,278.38	4,883.70	4,880.11	19.37	24.82	24.30	-3,878.09	-2,718.65	4,413.43	4,372.46	40.97	107.735		
4,400.00	4,377.76	4,980.87	4,976.23	19.83	25.33	24.29	-3,870.72	-2,706.45	4,389.83	4,347.98	41.85	104.885		
4,500.00	4,477.14	5,078.04	5,072.35	20.28	25.85	24.28	-3,863.35	-2,694.24	4,366.23	4,323.49	42.74	102.153		
4,600.00	4,576.53	5,175.21	5,168.47	20.74	26.36	24.27	-3,855.98	-2,682.03	4,342.63	4,299.00	43.63	99.532		
4,700.00	4,675.91	5,272.39	5,264.59	21.19	26.88	24.25	-3,848.61	-2,669.82	4,319.04	4,274.52	44.52	97.014		
4,800.00	4,775.29	5,369.56	5,360.71	21.65	27.39	24.24	-3,841.24	-2,657.61	4,295.44	4,250.03	45.41	94.593		
4,900.00	4,874.68	5,466.73	5,456.83	22.10	27.91	24.23	-3,833.88	-2,645.40	4,271.84	4,225.54	46.30	92.266		
5,000.00	4,974.06	5,563.90	5,552.95	22.56	28.42	24.22	-3,826.51	-2,633.19	4,248.24	4,201.05	47.19	90.025		
5,100.00	5,073.44	5,661.07	5,649.07	23.02	28.94	24.20	-3,819.14	-2,620.98	4,224.65	4,176.57	48.08	87.867		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,200.00	5,172.83	5,758.25	5,745.19	23.47	29.45	24.19	-3,811.77	-2,608.77	4,201.05	4,152.08	48.97	85.786		
5,300.00	5,272.21	5,855.42	5,841.31	23.93	29.97	24.18	-3,804.40	-2,596.56	4,177.45	4,127.59	49.86	83.780		
5,400.00	5,371.59	5,952.59	5,937.43	24.39	30.48	24.17	-3,797.03	-2,584.35	4,153.85	4,103.10	50.75	81.843		
5,500.00	5,470.98	6,049.76	6,033.55	24.85	31.00	24.15	-3,789.67	-2,572.14	4,130.26	4,078.61	51.65	79.973		
5,600.00	5,570.36	6,146.93	6,129.67	25.30	31.52	24.14	-3,782.30	-2,559.93	4,106.66	4,054.12	52.54	78.166		
5,700.00	5,669.75	6,244.10	6,225.79	25.76	32.03	24.13	-3,774.93	-2,547.72	4,083.07	4,029.64	53.43	76.419		
5,800.00	5,769.13	6,341.28	6,321.91	26.22	32.55	24.11	-3,767.56	-2,535.51	4,059.47	4,005.15	54.32	74.729		
5,900.00	5,868.51	6,387.92	6,368.07	26.68	32.79	24.11	-3,764.03	-2,529.78	4,036.27	3,981.22	55.05	73.323		
6,000.00	5,967.90	6,400.00	6,380.05	27.14	32.85	24.11	-3,763.12	-2,528.62	4,014.87	3,959.23	55.64	72.152		
6,100.00	6,067.28	6,425.01	6,404.94	27.60	32.97	24.13	-3,761.24	-2,526.94	3,995.30	3,939.04	56.26	71.009		
6,200.00	6,166.66	6,450.00	6,429.85	28.05	33.08	24.15	-3,759.39	-2,526.25	3,977.68	3,920.82	56.86	69.953		
6,300.00	6,266.05	6,450.00	6,429.85	28.51	33.08	24.15	-3,759.39	-2,526.25	3,962.22	3,904.87	57.35	69.088		
6,400.00	6,365.43	6,500.00	6,479.68	28.97	33.26	24.23	-3,755.75	-2,527.80	3,948.39	3,890.40	57.99	68.087		
6,500.00	6,464.81	6,500.00	6,479.68	29.43	33.26	24.23	-3,755.75	-2,527.80	3,936.64	3,878.21	58.43	67.373		
6,600.00	6,564.10	6,525.01	6,504.52	29.89	33.34	-6.47	-3,753.97	-2,530.05	3,925.71	3,866.77	58.93	66.613		
6,700.00	6,661.75	6,550.00	6,529.24	30.34	33.41	-31.06	-3,752.23	-2,533.27	3,908.56	3,849.15	59.41	65.794		
6,800.00	6,755.38	6,568.99	6,547.93	30.77	33.45	-40.72	-3,750.92	-2,536.37	3,884.30	3,824.48	59.82	64.934		
6,900.00	6,842.67	6,600.00	6,578.23	31.17	33.53	-46.92	-3,748.83	-2,542.62	3,853.52	3,793.27	60.25	63.954		
7,000.00	6,921.48	6,600.00	6,578.23	31.54	33.53	-52.06	-3,748.83	-2,542.62	3,816.66	3,756.11	60.55	63.032		
7,100.00	6,989.86	6,625.01	6,602.42	31.91	33.58	-57.19	-3,747.19	-2,548.73	3,774.69	3,713.73	60.97	61.914		
7,200.00	7,046.13	6,650.00	6,626.34	32.35	33.63	-62.54	-3,745.59	-2,555.79	3,728.65	3,667.21	61.44	60.685		
7,300.00	7,088.91	6,650.00	6,626.34	32.98	33.63	-67.88	-3,745.59	-2,555.79	3,679.52	3,617.59	61.93	59.414		
7,400.00	7,117.14	6,669.94	6,645.21	33.84	33.66	-73.64	-3,744.34	-2,562.09	3,628.56	3,565.90	62.65	57.916		
7,500.00	7,130.13	6,680.72	6,655.34	34.90	33.67	-79.28	-3,743.68	-2,565.75	3,577.14	3,513.61	63.53	56.311		
7,600.00	7,130.72	6,700.00	6,673.28	36.13	33.70	-81.55	-3,742.52	-2,572.70	3,526.74	3,462.12	64.62	54.574		
7,700.00	7,130.29	6,700.00	6,673.28	37.54	33.70	-81.55	-3,742.52	-2,572.70	3,478.22	3,412.36	65.87	52.807		
7,800.00	7,129.85	6,708.59	6,681.20	39.12	33.71	-81.70	-3,742.01	-2,575.98	3,431.89	3,364.55	67.34	50.961		
7,900.00	7,129.42	6,725.01	6,696.23	40.83	33.73	-81.97	-3,741.06	-2,582.54	3,387.79	3,318.75	69.04	49.071		
8,000.00	7,128.98	6,725.01	6,696.23	42.67	33.73	-81.97	-3,741.06	-2,582.54	3,345.94	3,275.06	70.88	47.208		
8,100.00	7,128.55	6,750.00	6,718.75	44.62	33.75	-82.39	-3,739.64	-2,593.25	3,306.43	3,233.49	72.94	45.330		
8,200.00	7,128.12	6,750.00	6,718.75	46.66	33.75	-82.39	-3,739.64	-2,593.25	3,269.33	3,194.22	75.11	43.527		
8,300.00	7,127.68	6,772.35	6,738.53	48.79	33.77	-82.76	-3,738.42	-2,603.58	3,234.67	3,157.21	77.46	41.758		
8,400.00	7,127.25	6,800.00	6,762.49	50.98	33.79	-83.20	-3,736.98	-2,617.31	3,202.61	3,122.67	79.94	40.064		
8,500.00	7,126.81	6,800.00	6,762.49	53.24	33.79	-83.20	-3,736.98	-2,617.31	3,173.01	3,090.52	82.49	38.467		
8,600.00	7,126.38	6,825.01	6,783.63	55.56	33.81	-83.59	-3,735.72	-2,630.62	3,146.02	3,060.86	85.16	36.945		
8,700.00	7,125.95	6,850.00	6,804.21	57.92	33.82	-83.98	-3,734.53	-2,644.74	3,121.64	3,033.75	87.89	35.516		
8,800.00	7,125.51	6,873.64	6,823.16	60.33	33.83	-84.33	-3,733.46	-2,658.82	3,099.87	3,009.17	90.69	34.179		
8,900.00	7,125.08	6,900.00	6,843.66	62.77	33.84	-84.72	-3,732.33	-2,675.35	3,080.68	2,987.14	93.54	32.935		
9,000.00	7,124.64	6,931.37	6,867.14	65.25	33.85	-85.16	-3,731.08	-2,696.11	3,064.03	2,967.61	96.42	31.779		
9,100.00	7,124.21	6,965.32	6,891.38	67.76	33.86	-85.62	-3,729.85	-2,719.85	3,049.86	2,950.53	99.32	30.707		
9,200.00	7,123.78	7,000.00	6,914.80	70.29	33.88	-86.06	-3,728.71	-2,745.39	3,038.07	2,935.83	102.24	29.716		
9,300.00	7,123.34	7,045.50	6,943.36	72.85	33.91	-86.60	-3,727.42	-2,780.77	3,028.53	2,923.35	105.18	28.794		
9,400.00	7,122.91	7,092.49	6,970.14	75.43	33.97	-87.11	-3,726.34	-2,819.36	3,021.09	2,912.95	108.14	27.936		
9,500.00	7,122.48	7,144.44	6,996.35	78.03	34.07	-87.61	-3,725.45	-2,864.19	3,015.58	2,904.44	111.14	27.134		
9,600.00	7,122.04	7,200.00	7,020.26	80.65	34.23	-88.07	-3,724.84	-2,914.32	3,011.79	2,897.60	114.18	26.376		
9,700.00	7,121.61	7,263.00	7,041.98	83.28	34.51	-88.49	-3,724.61	-2,973.42	3,009.50	2,892.17	117.33	25.650		
9,800.00	7,121.17	7,328.62	7,058.29	85.93	34.92	-88.80	-3,724.88	-3,036.96	3,008.51	2,887.95	120.56	24.954		
9,832.77	7,121.03	7,350.00	7,062.19	86.80	35.08	-88.88	-3,725.08	-3,057.98	3,008.45	2,886.80	121.64	24.732 CC		
9,900.00	7,120.74	7,400.00	7,068.54	88.59	35.50	-89.00	-3,725.75	-3,107.55	3,008.67	2,884.73	123.94	24.276		
10,000.00	7,120.31	7,470.16	7,070.95	91.26	36.21	-89.06	-3,727.20	-3,177.62	3,009.85	2,882.45	127.40	23.625		
10,100.00	7,119.87	7,570.14	7,070.35	93.95	37.47	-89.05	-3,729.55	-3,277.58	3,011.43	2,880.06	131.37	22.923		
10,200.00	7,119.44	7,670.13	7,069.74	96.64	38.98	-89.05	-3,731.91	-3,377.54	3,013.01	2,877.42	135.59	22.222		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,119.00	7,770.12	7,069.14	99.34	40.72	-89.05	-3,734.27	-3,477.50	3,014.59	2,874.57	140.03	21.529		
10,400.00	7,118.57	7,870.11	7,068.54	102.05	42.65	-89.05	-3,736.62	-3,577.45	3,016.18	2,871.51	144.66	20.850		
10,500.00	7,118.14	7,970.09	7,067.94	104.77	44.75	-89.04	-3,738.98	-3,677.41	3,017.76	2,868.29	149.47	20.189		
10,600.00	7,117.70	8,070.08	7,067.34	107.50	47.00	-89.04	-3,741.34	-3,777.37	3,019.34	2,864.91	154.43	19.551		
10,700.00	7,117.27	8,170.07	7,066.73	110.23	49.36	-89.04	-3,743.69	-3,877.33	3,020.92	2,861.40	159.52	18.937		
10,800.00	7,116.83	8,270.05	7,066.13	112.97	51.83	-89.03	-3,746.05	-3,977.28	3,022.50	2,857.78	164.72	18.349		
10,900.00	7,116.40	8,370.04	7,065.53	115.72	54.39	-89.03	-3,748.40	-4,077.24	3,024.09	2,854.06	170.02	17.786		
11,000.00	7,115.97	8,470.03	7,064.93	118.47	57.03	-89.03	-3,750.76	-4,177.20	3,025.67	2,850.26	175.41	17.249		
11,100.00	7,115.53	8,570.02	7,064.33	121.22	59.74	-89.03	-3,753.12	-4,277.16	3,027.25	2,846.38	180.87	16.737		
11,200.00	7,115.10	8,670.00	7,063.72	123.98	62.51	-89.02	-3,755.47	-4,377.12	3,028.83	2,842.44	186.39	16.250		
11,300.00	7,114.66	8,769.99	7,063.12	126.74	65.33	-89.02	-3,757.83	-4,477.07	3,030.41	2,838.44	191.97	15.785		
11,400.00	7,114.23	8,869.98	7,062.52	129.51	68.19	-89.02	-3,760.19	-4,577.03	3,032.00	2,834.39	197.61	15.344		
11,500.00	7,113.80	8,969.97	7,061.92	132.29	71.10	-89.02	-3,762.54	-4,676.99	3,033.58	2,830.30	203.28	14.923		
11,600.00	7,113.36	9,069.95	7,061.32	135.06	74.04	-89.01	-3,764.90	-4,776.95	3,035.16	2,826.16	209.00	14.523		
11,700.00	7,112.93	9,169.94	7,060.71	137.84	77.01	-89.01	-3,767.26	-4,876.90	3,036.74	2,822.00	214.75	14.141		
11,800.00	7,112.49	9,269.93	7,060.11	140.62	80.01	-89.01	-3,769.61	-4,976.86	3,038.32	2,817.80	220.53	13.778		
11,900.00	7,112.06	9,369.92	7,059.51	143.41	83.03	-89.01	-3,771.97	-5,076.82	3,039.91	2,813.57	226.34	13.431		
12,000.00	7,111.63	9,469.90	7,058.91	146.20	86.08	-89.00	-3,774.32	-5,176.78	3,041.49	2,809.32	232.17	13.100		
12,100.00	7,111.19	9,569.89	7,058.30	148.99	89.14	-89.00	-3,776.68	-5,276.74	3,043.07	2,805.05	238.03	12.785		
12,200.00	7,110.76	9,669.88	7,057.70	151.78	92.22	-89.00	-3,779.04	-5,376.69	3,044.65	2,800.75	243.90	12.483		
12,300.00	7,110.33	9,769.87	7,057.10	154.58	95.33	-88.99	-3,781.39	-5,476.65	3,046.24	2,796.44	249.80	12.195		
12,400.00	7,109.89	9,869.85	7,056.50	157.37	98.44	-88.99	-3,783.75	-5,576.61	3,047.82	2,792.11	255.71	11.919		
12,500.00	7,109.46	9,969.84	7,055.90	160.17	101.57	-88.99	-3,786.11	-5,676.57	3,049.40	2,787.76	261.64	11.655		
12,600.00	7,109.02	10,069.83	7,055.29	162.98	104.71	-88.99	-3,788.46	-5,776.52	3,050.98	2,783.40	267.58	11.402		
12,700.00	7,108.59	10,169.82	7,054.69	165.78	107.86	-88.98	-3,790.82	-5,876.48	3,052.56	2,779.03	273.54	11.160		
12,800.00	7,108.16	10,269.80	7,054.09	168.59	111.02	-88.98	-3,793.18	-5,976.44	3,054.15	2,774.64	279.50	10.927		
12,900.00	7,107.72	10,369.79	7,053.49	171.39	114.19	-88.98	-3,795.53	-6,076.40	3,055.73	2,770.25	285.48	10.704		
13,000.00	7,107.29	10,469.78	7,052.89	174.20	117.37	-88.98	-3,797.89	-6,176.36	3,057.31	2,765.84	291.47	10.489		
13,100.00	7,106.85	10,569.76	7,052.28	177.01	120.56	-88.97	-3,800.24	-6,276.31	3,058.89	2,761.42	297.47	10.283		
13,200.00	7,106.42	10,669.75	7,051.68	179.83	123.75	-88.97	-3,802.60	-6,376.27	3,060.48	2,757.00	303.48	10.085		
13,300.00	7,105.99	10,769.74	7,051.08	182.64	126.96	-88.97	-3,804.96	-6,476.23	3,062.06	2,752.57	309.49	9.894		
13,400.00	7,105.55	10,869.73	7,050.48	185.45	130.16	-88.97	-3,807.31	-6,576.19	3,063.64	2,748.13	315.51	9.710		
13,500.00	7,105.12	10,969.71	7,049.88	188.27	133.38	-88.96	-3,809.67	-6,676.14	3,065.22	2,743.68	321.54	9.533		
13,600.00	7,104.68	11,069.70	7,049.27	191.09	136.60	-88.96	-3,812.03	-6,776.10	3,066.80	2,739.22	327.58	9.362		
13,700.00	7,104.25	11,169.69	7,048.67	193.91	139.82	-88.96	-3,814.38	-6,876.06	3,068.39	2,734.76	333.62	9.197		
13,800.00	7,103.82	11,269.68	7,048.07	196.73	143.05	-88.96	-3,816.74	-6,976.02	3,069.97	2,730.30	339.67	9.038		
13,900.00	7,103.38	11,369.66	7,047.47	199.55	146.28	-88.95	-3,819.10	-7,075.98	3,071.55	2,725.83	345.72	8.884		
14,000.00	7,102.95	11,469.65	7,046.87	202.37	149.52	-88.95	-3,821.45	-7,175.93	3,073.13	2,721.35	351.78	8.736		
14,100.00	7,102.51	11,569.64	7,046.26	205.19	152.76	-88.95	-3,823.81	-7,275.89	3,074.72	2,716.87	357.85	8.592		
14,200.00	7,102.08	11,669.63	7,045.66	208.02	156.01	-88.95	-3,826.16	-7,375.85	3,076.30	2,712.38	363.91	8.453		
14,300.00	7,101.65	11,769.61	7,045.06	210.84	159.25	-88.94	-3,828.52	-7,475.81	3,077.88	2,707.89	369.99	8.319		
14,400.00	7,101.21	11,869.60	7,044.46	213.67	162.51	-88.94	-3,830.88	-7,575.77	3,079.46	2,703.40	376.06	8.189		
14,500.00	7,100.78	11,969.59	7,043.86	216.50	165.76	-88.94	-3,833.23	-7,675.72	3,081.04	2,698.90	382.14	8.063		
14,600.00	7,100.35	12,069.58	7,043.25	219.32	169.02	-88.93	-3,835.59	-7,775.68	3,082.63	2,694.40	388.23	7.940		
14,700.00	7,099.91	12,169.56	7,042.65	222.15	172.28	-88.93	-3,837.95	-7,875.64	3,084.21	2,689.89	394.31	7.822		
14,800.00	7,099.48	12,269.55	7,042.05	224.98	175.54	-88.93	-3,840.30	-7,975.60	3,085.79	2,685.39	400.40	7.707		
14,900.00	7,099.04	12,369.54	7,041.45	227.81	178.80	-88.93	-3,842.66	-8,075.55	3,087.37	2,680.88	406.50	7.595		
14,909.96	7,099.00	12,379.50	7,041.39	228.09	179.13	-88.93	-3,842.89	-8,085.51	3,087.53	2,680.43	407.11	7.584 ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	15,789.86	7,243.40	3.28	247.79	0.57	2,163.45	21.58	7,559.62					
100.00	100.00	15,809.96	7,243.40	3.28	248.36	0.57	2,163.45	21.34	7,463.86	7,344.65	119.20	62.614		
200.00	200.00	15,809.72	7,243.40	3.34	248.35	0.56	2,163.45	21.09	7,368.21	7,248.57	119.64	61.587		
300.00	300.00	15,809.47	7,243.40	3.44	248.35	0.55	2,163.45	20.85	7,272.67	7,152.58	120.10	60.557		
400.00	400.00	15,809.23	7,243.40	3.60	248.34	0.55	2,163.45	20.60	7,177.26	7,056.69	120.58	59.524		
500.00	500.00	15,808.98	7,243.40	3.81	248.33	0.54	2,163.45	20.36	7,081.98	6,960.90	121.08	58.489		
600.00	600.00	15,808.72	7,243.41	4.04	248.33	167.64	2,163.45	20.10	6,986.85	6,865.24	121.61	57.452		
700.00	699.96	15,807.93	7,243.41	4.29	248.30	168.77	2,163.45	19.30	6,892.62	6,770.41	122.20	56.403		
800.00	799.78	15,806.34	7,243.41	4.57	248.26	169.67	2,163.46	17.72	6,799.77	6,676.89	122.88	55.337		
900.00	899.34	15,803.98	7,243.42	4.88	248.19	170.39	2,163.46	15.35	6,708.49	6,584.85	123.64	54.257		
1,000.00	998.72	15,798.83	7,243.42	5.20	248.05	170.33	2,163.46	12.61	6,618.16	6,493.69	124.47	53.170		
1,100.00	1,098.10	15,801.58	7,243.43	5.54	248.12	170.28	2,163.47	9.86	6,528.11	6,402.66	125.45	52.038		
1,200.00	1,197.49	15,804.33	7,243.44	5.90	248.20	170.22	2,163.47	7.12	6,438.35	6,311.88	126.47	50.907		
1,300.00	1,296.87	15,807.07	7,243.44	6.28	248.28	170.17	2,163.48	4.37	6,348.90	6,221.35	127.55	49.776		
1,400.00	1,396.25	15,809.82	7,243.45	6.66	248.36	170.11	2,163.48	1.62	6,259.76	6,131.08	128.68	48.647		
1,500.00	1,495.64	15,812.56	7,243.46	7.06	248.43	170.06	2,163.49	-1.12	6,170.96	6,041.10	129.86	47.520		
1,600.00	1,595.02	15,815.31	7,243.46	7.46	248.51	170.00	2,163.49	-3.87	6,082.50	5,951.40	131.10	46.396		
1,700.00	1,694.40	15,818.06	7,243.47	7.87	248.59	169.95	2,163.50	-6.62	5,994.40	5,862.00	132.40	45.275		
1,800.00	1,793.79	15,820.80	7,243.48	8.29	248.67	169.89	2,163.50	-9.36	5,906.69	5,772.92	133.76	44.159		
1,900.00	1,893.17	15,823.55	7,243.48	8.71	248.75	169.84	2,163.51	-12.11	5,819.36	5,684.18	135.19	43.047		
2,000.00	1,992.55	15,826.29	7,243.49	9.13	248.82	169.78	2,163.51	-14.85	5,732.45	5,595.77	136.68	41.941		
2,100.00	2,091.94	15,829.04	7,243.50	9.56	248.90	169.73	2,163.52	-17.60	5,645.98	5,507.74	138.24	40.842		
2,200.00	2,191.32	15,831.79	7,243.50	9.99	248.98	169.67	2,163.52	-20.35	5,559.95	5,420.08	139.87	39.751		
2,300.00	2,290.70	15,834.53	7,243.51	10.42	249.06	169.62	2,163.53	-23.09	5,474.40	5,332.83	141.57	38.669		
2,400.00	2,390.09	15,837.28	7,243.52	10.86	249.13	169.56	2,163.53	-25.84	5,389.34	5,246.00	143.35	37.597		
2,500.00	2,489.47	15,840.03	7,243.52	11.29	249.21	169.51	2,163.54	-28.58	5,304.80	5,159.61	145.20	36.535		
2,600.00	2,588.86	15,842.77	7,243.53	11.73	249.29	169.45	2,163.54	-31.33	5,220.81	5,073.69	147.12	35.486		
2,700.00	2,688.24	15,845.52	7,243.54	12.18	249.37	169.40	2,163.55	-34.08	5,137.39	4,988.26	149.13	34.449		
2,800.00	2,787.62	15,848.26	7,243.54	12.62	249.44	169.34	2,163.55	-36.82	5,054.58	4,903.36	151.22	33.426		
2,900.00	2,887.01	15,851.01	7,243.55	13.06	249.52	169.29	2,163.56	-39.57	4,972.39	4,819.00	153.39	32.417		
3,000.00	2,986.39	15,853.76	7,243.56	13.51	249.60	169.23	2,163.56	-42.32	4,890.86	4,735.22	155.64	31.424		
3,100.00	3,085.77	15,856.50	7,243.56	13.95	249.68	169.18	2,163.57	-45.06	4,810.03	4,652.05	157.98	30.448		
3,200.00	3,185.16	15,859.25	7,243.57	14.40	249.76	169.12	2,163.57	-47.81	4,729.93	4,569.53	160.40	29.488		
3,300.00	3,284.54	15,861.99	7,243.58	14.85	249.83	169.07	2,163.58	-50.55	4,650.60	4,487.69	162.91	28.547		
3,400.00	3,383.92	15,864.74	7,243.58	15.30	249.91	169.01	2,163.58	-53.30	4,572.08	4,406.56	165.51	27.624		
3,500.00	3,483.31	15,867.49	7,243.59	15.75	249.99	168.96	2,163.59	-56.05	4,494.41	4,326.20	168.20	26.720		
3,600.00	3,582.69	15,870.23	7,243.60	16.20	250.07	168.90	2,163.59	-58.79	4,417.63	4,246.65	170.98	25.837		
3,700.00	3,682.07	15,872.98	7,243.60	16.65	250.14	168.85	2,163.60	-61.54	4,341.80	4,167.95	173.86	24.973		
3,800.00	3,781.46	15,875.73	7,243.61	17.10	250.22	168.79	2,163.60	-64.28	4,266.97	4,090.15	176.82	24.132		
3,900.00	3,880.84	15,878.47	7,243.62	17.56	250.30	168.74	2,163.61	-67.03	4,193.18	4,013.30	179.88	23.311		
4,000.00	3,980.22	15,881.22	7,243.62	18.01	250.38	168.68	2,163.61	-69.78	4,120.50	3,937.47	183.03	22.513		
4,100.00	4,079.61	15,883.96	7,243.63	18.46	250.45	168.63	2,163.62	-72.52	4,048.98	3,862.71	186.27	21.737		
4,200.00	4,178.99	15,886.71	7,243.64	18.92	250.53	168.57	2,163.62	-75.27	3,978.68	3,789.08	189.60	20.985		
4,300.00	4,278.38	15,889.46	7,243.64	19.37	250.61	168.52	2,163.63	-78.01	3,909.68	3,716.66	193.02	20.256		
4,400.00	4,377.76	15,907.86	7,243.65	19.83	251.13	168.46	2,163.63	-80.76	3,842.04	3,645.21	196.83	19.519		
4,500.00	4,477.14	15,905.12	7,243.66	20.28	251.05	168.41	2,163.64	-83.51	3,775.83	3,575.52	200.31	18.849		
4,600.00	4,576.53	15,902.37	7,243.67	20.74	250.97	168.35	2,163.64	-86.25	3,711.14	3,507.27	203.87	18.204		
4,700.00	4,675.91	15,900.44	7,243.67	21.19	250.92	168.30	2,163.65	-89.00	3,648.04	3,440.53	207.51	17.580		
4,800.00	4,775.29	15,903.19	7,243.68	21.65	251.00	168.24	2,163.65	-91.75	3,586.61	3,375.30	211.32	16.973		
4,900.00	4,874.68	15,905.93	7,243.69	22.10	251.08	168.19	2,163.66	-94.49	3,526.95	3,311.77	215.18	16.391		
5,000.00	4,974.06	15,908.68	7,243.69	22.56	251.15	168.13	2,163.66	-97.24	3,469.15	3,250.05	219.09	15.834		
5,100.00	5,073.44	15,911.42	7,243.70	23.02	251.23	168.08	2,163.67	-99.98	3,413.29	3,190.24	223.05	15.303		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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	5,172.83	15,914.17	7,243.71	23.47	251.31	168.02	2,163.67	-102.73	3,359.48	3,132.44	227.03	14.797		
5,300.00	5,272.21	15,916.92	7,243.71	23.93	251.39	167.97	2,163.68	-105.48	3,307.81	3,076.78	231.04	14.317		
5,400.00	5,371.59	15,919.66	7,243.72	24.39	251.46	167.91	2,163.68	-108.22	3,258.40	3,023.36	235.04	13.863		
5,500.00	5,470.98	15,922.41	7,243.73	24.85	251.54	167.86	2,163.69	-110.97	3,211.33	2,972.31	239.02	13.435		
5,600.00	5,570.36	15,925.16	7,243.73	25.30	251.62	167.80	2,163.69	-113.71	3,166.72	2,923.75	242.98	13.033		
5,700.00	5,669.75	15,927.90	7,243.74	25.76	251.70	167.75	2,163.70	-116.46	3,124.68	2,877.80	246.88	12.657		
5,800.00	5,769.13	15,930.65	7,243.75	26.22	251.77	167.69	2,163.70	-119.21	3,085.30	2,834.59	250.71	12.306		
5,900.00	5,868.51	15,933.39	7,243.75	26.68	251.85	167.63	2,163.71	-121.95	3,048.69	2,794.24	254.45	11.982		
6,000.00	5,967.90	15,936.14	7,243.76	27.14	251.93	167.58	2,163.71	-124.70	3,014.95	2,756.89	258.07	11.683		
6,100.00	6,067.28	15,938.89	7,243.77	27.60	252.01	167.52	2,163.72	-127.45	2,984.19	2,722.64	261.55	11.410		
6,200.00	6,166.66	15,941.63	7,243.77	28.05	252.09	167.47	2,163.72	-130.19	2,956.48	2,691.61	264.86	11.162		
6,300.00	6,266.05	15,944.38	7,243.78	28.51	252.16	167.41	2,163.73	-132.94	2,931.92	2,663.92	268.00	10.940		
6,400.00	6,365.43	15,947.12	7,243.79	28.97	252.24	167.36	2,163.73	-135.68	2,910.59	2,639.67	270.92	10.743		
6,500.00	6,464.81	15,949.87	7,243.79	29.43	252.32	167.30	2,163.74	-138.43	2,892.55	2,618.94	273.62	10.572		
6,600.00	6,564.10	15,954.57	7,243.80	29.89	252.45	137.49	2,163.74	-143.13	2,877.92	2,601.80	276.11	10.423		
6,700.00	6,661.75	15,972.88	7,243.85	30.34	252.97	114.75	2,163.78	-161.44	2,866.98	2,588.29	278.69	10.287		
6,800.00	6,755.38	16,006.33	7,243.93	30.77	253.92	106.96	2,163.84	-194.89	2,859.79	2,578.43	281.36	10.164		
6,900.00	6,842.67	16,054.09	7,244.05	31.17	255.27	102.79	2,163.92	-242.65	2,856.04	2,571.92	284.12	10.052		
6,986.46	6,911.37	16,106.02	7,244.17	31.49	256.74	100.20	2,164.02	-294.58	2,855.12	2,568.54	286.58	9.963 CC		
7,000.00	6,921.48	16,114.99	7,244.20	31.54	256.99	99.84	2,164.03	-303.55	2,855.14	2,568.17	286.97	9.949		
7,100.00	6,989.86	16,187.52	7,244.37	31.91	259.04	97.48	2,164.16	-376.08	2,856.35	2,566.38	289.96	9.851		
7,200.00	7,046.13	16,269.91	7,244.57	32.35	261.38	95.52	2,164.31	-458.47	2,858.81	2,565.65	293.15	9.752		
7,300.00	7,088.91	16,360.12	7,244.79	32.98	263.93	93.97	2,164.47	-548.68	2,861.70	2,565.12	296.59	9.649		
7,400.00	7,117.14	16,455.93	7,245.03	33.84	266.64	92.90	2,164.64	-644.48	2,864.33	2,564.06	300.28	9.539		
7,500.00	7,130.13	16,554.98	7,245.27	34.90	269.45	92.35	2,164.82	-743.54	2,866.19	2,562.00	304.20	9.422		
7,600.00	7,130.72	16,654.96	7,245.52	36.13	272.28	92.29	2,165.00	-843.51	2,867.25	2,558.97	308.28	9.301		
7,700.00	7,130.29	16,754.95	7,245.76	37.54	275.12	92.31	2,165.18	-943.51	2,868.23	2,555.69	312.54	9.177		
7,800.00	7,129.85	16,854.95	7,246.00	39.12	277.95	92.32	2,165.36	-1,043.50	2,869.21	2,552.26	316.96	9.052		
7,900.00	7,129.42	16,954.94	7,246.25	40.83	280.79	92.33	2,165.54	-1,143.49	2,870.20	2,548.68	321.51	8.927		
8,000.00	7,128.98	17,054.93	7,246.49	42.67	283.62	92.34	2,165.72	-1,243.49	2,871.18	2,544.99	326.19	8.802		
8,100.00	7,128.55	17,154.92	7,246.74	44.62	286.46	92.36	2,165.90	-1,343.48	2,872.16	2,541.19	330.98	8.678		
8,200.00	7,128.12	17,254.92	7,246.98	46.66	289.29	92.37	2,166.08	-1,443.47	2,873.15	2,537.29	335.85	8.555		
8,300.00	7,127.68	17,354.91	7,247.23	48.79	292.13	92.38	2,166.26	-1,543.46	2,874.13	2,533.32	340.81	8.433		
8,400.00	7,127.25	17,454.90	7,247.47	50.98	294.97	92.39	2,166.44	-1,643.46	2,875.12	2,529.27	345.85	8.313		
8,500.00	7,126.81	17,554.90	7,247.71	53.24	297.80	92.41	2,166.62	-1,743.45	2,876.10	2,525.16	350.94	8.195		
8,600.00	7,126.38	17,654.89	7,247.96	55.56	300.64	92.42	2,166.80	-1,843.44	2,877.09	2,520.99	356.09	8.080		
8,700.00	7,125.95	17,754.88	7,248.20	57.92	303.48	92.43	2,166.98	-1,943.43	2,878.07	2,516.78	361.29	7.966		
8,800.00	7,125.51	17,854.88	7,248.45	60.33	306.32	92.44	2,167.15	-2,043.43	2,879.05	2,512.52	366.53	7.855		
8,900.00	7,125.08	17,954.87	7,248.69	62.77	309.16	92.46	2,167.33	-2,143.42	2,880.04	2,508.23	371.81	7.746		
9,000.00	7,124.64	18,054.86	7,248.94	65.25	312.00	92.47	2,167.51	-2,243.41	2,881.02	2,503.90	377.12	7.639		
9,100.00	7,124.21	18,154.86	7,249.18	67.76	314.84	92.48	2,167.69	-2,343.40	2,882.01	2,499.54	382.47	7.535		
9,200.00	7,123.78	18,254.85	7,249.42	70.29	317.68	92.50	2,167.87	-2,443.40	2,883.00	2,495.16	387.84	7.434		
9,300.00	7,123.34	18,354.84	7,249.67	72.85	320.52	92.51	2,168.05	-2,543.39	2,883.98	2,490.75	393.23	7.334		
9,400.00	7,122.91	18,454.84	7,249.91	75.43	323.36	92.52	2,168.23	-2,643.38	2,884.97	2,486.32	398.65	7.237		
9,500.00	7,122.48	18,554.83	7,250.16	78.03	326.20	92.53	2,168.41	-2,743.38	2,885.95	2,481.87	404.08	7.142		
9,600.00	7,122.04	18,654.82	7,250.40	80.65	329.05	92.55	2,168.59	-2,843.37	2,886.94	2,477.40	409.53	7.049		
9,700.00	7,121.61	18,754.81	7,250.65	83.28	331.89	92.56	2,168.77	-2,943.36	2,887.92	2,472.92	415.00	6.959		
9,800.00	7,121.17	18,854.81	7,250.89	85.93	334.73	92.57	2,168.95	-3,043.35	2,888.91	2,468.43	420.49	6.870		
9,900.00	7,120.74	18,954.80	7,251.13	88.59	337.57	92.58	2,169.13	-3,143.35	2,889.90	2,463.92	425.98	6.784		
10,000.00	7,120.31	19,054.79	7,251.38	91.26	340.42	92.60	2,169.31	-3,243.34	2,890.88	2,459.39	431.49	6.700		
10,100.00	7,119.87	19,154.78	7,251.53	93.95	342.22	92.60	2,169.42	-3,306.80	2,892.10	2,456.18	435.92	6.634 ES		
10,200.00	7,119.44	19,118.26	7,251.53	96.64	342.22	92.60	2,169.42	-3,306.80	2,896.08	2,457.94	438.14	6.610		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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-9L(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	7,119.00	19,118.26	7,251.53	99.34	342.22	92.60	2,169.42	-3,306.80	2,903.49	2,463.64	439.85	6.601 SF		
10,400.00	7,118.57	19,118.26	7,251.53	102.05	342.22	92.60	2,169.42	-3,306.80	2,914.32	2,473.26	441.06	6.607		
10,500.00	7,118.14	19,118.26	7,251.53	104.77	342.22	92.60	2,169.42	-3,306.80	2,928.53	2,486.75	441.78	6.629		
10,600.00	7,117.70	19,118.26	7,251.53	107.50	342.22	92.60	2,169.42	-3,306.80	2,946.07	2,504.05	442.02	6.665		
10,700.00	7,117.27	19,118.26	7,251.53	110.23	342.22	92.60	2,169.42	-3,306.80	2,966.87	2,525.09	441.78	6.716		
10,800.00	7,116.83	19,118.26	7,251.53	112.97	342.22	92.60	2,169.42	-3,306.80	2,990.88	2,549.78	441.10	6.781		
10,900.00	7,116.40	19,118.26	7,251.53	115.72	342.22	92.60	2,169.42	-3,306.80	3,018.00	2,578.02	439.98	6.859		
11,000.00	7,115.97	19,118.26	7,251.53	118.47	342.22	92.60	2,169.42	-3,306.80	3,048.17	2,609.70	438.47	6.952		
11,100.00	7,115.53	19,118.26	7,251.53	121.22	342.22	92.60	2,169.42	-3,306.80	3,081.29	2,644.70	436.59	7.058		
11,200.00	7,115.10	19,118.26	7,251.53	123.98	342.22	92.60	2,169.42	-3,306.80	3,117.27	2,682.91	434.37	7.177		
11,300.00	7,114.66	19,118.26	7,251.53	126.74	342.22	92.60	2,169.42	-3,306.80	3,156.01	2,724.18	431.83	7.308		
11,400.00	7,114.23	19,118.26	7,251.53	129.51	342.22	92.60	2,169.42	-3,306.80	3,197.41	2,768.39	429.01	7.453		
11,500.00	7,113.80	19,118.26	7,251.53	132.29	342.22	92.60	2,169.42	-3,306.80	3,241.36	2,815.42	425.94	7.610		
11,600.00	7,113.36	19,118.26	7,251.53	135.06	342.22	92.60	2,169.42	-3,306.80	3,287.77	2,865.11	422.66	7.779		
11,700.00	7,112.93	19,118.26	7,251.53	137.84	342.22	92.60	2,169.42	-3,306.80	3,336.53	2,917.36	419.18	7.960		
11,800.00	7,112.49	19,118.26	7,251.53	140.62	342.22	92.60	2,169.42	-3,306.80	3,387.54	2,972.01	415.53	8.152		
11,900.00	7,112.06	19,118.26	7,251.53	143.41	342.22	92.60	2,169.42	-3,306.80	3,440.71	3,028.96	411.75	8.356		
12,000.00	7,111.63	19,118.26	7,251.53	146.20	342.22	92.60	2,169.42	-3,306.80	3,495.92	3,088.07	407.86	8.571		
12,100.00	7,111.19	19,118.26	7,251.53	148.99	342.22	92.60	2,169.42	-3,306.80	3,553.10	3,149.22	403.87	8.798		
12,200.00	7,110.76	19,118.26	7,251.53	151.78	342.22	92.60	2,169.42	-3,306.80	3,612.13	3,212.32	399.82	9.034		
12,300.00	7,110.33	19,118.26	7,251.53	154.58	342.22	92.60	2,169.42	-3,306.80	3,672.94	3,277.23	395.71	9.282		
12,400.00	7,109.89	19,118.26	7,251.53	157.37	342.22	92.60	2,169.42	-3,306.80	3,735.44	3,343.87	391.57	9.540		
12,500.00	7,109.46	19,118.26	7,251.53	160.17	342.22	92.60	2,169.42	-3,306.80	3,799.55	3,412.13	387.41	9.807		
12,600.00	7,109.02	19,118.26	7,251.53	162.98	342.22	92.60	2,169.42	-3,306.80	3,865.17	3,481.92	383.25	10.085		
12,700.00	7,108.59	19,118.26	7,251.53	165.78	342.22	92.60	2,169.42	-3,306.80	3,932.25	3,553.15	379.10	10.373		
12,800.00	7,108.16	19,118.26	7,251.53	168.59	342.22	92.60	2,169.42	-3,306.80	4,000.70	3,625.73	374.96	10.670		
12,900.00	7,107.72	19,118.26	7,251.53	171.39	342.22	92.60	2,169.42	-3,306.80	4,070.45	3,699.60	370.86	10.976		
13,000.00	7,107.29	19,118.26	7,251.53	174.20	342.22	92.60	2,169.42	-3,306.80	4,141.45	3,774.66	366.79	11.291		
13,100.00	7,106.85	19,118.26	7,251.53	177.01	342.22	92.60	2,169.42	-3,306.80	4,213.62	3,850.86	362.76	11.615		
13,200.00	7,106.42	19,118.26	7,251.53	179.83	342.22	92.60	2,169.42	-3,306.80	4,286.91	3,928.13	358.78	11.949		
13,300.00	7,105.99	19,118.26	7,251.53	182.64	342.22	92.60	2,169.42	-3,306.80	4,361.27	4,006.41	354.86	12.290		
13,400.00	7,105.55	19,118.26	7,251.53	185.45	342.22	92.60	2,169.42	-3,306.80	4,436.63	4,085.63	350.99	12.640		
13,500.00	7,105.12	19,118.26	7,251.53	188.27	342.22	92.60	2,169.42	-3,306.80	4,512.94	4,165.75	347.19	12.998		
13,600.00	7,104.68	19,118.26	7,251.53	191.09	342.22	92.60	2,169.42	-3,306.80	4,590.17	4,246.72	343.45	13.365		
13,700.00	7,104.25	19,118.26	7,251.53	193.91	342.22	92.60	2,169.42	-3,306.80	4,668.26	4,328.48	339.78	13.739		
13,800.00	7,103.82	19,118.26	7,251.53	196.73	342.22	92.60	2,169.42	-3,306.80	4,747.18	4,411.00	336.18	14.121		
13,900.00	7,103.38	19,118.26	7,251.53	199.55	342.22	92.60	2,169.42	-3,306.80	4,826.87	4,494.22	332.65	14.510		
14,000.00	7,102.95	19,118.26	7,251.53	202.37	342.22	92.60	2,169.42	-3,306.80	4,907.31	4,578.12	329.19	14.907		
14,100.00	7,102.51	19,118.26	7,251.53	205.19	342.22	92.60	2,169.42	-3,306.80	4,988.46	4,662.66	325.80	15.311		
14,200.00	7,102.08	19,118.26	7,251.53	208.02	342.22	92.60	2,169.42	-3,306.80	5,070.28	4,747.80	322.48	15.723		
14,300.00	7,101.65	19,118.26	7,251.53	210.84	342.22	92.60	2,169.42	-3,306.80	5,152.74	4,833.51	319.23	16.141		
14,400.00	7,101.21	19,118.26	7,251.53	213.67	342.22	92.60	2,169.42	-3,306.80	5,235.82	4,919.76	316.06	16.566		
14,500.00	7,100.78	19,118.26	7,251.53	216.50	342.22	92.60	2,169.42	-3,306.80	5,319.47	5,006.52	312.95	16.998		
14,600.00	7,100.35	19,118.26	7,251.53	219.32	342.22	92.60	2,169.42	-3,306.80	5,403.68	5,093.77	309.92	17.436		
14,700.00	7,099.91	19,118.26	7,251.53	222.15	342.22	92.60	2,169.42	-3,306.80	5,488.43	5,181.48	306.95	17.881		
14,800.00	7,099.48	19,118.26	7,251.53	224.98	342.22	92.60	2,169.42	-3,306.80	5,573.67	5,269.62	304.05	18.332		
14,900.00	7,099.04	19,118.26	7,251.53	227.81	342.22	92.60	2,169.42	-3,306.80	5,659.40	5,358.19	301.21	18.789		
14,909.96	7,099.00	19,118.26	7,251.53	228.09	342.22	92.60	2,169.42	-3,306.80	5,667.97	5,367.03	300.94	18.834		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	15,715.80	7,135.45	3.28	248.02	-0.09	2,003.18	-3.09	7,411.30					
100.00	100.00	15,716.04	7,135.45	3.28	248.02	-0.10	2,003.18	-3.34	7,315.07	7,197.97	117.10	62.466		
200.00	200.00	15,716.29	7,135.45	3.34	248.03	-0.10	2,003.18	-3.58	7,218.95	7,101.44	117.51	61.433		
300.00	300.00	15,716.53	7,135.45	3.44	248.04	-0.11	2,003.17	-3.83	7,122.93	7,004.99	117.94	60.397		
400.00	400.00	15,716.78	7,135.45	3.60	248.04	-0.12	2,003.17	-4.07	7,027.02	6,908.64	118.38	59.358		
500.00	500.00	15,717.02	7,135.45	3.81	248.05	-0.12	2,003.17	-4.31	6,931.23	6,812.37	118.86	58.316		
600.00	600.00	15,717.28	7,135.45	4.04	248.06	167.01	2,003.17	-4.58	6,835.58	6,716.22	119.36	57.271		
700.00	699.96	15,718.11	7,135.45	4.29	248.08	168.27	2,003.16	-5.40	6,740.77	6,620.85	119.93	56.208		
800.00	799.78	15,719.76	7,135.46	4.57	248.13	169.25	2,003.14	-7.05	6,647.28	6,526.68	120.60	55.117		
900.00	899.34	15,722.24	7,135.47	4.88	248.20	170.03	2,003.12	-9.53	6,555.29	6,433.90	121.39	54.002		
1,000.00	998.72	15,725.11	7,135.47	5.20	248.28	169.97	2,003.09	-12.41	6,464.20	6,341.91	122.28	52.863		
1,100.00	1,098.10	15,727.99	7,135.48	5.54	248.36	169.91	2,003.06	-15.28	6,373.37	6,250.15	123.22	51.724		
1,200.00	1,197.49	15,730.86	7,135.49	5.90	248.44	169.85	2,003.03	-18.16	6,282.82	6,158.62	124.20	50.585		
1,300.00	1,296.87	15,733.74	7,135.49	6.28	248.52	169.78	2,003.00	-21.03	6,192.57	6,067.33	125.24	49.446		
1,400.00	1,396.25	15,736.62	7,135.50	6.66	248.60	169.72	2,002.97	-23.91	6,102.61	5,976.28	126.33	48.307		
1,500.00	1,495.64	15,739.49	7,135.51	7.06	248.68	169.66	2,002.94	-26.79	6,012.97	5,885.50	127.47	47.170		
1,600.00	1,595.02	15,742.37	7,135.51	7.46	248.77	169.60	2,002.91	-29.66	5,923.66	5,794.99	128.68	46.035		
1,700.00	1,694.40	15,745.24	7,135.52	7.87	248.85	169.54	2,002.88	-32.54	5,834.70	5,704.76	129.94	44.903		
1,800.00	1,793.79	15,748.12	7,135.53	8.29	248.93	169.48	2,002.85	-35.41	5,746.10	5,614.83	131.26	43.775		
1,900.00	1,893.17	15,751.00	7,135.54	8.71	249.01	169.42	2,002.82	-38.29	5,657.87	5,525.22	132.66	42.651		
2,000.00	1,992.55	15,753.87	7,135.54	9.13	249.09	169.36	2,002.79	-41.16	5,570.05	5,435.93	134.12	41.532		
2,100.00	2,091.94	15,756.75	7,135.55	9.56	249.17	169.29	2,002.76	-44.04	5,482.64	5,346.99	135.64	40.419		
2,200.00	2,191.32	15,759.63	7,135.56	9.99	249.25	169.23	2,002.73	-46.92	5,395.66	5,258.42	137.25	39.314		
2,300.00	2,290.70	15,762.50	7,135.56	10.42	249.33	169.17	2,002.70	-49.79	5,309.14	5,170.22	138.92	38.217		
2,400.00	2,390.09	15,765.38	7,135.57	10.86	249.42	169.11	2,002.67	-52.67	5,223.10	5,082.43	140.68	37.129		
2,500.00	2,489.47	15,768.25	7,135.58	11.29	249.50	169.05	2,002.64	-55.54	5,137.57	4,995.06	142.51	36.051		
2,600.00	2,588.86	15,771.13	7,135.58	11.73	249.58	168.99	2,002.62	-58.42	5,052.56	4,908.14	144.42	34.985		
2,700.00	2,688.24	15,774.01	7,135.59	12.18	249.66	168.93	2,002.59	-61.30	4,968.12	4,821.70	146.42	33.931		
2,800.00	2,787.62	15,776.88	7,135.60	12.62	249.74	168.87	2,002.56	-64.17	4,884.25	4,735.75	148.50	32.890		
2,900.00	2,887.01	15,779.76	7,135.61	13.06	249.82	168.80	2,002.53	-67.05	4,801.01	4,650.34	150.67	31.864		
3,000.00	2,986.39	15,782.63	7,135.61	13.51	249.90	168.74	2,002.50	-69.92	4,718.41	4,565.48	152.93	30.854		
3,100.00	3,085.77	15,785.51	7,135.62	13.95	249.98	168.68	2,002.47	-72.80	4,636.50	4,481.22	155.28	29.859		
3,200.00	3,185.16	15,788.39	7,135.63	14.40	250.07	168.62	2,002.44	-75.68	4,555.30	4,397.58	157.72	28.882		
3,300.00	3,284.54	15,808.80	7,135.63	14.85	250.64	168.56	2,002.41	-78.55	4,474.87	4,314.32	160.55	27.872		
3,400.00	3,383.92	15,805.93	7,135.64	15.30	250.56	168.50	2,002.38	-81.43	4,395.24	4,232.14	163.09	26.949		
3,500.00	3,483.31	15,803.05	7,135.65	15.75	250.48	168.44	2,002.35	-84.30	4,316.45	4,150.72	165.73	26.045		
3,600.00	3,582.69	15,800.17	7,135.65	16.20	250.40	168.37	2,002.32	-87.18	4,238.56	4,070.09	168.47	25.159		
3,700.00	3,682.07	15,802.77	7,135.66	16.65	250.47	168.31	2,002.29	-90.05	4,161.61	3,990.21	171.40	24.280		
3,800.00	3,781.46	15,805.64	7,135.67	17.10	250.55	168.25	2,002.26	-92.93	4,085.65	3,911.22	174.43	23.422		
3,900.00	3,880.84	15,808.52	7,135.68	17.56	250.63	168.19	2,002.23	-95.81	4,010.75	3,833.18	177.57	22.586		
4,000.00	3,980.22	15,811.39	7,135.68	18.01	250.72	168.13	2,002.20	-98.68	3,936.97	3,756.15	180.82	21.773		
4,100.00	4,079.61	15,814.27	7,135.69	18.46	250.80	168.07	2,002.17	-101.56	3,864.35	3,680.19	184.16	20.983		
4,200.00	4,178.99	15,817.15	7,135.70	18.92	250.88	168.01	2,002.14	-104.43	3,792.99	3,605.38	187.61	20.217		
4,300.00	4,278.38	15,820.02	7,135.70	19.37	250.96	167.94	2,002.11	-107.31	3,722.94	3,531.78	191.16	19.476		
4,400.00	4,377.76	15,822.90	7,135.71	19.83	251.04	167.88	2,002.08	-110.19	3,654.28	3,459.48	194.80	18.759		
4,500.00	4,477.14	15,825.77	7,135.72	20.28	251.12	167.82	2,002.06	-113.06	3,587.09	3,388.55	198.54	18.067		
4,600.00	4,576.53	15,828.65	7,135.73	20.74	251.20	167.76	2,002.03	-115.94	3,521.46	3,319.08	202.38	17.401		
4,700.00	4,675.91	15,831.53	7,135.73	21.19	251.29	167.70	2,002.00	-118.81	3,457.47	3,251.18	206.29	16.760		
4,800.00	4,775.29	15,834.40	7,135.74	21.65	251.37	167.64	2,001.97	-121.69	3,395.22	3,184.94	210.29	16.146		
4,900.00	4,874.68	15,837.28	7,135.75	22.10	251.45	167.58	2,001.94	-124.56	3,334.81	3,120.46	214.35	15.558		
5,000.00	4,974.06	15,840.15	7,135.75	22.56	251.53	167.51	2,001.91	-127.44	3,276.33	3,057.85	218.48	14.996		
5,100.00	5,073.44	15,843.03	7,135.76	23.02	251.61	167.45	2,001.88	-130.32	3,219.89	2,997.24	222.65	14.462		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	15,845.91	7,135.77	23.47	251.69	167.39	2,001.85	-133.19	3,165.61	2,938.75	226.86	13.954		
5,300.00	5,272.21	15,848.78	7,135.77	23.93	251.77	167.33	2,001.82	-136.07	3,113.59	2,882.50	231.09	13.474		
5,400.00	5,371.59	15,851.66	7,135.78	24.39	251.85	167.27	2,001.79	-138.94	3,063.94	2,828.62	235.32	13.020		
5,500.00	5,470.98	15,854.53	7,135.79	24.85	251.94	167.21	2,001.76	-141.82	3,016.79	2,777.26	239.53	12.594		
5,600.00	5,570.36	15,857.41	7,135.80	25.30	252.02	167.15	2,001.73	-144.70	2,972.26	2,728.55	243.71	12.196		
5,700.00	5,669.75	15,860.29	7,135.80	25.76	252.10	167.08	2,001.70	-147.57	2,930.46	2,682.64	247.82	11.825		
5,800.00	5,769.13	15,863.16	7,135.81	26.22	252.18	167.02	2,001.67	-150.45	2,891.52	2,639.67	251.85	11.481		
5,900.00	5,868.51	15,866.04	7,135.82	26.68	252.26	166.96	2,001.64	-153.32	2,855.54	2,599.77	255.77	11.165		
6,000.00	5,967.90	15,868.91	7,135.82	27.14	252.34	166.90	2,001.61	-156.20	2,822.65	2,563.10	259.55	10.875		
6,100.00	6,067.28	15,871.79	7,135.83	27.60	252.42	166.84	2,001.58	-159.08	2,792.95	2,529.79	263.16	10.613		
6,200.00	6,166.66	15,874.67	7,135.84	28.05	252.50	166.78	2,001.55	-161.95	2,766.54	2,499.97	266.57	10.378		
6,300.00	6,266.05	15,877.54	7,135.84	28.51	252.59	166.72	2,001.52	-164.83	2,743.52	2,473.76	269.76	10.170		
6,400.00	6,365.43	15,880.42	7,135.85	28.97	252.67	166.65	2,001.50	-167.70	2,723.98	2,451.28	272.71	9.989		
6,500.00	6,464.81	15,883.29	7,135.86	29.43	252.75	166.59	2,001.47	-170.58	2,707.99	2,432.62	275.37	9.834		
6,600.00	6,564.10	15,886.12	7,135.87	29.89	252.88	136.66	2,001.42	-175.41	2,695.62	2,417.82	277.80	9.703		
6,700.00	6,661.75	15,906.56	7,135.92	30.34	253.41	113.69	2,001.23	-193.85	2,687.00	2,406.74	280.26	9.587		
6,800.00	6,755.38	15,940.13	7,136.00	30.77	254.35	105.65	2,000.88	-227.42	2,682.06	2,399.28	282.78	9.485		
6,900.00	6,842.67	15,988.01	7,136.11	31.17	255.71	101.23	2,000.39	-275.29	2,680.40	2,395.05	285.35	9.393		
6,909.22	6,850.32	16,006.96	7,136.13	31.20	256.24	100.90	2,000.34	-280.38	2,680.39	2,394.40	285.98	9.373 CC		
7,000.00	6,921.48	16,049.02	7,136.26	31.54	257.43	98.06	1,999.77	-336.29	2,681.33	2,393.32	288.01	9.310		
7,100.00	6,989.86	16,121.64	7,136.44	31.91	259.49	95.50	1,999.02	-408.92	2,683.98	2,393.17	290.81	9.229		
7,200.00	7,046.13	16,204.11	7,136.64	32.35	261.82	93.39	1,998.18	-491.37	2,687.44	2,393.61	293.82	9.146		
7,300.00	7,088.91	16,305.69	7,136.86	32.98	264.69	91.76	1,997.25	-581.64	2,690.80	2,393.36	297.43	9.047		
7,400.00	7,117.14	16,409.84	7,137.10	33.84	267.64	90.66	1,996.27	-677.48	2,693.31	2,392.05	301.26	8.940		
7,500.00	7,130.13	16,489.30	7,137.34	34.90	269.89	90.16	1,995.26	-776.55	2,694.46	2,389.88	304.58	8.847		
7,600.00	7,130.72	16,589.29	7,137.58	36.13	272.71	90.15	1,994.23	-876.53	2,694.32	2,385.66	308.66	8.729		
7,700.00	7,130.29	16,689.28	7,137.83	37.54	275.55	90.16	1,993.21	-976.52	2,694.08	2,381.15	312.92	8.609		
7,800.00	7,129.85	16,789.28	7,138.07	39.12	278.38	90.18	1,992.18	-1,076.51	2,693.83	2,376.48	317.35	8.489		
7,900.00	7,129.42	16,889.28	7,138.32	40.83	281.21	90.19	1,991.16	-1,176.51	2,693.59	2,371.68	321.91	8.368		
8,000.00	7,128.98	16,989.28	7,138.56	42.67	284.04	90.20	1,990.13	-1,276.50	2,693.34	2,366.75	326.59	8.247		
8,100.00	7,128.55	17,089.27	7,138.81	44.62	286.87	90.22	1,989.11	-1,376.49	2,693.10	2,361.71	331.38	8.127		
8,200.00	7,128.12	17,189.27	7,139.05	46.66	289.71	90.23	1,988.08	-1,476.48	2,692.85	2,356.58	336.27	8.008		
8,300.00	7,127.68	17,289.27	7,139.29	48.79	292.54	90.25	1,987.06	-1,576.47	2,692.61	2,351.37	341.23	7.891		
8,400.00	7,127.25	17,389.26	7,139.54	50.98	295.37	90.26	1,986.03	-1,676.47	2,692.36	2,346.09	346.27	7.775		
8,500.00	7,126.81	17,489.26	7,139.78	53.24	298.21	90.28	1,985.01	-1,776.46	2,692.12	2,340.74	351.37	7.662		
8,600.00	7,126.38	17,589.26	7,140.03	55.56	301.04	90.29	1,983.98	-1,876.45	2,691.87	2,335.34	356.53	7.550		
8,700.00	7,125.95	17,689.26	7,140.27	57.92	303.88	90.31	1,982.96	-1,976.44	2,691.63	2,329.90	361.73	7.441		
8,800.00	7,125.51	17,789.25	7,140.52	60.33	306.71	90.32	1,981.93	-2,076.43	2,691.39	2,324.40	366.98	7.334		
8,900.00	7,125.08	17,889.25	7,140.76	62.77	309.55	90.33	1,980.91	-2,176.43	2,691.14	2,318.88	372.27	7.229		
9,000.00	7,124.64	17,989.25	7,141.00	65.25	312.39	90.35	1,979.88	-2,276.42	2,690.90	2,313.31	377.59	7.127		
9,100.00	7,124.21	18,089.25	7,141.25	67.76	315.22	90.36	1,978.86	-2,376.41	2,690.66	2,307.72	382.94	7.026		
9,200.00	7,123.78	18,189.24	7,141.49	70.29	318.06	90.38	1,977.83	-2,476.40	2,690.41	2,302.10	388.31	6.928		
9,300.00	7,123.34	18,289.24	7,141.74	72.85	320.90	90.39	1,976.81	-2,576.39	2,690.17	2,296.46	393.71	6.833		
9,400.00	7,122.91	18,389.24	7,141.98	75.43	323.74	90.41	1,975.79	-2,676.38	2,689.93	2,290.79	399.13	6.739		
9,500.00	7,122.48	18,489.24	7,142.23	78.03	326.57	90.42	1,974.76	-2,776.38	2,689.68	2,285.11	404.58	6.648		
9,600.00	7,122.04	18,589.23	7,142.47	80.65	329.41	90.44	1,973.74	-2,876.37	2,689.44	2,279.41	410.03	6.559		
9,700.00	7,121.61	18,689.23	7,142.71	83.28	332.25	90.45	1,972.71	-2,976.36	2,689.20	2,273.69	415.51	6.472		
9,800.00	7,121.17	18,789.23	7,142.96	85.93	335.09	90.46	1,971.69	-3,076.35	2,688.96	2,267.96	421.00	6.387		
9,900.00	7,120.74	18,889.23	7,143.20	88.59	337.93	90.48	1,970.66	-3,176.34	2,688.72	2,262.22	426.50	6.304		
10,000.00	7,120.31	18,989.22	7,143.45	91.26	340.77	90.49	1,969.64	-3,276.34	2,688.47	2,256.46	432.02	6.223		
10,035.61	7,120.15	19,018.34	7,143.52	92.22	341.60	90.50	1,969.34	-3,305.45	2,688.40	2,254.60	433.80	6.197		
10,100.00	7,119.87	19,018.34	7,143.52	93.95	341.60	90.50	1,969.34	-3,305.45	2,689.17	2,253.78	435.38	6.177 ES		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,200.00	7,119.44	19,018.34	7,143.52	96.64	341.60	90.50	1,969.34	-3,305.45	2,693.42	2,256.04	437.38	6.158		
10,300.00	7,119.00	19,018.34	7,143.52	99.34	341.60	90.50	1,969.34	-3,305.45	2,701.37	2,262.57	438.79	6.156 SF		
10,400.00	7,118.57	19,018.34	7,143.52	102.05	341.60	90.50	1,969.34	-3,305.45	2,712.98	2,273.35	439.63	6.171		
10,500.00	7,118.14	19,018.34	7,143.52	104.77	341.60	90.50	1,969.34	-3,305.45	2,728.21	2,288.30	439.91	6.202		
10,600.00	7,117.70	19,018.34	7,143.52	107.50	341.60	90.50	1,969.34	-3,305.45	2,747.00	2,307.36	439.64	6.248		
10,700.00	7,117.27	19,018.34	7,143.52	110.23	341.60	90.50	1,969.34	-3,305.45	2,769.28	2,330.44	438.84	6.310		
10,800.00	7,116.83	19,018.34	7,143.52	112.97	341.60	90.50	1,969.34	-3,305.45	2,794.95	2,357.41	437.54	6.388		
10,900.00	7,116.40	19,018.34	7,143.52	115.72	341.60	90.50	1,969.34	-3,305.45	2,823.94	2,388.16	435.78	6.480		
11,000.00	7,115.97	19,018.34	7,143.52	118.47	341.60	90.50	1,969.34	-3,305.45	2,856.14	2,422.56	433.58	6.587		
11,100.00	7,115.53	19,018.34	7,143.52	121.22	341.60	90.50	1,969.34	-3,305.45	2,891.44	2,460.44	430.99	6.709		
11,200.00	7,115.10	19,018.34	7,143.52	123.98	341.60	90.50	1,969.34	-3,305.45	2,929.72	2,501.68	428.04	6.844		
11,300.00	7,114.66	19,018.34	7,143.52	126.74	341.60	90.50	1,969.34	-3,305.45	2,970.89	2,546.11	424.78	6.994		
11,400.00	7,114.23	19,018.34	7,143.52	129.51	341.60	90.50	1,969.34	-3,305.45	3,014.80	2,593.57	421.23	7.157		
11,500.00	7,113.80	19,018.34	7,143.52	132.29	341.60	90.50	1,969.34	-3,305.45	3,061.36	2,643.91	417.45	7.334		
11,600.00	7,113.36	19,018.34	7,143.52	135.06	341.60	90.50	1,969.34	-3,305.45	3,110.43	2,696.98	413.45	7.523		
11,700.00	7,112.93	19,018.34	7,143.52	137.84	341.60	90.50	1,969.34	-3,305.45	3,161.91	2,752.63	409.28	7.725		
11,800.00	7,112.49	19,018.34	7,143.52	140.62	341.60	90.50	1,969.34	-3,305.45	3,215.67	2,810.70	404.98	7.940		
11,900.00	7,112.06	19,018.34	7,143.52	143.41	341.60	90.50	1,969.34	-3,305.45	3,271.61	2,871.06	400.55	8.168		
12,000.00	7,111.63	19,018.34	7,143.52	146.20	341.60	90.50	1,969.34	-3,305.45	3,329.61	2,933.56	396.05	8.407		
12,100.00	7,111.19	19,018.34	7,143.52	148.99	341.60	90.50	1,969.34	-3,305.45	3,389.57	2,998.09	391.48	8.658		
12,200.00	7,110.76	19,018.34	7,143.52	151.78	341.60	90.50	1,969.34	-3,305.45	3,451.39	3,064.51	386.88	8.921		
12,300.00	7,110.33	19,018.34	7,143.52	154.58	341.60	90.50	1,969.34	-3,305.45	3,514.96	3,132.70	382.26	9.195		
12,400.00	7,109.89	19,018.34	7,143.52	157.37	341.60	90.50	1,969.34	-3,305.45	3,580.20	3,202.56	377.64	9.481		
12,500.00	7,109.46	19,018.34	7,143.52	160.17	341.60	90.50	1,969.34	-3,305.45	3,647.01	3,273.98	373.03	9.777		
12,600.00	7,109.02	19,018.34	7,143.52	162.98	341.60	90.50	1,969.34	-3,305.45	3,715.32	3,346.87	368.45	10.084		
12,700.00	7,108.59	19,018.34	7,143.52	165.78	341.60	90.50	1,969.34	-3,305.45	3,785.03	3,421.12	363.91	10.401		
12,800.00	7,108.16	19,018.34	7,143.52	168.59	341.60	90.50	1,969.34	-3,305.45	3,856.08	3,496.66	359.42	10.729		
12,900.00	7,107.72	19,018.34	7,143.52	171.39	341.60	90.50	1,969.34	-3,305.45	3,928.39	3,573.40	354.98	11.066		
13,000.00	7,107.29	19,018.34	7,143.52	174.20	341.60	90.50	1,969.34	-3,305.45	4,001.89	3,651.27	350.61	11.414		
13,100.00	7,106.85	19,018.34	7,143.52	177.01	341.60	90.50	1,969.34	-3,305.45	4,076.51	3,730.20	346.31	11.771		
13,200.00	7,106.42	19,018.34	7,143.52	179.83	341.60	90.50	1,969.34	-3,305.45	4,152.21	3,810.12	342.09	12.138		
13,300.00	7,105.99	19,018.34	7,143.52	182.64	341.60	90.50	1,969.34	-3,305.45	4,228.92	3,890.97	337.94	12.514		
13,400.00	7,105.55	19,018.34	7,143.52	185.45	341.60	90.50	1,969.34	-3,305.45	4,306.58	3,972.70	333.88	12.899		
13,500.00	7,105.12	19,018.34	7,143.52	188.27	341.60	90.50	1,969.34	-3,305.45	4,385.14	4,055.25	329.89	13.293		
13,600.00	7,104.68	19,018.34	7,143.52	191.09	341.60	90.50	1,969.34	-3,305.45	4,464.57	4,138.57	326.00	13.695		
13,700.00	7,104.25	19,018.34	7,143.52	193.91	341.60	90.50	1,969.34	-3,305.45	4,544.80	4,222.62	322.19	14.106		
13,800.00	7,103.82	19,018.34	7,143.52	196.73	341.60	90.50	1,969.34	-3,305.45	4,625.81	4,307.35	318.46	14.526		
13,900.00	7,103.38	19,018.34	7,143.52	199.55	341.60	90.50	1,969.34	-3,305.45	4,707.55	4,392.72	314.82	14.953		
14,000.00	7,102.95	19,018.34	7,143.52	202.37	341.60	90.50	1,969.34	-3,305.45	4,789.98	4,478.71	311.27	15.389		
14,100.00	7,102.51	19,018.34	7,143.52	205.19	341.60	90.50	1,969.34	-3,305.45	4,873.06	4,565.26	307.80	15.832		
14,200.00	7,102.08	19,018.34	7,143.52	208.02	341.60	90.50	1,969.34	-3,305.45	4,956.78	4,652.36	304.42	16.283		
14,300.00	7,101.65	19,018.34	7,143.52	210.84	341.60	90.50	1,969.34	-3,305.45	5,041.08	4,739.97	301.12	16.741		
14,400.00	7,101.21	19,018.34	7,143.52	213.67	341.60	90.50	1,969.34	-3,305.45	5,125.95	4,828.06	297.90	17.207		
14,500.00	7,100.78	19,018.34	7,143.52	216.50	341.60	90.50	1,969.34	-3,305.45	5,211.36	4,916.60	294.76	17.680		
14,600.00	7,100.35	19,018.34	7,143.52	219.32	341.60	90.50	1,969.34	-3,305.45	5,297.28	5,005.58	291.70	18.160		
14,700.00	7,099.91	19,018.34	7,143.52	222.15	341.60	90.50	1,969.34	-3,305.45	5,383.68	5,094.97	288.72	18.647		
14,800.00	7,099.48	19,018.34	7,143.52	224.98	341.60	90.50	1,969.34	-3,305.45	5,470.55	5,184.74	285.81	19.141		
14,900.00	7,099.04	19,018.34	7,143.52	227.81	341.60	90.50	1,969.34	-3,305.45	5,557.86	5,274.88	282.97	19.641		
14,909.96	7,099.00	19,018.34	7,143.52	228.09	341.60	90.50	1,969.34	-3,305.45	5,566.58	5,283.88	282.70	19.691		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	1,500.11	1,548.50	3.28	8.06	-118.22	-4,035.84	-7,519.48	8,673.43					
100.00	100.00	1,584.00	1,631.02	3.28	8.51	-118.19	-4,024.47	-7,509.60	8,656.47	8,645.38	11.09	780.560		
200.00	200.00	1,584.00	1,631.02	3.34	8.51	-118.19	-4,024.47	-7,509.60	8,639.35	8,628.24	11.11	777.718		
300.00	300.00	1,651.25	1,697.25	3.44	8.86	-118.16	-4,015.32	-7,502.33	8,623.23	8,611.75	11.48	750.863		
400.00	400.00	1,723.21	1,768.06	3.60	9.23	-118.12	-4,005.10	-7,494.62	8,607.07	8,595.14	11.93	721.231		
500.00	500.00	1,775.22	1,819.31	3.81	9.50	-118.10	-3,998.13	-7,489.16	8,591.46	8,579.12	12.34	696.223		
600.00	600.00	1,868.00	1,910.81	4.04	9.98	48.84	-3,986.40	-7,479.21	8,575.97	8,563.01	12.97	661.426		
700.00	699.96	1,934.86	1,976.76	4.29	10.33	49.13	-3,977.95	-7,472.20	8,559.21	8,545.71	13.49	634.390		
800.00	799.78	2,221.77	2,259.50	4.57	11.85	49.64	-3,941.55	-7,439.96	8,539.68	8,524.64	15.05	567.538		
900.00	899.34	2,475.84	2,509.08	4.88	13.26	50.24	-3,908.14	-7,406.18	8,515.90	8,499.41	16.49	516.311		
1,000.00	998.72	2,531.05	2,563.25	5.20	13.57	50.29	-3,900.79	-7,398.41	8,490.23	8,473.19	17.04	498.165		
1,100.00	1,098.10	1,100.00	2,761.31	5.54	5.65	50.49	-3,873.26	-7,369.91	8,464.60	8,453.53	11.07	764.706		
1,200.00	1,197.49	2,909.19	2,933.36	5.90	15.78	50.68	-3,846.58	-7,343.36	8,437.02	8,417.58	19.44	433.998		
1,300.00	1,296.87	2,954.85	2,977.98	6.28	16.05	50.73	-3,839.74	-7,336.50	8,409.82	8,389.81	20.01	420.367		
1,400.00	1,396.25	1,400.00	3,098.31	6.66	7.14	50.85	-3,822.38	-7,317.80	8,382.93	8,369.60	13.33	628.699		
1,500.00	1,495.64	3,156.06	3,174.74	7.06	17.25	50.93	-3,811.63	-7,305.26	8,355.54	8,333.87	21.67	385.533		
1,600.00	1,595.02	3,200.00	3,217.79	7.46	17.52	50.97	-3,805.87	-7,298.55	8,328.95	8,306.69	22.26	374.117		
1,700.00	1,694.40	3,317.14	3,332.54	7.87	18.20	51.09	-3,790.51	-7,280.73	8,302.55	8,279.36	23.19	358.040		
1,800.00	1,793.79	3,375.81	3,390.01	8.29	18.55	51.14	-3,782.80	-7,271.82	8,276.16	8,252.30	23.86	346.843		
1,900.00	1,893.17	3,391.00	3,404.90	8.71	18.64	51.16	-3,780.82	-7,269.56	8,250.41	8,226.06	24.35	338.867		
2,000.00	1,992.55	3,434.43	3,447.53	9.13	18.88	51.20	-3,775.17	-7,263.45	8,225.33	8,200.37	24.96	329.486		
2,100.00	2,091.94	3,486.00	3,498.27	9.56	19.18	51.26	-3,768.46	-7,257.14	8,201.35	8,175.73	25.62	320.078		
2,200.00	2,191.32	3,486.00	3,498.27	9.99	19.18	51.26	-3,768.46	-7,257.14	8,177.90	8,151.84	26.06	313.854		
2,300.00	2,290.70	3,581.00	3,591.77	10.42	19.70	51.36	-3,755.78	-7,246.09	8,154.62	8,127.70	26.92	302.927		
2,400.00	2,390.09	3,627.09	3,637.12	10.86	19.96	51.42	-3,749.38	-7,240.99	8,131.87	8,104.30	27.57	294.970		
2,500.00	2,489.47	2,500.00	4,059.61	11.29	13.14	51.99	-3,680.17	-7,194.04	8,109.43	8,086.96	22.47	360.895		
2,600.00	2,588.86	4,113.08	4,113.66	11.73	22.76	52.06	-3,672.07	-7,186.22	8,083.51	8,052.83	30.68	263.439		
2,700.00	2,688.24	4,248.00	4,245.85	12.18	23.56	52.20	-3,654.16	-7,166.09	8,057.47	8,025.74	31.73	253.920		
2,800.00	2,787.62	4,299.33	4,296.10	12.62	23.86	52.25	-3,647.27	-7,158.19	8,031.35	7,998.93	32.42	247.740		
2,900.00	2,887.01	4,343.00	4,338.99	13.06	24.11	52.30	-3,641.69	-7,152.18	8,006.38	7,973.31	33.07	242.074		
3,000.00	2,986.39	4,369.31	4,364.86	13.51	24.26	52.33	-3,638.35	-7,148.76	7,982.08	7,948.43	33.66	237.165		
3,100.00	3,085.77	4,461.82	4,455.78	13.95	24.79	52.43	-3,626.07	-7,136.83	7,957.98	7,923.45	34.53	230.477		
3,200.00	3,185.16	4,507.19	4,500.39	14.40	25.05	52.48	-3,620.02	-7,131.24	7,934.37	7,899.18	35.20	225.421		
3,300.00	3,284.54	4,562.18	4,554.52	14.85	25.35	52.55	-3,612.88	-7,124.75	7,911.39	7,875.48	35.91	220.314		
3,400.00	3,383.92	4,629.00	4,620.39	15.30	25.72	52.62	-3,604.91	-7,116.79	7,888.81	7,852.14	36.67	215.119		
3,500.00	3,483.31	4,629.00	4,620.39	15.75	25.72	52.62	-3,604.91	-7,116.79	7,867.04	7,829.90	37.15	211.787		
3,600.00	3,582.69	4,687.70	4,678.36	16.20	26.03	52.68	-3,598.46	-7,110.21	7,845.76	7,807.88	37.87	207.175		
3,700.00	3,682.07	4,724.00	4,714.28	16.65	26.23	52.72	-3,594.67	-7,106.61	7,825.53	7,787.03	38.50	203.264		
3,800.00	3,781.46	3,800.00	4,809.73	17.10	21.50	52.82	-3,585.18	-7,097.03	7,805.66	7,770.90	34.76	224.588		
3,900.00	3,880.84	4,864.44	4,853.37	17.56	26.94	52.86	-3,581.11	-7,092.62	7,786.07	7,746.03	40.04	194.448		
4,000.00	3,980.22	4,915.00	4,903.51	18.01	27.19	52.91	-3,576.61	-7,088.05	7,767.32	7,726.59	40.73	190.706		
4,100.00	4,079.61	4,915.00	4,903.51	18.46	27.19	52.91	-3,576.61	-7,088.05	7,749.37	7,708.17	41.20	188.086		
4,200.00	4,178.99	4,993.06	4,981.04	18.92	27.57	52.99	-3,569.92	-7,081.78	7,731.89	7,689.88	42.00	184.080		
4,300.00	4,278.38	5,041.72	5,029.39	19.37	27.80	53.04	-3,565.87	-7,078.26	7,715.15	7,672.47	42.68	180.768		
4,400.00	4,377.76	5,104.00	5,091.34	19.83	28.09	53.10	-3,560.80	-7,074.19	7,699.09	7,655.67	43.42	177.336		
4,500.00	4,477.14	5,104.00	5,091.34	20.28	28.09	53.10	-3,560.80	-7,074.19	7,683.79	7,639.90	43.88	175.103		
4,600.00	4,576.53	5,172.26	5,159.29	20.74	28.39	53.17	-3,555.73	-7,070.30	7,669.00	7,624.37	44.63	171.820		
4,700.00	4,675.91	5,212.06	5,198.96	21.19	28.57	53.21	-3,553.16	-7,068.31	7,655.13	7,609.86	45.27	169.118		
4,800.00	4,775.29	5,294.00	5,280.71	21.65	28.92	53.28	-3,548.76	-7,064.85	7,642.30	7,596.22	46.08	165.866		
4,900.00	4,874.68	5,294.00	5,280.71	22.10	28.92	53.28	-3,548.76	-7,064.85	7,629.68	7,583.15	46.53	163.963		
5,000.00	4,974.06	5,352.26	5,338.88	22.56	29.15	53.33	-3,546.17	-7,062.80	7,617.99	7,570.76	47.23	161.291		
5,100.00	5,073.44	5,413.61	5,400.14	23.02	29.40	53.39	-3,543.73	-7,060.84	7,606.81	7,558.86	47.94	158.667		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,475.06	5,461.53	23.47	29.64	53.44	-3,541.55	-7,059.08	7,596.12	7,547.47	48.65	156.131		
5,300.00	5,272.21	5,536.61	5,523.04	23.93	29.88	53.49	-3,539.65	-7,057.52	7,585.94	7,536.58	49.36	153.678		
5,400.00	5,371.59	5,579.00	5,565.40	24.39	30.05	53.52	-3,538.51	-7,056.58	7,576.30	7,526.31	49.99	151.558		
5,500.00	5,470.98	5,660.58	5,646.94	24.85	30.35	53.59	-3,536.61	-7,055.05	7,567.08	7,516.30	50.78	149.027		
5,600.00	5,570.36	5,722.83	5,709.17	25.30	30.58	53.63	-3,535.41	-7,054.16	7,558.39	7,506.91	51.48	146.817		
5,700.00	5,669.75	5,785.15	5,771.48	25.76	30.81	53.68	-3,534.42	-7,053.50	7,550.20	7,498.01	52.19	144.678		
5,800.00	5,769.13	5,864.00	5,850.32	26.22	31.11	53.74	-3,533.48	-7,053.02	7,542.53	7,489.57	52.96	142.419		
5,900.00	5,868.51	5,918.77	5,905.09	26.68	31.30	53.78	-3,532.96	-7,052.88	7,535.27	7,481.64	53.62	140.520		
6,000.00	5,967.90	5,993.17	5,979.49	27.14	31.56	53.84	-3,532.27	-7,052.92	7,528.37	7,474.00	54.37	138.466		
6,100.00	6,067.28	6,067.59	6,053.90	27.60	31.82	53.89	-3,531.63	-7,053.20	7,521.82	7,466.71	55.11	136.476		
6,200.00	6,166.66	6,151.00	6,137.31	28.05	32.11	53.96	-3,530.94	-7,053.82	7,515.62	7,459.72	55.90	134.454		
6,300.00	6,266.05	6,249.58	6,235.88	28.51	32.46	54.03	-3,530.09	-7,054.70	7,509.55	7,452.80	56.74	132.341		
6,400.00	6,365.43	6,361.62	6,347.91	28.97	32.85	54.12	-3,528.94	-7,055.57	7,503.34	7,445.69	57.65	130.160		
6,500.00	6,464.81	6,473.60	6,459.88	29.43	33.24	54.21	-3,527.59	-7,056.32	7,496.97	7,438.42	58.55	128.045		
6,600.00	6,564.10	6,553.19	6,539.47	29.89	33.53	54.25	-3,526.57	-7,056.99	7,488.93	7,429.61	59.32	126.242		
6,700.00	6,661.75	6,639.44	6,625.70	30.34	33.84	-0.31	-3,525.41	-7,057.86	7,488.49	7,408.39	60.10	124.263		
6,800.00	6,755.38	6,722.35	6,708.59	30.77	34.14	-9.45	-3,524.25	-7,058.84	7,434.32	7,373.49	60.84	122.200		
6,900.00	6,842.67	6,781.66	6,767.90	31.17	34.34	-15.23	-3,523.46	-7,059.70	7,387.36	7,325.94	61.43	120.262		
7,000.00	6,921.48	6,835.51	6,821.73	31.54	34.53	-20.44	-3,522.84	-7,060.66	7,328.83	7,266.88	61.95	118.311		
7,100.00	6,989.86	6,882.75	6,868.96	31.91	34.70	-26.36	-3,522.37	-7,061.63	7,260.10	7,197.72	62.38	116.379		
7,200.00	7,046.13	6,922.20	6,908.40	32.35	34.84	-34.09	-3,522.04	-7,062.54	7,182.82	7,120.08	62.74	114.489		
7,300.00	7,088.91	6,952.85	6,939.04	32.98	34.94	-44.94	-3,521.81	-7,063.31	7,098.84	7,035.82	63.01	112.654		
7,400.00	7,117.14	6,973.88	6,960.06	33.84	35.02	-60.27	-3,521.68	-7,063.87	7,010.21	6,946.99	63.22	110.881		
7,500.00	7,130.13	6,984.65	6,970.83	34.90	35.05	-79.82	-3,521.61	-7,064.17	6,919.11	6,855.73	63.38	109.172		
7,600.00	7,130.72	7,010.00	6,996.17	36.13	35.14	-87.78	-3,521.48	-7,064.89	6,827.68	6,764.07	63.61	107.341		
7,700.00	7,130.29	7,010.00	6,996.17	37.54	35.14	-87.78	-3,521.48	-7,064.89	6,736.44	6,672.65	63.78	105.613		
7,800.00	7,129.85	7,010.00	6,996.17	39.12	35.14	-87.78	-3,521.48	-7,064.89	6,645.45	6,581.43	64.02	103.807		
7,900.00	7,129.42	7,010.00	6,996.17	40.83	35.14	-87.78	-3,521.48	-7,064.89	6,554.72	6,490.41	64.31	101.923		
8,000.00	7,128.98	7,010.00	6,996.17	42.67	35.14	-87.78	-3,521.48	-7,064.89	6,464.26	6,399.59	64.67	99.964		
8,100.00	7,128.55	7,010.00	6,996.17	44.62	35.14	-87.78	-3,521.48	-7,064.89	6,374.09	6,309.00	65.09	97.932		
8,200.00	7,128.12	7,010.00	6,996.17	46.66	35.14	-87.78	-3,521.48	-7,064.89	6,284.22	6,218.64	65.58	95.830		
8,300.00	7,127.68	7,010.00	6,996.17	48.79	35.14	-87.78	-3,521.48	-7,064.89	6,194.65	6,128.52	66.14	93.664		
8,400.00	7,127.25	7,010.00	6,996.17	50.98	35.14	-87.78	-3,521.48	-7,064.89	6,105.41	6,038.64	66.77	91.438		
8,500.00	7,126.81	7,010.00	6,996.17	53.24	35.14	-87.78	-3,521.48	-7,064.89	6,016.51	5,949.03	67.48	89.159		
8,600.00	7,126.38	7,010.00	6,996.17	55.56	35.14	-87.78	-3,521.48	-7,064.89	5,927.97	5,859.70	68.27	86.833		
8,700.00	7,125.95	7,010.00	6,996.17	57.92	35.14	-87.78	-3,521.48	-7,064.89	5,839.79	5,770.65	69.14	84.467		
8,800.00	7,125.51	7,010.00	6,996.17	60.33	35.14	-87.78	-3,521.48	-7,064.89	5,752.00	5,681.91	70.09	82.070		
8,900.00	7,125.08	7,010.00	6,996.17	62.77	35.14	-87.78	-3,521.48	-7,064.89	5,664.61	5,593.49	71.12	79.649		
9,000.00	7,124.64	7,011.69	6,997.86	65.25	35.15	-87.82	-3,521.47	-7,064.94	5,577.65	5,505.41	72.24	77.205		
9,100.00	7,124.21	7,014.54	7,000.70	67.76	35.16	-87.87	-3,521.45	-7,065.02	5,491.13	5,417.67	73.46	74.749		
9,200.00	7,123.78	7,017.40	7,003.56	70.29	35.17	-87.93	-3,521.44	-7,065.11	5,405.08	5,330.31	74.76	72.294		
9,300.00	7,123.34	7,020.28	7,006.44	72.85	35.18	-87.99	-3,521.42	-7,065.19	5,319.51	5,243.35	76.16	69.847		
9,400.00	7,122.91	7,023.18	7,009.34	75.43	35.19	-88.05	-3,521.40	-7,065.28	5,234.45	5,156.81	77.64	67.416		
9,500.00	7,122.48	7,026.09	7,012.25	78.03	35.20	-88.11	-3,521.39	-7,065.36	5,149.93	5,070.71	79.22	65.007		
9,600.00	7,122.04	7,029.03	7,015.19	80.65	35.21	-88.17	-3,521.37	-7,065.45	5,065.97	4,985.07	80.89	62.625		
9,700.00	7,121.61	7,031.98	7,018.14	83.28	35.22	-88.23	-3,521.35	-7,065.54	4,982.60	4,899.94	82.66	60.278		
9,800.00	7,121.17	7,034.96	7,021.11	85.93	35.23	-88.30	-3,521.33	-7,065.63	4,899.85	4,815.32	84.52	57.970		
9,900.00	7,120.74	7,037.95	7,024.11	88.59	35.24	-88.36	-3,521.30	-7,065.72	4,817.75	4,731.27	86.49	55.705		
10,000.00	7,120.31	7,040.97	7,027.12	91.26	35.25	-88.42	-3,521.28	-7,065.81	4,736.34	4,647.79	88.55	53.488		
10,100.00	7,119.87	7,044.00	7,030.15	93.95	35.26	-88.48	-3,521.26	-7,065.90	4,655.66	4,564.94	90.71	51.322		
10,200.00	7,119.44	7,047.05	7,033.20	96.64	35.27	-88.54	-3,521.23	-7,065.99	4,575.73	4,482.75	92.98	49.211		
10,300.00	7,119.00	7,050.13	7,036.28	99.34	35.28	-88.61	-3,521.20	-7,066.09	4,496.61	4,401.25	95.36	47.156		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,118.57	7,053.22	7,039.37	102.05	35.29	-88.67	-3,521.18	-7,066.18	4,418.33	4,320.49	97.84	45.161		
10,500.00	7,118.14	7,056.34	7,042.48	104.77	35.31	-88.74	-3,521.15	-7,066.28	4,340.94	4,240.51	100.42	43.226		
10,600.00	7,117.70	7,059.48	7,045.62	107.50	35.32	-88.80	-3,521.12	-7,066.37	4,264.49	4,161.36	103.12	41.353		
10,700.00	7,117.27	7,062.63	7,048.77	110.23	35.33	-88.87	-3,521.09	-7,066.47	4,189.03	4,083.09	105.94	39.543		
10,800.00	7,116.83	7,065.81	7,051.95	112.97	35.34	-88.93	-3,521.06	-7,066.57	4,114.61	4,005.75	108.86	37.797		
10,900.00	7,116.40	7,069.01	7,055.15	115.72	35.35	-89.00	-3,521.02	-7,066.67	4,041.30	3,929.40	111.90	36.115		
11,000.00	7,115.97	7,072.24	7,058.37	118.47	35.36	-89.06	-3,520.99	-7,066.77	3,969.15	3,854.09	115.05	34.498		
11,100.00	7,115.53	7,075.48	7,061.61	121.22	35.37	-89.13	-3,520.96	-7,066.87	3,898.22	3,779.90	118.33	32.945		
11,200.00	7,115.10	7,078.75	7,064.88	123.98	35.38	-89.20	-3,520.92	-7,066.97	3,828.60	3,706.88	121.72	31.455		
11,300.00	7,114.66	7,082.04	7,068.16	126.74	35.40	-89.27	-3,520.88	-7,067.07	3,760.34	3,635.12	125.22	30.030		
11,400.00	7,114.23	7,085.35	7,071.47	129.51	35.41	-89.34	-3,520.84	-7,067.17	3,693.53	3,564.68	128.84	28.667		
11,500.00	7,113.80	7,088.68	7,074.81	132.29	35.42	-89.40	-3,520.80	-7,067.28	3,628.23	3,495.65	132.58	27.366		
11,600.00	7,113.36	7,092.04	7,078.16	135.06	35.43	-89.47	-3,520.76	-7,067.39	3,564.55	3,428.12	136.43	26.127		
11,700.00	7,112.93	7,095.42	7,081.54	137.84	35.44	-89.54	-3,520.72	-7,067.49	3,502.56	3,362.17	140.39	24.948		
11,800.00	7,112.49	7,098.83	7,084.95	140.62	35.45	-89.61	-3,520.67	-7,067.60	3,442.36	3,297.90	144.46	23.829		
11,900.00	7,112.06	7,102.26	7,088.37	143.41	35.47	-89.68	-3,520.63	-7,067.71	3,384.04	3,235.41	148.63	22.768		
12,000.00	7,111.63	7,105.71	7,091.82	146.20	35.48	-89.76	-3,520.58	-7,067.82	3,327.70	3,174.80	152.90	21.764		
12,100.00	7,111.19	7,109.19	7,095.30	148.99	35.49	-89.83	-3,520.53	-7,067.93	3,273.44	3,116.19	157.26	20.816		
12,200.00	7,110.76	7,112.69	7,098.80	151.78	35.50	-89.90	-3,520.48	-7,068.04	3,221.37	3,059.68	161.69	19.923		
12,300.00	7,110.33	7,116.22	7,102.33	154.58	35.52	-89.97	-3,520.43	-7,068.16	3,171.60	3,005.41	166.19	19.084		
12,400.00	7,109.89	7,119.77	7,105.88	157.37	35.53	-90.05	-3,520.38	-7,068.27	3,124.24	2,953.48	170.75	18.297		
12,500.00	7,109.46	7,123.35	7,109.45	160.17	35.54	-90.12	-3,520.32	-7,068.39	3,079.39	2,904.03	175.36	17.561		
12,600.00	7,109.02	7,126.95	7,113.05	162.98	35.55	-90.19	-3,520.27	-7,068.51	3,037.16	2,857.18	179.99	16.874		
12,700.00	7,108.59	7,130.58	7,116.68	165.78	35.57	-90.27	-3,520.21	-7,068.63	2,997.68	2,813.05	184.63	16.236		
12,800.00	7,108.16	7,134.24	7,120.33	168.59	35.58	-90.35	-3,520.15	-7,068.74	2,961.04	2,771.79	189.26	15.645		
12,900.00	7,107.72	7,137.92	7,124.01	171.39	35.59	-90.42	-3,520.09	-7,068.87	2,927.37	2,733.51	193.86	15.100		
13,000.00	7,107.29	7,141.63	7,127.72	174.20	35.61	-90.50	-3,520.03	-7,068.99	2,896.75	2,698.33	198.41	14.600		
13,100.00	7,106.85	7,145.37	7,131.46	177.01	35.62	-90.58	-3,519.96	-7,069.11	2,869.28	2,666.39	202.89	14.142		
13,200.00	7,106.42	7,149.13	7,135.22	179.83	35.63	-90.65	-3,519.89	-7,069.24	2,845.06	2,637.80	207.26	13.727		
13,300.00	7,105.99	7,152.92	7,139.01	182.64	35.65	-90.73	-3,519.83	-7,069.36	2,824.18	2,612.66	211.52	13.352		
13,400.00	7,105.55	7,156.74	7,142.82	185.45	35.66	-90.81	-3,519.76	-7,069.49	2,806.70	2,591.07	215.63	13.016		
13,500.00	7,105.12	7,160.59	7,146.67	188.27	35.67	-90.89	-3,519.68	-7,069.62	2,792.69	2,573.11	219.58	12.719		
13,600.00	7,104.68	7,164.47	7,150.55	191.09	35.69	-90.97	-3,519.61	-7,069.75	2,782.20	2,558.87	223.33	12.458		
13,700.00	7,104.25	7,168.38	7,154.45	193.91	35.70	-91.05	-3,519.54	-7,069.88	2,775.28	2,548.40	226.87	12.233		
13,800.00	7,103.82	7,172.31	7,158.38	196.73	35.71	-91.13	-3,519.46	-7,070.02	2,771.94	2,541.75	230.19	12.042		
13,842.68	7,103.63	7,174.00	7,160.07	197.93	35.72	-91.17	-3,519.42	-7,070.07	2,771.61	2,540.08	231.53	11.971 CC		
13,900.00	7,103.38	7,176.28	7,162.34	199.55	35.73	-91.21	-3,519.38	-7,070.15	2,772.20	2,538.94	233.26	11.884 ES		
14,000.00	7,102.95	7,180.27	7,166.34	202.37	35.74	-91.30	-3,519.30	-7,070.29	2,776.07	2,539.99	236.08	11.759		
14,100.00	7,102.51	7,184.30	7,170.36	205.19	35.76	-91.38	-3,519.21	-7,070.42	2,783.52	2,544.89	238.63	11.664		
14,200.00	7,102.08	7,188.36	7,174.41	208.02	35.77	-91.46	-3,519.13	-7,070.56	2,794.52	2,553.61	240.91	11.600		
14,300.00	7,101.65	7,192.44	7,178.50	210.84	35.78	-91.55	-3,519.04	-7,070.70	2,809.04	2,566.13	242.92	11.564		
14,400.00	7,101.21	7,196.56	7,182.61	213.67	35.80	-91.63	-3,518.95	-7,070.85	2,827.02	2,582.38	244.65	11.556 SF		
14,500.00	7,100.78	7,200.72	7,186.76	216.50	35.81	-91.72	-3,518.85	-7,070.99	2,848.40	2,602.30	246.10	11.574		
14,600.00	7,100.35	7,204.90	7,190.94	219.32	35.83	-91.81	-3,518.76	-7,071.14	2,873.09	2,625.80	247.30	11.618		
14,700.00	7,099.91	7,209.12	7,195.16	222.15	35.84	-91.89	-3,518.66	-7,071.28	2,901.02	2,652.79	248.23	11.687		
14,800.00	7,099.48	7,213.36	7,199.40	224.98	35.86	-91.98	-3,518.56	-7,071.43	2,932.10	2,683.17	248.92	11.779		
14,900.00	7,099.04	7,217.65	7,203.68	227.81	35.87	-92.07	-3,518.46	-7,071.58	2,966.21	2,716.83	249.38	11.894		
14,909.96	7,099.00	7,218.08	7,204.11	228.09	35.87	-92.08	-3,518.45	-7,071.60	2,969.77	2,720.36	249.42	11.907		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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	68.00	3.28	3.28	-118.68	-4,190.87	-7,662.63	8,734.07					
100.00	100.00	32.00	100.00	3.28	3.33	-118.68	-4,190.87	-7,662.63	8,733.80	8,727.19	6.61	1,320.914		
200.00	200.00	132.00	200.00	3.34	4.35	-118.68	-4,190.87	-7,662.63	8,733.80	8,726.11	7.69	1,135.656		
300.00	300.00	232.00	300.00	3.44	7.15	-118.68	-4,190.87	-7,662.63	8,733.80	8,723.21	10.60	824.316		
400.00	400.00	332.00	400.00	3.60	10.38	-118.68	-4,190.87	-7,662.63	8,733.80	8,719.82	13.98	624.736		
500.00	500.00	432.00	500.00	3.81	13.73	-118.68	-4,190.87	-7,662.63	8,733.80	8,716.26	17.54	497.962		
600.00	600.00	532.00	600.00	4.04	17.14	48.17	-4,190.87	-7,662.63	8,733.76	8,712.57	21.19	412.222		
700.00	699.96	631.96	699.96	4.29	20.58	48.21	-4,190.87	-7,662.63	8,732.13	8,707.26	24.87	351.101		
800.00	799.78	731.78	799.78	4.57	24.03	48.30	-4,190.87	-7,662.63	8,728.17	8,699.58	28.59	305.237		
900.00	899.34	831.34	899.34	4.88	27.47	48.44	-4,190.87	-7,662.63	8,721.91	8,689.56	32.35	269.642		
1,000.00	998.72	930.72	998.72	5.20	30.92	48.49	-4,190.87	-7,662.63	8,714.53	8,678.41	36.12	241.288		
1,100.00	1,098.10	1,030.10	1,098.10	5.54	34.37	48.54	-4,190.87	-7,662.63	8,707.16	8,667.25	39.91	218.168		
1,200.00	1,197.49	1,129.49	1,197.49	5.90	37.83	48.60	-4,190.87	-7,662.63	8,699.80	8,656.08	43.72	198.977		
1,300.00	1,296.87	1,228.87	1,296.87	6.28	41.28	48.65	-4,190.87	-7,662.63	8,692.45	8,644.90	47.55	182.806		
1,400.00	1,396.25	1,328.25	1,396.25	6.66	44.74	48.71	-4,190.87	-7,662.63	8,685.10	8,633.71	51.39	169.003		
1,500.00	1,495.64	1,427.64	1,495.64	7.06	48.21	48.76	-4,190.87	-7,662.63	8,677.76	8,622.52	55.24	157.090		
1,600.00	1,595.02	1,527.02	1,595.02	7.46	51.67	48.82	-4,190.87	-7,662.63	8,670.43	8,611.33	59.10	146.708		
1,700.00	1,694.40	1,626.40	1,694.40	7.87	55.13	48.87	-4,190.87	-7,662.63	8,663.11	8,600.15	62.97	137.583		
1,800.00	1,793.79	1,725.79	1,793.79	8.29	58.59	48.93	-4,190.87	-7,662.63	8,655.80	8,588.96	66.84	129.502		
1,900.00	1,893.17	1,825.17	1,893.17	8.71	62.06	48.98	-4,190.87	-7,662.63	8,648.49	8,577.78	70.72	122.296		
2,000.00	1,992.55	1,924.55	1,992.55	9.13	65.52	49.04	-4,190.87	-7,662.63	8,641.20	8,566.60	74.60	115.833		
2,100.00	2,091.94	2,023.94	2,091.94	9.56	68.99	49.09	-4,190.87	-7,662.63	8,633.91	8,555.42	78.49	110.004		
2,200.00	2,191.32	2,123.32	2,191.32	9.99	72.45	49.15	-4,190.87	-7,662.63	8,626.62	8,544.25	82.38	104.721		
2,300.00	2,290.70	2,222.70	2,290.70	10.42	75.92	49.20	-4,190.87	-7,662.63	8,619.35	8,533.08	86.27	99.910		
2,400.00	2,390.09	2,322.09	2,390.09	10.86	79.39	49.26	-4,190.87	-7,662.63	8,612.09	8,521.92	90.17	95.513		
2,500.00	2,489.47	2,421.47	2,489.47	11.29	82.85	49.32	-4,190.87	-7,662.63	8,604.83	8,510.76	94.07	91.477		
2,600.00	2,588.86	2,520.86	2,588.86	11.73	86.32	49.37	-4,190.87	-7,662.63	8,597.58	8,499.62	97.97	87.761		
2,700.00	2,688.24	2,620.24	2,688.24	12.18	89.79	49.43	-4,190.87	-7,662.63	8,590.34	8,488.47	101.87	84.328		
2,800.00	2,787.62	2,719.62	2,787.62	12.62	93.25	49.48	-4,190.87	-7,662.63	8,583.11	8,477.34	105.77	81.147		
2,900.00	2,887.01	2,819.01	2,887.01	13.06	96.72	49.54	-4,190.87	-7,662.63	8,575.88	8,466.21	109.68	78.192		
3,000.00	2,986.39	2,918.39	2,986.39	13.51	100.19	49.60	-4,190.87	-7,662.63	8,568.67	8,455.08	113.58	75.438		
3,100.00	3,085.77	3,017.77	3,085.77	13.95	103.66	49.65	-4,190.87	-7,662.63	8,561.46	8,443.97	117.49	72.868		
3,200.00	3,185.16	3,117.16	3,185.16	14.40	107.12	49.71	-4,190.87	-7,662.63	8,554.26	8,432.86	121.40	70.462		
3,300.00	3,284.54	3,216.54	3,284.54	14.85	110.59	49.77	-4,190.87	-7,662.63	8,547.07	8,421.76	125.31	68.206		
3,400.00	3,383.92	3,315.92	3,383.92	15.30	114.06	49.82	-4,190.87	-7,662.63	8,539.89	8,410.66	129.22	66.086		
3,500.00	3,483.31	3,415.31	3,483.31	15.75	117.53	49.88	-4,190.87	-7,662.63	8,532.71	8,399.58	133.14	64.090		
3,600.00	3,582.69	3,514.69	3,582.69	16.20	121.00	49.94	-4,190.87	-7,662.63	8,525.55	8,388.50	137.05	62.208		
3,700.00	3,682.07	3,614.07	3,682.07	16.65	124.47	49.99	-4,190.87	-7,662.63	8,518.39	8,377.43	140.96	60.430		
3,800.00	3,781.46	3,713.46	3,781.46	17.10	127.93	50.05	-4,190.87	-7,662.63	8,511.24	8,366.36	144.88	58.748		
3,900.00	3,880.84	3,812.84	3,880.84	17.56	131.40	50.11	-4,190.87	-7,662.63	8,504.10	8,355.31	148.79	57.154		
4,000.00	3,980.22	3,912.22	3,980.22	18.01	134.87	50.16	-4,190.87	-7,662.63	8,496.97	8,344.26	152.71	55.642		
4,100.00	4,079.61	4,011.61	4,079.61	18.46	138.34	50.22	-4,190.87	-7,662.63	8,489.84	8,333.22	156.63	54.205		
4,200.00	4,178.99	4,110.99	4,178.99	18.92	141.81	50.28	-4,190.87	-7,662.63	8,482.73	8,322.19	160.54	52.838		
4,300.00	4,278.38	4,210.38	4,278.38	19.37	145.28	50.34	-4,190.87	-7,662.63	8,475.62	8,311.16	164.46	51.536		
4,400.00	4,377.76	4,309.76	4,377.76	19.83	148.74	50.39	-4,190.87	-7,662.63	8,468.52	8,300.15	168.38	50.295		
4,500.00	4,477.14	4,409.14	4,477.14	20.28	152.21	50.45	-4,190.87	-7,662.63	8,461.44	8,289.14	172.29	49.110		
4,600.00	4,576.53	4,508.53	4,576.53	20.74	155.68	50.51	-4,190.87	-7,662.63	8,454.35	8,278.14	176.21	47.978		
4,700.00	4,675.91	4,607.91	4,675.91	21.19	159.15	50.57	-4,190.87	-7,662.63	8,447.28	8,267.15	180.13	46.895		
4,800.00	4,775.29	4,707.29	4,775.29	21.65	162.62	50.62	-4,190.87	-7,662.63	8,440.22	8,256.17	184.05	45.858		
4,900.00	4,874.68	4,806.68	4,874.68	22.10	166.09	50.68	-4,190.87	-7,662.63	8,433.16	8,245.19	187.97	44.864		
5,000.00	4,974.06	4,906.06	4,974.06	22.56	169.56	50.74	-4,190.87	-7,662.63	8,426.12	8,234.23	191.89	43.911		
5,100.00	5,073.44	5,005.44	5,073.44	23.02	173.03	50.80	-4,190.87	-7,662.63	8,419.08	8,223.27	195.81	42.996		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,104.83	5,172.83	23.47	176.49	50.86	-4,190.87	-7,662.63	8,412.05	8,212.32	199.73	42.117		
5,300.00	5,272.21	5,204.21	5,272.21	23.93	179.96	50.92	-4,190.87	-7,662.63	8,405.03	8,201.38	203.65	41.271		
5,400.00	5,371.59	5,303.59	5,371.59	24.39	183.43	50.97	-4,190.87	-7,662.63	8,398.02	8,190.45	207.57	40.458		
5,500.00	5,470.98	5,402.98	5,470.98	24.85	186.90	51.03	-4,190.87	-7,662.63	8,391.02	8,179.52	211.49	39.675		
5,600.00	5,570.36	5,502.36	5,570.36	25.30	190.37	51.09	-4,190.87	-7,662.63	8,384.02	8,168.61	215.42	38.920		
5,700.00	5,669.75	5,601.75	5,669.75	25.76	193.84	51.15	-4,190.87	-7,662.63	8,377.04	8,157.70	219.34	38.192		
5,800.00	5,769.13	5,701.13	5,769.13	26.22	197.31	51.21	-4,190.87	-7,662.63	8,370.06	8,146.80	223.26	37.490		
5,900.00	5,868.51	5,800.51	5,868.51	26.68	200.78	51.27	-4,190.87	-7,662.63	8,363.09	8,135.91	227.18	36.812		
6,000.00	5,967.90	5,900.10	5,967.90	27.14	204.25	51.33	-4,190.87	-7,662.63	8,356.14	8,125.02	231.11	36.156		
6,100.00	6,067.28	6,000.72	6,067.28	27.60	207.77	51.39	-4,190.87	-7,662.63	8,349.19	8,114.11	235.08	35.517		
6,200.00	6,166.66	6,101.34	6,166.66	28.05	211.28	51.44	-4,190.87	-7,662.63	8,342.25	8,103.20	239.04	34.899		
6,300.00	6,266.05	6,201.95	6,266.05	28.51	214.79	51.50	-4,190.87	-7,662.63	8,335.31	8,092.31	243.01	34.301		
6,400.00	6,365.43	6,302.57	6,365.43	28.97	218.30	51.56	-4,190.87	-7,662.63	8,328.39	8,081.42	246.97	33.722		
6,500.00	6,464.81	6,403.19	6,464.81	29.43	221.81	51.62	-4,190.87	-7,662.63	8,321.48	8,070.54	250.94	33.161		
6,600.00	6,564.10	6,503.90	6,564.10	29.89	225.33	21.13	-4,190.87	-7,662.63	8,312.81	8,057.90	254.91	32.611		
6,700.00	6,661.75	6,606.25	6,661.75	30.34	228.90	-3.05	-4,190.87	-7,662.63	8,291.86	8,032.94	258.92	32.025		
6,800.00	6,755.38	6,687.38	6,755.38	30.77	231.73	-12.38	-4,190.87	-7,662.63	8,257.36	7,995.20	262.16	31.498		
6,900.00	6,842.67	6,774.67	6,842.67	31.17	234.78	-18.44	-4,190.87	-7,662.63	8,210.16	7,944.59	265.57	30.915		
7,000.00	6,921.48	6,853.48	6,921.48	31.54	237.53	-24.07	-4,190.87	-7,662.63	8,151.46	7,882.83	268.64	30.344		
7,100.00	6,989.86	6,921.86	6,989.86	31.91	239.92	-30.55	-4,190.87	-7,662.63	8,082.75	7,811.46	271.29	29.794		
7,200.00	7,046.13	6,978.13	7,046.13	32.35	241.88	-38.97	-4,190.87	-7,662.63	8,005.76	7,732.29	273.47	29.274		
7,300.00	7,088.91	7,020.91	7,088.91	32.98	243.38	-50.46	-4,190.87	-7,662.63	7,922.45	7,647.30	275.15	28.793		
7,400.00	7,117.14	7,049.14	7,117.14	33.84	244.36	-65.77	-4,190.87	-7,662.63	7,834.94	7,558.64	276.29	28.357		
7,500.00	7,130.13	7,062.13	7,130.13	34.90	244.82	-83.88	-4,190.87	-7,662.63	7,745.43	7,468.52	276.91	27.971		
7,600.00	7,130.72	7,062.72	7,130.72	36.13	244.84	-90.49	-4,190.87	-7,662.63	7,655.91	7,378.80	277.11	27.628		
7,700.00	7,130.29	7,062.29	7,130.29	37.54	244.82	-90.49	-4,190.87	-7,662.63	7,566.70	7,289.36	277.34	27.283		
7,800.00	7,129.85	7,061.85	7,129.85	39.12	244.81	-90.48	-4,190.87	-7,662.63	7,477.75	7,200.12	277.64	26.934		
7,900.00	7,129.42	7,061.42	7,129.42	40.83	244.79	-90.47	-4,190.87	-7,662.63	7,389.09	7,111.09	278.00	26.579		
8,000.00	7,128.98	7,060.98	7,128.98	42.67	244.78	-90.47	-4,190.87	-7,662.63	7,300.72	7,022.29	278.44	26.220		
8,100.00	7,128.55	7,060.55	7,128.55	44.62	244.76	-90.46	-4,190.87	-7,662.63	7,212.66	6,933.71	278.95	25.857		
8,200.00	7,128.12	7,060.12	7,128.12	46.66	244.75	-90.45	-4,190.87	-7,662.63	7,124.91	6,845.38	279.53	25.489		
8,300.00	7,127.68	7,059.68	7,127.68	48.79	244.73	-90.44	-4,190.87	-7,662.63	7,037.49	6,757.30	280.19	25.117		
8,400.00	7,127.25	7,059.25	7,127.25	50.98	244.72	-90.44	-4,190.87	-7,662.63	6,950.40	6,669.47	280.93	24.741		
8,500.00	7,126.81	7,058.81	7,126.81	53.24	244.70	-90.43	-4,190.87	-7,662.63	6,863.67	6,581.92	281.75	24.361		
8,600.00	7,126.38	7,058.38	7,126.38	55.56	244.69	-90.42	-4,190.87	-7,662.63	6,777.31	6,494.66	282.65	23.978		
8,700.00	7,125.95	7,057.95	7,125.95	57.92	244.67	-90.42	-4,190.87	-7,662.63	6,691.32	6,407.69	283.63	23.592		
8,800.00	7,125.51	7,057.51	7,125.51	60.33	244.65	-90.41	-4,190.87	-7,662.63	6,605.73	6,321.04	284.69	23.203		
8,900.00	7,125.08	7,057.08	7,125.08	62.77	244.64	-90.40	-4,190.87	-7,662.63	6,520.55	6,234.71	285.83	22.812		
9,000.00	7,124.64	7,056.64	7,124.64	65.25	244.62	-90.39	-4,190.87	-7,662.63	6,435.79	6,148.73	287.06	22.420		
9,100.00	7,124.21	7,056.21	7,124.21	67.76	244.61	-90.39	-4,190.87	-7,662.63	6,351.48	6,063.11	288.37	22.026		
9,200.00	7,123.78	7,055.78	7,123.78	70.29	244.59	-90.38	-4,190.87	-7,662.63	6,267.63	5,977.87	289.76	21.631		
9,300.00	7,123.34	7,055.34	7,123.34	72.85	244.58	-90.37	-4,190.87	-7,662.63	6,184.26	5,893.03	291.23	21.235		
9,400.00	7,122.91	7,054.91	7,122.91	75.43	244.56	-90.36	-4,190.87	-7,662.63	6,101.39	5,808.60	292.78	20.839		
9,500.00	7,122.48	7,054.48	7,122.48	78.03	244.55	-90.36	-4,190.87	-7,662.63	6,019.04	5,724.61	294.42	20.443		
9,600.00	7,122.04	7,054.04	7,122.04	80.65	244.53	-90.35	-4,190.87	-7,662.63	5,937.23	5,641.08	296.15	20.048		
9,700.00	7,121.61	7,053.61	7,121.61	83.28	244.52	-90.34	-4,190.87	-7,662.63	5,855.99	5,558.04	297.95	19.654		
9,800.00	7,121.17	7,053.17	7,121.17	85.93	244.50	-90.34	-4,190.87	-7,662.63	5,775.33	5,475.49	299.84	19.261		
9,900.00	7,120.74	7,052.74	7,120.74	88.59	244.49	-90.33	-4,190.87	-7,662.63	5,695.29	5,393.48	301.81	18.870		
10,000.00	7,120.31	7,052.31	7,120.31	91.26	244.47	-90.32	-4,190.87	-7,662.63	5,615.89	5,312.02	303.87	18.481		
10,100.00	7,119.87	7,051.87	7,119.87	93.95	244.46	-90.31	-4,190.87	-7,662.63	5,537.16	5,231.14	306.01	18.095		
10,200.00	7,119.44	7,051.44	7,119.44	96.64	244.44	-90.31	-4,190.87	-7,662.63	5,459.12	5,150.88	308.24	17.711		
10,300.00	7,119.00	7,051.00	7,119.00	99.34	244.43	-90.30	-4,190.87	-7,662.63	5,381.81	5,071.26	310.55	17.330		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
Depth (ft)	Depth (ft)	Depth (ft)	Depth (ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,400.00	7,118.57	7,050.57	7,118.57	102.05	244.41	-90.29	-4,190.87	-7,662.63	5,305.26	4,992.31	312.95	16.952		
10,500.00	7,118.14	7,050.14	7,118.14	104.77	244.40	-90.28	-4,190.87	-7,662.63	5,229.49	4,914.06	315.44	16.579		
10,600.00	7,117.70	7,049.70	7,117.70	107.50	244.38	-90.28	-4,190.87	-7,662.63	5,154.56	4,836.55	318.01	16.209		
10,700.00	7,117.27	7,049.27	7,117.27	110.23	244.37	-90.27	-4,190.87	-7,662.63	5,080.49	4,759.82	320.67	15.843		
10,800.00	7,116.83	7,048.83	7,116.83	112.97	244.35	-90.26	-4,190.87	-7,662.63	5,007.32	4,683.90	323.42	15.483		
10,900.00	7,116.40	7,048.40	7,116.40	115.72	244.34	-90.26	-4,190.87	-7,662.63	4,935.09	4,608.84	326.25	15.127		
11,000.00	7,115.97	7,047.97	7,115.97	118.47	244.32	-90.25	-4,190.87	-7,662.63	4,863.85	4,534.67	329.18	14.776		
11,100.00	7,115.53	7,047.53	7,115.53	121.22	244.31	-90.24	-4,190.87	-7,662.63	4,793.63	4,461.44	332.19	14.430		
11,200.00	7,115.10	7,047.10	7,115.10	123.98	244.29	-90.23	-4,190.87	-7,662.63	4,724.48	4,389.19	335.29	14.091		
11,300.00	7,114.66	7,046.66	7,114.66	126.74	244.28	-90.23	-4,190.87	-7,662.63	4,656.46	4,317.98	338.48	13.757		
11,400.00	7,114.23	7,046.23	7,114.23	129.51	244.26	-90.22	-4,190.87	-7,662.63	4,589.61	4,247.85	341.76	13.429		
11,500.00	7,113.80	7,045.80	7,113.80	132.29	244.25	-90.21	-4,190.87	-7,662.63	4,523.98	4,178.85	345.12	13.108		
11,600.00	7,113.36	7,045.36	7,113.36	135.06	244.23	-90.21	-4,190.87	-7,662.63	4,459.62	4,111.05	348.57	12.794		
11,700.00	7,112.93	7,044.93	7,112.93	137.84	244.22	-90.20	-4,190.87	-7,662.63	4,396.60	4,044.49	352.11	12.487		
11,800.00	7,112.49	7,044.49	7,112.49	140.62	244.20	-90.19	-4,190.87	-7,662.63	4,334.97	3,979.25	355.72	12.186		
11,900.00	7,112.06	7,044.06	7,112.06	143.41	244.19	-90.18	-4,190.87	-7,662.63	4,274.79	3,915.37	359.42	11.894		
12,000.00	7,111.63	7,043.63	7,111.63	146.20	244.17	-90.18	-4,190.87	-7,662.63	4,216.13	3,852.94	363.19	11.609		
12,100.00	7,111.19	7,043.19	7,111.19	148.99	244.15	-90.17	-4,190.87	-7,662.63	4,159.04	3,792.00	367.04	11.331		
12,200.00	7,110.76	7,042.76	7,110.76	151.78	244.14	-90.16	-4,190.87	-7,662.63	4,103.59	3,732.64	370.95	11.062		
12,300.00	7,110.33	7,042.33	7,110.33	154.58	244.12	-90.15	-4,190.87	-7,662.63	4,049.86	3,674.93	374.93	10.802		
12,400.00	7,109.89	7,041.89	7,109.89	157.37	244.11	-90.15	-4,190.87	-7,662.63	3,997.90	3,618.93	378.97	10.549		
12,500.00	7,109.46	7,041.46	7,109.46	160.17	244.09	-90.14	-4,190.87	-7,662.63	3,947.79	3,564.74	383.06	10.306		
12,600.00	7,109.02	7,041.02	7,109.02	162.98	244.08	-90.13	-4,190.87	-7,662.63	3,899.61	3,512.42	387.19	10.072		
12,700.00	7,108.59	7,040.59	7,108.59	165.78	244.06	-90.13	-4,190.87	-7,662.63	3,853.42	3,462.05	391.37	9.846		
12,800.00	7,108.16	7,040.16	7,108.16	168.59	244.05	-90.12	-4,190.87	-7,662.63	3,809.29	3,413.72	395.57	9.630		
12,900.00	7,107.72	7,039.72	7,107.72	171.39	244.03	-90.11	-4,190.87	-7,662.63	3,767.30	3,367.51	399.79	9.423		
13,000.00	7,107.29	7,039.29	7,107.29	174.20	244.02	-90.10	-4,190.87	-7,662.63	3,727.52	3,323.50	404.03	9.226		
13,100.00	7,106.85	7,038.85	7,106.85	177.01	244.00	-90.10	-4,190.87	-7,662.63	3,690.03	3,281.77	408.26	9.038		
13,200.00	7,106.42	7,038.42	7,106.42	179.83	243.99	-90.09	-4,190.87	-7,662.63	3,654.88	3,242.40	412.48	8.861		
13,300.00	7,105.99	7,037.99	7,105.99	182.64	243.97	-90.08	-4,190.87	-7,662.63	3,622.16	3,205.48	416.67	8.693		
13,400.00	7,105.55	7,037.55	7,105.55	185.45	243.96	-90.08	-4,190.87	-7,662.63	3,591.92	3,171.09	420.83	8.535		
13,500.00	7,105.12	7,037.12	7,105.12	188.27	243.94	-90.07	-4,190.87	-7,662.63	3,564.23	3,139.29	424.94	8.388		
13,600.00	7,104.68	7,036.68	7,104.68	191.09	243.93	-90.06	-4,190.87	-7,662.63	3,539.16	3,110.18	428.98	8.250		
13,700.00	7,104.25	7,036.25	7,104.25	193.91	243.91	-90.05	-4,190.87	-7,662.63	3,516.74	3,083.80	432.94	8.123		
13,800.00	7,103.82	7,035.82	7,103.82	196.73	243.90	-90.05	-4,190.87	-7,662.63	3,497.05	3,060.23	436.82	8.006		
13,900.00	7,103.38	7,035.38	7,103.38	199.55	243.88	-90.04	-4,190.87	-7,662.63	3,480.12	3,039.53	440.58	7.899		
14,000.00	7,102.95	7,034.95	7,102.95	202.37	243.87	-90.03	-4,190.87	-7,662.63	3,465.99	3,021.76	444.23	7.802		
14,100.00	7,102.51	7,034.51	7,102.51	205.19	243.85	-90.02	-4,190.87	-7,662.63	3,454.70	3,006.95	447.75	7.716		
14,200.00	7,102.08	7,034.08	7,102.08	208.02	243.84	-90.02	-4,190.87	-7,662.63	3,446.27	2,995.15	451.12	7.639		
14,300.00	7,101.65	7,033.65	7,101.65	210.84	243.82	-90.01	-4,190.87	-7,662.63	3,440.74	2,986.39	454.35	7.573		
14,400.00	7,101.21	7,033.21	7,101.21	213.67	243.81	-90.00	-4,190.87	-7,662.63	3,438.10	2,980.70	457.40	7.517		
14,440.69	7,101.04	7,033.04	7,101.04	214.82	243.80	-90.00	-4,190.87	-7,662.63	3,437.86	2,979.26	458.60	7.496 CC		
14,500.00	7,100.78	7,032.78	7,100.78	216.50	243.79	-90.00	-4,190.87	-7,662.63	3,438.37	2,978.09	460.29	7.470 ES		
14,600.00	7,100.35	7,032.35	7,100.35	219.32	243.78	-89.99	-4,190.87	-7,662.63	3,441.55	2,978.56	462.99	7.433		
14,700.00	7,099.91	7,031.91	7,099.91	222.15	243.76	-89.98	-4,190.87	-7,662.63	3,447.62	2,982.12	465.51	7.406		
14,800.00	7,099.48	7,031.48	7,099.48	224.98	243.75	-89.97	-4,190.87	-7,662.63	3,456.58	2,988.75	467.83	7.388		
14,900.00	7,099.04	7,031.04	7,099.04	227.81	243.73	-89.97	-4,190.87	-7,662.63	3,468.41	2,998.44	469.97	7.380		
14,909.96	7,099.00	7,031.00	7,099.00	228.09	243.73	-89.97	-4,190.87	-7,662.63	3,469.74	2,999.57	470.17	7.380 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	53.00	3.28	3.28	-107.78	-2,873.47	-8,962.95	9,412.44					
100.00	100.00	47.00	100.00	3.28	3.38	-107.78	-2,873.47	-8,962.95	9,412.29	9,405.63	6.67	1,412.035		
200.00	200.00	147.00	200.00	3.34	4.71	-107.78	-2,873.47	-8,962.95	9,412.29	9,404.24	8.05	1,169.027		
300.00	300.00	247.00	300.00	3.44	7.62	-107.78	-2,873.47	-8,962.95	9,412.29	9,401.23	11.06	850.690		
400.00	400.00	347.00	400.00	3.60	10.87	-107.78	-2,873.47	-8,962.95	9,412.29	9,397.82	14.48	650.108		
500.00	500.00	447.00	500.00	3.81	14.24	-107.78	-2,873.47	-8,962.95	9,412.29	9,394.25	18.05	521.511		
600.00	600.00	547.00	600.00	4.04	17.66	59.07	-2,873.47	-8,962.95	9,412.26	9,390.56	21.70	433.719		
700.00	699.96	646.96	699.96	4.29	21.10	59.11	-2,873.47	-8,962.95	9,411.00	9,385.61	25.39	370.693		
800.00	799.78	746.78	799.78	4.57	24.54	59.19	-2,873.47	-8,962.95	9,407.96	9,378.84	29.11	323.155		
900.00	899.34	846.34	899.34	4.88	27.99	59.32	-2,873.47	-8,962.95	9,403.13	9,370.27	32.86	286.117		
1,000.00	998.72	945.72	998.72	5.20	31.44	59.38	-2,873.47	-8,962.95	9,397.45	9,360.82	36.64	256.502		
1,100.00	1,098.10	1,045.10	1,098.10	5.54	34.89	59.44	-2,873.47	-8,962.95	9,391.78	9,351.35	40.43	232.282		
1,200.00	1,197.49	1,144.49	1,197.49	5.90	38.35	59.49	-2,873.47	-8,962.95	9,386.13	9,341.88	44.25	212.130		
1,300.00	1,296.87	1,243.87	1,296.87	6.28	41.81	59.55	-2,873.47	-8,962.95	9,380.48	9,332.40	48.08	195.114		
1,400.00	1,396.25	1,343.25	1,396.25	6.66	45.27	59.61	-2,873.47	-8,962.95	9,374.84	9,322.92	51.92	180.565		
1,500.00	1,495.64	1,442.64	1,495.64	7.06	48.73	59.67	-2,873.47	-8,962.95	9,369.21	9,313.44	55.77	167.990		
1,600.00	1,595.02	1,542.02	1,595.02	7.46	52.19	59.73	-2,873.47	-8,962.95	9,363.59	9,303.96	59.63	157.018		
1,700.00	1,694.40	1,641.40	1,694.40	7.87	55.65	59.79	-2,873.47	-8,962.95	9,357.98	9,294.48	63.50	147.362		
1,800.00	1,793.79	1,740.79	1,793.79	8.29	59.12	59.84	-2,873.47	-8,962.95	9,352.38	9,285.00	67.38	138.803		
1,900.00	1,893.17	1,840.17	1,893.17	8.71	62.58	59.90	-2,873.47	-8,962.95	9,346.79	9,275.53	71.26	131.166		
2,000.00	1,992.55	1,939.55	1,992.55	9.13	66.05	59.96	-2,873.47	-8,962.95	9,341.21	9,266.06	75.14	124.309		
2,100.00	2,091.94	2,038.94	2,091.94	9.56	69.51	60.02	-2,873.47	-8,962.95	9,335.64	9,256.60	79.03	118.121		
2,200.00	2,191.32	2,138.32	2,191.32	9.99	72.98	60.08	-2,873.47	-8,962.95	9,330.08	9,247.15	82.93	112.509		
2,300.00	2,290.70	2,237.70	2,290.70	10.42	76.44	60.14	-2,873.47	-8,962.95	9,324.53	9,237.70	86.82	107.397		
2,400.00	2,390.09	2,337.09	2,390.09	10.86	79.91	60.20	-2,873.47	-8,962.95	9,318.99	9,228.26	90.72	102.720		
2,500.00	2,489.47	2,436.47	2,489.47	11.29	83.38	60.26	-2,873.47	-8,962.95	9,313.45	9,218.83	94.62	98.427		
2,600.00	2,588.86	2,535.86	2,588.86	11.73	86.84	60.31	-2,873.47	-8,962.95	9,307.93	9,209.41	98.53	94.472		
2,700.00	2,688.24	2,635.24	2,688.24	12.18	90.31	60.37	-2,873.47	-8,962.95	9,302.42	9,199.99	102.43	90.816		
2,800.00	2,787.62	2,734.62	2,787.62	12.62	93.78	60.43	-2,873.47	-8,962.95	9,296.92	9,190.58	106.34	87.428		
2,900.00	2,887.01	2,834.01	2,887.01	13.06	97.25	60.49	-2,873.47	-8,962.95	9,291.43	9,181.18	110.25	84.279		
3,000.00	2,986.39	2,933.39	2,986.39	13.51	100.71	60.55	-2,873.47	-8,962.95	9,285.95	9,171.79	114.16	81.344		
3,100.00	3,085.77	3,032.77	3,085.77	13.95	104.18	60.61	-2,873.47	-8,962.95	9,280.48	9,162.41	118.07	78.603		
3,200.00	3,185.16	3,132.16	3,185.16	14.40	107.65	60.67	-2,873.47	-8,962.95	9,275.02	9,153.04	121.98	76.038		
3,300.00	3,284.54	3,231.54	3,284.54	14.85	111.12	60.73	-2,873.47	-8,962.95	9,269.56	9,143.67	125.89	73.631		
3,400.00	3,383.92	3,330.92	3,383.92	15.30	114.58	60.79	-2,873.47	-8,962.95	9,264.12	9,134.32	129.81	71.369		
3,500.00	3,483.31	3,430.31	3,483.31	15.75	118.05	60.85	-2,873.47	-8,962.95	9,258.69	9,124.97	133.72	69.239		
3,600.00	3,582.69	3,529.69	3,582.69	16.20	121.52	60.91	-2,873.47	-8,962.95	9,253.27	9,115.63	137.64	67.229		
3,700.00	3,682.07	3,629.07	3,682.07	16.65	124.99	60.97	-2,873.47	-8,962.95	9,247.86	9,106.31	141.55	65.331		
3,800.00	3,781.46	3,728.46	3,781.46	17.10	128.46	61.03	-2,873.47	-8,962.95	9,242.46	9,096.99	145.47	63.535		
3,900.00	3,880.84	3,827.84	3,880.84	17.56	131.93	61.09	-2,873.47	-8,962.95	9,237.07	9,087.68	149.39	61.832		
4,000.00	3,980.22	3,927.22	3,980.22	18.01	135.39	61.15	-2,873.47	-8,962.95	9,231.69	9,078.38	153.31	60.217		
4,100.00	4,079.61	4,026.61	4,079.61	18.46	138.86	61.21	-2,873.47	-8,962.95	9,226.32	9,069.09	157.23	58.682		
4,200.00	4,178.99	4,125.99	4,178.99	18.92	142.33	61.27	-2,873.47	-8,962.95	9,220.96	9,059.81	161.15	57.221		
4,300.00	4,278.38	4,225.38	4,278.38	19.37	145.80	61.33	-2,873.47	-8,962.95	9,215.61	9,050.54	165.07	55.830		
4,400.00	4,377.76	4,324.76	4,377.76	19.83	149.27	61.39	-2,873.47	-8,962.95	9,210.27	9,041.28	168.99	54.503		
4,500.00	4,477.14	4,424.14	4,477.14	20.28	152.74	61.45	-2,873.47	-8,962.95	9,204.94	9,032.03	172.91	53.236		
4,600.00	4,576.53	4,523.53	4,576.53	20.74	156.21	61.51	-2,873.47	-8,962.95	9,199.62	9,022.79	176.83	52.026		
4,700.00	4,675.91	4,622.91	4,675.91	21.19	159.67	61.57	-2,873.47	-8,962.95	9,194.31	9,013.56	180.75	50.868		
4,800.00	4,775.29	4,722.29	4,775.29	21.65	163.14	61.63	-2,873.47	-8,962.95	9,189.01	9,004.34	184.67	49.759		
4,900.00	4,874.68	4,821.68	4,874.68	22.10	166.61	61.69	-2,873.47	-8,962.95	9,183.72	8,995.13	188.59	48.696		
5,000.00	4,974.06	4,921.06	4,974.06	22.56	170.08	61.75	-2,873.47	-8,962.95	9,178.45	8,985.93	192.52	47.676		
5,100.00	5,073.44	5,020.44	5,073.44	23.02	173.55	61.81	-2,873.47	-8,962.95	9,173.18	8,976.74	196.44	46.697		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,119.83	5,172.83	23.47	177.02	61.87	-2,873.47	-8,962.95	9,167.92	8,967.56	200.36	45.757		
5,300.00	5,272.21	5,219.21	5,272.21	23.93	180.49	61.93	-2,873.47	-8,962.95	9,162.68	8,958.39	204.29	44.852		
5,400.00	5,371.59	5,318.59	5,371.59	24.39	183.96	61.99	-2,873.47	-8,962.95	9,157.44	8,949.23	208.21	43.982		
5,500.00	5,470.98	5,417.98	5,470.98	24.85	187.43	62.05	-2,873.47	-8,962.95	9,152.21	8,940.08	212.13	43.144		
5,600.00	5,570.36	5,517.36	5,570.36	25.30	190.89	62.12	-2,873.47	-8,962.95	9,147.00	8,930.94	216.06	42.336		
5,700.00	5,669.75	5,616.75	5,669.75	25.76	194.36	62.18	-2,873.47	-8,962.95	9,141.79	8,921.81	219.98	41.557		
5,800.00	5,769.13	5,716.13	5,769.13	26.22	197.83	62.24	-2,873.47	-8,962.95	9,136.60	8,912.69	223.91	40.806		
5,900.00	5,868.51	5,815.51	5,868.51	26.68	201.30	62.30	-2,873.47	-8,962.95	9,131.42	8,903.59	227.83	40.080		
6,000.00	5,967.90	5,914.90	5,967.90	27.14	204.77	62.36	-2,873.47	-8,962.95	9,126.24	8,894.49	231.76	39.379		
6,100.00	6,067.28	6,014.28	6,067.28	27.60	208.24	62.42	-2,873.47	-8,962.95	9,121.08	8,885.40	235.68	38.701		
6,200.00	6,166.66	6,113.66	6,166.66	28.05	211.71	62.48	-2,873.47	-8,962.95	9,115.93	8,876.32	239.61	38.046		
6,300.00	6,266.05	6,213.05	6,266.05	28.51	215.18	62.54	-2,873.47	-8,962.95	9,110.79	8,867.25	243.53	37.411		
6,400.00	6,365.43	6,312.43	6,365.43	28.97	218.65	62.61	-2,873.47	-8,962.95	9,105.65	8,858.20	247.46	36.797		
6,500.00	6,464.81	6,411.81	6,464.81	29.43	222.12	62.67	-2,873.47	-8,962.95	9,100.53	8,849.15	251.38	36.202		
6,600.00	6,564.10	6,511.10	6,564.10	29.89	225.58	32.29	-2,873.47	-8,962.95	9,093.53	8,838.23	255.30	35.619		
6,700.00	6,661.75	6,608.75	6,661.75	30.34	228.99	8.51	-2,873.47	-8,962.95	9,073.35	8,814.20	259.15	35.012		
6,800.00	6,755.38	6,702.38	6,755.38	30.77	232.26	-0.14	-2,873.47	-8,962.95	9,038.57	8,775.74	262.83	34.389		
6,900.00	6,842.67	6,789.67	6,842.67	31.17	235.31	-5.19	-2,873.47	-8,962.95	8,990.04	8,723.79	266.25	33.765		
7,000.00	6,921.48	6,868.48	6,921.48	31.54	238.06	-9.39	-2,873.47	-8,962.95	8,928.96	8,659.64	269.32	33.153		
7,100.00	6,989.86	6,936.86	6,989.86	31.91	240.44	-14.00	-2,873.47	-8,962.95	8,856.84	8,584.87	271.97	32.565		
7,200.00	7,046.13	7,006.87	7,046.13	32.35	242.89	-20.24	-2,873.47	-8,962.95	8,775.48	8,500.86	274.62	31.956		
7,300.00	7,088.91	7,035.91	7,088.91	32.98	243.90	-30.14	-2,873.47	-8,962.95	8,686.88	8,411.11	275.77	31.501		
7,400.00	7,117.14	7,064.14	7,117.14	33.84	244.89	-47.87	-2,873.47	-8,962.95	8,593.25	8,316.42	276.84	31.041		
7,500.00	7,130.13	7,077.13	7,130.13	34.90	245.34	-78.18	-2,873.47	-8,962.95	8,496.93	8,219.59	277.34	30.638		
7,600.00	7,130.72	7,077.72	7,130.72	36.13	245.36	-90.96	-2,873.47	-8,962.95	8,400.08	8,122.70	277.39	30.283		
7,700.00	7,130.29	7,077.29	7,130.29	37.54	245.34	-90.95	-2,873.47	-8,962.95	8,303.33	8,025.91	277.42	29.930		
7,800.00	7,129.85	7,076.85	7,129.85	39.12	245.33	-90.93	-2,873.47	-8,962.95	8,206.65	7,929.18	277.48	29.576		
7,900.00	7,129.42	7,076.42	7,129.42	40.83	245.31	-90.92	-2,873.47	-8,962.95	8,110.06	7,832.50	277.55	29.220		
8,000.00	7,128.98	7,075.98	7,128.98	42.67	245.30	-90.91	-2,873.47	-8,962.95	8,013.55	7,735.89	277.66	28.861		
8,100.00	7,128.55	7,075.55	7,128.55	44.62	245.28	-90.90	-2,873.47	-8,962.95	7,917.12	7,639.34	277.78	28.501		
8,200.00	7,128.12	7,075.12	7,128.12	46.66	245.27	-90.89	-2,873.47	-8,962.95	7,820.79	7,542.85	277.94	28.139		
8,300.00	7,127.68	7,074.68	7,127.68	48.79	245.25	-90.88	-2,873.47	-8,962.95	7,724.54	7,446.43	278.12	27.774		
8,400.00	7,127.25	7,074.25	7,127.25	50.98	245.24	-90.86	-2,873.47	-8,962.95	7,628.40	7,350.07	278.33	27.408		
8,500.00	7,126.81	7,073.81	7,126.81	53.24	245.22	-90.85	-2,873.47	-8,962.95	7,532.35	7,253.78	278.57	27.039		
8,600.00	7,126.38	7,073.38	7,126.38	55.56	245.21	-90.84	-2,873.47	-8,962.95	7,436.41	7,157.56	278.85	26.668		
8,700.00	7,125.95	7,072.95	7,125.95	57.92	245.19	-90.83	-2,873.47	-8,962.95	7,340.58	7,061.42	279.16	26.295		
8,800.00	7,125.51	7,072.51	7,125.51	60.33	245.18	-90.82	-2,873.47	-8,962.95	7,244.86	6,965.36	279.50	25.921		
8,900.00	7,125.08	7,072.08	7,125.08	62.77	245.16	-90.80	-2,873.47	-8,962.95	7,149.26	6,869.37	279.88	25.544		
9,000.00	7,124.64	7,071.64	7,124.64	65.25	245.15	-90.79	-2,873.47	-8,962.95	7,053.77	6,773.47	280.31	25.165		
9,100.00	7,124.21	7,071.21	7,124.21	67.76	245.13	-90.78	-2,873.47	-8,962.95	6,958.42	6,677.65	280.77	24.784		
9,200.00	7,123.78	7,070.78	7,123.78	70.29	245.12	-90.77	-2,873.47	-8,962.95	6,863.20	6,581.93	281.27	24.401		
9,300.00	7,123.34	7,070.34	7,123.34	72.85	245.10	-90.76	-2,873.47	-8,962.95	6,768.11	6,486.30	281.82	24.016		
9,400.00	7,122.91	7,069.91	7,122.91	75.43	245.09	-90.75	-2,873.47	-8,962.95	6,673.17	6,390.76	282.41	23.629		
9,500.00	7,122.48	7,069.48	7,122.48	78.03	245.07	-90.73	-2,873.47	-8,962.95	6,578.38	6,295.33	283.05	23.241		
9,600.00	7,122.04	7,069.04	7,122.04	80.65	245.06	-90.72	-2,873.47	-8,962.95	6,483.75	6,200.01	283.74	22.851		
9,700.00	7,121.61	7,068.61	7,121.61	83.28	245.04	-90.71	-2,873.47	-8,962.95	6,389.28	6,104.80	284.47	22.460		
9,800.00	7,121.17	7,068.17	7,121.17	85.93	245.03	-90.70	-2,873.47	-8,962.95	6,294.98	6,009.72	285.26	22.067		
9,900.00	7,120.74	7,067.74	7,120.74	88.59	245.01	-90.69	-2,873.47	-8,962.95	6,200.86	5,914.75	286.10	21.673		
10,000.00	7,120.31	7,067.31	7,120.31	91.26	245.00	-90.68	-2,873.47	-8,962.95	6,106.92	5,819.92	287.00	21.278		
10,100.00	7,119.87	7,066.87	7,119.87	93.95	244.98	-90.66	-2,873.47	-8,962.95	6,013.18	5,725.23	287.96	20.882		
10,200.00	7,119.44	7,066.44	7,119.44	96.64	244.97	-90.65	-2,873.47	-8,962.95	5,919.65	5,630.68	288.97	20.485		
10,300.00	7,119.00	7,066.00	7,119.00	99.34	244.95	-90.64	-2,873.47	-8,962.95	5,826.33	5,536.29	290.04	20.088		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,118.57	7,065.57	7,118.57	102.05	244.94	-90.63	-2,873.47	-8,962.95	5,733.23	5,442.05	291.18	19.690		
10,500.00	7,118.14	7,065.14	7,118.14	104.77	244.92	-90.62	-2,873.47	-8,962.95	5,640.38	5,348.00	292.38	19.291		
10,600.00	7,117.70	7,064.70	7,117.70	107.50	244.91	-90.60	-2,873.47	-8,962.95	5,547.77	5,254.12	293.65	18.892		
10,700.00	7,117.27	7,064.27	7,117.27	110.23	244.89	-90.59	-2,873.47	-8,962.95	5,455.42	5,160.43	294.99	18.494		
10,800.00	7,116.83	7,063.83	7,116.83	112.97	244.88	-90.58	-2,873.47	-8,962.95	5,363.34	5,066.95	296.40	18.095		
10,900.00	7,116.40	7,063.40	7,116.40	115.72	244.86	-90.57	-2,873.47	-8,962.95	5,271.56	4,973.68	297.88	17.697		
11,000.00	7,115.97	7,062.97	7,115.97	118.47	244.85	-90.56	-2,873.47	-8,962.95	5,180.08	4,880.64	299.44	17.299		
11,100.00	7,115.53	7,062.53	7,115.53	121.22	244.83	-90.55	-2,873.47	-8,962.95	5,088.92	4,787.84	301.08	16.902		
11,200.00	7,115.10	7,062.10	7,115.10	123.98	244.81	-90.53	-2,873.47	-8,962.95	4,998.09	4,695.30	302.80	16.506		
11,300.00	7,114.66	7,061.66	7,114.66	126.74	244.80	-90.52	-2,873.47	-8,962.95	4,907.63	4,603.02	304.60	16.111		
11,400.00	7,114.23	7,061.23	7,114.23	129.51	244.78	-90.51	-2,873.47	-8,962.95	4,817.54	4,511.04	306.50	15.718		
11,500.00	7,113.80	7,060.80	7,113.80	132.29	244.77	-90.50	-2,873.47	-8,962.95	4,727.85	4,419.36	308.48	15.326		
11,600.00	7,113.36	7,060.36	7,113.36	135.06	244.75	-90.49	-2,873.47	-8,962.95	4,638.58	4,328.01	310.56	14.936		
11,700.00	7,112.93	7,059.93	7,112.93	137.84	244.74	-90.47	-2,873.47	-8,962.95	4,549.76	4,237.01	312.74	14.548		
11,800.00	7,112.49	7,059.49	7,112.49	140.62	244.72	-90.46	-2,873.47	-8,962.95	4,461.41	4,146.38	315.03	14.162		
11,900.00	7,112.06	7,059.06	7,112.06	143.41	244.71	-90.45	-2,873.47	-8,962.95	4,373.56	4,056.14	317.42	13.779		
12,000.00	7,111.63	7,058.63	7,111.63	146.20	244.69	-90.44	-2,873.47	-8,962.95	4,286.24	3,966.33	319.92	13.398		
12,100.00	7,111.19	7,058.19	7,111.19	148.99	244.68	-90.43	-2,873.47	-8,962.95	4,199.49	3,876.96	322.53	13.020		
12,200.00	7,110.76	7,057.76	7,110.76	151.78	244.66	-90.42	-2,873.47	-8,962.95	4,113.35	3,788.08	325.27	12.646		
12,300.00	7,110.33	7,057.33	7,110.33	154.58	244.65	-90.40	-2,873.47	-8,962.95	4,027.84	3,699.71	328.13	12.275		
12,400.00	7,109.89	7,056.89	7,109.89	157.37	244.63	-90.39	-2,873.47	-8,962.95	3,943.01	3,611.89	331.12	11.908		
12,500.00	7,109.46	7,056.46	7,109.46	160.17	244.62	-90.38	-2,873.47	-8,962.95	3,858.91	3,524.67	334.25	11.545		
12,600.00	7,109.02	7,056.02	7,109.02	162.98	244.60	-90.37	-2,873.47	-8,962.95	3,775.59	3,438.08	337.51	11.186		
12,700.00	7,108.59	7,055.59	7,108.59	165.78	244.59	-90.36	-2,873.47	-8,962.95	3,693.09	3,352.17	340.93	10.833		
12,800.00	7,108.16	7,055.16	7,108.16	168.59	244.57	-90.35	-2,873.47	-8,962.95	3,611.48	3,266.99	344.49	10.484		
12,900.00	7,107.72	7,054.72	7,107.72	171.39	244.56	-90.33	-2,873.47	-8,962.95	3,530.82	3,182.61	348.21	10.140		
13,000.00	7,107.29	7,054.29	7,107.29	174.20	244.54	-90.32	-2,873.47	-8,962.95	3,451.16	3,099.07	352.09	9.802		
13,100.00	7,106.85	7,053.85	7,106.85	177.01	244.53	-90.31	-2,873.47	-8,962.95	3,372.59	3,016.46	356.14	9.470		
13,200.00	7,106.42	7,053.42	7,106.42	179.83	244.51	-90.30	-2,873.47	-8,962.95	3,295.19	2,934.83	360.36	9.144		
13,300.00	7,105.99	7,052.99	7,105.99	182.64	244.50	-90.29	-2,873.47	-8,962.95	3,219.02	2,854.28	364.75	8.825		
13,400.00	7,105.55	7,052.55	7,105.55	185.45	244.48	-90.27	-2,873.47	-8,962.95	3,144.20	2,774.88	369.32	8.514		
13,500.00	7,105.12	7,052.12	7,105.12	188.27	244.47	-90.26	-2,873.47	-8,962.95	3,070.80	2,696.74	374.07	8.209		
13,600.00	7,104.68	7,051.68	7,104.68	191.09	244.45	-90.25	-2,873.47	-8,962.95	2,998.95	2,619.95	379.00	7.913		
13,700.00	7,104.25	7,051.25	7,104.25	193.91	244.44	-90.24	-2,873.47	-8,962.95	2,928.75	2,544.64	384.11	7.625		
13,800.00	7,103.82	7,050.82	7,103.82	196.73	244.42	-90.23	-2,873.47	-8,962.95	2,860.32	2,470.92	389.40	7.345		
13,900.00	7,103.38	7,050.38	7,103.38	199.55	244.41	-90.22	-2,873.47	-8,962.95	2,793.79	2,398.93	394.86	7.075		
14,000.00	7,102.95	7,049.95	7,102.95	202.37	244.39	-90.20	-2,873.47	-8,962.95	2,729.31	2,328.82	400.49	6.815		
14,100.00	7,102.51	7,049.51	7,102.51	205.19	244.38	-90.19	-2,873.47	-8,962.95	2,667.02	2,260.75	406.27	6.565		
14,200.00	7,102.08	7,049.08	7,102.08	208.02	244.36	-90.18	-2,873.47	-8,962.95	2,607.08	2,194.88	412.20	6.325		
14,300.00	7,101.65	7,048.65	7,101.65	210.84	244.35	-90.17	-2,873.47	-8,962.95	2,549.65	2,131.40	418.25	6.096		
14,400.00	7,101.21	7,048.21	7,101.21	213.67	244.33	-90.16	-2,873.47	-8,962.95	2,494.91	2,070.51	424.40	5.879		
14,500.00	7,100.78	7,047.78	7,100.78	216.50	244.31	-90.14	-2,873.47	-8,962.95	2,443.04	2,012.41	430.62	5.673		
14,600.00	7,100.35	7,047.35	7,100.35	219.32	244.30	-90.13	-2,873.47	-8,962.95	2,394.22	1,957.33	436.88	5.480		
14,700.00	7,099.91	7,046.91	7,099.91	222.15	244.28	-90.12	-2,873.47	-8,962.95	2,348.65	1,905.50	443.15	5.300		
14,800.00	7,099.48	7,046.48	7,099.48	224.98	244.27	-90.11	-2,873.47	-8,962.95	2,306.51	1,857.14	449.37	5.133		
14,900.00	7,099.04	7,046.04	7,099.04	227.81	244.25	-90.10	-2,873.47	-8,962.95	2,268.01	1,812.51	455.50	4.979		
14,909.96	7,099.00	7,046.00	7,099.00	228.09	244.25	-90.10	-2,873.47	-8,962.95	2,264.38	1,808.28	456.10	4.965 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	36.00	3.28	3.28	-107.52	-2,840.31	-8,995.20	9,433.05					
100.00	100.00	28.76	64.76	3.28	3.28	-107.52	-2,840.38	-8,995.24	9,433.10	9,426.53	6.57	1,436.813		
200.00	200.00	73.68	109.68	3.34	3.28	-107.53	-2,840.72	-8,995.45	9,433.76	9,427.14	6.62	1,424.905		
300.00	300.00	121.00	156.99	3.44	3.29	-107.53	-2,841.40	-8,995.86	9,435.01	9,428.28	6.73	1,401.073		
400.00	400.00	163.91	199.89	3.60	3.31	-107.53	-2,842.14	-8,996.46	9,436.84	9,429.93	6.91	1,365.223		
500.00	500.00	208.00	243.97	3.81	3.34	-107.53	-2,842.85	-8,997.34	9,439.25	9,432.11	7.15	1,320.887		
600.00	600.00	208.00	243.97	4.04	3.34	59.30	-2,842.85	-8,997.34	9,442.46	9,435.07	7.39	1,278.319		
700.00	699.96	256.66	292.59	4.29	3.39	59.26	-2,843.46	-8,998.94	9,444.99	9,437.31	7.68	1,229.814		
800.00	799.78	300.00	335.88	4.57	3.44	59.25	-2,843.75	-9,001.13	9,446.76	9,438.75	8.01	1,179.545		
900.00	899.34	300.00	335.88	4.88	3.44	59.24	-2,843.75	-9,001.13	9,447.39	9,439.07	8.31	1,136.267		
1,000.00	998.72	300.00	335.88	5.20	3.44	59.24	-2,843.75	-9,001.13	9,448.21	9,439.57	8.64	1,093.070		
1,100.00	1,098.10	354.75	390.49	5.54	3.52	59.28	-2,843.66	-9,004.96	9,449.46	9,440.40	9.07	1,042.171		
1,200.00	1,197.49	391.00	426.60	5.90	3.59	59.30	-2,843.28	-9,008.14	9,451.72	9,442.24	9.49	996.176		
1,300.00	1,296.87	391.00	426.60	6.28	3.59	59.30	-2,843.28	-9,008.14	9,454.77	9,444.90	9.86	958.472		
1,400.00	1,396.25	430.54	465.92	6.66	3.67	59.34	-2,842.53	-9,012.19	9,458.55	9,448.22	10.32	916.362		
1,500.00	1,495.64	481.00	516.00	7.06	3.78	59.39	-2,841.06	-9,018.23	9,463.28	9,452.46	10.82	874.862		
1,600.00	1,595.02	481.00	516.00	7.46	3.78	59.39	-2,841.06	-9,018.23	9,468.55	9,457.33	11.22	843.993		
1,700.00	1,694.40	481.00	516.00	7.87	3.78	59.39	-2,841.06	-9,018.23	9,474.87	9,463.24	11.63	814.940		
1,800.00	1,793.79	536.25	570.68	8.29	3.92	59.44	-2,838.93	-9,025.86	9,481.66	9,469.50	12.16	779.508		
1,900.00	1,893.17	572.00	605.97	8.71	4.02	59.48	-2,837.35	-9,031.32	9,489.38	9,476.72	12.67	749.180		
2,000.00	1,992.55	572.00	605.97	9.13	4.02	59.48	-2,837.35	-9,031.32	9,497.91	9,484.83	13.08	725.887		
2,100.00	2,091.94	572.00	605.97	9.56	4.02	59.48	-2,837.35	-9,031.32	9,507.48	9,493.98	13.51	703.996		
2,200.00	2,191.32	631.59	664.62	9.99	4.22	59.55	-2,834.50	-9,041.44	9,517.27	9,503.18	14.09	675.442		
2,300.00	2,290.70	693.00	724.80	10.42	4.44	59.63	-2,831.36	-9,053.29	9,528.55	9,513.86	14.69	648.431		
2,400.00	2,390.09	693.00	724.80	10.86	4.44	59.63	-2,831.36	-9,053.29	9,540.00	9,524.88	15.12	631.042		
2,500.00	2,489.47	693.00	724.80	11.29	4.44	59.63	-2,831.36	-9,053.29	9,552.48	9,536.94	15.54	614.658		
2,600.00	2,588.86	723.32	754.41	11.73	4.56	59.66	-2,829.84	-9,059.62	9,565.80	9,549.74	16.06	595.557		
2,700.00	2,688.24	761.00	791.15	12.18	4.72	59.71	-2,828.13	-9,067.82	9,579.94	9,563.33	16.61	576.753		
2,800.00	2,787.62	761.00	791.15	12.62	4.72	59.71	-2,828.13	-9,067.82	9,594.80	9,577.77	17.03	563.357		
2,900.00	2,887.01	816.18	844.78	13.06	4.98	59.78	-2,825.34	-9,080.48	9,610.27	9,592.62	17.66	544.287		
3,000.00	2,986.39	855.00	882.38	13.51	5.16	59.83	-2,822.85	-9,089.83	9,626.43	9,608.22	18.21	528.503		
3,100.00	3,085.77	855.00	882.38	13.95	5.16	59.83	-2,822.85	-9,089.83	9,643.40	9,624.77	18.63	517.573		
3,200.00	3,185.16	899.58	925.39	14.40	5.40	59.90	-2,819.70	-9,101.13	9,660.95	9,641.72	19.22	502.571		
3,300.00	3,284.54	949.00	972.84	14.85	5.67	59.97	-2,816.10	-9,114.44	9,679.52	9,659.67	19.85	487.696		
3,400.00	3,383.92	949.00	972.84	15.30	5.67	59.97	-2,816.10	-9,114.44	9,698.56	9,678.30	20.26	478.727		
3,500.00	3,483.31	993.39	1,015.30	15.75	5.94	60.03	-2,812.56	-9,126.90	9,718.41	9,697.54	20.87	465.752		
3,600.00	3,582.69	1,044.00	1,063.55	16.20	6.25	60.11	-2,807.90	-9,141.46	9,738.74	9,717.23	21.51	452.801		
3,700.00	3,682.07	1,044.00	1,063.55	16.65	6.25	60.11	-2,807.90	-9,141.46	9,759.82	9,737.91	21.91	445.404		
3,800.00	3,781.46	1,094.24	1,111.23	17.10	6.59	60.20	-2,802.84	-9,156.46	9,781.38	9,758.82	22.56	433.536		
3,900.00	3,880.84	1,139.00	1,153.47	17.56	6.90	60.27	-2,798.15	-9,170.48	9,803.89	9,780.70	23.19	422.789		
4,000.00	3,980.22	1,139.00	1,153.47	18.01	6.90	60.27	-2,798.15	-9,170.48	9,826.98	9,803.39	23.58	416.665		
4,100.00	4,079.61	1,139.00	1,153.47	18.46	6.90	60.27	-2,798.15	-9,170.48	9,851.03	9,827.05	23.98	410.839		
4,200.00	4,178.99	1,195.09	1,206.08	18.92	7.32	60.37	-2,791.82	-9,188.89	9,875.45	9,850.78	24.67	400.250		
4,300.00	4,278.38	1,234.00	1,242.31	19.37	7.62	60.44	-2,787.00	-9,202.22	9,900.79	9,875.51	25.28	391.690		
4,400.00	4,377.76	1,234.00	1,242.31	19.83	7.62	60.44	-2,787.00	-9,202.22	9,926.80	9,901.14	25.66	386.851		
4,500.00	4,477.14	1,267.83	1,273.65	20.28	7.90	60.50	-2,782.60	-9,214.19	9,953.51	9,927.27	26.24	379.307		
4,600.00	4,576.53	1,290.57	1,294.63	20.74	8.09	60.55	-2,779.58	-9,222.43	9,980.97	9,954.21	26.75	373.057		
7,900.00	7,129.42	3,844.65	3,615.06	40.83	34.64	-26.08	-2,473.98	-10,243.74	9,909.85	9,855.05	54.80	180.832		
8,000.00	7,128.98	3,862.34	3,631.29	42.67	34.82	-26.16	-2,471.89	-10,250.43	9,817.83	9,762.79	55.05	178.352		
8,100.00	7,128.55	3,887.00	3,653.90	44.62	35.07	-26.27	-2,468.91	-10,259.84	9,725.91	9,670.55	55.36	175.689		
8,200.00	7,128.12	3,887.00	3,653.90	46.66	35.07	-26.27	-2,468.91	-10,259.84	9,634.08	9,578.57	55.51	173.560		
8,300.00	7,127.68	3,887.00	3,653.90	48.79	35.07	-26.27	-2,468.91	-10,259.84	9,542.41	9,486.73	55.68	171.394		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
8,400.00	7,127.25	3,921.90	3,685.81	50.98	35.44	-26.42	-2,464.68	-10,273.31	9,450.72	9,394.61	56.11	168.426		
8,500.00	7,126.81	3,935.49	3,698.22	53.24	35.58	-26.48	-2,463.05	-10,278.61	9,359.23	9,302.82	56.41	165.911		
8,600.00	7,126.38	3,949.26	3,710.78	55.56	35.73	-26.55	-2,461.40	-10,284.02	9,267.85	9,211.12	56.73	163.370		
8,700.00	7,125.95	3,982.00	3,740.58	57.92	36.07	-26.70	-2,457.54	-10,297.00	9,176.65	9,119.45	57.20	160.431		
8,800.00	7,125.51	3,982.00	3,740.58	60.33	36.07	-26.70	-2,457.54	-10,297.00	9,085.46	9,028.01	57.46	158.127		
8,900.00	7,125.08	3,998.02	3,755.14	62.77	36.24	-26.77	-2,455.66	-10,303.41	8,994.44	8,936.59	57.85	155.487		
9,000.00	7,124.64	7,268.44	6,889.23	65.25	57.54	-82.45	-2,267.80	-11,005.16	8,896.75	8,824.20	72.54	122.638		
9,100.00	7,124.21	7,269.31	6,890.10	67.76	57.54	-82.48	-2,267.82	-11,005.18	8,798.20	8,725.46	72.74	120.958		
9,200.00	7,123.78	7,270.19	6,890.98	70.29	57.55	-82.52	-2,267.84	-11,005.20	8,699.68	8,626.73	72.95	119.262		
9,300.00	7,123.34	7,271.08	6,891.87	72.85	57.55	-82.55	-2,267.86	-11,005.22	8,601.20	8,528.03	73.17	117.551		
9,400.00	7,122.91	7,271.98	6,892.77	75.43	57.55	-82.58	-2,267.88	-11,005.25	8,502.75	8,429.34	73.41	115.825		
9,500.00	7,122.48	7,272.89	6,893.68	78.03	57.55	-82.62	-2,267.90	-11,005.27	8,404.34	8,330.67	73.67	114.084		
9,600.00	7,122.04	7,273.81	6,894.60	80.65	57.55	-82.65	-2,267.92	-11,005.29	8,305.97	8,232.03	73.94	112.329		
9,700.00	7,121.61	7,274.74	6,895.53	83.28	57.56	-82.69	-2,267.95	-11,005.31	8,207.64	8,133.40	74.24	110.560		
9,800.00	7,121.17	7,275.68	6,896.47	85.93	57.56	-82.72	-2,267.97	-11,005.33	8,109.34	8,034.79	74.55	108.777		
9,900.00	7,120.74	7,276.63	6,897.42	88.59	57.56	-82.76	-2,267.99	-11,005.35	8,011.09	7,936.21	74.88	106.980		
10,000.00	7,120.31	7,277.59	6,898.38	91.26	57.56	-82.80	-2,268.01	-11,005.38	7,912.89	7,837.65	75.24	105.171		
10,100.00	7,119.87	7,278.56	6,899.35	93.95	57.57	-82.83	-2,268.04	-11,005.40	7,814.73	7,739.11	75.62	103.349		
10,200.00	7,119.44	7,279.55	6,900.33	96.64	57.57	-82.87	-2,268.06	-11,005.42	7,716.61	7,640.60	76.01	101.515		
10,300.00	7,119.00	7,280.54	6,901.32	99.34	57.57	-82.91	-2,268.08	-11,005.45	7,618.55	7,542.11	76.44	99.669		
10,400.00	7,118.57	7,281.54	6,902.33	102.05	57.57	-82.95	-2,268.11	-11,005.47	7,520.53	7,443.64	76.89	97.814		
10,500.00	7,118.14	7,282.56	6,903.34	104.77	57.57	-82.98	-2,268.13	-11,005.50	7,422.57	7,345.21	77.36	95.948		
10,600.00	7,117.70	7,283.59	6,904.37	107.50	57.58	-83.02	-2,268.16	-11,005.52	7,324.66	7,246.80	77.86	94.073		
10,700.00	7,117.27	7,284.63	6,905.41	110.23	57.58	-83.06	-2,268.18	-11,005.55	7,226.81	7,148.42	78.39	92.190		
10,800.00	7,116.83	7,285.68	6,906.46	112.97	57.58	-83.10	-2,268.21	-11,005.57	7,129.02	7,050.07	78.95	90.299		
10,900.00	7,116.40	7,286.74	6,907.53	115.72	57.58	-83.14	-2,268.24	-11,005.60	7,031.29	6,951.75	79.54	88.402		
11,000.00	7,115.97	7,287.82	6,908.60	118.47	57.59	-83.18	-2,268.26	-11,005.63	6,933.62	6,853.46	80.16	86.499		
11,100.00	7,115.53	7,288.91	6,909.69	121.22	57.59	-83.23	-2,268.29	-11,005.65	6,836.02	6,755.21	80.81	84.592		
11,200.00	7,115.10	7,290.01	6,910.79	123.98	57.59	-83.27	-2,268.32	-11,005.68	6,738.50	6,657.00	81.50	82.682		
11,300.00	7,114.66	7,291.13	6,911.91	126.74	57.60	-83.31	-2,268.35	-11,005.71	6,641.04	6,558.82	82.22	80.769		
11,400.00	7,114.23	7,292.26	6,913.03	129.51	57.60	-83.35	-2,268.37	-11,005.74	6,543.66	6,460.68	82.98	78.856		
11,500.00	7,113.80	7,293.40	6,914.18	132.29	57.60	-83.40	-2,268.40	-11,005.77	6,446.36	6,362.58	83.78	76.942		
11,600.00	7,113.36	7,294.55	6,915.33	135.06	57.60	-83.44	-2,268.43	-11,005.80	6,349.15	6,264.53	84.62	75.030		
11,700.00	7,112.93	7,295.72	6,916.50	137.84	57.61	-83.49	-2,268.46	-11,005.83	6,252.02	6,166.52	85.50	73.120		
11,800.00	7,112.49	7,296.91	6,917.68	140.62	57.61	-83.53	-2,268.49	-11,005.86	6,154.99	6,068.56	86.43	71.215		
11,900.00	7,112.06	7,298.11	6,918.88	143.41	57.61	-83.58	-2,268.52	-11,005.89	6,058.05	5,970.65	87.40	69.314		
12,000.00	7,111.63	7,299.32	6,920.10	146.20	57.62	-83.62	-2,268.56	-11,005.92	5,961.21	5,872.79	88.42	67.420		
12,100.00	7,111.19	7,300.55	6,921.32	148.99	57.62	-83.67	-2,268.59	-11,005.95	5,864.47	5,774.99	89.49	65.534		
12,200.00	7,110.76	7,301.80	6,922.57	151.78	57.62	-83.72	-2,268.62	-11,005.99	5,767.85	5,677.24	90.61	63.658		
12,300.00	7,110.33	7,303.06	6,923.83	154.58	57.62	-83.76	-2,268.65	-11,006.02	5,671.34	5,579.56	91.78	61.791		
12,400.00	7,109.89	7,304.33	6,925.10	157.37	57.63	-83.81	-2,268.69	-11,006.06	5,574.96	5,481.95	93.01	59.937		
12,500.00	7,109.46	7,305.63	6,926.40	160.17	57.63	-83.86	-2,268.72	-11,006.09	5,478.71	5,384.40	94.30	58.096		
12,600.00	7,109.02	7,306.94	6,927.71	162.98	57.63	-83.91	-2,268.76	-11,006.13	5,382.59	5,286.93	95.66	56.270		
12,700.00	7,108.59	7,308.26	6,929.03	165.78	57.64	-83.96	-2,268.79	-11,006.16	5,286.61	5,189.54	97.07	54.459		
12,800.00	7,108.16	7,309.61	6,930.37	168.59	57.64	-84.01	-2,268.83	-11,006.20	5,190.79	5,092.23	98.56	52.666		
12,900.00	7,107.72	7,310.97	6,931.74	171.39	57.64	-84.07	-2,268.87	-11,006.24	5,095.13	4,995.01	100.12	50.891		
13,000.00	7,107.29	7,312.35	6,933.11	174.20	57.65	-84.12	-2,268.91	-11,006.27	4,999.63	4,897.88	101.75	49.137		
13,100.00	7,106.85	7,313.75	6,934.51	177.01	57.65	-84.17	-2,268.94	-11,006.31	4,904.32	4,800.86	103.46	47.403		
13,200.00	7,106.42	7,315.17	6,935.93	179.83	57.65	-84.23	-2,268.98	-11,006.35	4,809.19	4,703.94	105.25	45.691		
13,300.00	7,105.99	7,316.60	6,937.36	182.64	57.66	-84.28	-2,269.02	-11,006.39	4,714.27	4,607.13	107.13	44.003		
13,400.00	7,105.55	7,318.06	6,938.82	185.45	57.66	-84.34	-2,269.07	-11,006.43	4,619.55	4,510.45	109.11	42.340		
13,500.00	7,105.12	7,319.54	6,940.29	188.27	57.66	-84.39	-2,269.11	-11,006.48	4,525.07	4,413.89	111.18	40.702		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	
13,600.00	7,104.68	7,321.03	6,941.79	191.09	57.67	-84.45	-2,269.15	-11,006.52	4,430.82	4,317.48	113.35	39.091	
13,700.00	7,104.25	7,322.55	6,943.31	193.91	57.67	-84.51	-2,269.19	-11,006.56	4,336.84	4,221.21	115.62	37.508	
13,800.00	7,103.82	7,324.09	6,944.84	196.73	57.67	-84.57	-2,269.24	-11,006.61	4,243.13	4,125.11	118.01	35.954	
13,900.00	7,103.38	7,325.65	6,946.40	199.55	57.68	-84.63	-2,269.28	-11,006.65	4,149.71	4,029.18	120.53	34.430	
14,000.00	7,102.95	7,327.23	6,947.98	202.37	57.68	-84.69	-2,269.33	-11,006.70	4,056.60	3,933.44	123.16	32.937	
14,100.00	7,102.51	7,328.84	6,949.59	205.19	57.69	-84.75	-2,269.38	-11,006.75	3,963.83	3,837.89	125.94	31.475	
14,200.00	7,102.08	7,330.46	6,951.21	208.02	57.69	-84.81	-2,269.42	-11,006.79	3,871.41	3,742.56	128.85	30.046	
14,300.00	7,101.65	7,332.12	6,952.86	210.84	57.69	-84.87	-2,269.47	-11,006.84	3,779.38	3,647.47	131.91	28.650	
14,400.00	7,101.21	7,333.79	6,954.54	213.67	57.70	-84.94	-2,269.52	-11,006.89	3,687.77	3,552.63	135.14	27.289	
14,500.00	7,100.78	7,335.49	6,956.24	216.50	57.70	-85.00	-2,269.57	-11,006.95	3,596.60	3,458.07	138.53	25.962	
14,600.00	7,100.35	7,337.22	6,957.96	219.32	57.71	-85.07	-2,269.63	-11,007.00	3,505.91	3,363.81	142.11	24.671	
14,700.00	7,099.91	7,338.97	6,959.71	222.15	57.71	-85.14	-2,269.68	-11,007.05	3,415.74	3,269.87	145.87	23.416	
14,800.00	7,099.48	7,340.75	6,961.49	224.98	57.72	-85.20	-2,269.73	-11,007.11	3,326.13	3,176.29	149.84	22.198	
14,900.00	7,099.04	7,342.55	6,963.29	227.81	57.72	-85.27	-2,269.79	-11,007.16	3,237.13	3,083.11	154.02	21.017	
14,909.96	7,099.00	7,342.74	6,963.47	228.09	57.72	-85.28	-2,269.79	-11,007.17	3,228.30	3,073.84	154.45	20.902 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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: 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	36.00	3.28	3.28	-107.53	-2,831.22	-8,962.65	9,399.27					
100.00	100.00	0.00	36.00	3.28	3.28	-107.53	-2,831.22	-8,962.65	9,399.42	9,392.85	6.56	1,431.771		
200.00	200.00	57.14	93.14	3.34	3.28	-107.53	-2,831.58	-8,962.88	9,400.13	9,393.51	6.62	1,420.026		
300.00	300.00	577.00	612.23	3.44	3.96	-107.45	-2,817.01	-8,961.75	9,399.25	9,391.84	7.42	1,267.515		
400.00	400.00	577.00	612.23	3.60	3.96	-107.45	-2,817.01	-8,961.75	9,396.46	9,388.89	7.57	1,241.787		
500.00	500.00	634.47	669.24	3.81	4.11	-107.41	-2,809.81	-8,962.57	9,394.22	9,386.30	7.92	1,185.722		
600.00	600.00	671.82	706.22	4.04	4.22	59.48	-2,804.68	-8,963.63	9,392.74	9,384.47	8.27	1,136.349		
700.00	699.96	700.00	858.83	4.29	4.30	59.69	-2,780.25	-8,968.92	9,390.03	9,381.43	8.60	1,092.239		
800.00	799.78	980.73	1,010.28	4.57	5.38	60.01	-2,751.52	-8,974.39	9,384.84	9,374.89	9.95	943.307		
900.00	899.34	1,076.12	1,103.18	4.88	5.83	60.30	-2,730.35	-8,978.70	9,377.95	9,367.25	10.70	876.375		
1,000.00	998.72	1,163.68	1,187.85	5.20	6.28	60.49	-2,708.53	-8,983.35	9,370.29	9,358.81	11.48	816.361		
1,100.00	1,098.10	1,228.00	1,249.64	5.54	6.64	60.63	-2,691.12	-8,987.35	9,362.99	9,350.82	12.18	768.899		
1,200.00	1,197.49	1,315.97	1,333.48	5.90	7.18	60.84	-2,665.23	-8,993.60	9,356.01	9,342.94	13.07	715.851		
1,300.00	1,296.87	1,394.10	1,407.22	6.28	7.69	61.05	-2,640.15	-8,999.83	9,349.27	9,335.31	13.96	669.839		
1,400.00	1,396.25	1,417.00	1,428.69	6.66	7.85	61.11	-2,632.46	-9,001.78	9,343.04	9,328.55	14.49	644.612		
1,500.00	1,495.64	1,472.92	1,480.96	7.06	8.25	61.26	-2,613.27	-9,006.97	9,337.39	9,322.10	15.29	610.811		
1,600.00	1,595.02	1,512.00	1,517.35	7.46	8.53	61.37	-2,599.62	-9,011.02	9,332.57	9,316.61	15.97	584.403		
1,700.00	1,694.40	1,563.74	1,565.38	7.87	8.92	61.52	-2,581.23	-9,016.72	9,328.41	9,311.64	16.77	556.280		
1,800.00	1,793.79	1,607.00	1,605.40	8.29	9.25	61.64	-2,565.58	-9,021.65	9,324.75	9,307.24	17.51	532.465		
1,900.00	1,893.17	1,669.48	1,662.96	8.71	9.75	61.82	-2,542.45	-9,029.14	9,321.63	9,303.20	18.43	505.750		
2,000.00	1,992.55	1,701.00	1,691.87	9.13	10.01	61.92	-2,530.53	-9,033.13	9,319.19	9,300.08	19.11	487.765		
2,100.00	2,091.94	1,761.94	1,747.48	9.56	10.52	62.10	-2,506.99	-9,041.24	9,317.34	9,297.30	20.05	464.768		
2,200.00	2,191.32	1,888.65	1,862.15	9.99	11.64	62.50	-2,456.07	-9,058.97	9,316.08	9,294.48	21.59	431.441		
2,300.00	2,290.70	1,969.17	1,934.56	10.42	12.38	62.76	-2,422.67	-9,070.13	9,314.64	9,291.88	22.76	409.183		
2,400.00	2,390.09	2,022.10	1,982.02	10.86	12.88	62.93	-2,400.46	-9,077.61	9,313.65	9,289.96	23.69	393.154		
2,499.71	2,489.18	2,066.31	2,021.63	11.29	13.30	63.08	-2,381.92	-9,084.06	9,313.32	9,288.78	24.54	379.565		
2,500.00	2,489.47	2,066.44	2,021.75	11.29	13.30	63.08	-2,381.86	-9,084.08	9,313.32	9,288.78	24.54	379.527		
2,600.00	2,588.86	2,198.94	2,140.32	11.73	14.57	63.51	-2,326.05	-9,103.57	9,313.42	9,287.17	26.24	354.866		
2,600.51	2,589.36	2,600.51	2,107.02	11.74	18.47	63.39	-2,341.78	-9,098.14	9,313.41	9,283.28	30.13	309.103		
2,700.00	2,688.24	2,245.07	2,181.54	12.18	15.02	63.66	-2,306.47	-9,110.37	9,313.68	9,286.55	27.13	343.315		
2,800.00	2,787.62	2,300.36	2,230.91	12.62	15.56	63.84	-2,282.98	-9,118.64	9,314.48	9,286.38	28.10	331.445		
2,900.00	2,887.01	2,352.03	2,277.07	13.06	16.07	64.01	-2,261.16	-9,126.53	9,315.88	9,286.84	29.04	320.761		
3,000.00	2,986.39	2,394.27	2,314.83	13.51	16.49	64.15	-2,243.43	-9,133.12	9,317.91	9,288.02	29.89	311.739		
3,100.00	3,085.77	2,431.91	2,348.51	13.95	16.86	64.27	-2,227.73	-9,139.16	9,320.67	9,289.98	30.69	303.692		
3,200.00	3,185.16	2,478.17	2,389.91	14.40	17.32	64.42	-2,208.56	-9,146.82	9,324.14	9,292.57	31.58	295.280		
3,300.00	3,284.54	2,573.53	2,475.30	14.85	18.27	64.73	-2,169.17	-9,162.67	9,328.01	9,295.06	32.95	283.067		
3,400.00	3,383.92	2,627.89	2,524.08	15.30	18.80	64.90	-2,146.99	-9,171.75	9,332.30	9,298.39	33.92	275.158		
3,500.00	3,483.31	2,857.40	2,729.24	15.75	21.12	65.65	-2,051.09	-9,208.91	9,336.36	9,299.70	36.66	254.654		
3,600.00	3,582.69	2,910.18	2,775.91	16.20	21.67	65.83	-2,027.91	-9,217.29	9,340.19	9,302.55	37.64	248.139		
3,700.00	3,682.07	2,976.75	2,834.87	16.65	22.36	66.05	-1,998.93	-9,228.04	9,344.59	9,305.83	38.75	241.129		
3,800.00	3,781.46	3,186.23	3,022.45	17.10	24.49	66.73	-1,911.31	-9,259.89	9,348.61	9,307.30	41.31	226.308		
3,900.00	3,880.84	3,242.52	3,072.54	17.56	25.07	66.92	-1,887.03	-9,268.27	9,352.63	9,310.33	42.31	221.052		
4,000.00	3,980.22	3,288.58	3,113.66	18.01	25.54	67.07	-1,867.49	-9,275.27	9,357.29	9,314.08	43.20	216.590		
4,100.00	4,079.61	4,100.00	3,205.79	18.46	33.74	67.40	-1,825.06	-9,290.84	9,362.32	9,310.62	51.70	181.095		
4,200.00	4,178.99	3,469.75	3,276.47	18.92	27.37	67.65	-1,792.87	-9,302.55	9,367.46	9,321.60	45.87	204.236		
4,300.00	4,278.38	3,523.64	3,325.05	19.37	27.91	67.82	-1,771.05	-9,310.78	9,373.22	9,326.40	46.82	200.193		
4,400.00	4,377.76	3,588.72	3,383.64	19.83	28.56	68.02	-1,744.56	-9,320.89	9,379.49	9,331.60	47.89	195.867		
4,500.00	4,477.14	3,716.17	3,498.26	20.28	29.84	68.43	-1,692.41	-9,340.54	9,385.91	9,336.33	49.58	189.301		
4,600.00	4,576.53	3,805.14	3,578.56	20.74	30.73	68.70	-1,656.58	-9,354.04	9,392.46	9,341.58	50.88	184.594		
4,700.00	4,675.91	3,881.00	3,646.87	21.19	31.49	68.94	-1,625.63	-9,365.45	9,399.16	9,347.11	52.05	180.578		
4,800.00	4,775.29	3,932.30	3,692.75	21.65	32.03	69.11	-1,604.06	-9,373.33	9,406.38	9,353.39	52.99	177.514		
4,900.00	4,874.68	3,976.00	3,731.52	22.10	32.49	69.25	-1,585.16	-9,380.37	9,414.37	9,360.52	53.85	174.839		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,000.00	4,974.06	4,005.44	3,757.47	22.56	32.81	69.35	-1,572.17	-9,385.28	9,423.07	9,368.51	54.56	172.698		
5,100.00	5,073.44	4,042.31	3,789.82	23.02	33.21	69.48	-1,555.62	-9,391.59	9,432.51	9,377.15	55.36	170.387		
5,200.00	5,172.83	4,071.00	3,814.84	23.47	33.53	69.57	-1,542.54	-9,396.64	9,442.68	9,386.62	56.06	168.437		
5,300.00	5,272.21	4,130.43	3,866.36	23.93	34.21	69.78	-1,514.91	-9,407.34	9,453.49	9,396.37	57.12	165.500		
5,400.00	5,371.59	4,165.00	3,896.12	24.39	34.60	69.90	-1,498.52	-9,413.69	9,464.95	9,407.06	57.89	163.492		
5,500.00	5,470.98	4,211.22	3,935.78	24.85	35.14	70.07	-1,476.43	-9,422.38	9,477.10	9,418.30	58.80	161.163		
5,600.00	5,570.36	4,261.80	4,005.44	25.30	35.56	71.41	-1,298.27	-9,494.29	9,489.70	9,426.10	63.59	149.228		
5,700.00	5,669.75	4,259.43	4,023.26	25.76	40.92	71.83	-1,244.92	-9,515.76	9,499.49	9,434.16	65.33	145.403		
5,800.00	5,769.13	6,005.33	5,622.77	26.22	49.17	74.43	-946.88	-9,616.93	9,498.83	9,424.92	73.91	128.516		
5,900.00	5,868.51	6,135.27	5,752.42	26.68	49.59	74.56	-938.50	-9,619.11	9,497.28	9,422.51	74.77	127.014		
6,000.00	5,967.90	6,241.03	5,858.04	27.14	49.91	74.66	-933.13	-9,620.54	9,495.48	9,419.95	75.54	125.704		
6,100.00	6,067.28	6,391.98	6,008.86	27.60	50.35	74.80	-927.00	-9,621.99	9,493.31	9,416.91	76.41	124.244		
6,200.00	6,166.66	6,474.81	6,091.64	28.05	50.57	74.87	-924.27	-9,622.65	9,491.09	9,414.00	77.09	123.121		
6,300.00	6,266.05	6,550.60	6,167.40	28.51	50.78	74.93	-922.22	-9,623.42	9,489.10	9,411.36	77.74	122.059		
6,400.00	6,365.43	6,632.00	6,248.77	28.97	50.99	74.99	-920.50	-9,624.43	9,487.38	9,408.97	78.41	120.997		
6,500.00	6,464.81	6,726.40	6,343.15	29.43	51.23	75.06	-919.01	-9,625.70	9,485.80	9,406.70	79.10	119.925		
6,600.00	6,564.10	6,828.19	6,444.93	29.89	51.49	44.78	-917.88	-9,627.03	9,482.26	9,402.46	79.80	118.823		
6,700.00	6,661.75	6,923.85	6,540.57	30.34	51.72	21.45	-917.13	-9,628.26	9,465.10	9,384.62	80.47	117.619		
6,800.00	6,755.38	7,016.22	6,632.94	30.77	51.95	13.63	-916.61	-9,629.47	9,432.79	9,351.67	81.11	116.293		
6,900.00	6,842.67	7,104.08	6,720.79	31.17	52.16	9.91	-916.19	-9,630.62	9,386.11	9,304.40	81.71	114.876		
7,000.00	6,921.48	7,216.36	6,800.33	31.54	52.44	7.75	-915.81	-9,631.67	9,326.19	9,243.88	82.32	113.297		
7,100.00	6,989.86	7,252.92	6,869.61	31.91	52.53	6.29	-915.47	-9,632.58	9,254.52	9,171.84	82.68	111.926		
7,200.00	7,046.13	7,310.24	6,926.92	32.35	52.68	5.13	-915.20	-9,633.33	9,172.86	9,089.81	83.04	110.457		
7,300.00	7,088.91	7,354.17	6,970.85	32.98	52.79	3.91	-914.99	-9,633.90	9,083.20	8,999.89	83.31	109.032		
7,400.00	7,117.14	7,383.63	7,000.31	33.84	52.86	1.80	-914.85	-9,634.29	8,987.76	8,904.29	83.48	107.670		
7,500.00	7,130.13	7,401.05	7,017.73	34.90	52.90	-9.06	-914.77	-9,634.52	8,888.89	8,805.33	83.56	106.376		
7,600.00	7,130.72	7,403.57	7,020.24	36.13	52.91	-63.72	-914.75	-9,634.55	8,788.93	8,705.36	83.58	105.159		
7,700.00	7,130.29	7,404.68	7,021.36	37.54	52.91	-64.07	-914.75	-9,634.56	8,688.95	8,605.36	83.59	103.949		
7,800.00	7,129.85	7,405.79	7,022.47	39.12	52.91	-64.42	-914.74	-9,634.58	8,588.97	8,505.37	83.60	102.738		
7,900.00	7,129.42	7,406.89	7,023.56	40.83	52.92	-64.77	-914.74	-9,634.59	8,488.99	8,405.37	83.61	101.526		
8,000.00	7,128.98	7,407.98	7,024.65	42.67	52.92	-65.12	-914.73	-9,634.61	8,389.00	8,305.38	83.63	100.312		
8,100.00	7,128.55	7,409.06	7,025.74	44.62	52.92	-65.47	-914.73	-9,634.62	8,289.02	8,205.38	83.64	99.098		
8,200.00	7,128.12	7,410.13	7,026.81	46.66	52.93	-65.82	-914.72	-9,634.63	8,189.04	8,105.38	83.66	97.883		
8,300.00	7,127.68	7,411.20	7,027.87	48.79	52.93	-66.16	-914.72	-9,634.65	8,089.06	8,005.38	83.68	96.668		
8,400.00	7,127.25	7,412.25	7,028.93	50.98	52.93	-66.51	-914.71	-9,634.66	7,989.08	7,905.38	83.70	95.451		
8,500.00	7,126.81	7,413.30	7,029.98	53.24	52.93	-66.85	-914.71	-9,634.67	7,889.10	7,805.38	83.72	94.234		
8,600.00	7,126.38	7,414.34	7,031.02	55.56	52.94	-67.20	-914.70	-9,634.68	7,789.12	7,705.38	83.74	93.016		
8,700.00	7,125.95	7,415.38	7,032.05	57.92	52.94	-67.54	-914.70	-9,634.70	7,689.14	7,605.38	83.76	91.797		
8,800.00	7,125.51	7,416.40	7,033.08	60.33	52.94	-67.88	-914.69	-9,634.71	7,589.16	7,505.38	83.79	90.578		
8,900.00	7,125.08	7,417.42	7,034.10	62.77	52.94	-68.23	-914.69	-9,634.72	7,489.19	7,405.38	83.81	89.358		
9,000.00	7,124.64	7,418.43	7,035.10	65.25	52.95	-68.57	-914.68	-9,634.74	7,389.21	7,305.37	83.84	88.138		
9,100.00	7,124.21	7,419.43	7,036.11	67.76	52.95	-68.91	-914.68	-9,634.75	7,289.23	7,205.37	83.86	86.918		
9,200.00	7,123.78	7,420.43	7,037.10	70.29	52.95	-69.25	-914.67	-9,634.76	7,189.26	7,105.36	83.89	85.696		
9,300.00	7,123.34	7,421.41	7,038.09	72.85	52.95	-69.58	-914.67	-9,634.77	7,089.28	7,005.36	83.92	84.475		
9,400.00	7,122.91	7,422.39	7,039.07	75.43	52.96	-69.92	-914.67	-9,634.78	6,989.30	6,905.35	83.95	83.253		
9,500.00	7,122.48	7,423.37	7,040.04	78.03	52.96	-70.26	-914.66	-9,634.80	6,889.33	6,805.34	83.98	82.031		
9,600.00	7,122.04	7,424.33	7,041.01	80.65	52.96	-70.59	-914.66	-9,634.81	6,789.35	6,705.34	84.02	80.808		
9,700.00	7,121.61	7,425.29	7,041.96	83.28	52.96	-70.93	-914.65	-9,634.82	6,689.38	6,605.33	84.05	79.586		
9,800.00	7,121.17	7,426.24	7,042.92	85.93	52.97	-71.26	-914.65	-9,634.83	6,589.41	6,505.32	84.09	78.363		
9,900.00	7,120.74	7,427.19	7,043.86	88.59	52.97	-71.59	-914.64	-9,634.84	6,489.44	6,405.31	84.13	77.140		
10,000.00	7,120.31	7,428.12	7,044.80	91.26	52.97	-71.92	-914.64	-9,634.85	6,389.47	6,305.30	84.16	75.917		
10,100.00	7,119.87	7,429.05	7,045.73	93.95	52.97	-72.25	-914.63	-9,634.86	6,289.49	6,205.29	84.20	74.694		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,200.00	7,119.44	7,429.98	7,046.65	96.64	52.98	-72.58	-914.63	-9,634.87	6,189.52	6,105.28	84.24	73.471		
10,300.00	7,119.00	7,430.90	7,047.57	99.34	52.98	-72.91	-914.63	-9,634.89	6,089.56	6,005.27	84.29	72.248		
10,400.00	7,118.57	7,431.81	7,048.48	102.05	52.98	-73.23	-914.62	-9,634.90	5,989.59	5,905.26	84.33	71.025		
10,500.00	7,118.14	7,432.71	7,049.39	104.77	52.98	-73.56	-914.62	-9,634.91	5,889.62	5,805.24	84.38	69.802		
10,600.00	7,117.70	7,433.61	7,050.28	107.50	52.99	-73.88	-914.61	-9,634.92	5,789.66	5,705.23	84.42	68.579		
10,700.00	7,117.27	7,434.50	7,051.18	110.23	52.99	-74.20	-914.61	-9,634.93	5,689.69	5,605.22	84.47	67.356		
10,800.00	7,116.83	7,435.39	7,052.06	112.97	52.99	-74.52	-914.60	-9,634.94	5,589.73	5,505.21	84.52	66.134		
10,900.00	7,116.40	7,436.27	7,052.94	115.72	52.99	-74.84	-914.60	-9,634.95	5,489.76	5,405.19	84.57	64.912		
11,000.00	7,115.97	7,437.14	7,053.81	118.47	52.99	-75.16	-914.60	-9,634.96	5,389.80	5,305.18	84.63	63.690		
11,100.00	7,115.53	7,438.01	7,054.68	121.22	53.00	-75.48	-914.59	-9,634.97	5,289.84	5,205.16	84.68	62.468		
11,200.00	7,115.10	7,438.87	7,055.54	123.98	53.00	-75.79	-914.59	-9,634.98	5,189.88	5,105.15	84.74	61.247		
11,300.00	7,114.66	7,439.72	7,056.40	126.74	53.00	-76.11	-914.58	-9,634.99	5,089.93	5,005.13	84.80	60.026		
11,400.00	7,114.23	7,440.57	7,057.25	129.51	53.00	-76.42	-914.58	-9,635.00	4,989.97	4,905.12	84.86	58.805		
11,500.00	7,113.80	7,441.42	7,058.09	132.29	53.01	-76.73	-914.58	-9,635.01	4,890.02	4,805.10	84.92	57.585		
11,600.00	7,113.36	7,442.25	7,058.93	135.06	53.01	-77.05	-914.57	-9,635.02	4,790.07	4,705.08	84.98	56.365		
11,700.00	7,112.93	7,443.09	7,059.76	137.84	53.01	-77.35	-914.57	-9,635.03	4,690.12	4,605.07	85.05	55.145		
11,800.00	7,112.49	7,443.91	7,060.59	140.62	53.01	-77.66	-914.56	-9,635.04	4,590.17	4,505.05	85.12	53.926		
11,900.00	7,112.06	7,444.73	7,061.41	143.41	53.01	-77.97	-914.56	-9,635.05	4,490.22	4,405.03	85.19	52.707		
12,000.00	7,111.63	7,445.55	7,062.22	146.20	53.02	-78.27	-914.56	-9,635.06	4,390.28	4,305.01	85.27	51.489		
12,100.00	7,111.19	7,446.36	7,063.03	148.99	53.02	-78.58	-914.55	-9,635.07	4,290.34	4,205.00	85.34	50.272		
12,200.00	7,110.76	7,447.16	7,063.84	151.78	53.02	-78.88	-914.55	-9,635.08	4,190.40	4,104.98	85.42	49.054		
12,300.00	7,110.33	7,447.96	7,064.63	154.58	53.02	-79.18	-914.55	-9,635.08	4,090.47	4,004.96	85.51	47.837		
12,400.00	7,109.89	7,448.76	7,065.43	157.37	53.02	-79.48	-914.54	-9,635.09	3,990.53	3,904.94	85.60	46.621		
12,500.00	7,109.46	7,449.54	7,066.22	160.17	53.03	-79.78	-914.54	-9,635.10	3,890.61	3,804.92	85.69	45.405		
12,600.00	7,109.02	7,450.33	7,067.00	162.98	53.03	-80.08	-914.53	-9,635.11	3,790.68	3,704.90	85.78	44.189		
12,700.00	7,108.59	7,451.10	7,067.78	165.78	53.03	-80.37	-914.53	-9,635.12	3,690.76	3,604.88	85.88	42.974		
12,800.00	7,108.16	7,451.88	7,068.55	168.59	53.03	-80.67	-914.53	-9,635.13	3,590.84	3,504.85	85.99	41.759		
12,900.00	7,107.72	7,452.65	7,069.32	171.39	53.03	-80.96	-914.52	-9,635.14	3,490.93	3,404.83	86.10	40.545		
13,000.00	7,107.29	7,453.41	7,070.08	174.20	53.04	-81.25	-914.52	-9,635.15	3,391.02	3,304.80	86.22	39.331		
13,100.00	7,106.85	7,454.17	7,070.84	177.01	53.04	-81.54	-914.52	-9,635.15	3,291.12	3,204.78	86.34	38.117		
13,200.00	7,106.42	7,454.92	7,071.59	179.83	53.04	-81.83	-914.51	-9,635.16	3,191.22	3,104.75	86.48	36.903		
13,300.00	7,105.99	7,455.67	7,072.34	182.64	53.04	-82.12	-914.51	-9,635.17	3,091.34	3,004.72	86.62	35.689		
13,400.00	7,105.55	7,456.41	7,073.08	185.45	53.04	-82.40	-914.51	-9,635.18	2,991.45	2,904.68	86.77	34.475		
13,500.00	7,105.12	7,457.15	7,073.82	188.27	53.05	-82.69	-914.50	-9,635.19	2,891.58	2,804.64	86.94	33.261		
13,600.00	7,104.68	7,457.88	7,074.55	191.09	53.05	-82.97	-914.50	-9,635.20	2,791.71	2,704.60	87.11	32.047		
13,700.00	7,104.25	7,458.61	7,075.28	193.91	53.05	-83.25	-914.50	-9,635.20	2,691.86	2,604.55	87.31	30.833		
13,800.00	7,103.82	7,459.33	7,076.01	196.73	53.05	-83.53	-914.49	-9,635.21	2,592.01	2,504.50	87.52	29.618		
13,900.00	7,103.38	7,460.05	7,076.73	199.55	53.05	-83.81	-914.49	-9,635.22	2,492.18	2,404.43	87.75	28.402		
14,000.00	7,102.95	7,460.77	7,077.44	202.37	53.05	-84.09	-914.49	-9,635.23	2,392.36	2,304.36	88.00	27.186		
14,100.00	7,102.51	7,461.48	7,078.15	205.19	53.06	-84.36	-914.48	-9,635.24	2,292.56	2,204.28	88.28	25.968		
14,200.00	7,102.08	7,462.19	7,078.86	208.02	53.06	-84.64	-914.48	-9,635.24	2,192.77	2,104.17	88.60	24.749		
14,300.00	7,101.65	7,462.89	7,079.56	210.84	53.06	-84.91	-914.48	-9,635.25	2,093.01	2,004.05	88.96	23.528		
14,400.00	7,101.21	7,463.59	7,080.26	213.67	53.06	-85.18	-914.47	-9,635.26	1,993.27	1,903.91	89.36	22.306		
14,500.00	7,100.78	7,464.28	7,080.95	216.50	53.06	-85.45	-914.47	-9,635.27	1,893.55	1,803.73	89.82	21.081		
14,600.00	7,100.35	7,464.97	7,081.64	219.32	53.06	-85.72	-914.47	-9,635.27	1,793.87	1,703.52	90.36	19.853		
14,700.00	7,099.91	7,465.65	7,082.32	222.15	53.07	-85.98	-914.46	-9,635.28	1,694.23	1,603.25	90.98	18.623		
14,800.00	7,099.48	7,466.33	7,083.00	224.98	53.07	-86.25	-914.46	-9,635.29	1,594.62	1,502.92	91.70	17.389		
14,900.00	7,099.04	7,467.01	7,083.68	227.81	53.07	-86.51	-914.46	-9,635.30	1,495.07	1,402.51	92.56	16.152		
14,909.96	7,099.00	7,467.08	7,083.75	228.09	53.07	-86.54	-914.46	-9,635.30	1,485.16	1,392.50	92.66	16.028 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
0.00	0.00	2,207.00	2,140.89	3.28	15.40	-104.59	-2,277.34	-8,750.38	9,291.87					
100.00	100.00	2,257.56	2,187.14	3.28	15.84	-104.48	-2,257.88	-8,744.15	9,268.99	9,250.91	18.09	512.440		
200.00	200.00	2,302.00	2,227.88	3.34	16.24	-104.38	-2,240.90	-8,738.98	9,246.82	9,228.35	18.47	500.519		
300.00	300.00	300.00	2,362.93	3.44	3.54	-104.06	-2,184.94	-8,721.89	9,225.02	9,218.47	6.55	1,409.144		
400.00	400.00	2,549.21	2,454.30	3.60	18.45	-103.84	-2,146.13	-8,709.71	9,202.45	9,181.75	20.70	444.597		
500.00	500.00	2,596.58	2,497.40	3.81	18.89	-103.73	-2,127.21	-8,704.35	9,180.43	9,159.16	21.27	431.603		
600.00	600.00	2,680.74	2,573.96	4.04	19.66	63.39	-2,093.51	-8,695.05	9,158.75	9,136.55	22.20	412.630		
700.00	699.96	2,896.86	2,769.76	4.29	21.69	64.36	-2,005.58	-8,669.79	9,135.20	9,110.92	24.27	376.357		
800.00	799.78	2,948.34	2,816.43	4.57	22.17	64.96	-1,984.79	-8,663.55	9,110.30	9,085.32	24.98	364.679		
900.00	899.34	3,014.64	2,876.89	4.88	22.78	65.63	-1,958.79	-8,655.51	9,084.46	9,058.63	25.83	351.642		
1,000.00	998.72	3,093.05	2,948.89	5.20	23.49	65.85	-1,929.32	-8,645.72	9,058.27	9,031.47	26.80	338.042		
1,100.00	1,098.10	3,182.04	3,030.45	5.54	24.30	66.11	-1,895.47	-8,634.76	9,032.30	9,004.43	27.87	324.130		
1,200.00	1,197.49	3,248.00	3,090.85	5.90	24.90	66.30	-1,870.23	-8,626.63	9,006.51	8,977.73	28.77	313.007		
1,300.00	1,296.87	3,305.02	3,143.27	6.28	25.41	66.47	-1,848.91	-8,619.63	8,981.18	8,951.56	29.61	303.276		
1,400.00	1,396.25	3,346.00	3,181.19	6.66	25.77	66.58	-1,834.20	-8,614.65	8,956.49	8,926.15	30.34	295.199		
1,500.00	1,495.64	3,383.48	3,216.01	7.06	26.09	66.68	-1,821.06	-8,610.21	8,932.47	8,901.43	31.04	287.765		
1,600.00	1,595.02	3,440.00	3,268.68	7.46	26.57	66.84	-1,801.55	-8,603.89	8,909.21	8,877.32	31.90	279.303		
1,700.00	1,694.40	3,523.11	3,346.38	7.87	27.27	67.06	-1,773.58	-8,594.59	8,886.41	8,853.45	32.95	269.660		
1,800.00	1,793.79	3,791.11	3,597.45	8.29	29.48	67.77	-1,685.89	-8,561.60	8,863.73	8,828.37	35.36	250.692		
1,900.00	1,893.17	3,910.04	3,708.28	8.71	30.49	68.09	-1,645.89	-8,545.52	8,839.28	8,802.58	36.70	240.885		
2,000.00	1,992.55	3,959.05	3,753.64	9.13	30.92	68.23	-1,628.48	-8,539.03	8,814.84	8,777.30	37.54	234.818		
2,100.00	2,091.94	4,015.00	3,805.31	9.56	31.42	68.39	-1,608.18	-8,532.10	8,791.07	8,752.62	38.45	228.654		
2,200.00	2,191.32	4,065.16	3,851.56	9.99	31.87	68.54	-1,589.69	-8,526.15	8,767.84	8,728.52	39.32	222.962		
2,300.00	2,290.70	4,135.57	3,916.40	10.42	32.49	68.75	-1,563.50	-8,517.94	8,744.99	8,704.62	40.37	216.620		
2,400.00	2,390.09	4,204.00	3,979.48	10.86	33.11	68.95	-1,538.15	-8,510.13	8,722.58	8,681.18	41.41	210.659		
2,500.00	2,489.47	4,668.21	4,400.76	11.29	37.50	70.43	-1,353.58	-8,449.41	8,697.72	8,651.91	45.81	189.859		
2,600.00	2,588.86	4,709.19	4,437.21	11.73	37.92	70.58	-1,335.77	-8,443.66	8,672.31	8,625.62	46.69	185.743		
2,700.00	2,688.24	4,743.41	4,467.77	12.18	38.26	70.69	-1,321.08	-8,439.02	8,647.65	8,600.14	47.51	182.019		
2,800.00	2,787.62	4,774.00	4,495.17	12.62	38.57	70.80	-1,308.10	-8,435.00	8,623.75	8,575.45	48.30	178.546		
2,900.00	2,887.01	4,811.87	4,529.27	13.06	38.93	70.92	-1,292.35	-8,430.18	8,600.60	8,551.46	49.14	175.009		
3,000.00	2,986.39	4,869.00	4,581.16	13.51	39.48	71.11	-1,269.50	-8,423.18	8,578.29	8,528.14	50.16	171.032		
3,100.00	3,085.77	4,897.11	4,606.85	13.95	39.73	71.20	-1,258.60	-8,419.81	8,556.57	8,505.66	50.91	168.079		
3,200.00	3,185.16	4,984.68	4,687.27	14.40	40.54	71.48	-1,225.61	-8,409.17	8,535.32	8,483.17	52.15	163.664		
3,300.00	3,284.54	5,057.00	4,753.54	14.85	41.20	71.71	-1,198.03	-8,400.32	8,514.19	8,460.92	53.27	159.824		
3,400.00	3,383.92	5,114.14	4,805.90	15.30	41.72	71.89	-1,176.19	-8,393.49	8,493.55	8,439.28	54.27	156.506		
3,500.00	3,483.31	5,152.00	4,840.75	15.75	42.06	72.01	-1,162.07	-8,389.14	8,473.67	8,418.56	55.11	153.761		
3,600.00	3,582.69	5,195.28	4,880.78	16.20	42.44	72.14	-1,146.32	-8,384.35	8,454.50	8,398.52	55.98	151.029		
3,700.00	3,682.07	5,247.00	4,928.86	16.65	42.89	72.30	-1,128.09	-8,378.86	8,436.06	8,379.15	56.92	148.216		
3,800.00	3,781.46	5,276.89	4,956.78	17.10	43.14	72.39	-1,117.85	-8,375.82	8,418.32	8,360.65	57.67	145.977		
3,900.00	3,880.84	5,317.90	4,995.25	17.56	43.48	72.51	-1,104.21	-8,371.78	8,401.30	8,342.80	58.50	143.602		
4,000.00	3,980.22	5,342.00	5,017.93	18.01	43.68	72.58	-1,096.41	-8,369.49	8,385.05	8,325.84	59.21	141.618		
4,100.00	4,079.61	5,383.75	5,057.44	18.46	43.99	72.69	-1,083.44	-8,365.74	8,369.56	8,309.54	60.02	139.440		
4,200.00	4,178.99	5,437.00	5,108.25	18.92	44.40	72.83	-1,068.10	-8,361.43	8,355.05	8,294.13	60.92	137.155		
4,300.00	4,278.38	5,437.00	5,108.25	19.37	44.40	72.83	-1,068.10	-8,361.43	8,341.18	8,279.75	61.43	135.785		
4,400.00	4,377.76	5,482.61	5,152.09	19.83	44.71	72.95	-1,055.96	-8,358.10	8,328.19	8,265.96	62.23	133.822		
4,500.00	4,477.14	5,531.00	5,198.87	20.28	45.04	73.06	-1,044.01	-8,354.89	8,315.99	8,252.93	63.05	131.888		
4,600.00	4,576.53	5,610.88	5,276.50	20.74	45.54	73.24	-1,025.95	-8,349.70	8,304.30	8,240.27	64.03	129.687		
4,700.00	4,675.91	5,672.81	5,336.99	21.19	45.90	73.37	-1,013.31	-8,345.59	8,292.83	8,227.95	64.88	127.820		
4,800.00	4,775.29	5,747.72	5,410.56	21.65	46.31	73.52	-1,000.07	-8,340.82	8,281.90	8,216.13	65.77	125.919		
4,900.00	4,874.68	5,814.00	5,475.81	22.10	46.66	73.64	-989.32	-8,336.38	8,270.99	8,204.39	66.60	124.191		
5,000.00	4,974.06	5,866.95	5,528.08	22.56	46.92	73.73	-981.53	-8,333.01	8,260.64	8,193.30	67.34	122.676		
5,100.00	5,073.44	5,909.00	5,569.71	23.02	47.12	73.79	-976.10	-8,330.77	8,251.21	8,183.18	68.02	121.300		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,961.81	5,622.09	23.47	47.35	73.88	-969.88	-8,328.23	8,242.44	8,173.71	68.73	119.917		
5,300.00	5,272.21	6,029.88	5,689.68	23.93	47.64	73.98	-962.42	-8,325.07	8,234.04	8,164.54	69.50	118.472		
5,400.00	5,371.59	6,097.00	5,756.41	24.39	47.92	74.07	-955.80	-8,322.25	8,226.14	8,155.89	70.25	117.090		
5,500.00	5,470.98	6,136.19	5,795.41	24.85	48.07	74.12	-952.23	-8,320.79	8,218.79	8,147.90	70.89	115.942		
5,600.00	5,570.36	6,192.00	5,850.98	25.30	48.28	74.20	-947.37	-8,319.06	8,212.11	8,140.53	71.58	114.726		
5,700.00	5,669.75	6,243.19	5,901.96	25.76	48.48	74.27	-942.96	-8,317.75	8,206.01	8,133.75	72.25	113.573		
5,800.00	5,769.13	6,311.61	5,970.10	26.22	48.74	74.36	-936.91	-8,316.26	8,200.36	8,127.37	72.99	112.349		
5,900.00	5,868.51	6,389.65	6,047.87	26.68	49.03	74.46	-930.62	-8,314.75	8,195.03	8,121.27	73.76	111.105		
6,000.00	5,967.90	6,469.79	6,127.80	27.14	49.31	74.56	-924.93	-8,313.35	8,189.97	8,115.45	74.52	109.900		
6,100.00	6,067.28	6,552.93	6,210.77	27.60	49.59	74.66	-919.78	-8,312.03	8,185.15	8,109.87	75.28	108.726		
6,200.00	6,166.66	6,611.36	6,269.11	28.05	49.78	74.72	-916.60	-8,311.25	8,180.67	8,104.72	75.95	107.717		
6,300.00	6,266.05	6,665.00	6,322.68	28.51	49.95	74.78	-914.03	-8,310.84	8,176.77	8,100.18	76.59	106.762		
6,400.00	6,365.43	6,745.70	6,403.32	28.97	50.19	74.86	-910.74	-8,310.51	8,173.28	8,095.97	77.31	105.722		
6,500.00	6,464.81	6,858.80	6,516.36	29.43	50.52	74.97	-907.28	-8,310.05	8,169.86	8,091.74	78.12	104.580		
6,600.00	6,564.10	6,957.21	6,614.73	29.89	50.79	74.71	-904.86	-8,309.52	8,164.40	8,085.53	78.87	103.511		
6,700.00	6,661.75	7,054.75	6,712.25	30.34	51.07	74.39	-902.64	-8,308.98	8,145.37	8,065.75	79.61	102.311		
6,800.00	6,755.38	7,147.52	6,805.00	30.77	51.32	73.88	-900.81	-8,308.47	8,111.24	8,030.94	80.31	101.003		
6,900.00	6,842.67	7,234.06	6,891.53	31.17	51.56	73.37	-899.40	-8,307.99	8,062.87	7,981.93	80.94	99.611		
7,000.00	6,921.48	7,310.36	6,967.82	31.54	51.77	72.71	-898.38	-8,307.56	8,001.45	7,919.95	81.50	98.181		
7,100.00	6,989.86	7,376.56	7,034.01	31.91	51.94	71.95	-897.62	-8,307.21	7,928.49	7,846.52	81.96	96.731		
7,200.00	7,046.13	7,434.03	7,091.48	32.35	52.10	71.08	-897.07	-8,306.91	7,845.76	7,763.42	82.34	95.281		
7,300.00	7,088.91	7,489.16	7,146.61	32.98	52.25	70.13	-896.56	-8,306.56	7,755.26	7,672.61	82.65	93.833		
7,400.00	7,117.14	7,524.94	7,182.38	33.84	52.34	69.18	-896.22	-8,306.28	7,659.22	7,576.38	82.84	92.459		
7,500.00	7,130.13	7,540.68	7,198.12	34.90	52.39	-15.67	-896.07	-8,306.14	7,560.06	7,477.14	82.92	91.175		
7,600.00	7,130.72	7,540.30	7,197.75	36.13	52.38	-125.73	-896.07	-8,306.15	7,460.09	7,377.17	82.92	89.967		
7,700.00	7,130.29	7,538.61	7,196.06	37.54	52.38	-125.26	-896.08	-8,306.16	7,360.12	7,277.20	82.92	88.765		
7,800.00	7,129.85	7,536.93	7,194.38	39.12	52.38	-124.80	-896.10	-8,306.18	7,260.14	7,177.23	82.91	87.561		
7,900.00	7,129.42	7,535.27	7,192.71	40.83	52.37	-124.32	-896.12	-8,306.19	7,160.17	7,077.26	82.91	86.357		
8,000.00	7,128.98	7,533.62	7,191.06	42.67	52.37	-123.85	-896.13	-8,306.21	7,060.20	6,977.28	82.91	85.151		
8,100.00	7,128.55	7,531.98	7,189.42	44.62	52.36	-123.38	-896.15	-8,306.22	6,960.23	6,877.31	82.91	83.945		
8,200.00	7,128.12	7,530.35	7,187.80	46.66	52.36	-122.90	-896.16	-8,306.23	6,860.25	6,777.34	82.92	82.737		
8,300.00	7,127.68	7,528.74	7,186.18	48.79	52.35	-122.42	-896.18	-8,306.25	6,760.28	6,677.36	82.92	81.528		
8,400.00	7,127.25	7,527.14	7,184.58	50.98	52.35	-121.95	-896.20	-8,306.26	6,660.31	6,577.39	82.92	80.318		
8,500.00	7,126.81	7,525.55	7,182.99	53.24	52.34	-121.47	-896.21	-8,306.27	6,560.34	6,477.41	82.93	79.108		
8,600.00	7,126.38	7,523.97	7,181.41	55.56	52.34	-120.99	-896.23	-8,306.29	6,460.37	6,377.44	82.94	77.896		
8,700.00	7,125.95	7,522.40	7,179.85	57.92	52.34	-120.50	-896.24	-8,306.30	6,360.41	6,277.46	82.94	76.684		
8,800.00	7,125.51	7,520.85	7,178.29	60.33	52.33	-120.02	-896.26	-8,306.31	6,260.44	6,177.49	82.95	75.471		
8,900.00	7,125.08	7,519.30	7,176.75	62.77	52.33	-119.54	-896.27	-8,306.32	6,160.47	6,077.51	82.96	74.258		
9,000.00	7,124.64	7,517.77	7,175.22	65.25	52.32	-119.05	-896.28	-8,306.34	6,060.50	5,977.53	82.97	73.043		
9,100.00	7,124.21	7,516.25	7,173.70	67.76	52.32	-118.57	-896.30	-8,306.35	5,960.54	5,877.56	82.98	71.828		
9,200.00	7,123.78	7,514.74	7,172.19	70.29	52.32	-118.08	-896.31	-8,306.36	5,860.57	5,777.58	83.00	70.612		
9,300.00	7,123.34	7,513.24	7,170.69	72.85	52.31	-117.59	-896.33	-8,306.37	5,760.61	5,677.60	83.01	69.396		
9,400.00	7,122.91	7,511.75	7,169.20	75.43	52.31	-117.10	-896.34	-8,306.39	5,660.65	5,577.62	83.03	68.180		
9,500.00	7,122.48	7,510.28	7,167.72	78.03	52.30	-116.62	-896.36	-8,306.40	5,560.69	5,477.64	83.04	66.963		
9,600.00	7,122.04	7,508.81	7,166.26	80.65	52.30	-116.13	-896.37	-8,306.41	5,460.73	5,377.67	83.06	65.745		
9,700.00	7,121.61	7,507.36	7,164.80	83.28	52.30	-115.64	-896.38	-8,306.42	5,360.77	5,277.69	83.08	64.527		
9,800.00	7,121.17	7,505.91	7,163.36	85.93	52.29	-115.15	-896.40	-8,306.43	5,260.81	5,177.71	83.10	63.309		
9,900.00	7,120.74	7,504.48	7,161.92	88.59	52.29	-114.66	-896.41	-8,306.44	5,160.85	5,077.73	83.12	62.090		
10,000.00	7,120.31	7,503.05	7,160.50	91.26	52.28	-114.16	-896.42	-8,306.45	5,060.90	4,977.75	83.14	60.871		
10,100.00	7,119.87	7,501.64	7,159.08	93.95	52.28	-113.67	-896.44	-8,306.46	4,960.94	4,877.78	83.16	59.652		
10,200.00	7,119.44	7,500.23	7,157.68	96.64	52.28	-113.18	-896.45	-8,306.47	4,860.99	4,777.80	83.19	58.433		
10,300.00	7,119.00	7,498.84	7,156.28	99.34	52.27	-112.69	-896.46	-8,306.48	4,761.04	4,677.82	83.22	57.214		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,400.00	7,118.57	7,497.45	7,154.90	102.05	52.27	-112.20	-896.48	-8,306.49	4,661.09	4,577.85	83.24	55.994		
10,500.00	7,118.14	7,496.08	7,153.52	104.77	52.27	-111.71	-896.49	-8,306.50	4,561.14	4,477.87	83.27	54.774		
10,600.00	7,117.70	7,494.71	7,152.16	107.50	52.26	-111.22	-896.50	-8,306.51	4,461.19	4,377.89	83.30	53.555		
10,700.00	7,117.27	7,493.35	7,150.80	110.23	52.26	-110.73	-896.52	-8,306.52	4,361.25	4,277.92	83.33	52.335		
10,800.00	7,116.83	7,492.01	7,149.46	112.97	52.25	-110.24	-896.53	-8,306.53	4,261.31	4,177.94	83.37	51.115		
10,900.00	7,116.40	7,490.67	7,148.12	115.72	52.25	-109.75	-896.54	-8,306.54	4,161.37	4,077.97	83.40	49.895		
11,000.00	7,115.97	7,489.34	7,146.79	118.47	52.25	-109.26	-896.55	-8,306.55	4,061.44	3,978.00	83.44	48.675		
11,100.00	7,115.53	7,488.02	7,145.47	121.22	52.24	-108.77	-896.57	-8,306.56	3,961.50	3,878.02	83.48	47.455		
11,200.00	7,115.10	7,486.71	7,144.16	123.98	52.24	-108.28	-896.58	-8,306.57	3,861.57	3,778.05	83.52	46.235		
11,300.00	7,114.66	7,485.41	7,142.86	126.74	52.24	-107.79	-896.59	-8,306.58	3,761.65	3,678.08	83.56	45.015		
11,400.00	7,114.23	7,484.12	7,141.57	129.51	52.23	-107.31	-896.60	-8,306.59	3,661.72	3,578.11	83.61	43.795		
11,500.00	7,113.80	7,482.83	7,140.28	132.29	52.23	-106.82	-896.62	-8,306.60	3,561.80	3,478.14	83.66	42.575		
11,600.00	7,113.36	7,481.56	7,139.01	135.06	52.23	-106.34	-896.63	-8,306.61	3,461.89	3,378.18	83.71	41.355		
11,700.00	7,112.93	7,480.29	7,137.74	137.84	52.22	-105.85	-896.64	-8,306.62	3,361.98	3,278.21	83.77	40.135		
11,800.00	7,112.49	7,479.03	7,136.48	140.62	52.22	-105.37	-896.65	-8,306.63	3,262.07	3,178.25	83.83	38.915		
11,900.00	7,112.06	7,477.78	7,135.23	143.41	52.22	-104.89	-896.66	-8,306.64	3,162.17	3,078.28	83.89	37.695		
12,000.00	7,111.63	7,476.54	7,133.99	146.20	52.21	-104.40	-896.67	-8,306.64	3,062.28	2,978.32	83.96	36.474		
12,100.00	7,111.19	7,475.31	7,132.76	148.99	52.21	-103.92	-896.69	-8,306.65	2,962.39	2,878.36	84.03	35.253		
12,200.00	7,110.76	7,474.08	7,131.53	151.78	52.21	-103.45	-896.70	-8,306.66	2,862.51	2,778.40	84.11	34.032		
12,300.00	7,110.33	7,472.87	7,130.32	154.58	52.20	-102.97	-896.71	-8,306.67	2,762.64	2,678.44	84.20	32.811		
12,400.00	7,109.89	7,471.66	7,129.11	157.37	52.20	-102.49	-896.72	-8,306.68	2,662.78	2,578.48	84.29	31.589		
12,500.00	7,109.46	7,470.46	7,127.91	160.17	52.20	-102.02	-896.73	-8,306.68	2,562.93	2,478.53	84.40	30.367		
12,600.00	7,109.02	7,469.26	7,126.71	162.98	52.19	-101.55	-896.74	-8,306.69	2,463.09	2,378.57	84.52	29.143		
12,700.00	7,108.59	7,468.08	7,125.53	165.78	52.19	-101.07	-896.75	-8,306.70	2,363.26	2,278.61	84.65	27.919		
12,800.00	7,108.16	7,466.90	7,124.35	168.59	52.19	-100.60	-896.76	-8,306.71	2,263.44	2,178.65	84.80	26.693		
12,900.00	7,107.72	7,465.73	7,123.18	171.39	52.18	-100.14	-896.77	-8,306.72	2,163.65	2,078.69	84.96	25.466		
13,000.00	7,107.29	7,464.56	7,122.01	174.20	52.18	-99.67	-896.79	-8,306.72	2,063.87	1,978.72	85.15	24.237		
13,100.00	7,106.85	7,463.41	7,120.86	177.01	52.18	-99.21	-896.80	-8,306.73	1,964.12	1,878.74	85.37	23.006		
13,200.00	7,106.42	7,462.26	7,119.71	179.83	52.17	-98.74	-896.81	-8,306.74	1,864.39	1,778.76	85.63	21.773		
13,300.00	7,105.99	7,461.12	7,118.57	182.64	52.17	-98.28	-896.82	-8,306.75	1,764.69	1,678.76	85.93	20.536		
13,400.00	7,105.55	7,459.99	7,117.44	185.45	52.17	-97.82	-896.83	-8,306.75	1,665.02	1,578.74	86.29	19.296		
13,500.00	7,105.12	7,458.86	7,116.31	188.27	52.17	-97.37	-896.84	-8,306.76	1,565.40	1,478.69	86.71	18.053		
13,600.00	7,104.68	7,457.74	7,115.19	191.09	52.16	-96.91	-896.85	-8,306.77	1,465.83	1,378.60	87.23	16.804		
13,700.00	7,104.25	7,456.63	7,114.08	193.91	52.16	-96.46	-896.86	-8,306.77	1,366.32	1,278.45	87.87	15.550		
13,800.00	7,103.82	7,455.52	7,112.97	196.73	52.16	-96.01	-896.87	-8,306.78	1,266.88	1,178.23	88.65	14.290		
13,900.00	7,103.38	7,454.42	7,111.88	199.55	52.15	-95.56	-896.88	-8,306.79	1,167.54	1,077.90	89.65	13.024		
14,000.00	7,102.95	7,453.33	7,110.78	202.37	52.15	-95.11	-896.89	-8,306.79	1,068.33	977.41	90.92	11.750		
14,100.00	7,102.51	7,452.25	7,109.70	205.19	52.15	-94.67	-896.90	-8,306.80	969.27	876.70	92.57	10.471		
14,200.00	7,102.08	7,451.17	7,108.62	208.02	52.14	-94.23	-896.91	-8,306.81	870.43	775.67	94.76	9.186		
14,300.00	7,101.65	7,450.10	7,107.55	210.84	52.14	-93.79	-896.92	-8,306.81	771.89	674.16	97.72	7.899		
14,400.00	7,101.21	7,449.03	7,106.48	213.67	52.14	-93.35	-896.93	-8,306.82	673.77	571.94	101.83	6.616		
14,500.00	7,100.78	7,447.97	7,105.43	216.50	52.14	-92.91	-896.94	-8,306.83	576.30	468.59	107.71	5.351		
14,600.00	7,100.35	7,446.92	7,104.37	219.32	52.13	-92.48	-896.95	-8,306.83	479.87	363.46	116.41	4.122		
14,700.00	7,099.91	7,445.88	7,103.33	222.15	52.13	-92.05	-896.96	-8,306.84	385.25	255.35	129.90	2.966		
14,800.00	7,099.48	7,444.84	7,102.29	224.98	52.13	-91.62	-896.97	-8,306.84	294.23	142.20	152.03	1.935		
14,900.00	7,099.04	7,443.81	7,101.26	227.81	52.12	-91.20	-896.98	-8,306.85	211.46	21.58	189.88	1.114	Level 2	
14,909.96	7,099.00	7,443.70	7,101.15	228.09	52.12	-91.15	-896.98	-8,306.85	204.06	9.22	194.83	1.047	Level 2, CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	36.00	3.28	3.28	-107.84	-2,897.14	-9,003.85	9,458.54					
100.00	100.00	36.90	72.90	3.28	3.28	-107.84	-2,897.06	-9,003.93	9,458.56	9,452.00	6.57	1,440.622		
200.00	200.00	94.56	130.55	3.34	3.29	-107.83	-2,896.62	-9,004.38	9,459.07	9,452.45	6.62	1,428.243		
300.00	300.00	168.00	203.98	3.44	3.30	-107.82	-2,895.50	-9,005.53	9,460.06	9,453.31	6.74	1,402.978		
400.00	400.00	168.00	203.98	3.60	3.30	-107.82	-2,895.50	-9,005.53	9,461.60	9,454.70	6.90	1,370.755		
500.00	500.00	212.48	248.43	3.81	3.33	-107.82	-2,894.64	-9,006.73	9,463.79	9,456.66	7.13	1,326.825		
600.00	600.00	259.00	294.90	4.04	3.37	59.03	-2,893.75	-9,008.66	9,466.90	9,459.49	7.41	1,277.541		
700.00	699.96	259.00	294.90	4.29	3.37	58.99	-2,893.75	-9,008.66	9,469.39	9,461.73	7.66	1,236.176		
800.00	799.78	292.41	328.26	4.57	3.40	58.98	-2,893.22	-9,010.42	9,470.93	9,462.96	7.97	1,187.726		
900.00	899.34	350.00	385.74	4.88	3.48	59.01	-2,892.74	-9,014.05	9,471.60	9,463.25	8.35	1,134.030		
927.28	926.44	350.00	385.74	4.96	3.48	59.01	-2,892.74	-9,014.05	9,471.57	9,463.13	8.44	1,122.221		
1,000.00	998.72	350.00	385.74	5.20	3.48	59.01	-2,892.74	-9,014.05	9,471.84	9,463.16	8.68	1,091.120		
1,100.00	1,098.10	408.74	444.32	5.54	3.58	59.05	-2,892.57	-9,018.24	9,472.85	9,463.73	9.12	1,038.750		
1,200.00	1,197.49	485.07	520.45	5.90	3.73	59.11	-2,892.42	-9,023.95	9,474.22	9,464.60	9.62	984.375		
1,300.00	1,296.87	532.00	567.24	6.28	3.84	59.14	-2,892.26	-9,027.53	9,475.85	9,465.75	10.10	938.225		
1,400.00	1,396.25	586.35	621.41	6.66	3.98	59.18	-2,892.22	-9,031.92	9,477.98	9,467.37	10.61	893.124		
1,500.00	1,495.64	644.00	678.83	7.06	4.14	59.22	-2,892.55	-9,037.06	9,480.89	9,469.74	11.15	850.175		
1,600.00	1,595.02	672.32	707.02	7.46	4.22	59.24	-2,892.82	-9,039.73	9,484.32	9,472.69	11.63	815.620		
1,700.00	1,694.40	760.95	795.24	7.87	4.50	59.30	-2,893.87	-9,048.23	9,488.19	9,475.90	12.29	772.206		
1,800.00	1,793.79	868.37	902.17	8.29	4.87	59.37	-2,895.18	-9,058.36	9,491.92	9,478.89	13.03	728.439		
1,900.00	1,893.17	1,900.00	1,094.11	8.71	9.11	59.51	-2,895.69	-9,076.40	9,495.44	9,478.01	17.43	544.702		
2,000.00	1,992.55	1,096.00	1,128.81	9.13	5.72	59.54	-2,895.68	-9,079.46	9,498.48	9,483.84	14.64	648.625		
2,100.00	2,091.94	1,153.64	1,186.21	9.56	5.95	59.58	-2,895.52	-9,084.74	9,501.83	9,486.56	15.28	621.986		
2,200.00	2,191.32	1,190.00	1,222.36	9.99	6.09	59.61	-2,895.31	-9,088.62	9,506.19	9,490.36	15.84	600.299		
2,300.00	2,290.70	1,190.00	1,222.36	10.42	6.09	59.61	-2,895.31	-9,088.62	9,511.34	9,495.08	16.26	584.919		
2,400.00	2,390.09	1,241.69	1,273.68	10.86	6.31	59.65	-2,894.95	-9,094.76	9,517.10	9,500.22	16.88	563.649		
2,500.00	2,489.47	1,285.00	1,316.63	11.29	6.50	59.69	-2,894.68	-9,100.35	9,523.65	9,506.17	17.48	544.840		
2,600.00	2,588.86	1,285.00	1,316.63	11.73	6.50	59.69	-2,894.68	-9,100.35	9,530.95	9,513.04	17.91	532.267		
2,700.00	2,688.24	1,341.73	1,372.82	12.18	6.75	59.74	-2,894.69	-9,108.17	9,538.80	9,520.24	18.56	513.999		
2,800.00	2,787.62	1,379.00	1,409.70	12.62	6.92	59.76	-2,895.08	-9,113.55	9,547.42	9,528.28	19.13	498.969		
2,900.00	2,887.01	1,413.00	1,443.30	13.06	7.08	59.79	-2,895.48	-9,118.68	9,556.71	9,537.01	19.70	485.135		
3,000.00	2,986.39	1,475.00	1,504.49	13.51	7.38	59.84	-2,895.73	-9,128.70	9,566.73	9,546.35	20.38	469.390		
3,100.00	3,085.77	1,475.00	1,504.49	13.95	7.38	59.84	-2,895.73	-9,128.70	9,577.26	9,556.45	20.80	460.338		
3,200.00	3,185.16	1,525.62	1,554.35	14.40	7.63	59.89	-2,895.81	-9,137.41	9,588.47	9,567.02	21.44	447.167		
3,300.00	3,284.54	1,570.00	1,598.02	14.85	7.85	59.92	-2,896.09	-9,145.35	9,600.35	9,578.29	22.06	435.291		
3,400.00	3,383.92	1,608.40	1,635.76	15.30	8.05	59.96	-2,896.40	-9,152.44	9,612.82	9,590.18	22.64	424.546		
3,500.00	3,483.31	1,665.00	1,691.32	15.75	8.34	60.01	-2,896.75	-9,163.22	9,625.87	9,602.56	23.31	412.933		
3,600.00	3,582.69	1,665.00	1,691.32	16.20	8.34	60.01	-2,896.75	-9,163.22	9,639.58	9,615.86	23.73	406.271		
3,700.00	3,682.07	1,719.77	1,744.97	16.65	8.64	60.05	-2,897.01	-9,174.21	9,653.82	9,629.43	24.39	395.823		
3,800.00	3,781.46	1,759.00	1,783.31	17.10	8.85	60.09	-2,897.14	-9,182.52	9,668.86	9,643.88	24.98	387.050		
3,900.00	3,880.84	1,759.00	1,783.31	17.56	8.85	60.09	-2,897.14	-9,182.52	9,684.67	9,659.27	25.39	381.433		
4,000.00	3,980.22	1,816.00	1,838.91	18.01	9.18	60.14	-2,897.79	-9,195.06	9,700.98	9,674.92	26.06	372.211		
4,100.00	4,079.61	1,853.00	1,874.94	18.46	9.39	60.17	-2,898.73	-9,203.41	9,718.05	9,691.41	26.64	364.763		
4,200.00	4,178.99	1,903.95	1,924.50	18.92	9.69	60.21	-2,900.28	-9,215.12	9,735.68	9,708.40	27.29	356.791		
4,300.00	4,278.38	1,963.22	1,982.10	19.37	10.04	60.26	-2,902.07	-9,228.98	9,753.74	9,725.76	27.97	348.697		
4,400.00	4,377.76	2,027.52	2,044.53	19.83	10.43	60.31	-2,903.98	-9,244.26	9,772.16	9,743.47	28.68	340.692		
4,500.00	4,477.14	2,042.00	2,058.58	20.28	10.52	60.32	-2,904.40	-9,247.73	9,791.12	9,761.97	29.15	335.887		
4,600.00	4,576.53	2,042.00	2,058.58	20.74	10.52	60.32	-2,904.40	-9,247.73	9,811.04	9,781.50	29.54	332.104		
4,700.00	4,675.91	2,042.00	2,058.58	21.19	10.52	60.32	-2,904.40	-9,247.73	9,831.95	9,802.02	29.93	328.495		
4,800.00	4,775.29	2,093.03	2,107.88	21.65	10.85	60.36	-2,905.80	-9,260.83	9,852.87	9,822.30	30.57	322.255		
4,900.00	4,874.68	2,137.00	2,149.98	22.10	11.14	60.40	-2,906.82	-9,273.47	9,875.49	9,844.30	31.18	316.702		
5,000.00	4,974.06	2,513.00	2,512.26	22.56	13.64	60.75	-2,910.64	-9,373.66	9,895.85	9,862.32	33.53	295.122		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,073.44	2,513.00	2,512.26	23.02	13.64	60.75	-2,910.64	-9,373.66	9,916.02	9,882.10	33.92	292.346		
5,200.00	5,172.83	2,513.00	2,512.26	23.47	13.64	60.75	-2,910.64	-9,373.66	9,937.16	9,902.86	34.30	289.699		
5,300.00	5,272.21	2,572.08	2,568.97	23.93	14.05	60.82	-2,909.64	-9,390.19	9,958.85	9,923.84	35.00	284.518		
5,400.00	5,371.59	2,609.00	2,604.36	24.39	14.31	60.86	-2,909.20	-9,400.72	9,981.14	9,945.56	35.58	280.517		
7,300.00	7,088.91	6,995.83	6,880.57	32.98	40.62	-25.50	-2,935.06	-10,248.40	9,952.29	9,888.51	63.78	156.038		
7,400.00	7,117.14	7,021.48	6,906.21	33.84	40.71	-41.30	-2,935.62	-10,248.83	9,958.77	9,794.80	63.98	154.096		
7,500.00	7,130.13	7,034.06	6,918.78	34.90	40.75	-71.38	-2,935.92	-10,249.03	9,762.16	9,698.08	64.08	152.343		
7,600.00	7,130.72	7,035.98	6,920.70	36.13	40.75	-85.53	-2,935.97	-10,249.06	9,664.69	9,600.57	64.12	150.729		
7,700.00	7,130.29	7,037.03	6,921.75	37.54	40.76	-85.56	-2,935.99	-10,249.08	9,567.27	9,503.10	64.17	149.096		
7,800.00	7,129.85	7,038.07	6,922.79	39.12	40.76	-85.58	-2,936.02	-10,249.10	9,469.90	9,405.67	64.23	147.427		
7,900.00	7,129.42	7,039.11	6,923.83	40.83	40.76	-85.61	-2,936.05	-10,249.12	9,372.59	9,308.27	64.32	145.722		
8,000.00	7,128.98	7,040.15	6,924.87	42.67	40.77	-85.64	-2,936.07	-10,249.13	9,275.34	9,210.92	64.42	143.981		
8,100.00	7,128.55	7,041.19	6,925.90	44.62	40.77	-85.67	-2,936.10	-10,249.15	9,178.14	9,113.60	64.54	142.203		
8,200.00	7,128.12	7,042.22	6,926.94	46.66	40.77	-85.69	-2,936.13	-10,249.17	9,081.00	9,016.32	64.69	140.387		
8,300.00	7,127.68	7,043.25	6,927.97	48.79	40.78	-85.72	-2,936.15	-10,249.18	8,983.93	8,919.08	64.85	138.535		
8,400.00	7,127.25	7,044.29	6,929.00	50.98	40.78	-85.75	-2,936.18	-10,249.20	8,886.92	8,821.88	65.04	136.646		
8,500.00	7,126.81	7,045.31	6,930.03	53.24	40.78	-85.77	-2,936.21	-10,249.22	8,789.98	8,724.73	65.25	134.719		
8,600.00	7,126.38	7,046.34	6,931.06	55.56	40.79	-85.80	-2,936.23	-10,249.23	8,693.11	8,627.62	65.48	132.757		
8,700.00	7,125.95	7,047.37	6,932.08	57.92	40.79	-85.83	-2,936.26	-10,249.25	8,596.30	8,530.56	65.74	130.758		
8,800.00	7,125.51	7,048.39	6,933.11	60.33	40.79	-85.86	-2,936.29	-10,249.27	8,499.58	8,433.55	66.03	128.725		
8,900.00	7,125.08	7,049.41	6,934.13	62.77	40.80	-85.88	-2,936.32	-10,249.28	8,402.93	8,336.58	66.34	126.657		
9,000.00	7,124.64	7,050.43	6,935.15	65.25	40.80	-85.91	-2,936.34	-10,249.30	8,306.36	8,239.67	66.69	124.556		
9,100.00	7,124.21	7,051.45	6,936.16	67.76	40.80	-85.94	-2,936.37	-10,249.32	8,209.87	8,142.80	67.06	122.423		
9,200.00	7,123.78	7,052.47	6,937.18	70.29	40.81	-85.96	-2,936.40	-10,249.33	8,113.46	8,045.99	67.47	120.260		
9,300.00	7,123.34	7,053.48	6,938.19	72.85	40.81	-85.99	-2,936.43	-10,249.35	8,017.14	7,949.24	67.90	118.068		
9,400.00	7,122.91	7,054.49	6,939.21	75.43	40.81	-86.02	-2,936.45	-10,249.37	7,920.92	7,852.54	68.37	115.849		
9,500.00	7,122.48	7,055.50	6,940.22	78.03	40.82	-86.04	-2,936.48	-10,249.38	7,824.79	7,755.91	68.88	113.605		
9,600.00	7,122.04	7,056.51	6,941.22	80.65	40.82	-86.07	-2,936.51	-10,249.40	7,728.75	7,659.34	69.42	111.339		
9,700.00	7,121.61	7,057.52	6,942.23	83.28	40.82	-86.10	-2,936.54	-10,249.41	7,632.82	7,562.83	69.99	109.051		
9,800.00	7,121.17	7,058.53	6,943.24	85.93	40.83	-86.12	-2,936.57	-10,249.43	7,537.00	7,466.39	70.61	106.746		
9,900.00	7,120.74	7,059.53	6,944.24	88.59	40.83	-86.15	-2,936.59	-10,249.45	7,441.28	7,370.02	71.26	104.425		
10,000.00	7,120.31	7,060.53	6,945.24	91.26	40.83	-86.18	-2,936.62	-10,249.46	7,345.68	7,273.72	71.95	102.090		
10,100.00	7,119.87	7,061.53	6,946.24	93.95	40.84	-86.20	-2,936.65	-10,249.48	7,250.19	7,177.51	72.69	99.745		
10,200.00	7,119.44	7,062.53	6,947.24	96.64	40.84	-86.23	-2,936.68	-10,249.49	7,154.83	7,081.37	73.46	97.393		
10,300.00	7,119.00	7,063.53	6,948.23	99.34	40.84	-86.26	-2,936.71	-10,249.51	7,059.60	6,985.32	74.28	95.035		
10,400.00	7,118.57	7,064.52	6,949.23	102.05	40.85	-86.28	-2,936.74	-10,249.53	6,964.50	6,889.35	75.15	92.675		
10,500.00	7,118.14	7,065.51	6,950.22	104.77	40.85	-86.31	-2,936.76	-10,249.54	6,869.54	6,793.48	76.06	90.315		
10,600.00	7,117.70	7,066.50	6,951.21	107.50	40.85	-86.33	-2,936.79	-10,249.56	6,774.73	6,697.70	77.02	87.959		
10,700.00	7,117.27	7,067.49	6,952.20	110.23	40.86	-86.36	-2,936.82	-10,249.57	6,680.06	6,602.03	78.03	85.609		
10,800.00	7,116.83	7,068.48	6,953.19	112.97	40.86	-86.39	-2,936.85	-10,249.59	6,585.56	6,506.47	79.09	83.267		
10,900.00	7,116.40	7,069.47	6,954.17	115.72	40.86	-86.41	-2,936.88	-10,249.61	6,491.21	6,411.01	80.20	80.936		
11,000.00	7,115.97	7,070.45	6,955.15	118.47	40.87	-86.44	-2,936.91	-10,249.62	6,397.04	6,315.68	81.37	78.620		
11,100.00	7,115.53	7,071.43	6,956.14	121.22	40.87	-86.46	-2,936.94	-10,249.64	6,303.05	6,220.46	82.59	76.320		
11,200.00	7,115.10	7,072.41	6,957.12	123.98	40.87	-86.49	-2,936.97	-10,249.65	6,209.25	6,125.38	83.87	74.038		
11,300.00	7,114.66	7,073.39	6,958.09	126.74	40.88	-86.52	-2,936.99	-10,249.67	6,115.64	6,030.44	85.20	71.778		
11,400.00	7,114.23	7,074.37	6,959.07	129.51	40.88	-86.54	-2,937.02	-10,249.68	6,022.24	5,935.64	86.60	69.541		
11,500.00	7,113.80	7,075.34	6,960.05	132.29	40.88	-86.57	-2,937.05	-10,249.70	5,929.05	5,840.99	88.06	67.329		
11,600.00	7,113.36	7,076.32	6,961.02	135.06	40.89	-86.59	-2,937.08	-10,249.71	5,836.09	5,746.50	89.59	65.145		
11,700.00	7,112.93	7,077.29	6,961.99	137.84	40.89	-86.62	-2,937.11	-10,249.73	5,743.37	5,652.19	91.18	62.990		
11,800.00	7,112.49	7,078.26	6,962.96	140.62	40.89	-86.64	-2,937.14	-10,249.75	5,650.89	5,558.05	92.84	60.866		
11,900.00	7,112.06	7,079.23	6,963.93	143.41	40.90	-86.67	-2,937.17	-10,249.76	5,558.67	5,464.09	94.58	58.774		
12,000.00	7,111.63	7,080.20	6,964.89	146.20	40.90	-86.70	-2,937.20	-10,249.78	5,466.73	5,370.34	96.39	56.717		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
12,100.00	7,111.19	7,081.16	6,965.86	148.99	40.90	-86.72	-2,937.23	-10,249.79	5,375.07	5,276.80	98.27	54.695		
12,200.00	7,110.76	7,082.12	6,966.82	151.78	40.91	-86.75	-2,937.26	-10,249.81	5,283.72	5,183.48	100.24	52.710		
12,300.00	7,110.33	7,083.09	6,967.78	154.58	40.91	-86.77	-2,937.29	-10,249.82	5,192.68	5,090.39	102.29	50.764		
12,400.00	7,109.89	7,084.05	6,968.74	157.37	40.91	-86.80	-2,937.32	-10,249.84	5,101.98	4,997.55	104.43	48.856		
12,500.00	7,109.46	7,085.00	6,969.70	160.17	40.92	-86.82	-2,937.35	-10,249.85	5,011.64	4,904.98	106.66	46.989		
12,600.00	7,109.02	7,085.96	6,970.66	162.98	40.92	-86.85	-2,937.38	-10,249.87	4,921.66	4,812.69	108.98	45.162		
12,700.00	7,108.59	7,086.92	6,971.61	165.78	40.92	-86.87	-2,937.41	-10,249.88	4,832.09	4,720.69	111.40	43.377		
12,800.00	7,108.16	7,087.87	6,972.56	168.59	40.93	-86.90	-2,937.44	-10,249.90	4,742.92	4,629.01	113.92	41.635		
12,900.00	7,107.72	7,088.82	6,973.51	171.39	40.93	-86.92	-2,937.47	-10,249.91	4,654.20	4,537.66	116.54	39.935		
13,000.00	7,107.29	7,089.77	6,974.46	174.20	40.93	-86.95	-2,937.50	-10,249.93	4,565.94	4,446.66	119.28	38.279		
13,100.00	7,106.85	7,090.72	6,975.41	177.01	40.93	-86.97	-2,937.53	-10,249.94	4,478.18	4,356.05	122.13	36.667		
13,200.00	7,106.42	7,091.67	6,976.36	179.83	40.94	-87.00	-2,937.56	-10,249.96	4,390.94	4,265.84	125.10	35.099		
13,300.00	7,105.99	7,092.61	6,977.30	182.64	40.94	-87.02	-2,937.59	-10,249.97	4,304.26	4,176.06	128.20	33.575		
13,400.00	7,105.55	7,093.56	6,978.24	185.45	40.94	-87.05	-2,937.62	-10,249.99	4,218.16	4,086.74	131.42	32.096		
13,500.00	7,105.12	7,094.50	6,979.19	188.27	40.95	-87.07	-2,937.65	-10,250.00	4,132.69	3,997.91	134.78	30.662		
13,600.00	7,104.68	7,095.44	6,980.13	191.09	40.95	-87.10	-2,937.68	-10,250.02	4,047.89	3,909.60	138.28	29.273		
13,700.00	7,104.25	7,096.38	6,981.06	193.91	40.95	-87.12	-2,937.71	-10,250.03	3,963.79	3,821.86	141.93	27.928		
13,800.00	7,103.82	7,097.31	6,982.00	196.73	40.96	-87.15	-2,937.74	-10,250.05	3,880.45	3,734.72	145.73	26.628		
13,900.00	7,103.38	7,098.25	6,982.93	199.55	40.96	-87.17	-2,937.77	-10,250.06	3,797.91	3,648.23	149.68	25.373		
14,000.00	7,102.95	7,099.18	6,983.87	202.37	40.96	-87.20	-2,937.80	-10,250.07	3,716.23	3,562.43	153.80	24.162		
14,100.00	7,102.51	7,100.11	6,984.80	205.19	40.97	-87.22	-2,937.83	-10,250.09	3,635.46	3,477.37	158.09	22.996		
14,200.00	7,102.08	7,101.04	6,985.73	208.02	40.97	-87.25	-2,937.87	-10,250.10	3,555.68	3,393.12	162.55	21.874		
14,300.00	7,101.65	7,101.97	6,986.66	210.84	40.97	-87.27	-2,937.90	-10,250.12	3,476.93	3,309.74	167.20	20.796		
14,400.00	7,101.21	7,102.90	6,987.58	213.67	40.97	-87.30	-2,937.93	-10,250.13	3,399.31	3,227.29	172.02	19.761		
14,500.00	7,100.78	7,103.83	6,988.51	216.50	40.98	-87.32	-2,937.96	-10,250.15	3,322.88	3,145.84	177.04	18.769		
14,600.00	7,100.35	7,104.75	6,989.43	219.32	40.98	-87.34	-2,937.99	-10,250.16	3,247.73	3,065.49	182.25	17.821		
14,700.00	7,099.91	7,105.67	6,990.35	222.15	40.98	-87.37	-2,938.02	-10,250.18	3,173.96	2,986.31	187.65	16.914		
14,800.00	7,099.48	7,106.59	6,991.27	224.98	40.99	-87.39	-2,938.05	-10,250.19	3,101.65	2,908.40	193.25	16.050		
14,900.00	7,099.04	7,107.51	6,992.19	227.81	40.99	-87.42	-2,938.08	-10,250.20	3,030.91	2,831.87	199.04	15.228		
14,909.96	7,099.00	7,107.60	6,992.28	228.09	40.99	-87.42	-2,938.09	-10,250.21	3,023.96	2,824.33	199.63	15.148	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	36.00	3.28	3.28	-107.55	-2,829.40	-8,947.91	9,384.66					
100.00	100.00	36.91	72.91	3.28	3.28	-107.55	-2,829.32	-8,947.99	9,384.69	9,378.12	6.57	1,429.386		
200.00	200.00	94.57	130.57	3.34	3.29	-107.54	-2,828.90	-8,948.44	9,385.20	9,378.58	6.62	1,417.197		
300.00	300.00	465.85	501.69	3.44	3.72	-107.49	-2,819.33	-8,947.41	9,383.25	9,376.08	7.17	1,308.787		
400.00	400.00	728.88	764.53	3.60	4.39	-107.45	-2,810.98	-8,942.06	9,380.56	9,372.57	8.00	1,172.848		
500.00	500.00	792.88	828.45	3.81	4.58	-107.44	-2,808.34	-8,940.32	9,376.78	9,368.39	8.39	1,117.618		
600.00	600.00	850.00	885.47	4.04	4.76	59.44	-2,805.19	-8,939.44	9,373.56	9,364.75	8.80	1,064.583		
700.00	699.96	885.27	920.66	4.29	4.88	59.52	-2,802.86	-8,939.23	9,369.67	9,360.50	9.17	1,022.229		
800.00	799.78	945.00	980.22	4.57	5.08	59.66	-2,798.29	-8,939.40	9,364.59	9,354.95	9.64	971.066		
900.00	899.34	1,008.43	1,043.35	4.88	5.31	59.84	-2,792.26	-8,940.21	9,358.17	9,348.00	10.17	919.957		
1,000.00	998.72	1,154.24	1,187.96	5.20	5.86	60.03	-2,773.84	-8,943.22	9,350.83	9,339.77	11.05	845.911		
1,100.00	1,098.10	1,552.90	1,579.59	5.54	7.69	60.71	-2,700.42	-8,951.13	9,342.10	9,328.89	13.21	707.206		
1,200.00	1,197.49	1,200.00	1,954.16	5.90	5.93	61.54	-2,600.10	-8,954.29	9,329.94	9,318.43	11.52	810.127		
1,300.00	1,296.87	2,034.91	2,044.46	6.28	10.48	61.75	-2,573.45	-8,954.05	9,316.39	9,299.71	16.68	558.536		
1,400.00	1,396.25	2,081.00	2,088.61	6.66	10.77	61.85	-2,560.23	-8,954.24	9,303.43	9,286.08	17.35	536.237		
1,500.00	1,495.64	2,115.43	2,121.57	7.06	11.00	61.93	-2,550.26	-8,954.61	9,291.12	9,273.15	17.96	517.214		
1,600.00	1,595.02	2,175.00	2,178.46	7.46	11.38	62.08	-2,532.64	-8,955.71	9,279.48	9,260.73	18.75	494.966		
1,700.00	1,694.40	1,700.00	2,343.17	7.87	8.20	62.50	-2,479.71	-8,958.59	9,267.61	9,251.50	16.11	575.215		
1,800.00	1,793.79	2,458.31	2,448.03	8.29	13.32	62.77	-2,445.60	-8,959.81	9,255.33	9,233.86	21.47	431.074		
1,900.00	1,893.17	2,583.19	2,566.97	8.71	14.19	63.07	-2,407.58	-8,960.71	9,242.99	9,220.25	22.74	406.418		
2,000.00	1,992.55	2,717.32	2,694.44	9.13	15.15	63.41	-2,365.84	-8,961.65	9,230.72	9,206.62	24.10	382.989		
2,100.00	2,091.94	2,804.82	2,777.07	9.56	15.79	63.63	-2,337.06	-8,962.25	9,218.12	9,192.96	25.16	366.330		
2,200.00	2,191.32	2,864.65	2,833.66	9.99	16.23	63.79	-2,317.65	-8,962.76	9,205.95	9,179.93	26.03	353.701		
2,300.00	2,290.70	2,918.37	2,884.88	10.42	16.61	63.92	-2,301.48	-8,963.10	9,194.31	9,167.47	26.84	342.511		
2,400.00	2,390.09	2,978.64	2,942.68	10.86	17.03	64.06	-2,284.36	-8,963.46	9,183.18	9,155.48	27.70	331.517		
2,500.00	2,489.47	3,150.71	3,107.47	11.29	18.23	64.46	-2,234.88	-8,964.38	9,172.17	9,142.85	29.31	312.908		
2,600.00	2,588.86	3,259.95	3,212.42	11.73	18.98	64.71	-2,204.57	-8,964.12	9,160.76	9,130.26	30.49	300.426		
2,700.00	2,688.24	3,347.35	3,296.31	12.18	19.58	64.92	-2,180.07	-8,963.58	9,149.07	9,117.54	31.53	290.139		
2,800.00	2,787.62	3,409.00	3,355.40	12.62	20.02	65.06	-2,162.49	-8,963.69	9,138.06	9,105.65	32.41	281.967		
2,900.00	2,887.01	3,466.41	3,410.43	13.06	20.42	65.20	-2,146.14	-8,963.99	9,127.52	9,094.27	33.26	274.453		
3,000.00	2,986.39	3,551.70	3,492.28	13.51	21.01	65.40	-2,122.16	-8,964.32	9,117.17	9,082.87	34.30	265.821		
3,100.00	3,085.77	3,623.95	3,561.48	13.95	21.52	65.57	-2,101.39	-8,964.85	9,107.14	9,071.89	35.26	258.315		
3,200.00	3,185.16	3,697.17	3,631.53	14.40	22.04	65.75	-2,080.08	-8,965.61	9,097.48	9,061.25	36.23	251.117		
3,300.00	3,284.54	3,795.94	3,725.57	14.85	22.77	66.00	-2,049.93	-8,967.00	9,088.02	9,050.63	37.40	243.007		
3,400.00	3,383.92	3,889.60	3,814.35	15.30	23.47	66.24	-2,020.15	-8,968.52	9,078.71	9,040.15	38.56	235.472		
3,500.00	3,483.31	3,989.41	3,908.89	15.75	24.23	66.50	-1,988.19	-8,970.09	9,069.48	9,029.71	39.76	228.097		
3,600.00	3,582.69	4,055.14	3,971.25	16.20	24.72	66.67	-1,967.41	-8,971.15	9,060.54	9,019.83	40.71	222.542		
3,700.00	3,682.07	4,106.22	4,019.80	16.65	25.10	66.80	-1,951.56	-8,972.08	9,052.10	9,010.55	41.55	217.839		
3,800.00	3,781.46	4,166.00	4,076.76	17.10	25.55	66.95	-1,933.48	-8,973.42	9,044.30	9,001.84	42.46	213.030		
3,900.00	3,880.84	4,569.89	4,459.41	17.56	28.62	68.01	-1,804.45	-8,976.66	9,034.97	8,989.05	45.92	196.759		
4,000.00	3,980.22	4,613.31	4,500.32	18.01	28.96	68.13	-1,789.88	-8,976.51	9,024.71	8,977.98	46.73	193.129		
4,100.00	4,079.61	4,659.28	4,543.73	18.46	29.32	68.25	-1,774.79	-8,976.53	9,015.10	8,967.55	47.55	189.585		
4,200.00	4,178.99	4,709.11	4,591.04	18.92	29.69	68.38	-1,759.13	-8,976.66	9,006.10	8,957.71	48.39	186.097		
4,300.00	4,278.38	4,759.41	4,639.03	19.37	30.06	68.51	-1,744.09	-8,976.90	8,997.70	8,948.47	49.23	182.755		
4,400.00	4,377.76	4,809.77	4,687.22	19.83	30.43	68.63	-1,729.42	-8,977.31	8,989.89	8,939.83	50.06	179.566		
4,500.00	4,477.14	4,879.64	4,754.31	20.28	30.91	68.80	-1,709.97	-8,978.02	8,982.61	8,931.59	51.01	176.080		
4,600.00	4,576.53	4,954.53	4,826.82	20.74	31.42	68.97	-1,691.23	-8,978.56	8,975.62	8,923.64	51.98	172.681		
4,700.00	4,675.91	5,020.00	4,890.43	21.19	31.84	69.11	-1,675.76	-8,979.10	8,969.04	8,916.17	52.86	169.663		
4,800.00	4,775.29	5,087.28	4,955.97	21.65	32.26	69.25	-1,660.60	-8,979.76	8,962.87	8,909.12	53.75	166.763		
4,900.00	4,874.68	5,162.60	5,029.61	22.10	32.71	69.40	-1,644.76	-8,980.54	8,957.06	8,902.41	54.66	163.869		
5,000.00	4,974.06	5,242.18	5,107.80	22.56	33.16	69.54	-1,629.97	-8,981.23	8,951.54	8,895.96	55.57	161.078		
5,100.00	5,073.44	5,320.05	5,184.66	23.02	33.57	69.67	-1,617.57	-8,981.79	8,946.27	8,889.82	56.45	158.486		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,392.93	5,256.80	23.47	33.94	69.79	-1,607.19	-8,982.32	8,941.31	8,884.04	57.28	156.108		
5,300.00	5,272.21	5,468.65	5,331.96	23.93	34.29	69.90	-1,597.98	-8,982.88	8,936.67	8,878.58	58.09	153.843		
5,400.00	5,371.59	5,540.68	5,403.66	24.39	34.61	69.99	-1,591.13	-8,983.34	8,932.32	8,873.46	58.86	151.745		
5,500.00	5,470.98	5,731.85	5,594.26	24.85	35.38	70.21	-1,576.62	-8,983.90	8,928.11	8,868.03	60.09	148.587		
5,600.00	5,570.36	5,820.68	5,682.97	25.30	35.71	70.30	-1,571.98	-8,983.06	8,922.81	8,861.94	60.88	146.573		
5,700.00	5,669.75	5,872.00	5,734.24	25.76	35.89	70.34	-1,569.78	-8,982.83	8,918.08	8,856.56	61.52	144.952		
5,800.00	5,769.13	5,921.46	5,783.67	26.22	36.06	70.39	-1,568.00	-8,982.83	8,913.91	8,851.75	62.16	143.411		
5,900.00	5,868.51	5,979.39	5,841.58	26.68	36.26	70.44	-1,566.46	-8,983.07	8,910.26	8,847.45	62.81	141.852		
6,000.00	5,967.90	6,061.91	5,924.07	27.14	36.53	70.50	-1,564.60	-8,983.61	8,906.94	8,843.39	63.55	140.164		
6,100.00	6,067.28	6,175.12	6,037.26	27.60	36.90	70.60	-1,562.29	-8,984.35	8,903.64	8,839.26	64.38	138.300		
6,200.00	6,166.66	6,266.93	6,129.05	28.05	37.21	70.67	-1,560.54	-8,984.84	8,900.28	8,835.14	65.14	136.625		
6,300.00	6,266.05	6,343.58	6,205.69	28.51	37.46	70.73	-1,558.97	-8,985.44	8,897.15	8,831.29	65.86	135.093		
6,400.00	6,365.43	6,422.59	6,284.68	28.97	37.73	70.80	-1,557.25	-8,986.26	8,894.28	8,827.69	66.58	133.579		
6,500.00	6,464.81	6,503.68	6,365.73	29.43	38.00	70.86	-1,555.55	-8,987.26	8,891.63	8,824.32	67.32	132.085		
6,600.00	6,564.10	6,601.78	6,463.81	29.89	38.33	40.57	-1,553.60	-8,988.61	8,887.21	8,819.10	68.11	130.487		
6,700.00	6,661.75	6,710.20	6,572.20	30.34	38.70	17.12	-1,551.51	-8,989.99	8,869.15	8,800.23	68.92	128.686		
6,800.00	6,755.38	6,781.01	6,642.99	30.77	38.94	9.04	-1,550.19	-8,990.97	8,836.12	8,766.54	69.58	126.991		
6,900.00	6,842.67	6,852.00	6,713.96	31.17	39.18	4.89	-1,548.90	-8,992.08	8,789.00	8,718.80	70.20	125.193		
7,000.00	6,921.48	6,928.49	6,790.42	31.54	39.44	2.07	-1,547.38	-8,993.37	8,728.86	8,658.06	70.80	123.284		
7,100.00	6,989.86	6,995.90	6,857.80	31.91	39.68	-0.43	-1,545.81	-8,994.56	8,657.08	8,585.77	71.31	121.397		
7,200.00	7,046.13	7,061.23	6,923.10	32.35	39.91	-3.33	-1,544.15	-8,995.70	8,575.41	8,503.65	71.75	119.513		
7,300.00	7,088.91	7,113.69	6,975.54	32.98	40.09	-7.83	-1,542.85	-8,996.56	8,485.81	8,413.72	72.08	117.723		
7,400.00	7,117.14	7,148.84	7,010.68	33.84	40.22	-17.66	-1,542.00	-8,997.11	8,390.53	8,318.24	72.29	116.071		
7,500.00	7,130.13	7,165.92	7,027.75	34.90	40.28	-53.73	-1,541.59	-8,997.37	8,291.96	8,219.58	72.38	114.566		
7,600.00	7,130.72	7,168.34	7,030.17	36.13	40.29	-85.21	-1,541.53	-8,997.40	8,192.43	8,120.04	72.38	113.181		
7,700.00	7,130.29	7,169.55	7,031.38	37.54	40.29	-85.30	-1,541.51	-8,997.42	8,092.89	8,020.50	72.39	111.803		
7,800.00	7,129.85	7,170.75	7,032.58	39.12	40.29	-85.39	-1,541.48	-8,997.44	7,993.36	7,920.97	72.39	110.419		
7,900.00	7,129.42	7,171.95	7,033.77	40.83	40.30	-85.48	-1,541.45	-8,997.46	7,893.84	7,821.44	72.40	109.030		
8,000.00	7,128.98	7,173.14	7,034.96	42.67	40.30	-85.56	-1,541.42	-8,997.47	7,794.34	7,721.93	72.41	107.636		
8,100.00	7,128.55	7,174.32	7,036.15	44.62	40.31	-85.65	-1,541.39	-8,997.49	7,694.85	7,622.42	72.43	106.237		
8,200.00	7,128.12	7,175.50	7,037.33	46.66	40.31	-85.74	-1,541.37	-8,997.51	7,595.37	7,522.92	72.45	104.831		
8,300.00	7,127.68	7,176.68	7,038.50	48.79	40.32	-85.82	-1,541.34	-8,997.52	7,495.91	7,423.43	72.48	103.421		
8,400.00	7,127.25	7,177.85	7,039.67	50.98	40.32	-85.91	-1,541.31	-8,997.54	7,396.46	7,323.95	72.51	102.004		
8,500.00	7,126.81	7,179.01	7,040.83	53.24	40.32	-85.99	-1,541.28	-8,997.56	7,297.02	7,224.48	72.55	100.582		
8,600.00	7,126.38	7,180.17	7,041.99	55.56	40.33	-86.08	-1,541.26	-8,997.58	7,197.60	7,125.01	72.59	99.154		
8,700.00	7,125.95	7,181.32	7,043.14	57.92	40.33	-86.16	-1,541.23	-8,997.59	7,098.20	7,025.56	72.64	97.719		
8,800.00	7,125.51	7,182.47	7,044.29	60.33	40.34	-86.25	-1,541.20	-8,997.61	6,998.81	6,926.12	72.69	96.279		
8,900.00	7,125.08	7,183.61	7,045.43	62.77	40.34	-86.33	-1,541.17	-8,997.63	6,899.45	6,826.69	72.75	94.832		
9,000.00	7,124.64	7,184.75	7,046.57	65.25	40.34	-86.41	-1,541.15	-8,997.64	6,800.10	6,727.27	72.82	93.378		
9,100.00	7,124.21	7,185.88	7,047.70	67.76	40.35	-86.50	-1,541.12	-8,997.66	6,700.76	6,627.86	72.90	91.918		
9,200.00	7,123.78	7,187.01	7,048.83	70.29	40.35	-86.58	-1,541.09	-8,997.67	6,601.45	6,528.47	72.98	90.452		
9,300.00	7,123.34	7,188.13	7,049.95	72.85	40.36	-86.66	-1,541.07	-8,997.69	6,502.16	6,429.09	73.08	88.978		
9,400.00	7,122.91	7,189.25	7,051.07	75.43	40.36	-86.74	-1,541.04	-8,997.71	6,402.89	6,329.72	73.18	87.498		
9,500.00	7,122.48	7,190.36	7,052.18	78.03	40.36	-86.82	-1,541.02	-8,997.72	6,303.65	6,230.36	73.29	86.010		
9,600.00	7,122.04	7,191.46	7,053.28	80.65	40.37	-86.91	-1,540.99	-8,997.74	6,204.43	6,131.02	73.41	84.515		
9,700.00	7,121.61	7,192.57	7,054.38	83.28	40.37	-86.99	-1,540.96	-8,997.75	6,105.23	6,031.69	73.55	83.013		
9,800.00	7,121.17	7,193.66	7,055.48	85.93	40.38	-87.07	-1,540.94	-8,997.77	6,006.06	5,932.37	73.69	81.504		
9,900.00	7,120.74	7,194.75	7,056.57	88.59	40.38	-87.15	-1,540.91	-8,997.79	5,906.92	5,833.07	73.85	79.987		
10,000.00	7,120.31	7,190.47	7,052.29	91.26	40.36	-86.83	-1,541.02	-8,997.73	5,807.82	5,733.81	74.00	78.479		
10,100.00	7,119.87	7,191.43	7,053.25	93.95	40.37	-86.90	-1,541.00	-8,997.75	5,708.74	5,634.55	74.19	76.946		
10,200.00	7,119.44	7,192.38	7,054.20	96.64	40.37	-86.97	-1,540.98	-8,997.76	5,609.69	5,535.30	74.39	75.406		
10,300.00	7,119.00	7,193.34	7,055.16	99.34	40.37	-87.04	-1,540.96	-8,997.78	5,510.67	5,436.06	74.61	73.858		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,400.00	7,118.57	7,194.30	7,056.12	102.05	40.38	-87.11	-1,540.94	-8,997.79	5,411.70	5,336.85	74.85	72.302		
10,500.00	7,118.14	7,195.26	7,057.08	104.77	40.38	-87.18	-1,540.91	-8,997.80	5,312.76	5,237.65	75.11	70.737		
10,600.00	7,117.70	7,196.22	7,058.04	107.50	40.38	-87.25	-1,540.89	-8,997.82	5,213.86	5,138.47	75.38	69.165		
10,700.00	7,117.27	7,197.19	7,059.00	110.23	40.39	-87.33	-1,540.87	-8,997.83	5,115.00	5,039.32	75.68	67.586		
10,800.00	7,116.83	7,198.16	7,059.97	112.97	40.39	-87.40	-1,540.85	-8,997.85	5,016.19	4,940.18	76.01	65.998		
10,900.00	7,116.40	7,199.13	7,060.94	115.72	40.39	-87.47	-1,540.83	-8,997.86	4,917.42	4,841.07	76.35	64.402		
11,000.00	7,115.97	7,200.10	7,061.91	118.47	40.40	-87.54	-1,540.81	-8,997.88	4,818.71	4,741.98	76.73	62.799		
11,100.00	7,115.53	7,201.07	7,062.89	121.22	40.40	-87.61	-1,540.78	-8,997.89	4,720.05	4,642.91	77.14	61.189		
11,200.00	7,115.10	7,202.05	7,063.86	123.98	40.40	-87.68	-1,540.76	-8,997.91	4,621.45	4,543.87	77.58	59.572		
11,300.00	7,114.66	7,203.03	7,064.84	126.74	40.41	-87.75	-1,540.74	-8,997.92	4,522.90	4,444.85	78.05	57.948		
11,400.00	7,114.23	7,204.01	7,065.82	129.51	40.41	-87.83	-1,540.72	-8,997.94	4,424.43	4,345.87	78.56	56.318		
11,500.00	7,113.80	7,204.99	7,066.81	132.29	40.41	-87.90	-1,540.70	-8,997.95	4,326.02	4,246.91	79.11	54.681		
11,600.00	7,113.36	7,205.98	7,067.79	135.06	40.42	-87.97	-1,540.68	-8,997.97	4,227.69	4,147.98	79.71	53.040		
11,700.00	7,112.93	7,206.97	7,068.78	137.84	40.42	-88.04	-1,540.66	-8,997.98	4,129.44	4,049.09	80.35	51.393		
11,800.00	7,112.49	7,207.96	7,069.77	140.62	40.42	-88.12	-1,540.63	-8,998.00	4,031.27	3,950.23	81.04	49.743		
11,900.00	7,112.06	7,208.95	7,070.76	143.41	40.43	-88.19	-1,540.61	-8,998.01	3,933.20	3,851.41	81.79	48.089		
12,000.00	7,111.63	7,209.95	7,071.76	146.20	40.43	-88.26	-1,540.59	-8,998.03	3,835.22	3,752.63	82.60	46.434		
12,100.00	7,111.19	7,210.94	7,072.76	148.99	40.43	-88.34	-1,540.57	-8,998.04	3,737.35	3,653.89	83.47	44.777		
12,200.00	7,110.76	7,211.94	7,073.75	151.78	40.44	-88.41	-1,540.55	-8,998.06	3,639.60	3,555.20	84.41	43.120		
12,300.00	7,110.33	7,212.95	7,074.76	154.58	40.44	-88.48	-1,540.53	-8,998.07	3,541.98	3,456.55	85.42	41.464		
12,400.00	7,109.89	7,213.95	7,075.76	157.37	40.45	-88.56	-1,540.50	-8,998.09	3,444.48	3,357.96	86.52	39.811		
12,500.00	7,109.46	7,214.96	7,076.77	160.17	40.45	-88.63	-1,540.48	-8,998.10	3,347.14	3,259.43	87.71	38.162		
12,600.00	7,109.02	7,215.97	7,077.78	162.98	40.45	-88.71	-1,540.46	-8,998.12	3,249.96	3,160.96	88.99	36.519		
12,700.00	7,108.59	7,216.98	7,078.79	165.78	40.46	-88.78	-1,540.44	-8,998.14	3,152.95	3,062.56	90.39	34.883		
12,800.00	7,108.16	7,217.99	7,079.80	168.59	40.46	-88.86	-1,540.42	-8,998.15	3,056.14	2,964.24	91.89	33.257		
12,900.00	7,107.72	7,219.01	7,080.82	171.39	40.46	-88.93	-1,540.40	-8,998.17	2,959.53	2,866.00	93.53	31.643		
13,000.00	7,107.29	7,220.03	7,081.84	174.20	40.47	-89.01	-1,540.37	-8,998.18	2,863.16	2,767.86	95.30	30.043		
13,100.00	7,106.85	7,221.05	7,082.86	177.01	40.47	-89.08	-1,540.35	-8,998.20	2,767.05	2,669.82	97.23	28.459		
13,200.00	7,106.42	7,222.07	7,083.88	179.83	40.47	-89.16	-1,540.33	-8,998.21	2,671.22	2,571.90	99.33	26.893		
13,300.00	7,105.99	7,223.10	7,084.91	182.64	40.48	-89.23	-1,540.31	-8,998.23	2,575.71	2,474.11	101.61	25.350		
13,400.00	7,105.55	7,224.13	7,085.93	185.45	40.48	-89.31	-1,540.29	-8,998.25	2,480.56	2,376.46	104.09	23.830		
13,500.00	7,105.12	7,225.16	7,086.96	188.27	40.48	-89.38	-1,540.26	-8,998.26	2,385.79	2,278.99	106.81	22.338		
13,600.00	7,104.68	7,226.19	7,088.00	191.09	40.49	-89.46	-1,540.24	-8,998.28	2,291.48	2,181.71	109.77	20.875		
13,700.00	7,104.25	7,227.23	7,089.03	193.91	40.49	-89.54	-1,540.22	-8,998.29	2,197.66	2,084.65	113.02	19.446		
13,800.00	7,103.82	7,228.27	7,090.07	196.73	40.50	-89.61	-1,540.20	-8,998.31	2,104.42	1,987.84	116.57	18.052		
13,900.00	7,103.38	7,229.31	7,091.11	199.55	40.50	-89.69	-1,540.18	-8,998.33	2,011.82	1,891.34	120.48	16.699		
14,000.00	7,102.95	7,230.35	7,092.16	202.37	40.50	-89.77	-1,540.16	-8,998.34	1,919.96	1,795.19	124.77	15.388		
14,100.00	7,102.51	7,231.40	7,093.20	205.19	40.51	-89.84	-1,540.13	-8,998.36	1,828.96	1,699.46	129.50	14.123		
14,200.00	7,102.08	7,232.44	7,094.25	208.02	40.51	-89.92	-1,540.11	-8,998.38	1,738.95	1,604.22	134.72	12.907		
14,300.00	7,101.65	7,233.50	7,095.30	210.84	40.51	-90.00	-1,540.09	-8,998.39	1,650.08	1,509.59	140.49	11.745		
14,400.00	7,101.21	7,234.55	7,096.35	213.67	40.52	-90.08	-1,540.07	-8,998.41	1,562.57	1,415.69	146.88	10.639		
14,500.00	7,100.78	7,235.61	7,097.41	216.50	40.52	-90.15	-1,540.05	-8,998.42	1,476.63	1,322.69	153.95	9.592		
14,600.00	7,100.35	7,236.66	7,098.47	219.32	40.52	-90.23	-1,540.03	-8,998.44	1,392.58	1,230.81	161.77	8.608		
14,700.00	7,099.91	7,237.73	7,099.53	222.15	40.53	-90.31	-1,540.00	-8,998.46	1,310.77	1,140.33	170.43	7.691		
14,800.00	7,099.48	7,238.79	7,100.59	224.98	40.53	-90.39	-1,539.98	-8,998.47	1,231.64	1,051.65	179.99	6.843		
14,900.00	7,099.04	7,239.86	7,101.66	227.81	40.54	-90.47	-1,539.96	-8,998.49	1,155.75	965.26	190.49	6.067		
14,909.96	7,099.00	7,239.96	7,101.76	228.09	40.54	-90.47	-1,539.96	-8,998.49	1,148.39	956.80	191.59	5.994 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	36.00	3.28	3.28	-107.52	-2,835.22	-8,978.79	9,415.86					
100.00	100.00	180.30	216.27	3.28	3.33	-107.51	-2,832.40	-8,978.47	9,415.36	9,408.74	6.61	1,423.525		
200.00	200.00	308.05	343.98	3.34	3.47	-107.49	-2,829.39	-8,977.48	9,413.89	9,407.09	6.81	1,382.970		
300.00	300.00	413.70	449.58	3.44	3.65	-107.48	-2,826.17	-8,976.82	9,412.38	9,405.29	7.09	1,326.973		
400.00	400.00	497.45	533.27	3.60	3.82	-107.46	-2,823.08	-8,976.40	9,410.81	9,403.38	7.43	1,267.006		
500.00	500.00	542.00	577.78	3.81	3.93	-107.45	-2,821.16	-8,976.40	9,409.61	9,401.88	7.73	1,216.562		
600.00	600.00	591.77	627.50	4.04	4.06	59.42	-2,818.92	-8,976.72	9,408.93	9,400.83	8.10	1,161.916		
700.00	699.96	648.00	683.67	4.29	4.21	59.46	-2,816.42	-8,977.63	9,407.78	9,399.28	8.50	1,107.262		
800.00	799.78	667.23	702.88	4.57	4.26	59.51	-2,815.60	-8,978.06	9,405.42	9,396.59	8.83	1,065.471		
900.00	899.34	719.37	754.96	4.88	4.41	59.61	-2,813.57	-8,979.45	9,401.97	9,392.69	9.28	1,013.024		
1,000.00	998.72	790.00	825.51	5.20	4.62	59.67	-2,810.99	-8,981.42	9,397.97	9,388.15	9.82	957.044		
1,100.00	1,098.10	839.56	875.01	5.54	4.78	59.72	-2,809.00	-8,983.08	9,394.41	9,384.09	10.32	910.182		
1,200.00	1,197.49	884.00	919.35	5.90	4.93	59.76	-2,806.83	-8,985.00	9,391.49	9,380.67	10.83	867.423		
1,300.00	1,296.87	884.00	919.35	6.28	4.93	59.76	-2,806.83	-8,985.00	9,389.39	9,378.19	11.20	838.282		
1,400.00	1,396.25	936.37	971.56	6.66	5.10	59.81	-2,804.06	-8,987.92	9,387.82	9,376.06	11.76	798.159		
1,500.00	1,495.64	979.00	1,014.03	7.06	5.25	59.85	-2,801.80	-8,990.88	9,387.20	9,374.90	12.30	763.045		
1,541.29	1,536.68	979.00	1,014.03	7.22	5.25	59.85	-2,801.80	-8,990.88	9,387.11	9,374.64	12.47	752.956		
1,600.00	1,595.02	1,000.57	1,035.50	7.46	5.33	59.88	-2,800.61	-8,992.56	9,387.24	9,374.46	12.78	734.559		
1,700.00	1,694.40	1,050.52	1,085.17	7.87	5.51	59.93	-2,797.44	-8,996.74	9,387.91	9,374.55	13.37	702.360		
1,800.00	1,793.79	1,120.02	1,154.16	8.29	5.78	60.01	-2,792.07	-9,003.20	9,389.07	9,375.03	14.04	668.743		
1,900.00	1,893.17	1,168.00	1,201.70	8.71	5.97	60.08	-2,787.64	-9,007.93	9,390.52	9,375.88	14.64	641.358		
2,000.00	1,992.55	1,220.11	1,253.23	9.13	6.19	60.15	-2,782.21	-9,013.51	9,392.51	9,377.24	15.27	614.979		
2,100.00	2,091.94	1,263.00	1,295.53	9.56	6.37	60.21	-2,777.31	-9,018.61	9,395.23	9,379.36	15.87	591.937		
2,200.00	2,191.32	1,263.00	1,295.53	9.99	6.37	60.21	-2,777.31	-9,018.61	9,398.75	9,382.46	16.29	576.813		
2,300.00	2,290.70	1,320.65	1,352.20	10.42	6.63	60.30	-2,770.02	-9,026.27	9,402.80	9,385.83	16.97	554.028		
2,400.00	2,390.09	1,358.00	1,388.78	10.86	6.80	60.36	-2,764.82	-9,031.75	9,407.70	9,390.13	17.56	535.648		
2,500.00	2,489.47	1,439.20	1,468.19	11.29	7.20	60.50	-2,753.18	-9,044.08	9,413.08	9,394.72	18.37	512.461		
2,600.00	2,588.86	1,551.44	1,578.13	11.73	7.75	60.68	-2,737.95	-9,060.81	9,418.48	9,399.15	19.33	487.192		
2,700.00	2,688.24	1,593.12	1,618.99	12.18	7.96	60.74	-2,732.57	-9,067.04	9,424.15	9,404.19	19.96	472.108		
2,800.00	2,787.62	1,642.00	1,666.84	12.62	8.21	60.82	-2,726.20	-9,074.66	9,430.43	9,409.81	20.63	457.152		
2,900.00	2,887.01	1,831.00	1,852.05	13.06	9.21	61.12	-2,702.35	-9,103.80	9,437.00	9,414.99	22.00	428.860		
3,000.00	2,986.39	1,873.53	1,893.71	13.51	9.44	61.19	-2,696.67	-9,110.23	9,442.95	9,420.30	22.65	416.863		
3,100.00	3,085.77	1,926.00	1,945.04	13.95	9.72	61.27	-2,689.69	-9,118.53	9,449.57	9,426.22	23.35	404.650		
3,200.00	3,185.16	2,059.68	2,076.07	14.40	10.45	61.48	-2,672.92	-9,139.05	9,456.01	9,431.54	24.48	386.328		
3,300.00	3,284.54	2,117.00	2,132.24	14.85	10.77	61.57	-2,665.82	-9,147.99	9,462.80	9,437.60	25.20	375.449		
3,400.00	3,383.92	2,364.45	2,374.22	15.30	12.18	61.98	-2,630.06	-9,185.22	9,468.24	9,441.26	26.98	350.945		
3,500.00	3,483.31	2,401.00	2,410.05	15.75	12.38	62.04	-2,625.21	-9,190.55	9,474.09	9,446.48	27.61	343.146		
3,600.00	3,582.69	2,474.70	2,482.32	16.20	12.80	62.15	-2,615.86	-9,201.55	9,480.43	9,451.99	28.44	333.401		
3,700.00	3,682.07	2,529.92	2,536.40	16.65	13.12	62.24	-2,608.56	-9,210.01	9,487.12	9,457.96	29.17	325.288		
3,800.00	3,781.46	2,590.00	2,595.13	17.10	13.47	62.34	-2,600.36	-9,219.63	9,494.39	9,464.47	29.92	317.284		
3,900.00	3,880.84	2,699.38	2,702.01	17.56	14.11	62.52	-2,585.25	-9,237.33	9,501.92	9,470.96	30.96	306.879		
4,000.00	3,980.22	2,761.54	2,762.75	18.01	14.48	62.62	-2,576.72	-9,247.39	9,509.52	9,477.78	31.74	299.634		
4,100.00	4,079.61	2,874.00	2,872.84	18.46	15.14	62.79	-2,562.17	-9,265.18	9,516.98	9,484.19	32.79	290.264		
4,200.00	4,178.99	2,926.67	2,924.51	18.92	15.44	62.87	-2,556.10	-9,273.38	9,524.74	9,491.24	33.50	284.354		
4,300.00	4,278.38	2,969.00	2,966.02	19.37	15.68	62.93	-2,551.54	-9,280.32	9,533.30	9,499.15	34.15	279.180		
4,400.00	4,377.76	3,189.40	3,182.12	19.83	16.96	63.25	-2,527.35	-9,316.15	9,542.21	9,506.44	35.77	266.748		
4,500.00	4,477.14	3,253.00	3,244.70	20.28	17.31	63.34	-2,521.48	-9,325.84	9,550.12	9,513.59	36.53	261.432		
4,600.00	4,576.53	4,600.00	3,582.97	20.74	24.55	63.78	-2,492.04	-9,373.77	9,557.45	9,513.74	43.71	218.658		
4,700.00	4,675.91	3,729.00	3,714.36	21.19	19.88	63.96	-2,478.83	-9,390.14	9,562.43	9,522.59	39.84	240.025		
4,800.00	4,775.29	3,770.43	3,755.21	21.65	20.11	64.01	-2,474.36	-9,395.42	9,567.91	9,527.42	40.49	236.293		
4,900.00	4,874.68	3,824.00	3,807.87	22.10	20.41	64.09	-2,467.99	-9,402.90	9,574.19	9,532.98	41.21	232.339		
5,000.00	4,974.06	3,824.00	3,807.87	22.56	20.41	64.09	-2,467.99	-9,402.90	9,581.05	9,539.42	41.63	230.136		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,073.44	3,876.06	3,858.92	23.02	20.72	64.17	-2,461.41	-9,410.76	9,588.61	9,546.26	42.35	226.431		
5,200.00	5,172.83	3,916.00	3,898.01	23.47	20.96	64.23	-2,456.26	-9,417.09	9,596.83	9,553.84	42.99	223.229		
5,300.00	5,272.21	3,956.00	3,938.02	23.93	21.14	64.45	-2,438.24	-9,440.01	9,605.45	9,554.58	50.87	188.812		
5,400.00	5,371.59	4,188.32	4,164.89	24.39	22.57	64.64	-2,422.77	-9,459.56	9,613.19	9,567.83	45.36	211.916		
5,500.00	5,470.98	4,288.16	4,262.70	24.85	23.16	64.80	-2,409.85	-9,474.87	9,621.12	9,574.77	46.35	207.578		
5,600.00	5,570.36	4,406.78	4,378.56	25.30	23.89	64.99	-2,392.22	-9,493.21	9,628.89	9,581.43	47.46	202.863		
5,700.00	5,669.75	4,476.74	4,446.66	25.76	24.32	65.11	-2,380.62	-9,504.28	9,636.81	9,588.51	48.30	199.500		
5,800.00	5,769.13	4,529.62	4,498.02	26.22	24.66	65.21	-2,371.42	-9,512.89	9,645.15	9,596.10	49.05	196.656		
5,900.00	5,868.51	4,699.07	4,662.90	26.68	25.73	65.50	-2,343.67	-9,540.31	9,653.77	9,603.28	50.49	191.203		
6,000.00	5,967.90	4,769.00	4,731.22	27.14	26.16	65.61	-2,333.41	-9,551.15	9,661.94	9,610.62	51.32	188.281		
6,100.00	6,067.28	6,003.23	5,956.00	27.60	32.02	66.95	-2,248.79	-9,650.04	9,660.89	9,603.44	57.45	168.165		
6,200.00	6,166.66	6,253.78	6,206.54	28.05	32.93	67.12	-2,246.70	-9,651.61	9,657.17	9,598.37	58.80	164.231		
6,300.00	6,266.05	6,300.00	6,330.49	28.51	33.09	67.20	-2,245.22	-9,650.64	9,651.77	9,592.35	59.42	162.437		
6,400.00	6,365.43	6,458.61	6,411.34	28.97	33.66	67.26	-2,244.00	-9,650.02	9,646.52	9,586.04	60.48	159.499		
6,500.00	6,464.81	6,502.87	6,455.59	29.43	33.82	67.29	-2,243.26	-9,650.06	9,642.02	9,580.90	61.12	157.751		
6,600.00	6,564.10	6,566.00	6,518.71	29.89	34.06	66.93	-2,242.11	-9,650.58	9,636.22	9,574.40	61.83	155.856		
6,700.00	6,661.75	6,597.63	6,550.34	30.34	34.18	13.31	-2,241.54	-9,651.01	9,617.46	9,555.05	62.41	154.097		
6,800.00	6,755.38	6,651.46	6,604.15	30.77	34.39	4.98	-2,240.66	-9,651.90	9,584.24	9,521.19	63.05	152.011		
6,900.00	6,842.67	6,702.01	6,654.69	31.17	34.58	0.46	-2,239.95	-9,652.93	9,537.25	9,473.61	63.64	149.868		
7,000.00	6,921.48	6,755.00	6,707.65	31.54	34.79	-2.94	-2,239.34	-9,654.20	9,477.58	9,413.40	64.19	147.660		
7,100.00	6,989.86	6,798.48	6,751.12	31.91	34.96	-6.30	-2,238.90	-9,655.36	9,406.56	9,341.92	64.64	145.527		
7,200.00	7,046.13	6,842.27	6,794.88	32.35	35.13	-10.55	-2,238.48	-9,656.59	9,325.82	9,260.79	65.03	143.415		
7,300.00	7,088.91	6,876.30	6,828.90	32.98	35.26	-17.27	-2,238.18	-9,657.59	9,237.28	9,171.97	65.31	141.431		
7,400.00	7,117.14	6,899.68	6,852.27	33.84	35.35	-30.57	-2,237.99	-9,658.30	9,143.09	9,077.59	65.50	139.593		
7,500.00	7,130.13	6,911.76	6,864.35	34.90	35.40	-62.63	-2,237.89	-9,658.68	9,045.54	8,979.95	65.59	137.911		
7,600.00	7,130.72	6,914.57	6,867.15	36.13	35.41	-81.28	-2,237.87	-9,658.77	8,946.94	8,881.33	65.62	136.350		
7,700.00	7,130.29	6,916.61	6,869.19	37.54	35.42	-81.36	-2,237.85	-9,658.83	8,848.35	8,782.70	65.65	134.786		
7,800.00	7,129.85	6,918.66	6,871.24	39.12	35.43	-81.44	-2,237.83	-9,658.90	8,749.78	8,684.10	65.69	133.204		
7,900.00	7,129.42	6,920.72	6,873.30	40.83	35.43	-81.52	-2,237.82	-9,658.96	8,651.25	8,585.52	65.74	131.605		
8,000.00	7,128.98	6,922.79	6,875.37	42.67	35.44	-81.60	-2,237.80	-9,659.03	8,552.76	8,486.96	65.80	129.987		
8,100.00	7,128.55	6,924.87	6,877.45	44.62	35.45	-81.68	-2,237.79	-9,659.09	8,454.29	8,388.42	65.87	128.350		
8,200.00	7,128.12	6,926.97	6,879.54	46.66	35.46	-81.76	-2,237.77	-9,659.16	8,355.87	8,289.91	65.95	126.695		
8,300.00	7,127.68	6,929.07	6,881.65	48.79	35.47	-81.84	-2,237.75	-9,659.22	8,257.48	8,191.43	66.05	125.021		
8,400.00	7,127.25	6,931.19	6,883.76	50.98	35.47	-81.92	-2,237.74	-9,659.29	8,159.12	8,092.97	66.16	123.327		
8,500.00	7,126.81	6,933.31	6,885.89	53.24	35.48	-82.00	-2,237.72	-9,659.36	8,060.81	7,994.53	66.28	121.613		
8,600.00	7,126.38	6,935.45	6,888.02	55.56	35.49	-82.08	-2,237.70	-9,659.43	7,962.54	7,896.12	66.42	119.880		
8,700.00	7,125.95	6,937.60	6,890.17	57.92	35.50	-82.16	-2,237.69	-9,659.50	7,864.31	7,797.74	66.58	118.127		
8,800.00	7,125.51	6,940.00	6,892.57	60.33	35.52	-82.41	-2,237.64	-9,659.70	7,766.13	7,699.37	66.76	116.330		
8,900.00	7,125.08	6,944.00	6,896.57	62.77	35.52	-82.41	-2,237.64	-9,659.70	7,667.99	7,601.05	66.94	114.550		
9,000.00	7,124.64	6,944.00	6,896.57	65.25	35.52	-82.41	-2,237.64	-9,659.70	7,569.90	7,502.76	67.14	112.749		
9,100.00	7,124.21	6,944.00	6,896.57	67.76	35.52	-82.41	-2,237.64	-9,659.70	7,471.87	7,404.51	67.36	110.928		
9,200.00	7,123.78	6,944.00	6,896.57	70.29	35.52	-82.41	-2,237.64	-9,659.70	7,373.88	7,306.28	67.60	109.086		
9,300.00	7,123.34	6,944.00	6,896.57	72.85	35.52	-82.41	-2,237.64	-9,659.70	7,275.95	7,208.09	67.86	107.225		
9,400.00	7,122.91	6,944.00	6,896.57	75.43	35.52	-82.41	-2,237.64	-9,659.70	7,178.07	7,109.93	68.14	105.344		
9,500.00	7,122.48	6,944.00	6,896.57	78.03	35.52	-82.41	-2,237.64	-9,659.70	7,080.26	7,011.81	68.45	103.444		
9,600.00	7,122.04	6,944.00	6,896.57	80.65	35.52	-82.41	-2,237.64	-9,659.70	6,982.51	6,913.73	68.78	101.525		
9,700.00	7,121.61	6,944.00	6,896.57	83.28	35.52	-82.41	-2,237.64	-9,659.70	6,884.82	6,815.68	69.13	99.589		
9,800.00	7,121.17	6,944.00	6,896.57	85.93	35.52	-82.41	-2,237.64	-9,659.70	6,787.20	6,717.68	69.52	97.634		
9,900.00	7,120.74	6,944.00	6,896.57	88.59	35.52	-82.41	-2,237.64	-9,659.70	6,689.65	6,619.72	69.93	95.664		
10,000.00	7,120.31	6,944.00	6,896.57	91.26	35.52	-82.41	-2,237.64	-9,659.70	6,592.17	6,521.80	70.37	93.678		
10,100.00	7,119.87	6,944.00	6,896.57	93.95	35.52	-82.41	-2,237.64	-9,659.70	6,494.77	6,423.92	70.84	91.677		
10,200.00	7,119.44	6,966.14	6,918.69	96.64	35.61	-83.25	-2,237.46	-9,660.44	6,397.39	6,325.97	71.41	89.582		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 (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	7,119.00	6,968.13	6,920.68	99.34	35.62	-83.33	-2,237.45	-9,660.51	6,300.14	6,228.18	71.96	87.552		
10,400.00	7,118.57	6,970.14	6,922.69	102.05	35.63	-83.41	-2,237.43	-9,660.58	6,202.98	6,130.44	72.54	85.511		
10,500.00	7,118.14	6,972.17	6,924.72	104.77	35.64	-83.49	-2,237.41	-9,660.65	6,105.91	6,032.75	73.16	83.461		
10,600.00	7,117.70	6,974.23	6,926.78	107.50	35.65	-83.57	-2,237.39	-9,660.72	6,008.93	5,935.12	73.82	81.404		
10,700.00	7,117.27	6,976.32	6,928.86	110.23	35.66	-83.65	-2,237.37	-9,660.80	5,912.06	5,837.54	74.52	79.340		
10,800.00	7,116.83	6,978.43	6,930.98	112.97	35.66	-83.73	-2,237.35	-9,660.87	5,815.28	5,740.03	75.26	77.272		
10,900.00	7,116.40	6,980.57	6,933.12	115.72	35.67	-83.81	-2,237.34	-9,660.95	5,718.62	5,642.58	76.04	75.201		
11,000.00	7,115.97	6,982.74	6,935.28	118.47	35.68	-83.89	-2,237.32	-9,661.02	5,622.08	5,545.20	76.88	73.129		
11,100.00	7,115.53	6,984.94	6,937.48	121.22	35.69	-83.98	-2,237.30	-9,661.10	5,525.65	5,447.89	77.76	71.059		
11,200.00	7,115.10	6,987.16	6,939.70	123.98	35.70	-84.06	-2,237.27	-9,661.18	5,429.36	5,350.66	78.70	68.991		
11,300.00	7,114.66	6,989.42	6,941.95	126.74	35.71	-84.15	-2,237.25	-9,661.27	5,333.19	5,253.51	79.69	66.928		
11,400.00	7,114.23	6,991.70	6,944.24	129.51	35.72	-84.24	-2,237.23	-9,661.35	5,237.17	5,156.44	80.73	64.872		
11,500.00	7,113.80	6,994.01	6,946.55	132.29	35.73	-84.33	-2,237.21	-9,661.43	5,141.31	5,059.47	81.84	62.824		
11,600.00	7,113.36	6,996.36	6,948.89	135.06	35.74	-84.42	-2,237.19	-9,661.52	5,045.60	4,962.59	83.00	60.787		
11,700.00	7,112.93	6,998.74	6,951.27	137.84	35.75	-84.51	-2,237.16	-9,661.61	4,950.05	4,865.82	84.24	58.764		
11,800.00	7,112.49	7,001.15	6,953.68	140.62	35.76	-84.60	-2,237.14	-9,661.70	4,854.69	4,769.15	85.54	56.755		
11,900.00	7,112.06	7,003.59	6,956.12	143.41	35.77	-84.70	-2,237.12	-9,661.79	4,759.52	4,672.60	86.91	54.763		
12,000.00	7,111.63	7,006.07	6,958.59	146.20	35.78	-84.79	-2,237.09	-9,661.89	4,664.54	4,576.18	88.36	52.790		
12,100.00	7,111.19	7,008.58	6,961.10	148.99	35.79	-84.89	-2,237.06	-9,661.98	4,569.78	4,479.89	89.89	50.838		
12,200.00	7,110.76	7,011.13	6,963.65	151.78	35.80	-84.99	-2,237.04	-9,662.08	4,475.24	4,383.74	91.50	48.909		
12,300.00	7,110.33	7,013.71	6,966.23	154.58	35.81	-85.09	-2,237.01	-9,662.18	4,380.94	4,287.74	93.20	47.004		
12,400.00	7,109.89	7,016.33	6,968.85	157.37	35.82	-85.19	-2,236.98	-9,662.28	4,286.91	4,191.91	95.00	45.127		
12,500.00	7,109.46	7,018.99	6,971.50	160.17	35.83	-85.29	-2,236.96	-9,662.39	4,193.14	4,096.25	96.89	43.277		
12,600.00	7,109.02	7,021.68	6,974.20	162.98	35.84	-85.40	-2,236.93	-9,662.49	4,099.67	4,000.78	98.89	41.458		
12,700.00	7,108.59	7,024.42	6,976.93	165.78	35.85	-85.50	-2,236.90	-9,662.60	4,006.51	3,905.51	100.99	39.671		
12,800.00	7,108.16	7,027.19	6,979.70	168.59	35.86	-85.61	-2,236.87	-9,662.71	3,913.68	3,810.46	103.22	37.917		
12,900.00	7,107.72	7,030.01	6,982.51	171.39	35.87	-85.72	-2,236.84	-9,662.83	3,821.21	3,715.65	105.56	36.199		
13,000.00	7,107.29	7,032.86	6,985.37	174.20	35.88	-85.83	-2,236.80	-9,662.94	3,729.13	3,621.10	108.04	34.517		
13,100.00	7,106.85	7,035.76	6,988.26	177.01	35.90	-85.94	-2,236.77	-9,663.06	3,637.47	3,526.82	110.65	32.873		
13,200.00	7,106.42	7,038.71	6,991.21	179.83	35.91	-86.06	-2,236.74	-9,663.18	3,546.25	3,432.84	113.41	31.269		
13,300.00	7,105.99	7,041.70	6,994.19	182.64	35.92	-86.17	-2,236.70	-9,663.30	3,455.52	3,339.19	116.33	29.705		
13,400.00	7,105.55	7,044.73	6,997.22	185.45	35.93	-86.29	-2,236.67	-9,663.43	3,365.30	3,245.89	119.41	28.183		
13,500.00	7,105.12	7,047.81	7,000.30	188.27	35.94	-86.41	-2,236.63	-9,663.56	3,275.66	3,152.99	122.67	26.704		
13,600.00	7,104.68	7,050.94	7,003.43	191.09	35.96	-86.53	-2,236.59	-9,663.69	3,186.62	3,060.51	126.11	25.268		
13,700.00	7,104.25	7,054.12	7,006.60	193.91	35.97	-86.65	-2,236.55	-9,663.83	3,098.25	2,968.50	129.75	23.878		
13,800.00	7,103.82	7,057.35	7,009.83	196.73	35.98	-86.78	-2,236.51	-9,663.96	3,010.61	2,877.00	133.61	22.533		
13,900.00	7,103.38	7,060.63	7,013.10	199.55	36.00	-86.91	-2,236.47	-9,664.11	2,923.75	2,786.07	137.68	21.235		
14,000.00	7,102.95	7,063.96	7,016.43	202.37	36.01	-87.04	-2,236.43	-9,664.25	2,837.75	2,695.76	142.00	19.985		
14,100.00	7,102.51	7,067.34	7,019.81	205.19	36.02	-87.17	-2,236.39	-9,664.40	2,752.70	2,606.14	146.56	18.782		
14,200.00	7,102.08	7,070.78	7,023.25	208.02	36.04	-87.30	-2,236.35	-9,664.55	2,668.68	2,517.28	151.39	17.627		
14,300.00	7,101.65	7,074.28	7,026.74	210.84	36.05	-87.44	-2,236.30	-9,664.70	2,585.78	2,429.28	156.51	16.522		
14,400.00	7,101.21	7,077.84	7,030.29	213.67	36.07	-87.58	-2,236.25	-9,664.86	2,504.14	2,342.23	161.91	15.466		
14,500.00	7,100.78	7,081.45	7,033.91	216.50	36.08	-87.72	-2,236.21	-9,665.03	2,423.86	2,256.24	167.63	14.460		
14,600.00	7,100.35	7,085.13	7,037.58	219.32	36.10	-87.86	-2,236.16	-9,665.19	2,345.09	2,171.43	173.66	13.504		
14,700.00	7,099.91	7,088.87	7,041.31	222.15	36.11	-88.01	-2,236.11	-9,665.36	2,267.99	2,087.97	180.02	12.598		
14,800.00	7,099.48	7,092.67	7,045.11	224.98	36.13	-88.15	-2,236.05	-9,665.54	2,192.74	2,006.01	186.73	11.743		
14,900.00	7,099.04	7,096.54	7,048.97	227.81	36.14	-88.30	-2,236.00	-9,665.72	2,119.52	1,925.75	193.77	10.938		
14,909.96	7,099.00	7,096.92	7,049.36	228.09	36.14	-88.32	-2,235.99	-9,665.74	2,112.35	1,917.86	194.49	10.861	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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-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	36.00	3.28	3.28	-107.85	-2,893.50	-8,987.16	9,441.54				
100.00	100.00	42.92	78.92	3.28	3.28	-107.85	-2,893.39	-8,987.24	9,441.54	9,434.97	6.57	1,438.020	
200.00	200.00	113.00	149.00	3.34	3.29	-107.84	-2,892.76	-8,987.74	9,441.93	9,435.30	6.63	1,424.180	
300.00	300.00	171.00	206.98	3.44	3.33	-107.83	-2,891.80	-8,988.44	9,442.63	9,435.86	6.77	1,394.847	
400.00	400.00	209.48	245.45	3.60	3.36	-107.83	-2,891.11	-8,989.14	9,443.89	9,436.93	6.96	1,356.712	
500.00	500.00	263.00	298.94	3.81	3.41	-107.82	-2,890.42	-8,990.63	9,445.97	9,438.75	7.22	1,307.960	
600.00	600.00	263.00	298.94	4.04	3.41	59.02	-2,890.42	-8,990.63	9,448.59	9,441.13	7.46	1,266.071	
700.00	699.96	263.00	298.94	4.29	3.41	58.97	-2,890.42	-8,990.63	9,451.05	9,443.34	7.71	1,225.173	
800.00	799.78	305.18	341.08	4.57	3.47	58.96	-2,890.31	-8,992.38	9,452.25	9,444.21	8.05	1,174.608	
900.00	899.34	354.00	389.82	4.88	3.55	58.98	-2,890.98	-8,995.24	9,452.96	9,444.53	8.43	1,121.934	
930.67	929.81	354.00	389.82	4.98	3.55	58.98	-2,890.98	-8,995.24	9,452.91	9,444.38	8.52	1,108.879	
1,000.00	998.72	354.00	389.82	5.20	3.55	58.98	-2,890.98	-8,995.24	9,453.16	9,444.41	8.76	1,079.727	
1,100.00	1,098.10	354.00	389.82	5.54	3.55	58.98	-2,890.98	-8,995.24	9,454.42	9,445.32	9.10	1,038.459	
1,200.00	1,197.49	386.78	422.50	5.90	3.61	59.00	-2,891.96	-8,997.57	9,456.51	9,446.99	9.52	993.090	
1,300.00	1,296.87	411.54	447.16	6.28	3.66	59.01	-2,893.02	-8,999.46	9,459.42	9,449.47	9.94	951.364	
1,400.00	1,396.25	445.00	480.46	6.66	3.73	59.03	-2,894.89	-9,002.21	9,463.13	9,452.73	10.39	910.504	
1,500.00	1,495.64	550.95	585.78	7.06	3.98	59.06	-2,902.85	-9,010.54	9,467.23	9,456.21	11.02	859.129	
1,600.00	1,595.02	621.28	655.62	7.46	4.18	59.07	-2,909.25	-9,015.72	9,471.32	9,459.72	11.60	816.502	
1,700.00	1,694.40	738.46	771.88	7.87	4.55	59.08	-2,921.43	-9,023.97	9,475.52	9,463.18	12.34	767.633	
1,800.00	1,793.79	1,339.46	1,370.43	8.29	6.84	59.28	-2,959.33	-9,058.66	9,478.77	9,463.89	14.89	636.750	
1,900.00	1,893.17	1,383.00	1,413.90	8.71	7.01	59.30	-2,960.15	-9,060.81	9,478.10	9,462.63	15.47	612.681	
1,957.56	1,950.38	1,383.00	1,413.90	8.95	7.01	59.30	-2,960.15	-9,060.81	9,477.92	9,462.21	15.71	603.191	
2,000.00	1,992.55	1,383.00	1,413.90	9.13	7.01	59.30	-2,960.15	-9,060.81	9,478.02	9,462.12	15.89	596.378	
2,100.00	2,091.94	1,383.00	1,413.90	9.56	7.01	59.30	-2,960.15	-9,060.81	9,478.99	9,462.67	16.32	580.902	
2,200.00	2,191.32	1,383.00	1,413.90	9.99	7.01	59.30	-2,960.15	-9,060.81	9,481.02	9,464.28	16.74	566.217	
2,300.00	2,290.70	1,383.00	1,413.90	10.42	7.01	59.30	-2,960.15	-9,060.81	9,484.10	9,466.93	17.17	552.287	
2,400.00	2,390.09	1,445.00	1,475.62	10.86	7.27	59.34	-2,961.87	-9,066.33	9,487.84	9,470.00	17.84	531.767	
2,500.00	2,489.47	1,445.00	1,475.62	11.29	7.27	59.34	-2,961.87	-9,066.33	9,492.38	9,474.11	18.27	519.531	
2,600.00	2,588.86	1,445.00	1,475.62	11.73	7.27	59.34	-2,961.87	-9,066.33	9,497.97	9,479.27	18.70	507.917	
2,700.00	2,688.24	1,459.22	1,489.73	12.18	7.33	59.34	-2,962.43	-9,068.03	9,504.59	9,485.41	19.19	495.400	
2,800.00	2,787.62	1,524.46	1,554.43	12.62	7.63	59.38	-2,965.47	-9,075.83	9,511.79	9,491.91	19.88	478.463	
2,900.00	2,887.01	1,569.00	1,598.58	13.06	7.83	59.40	-2,967.97	-9,081.16	9,519.39	9,498.89	20.49	464.557	
3,000.00	2,986.39	1,608.02	1,637.21	13.51	8.01	59.41	-2,970.66	-9,085.92	9,527.60	9,506.51	21.08	451.866	
3,100.00	3,085.77	1,665.00	1,693.49	13.95	8.29	59.43	-2,975.81	-9,093.20	9,536.69	9,514.93	21.76	438.330	
3,200.00	3,185.16	1,665.00	1,693.49	14.40	8.29	59.43	-2,975.81	-9,093.20	9,546.25	9,524.06	22.18	430.364	
3,300.00	3,284.54	1,665.00	1,693.49	14.85	8.29	59.43	-2,975.81	-9,093.20	9,556.84	9,534.24	22.60	422.784	
3,400.00	3,383.92	1,706.22	1,734.07	15.30	8.50	59.44	-2,980.33	-9,098.88	9,568.03	9,544.82	23.21	412.207	
3,500.00	3,483.31	3,500.00	1,801.54	15.75	18.40	59.45	-2,988.78	-9,109.15	9,580.23	9,548.44	31.79	301.354	
3,600.00	3,582.69	1,907.33	1,931.51	16.20	9.55	59.46	-3,004.98	-9,128.00	9,591.84	9,566.86	24.98	383.950	
3,700.00	3,682.07	2,040.00	2,061.76	16.65	10.27	59.47	-3,022.40	-9,146.23	9,603.28	9,577.25	26.03	368.902	
3,800.00	3,781.46	2,097.55	2,118.34	17.10	10.58	59.48	-3,029.64	-9,153.93	9,614.48	9,587.75	26.73	359.719	
3,900.00	3,880.84	2,136.00	2,156.05	17.56	10.79	59.48	-3,034.51	-9,159.62	9,626.67	9,599.33	27.33	352.221	
4,000.00	3,980.22	2,180.86	2,200.00	18.01	11.04	59.49	-3,040.25	-9,166.52	9,639.47	9,611.50	27.97	344.675	
4,100.00	4,079.61	2,380.65	2,395.81	18.46	12.17	59.50	-3,066.88	-9,195.86	9,651.87	9,622.50	29.37	328.613	
4,200.00	4,178.99	2,419.00	2,433.42	18.92	12.38	59.50	-3,072.18	-9,201.25	9,664.01	9,634.03	29.98	322.349	
4,300.00	4,278.38	2,480.37	2,493.49	19.37	12.74	59.50	-3,081.09	-9,210.06	9,676.58	9,645.87	30.71	315.122	
4,400.00	4,377.76	2,521.64	2,533.80	19.83	12.98	59.50	-3,087.47	-9,216.20	9,689.83	9,658.50	31.33	309.264	
4,500.00	4,477.14	2,598.77	2,609.06	20.28	13.44	59.49	-3,099.64	-9,227.91	9,703.48	9,671.34	32.14	301.867	
4,600.00	4,576.53	2,607.00	2,617.09	20.74	13.49	59.49	-3,100.94	-9,229.17	9,717.67	9,685.07	32.60	298.120	
4,700.00	4,675.91	3,493.68	3,488.01	21.19	18.52	59.49	-3,223.11	-9,337.77	9,724.39	9,686.84	37.55	258.979	
4,800.00	4,775.29	3,550.00	3,543.56	21.65	18.83	59.49	-3,230.85	-9,342.86	9,731.40	9,693.13	38.27	254.302	
4,900.00	4,874.68	3,550.00	3,543.56	22.10	18.83	59.49	-3,230.85	-9,342.86	9,738.99	9,700.29	38.70	251.650	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,000.00	4,974.06	3,603.24	3,596.01	22.56	19.12	59.48	-3,238.31	-9,348.17	9,747.21	9,707.80	39.40	247.374		
5,100.00	5,073.44	3,644.00	3,636.14	23.02	19.35	59.48	-3,243.89	-9,352.63	9,756.12	9,716.08	40.04	243.661		
5,200.00	5,172.83	3,644.00	3,636.14	23.47	19.35	59.48	-3,243.89	-9,352.63	9,765.81	9,725.35	40.46	241.348		
5,300.00	5,272.21	3,685.90	3,677.32	23.93	19.60	59.48	-3,249.77	-9,357.66	9,776.12	9,735.01	41.10	237.835		
5,400.00	5,371.59	3,739.00	3,729.32	24.39	19.91	59.48	-3,257.79	-9,364.76	9,787.50	9,745.70	41.80	234.131		
5,500.00	5,470.98	3,739.00	3,729.32	24.85	19.91	59.48	-3,257.79	-9,364.76	9,799.26	9,757.04	42.22	232.117		
5,600.00	5,570.36	3,739.00	3,729.32	25.30	19.91	59.48	-3,257.79	-9,364.76	9,812.02	9,769.40	42.63	230.192		
5,700.00	5,669.75	4,305.00	4,283.41	25.76	23.29	59.42	-3,346.37	-9,437.29	9,825.39	9,779.29	46.10	213.134		
5,800.00	5,769.13	4,305.00	4,283.41	26.22	23.29	59.42	-3,346.37	-9,437.29	9,834.44	9,787.92	46.53	211.377		
5,900.00	5,868.51	4,363.28	4,340.78	26.68	23.63	59.42	-3,354.17	-9,443.96	9,843.95	9,796.69	47.25	208.322		
6,000.00	5,967.90	4,399.00	4,375.88	27.14	23.83	59.42	-3,359.10	-9,448.38	9,854.26	9,806.40	47.86	205.893		
6,100.00	6,067.28	4,447.12	4,423.14	27.60	24.12	59.43	-3,365.63	-9,454.67	9,865.17	9,816.64	48.53	203.274		
6,200.00	6,166.66	4,495.00	4,470.16	28.05	24.40	59.43	-3,371.78	-9,461.22	9,876.53	9,827.33	49.20	200.745		
6,300.00	6,266.05	4,543.12	4,517.39	28.51	24.68	59.43	-3,377.98	-9,468.06	9,888.39	9,838.53	49.87	198.295		
6,400.00	6,365.43	6,313.13	6,271.97	28.97	33.24	60.02	-3,494.14	-9,613.45	9,900.17	9,841.92	58.25	169.970		
6,500.00	6,464.81	6,412.65	6,371.49	29.43	33.60	60.08	-3,494.05	-9,614.47	9,895.56	9,836.46	59.10	167.437		
6,600.00	6,564.10	6,519.14	6,477.98	29.89	33.99	29.68	-3,493.68	-9,615.59	9,889.05	9,829.08	59.97	164.897		
6,700.00	6,661.75	6,623.98	6,582.81	30.34	34.37	5.84	-3,493.01	-9,616.71	9,869.45	9,808.63	60.82	162.277		
6,800.00	6,755.38	6,803.41	6,762.22	30.77	34.98	-2.95	-3,490.95	-9,618.16	9,835.09	9,773.23	61.87	158.973		
6,900.00	6,842.67	6,900.00	6,849.57	31.17	35.31	-8.24	-3,489.09	-9,618.02	9,786.04	9,723.45	62.60	156.337		
7,000.00	6,921.48	7,022.56	6,981.32	31.54	35.73	-12.85	-3,486.60	-9,618.12	9,724.85	9,661.51	63.34	153.535		
7,100.00	6,989.86	7,071.94	7,030.70	31.91	35.90	-17.99	-3,485.66	-9,618.14	9,652.90	9,589.12	63.79	151.325		
7,200.00	7,046.13	7,112.75	7,071.50	32.35	36.03	-24.93	-3,484.95	-9,618.21	9,572.04	9,507.90	64.14	149.230		
7,300.00	7,088.91	7,143.94	7,102.69	32.98	36.14	-35.62	-3,484.45	-9,618.29	9,484.23	9,419.83	64.40	147.269		
7,400.00	7,117.14	7,164.70	7,123.45	33.84	36.21	-53.32	-3,484.13	-9,618.37	9,391.59	9,327.02	64.57	145.453		
7,500.00	7,130.13	7,174.45	7,133.19	34.90	36.24	-80.14	-3,483.99	-9,618.41	9,296.40	9,231.74	64.66	143.779		
7,600.00	7,130.72	7,175.19	7,133.93	36.13	36.25	-90.87	-3,483.98	-9,618.41	9,200.79	9,136.09	64.70	142.204		
7,700.00	7,130.29	7,175.17	7,133.91	37.54	36.25	-90.87	-3,483.98	-9,618.41	9,105.30	9,040.53	64.77	140.584		
7,800.00	7,129.85	7,175.16	7,133.90	39.12	36.25	-90.87	-3,483.98	-9,618.41	9,009.90	8,945.04	64.86	138.909		
7,900.00	7,129.42	7,175.14	7,133.88	40.83	36.25	-90.87	-3,483.98	-9,618.41	8,914.60	8,849.61	64.99	137.176		
8,000.00	7,128.98	7,175.13	7,133.87	42.67	36.25	-90.87	-3,483.98	-9,618.41	8,819.41	8,754.27	65.14	135.387		
8,100.00	7,128.55	7,175.11	7,133.85	44.62	36.25	-90.87	-3,483.98	-9,618.41	8,724.32	8,658.99	65.33	133.541		
8,200.00	7,128.12	7,175.09	7,133.84	46.66	36.25	-90.87	-3,483.98	-9,618.41	8,629.35	8,563.79	65.55	131.639		
8,300.00	7,127.68	7,175.08	7,133.82	48.79	36.25	-90.87	-3,483.98	-9,618.41	8,534.49	8,468.68	65.81	129.681		
8,400.00	7,127.25	7,175.06	7,133.81	50.98	36.25	-90.87	-3,483.98	-9,618.41	8,439.75	8,373.64	66.11	127.669		
8,500.00	7,126.81	7,175.05	7,133.79	53.24	36.25	-90.87	-3,483.98	-9,618.41	8,345.13	8,278.69	66.44	125.604		
8,600.00	7,126.38	7,175.03	7,133.77	55.56	36.25	-90.87	-3,483.98	-9,618.41	8,250.64	8,183.83	66.81	123.488		
8,700.00	7,125.95	7,175.02	7,133.76	57.92	36.25	-90.87	-3,483.98	-9,618.41	8,156.28	8,089.05	67.23	121.324		
8,800.00	7,125.51	7,175.00	7,133.74	60.33	36.25	-90.87	-3,483.98	-9,618.41	8,062.06	7,994.37	67.68	119.114		
8,900.00	7,125.08	7,174.99	7,133.73	62.77	36.25	-90.87	-3,483.98	-9,618.41	7,967.97	7,899.79	68.18	116.862		
9,000.00	7,124.64	7,174.97	7,133.71	65.25	36.25	-90.87	-3,483.98	-9,618.41	7,874.04	7,805.31	68.73	114.570		
9,100.00	7,124.21	7,174.95	7,133.70	67.76	36.25	-90.87	-3,483.98	-9,618.41	7,780.25	7,710.93	69.32	112.241		
9,200.00	7,123.78	7,174.94	7,133.68	70.29	36.25	-90.87	-3,483.98	-9,618.41	7,686.62	7,616.67	69.95	109.881		
9,300.00	7,123.34	7,174.92	7,133.66	72.85	36.24	-90.87	-3,483.98	-9,618.41	7,593.15	7,522.52	70.64	107.493		
9,400.00	7,122.91	7,174.90	7,133.65	75.43	36.24	-90.87	-3,483.98	-9,618.41	7,499.86	7,428.48	71.37	105.081		
9,500.00	7,122.48	7,174.89	7,133.63	78.03	36.24	-90.87	-3,483.98	-9,618.41	7,406.73	7,334.58	72.16	102.649		
9,600.00	7,122.04	7,174.87	7,133.61	80.65	36.24	-90.87	-3,483.98	-9,618.41	7,313.79	7,240.80	72.99	100.202		
9,700.00	7,121.61	7,174.86	7,133.60	83.28	36.24	-90.87	-3,483.98	-9,618.41	7,221.04	7,147.16	73.88	97.744		
9,800.00	7,121.17	7,174.84	7,133.58	85.93	36.24	-90.87	-3,483.98	-9,618.41	7,128.48	7,053.66	74.82	95.279		
9,900.00	7,120.74	7,174.82	7,133.56	88.59	36.24	-90.86	-3,483.98	-9,618.41	7,036.13	6,960.32	75.81	92.812		
10,000.00	7,120.31	7,174.81	7,133.55	91.26	36.24	-90.86	-3,483.98	-9,618.41	6,943.99	6,867.13	76.86	90.346		
10,100.00	7,119.87	7,174.79	7,133.53	93.95	36.24	-90.86	-3,483.98	-9,618.41	6,852.06	6,774.10	77.96	87.887		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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-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	7,119.44	7,174.77	7,133.51	96.64	36.24	-90.86	-3,483.98	-9,618.41	6,760.37	6,681.24	79.13	85.437		
10,300.00	7,119.00	7,174.76	7,133.50	99.34	36.24	-90.86	-3,483.98	-9,618.41	6,668.92	6,588.57	80.35	83.001		
10,400.00	7,118.57	7,174.74	7,133.48	102.05	36.24	-90.86	-3,483.98	-9,618.41	6,577.71	6,496.09	81.63	80.581		
10,500.00	7,118.14	7,174.72	7,133.46	104.77	36.24	-90.86	-3,483.98	-9,618.41	6,486.77	6,403.80	82.97	78.183		
10,600.00	7,117.70	7,174.70	7,133.45	107.50	36.24	-90.86	-3,483.98	-9,618.41	6,396.09	6,311.72	84.37	75.808		
10,700.00	7,117.27	7,174.69	7,133.43	110.23	36.24	-90.86	-3,483.98	-9,618.41	6,305.70	6,219.86	85.84	73.460		
10,800.00	7,116.83	7,174.67	7,133.41	112.97	36.24	-90.86	-3,483.98	-9,618.41	6,215.60	6,128.23	87.37	71.141		
10,900.00	7,116.40	7,174.65	7,133.39	115.72	36.24	-90.86	-3,483.98	-9,618.41	6,125.81	6,036.84	88.97	68.854		
11,000.00	7,115.97	7,174.63	7,133.38	118.47	36.24	-90.86	-3,483.98	-9,618.41	6,036.34	5,945.71	90.63	66.601		
11,100.00	7,115.53	7,174.62	7,133.36	121.22	36.24	-90.86	-3,483.98	-9,618.41	5,947.21	5,854.84	92.37	64.385		
11,200.00	7,115.10	7,174.60	7,133.34	123.98	36.24	-90.86	-3,483.99	-9,618.41	5,858.42	5,764.25	94.18	62.207		
11,300.00	7,114.66	7,174.58	7,133.32	126.74	36.24	-90.86	-3,483.99	-9,618.41	5,770.01	5,673.95	96.06	60.069		
11,400.00	7,114.23	7,174.56	7,133.31	129.51	36.24	-90.86	-3,483.99	-9,618.41	5,681.97	5,583.96	98.01	57.973		
11,500.00	7,113.80	7,174.55	7,133.29	132.29	36.24	-90.86	-3,483.99	-9,618.41	5,594.34	5,494.30	100.04	55.920		
11,600.00	7,113.36	7,174.53	7,133.27	135.06	36.24	-90.86	-3,483.99	-9,618.41	5,507.13	5,404.98	102.15	53.910		
11,700.00	7,112.93	7,174.51	7,133.25	137.84	36.24	-90.86	-3,483.99	-9,618.41	5,420.37	5,316.02	104.35	51.946		
11,800.00	7,112.49	7,174.49	7,133.23	140.62	36.24	-90.86	-3,483.99	-9,618.41	5,334.06	5,227.44	106.62	50.027		
11,900.00	7,112.06	7,174.47	7,133.21	143.41	36.24	-90.86	-3,483.99	-9,618.41	5,248.24	5,139.26	108.99	48.155		
12,000.00	7,111.63	7,174.45	7,133.20	146.20	36.24	-90.86	-3,483.99	-9,618.41	5,162.94	5,051.50	111.44	46.330		
12,100.00	7,111.19	7,174.44	7,133.18	148.99	36.24	-90.86	-3,483.99	-9,618.41	5,078.16	4,964.18	113.98	44.553		
12,200.00	7,110.76	7,174.42	7,133.16	151.78	36.24	-90.86	-3,483.99	-9,618.41	4,993.96	4,877.34	116.62	42.823		
12,300.00	7,110.33	7,174.40	7,133.14	154.58	36.24	-90.86	-3,483.99	-9,618.41	4,910.34	4,790.99	119.35	41.142		
12,400.00	7,109.89	7,174.38	7,133.12	157.37	36.24	-90.86	-3,483.99	-9,618.41	4,827.35	4,705.16	122.19	39.509		
12,500.00	7,109.46	7,174.36	7,133.10	160.17	36.24	-90.85	-3,483.99	-9,618.41	4,745.01	4,619.89	125.12	37.923		
12,600.00	7,109.02	7,174.34	7,133.08	162.98	36.24	-90.85	-3,483.99	-9,618.41	4,663.37	4,535.21	128.16	36.386		
12,700.00	7,108.59	7,174.32	7,133.07	165.78	36.24	-90.85	-3,483.99	-9,618.41	4,582.45	4,451.14	131.31	34.898		
12,800.00	7,108.16	7,174.30	7,133.05	168.59	36.24	-90.85	-3,483.99	-9,618.41	4,502.30	4,367.73	134.57	33.456		
12,900.00	7,107.72	7,174.28	7,133.03	171.39	36.24	-90.85	-3,483.99	-9,618.41	4,422.96	4,285.01	137.95	32.063		
13,000.00	7,107.29	7,174.27	7,133.01	174.20	36.24	-90.85	-3,483.99	-9,618.41	4,344.47	4,203.03	141.44	30.716		
13,100.00	7,106.85	7,174.25	7,132.99	177.01	36.24	-90.85	-3,483.99	-9,618.41	4,266.88	4,121.83	145.05	29.417		
13,200.00	7,106.42	7,174.23	7,132.97	179.83	36.24	-90.85	-3,483.99	-9,618.41	4,190.24	4,041.46	148.78	28.164		
13,300.00	7,105.99	7,174.21	7,132.95	182.64	36.24	-90.85	-3,483.99	-9,618.41	4,114.60	3,961.96	152.64	26.956		
13,400.00	7,105.55	7,174.19	7,132.93	185.45	36.24	-90.85	-3,483.99	-9,618.41	4,040.02	3,883.40	156.62	25.795		
13,500.00	7,105.12	7,174.17	7,132.91	188.27	36.24	-90.85	-3,483.99	-9,618.41	3,966.57	3,805.83	160.73	24.678		
13,600.00	7,104.68	7,174.15	7,132.89	191.09	36.24	-90.85	-3,483.99	-9,618.41	3,894.29	3,729.31	164.98	23.605		
13,700.00	7,104.25	7,174.13	7,132.87	193.91	36.24	-90.85	-3,483.99	-9,618.41	3,823.26	3,653.92	169.35	22.577		
13,800.00	7,103.82	7,174.11	7,132.85	196.73	36.24	-90.85	-3,483.99	-9,618.41	3,753.56	3,579.71	173.85	21.591		
13,900.00	7,103.38	7,174.09	7,132.83	199.55	36.24	-90.85	-3,483.99	-9,618.41	3,685.25	3,506.77	178.48	20.648		
14,000.00	7,102.95	7,174.07	7,132.81	202.37	36.24	-90.85	-3,483.99	-9,618.41	3,618.41	3,435.17	183.24	19.747		
14,100.00	7,102.51	7,174.05	7,132.79	205.19	36.24	-90.85	-3,483.99	-9,618.41	3,553.13	3,365.01	188.12	18.888		
14,200.00	7,102.08	7,174.02	7,132.77	208.02	36.24	-90.85	-3,483.99	-9,618.41	3,489.50	3,296.37	193.13	18.069		
14,300.00	7,101.65	7,174.00	7,132.75	210.84	36.24	-90.85	-3,483.99	-9,618.41	3,427.60	3,229.35	198.25	17.290		
14,400.00	7,101.21	7,173.98	7,132.73	213.67	36.24	-90.85	-3,483.99	-9,618.41	3,367.53	3,164.05	203.48	16.550		
14,500.00	7,100.78	7,173.96	7,132.70	216.50	36.24	-90.85	-3,483.99	-9,618.41	3,309.40	3,100.59	208.81	15.849		
14,600.00	7,100.35	7,173.94	7,132.68	219.32	36.24	-90.85	-3,483.99	-9,618.41	3,253.30	3,039.06	214.24	15.185		
14,700.00	7,099.91	7,173.92	7,132.66	222.15	36.24	-90.85	-3,483.99	-9,618.41	3,199.35	2,979.60	219.74	14.559		
14,800.00	7,099.48	7,173.90	7,132.64	224.98	36.24	-90.85	-3,484.00	-9,618.41	3,147.65	2,922.33	225.32	13.970		
14,900.00	7,099.04	7,173.88	7,132.62	227.81	36.24	-90.84	-3,484.00	-9,618.41	3,098.31	2,867.37	230.94	13.416		
14,909.96	7,099.00	7,173.88	7,132.62	228.09	36.24	-90.84	-3,484.00	-9,618.41	3,093.53	2,862.03	231.50	13.363 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	922.60	949.56	3.28	5.50	-108.56	-2,970.22	-8,845.45	9,379.02					
100.00	100.00	1,003.00	1,027.88	3.28	5.92	-108.66	-2,983.24	-8,832.75	9,369.00	9,359.83	9.16	1,022.357		
200.00	200.00	1,049.61	1,073.26	3.34	6.17	-108.72	-2,991.02	-8,825.48	9,359.38	9,349.93	9.44	991.079		
300.00	300.00	1,098.00	1,120.48	3.44	6.43	-108.78	-2,998.79	-8,818.33	9,350.34	9,340.54	9.79	954.783		
400.00	400.00	1,131.40	1,153.15	3.60	6.61	-108.82	-3,003.94	-8,813.67	9,341.93	9,331.82	10.11	924.046		
500.00	500.00	1,193.00	1,213.58	3.81	6.93	-108.89	-3,012.91	-8,805.83	9,334.32	9,323.70	10.62	878.857		
600.00	600.00	1,210.47	1,230.75	4.04	7.03	57.96	-3,015.40	-8,803.74	9,327.15	9,316.21	10.94	852.520		
700.00	699.96	1,285.00	1,303.82	4.29	7.42	58.02	-3,026.95	-8,794.67	9,319.25	9,307.68	11.57	805.177		
800.00	799.78	1,356.50	1,373.85	4.57	7.82	58.12	-3,038.49	-8,786.02	9,309.81	9,297.57	12.23	761.062		
900.00	899.34	1,430.78	1,446.78	4.88	8.22	58.26	-3,049.71	-8,777.49	9,298.80	9,285.87	12.93	719.339		
1,000.00	998.72	1,726.10	1,737.54	5.20	9.80	58.14	-3,087.00	-8,741.90	9,284.82	9,270.04	14.79	627.855		
1,100.00	1,098.10	1,757.00	1,767.95	5.54	9.97	58.13	-3,090.91	-8,738.08	9,271.35	9,256.06	15.29	606.397		
1,200.00	1,197.49	1,818.68	1,828.64	5.90	10.31	58.10	-3,099.06	-8,730.70	9,258.44	9,242.47	15.97	579.576		
1,300.00	1,296.87	2,226.00	2,228.30	6.28	12.65	57.90	-3,154.00	-8,675.11	9,243.86	9,225.27	18.59	497.320		
1,400.00	1,396.25	2,298.50	2,299.49	6.66	13.06	57.87	-3,162.59	-8,664.45	9,227.97	9,208.62	19.36	476.722		
1,500.00	1,495.64	2,321.00	2,321.65	7.06	13.19	57.86	-3,164.96	-8,661.30	9,212.59	9,192.72	19.87	463.654		
1,600.00	1,595.02	2,378.40	2,378.19	7.46	13.51	57.84	-3,171.10	-8,653.63	9,197.73	9,177.16	20.57	447.148		
1,700.00	1,694.40	2,416.00	2,415.25	7.87	13.72	57.83	-3,175.40	-8,648.88	9,183.63	9,162.46	21.17	433.717		
1,800.00	1,793.79	2,563.68	2,560.33	8.29	14.56	57.76	-3,194.66	-8,629.18	9,169.31	9,146.91	22.40	409.410		
1,900.00	1,893.17	2,721.40	2,715.14	8.71	15.49	57.68	-3,215.63	-8,607.55	9,154.90	9,131.20	23.70	386.339		
2,000.00	1,992.55	2,819.44	2,810.82	9.13	16.10	57.62	-3,231.08	-8,592.80	9,139.96	9,115.26	24.70	370.067		
2,100.00	2,091.94	2,890.00	2,879.83	9.56	16.53	57.57	-3,241.52	-8,582.47	9,125.12	9,099.58	25.54	357.284		
2,200.00	2,191.32	2,935.19	2,924.17	9.99	16.80	57.55	-3,247.66	-8,576.25	9,110.76	9,084.54	26.22	347.418		
2,300.00	2,290.70	2,984.00	2,972.18	10.42	17.08	57.53	-3,253.93	-8,570.08	9,097.09	9,070.16	26.93	337.790		
2,400.00	2,390.09	3,041.86	3,029.08	10.86	17.42	57.50	-3,261.63	-8,562.99	9,083.93	9,056.24	27.69	328.029		
2,500.00	2,489.47	3,103.37	3,089.45	11.29	17.77	57.47	-3,270.60	-8,555.30	9,071.07	9,042.60	28.47	318.588		
2,600.00	2,588.86	3,169.00	3,154.18	11.73	18.14	57.44	-3,278.66	-8,548.11	9,058.80	9,029.53	29.27	309.479		
2,700.00	2,688.24	3,196.22	3,181.12	12.18	18.28	57.44	-3,281.54	-8,545.46	9,047.02	9,017.17	29.85	303.064		
2,800.00	2,787.62	3,262.00	3,246.28	12.62	18.62	57.42	-3,288.25	-8,539.54	9,035.91	9,005.28	30.63	295.040		
2,900.00	2,887.01	3,300.95	3,284.89	13.06	18.82	57.41	-3,292.27	-8,536.23	9,025.25	8,993.98	31.27	288.636		
3,000.00	2,986.39	3,367.26	3,350.52	13.51	19.16	57.40	-3,299.79	-8,530.57	9,015.03	8,982.98	32.05	281.279		
3,100.00	3,085.77	3,100.00	3,495.98	13.95	17.79	57.36	-3,315.68	-8,518.38	9,004.90	8,973.77	31.13	289.239		
3,200.00	3,185.16	3,597.84	3,578.89	14.40	20.35	57.34	-3,324.74	-8,510.89	8,994.17	8,960.06	34.11	263.667		
3,300.00	3,284.54	4,073.08	4,046.38	14.85	23.06	57.12	-3,388.34	-8,456.13	8,982.30	8,945.15	37.15	241.774		
3,400.00	3,383.92	4,112.00	4,084.51	15.30	23.30	57.10	-3,393.99	-8,450.68	8,968.08	8,930.23	37.84	236.976		
3,500.00	3,483.31	4,171.41	4,142.87	15.75	23.65	57.07	-3,401.95	-8,442.95	8,954.40	8,915.76	38.63	231.784		
3,600.00	3,582.69	4,226.47	4,197.08	16.20	23.97	57.04	-3,408.85	-8,436.28	8,941.23	8,901.83	39.40	226.936		
3,700.00	3,682.07	4,285.41	4,254.99	16.65	24.31	57.01	-3,417.18	-8,429.07	8,928.52	8,888.33	40.19	222.144		
3,800.00	3,781.46	4,334.77	4,303.36	17.10	24.60	56.98	-3,424.91	-8,423.02	8,916.30	8,875.37	40.94	217.815		
3,900.00	3,880.84	4,396.00	4,363.53	17.56	24.96	56.95	-3,433.95	-8,416.17	8,904.70	8,862.96	41.75	213.305		
4,000.00	3,980.22	4,441.54	4,408.37	18.01	25.22	56.92	-3,440.34	-8,411.43	8,893.59	8,851.13	42.46	209.467		
4,100.00	4,079.61	4,491.00	4,457.11	18.46	25.50	56.90	-3,447.11	-8,406.49	8,882.90	8,839.71	43.19	205.664		
4,200.00	4,178.99	4,548.19	4,513.57	18.92	25.81	56.88	-3,454.58	-8,401.21	8,872.71	8,828.76	43.95	201.861		
4,300.00	4,278.38	4,585.00	4,549.97	19.37	26.01	56.87	-3,459.12	-8,398.16	8,863.17	8,818.56	44.61	198.684		
4,400.00	4,377.76	4,630.24	4,594.78	19.83	26.24	56.85	-3,464.36	-8,394.86	8,854.27	8,808.98	45.29	195.492		
4,500.00	4,477.14	4,680.00	4,644.17	20.28	26.49	56.84	-3,469.60	-8,391.87	8,846.09	8,800.10	46.00	192.319		
4,600.00	4,576.53	4,708.54	4,672.53	20.74	26.62	56.84	-3,472.42	-8,390.43	8,838.56	8,791.98	46.58	189.731		
4,700.00	4,675.91	4,749.31	4,713.08	21.19	26.81	56.84	-3,476.31	-8,388.67	8,831.71	8,784.49	47.23	186.999		
4,800.00	4,775.29	4,944.68	4,907.73	21.65	27.68	56.85	-3,490.88	-8,380.73	8,824.12	8,775.56	48.56	181.718		
4,900.00	4,874.68	4,999.37	4,962.29	22.10	27.91	56.86	-3,494.18	-8,378.78	8,816.77	8,767.52	49.25	179.032		
5,000.00	4,974.06	5,059.00	5,021.81	22.56	28.16	56.87	-3,497.47	-8,377.13	8,809.96	8,760.01	49.95	176.368		
5,100.00	5,073.44	5,164.86	5,127.61	23.02	28.55	56.92	-3,499.93	-8,375.61	8,803.33	8,752.53	50.80	173.293		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,232.34	5,195.09	23.47	28.78	56.96	-3,499.88	-8,375.32	8,796.82	8,745.34	51.48	170.885		
5,300.00	5,272.21	5,297.23	5,259.98	23.93	28.99	57.00	-3,499.87	-8,375.28	8,790.69	8,738.55	52.14	168.582		
5,400.00	5,371.59	5,369.05	5,331.80	24.39	29.23	57.04	-3,500.12	-8,375.45	8,784.96	8,732.12	52.84	166.270		
5,500.00	5,470.98	5,460.25	5,422.99	24.85	29.53	57.09	-3,500.58	-8,375.77	8,779.41	8,725.81	53.60	163.809		
5,600.00	5,570.36	5,551.46	5,514.20	25.30	29.83	57.14	-3,501.13	-8,376.14	8,773.96	8,719.60	54.36	161.416		
5,700.00	5,669.75	5,647.79	5,610.53	25.76	30.15	57.20	-3,501.78	-8,376.61	8,768.60	8,713.47	55.13	159.042		
5,800.00	5,769.13	5,761.48	5,724.22	26.22	30.52	57.27	-3,502.34	-8,377.12	8,763.17	8,707.21	55.97	156.582		
5,900.00	5,868.51	5,875.09	5,837.83	26.68	30.89	57.34	-3,502.55	-8,377.57	8,757.59	8,700.79	56.80	154.189		
6,000.00	5,967.90	5,981.36	5,944.10	27.14	31.25	57.40	-3,502.64	-8,377.88	8,751.89	8,694.27	57.62	151.893		
6,100.00	6,067.28	6,085.22	6,047.96	27.60	31.61	57.46	-3,503.18	-8,377.96	8,746.14	8,687.70	58.44	149.668		
6,200.00	6,166.66	6,190.14	6,152.87	28.05	31.97	57.52	-3,504.21	-8,377.81	8,740.35	8,681.09	59.26	147.490		
6,300.00	6,266.05	6,340.86	6,303.58	28.51	32.54	57.60	-3,506.05	-8,376.94	8,734.24	8,673.95	60.29	144.860		
6,400.00	6,365.43	6,491.53	6,454.22	28.97	33.12	57.68	-3,507.94	-8,375.12	8,727.55	8,666.23	61.33	142.313		
6,500.00	6,464.81	6,555.91	6,518.59	29.43	33.38	57.71	-3,508.99	-8,374.27	8,720.85	8,658.81	62.04	140.563		
6,600.00	6,564.10	6,631.06	6,593.71	29.89	33.67	27.25	-3,510.51	-8,373.36	8,712.59	8,649.79	62.80	138.744		
6,700.00	6,661.75	6,704.94	6,667.57	30.34	33.96	3.26	-3,512.34	-8,372.56	8,691.76	8,628.23	63.53	136.811		
6,800.00	6,755.38	6,785.11	6,747.71	30.77	34.28	-5.73	-3,514.65	-8,371.79	8,656.99	8,592.73	64.26	134.710		
6,900.00	6,842.67	6,879.43	6,841.99	31.17	34.65	-11.29	-3,517.11	-8,370.98	8,608.89	8,543.87	65.02	132.413		
7,000.00	6,921.48	6,964.44	6,926.98	31.54	34.99	-16.25	-3,518.94	-8,370.31	8,548.59	8,482.91	65.68	130.155		
7,100.00	6,989.86	7,039.95	7,002.48	31.91	35.29	-21.91	-3,520.27	-8,369.76	8,477.62	8,411.37	66.25	127.963		
7,200.00	7,046.13	7,122.30	7,084.81	32.35	35.62	-29.66	-3,521.58	-8,369.03	8,397.70	8,330.91	66.79	125.739		
7,300.00	7,088.91	7,183.84	7,146.33	32.98	35.86	-41.27	-3,522.56	-8,368.30	8,310.85	8,243.66	67.19	123.696		
7,400.00	7,117.14	7,223.31	7,185.80	33.84	36.02	-59.09	-3,523.18	-8,367.75	8,219.35	8,151.89	67.46	121.839		
7,500.00	7,130.13	7,240.10	7,202.58	34.90	36.09	-83.12	-3,523.44	-8,367.50	8,125.55	8,057.93	67.62	120.163		
7,600.00	7,130.72	7,238.76	7,201.24	36.13	36.08	-92.14	-3,523.42	-8,367.52	8,031.57	7,963.86	67.71	118.614		
7,700.00	7,130.29	7,235.96	7,198.44	37.54	36.07	-92.08	-3,523.38	-8,367.56	7,937.76	7,869.93	67.83	117.018		
7,800.00	7,129.85	7,233.19	7,195.68	39.12	36.06	-92.02	-3,523.34	-8,367.60	7,844.11	7,776.12	68.00	115.363		
7,900.00	7,129.42	7,230.46	7,192.94	40.83	36.05	-91.97	-3,523.29	-8,367.64	7,750.62	7,682.42	68.20	113.647		
8,000.00	7,128.98	7,227.75	7,190.24	42.67	36.04	-91.91	-3,523.25	-8,367.69	7,657.29	7,588.84	68.45	111.871		
8,100.00	7,128.55	7,225.08	7,187.56	44.62	36.03	-91.86	-3,523.21	-8,367.72	7,564.13	7,495.39	68.74	110.037		
8,200.00	7,128.12	7,222.43	7,184.92	46.66	36.02	-91.80	-3,523.17	-8,367.76	7,471.14	7,402.06	69.08	108.144		
8,300.00	7,127.68	7,219.82	7,182.31	48.79	36.01	-91.75	-3,523.12	-8,367.80	7,378.34	7,308.86	69.48	106.196		
8,400.00	7,127.25	7,217.23	7,179.72	50.98	36.00	-91.69	-3,523.08	-8,367.84	7,285.73	7,215.81	69.92	104.195		
8,500.00	7,126.81	7,214.68	7,177.17	53.24	35.99	-91.64	-3,523.04	-8,367.88	7,193.32	7,122.89	70.42	102.144		
8,600.00	7,126.38	7,212.15	7,174.64	55.56	35.98	-91.59	-3,523.00	-8,367.91	7,101.11	7,030.13	70.98	100.045		
8,700.00	7,125.95	7,209.65	7,172.14	57.92	35.97	-91.54	-3,522.96	-8,367.95	7,009.11	6,937.52	71.59	97.904		
8,800.00	7,125.51	7,207.17	7,169.67	60.33	35.96	-91.49	-3,522.92	-8,367.98	6,917.34	6,845.07	72.26	95.724		
8,900.00	7,125.08	7,204.73	7,167.22	62.77	35.95	-91.43	-3,522.89	-8,368.02	6,825.79	6,752.80	73.00	93.509		
9,000.00	7,124.64	7,202.31	7,164.80	65.25	35.94	-91.38	-3,522.85	-8,368.05	6,734.49	6,660.70	73.79	91.266		
9,100.00	7,124.21	7,199.91	7,162.41	67.76	35.93	-91.33	-3,522.81	-8,368.08	6,643.43	6,568.78	74.65	88.998		
9,200.00	7,123.78	7,197.55	7,160.04	70.29	35.92	-91.29	-3,522.77	-8,368.12	6,552.64	6,477.07	75.57	86.710		
9,300.00	7,123.34	7,195.20	7,157.70	72.85	35.91	-91.24	-3,522.74	-8,368.15	6,462.11	6,385.56	76.56	84.409		
9,400.00	7,122.91	7,192.88	7,155.38	75.43	35.90	-91.19	-3,522.70	-8,368.18	6,371.87	6,294.26	77.61	82.099		
9,500.00	7,122.48	7,190.59	7,153.08	78.03	35.89	-91.14	-3,522.66	-8,368.21	6,281.93	6,203.19	78.73	79.786		
9,600.00	7,122.04	7,188.32	7,150.81	80.65	35.88	-91.09	-3,522.63	-8,368.24	6,192.29	6,112.36	79.93	77.474		
9,700.00	7,121.61	7,186.07	7,148.57	83.28	35.87	-91.05	-3,522.59	-8,368.27	6,102.97	6,021.78	81.19	75.169		
9,800.00	7,121.17	7,183.85	7,146.35	85.93	35.86	-91.00	-3,522.56	-8,368.30	6,013.99	5,931.46	82.52	72.875		
9,900.00	7,120.74	7,181.65	7,144.14	88.59	35.86	-90.96	-3,522.52	-8,368.33	5,925.36	5,841.43	83.93	70.596		
10,000.00	7,120.31	7,179.47	7,141.97	91.26	35.85	-90.91	-3,522.49	-8,368.36	5,837.09	5,751.68	85.42	68.338		
10,100.00	7,119.87	7,177.31	7,139.81	93.95	35.84	-90.87	-3,522.45	-8,368.38	5,749.21	5,662.24	86.97	66.103		
10,200.00	7,119.44	7,175.18	7,137.68	96.64	35.83	-90.82	-3,522.42	-8,368.41	5,661.74	5,573.13	88.61	63.895		
10,300.00	7,119.00	7,173.07	7,135.57	99.34	35.82	-90.78	-3,522.39	-8,368.44	5,574.68	5,484.35	90.32	61.719		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,118.57	7,170.98	7,133.48	102.05	35.81	-90.74	-3,522.35	-8,368.46	5,488.06	5,395.94	92.12	59.576		
10,500.00	7,118.14	7,168.91	7,131.41	104.77	35.81	-90.69	-3,522.32	-8,368.49	5,401.90	5,307.91	93.99	57.470		
10,600.00	7,117.70	7,166.86	7,129.36	107.50	35.80	-90.65	-3,522.29	-8,368.51	5,316.23	5,220.28	95.95	55.404		
10,700.00	7,117.27	7,164.83	7,127.33	110.23	35.79	-90.61	-3,522.25	-8,368.54	5,231.07	5,133.07	98.00	53.378		
10,800.00	7,116.83	7,162.82	7,125.32	112.97	35.78	-90.57	-3,522.22	-8,368.56	5,146.44	5,046.31	100.13	51.396		
10,900.00	7,116.40	7,160.83	7,123.33	115.72	35.77	-90.53	-3,522.19	-8,368.59	5,062.37	4,960.01	102.35	49.459		
11,000.00	7,115.97	7,158.86	7,121.36	118.47	35.77	-90.48	-3,522.16	-8,368.61	4,978.89	4,874.22	104.67	47.569		
11,100.00	7,115.53	7,156.90	7,119.41	121.22	35.76	-90.44	-3,522.13	-8,368.64	4,896.02	4,788.95	107.07	45.726		
11,200.00	7,115.10	7,154.97	7,117.47	123.98	35.75	-90.40	-3,522.10	-8,368.66	4,813.81	4,704.23	109.57	43.932		
11,300.00	7,114.66	7,153.06	7,115.56	126.74	35.74	-90.36	-3,522.07	-8,368.68	4,732.28	4,620.11	112.17	42.188		
11,400.00	7,114.23	7,151.16	7,113.66	129.51	35.73	-90.32	-3,522.04	-8,368.70	4,651.47	4,536.60	114.87	40.494		
11,500.00	7,113.80	7,149.28	7,111.79	132.29	35.73	-90.29	-3,522.01	-8,368.73	4,571.42	4,453.75	117.67	38.850		
11,600.00	7,113.36	7,147.42	7,109.93	135.06	35.72	-90.25	-3,521.98	-8,368.75	4,492.17	4,371.60	120.57	37.258		
11,700.00	7,112.93	7,145.58	7,108.08	137.84	35.71	-90.21	-3,521.95	-8,368.77	4,413.76	4,290.18	123.58	35.716		
11,800.00	7,112.49	7,143.76	7,106.26	140.62	35.70	-90.17	-3,521.92	-8,368.79	4,336.23	4,209.54	126.70	34.226		
11,900.00	7,112.06	7,141.95	7,104.45	143.41	35.70	-90.13	-3,521.89	-8,368.81	4,259.65	4,129.73	129.92	32.787		
12,000.00	7,111.63	7,140.16	7,102.66	146.20	35.69	-90.10	-3,521.86	-8,368.83	4,184.05	4,050.79	133.26	31.398		
12,100.00	7,111.19	7,138.38	7,100.89	148.99	35.68	-90.06	-3,521.83	-8,368.85	4,109.49	3,972.79	136.71	30.061		
12,200.00	7,110.76	7,136.62	7,099.13	151.78	35.68	-90.02	-3,521.81	-8,368.87	4,036.04	3,895.77	140.27	28.774		
12,300.00	7,110.33	7,134.88	7,097.39	154.58	35.67	-89.99	-3,521.78	-8,368.89	3,963.74	3,819.80	143.95	27.536		
12,400.00	7,109.89	7,133.15	7,095.66	157.37	35.66	-89.95	-3,521.75	-8,368.91	3,892.67	3,744.94	147.74	26.349		
12,500.00	7,109.46	7,131.44	7,093.95	160.17	35.66	-89.92	-3,521.72	-8,368.93	3,822.90	3,671.26	151.64	25.210		
12,600.00	7,109.02	7,129.75	7,092.25	162.98	35.65	-89.88	-3,521.70	-8,368.95	3,754.49	3,598.83	155.66	24.119		
12,700.00	7,108.59	7,128.07	7,090.57	165.78	35.64	-89.85	-3,521.67	-8,368.96	3,687.52	3,527.73	159.79	23.077		
12,800.00	7,108.16	7,126.40	7,088.91	168.59	35.64	-89.81	-3,521.64	-8,368.98	3,622.08	3,458.04	164.04	22.081		
12,900.00	7,107.72	7,124.75	7,087.26	171.39	35.63	-89.78	-3,521.62	-8,369.00	3,558.24	3,389.86	168.38	21.132		
13,000.00	7,107.29	7,123.11	7,085.62	174.20	35.62	-89.74	-3,521.59	-8,369.02	3,496.10	3,323.27	172.83	20.228		
13,100.00	7,106.85	7,121.49	7,084.00	177.01	35.62	-89.71	-3,521.57	-8,369.04	3,435.74	3,258.36	177.38	19.369		
13,200.00	7,106.42	7,119.89	7,082.40	179.83	35.61	-89.68	-3,521.54	-8,369.05	3,377.27	3,195.25	182.02	18.555		
13,300.00	7,105.99	7,118.29	7,080.80	182.64	35.60	-89.64	-3,521.52	-8,369.07	3,320.77	3,134.04	186.73	17.784		
13,400.00	7,105.55	7,116.71	7,079.22	185.45	35.60	-89.61	-3,521.49	-8,369.09	3,266.36	3,074.84	191.52	17.055		
13,500.00	7,105.12	7,115.15	7,077.66	188.27	35.59	-89.58	-3,521.47	-8,369.10	3,214.15	3,017.78	196.37	16.368		
13,600.00	7,104.68	7,113.60	7,076.11	191.09	35.58	-89.55	-3,521.44	-8,369.12	3,164.23	2,962.96	201.26	15.722		
13,700.00	7,104.25	7,112.06	7,074.57	193.91	35.58	-89.51	-3,521.42	-8,369.13	3,116.72	2,910.53	206.19	15.116		
13,800.00	7,103.82	7,110.53	7,073.04	196.73	35.57	-89.48	-3,521.39	-8,369.15	3,071.73	2,860.60	211.13	14.549		
13,900.00	7,103.38	7,109.02	7,071.53	199.55	35.57	-89.45	-3,521.37	-8,369.16	3,029.37	2,813.31	216.06	14.021		
14,000.00	7,102.95	7,107.52	7,070.03	202.37	35.56	-89.42	-3,521.34	-8,369.18	2,989.76	2,768.79	220.97	13.530		
14,100.00	7,102.51	7,106.04	7,068.55	205.19	35.55	-89.39	-3,521.32	-8,369.19	2,953.00	2,727.17	225.83	13.076		
14,200.00	7,102.08	7,104.56	7,067.07	208.02	35.55	-89.36	-3,521.30	-8,369.21	2,919.21	2,688.59	230.62	12.658		
14,300.00	7,101.65	7,103.10	7,065.61	210.84	35.54	-89.33	-3,521.27	-8,369.22	2,888.49	2,653.17	235.31	12.275		
14,400.00	7,101.21	7,101.65	7,064.16	213.67	35.54	-89.30	-3,521.25	-8,369.24	2,860.93	2,621.04	239.89	11.926		
14,500.00	7,100.78	7,100.21	7,062.73	216.50	35.53	-89.27	-3,521.23	-8,369.25	2,836.63	2,592.32	244.31	11.611		
14,600.00	7,100.35	7,098.79	7,061.30	219.32	35.53	-89.24	-3,521.21	-8,369.26	2,815.67	2,567.11	248.56	11.328		
14,700.00	7,099.91	7,097.37	7,059.89	222.15	35.52	-89.21	-3,521.18	-8,369.28	2,798.13	2,545.52	252.62	11.077		
14,800.00	7,099.48	7,095.97	7,058.48	224.98	35.51	-89.18	-3,521.16	-8,369.29	2,784.08	2,527.63	256.45	10.856		
14,900.00	7,099.04	7,094.58	7,057.09	227.81	35.51	-89.15	-3,521.14	-8,369.30	2,773.56	2,513.52	260.04	10.666		
14,909.96	7,099.00	7,094.44	7,056.96	228.09	35.51	-89.15	-3,521.14	-8,369.31	2,772.71	2,512.32	260.39	10.648	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	65.00	3.28	3.28	-133.75	-3,226.43	-3,370.92	4,666.61				
100.00	100.00	35.00	100.00	3.28	3.34	-133.75	-3,226.43	-3,370.92	4,666.15	4,659.53	6.62	704.736	
200.00	200.00	135.00	200.00	3.34	4.42	-133.75	-3,226.43	-3,370.92	4,666.15	4,658.39	7.76	601.301	
300.00	300.00	235.00	300.00	3.44	7.24	-133.75	-3,226.43	-3,370.92	4,666.15	4,655.46	10.69	436.561	
400.00	400.00	335.00	400.00	3.60	10.48	-133.75	-3,226.43	-3,370.92	4,666.15	4,652.07	14.08	331.417	
500.00	500.00	435.00	500.00	3.81	13.83	-133.75	-3,226.43	-3,370.92	4,666.15	4,648.51	17.64	264.509	
600.00	600.00	535.00	600.00	4.04	17.25	33.10	-3,226.43	-3,370.92	4,666.09	4,644.80	21.29	219.170	
700.00	699.96	634.96	699.96	4.29	20.68	33.14	-3,226.43	-3,370.92	4,664.05	4,639.07	24.97	186.753	
800.00	799.78	734.78	799.78	4.57	24.13	33.24	-3,226.43	-3,370.92	4,659.08	4,630.38	28.70	162.339	
900.00	899.34	834.34	899.34	4.88	27.58	33.38	-3,226.43	-3,370.92	4,651.21	4,618.76	32.45	143.322	
1,000.00	998.72	933.72	998.72	5.20	31.02	33.46	-3,226.43	-3,370.92	4,641.94	4,605.72	36.22	128.154	
1,100.00	1,098.10	1,033.10	1,098.10	5.54	34.48	33.54	-3,226.43	-3,370.92	4,632.67	4,592.66	40.01	115.779	
1,200.00	1,197.49	1,132.49	1,197.49	5.90	37.93	33.61	-3,226.43	-3,370.92	4,623.42	4,579.60	43.82	105.502	
1,300.00	1,296.87	1,231.87	1,296.87	6.28	41.39	33.69	-3,226.43	-3,370.92	4,614.17	4,566.53	47.65	96.839	
1,400.00	1,396.25	1,331.25	1,396.25	6.66	44.85	33.76	-3,226.43	-3,370.92	4,604.94	4,553.45	51.49	89.442	
1,500.00	1,495.64	1,430.64	1,495.64	7.06	48.31	33.84	-3,226.43	-3,370.92	4,595.71	4,540.37	55.33	83.056	
1,600.00	1,595.02	1,530.02	1,595.02	7.46	51.77	33.92	-3,226.43	-3,370.92	4,586.48	4,527.30	59.19	77.490	
1,700.00	1,694.40	1,629.40	1,694.40	7.87	55.23	33.99	-3,226.43	-3,370.92	4,577.27	4,514.22	63.05	72.596	
1,800.00	1,793.79	1,728.79	1,793.79	8.29	58.70	34.07	-3,226.43	-3,370.92	4,568.06	4,501.14	66.92	68.261	
1,900.00	1,893.17	1,828.17	1,893.17	8.71	62.16	34.15	-3,226.43	-3,370.92	4,558.87	4,488.07	70.80	64.395	
2,000.00	1,992.55	1,927.55	1,992.55	9.13	65.63	34.23	-3,226.43	-3,370.92	4,549.68	4,475.00	74.67	60.927	
2,100.00	2,091.94	2,026.94	2,091.94	9.56	69.09	34.31	-3,226.43	-3,370.92	4,540.50	4,461.94	78.56	57.798	
2,200.00	2,191.32	2,126.32	2,191.32	9.99	72.56	34.39	-3,226.43	-3,370.92	4,531.33	4,448.88	82.44	54.962	
2,300.00	2,290.70	2,225.70	2,290.70	10.42	76.02	34.46	-3,226.43	-3,370.92	4,522.16	4,435.83	86.33	52.380	
2,400.00	2,390.09	2,325.09	2,390.09	10.86	79.49	34.54	-3,226.43	-3,370.92	4,513.01	4,422.78	90.23	50.019	
2,500.00	2,489.47	2,424.47	2,489.47	11.29	82.96	34.62	-3,226.43	-3,370.92	4,503.87	4,409.74	94.12	47.852	
2,600.00	2,588.86	2,523.86	2,588.86	11.73	86.42	34.70	-3,226.43	-3,370.92	4,494.73	4,396.71	98.02	45.856	
2,700.00	2,688.24	2,623.24	2,688.24	12.18	89.89	34.78	-3,226.43	-3,370.92	4,485.60	4,383.68	101.92	44.012	
2,800.00	2,787.62	2,722.62	2,787.62	12.62	93.36	34.87	-3,226.43	-3,370.92	4,476.48	4,370.66	105.82	42.304	
2,900.00	2,887.01	2,822.01	2,887.01	13.06	96.83	34.95	-3,226.43	-3,370.92	4,467.37	4,357.65	109.72	40.717	
3,000.00	2,986.39	2,921.39	2,986.39	13.51	100.29	35.03	-3,226.43	-3,370.92	4,458.27	4,344.65	113.62	39.238	
3,100.00	3,085.77	3,020.77	3,085.77	13.95	103.76	35.11	-3,226.43	-3,370.92	4,449.18	4,331.65	117.53	37.857	
3,200.00	3,185.16	3,120.16	3,185.16	14.40	107.23	35.19	-3,226.43	-3,370.92	4,440.09	4,318.66	121.43	36.564	
3,300.00	3,284.54	3,219.54	3,284.54	14.85	110.70	35.27	-3,226.43	-3,370.92	4,431.02	4,305.68	125.34	35.352	
3,400.00	3,383.92	3,318.92	3,383.92	15.30	114.17	35.36	-3,226.43	-3,370.92	4,421.95	4,292.71	129.25	34.213	
3,500.00	3,483.31	3,418.31	3,483.31	15.75	117.63	35.44	-3,226.43	-3,370.92	4,412.90	4,279.74	133.16	33.141	
3,600.00	3,582.69	3,517.69	3,582.69	16.20	121.10	35.52	-3,226.43	-3,370.92	4,403.85	4,266.79	137.06	32.130	
3,700.00	3,682.07	3,617.07	3,682.07	16.65	124.57	35.61	-3,226.43	-3,370.92	4,394.82	4,253.84	140.97	31.174	
3,800.00	3,781.46	3,716.46	3,781.46	17.10	128.04	35.69	-3,226.43	-3,370.92	4,385.79	4,240.90	144.89	30.271	
3,900.00	3,880.84	3,815.84	3,880.84	17.56	131.51	35.78	-3,226.43	-3,370.92	4,376.77	4,227.97	148.80	29.414	
4,000.00	3,980.22	3,915.22	3,980.22	18.01	134.98	35.86	-3,226.43	-3,370.92	4,367.76	4,215.05	152.71	28.602	
4,100.00	4,079.61	4,014.61	4,079.61	18.46	138.44	35.95	-3,226.43	-3,370.92	4,358.76	4,202.14	156.62	27.830	
4,200.00	4,178.99	4,113.99	4,178.99	18.92	141.91	36.03	-3,226.43	-3,370.92	4,349.77	4,189.24	160.53	27.096	
4,300.00	4,278.38	4,213.38	4,278.38	19.37	145.38	36.12	-3,226.43	-3,370.92	4,340.79	4,176.34	164.45	26.396	
4,400.00	4,377.76	4,312.76	4,377.76	19.83	148.85	36.20	-3,226.43	-3,370.92	4,331.82	4,163.46	168.36	25.729	
4,500.00	4,477.14	4,412.14	4,477.14	20.28	152.32	36.29	-3,226.43	-3,370.92	4,322.86	4,150.58	172.28	25.093	
4,600.00	4,576.53	4,511.53	4,576.53	20.74	155.79	36.38	-3,226.43	-3,370.92	4,313.91	4,137.72	176.19	24.484	
4,700.00	4,675.91	4,610.91	4,675.91	21.19	159.26	36.46	-3,226.43	-3,370.92	4,304.97	4,124.86	180.11	23.902	
4,800.00	4,775.29	4,710.29	4,775.29	21.65	162.72	36.55	-3,226.43	-3,370.92	4,296.04	4,112.02	184.02	23.345	
4,900.00	4,874.68	4,809.68	4,874.68	22.10	166.19	36.64	-3,226.43	-3,370.92	4,287.12	4,099.18	187.94	22.811	
5,000.00	4,974.06	4,909.06	4,974.06	22.56	169.66	36.73	-3,226.43	-3,370.92	4,278.21	4,086.35	191.86	22.299	
5,100.00	5,073.44	5,008.44	5,073.44	23.02	173.13	36.82	-3,226.43	-3,370.92	4,269.31	4,073.54	195.77	21.808	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,200.00	5,172.83	5,107.83	5,172.83	23.47	176.60	36.91	-3,226.43	-3,370.92	4,260.42	4,060.73	199.69	21.335		
5,300.00	5,272.21	5,207.21	5,272.21	23.93	180.07	37.00	-3,226.43	-3,370.92	4,251.54	4,047.93	203.61	20.881		
5,400.00	5,371.59	5,306.59	5,371.59	24.39	183.54	37.09	-3,226.43	-3,370.92	4,242.67	4,035.15	207.52	20.444		
5,500.00	5,470.98	5,405.98	5,470.98	24.85	187.01	37.18	-3,226.43	-3,370.92	4,233.81	4,022.37	211.44	20.024		
5,600.00	5,570.36	5,505.36	5,570.36	25.30	190.48	37.27	-3,226.43	-3,370.92	4,224.96	4,009.60	215.36	19.618		
5,700.00	5,669.75	5,604.75	5,669.75	25.76	193.94	37.36	-3,226.43	-3,370.92	4,216.13	3,996.85	219.28	19.227		
5,800.00	5,769.13	5,704.13	5,769.13	26.22	197.41	37.45	-3,226.43	-3,370.92	4,207.30	3,984.10	223.20	18.850		
5,900.00	5,868.51	5,803.51	5,868.51	26.68	200.88	37.54	-3,226.43	-3,370.92	4,198.48	3,971.37	227.12	18.486		
6,000.00	5,967.90	5,902.90	5,967.90	27.14	204.35	37.63	-3,226.43	-3,370.92	4,189.68	3,958.64	231.03	18.134		
6,100.00	6,067.28	6,002.28	6,067.28	27.60	207.82	37.73	-3,226.43	-3,370.92	4,180.88	3,945.93	234.95	17.795		
6,200.00	6,166.66	6,101.66	6,166.66	28.05	211.29	37.82	-3,226.43	-3,370.92	4,172.10	3,933.23	238.87	17.466		
6,300.00	6,266.05	6,201.05	6,266.05	28.51	214.76	37.91	-3,226.43	-3,370.92	4,163.33	3,920.54	242.79	17.148		
6,400.00	6,365.43	6,300.43	6,365.43	28.97	218.23	38.01	-3,226.43	-3,370.92	4,154.57	3,907.85	246.71	16.840		
6,500.00	6,464.81	6,400.19	6,464.81	29.43	221.71	38.10	-3,226.43	-3,370.92	4,145.82	3,895.17	250.65	16.541		
6,600.00	6,564.10	6,500.90	6,564.10	29.89	225.23	7.50	-3,226.43	-3,370.92	4,135.55	3,880.94	254.61	16.243		
6,700.00	6,661.75	6,603.25	6,661.75	30.34	228.80	-17.12	-3,226.43	-3,370.92	4,114.73	3,856.11	258.61	15.911		
6,800.00	6,755.38	6,709.62	6,755.38	30.77	232.51	-27.15	-3,226.43	-3,370.92	4,082.33	3,819.60	262.73	15.538		
6,900.00	6,842.67	6,777.67	6,842.67	31.17	234.89	-34.13	-3,226.43	-3,370.92	4,039.25	3,773.78	265.47	15.216		
7,000.00	6,921.48	6,856.48	6,921.48	31.54	237.64	-40.80	-3,226.43	-3,370.92	3,986.70	3,718.15	268.55	14.846		
7,100.00	6,989.86	6,924.86	6,989.86	31.91	240.02	-48.16	-3,226.43	-3,370.92	3,926.19	3,654.96	271.23	14.476		
7,200.00	7,046.13	6,981.13	7,046.13	32.35	241.99	-56.67	-3,226.43	-3,370.92	3,859.47	3,585.98	273.48	14.112		
7,300.00	7,088.91	7,023.91	7,088.91	32.98	243.48	-66.33	-3,226.43	-3,370.92	3,788.46	3,513.17	275.29	13.762		
7,400.00	7,117.14	7,052.14	7,117.14	33.84	244.47	-76.67	-3,226.43	-3,370.92	3,715.20	3,438.56	276.64	13.430		
7,500.00	7,130.13	7,065.13	7,130.13	34.90	244.92	-86.81	-3,226.43	-3,370.92	3,641.75	3,364.20	277.55	13.121		
7,600.00	7,130.72	7,065.72	7,130.72	36.13	244.94	-90.25	-3,226.43	-3,370.92	3,569.81	3,291.66	278.15	12.834		
7,700.00	7,130.29	7,065.29	7,130.29	37.54	244.93	-90.24	-3,226.43	-3,370.92	3,499.32	3,220.43	278.89	12.547		
7,800.00	7,129.85	7,064.85	7,129.85	39.12	244.91	-90.23	-3,226.43	-3,370.92	3,430.30	3,150.49	279.81	12.260		
7,900.00	7,129.42	7,064.42	7,129.42	40.83	244.90	-90.22	-3,226.43	-3,370.92	3,362.83	3,081.93	280.90	11.972		
8,000.00	7,128.98	7,063.98	7,128.98	42.67	244.88	-90.21	-3,226.43	-3,370.92	3,297.02	3,014.84	282.18	11.684		
8,100.00	7,128.55	7,063.55	7,128.55	44.62	244.87	-90.20	-3,226.43	-3,370.92	3,232.96	2,949.31	283.65	11.398		
8,200.00	7,128.12	7,063.12	7,128.12	46.66	244.85	-90.19	-3,226.43	-3,370.92	3,170.76	2,885.46	285.30	11.114		
8,300.00	7,127.68	7,062.68	7,127.68	48.79	244.84	-90.18	-3,226.43	-3,370.92	3,110.53	2,823.40	287.13	10.833		
8,400.00	7,127.25	7,062.25	7,127.25	50.98	244.82	-90.17	-3,226.43	-3,370.92	3,052.39	2,763.26	289.14	10.557		
8,500.00	7,126.81	7,061.81	7,126.81	53.24	244.80	-90.16	-3,226.43	-3,370.92	2,996.47	2,705.15	291.32	10.286		
8,600.00	7,126.38	7,061.38	7,126.38	55.56	244.79	-90.15	-3,226.43	-3,370.92	2,942.87	2,649.22	293.65	10.022		
8,700.00	7,125.95	7,060.95	7,125.95	57.92	244.77	-90.14	-3,226.43	-3,370.92	2,891.74	2,595.60	296.14	9.765		
8,800.00	7,125.51	7,060.51	7,125.51	60.33	244.76	-90.13	-3,226.43	-3,370.92	2,843.22	2,544.44	298.77	9.516		
8,900.00	7,125.08	7,060.08	7,125.08	62.77	244.74	-90.12	-3,226.43	-3,370.92	2,797.42	2,495.89	301.53	9.277		
9,000.00	7,124.64	7,059.64	7,124.64	65.25	244.73	-90.11	-3,226.43	-3,370.92	2,754.50	2,450.09	304.40	9.049		
9,100.00	7,124.21	7,059.21	7,124.21	67.76	244.71	-90.10	-3,226.43	-3,370.92	2,714.58	2,407.21	307.37	8.832		
9,200.00	7,123.78	7,058.78	7,123.78	70.29	244.70	-90.09	-3,226.43	-3,370.92	2,677.80	2,367.38	310.43	8.626		
9,300.00	7,123.34	7,058.34	7,123.34	72.85	244.68	-90.08	-3,226.43	-3,370.92	2,644.30	2,330.76	313.54	8.434		
9,400.00	7,122.91	7,057.91	7,122.91	75.43	244.67	-90.07	-3,226.43	-3,370.92	2,614.19	2,297.49	316.71	8.254		
9,500.00	7,122.48	7,057.48	7,122.48	78.03	244.65	-90.06	-3,226.43	-3,370.92	2,587.60	2,267.71	319.90	8.089		
9,600.00	7,122.04	7,057.04	7,122.04	80.65	244.64	-90.05	-3,226.43	-3,370.92	2,564.64	2,241.55	323.09	7.938		
9,700.00	7,121.61	7,056.61	7,121.61	83.28	244.62	-90.04	-3,226.43	-3,370.92	2,545.40	2,219.13	326.27	7.802		
9,800.00	7,121.17	7,056.17	7,121.17	85.93	244.61	-90.03	-3,226.43	-3,370.92	2,529.97	2,200.56	329.41	7.680		
9,900.00	7,120.74	7,055.74	7,120.74	88.59	244.59	-90.02	-3,226.43	-3,370.92	2,518.42	2,185.93	332.49	7.574		
10,000.00	7,120.31	7,055.31	7,120.31	91.26	244.58	-90.01	-3,226.43	-3,370.92	2,510.80	2,175.31	335.49	7.484		
10,100.00	7,119.87	7,054.87	7,119.87	93.95	244.56	-90.00	-3,226.43	-3,370.92	2,507.15	2,168.76	338.39	7.409		
10,141.58	7,119.69	7,054.69	7,119.69	95.06	244.56	-90.00	-3,226.43	-3,370.92	2,506.81	2,167.24	339.57	7.382 CC		
10,200.00	7,119.44	7,054.44	7,119.44	96.64	244.55	-89.99	-3,226.43	-3,370.92	2,507.49	2,166.31	341.18	7.349 ES		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	7,054.00	7,119.00	99.34	244.53	-89.98	-3,226.43	-3,370.92	2,511.81	2,167.97	343.84	7.305		
10,400.00	7,118.57	7,053.57	7,118.57	102.05	244.52	-89.97	-3,226.43	-3,370.92	2,520.09	2,173.75	346.34	7.276		
10,500.00	7,118.14	7,053.14	7,118.14	104.77	244.50	-89.96	-3,226.43	-3,370.92	2,532.30	2,183.60	348.70	7.262 SF		
10,600.00	7,117.70	7,052.70	7,117.70	107.50	244.49	-89.95	-3,226.43	-3,370.92	2,548.38	2,197.49	350.89	7.263		
10,700.00	7,117.27	7,052.27	7,117.27	110.23	244.47	-89.94	-3,226.43	-3,370.92	2,568.25	2,215.34	352.91	7.277		
10,800.00	7,116.83	7,051.83	7,116.83	112.97	244.46	-89.93	-3,226.43	-3,370.92	2,591.83	2,237.07	354.76	7.306		
10,900.00	7,116.40	7,051.40	7,116.40	115.72	244.44	-89.92	-3,226.43	-3,370.92	2,619.02	2,262.59	356.44	7.348		
11,000.00	7,115.97	7,050.97	7,115.97	118.47	244.43	-89.91	-3,226.43	-3,370.92	2,649.71	2,291.77	357.94	7.403		
11,100.00	7,115.53	7,050.53	7,115.53	121.22	244.41	-89.90	-3,226.43	-3,370.92	2,683.77	2,324.49	359.29	7.470		
11,200.00	7,115.10	7,050.10	7,115.10	123.98	244.40	-89.90	-3,226.43	-3,370.92	2,721.09	2,360.62	360.47	7.549		
11,300.00	7,114.66	7,049.66	7,114.66	126.74	244.38	-89.89	-3,226.43	-3,370.92	2,761.52	2,400.03	361.50	7.639		
11,400.00	7,114.23	7,049.23	7,114.23	129.51	244.37	-89.88	-3,226.43	-3,370.92	2,804.94	2,442.56	362.38	7.740		
11,500.00	7,113.80	7,048.80	7,113.80	132.29	244.35	-89.87	-3,226.43	-3,370.92	2,851.21	2,488.08	363.13	7.852		
11,600.00	7,113.36	7,048.36	7,113.36	135.06	244.34	-89.86	-3,226.43	-3,370.92	2,900.18	2,536.43	363.75	7.973		
11,700.00	7,112.93	7,047.93	7,112.93	137.84	244.32	-89.85	-3,226.43	-3,370.92	2,951.73	2,587.48	364.26	8.103		
11,800.00	7,112.49	7,047.49	7,112.49	140.62	244.31	-89.84	-3,226.43	-3,370.92	3,005.73	2,641.08	364.65	8.243		
11,900.00	7,112.06	7,047.06	7,112.06	143.41	244.29	-89.83	-3,226.43	-3,370.92	3,062.04	2,697.09	364.95	8.390		
12,000.00	7,111.63	7,046.63	7,111.63	146.20	244.27	-89.82	-3,226.43	-3,370.92	3,120.54	2,755.38	365.16	8.546		
12,100.00	7,111.19	7,046.19	7,111.19	148.99	244.26	-89.81	-3,226.43	-3,370.92	3,181.11	2,815.82	365.29	8.708		
12,200.00	7,110.76	7,045.76	7,110.76	151.78	244.24	-89.80	-3,226.43	-3,370.92	3,243.63	2,878.28	365.35	8.878		
12,300.00	7,110.33	7,045.33	7,110.33	154.58	244.23	-89.79	-3,226.43	-3,370.92	3,307.99	2,942.65	365.34	9.054		
12,400.00	7,109.89	7,044.89	7,109.89	157.37	244.21	-89.78	-3,226.43	-3,370.92	3,374.09	3,008.81	365.28	9.237		
12,500.00	7,109.46	7,044.46	7,109.46	160.17	244.20	-89.77	-3,226.43	-3,370.92	3,441.82	3,076.66	365.17	9.425		
12,600.00	7,109.02	7,044.02	7,109.02	162.98	244.18	-89.76	-3,226.43	-3,370.92	3,511.10	3,146.09	365.01	9.619		
12,700.00	7,108.59	7,043.59	7,108.59	165.78	244.17	-89.75	-3,226.43	-3,370.92	3,581.83	3,217.02	364.81	9.818		
12,800.00	7,108.16	7,043.16	7,108.16	168.59	244.15	-89.74	-3,226.43	-3,370.92	3,653.93	3,289.34	364.58	10.022		
12,900.00	7,107.72	7,042.72	7,107.72	171.39	244.14	-89.73	-3,226.43	-3,370.92	3,727.31	3,362.99	364.32	10.231		
13,000.00	7,107.29	7,042.29	7,107.29	174.20	244.12	-89.72	-3,226.43	-3,370.92	3,801.91	3,437.87	364.04	10.444		
13,100.00	7,106.85	7,041.85	7,106.85	177.01	244.11	-89.71	-3,226.43	-3,370.92	3,877.65	3,513.92	363.74	10.661		
13,200.00	7,106.42	7,041.42	7,106.42	179.83	244.09	-89.70	-3,226.43	-3,370.92	3,954.48	3,591.06	363.41	10.881		
13,300.00	7,105.99	7,040.99	7,105.99	182.64	244.08	-89.69	-3,226.43	-3,370.92	4,032.31	3,669.24	363.08	11.106		
13,400.00	7,105.55	7,040.55	7,105.55	185.45	244.06	-89.68	-3,226.43	-3,370.92	4,111.11	3,748.38	362.73	11.334		
13,500.00	7,105.12	7,040.12	7,105.12	188.27	244.05	-89.67	-3,226.43	-3,370.92	4,190.81	3,828.44	362.37	11.565		
13,600.00	7,104.68	7,039.68	7,104.68	191.09	244.03	-89.66	-3,226.43	-3,370.92	4,271.37	3,909.36	362.00	11.799		
13,700.00	7,104.25	7,039.25	7,104.25	193.91	244.02	-89.65	-3,226.43	-3,370.92	4,352.73	3,991.09	361.63	12.036		
13,800.00	7,103.82	7,038.82	7,103.82	196.73	244.00	-89.64	-3,226.43	-3,370.92	4,434.85	4,073.59	361.26	12.276		
13,900.00	7,103.38	7,038.38	7,103.38	199.55	243.99	-89.63	-3,226.43	-3,370.92	4,517.70	4,156.82	360.88	12.519		
14,000.00	7,102.95	7,037.95	7,102.95	202.37	243.97	-89.62	-3,226.43	-3,370.92	4,601.22	4,240.72	360.50	12.763		
14,100.00	7,102.51	7,037.51	7,102.51	205.19	243.96	-89.61	-3,226.43	-3,370.92	4,685.39	4,325.27	360.12	13.011		
14,200.00	7,102.08	7,037.08	7,102.08	208.02	243.94	-89.60	-3,226.43	-3,370.92	4,770.18	4,410.44	359.74	13.260		
14,300.00	7,101.65	7,036.65	7,101.65	210.84	243.93	-89.59	-3,226.43	-3,370.92	4,855.54	4,496.18	359.36	13.511		
14,400.00	7,101.21	7,036.21	7,101.21	213.67	243.91	-89.58	-3,226.43	-3,370.92	4,941.45	4,582.46	358.99	13.765		
14,500.00	7,100.78	7,035.78	7,100.78	216.50	243.90	-89.57	-3,226.43	-3,370.92	5,027.88	4,669.27	358.62	14.020		
14,600.00	7,100.35	7,035.35	7,100.35	219.32	243.88	-89.56	-3,226.43	-3,370.92	5,114.81	4,756.56	358.25	14.277		
14,700.00	7,099.91	7,034.91	7,099.91	222.15	243.87	-89.55	-3,226.43	-3,370.92	5,202.20	4,844.32	357.88	14.536		
14,800.00	7,099.48	7,034.48	7,099.48	224.98	243.85	-89.54	-3,226.43	-3,370.92	5,290.05	4,932.53	357.52	14.796		
14,900.00	7,099.04	7,034.04	7,099.04	227.81	243.84	-89.53	-3,226.43	-3,370.92	5,378.31	5,021.15	357.17	15.058		
14,909.96	7,099.00	7,034.00	7,099.00	228.09	243.83	-89.53	-3,226.43	-3,370.92	5,387.13	5,030.00	357.13	15.084		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	11.00	3.28	3.28	25.72	1,017.50	490.06	1,129.42					
100.00	100.00	86.49	97.49	3.28	3.29	25.72	1,017.58	490.12	1,129.46	1,122.89	6.57	171.913		
200.00	200.00	186.61	197.61	3.34	3.33	25.72	1,017.74	490.32	1,129.70	1,123.03	6.67	169.396		
300.00	300.00	289.50	300.49	3.44	3.44	25.73	1,017.75	490.52	1,129.79	1,122.91	6.88	164.183		
321.65	321.65	311.84	322.84	3.48	3.47	25.73	1,017.73	490.53	1,129.78	1,122.84	6.94	162.764		
400.00	400.00	382.78	393.78	3.60	3.58	25.75	1,017.76	490.96	1,130.00	1,122.82	7.18	157.400 ES		
500.00	500.00	485.65	496.65	3.81	3.77	25.80	1,017.85	491.97	1,130.51	1,122.94	7.58	149.164		
600.00	600.00	581.08	592.07	4.04	3.99	-167.31	1,017.86	492.90	1,131.02	1,122.99	8.04	140.759		
700.00	699.96	684.94	695.92	4.29	4.26	-167.26	1,017.82	494.45	1,134.02	1,125.47	8.55	132.583		
800.00	799.78	786.48	797.45	4.57	4.55	-167.23	1,017.48	495.74	1,140.06	1,130.94	9.12	124.969		
900.00	899.34	882.75	893.71	4.88	4.85	-167.23	1,017.25	496.91	1,149.56	1,139.83	9.73	118.200		
1,000.00	998.72	985.17	996.12	5.20	5.18	-167.29	1,017.00	498.41	1,160.78	1,150.41	10.38	111.867		
1,100.00	1,098.10	1,078.95	1,089.90	5.54	5.50	-167.35	1,016.89	499.48	1,172.00	1,160.97	11.03	106.254		
1,200.00	1,197.49	1,179.46	1,190.39	5.90	5.85	-167.41	1,017.01	500.94	1,183.55	1,171.82	11.73	100.874		
1,300.00	1,296.87	1,287.26	1,298.18	6.28	6.24	-167.46	1,016.62	502.44	1,194.66	1,182.17	12.49	95.685		
1,400.00	1,396.25	1,387.00	1,397.92	6.66	6.61	-167.52	1,016.02	503.31	1,205.32	1,192.09	13.23	91.133		
1,500.00	1,495.64	1,487.63	1,498.54	7.06	6.98	-167.59	1,015.44	504.11	1,215.97	1,201.98	13.99	86.946		
1,600.00	1,595.02	1,586.18	1,597.08	7.46	7.36	-167.64	1,014.66	505.25	1,226.59	1,211.84	14.75	83.158		
1,700.00	1,694.40	1,683.32	1,694.21	7.87	7.74	-167.69	1,014.10	506.24	1,237.34	1,221.82	15.52	79.728		
1,800.00	1,793.79	1,784.74	1,795.63	8.29	8.13	-167.76	1,013.70	507.00	1,248.14	1,231.82	16.32	76.498		
1,900.00	1,893.17	1,883.32	1,904.20	8.71	8.56	-167.84	1,012.90	507.47	1,258.50	1,241.35	17.15	73.378		
2,000.00	1,992.55	1,987.40	1,998.28	9.13	8.93	-167.94	1,012.28	507.24	1,268.65	1,250.72	17.93	70.751		
2,100.00	2,091.94	2,090.23	2,101.11	9.56	9.34	-168.05	1,011.83	506.90	1,278.97	1,260.21	18.76	68.192		
2,200.00	2,191.32	2,182.05	2,192.93	9.99	9.70	-168.15	1,011.46	506.67	1,289.35	1,269.82	19.54	65.997		
2,300.00	2,290.70	2,278.68	2,289.56	10.42	10.09	-168.26	1,011.57	506.52	1,300.24	1,279.89	20.34	63.915		
2,400.00	2,390.09	2,376.44	2,387.32	10.86	10.49	-168.35	1,011.62	506.74	1,311.24	1,290.08	21.16	61.971		
2,500.00	2,489.47	2,480.66	2,491.54	11.29	10.91	-168.45	1,011.73	506.71	1,322.19	1,300.18	22.01	60.076		
2,600.00	2,588.86	2,576.30	2,587.18	11.73	11.30	-168.56	1,011.84	506.27	1,332.97	1,310.15	22.82	58.408		
2,700.00	2,688.24	2,673.99	2,684.87	12.18	11.70	-168.68	1,012.27	505.86	1,344.07	1,320.42	23.65	56.839		
2,800.00	2,787.62	2,776.62	2,787.49	12.62	12.12	-168.80	1,012.71	505.30	1,355.11	1,330.61	24.50	55.314		
2,900.00	2,887.01	2,885.39	2,896.26	13.06	12.56	-168.94	1,012.80	504.31	1,365.70	1,340.32	25.38	53.806		
3,000.00	2,986.39	2,981.36	2,992.22	13.51	12.96	-169.06	1,012.62	503.24	1,375.97	1,349.76	26.21	52.504		
3,100.00	3,085.77	3,086.16	3,097.01	13.95	13.39	-169.22	1,012.73	501.59	1,386.32	1,359.25	27.08	51.201		
3,200.00	3,185.16	3,181.17	3,192.01	14.40	13.78	-169.37	1,012.78	499.80	1,396.51	1,368.61	27.90	50.054		
3,300.00	3,284.54	3,286.21	3,297.03	14.85	14.22	-169.51	1,012.75	498.28	1,406.81	1,378.04	28.77	48.891		
3,400.00	3,383.92	3,387.57	3,398.38	15.30	14.64	-169.64	1,012.28	496.86	1,416.74	1,387.11	29.63	47.811		
3,500.00	3,483.31	3,485.28	3,496.08	15.75	15.05	-169.77	1,011.89	495.39	1,426.69	1,396.21	30.47	46.817		
3,600.00	3,582.69	3,578.91	3,589.70	16.20	15.44	-169.88	1,011.61	494.35	1,436.89	1,405.60	31.30	45.914		
3,700.00	3,682.07	3,667.72	3,678.51	16.65	15.81	-169.96	1,011.62	493.97	1,447.66	1,415.57	32.09	45.109		
3,800.00	3,781.46	3,764.65	3,775.44	17.10	16.22	-170.04	1,012.13	493.90	1,459.03	1,426.09	32.93	44.305		
3,900.00	3,880.84	3,867.70	3,878.48	17.56	16.65	-170.14	1,012.59	493.58	1,470.24	1,436.44	33.80	43.493		
4,000.00	3,980.22	3,967.26	3,978.05	18.01	17.06	-170.24	1,012.98	492.96	1,481.28	1,446.62	34.66	42.739		
4,100.00	4,079.61	4,067.77	4,078.55	18.46	17.48	-170.34	1,013.40	492.32	1,492.35	1,456.83	35.52	42.015		
4,200.00	4,178.99	4,169.36	4,180.14	18.92	17.91	-170.44	1,013.60	491.82	1,503.27	1,466.89	36.39	41.313		
4,300.00	4,278.38	4,267.36	4,278.14	19.37	18.32	-170.53	1,013.79	491.20	1,514.15	1,476.91	37.24	40.663		
4,400.00	4,377.76	4,365.84	4,376.61	19.83	18.74	-170.62	1,014.05	490.73	1,525.15	1,487.06	38.09	40.042		
4,500.00	4,477.14	4,463.45	4,474.23	20.28	19.15	-170.70	1,014.35	490.30	1,536.20	1,497.27	38.94	39.454		
4,600.00	4,576.53	4,558.46	4,569.23	20.74	19.55	-170.78	1,014.74	490.13	1,547.46	1,507.69	39.77	38.909		
4,700.00	4,675.91	4,657.24	4,668.01	21.19	19.96	-170.85	1,015.30	490.22	1,558.96	1,518.33	40.63	38.373		
4,800.00	4,775.29	4,753.09	4,763.86	21.65	20.37	-170.92	1,015.82	490.27	1,570.43	1,528.96	41.47	37.873		
4,900.00	4,874.68	4,843.02	4,853.78	22.10	20.75	-170.97	1,016.59	490.78	1,582.38	1,540.11	42.27	37.434		
5,000.00	4,974.06	4,937.41	4,948.16	22.56	21.15	-171.01	1,017.86	491.65	1,594.91	1,551.81	43.10	37.003		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,100.00	5,073.44	5,046.00	5,056.74	23.02	21.60	-171.09	1,019.32	492.10	1,607.26	1,563.24	44.02	36.514		
5,200.00	5,172.83	5,159.52	5,170.26	23.47	22.08	-171.16	1,020.00	492.17	1,618.79	1,573.83	44.96	36.006		
5,300.00	5,272.21	5,262.06	5,272.79	23.93	22.52	-171.24	1,020.16	491.64	1,629.70	1,583.86	45.84	35.554		
5,400.00	5,371.59	5,369.62	5,380.35	24.39	22.97	-171.34	1,020.37	490.65	1,640.50	1,593.76	46.74	35.095		
5,500.00	5,470.98	5,475.77	5,486.49	24.85	23.42	-171.44	1,019.98	489.33	1,650.67	1,603.02	47.64	34.646		
5,600.00	5,570.36	5,572.42	5,583.13	25.30	23.83	-171.54	1,019.67	487.73	1,660.74	1,612.24	48.49	34.248		
5,700.00	5,669.75	5,671.26	5,681.96	25.76	24.25	-171.64	1,019.40	486.50	1,671.00	1,621.64	49.35	33.859		
5,800.00	5,769.13	5,772.16	5,782.85	26.22	24.68	-171.74	1,019.17	484.96	1,681.20	1,630.98	50.22	33.474		
5,900.00	5,868.51	5,868.89	5,879.56	26.68	25.09	-171.85	1,019.13	483.02	1,691.41	1,640.34	51.07	33.118		
6,000.00	5,967.90	5,965.98	5,976.64	27.14	25.50	-171.96	1,019.22	481.27	1,701.83	1,649.90	51.92	32.775		
6,100.00	6,067.28	6,066.37	6,077.00	27.60	25.92	-172.08	1,019.42	479.31	1,712.29	1,659.50	52.79	32.433		
6,200.00	6,166.66	6,172.85	6,183.46	28.05	26.38	-172.21	1,019.50	476.93	1,722.55	1,668.86	53.70	32.078		
6,300.00	6,266.05	6,269.40	6,279.99	28.51	26.79	-172.32	1,019.28	474.83	1,732.57	1,678.02	54.55	31.762		
6,400.00	6,365.43	6,373.54	6,384.09	28.97	27.23	-172.45	1,019.39	472.10	1,742.74	1,687.30	55.44	31.435		
6,500.00	6,464.81	6,467.50	6,478.00	29.43	27.63	-172.59	1,019.45	469.20	1,752.71	1,696.44	56.28	31.145		
6,600.00	6,564.10	6,563.73	6,574.18	29.89	28.04	156.48	1,020.01	466.10	1,763.82	1,706.69	57.12	30.877		
6,700.00	6,661.75	6,665.96	6,676.33	30.34	28.47	132.08	1,020.79	462.09	1,779.58	1,721.58	58.00	30.683		
6,800.00	6,755.38	6,764.56	6,774.85	30.77	28.89	123.23	1,021.31	458.09	1,800.37	1,741.53	58.84	30.598 SF		
6,900.00	6,842.67	6,854.34	6,864.56	31.17	29.28	118.38	1,021.61	454.59	1,826.36	1,766.73	59.62	30.631		
7,000.00	6,921.48	6,935.25	6,945.38	31.54	29.62	114.81	1,022.11	450.91	1,857.80	1,797.44	60.36	30.777		
7,100.00	6,989.86	7,007.08	7,017.12	31.91	29.93	111.57	1,022.72	447.33	1,894.79	1,833.71	61.08	31.021		
7,200.00	7,046.13	7,073.05	7,083.00	32.35	30.21	108.27	1,023.22	443.91	1,937.18	1,875.37	61.82	31.337		
7,300.00	7,088.91	7,125.34	7,135.21	32.98	30.43	104.42	1,023.53	441.09	1,984.71	1,922.17	62.55	31.731		
7,400.00	7,117.14	7,163.64	7,173.44	33.84	30.60	99.80	1,023.83	438.71	2,036.90	1,973.63	63.27	32.193		
7,500.00	7,130.13	7,186.28	7,196.02	34.90	30.70	94.32	1,024.05	437.17	2,092.92	2,028.95	63.97	32.719		
7,600.00	7,130.72	7,195.38	7,205.10	36.13	30.74	92.30	1,024.15	436.52	2,151.84	2,087.21	64.63	33.295		
7,700.00	7,130.29	7,203.69	7,213.39	37.54	30.77	92.57	1,024.24	435.91	2,213.63	2,148.30	65.33	33.883		
7,800.00	7,129.85	7,212.43	7,222.10	39.12	30.81	92.86	1,024.34	435.25	2,278.12	2,212.05	66.07	34.483		
7,900.00	7,129.42	7,217.33	7,227.00	40.83	30.83	93.03	1,024.38	434.92	2,345.08	2,278.29	66.79	35.111		
8,000.00	7,128.98	7,224.27	7,233.92	42.67	30.86	93.26	1,024.45	434.42	2,414.31	2,346.78	67.53	35.754		
8,100.00	7,128.55	7,231.11	7,240.74	44.62	30.89	93.48	1,024.51	433.93	2,485.61	2,417.36	68.26	36.416		
8,200.00	7,128.12	7,237.86	7,247.47	46.66	30.92	93.71	1,024.57	433.45	2,558.82	2,489.85	68.97	37.101		
8,300.00	7,127.68	7,244.52	7,254.11	48.79	30.95	93.93	1,024.62	432.98	2,633.78	2,564.11	69.66	37.806		
8,400.00	7,127.25	7,268.96	7,260.61	50.98	31.05	94.15	1,024.67	432.52	2,710.33	2,639.92	70.42	38.491		
8,500.00	7,126.81	7,262.47	7,267.09	53.24	31.02	94.36	1,024.71	432.07	2,788.35	2,717.35	71.01	39.268		
8,600.00	7,126.38	7,264.02	7,273.56	55.56	31.03	94.58	1,024.76	431.62	2,867.73	2,796.12	71.61	40.045		
8,700.00	7,125.95	7,270.51	7,280.04	57.92	31.06	94.79	1,024.80	431.17	2,948.34	2,876.13	72.21	40.828		
8,800.00	7,125.51	7,277.00	7,286.51	60.33	31.09	95.01	1,024.84	430.72	3,030.10	2,957.31	72.79	41.628		
8,900.00	7,125.08	7,283.49	7,292.99	62.77	31.11	95.22	1,024.88	430.27	3,112.91	3,039.57	73.34	42.444		
9,000.00	7,124.64	7,289.98	7,299.46	65.25	31.14	95.43	1,024.92	429.82	3,196.69	3,122.82	73.87	43.274		
9,100.00	7,124.21	7,296.47	7,305.93	67.76	31.17	95.65	1,024.96	429.37	3,281.36	3,206.99	74.38	44.119		
9,200.00	7,123.78	7,302.96	7,312.41	70.29	31.20	95.86	1,025.01	428.92	3,366.87	3,292.01	74.86	44.976		
9,300.00	7,123.34	7,309.45	7,318.88	72.85	31.23	96.08	1,025.05	428.47	3,453.14	3,377.81	75.32	45.844		
9,400.00	7,122.91	7,315.94	7,325.36	75.43	31.26	96.29	1,025.09	428.02	3,540.12	3,464.35	75.77	46.724		
9,500.00	7,122.48	7,322.43	7,331.83	78.03	31.28	96.50	1,025.13	427.57	3,627.76	3,551.56	76.19	47.614		
9,600.00	7,122.04	7,328.92	7,338.31	80.65	31.31	96.72	1,025.17	427.12	3,716.01	3,639.41	76.60	48.512		
9,700.00	7,121.61	7,335.41	7,344.78	83.28	31.34	96.93	1,025.22	426.67	3,804.83	3,727.84	76.99	49.420		
9,800.00	7,121.17	7,341.90	7,351.26	85.93	31.37	97.14	1,025.26	426.22	3,894.19	3,816.82	77.37	50.335		
9,900.00	7,120.74	7,348.39	7,357.73	88.59	31.40	97.36	1,025.30	425.77	3,984.04	3,906.31	77.73	51.257		
10,000.00	7,120.31	7,354.88	7,364.20	91.26	31.43	97.57	1,025.34	425.32	4,074.35	3,996.27	78.07	52.186		
10,100.00	7,119.87	7,361.37	7,370.68	93.95	31.45	97.78	1,025.38	424.87	4,165.09	4,086.68	78.41	53.121		
10,200.00	7,119.44	7,367.86	7,377.15	96.64	31.48	97.99	1,025.43	424.42	4,256.24	4,177.51	78.73	54.062		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	7,374.35	7,383.63	99.34	31.51	98.20	1,025.47	423.98	4,347.77	4,268.73	79.04	55.008		
10,400.00	7,118.57	7,380.84	7,390.10	102.05	31.54	98.42	1,025.51	423.53	4,439.66	4,360.32	79.34	55.958		
10,500.00	7,118.14	7,387.33	7,396.58	104.77	31.57	98.63	1,025.55	423.08	4,531.87	4,452.25	79.63	56.912		
10,600.00	7,117.70	7,393.82	7,403.05	107.50	31.60	98.84	1,025.59	422.63	4,624.41	4,544.50	79.91	57.871		
10,700.00	7,117.27	7,400.31	7,409.53	110.23	31.62	99.05	1,025.63	422.18	4,717.24	4,637.06	80.18	58.833		
10,800.00	7,116.83	7,406.80	7,416.00	112.97	31.65	99.26	1,025.68	421.73	4,810.35	4,729.90	80.44	59.798		
10,900.00	7,116.40	7,413.29	7,422.47	115.72	31.68	99.47	1,025.72	421.28	4,903.72	4,823.02	80.70	60.766		
11,000.00	7,115.97	7,419.78	7,428.95	118.47	31.71	99.68	1,025.76	420.83	4,997.34	4,916.39	80.95	61.736		
11,100.00	7,115.53	7,426.27	7,435.42	121.22	31.74	99.89	1,025.80	420.38	5,091.19	5,010.00	81.19	62.709		
11,200.00	7,115.10	7,432.76	7,441.90	123.98	31.77	100.10	1,025.84	419.93	5,185.26	5,103.84	81.42	63.683		
11,300.00	7,114.66	7,439.25	7,448.37	126.74	31.79	100.31	1,025.89	419.48	5,279.55	5,197.90	81.65	64.660		
11,400.00	7,114.23	7,445.74	7,454.85	129.51	31.82	100.52	1,025.93	419.03	5,374.03	5,292.16	81.87	65.638		
11,500.00	7,113.80	7,452.23	7,461.32	132.29	31.85	100.73	1,025.97	418.58	5,468.71	5,386.61	82.09	66.617		
11,600.00	7,113.36	7,458.72	7,467.79	135.06	31.88	100.93	1,026.01	418.13	5,563.56	5,481.25	82.30	67.598		
11,700.00	7,112.93	7,465.21	7,474.86	137.84	31.91	101.14	1,026.05	417.68	5,658.41	5,576.10	82.51	68.579		
11,800.00	7,112.49	7,471.70	7,481.91	140.62	31.94	101.35	1,026.09	417.23	5,753.26	5,670.95	82.72	69.560		
11,900.00	7,112.06	7,478.19	7,488.96	143.41	31.97	101.56	1,026.13	416.78	5,848.11	5,765.80	82.93	70.541		
12,000.00	7,111.63	7,484.68	7,494.01	146.20	32.00	101.77	1,026.17	416.33	5,942.96	5,860.65	83.14	71.522		
12,100.00	7,111.19	7,491.17	7,499.54	148.99	32.03	101.98	1,026.21	415.88	6,037.81	5,955.50	83.35	72.503		
12,200.00	7,110.76	7,497.66	7,505.01	151.78	32.06	102.19	1,026.25	415.43	6,132.66	6,050.35	83.56	73.484		
12,300.00	7,110.33	7,504.15	7,510.46	154.58	32.09	102.40	1,026.29	414.98	6,227.51	6,145.20	83.77	74.465		
12,400.00	7,109.89	7,510.64	7,515.91	157.37	32.12	102.61	1,026.33	414.53	6,322.36	6,240.05	83.98	75.446		
12,500.00	7,109.46	7,517.13	7,521.38	160.17	32.15	102.82	1,026.37	414.08	6,417.21	6,334.90	84.19	76.427		
12,600.00	7,109.02	7,523.62	7,526.83	162.98	32.18	103.03	1,026.41	413.63	6,512.06	6,429.75	84.40	77.408		
12,700.00	7,108.59	7,530.11	7,533.04	165.78	32.21	103.24	1,026.45	413.18	6,606.91	6,524.60	84.61	78.389		
12,800.00	7,108.16	7,536.60	7,539.45	168.59	32.24	103.45	1,026.49	412.73	6,701.76	6,619.45	84.82	79.370		
12,900.00	7,107.72	7,543.09	7,545.90	171.39	32.27	103.66	1,026.53	412.28	6,796.61	6,714.30	85.03	80.351		
13,000.00	7,107.29	7,549.58	7,552.27	174.20	32.30	103.87	1,026.57	411.83	6,891.46	6,809.15	85.24	81.332		
13,100.00	7,106.85	7,556.07	7,558.66	177.01	32.33	104.08	1,026.61	411.38	6,986.31	6,903.00	85.45	82.313		
13,200.00	7,106.42	7,562.56	7,565.15	179.83	32.36	104.29	1,026.65	410.93	7,081.16	6,997.85	85.66	83.294		
13,300.00	7,105.99	7,569.05	7,569.64	182.64	32.39	104.50	1,026.69	410.48	7,176.01	7,092.70	85.87	84.275		
13,400.00	7,105.55	7,575.54	7,575.13	185.45	32.42	104.71	1,026.73	410.03	7,270.86	7,187.55	86.08	85.256		
13,500.00	7,105.12	7,582.03	7,579.62	188.27	32.45	104.92	1,026.77	409.58	7,365.71	7,282.40	86.29	86.237		
13,600.00	7,104.68	7,588.52	7,584.11	191.09	32.48	105.13	1,026.81	409.13	7,460.56	7,377.25	86.50	87.218		
13,700.00	7,104.25	7,595.01	7,589.60	193.91	32.51	105.34	1,026.85	408.68	7,555.41	7,472.10	86.71	88.199		
13,800.00	7,103.82	7,601.50	7,595.09	196.73	32.54	105.55	1,026.89	408.23	7,650.26	7,566.95	86.92	89.180		
13,900.00	7,103.38	7,608.00	7,599.58	199.55	32.57	105.76	1,026.93	407.78	7,745.11	7,661.80	87.13	90.161		
14,000.00	7,102.95	7,614.49	7,605.07	202.37	32.60	105.97	1,026.97	407.33	7,839.96	7,756.65	87.34	91.142		
14,100.00	7,102.51	7,620.98	7,610.56	205.19	32.63	106.18	1,027.01	406.88	7,934.81	7,851.50	87.55	92.123		
14,200.00	7,102.08	7,627.47	7,616.05	208.02	32.66	106.39	1,027.05	406.43	8,029.66	7,946.35	87.76	93.104		
14,300.00	7,101.65	7,633.96	7,621.54	210.84	32.69	106.60	1,027.09	405.98	8,124.51	8,041.20	87.97	94.085		
14,400.00	7,101.21	7,640.45	7,627.03	213.67	32.72	106.81	1,027.13	405.53	8,219.36	8,136.05	88.18	95.066		
14,500.00	7,100.78	7,646.94	7,632.52	216.50	32.75	107.02	1,027.17	405.08	8,314.21	8,230.90	88.39	96.047		
14,600.00	7,100.35	7,653.43	7,638.01	219.32	32.78	107.23	1,027.21	404.63	8,409.06	8,325.75	88.60	97.028		
14,700.00	7,099.91	7,659.92	7,643.50	222.15	32.81	107.44	1,027.25	404.18	8,503.91	8,420.60	88.81	98.009		
14,800.00	7,099.48	7,666.41	7,648.99	224.98	32.84	107.65	1,027.29	403.73	8,598.76	8,515.45	89.02	98.990		
14,900.00	7,099.04	7,672.90	7,654.48	227.81	32.87	107.86	1,027.33	403.28	8,693.61	8,610.30	89.23	99.971		
14,909.96	7,099.00	7,673.00	7,654.50	228.09	32.87	107.86	1,027.33	403.28	8,693.61	8,610.30	89.23	99.971		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	21.00	3.28	3.28	93.88	-35.34	520.68	522.30					
100.00	100.00	78.93	99.92	3.28	3.28	93.82	-34.80	520.72	521.88	515.31	6.57	79.438		
200.00	200.00	181.30	202.28	3.34	3.33	93.65	-33.20	520.66	521.72	515.05	6.67	78.241		
300.00	300.00	282.05	303.03	3.44	3.43	93.51	-31.90	520.18	521.17	514.29	6.88	75.783		
400.00	400.00	379.70	400.67	3.60	3.58	93.39	-30.75	519.86	520.77	513.59	7.18	72.532		
424.08	424.08	403.11	424.08	3.65	3.62	93.35	-30.47	519.86	520.75	513.49	7.27	71.673 CC		
500.00	500.00	477.58	498.54	3.81	3.76	93.26	-29.58	520.02	520.86	513.29	7.57	68.820		
600.00	600.00	577.00	597.95	4.04	3.99	-100.05	-28.27	520.46	521.24	513.21	8.03	64.898 ES		
700.00	699.96	676.26	697.19	4.29	4.24	-100.47	-26.70	520.98	522.13	513.59	8.53	61.176		
800.00	799.78	775.45	796.37	4.57	4.53	-101.22	-25.31	521.63	523.84	514.75	9.09	57.612		
900.00	899.34	873.76	894.67	4.88	4.83	-102.34	-23.65	522.41	526.53	516.84	9.70	54.308		
1,000.00	998.72	973.13	994.02	5.20	5.15	-103.67	-22.17	523.33	529.97	519.63	10.34	51.250		
1,100.00	1,098.10	1,072.68	1,093.56	5.54	5.48	-104.97	-20.72	524.15	533.59	522.57	11.02	48.419		
1,200.00	1,197.49	1,172.77	1,193.63	5.90	5.83	-106.27	-19.20	524.89	537.40	525.67	11.73	45.817		
1,300.00	1,296.87	1,273.34	1,294.19	6.28	6.19	-107.55	-17.78	525.40	541.26	528.79	12.46	43.429		
1,400.00	1,396.25	1,371.89	1,392.73	6.66	6.55	-108.82	-16.16	525.77	545.26	532.05	13.21	41.281		
1,500.00	1,495.64	1,473.22	1,494.05	7.06	6.93	-110.07	-14.73	526.18	549.53	535.55	13.98	39.309		
1,600.00	1,595.02	1,573.70	1,594.52	7.46	7.32	-111.28	-13.53	526.15	553.60	538.84	14.76	37.504		
1,700.00	1,694.40	1,675.63	1,696.44	7.87	7.71	-112.50	-12.21	525.86	557.67	542.11	15.56	35.841		
1,800.00	1,793.79	1,773.87	1,794.68	8.29	8.09	-113.62	-11.34	525.35	561.68	545.33	16.35	34.350		
1,900.00	1,893.17	1,872.27	1,893.08	8.71	8.48	-114.72	-10.52	525.16	566.21	549.06	17.15	33.009		
2,000.00	1,992.55	1,973.96	1,994.76	9.13	8.88	-115.84	-9.59	524.83	570.85	552.87	17.97	31.758		
2,100.00	2,091.94	2,075.78	2,096.58	9.56	9.29	-116.92	-9.15	524.08	575.18	556.38	18.80	30.590		
2,200.00	2,191.32	2,174.47	2,195.26	9.99	9.68	-117.90	-9.15	523.26	579.50	559.88	19.62	29.533		
2,300.00	2,290.70	2,274.19	2,294.98	10.42	10.09	-118.87	-9.19	522.59	584.13	563.68	20.45	28.563		
2,400.00	2,390.09	2,375.19	2,395.97	10.86	10.49	-119.81	-9.60	521.81	588.74	567.45	21.29	27.654		
2,500.00	2,489.47	2,474.29	2,495.07	11.29	10.89	-120.70	-10.17	520.93	593.33	571.21	22.12	26.820		
2,600.00	2,588.86	2,573.53	2,594.30	11.73	11.30	-121.55	-11.10	520.29	598.18	575.21	22.96	26.052		
2,700.00	2,688.24	2,670.65	2,691.42	12.18	11.69	-122.34	-12.10	519.83	603.29	579.50	23.79	25.358		
2,800.00	2,787.62	2,771.15	2,791.91	12.62	12.10	-123.14	-13.14	519.66	608.81	584.17	24.64	24.708		
2,900.00	2,887.01	2,871.21	2,891.96	13.06	12.51	-123.93	-14.23	519.21	614.15	588.66	25.49	24.095		
3,000.00	2,986.39	2,970.18	2,990.93	13.51	12.92	-124.73	-14.89	518.65	619.65	593.32	26.33	23.530		
3,100.00	3,085.77	3,069.76	3,090.51	13.95	13.33	-125.55	-15.36	518.05	625.33	598.14	27.18	23.004		
3,200.00	3,185.16	3,169.81	3,190.56	14.40	13.75	-126.38	-15.51	517.24	631.06	603.02	28.04	22.508		
3,300.00	3,284.54	3,269.30	3,290.04	14.85	14.16	-127.20	-15.70	516.37	636.85	607.96	28.89	22.044		
3,400.00	3,383.92	3,365.82	3,386.55	15.30	14.56	-127.97	-15.89	515.72	642.94	613.21	29.73	21.627		
3,500.00	3,483.31	3,464.50	3,485.24	15.75	14.97	-128.71	-16.17	515.57	649.58	619.00	30.58	21.243		
3,600.00	3,582.69	3,565.10	3,585.84	16.20	15.40	-129.45	-16.56	515.32	656.21	624.77	31.44	20.872		
3,700.00	3,682.07	3,665.73	3,686.46	16.65	15.82	-130.18	-17.05	514.93	662.76	630.46	32.30	20.517		
3,800.00	3,781.46	3,766.38	3,787.11	17.10	16.24	-130.89	-17.64	514.38	669.24	636.07	33.17	20.178		
3,900.00	3,880.84	3,867.06	3,887.79	17.56	16.66	-131.58	-18.33	513.68	675.63	641.60	34.03	19.854		
4,000.00	3,980.22	3,967.77	3,988.49	18.01	17.08	-132.26	-19.13	512.83	681.94	647.05	34.90	19.542		
4,100.00	4,079.61	4,068.50	4,089.21	18.46	17.51	-132.92	-20.03	511.83	688.17	652.41	35.76	19.243		
4,200.00	4,178.99	4,169.26	4,189.95	18.92	17.93	-133.58	-21.02	510.68	694.30	657.67	36.63	18.955		
4,300.00	4,278.38	4,267.95	4,288.64	19.37	18.35	-134.20	-22.07	509.50	700.44	662.96	37.49	18.686		
4,400.00	4,377.76	4,364.64	4,385.31	19.83	18.75	-134.80	-23.03	508.62	706.95	668.61	38.33	18.443		
4,500.00	4,477.14	4,462.18	4,482.86	20.28	19.16	-135.39	-23.73	508.03	713.92	674.74	39.18	18.220		
4,600.00	4,576.53	4,561.57	4,582.24	20.74	19.58	-136.02	-23.96	507.27	721.12	681.07	40.04	18.008		
4,700.00	4,675.91	4,659.85	4,680.52	21.19	20.00	-136.64	-24.15	506.50	728.40	687.50	40.90	17.810		
4,800.00	4,775.29	4,758.07	4,778.74	21.65	20.41	-137.23	-24.32	506.00	736.00	694.25	41.75	17.627		
4,900.00	4,874.68	4,855.51	4,876.17	22.10	20.82	-137.80	-24.58	505.74	743.82	701.22	42.60	17.459		
5,000.00	4,974.06	4,954.19	4,974.85	22.56	21.24	-138.37	-24.45	505.55	752.02	708.56	43.46	17.303		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,100.00	5,073.44	5,054.64	5,075.30	23.02	21.66	-138.97	-24.18	505.12	760.18	715.85	44.33	17.148		
5,200.00	5,172.83	5,154.08	5,174.74	23.47	22.08	-139.54	-24.01	504.67	768.33	723.14	45.19	17.001		
5,300.00	5,272.21	5,255.28	5,275.94	23.93	22.51	-140.12	-23.78	504.13	776.53	730.47	46.07	16.857		
5,400.00	5,371.59	5,357.60	5,378.26	24.39	22.95	-140.70	-23.67	503.15	784.41	737.46	46.95	16.708		
5,500.00	5,470.98	5,456.51	5,477.16	24.85	23.37	-141.24	-23.77	502.11	792.16	744.35	47.81	16.570		
5,600.00	5,570.36	5,554.13	5,574.77	25.30	23.78	-141.76	-23.79	501.33	800.21	751.55	48.66	16.445		
5,700.00	5,669.75	5,654.29	5,674.94	25.76	24.20	-142.27	-23.95	500.76	808.43	758.90	49.53	16.322		
5,800.00	5,769.13	5,755.04	5,775.68	26.22	24.63	-142.75	-24.46	500.19	816.49	766.09	50.40	16.200		
5,900.00	5,868.51	5,852.09	5,872.73	26.68	25.04	-143.20	-24.94	499.67	824.63	773.38	51.25	16.090		
6,000.00	5,967.90	5,950.16	5,970.80	27.14	25.46	-143.66	-25.02	499.31	833.23	781.12	52.11	15.990		
6,100.00	6,067.28	6,051.97	6,072.61	27.60	25.89	-144.15	-25.03	498.68	841.72	788.74	52.99	15.885		
6,200.00	6,166.66	6,151.89	6,172.52	28.05	26.32	-144.61	-25.26	497.91	850.03	796.18	53.86	15.783		
6,300.00	6,266.05	6,248.94	6,269.57	28.51	26.73	-145.04	-25.43	497.32	858.54	803.83	54.71	15.694		
6,400.00	6,365.43	6,346.58	6,367.21	28.97	27.14	-145.47	-25.46	497.00	867.40	811.85	55.56	15.612		
6,500.00	6,464.81	6,445.83	6,466.46	29.43	27.57	-145.89	-25.47	496.74	876.38	819.96	56.42	15.532		
6,600.00	6,564.10	6,544.98	6,565.61	29.89	27.99	-176.92	-25.48	496.51	886.85	829.56	57.29	15.481 SF		
6,700.00	6,661.75	6,642.54	6,663.17	30.34	28.40	158.70	-25.49	496.30	907.24	849.10	58.14	15.605		
6,800.00	6,755.38	6,736.09	6,756.72	30.77	28.80	149.74	-25.49	496.11	938.65	879.70	58.95	15.922		
6,900.00	6,842.67	6,823.33	6,843.95	31.17	29.17	144.58	-25.50	495.96	980.77	921.06	59.71	16.425		
7,000.00	6,921.48	6,902.10	6,922.72	31.54	29.51	140.38	-25.51	495.84	1,033.17	972.77	60.41	17.104		
7,100.00	6,989.86	6,970.45	6,991.08	31.91	29.80	135.89	-25.51	495.74	1,095.23	1,034.21	61.02	17.949		
7,200.00	7,046.13	7,026.72	7,047.35	32.35	30.04	130.16	-25.51	495.67	1,165.96	1,104.42	61.54	18.946		
7,300.00	7,088.91	7,069.51	7,090.14	32.98	30.22	122.18	-25.51	495.61	1,244.02	1,182.06	61.96	20.076		
7,400.00	7,117.14	7,097.78	7,118.41	33.84	30.34	110.89	-25.51	495.58	1,327.73	1,265.44	62.29	21.316		
7,500.00	7,130.13	7,110.84	7,131.47	34.90	30.40	95.82	-25.52	495.57	1,415.10	1,352.59	62.50	22.640		
7,600.00	7,130.72	7,111.53	7,132.16	36.13	30.40	89.62	-25.52	495.57	1,504.18	1,441.53	62.64	24.012		
7,700.00	7,130.29	7,111.21	7,131.83	37.54	30.40	89.59	-25.52	495.57	1,594.52	1,531.74	62.78	25.399		
7,800.00	7,129.85	7,110.88	7,131.51	39.12	30.40	89.56	-25.52	495.57	1,685.95	1,623.03	62.92	26.797		
7,900.00	7,129.42	7,110.55	7,131.18	40.83	30.40	89.53	-25.52	495.57	1,778.30	1,715.26	63.05	28.205		
8,000.00	7,128.98	7,110.22	7,130.85	42.67	30.39	89.51	-25.52	495.57	1,871.45	1,808.27	63.18	29.621		
8,100.00	7,128.55	7,109.90	7,130.52	44.62	30.39	89.48	-25.52	495.57	1,965.26	1,901.95	63.31	31.044		
8,200.00	7,128.12	7,109.57	7,130.20	46.66	30.39	89.45	-25.52	495.57	2,059.66	1,996.23	63.43	32.473		
8,300.00	7,127.68	7,109.24	7,129.87	48.79	30.39	89.42	-25.52	495.57	2,154.56	2,091.02	63.54	33.907		
8,400.00	7,127.25	7,108.92	7,129.54	50.98	30.39	89.39	-25.52	495.57	2,249.90	2,186.25	63.66	35.345		
8,500.00	7,126.81	7,108.59	7,129.22	53.24	30.39	89.37	-25.52	495.57	2,345.63	2,281.87	63.76	36.786		
8,600.00	7,126.38	7,108.26	7,128.89	55.56	30.39	89.34	-25.52	495.57	2,441.71	2,377.84	63.87	38.231		
8,700.00	7,125.95	7,107.94	7,128.57	57.92	30.38	89.31	-25.52	495.57	2,538.09	2,474.12	63.97	39.678		
8,800.00	7,125.51	7,107.61	7,128.24	60.33	30.38	89.28	-25.52	495.57	2,634.73	2,570.67	64.06	41.127		
8,900.00	7,125.08	7,107.29	7,127.91	62.77	30.38	89.25	-25.52	495.57	2,731.62	2,667.46	64.16	42.577		
9,000.00	7,124.64	7,106.96	7,127.59	65.25	30.38	89.22	-25.52	495.57	2,828.73	2,764.48	64.25	44.029		
9,100.00	7,124.21	7,106.63	7,127.26	67.76	30.38	89.20	-25.52	495.57	2,926.03	2,861.69	64.33	45.482		
9,200.00	7,123.78	7,106.31	7,126.94	70.29	30.38	89.17	-25.52	495.57	3,023.50	2,959.08	64.42	46.935		
9,300.00	7,123.34	7,105.98	7,126.61	72.85	30.38	89.14	-25.52	495.57	3,121.14	3,056.64	64.50	48.389		
9,400.00	7,122.91	7,105.66	7,126.29	75.43	30.37	89.11	-25.52	495.57	3,218.92	3,154.34	64.58	49.842		
9,500.00	7,122.48	7,105.33	7,125.96	78.03	30.37	89.08	-25.52	495.58	3,316.83	3,252.17	64.66	51.296		
9,600.00	7,122.04	7,105.01	7,125.64	80.65	30.37	89.06	-25.52	495.58	3,414.87	3,350.13	64.74	52.749		
9,700.00	7,121.61	7,104.68	7,125.31	83.28	30.37	89.03	-25.52	495.58	3,513.01	3,448.20	64.81	54.202		
9,800.00	7,121.17	7,104.36	7,124.99	85.93	30.37	89.00	-25.52	495.58	3,611.26	3,546.37	64.89	55.654		
9,900.00	7,120.74	7,104.03	7,124.66	88.59	30.37	88.97	-25.52	495.58	3,709.60	3,644.64	64.96	57.105		
10,000.00	7,120.31	7,103.71	7,124.34	91.26	30.37	88.94	-25.52	495.58	3,808.02	3,742.99	65.03	58.555		
10,100.00	7,119.87	7,103.38	7,124.01	93.95	30.36	88.92	-25.52	495.58	3,906.53	3,841.43	65.10	60.004		
10,200.00	7,119.44	7,103.06	7,123.69	96.64	30.36	88.89	-25.52	495.58	4,005.11	3,939.94	65.17	61.452		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	7,102.74	7,123.36	99.34	30.36	88.86	-25.52	495.58	4,103.76	4,038.52	65.24	62.898		
10,400.00	7,118.57	7,102.41	7,123.04	102.05	30.36	88.83	-25.52	495.58	4,202.47	4,137.16	65.31	64.343		
10,500.00	7,118.14	7,102.09	7,122.72	104.77	30.36	88.80	-25.52	495.58	4,301.25	4,235.86	65.38	65.786		
10,600.00	7,117.70	7,101.77	7,122.39	107.50	30.36	88.78	-25.52	495.58	4,400.08	4,334.62	65.45	67.227		
10,700.00	7,117.27	7,101.44	7,122.07	110.23	30.36	88.75	-25.51	495.58	4,498.95	4,433.44	65.52	68.667		
10,800.00	7,116.83	7,101.12	7,121.75	112.97	30.35	88.72	-25.51	495.58	4,597.88	4,532.30	65.59	70.104		
10,900.00	7,116.40	7,100.80	7,121.42	115.72	30.35	88.69	-25.51	495.58	4,696.86	4,631.20	65.65	71.540		
11,000.00	7,115.97	7,100.47	7,121.10	118.47	30.35	88.66	-25.51	495.58	4,795.87	4,730.15	65.72	72.973		
11,100.00	7,115.53	7,100.15	7,120.78	121.22	30.35	88.64	-25.51	495.58	4,894.93	4,829.14	65.79	74.404		
11,200.00	7,115.10	7,099.83	7,120.45	123.98	30.35	88.61	-25.51	495.58	4,994.02	4,928.17	65.86	75.833		
11,300.00	7,114.66	7,099.50	7,120.13	126.74	30.35	88.58	-25.51	495.58	5,093.15	5,027.23	65.92	77.259		
11,400.00	7,114.23	7,099.18	7,119.81	129.51	30.35	88.55	-25.51	495.58	5,192.31	5,126.32	65.99	78.683		
11,500.00	7,113.80	7,098.86	7,119.49	132.29	30.35	88.53	-25.51	495.58	5,291.51	5,225.45	66.06	80.104		
11,600.00	7,113.36	7,098.54	7,119.16	135.06	30.34	88.50	-25.51	495.58	5,390.73	5,324.61	66.13	81.523		
11,700.00	7,112.93	7,098.21	7,118.84	137.84	30.34	88.47	-25.51	495.58	5,489.98	5,423.79	66.19	82.939		
11,800.00	7,112.49	7,097.89	7,118.52	140.62	30.34	88.44	-25.51	495.58	5,589.26	5,523.00	66.26	84.352		
11,900.00	7,112.06	7,097.57	7,118.20	143.41	30.34	88.41	-25.51	495.58	5,688.57	5,622.24	66.33	85.762		
12,000.00	7,111.63	7,097.25	7,117.88	146.20	30.34	88.39	-25.51	495.58	5,787.89	5,721.50	66.40	87.170		
12,100.00	7,111.19	7,096.93	7,117.56	148.99	30.34	88.36	-25.51	495.58	5,887.24	5,820.78	66.47	88.574		
12,200.00	7,110.76	7,096.61	7,117.23	151.78	30.34	88.33	-25.51	495.58	5,986.62	5,920.08	66.54	89.976		
12,300.00	7,110.33	7,096.29	7,116.91	154.58	30.33	88.30	-25.51	495.58	6,086.01	6,019.40	66.61	91.374		
12,400.00	7,109.89	7,095.96	7,116.59	157.37	30.33	88.28	-25.51	495.59	6,185.42	6,118.75	66.68	92.770		
12,500.00	7,109.46	7,095.64	7,116.27	160.17	30.33	88.25	-25.51	495.59	6,284.85	6,218.11	66.75	94.162		
12,600.00	7,109.02	7,095.32	7,115.95	162.98	30.33	88.22	-25.51	495.59	6,384.30	6,317.49	66.82	95.551		
12,700.00	7,108.59	7,095.00	7,115.63	165.78	30.33	88.19	-25.51	495.59	6,483.77	6,416.88	66.89	96.936		
12,800.00	7,108.16	7,094.68	7,115.31	168.59	30.33	88.17	-25.51	495.59	6,583.25	6,516.29	66.96	98.319		
12,900.00	7,107.72	7,094.36	7,114.99	171.39	30.33	88.14	-25.51	495.59	6,682.75	6,615.72	67.03	99.698		
13,000.00	7,107.29	7,094.04	7,114.67	174.20	30.32	88.11	-25.51	495.59	6,782.26	6,715.15	67.10	101.073		
13,100.00	7,106.85	7,093.72	7,114.35	177.01	30.32	88.08	-25.51	495.59	6,881.78	6,814.61	67.18	102.445		
13,200.00	7,106.42	7,093.40	7,114.03	179.83	30.32	88.05	-25.51	495.59	6,981.32	6,914.07	67.25	103.814		
13,300.00	7,105.99	7,093.08	7,113.71	182.64	30.32	88.03	-25.51	495.59	7,080.88	7,013.55	67.32	105.179		
13,400.00	7,105.55	7,092.76	7,113.39	185.45	30.32	88.00	-25.51	495.59	7,180.44	7,113.04	67.40	106.540		
13,500.00	7,105.12	7,092.44	7,113.07	188.27	30.32	87.97	-25.51	495.59	7,280.02	7,212.55	67.47	107.898		
13,600.00	7,104.68	7,092.12	7,112.75	191.09	30.32	87.94	-25.51	495.59	7,379.61	7,312.06	67.55	109.252		
13,700.00	7,104.25	7,091.80	7,112.43	193.91	30.32	87.92	-25.51	495.59	7,479.21	7,411.58	67.62	110.602		
13,800.00	7,103.82	7,091.48	7,112.11	196.73	30.31	87.89	-25.51	495.59	7,578.82	7,511.12	67.70	111.949		
13,900.00	7,103.38	7,091.16	7,111.79	199.55	30.31	87.86	-25.51	495.59	7,678.44	7,610.66	67.78	113.292		
14,000.00	7,102.95	7,090.84	7,111.47	202.37	30.31	87.83	-25.51	495.59	7,778.06	7,710.21	67.85	114.631		
14,100.00	7,102.51	7,090.53	7,111.15	205.19	30.31	87.81	-25.51	495.59	7,877.70	7,809.77	67.93	115.966		
14,200.00	7,102.08	7,090.21	7,110.83	208.02	30.31	87.78	-25.51	495.59	7,977.35	7,909.34	68.01	117.297		
14,300.00	7,101.65	7,089.89	7,110.52	210.84	30.31	87.75	-25.51	495.59	8,077.01	8,008.92	68.09	118.624		
14,400.00	7,101.21	7,089.57	7,110.20	213.67	30.31	87.72	-25.51	495.59	8,176.67	8,108.51	68.17	119.948		
14,500.00	7,100.78	7,089.25	7,109.88	216.50	30.30	87.70	-25.51	495.59	8,276.35	8,208.10	68.25	121.267		
14,600.00	7,100.35	7,088.93	7,109.56	219.32	30.30	87.67	-25.51	495.59	8,376.03	8,307.70	68.33	122.583		
14,700.00	7,099.91	7,088.61	7,109.24	222.15	30.30	87.64	-25.51	495.59	8,475.72	8,407.31	68.41	123.894		
14,800.00	7,099.48	7,088.30	7,108.92	224.98	30.30	87.62	-25.51	495.59	8,575.41	8,506.92	68.49	125.201		
14,900.00	7,099.04	7,087.98	7,108.61	227.81	30.30	87.59	-25.51	495.59	8,675.12	8,606.54	68.58	126.504		
14,909.96	7,099.00	7,087.95	7,108.58	228.09	30.30	87.59	-25.51	495.59	8,685.05	8,616.47	68.58	126.634		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	1.00	0.00	3.28	3.28	0.44	219.67	1.67	219.67					
100.00	100.00	101.00	100.00	3.28	3.28	0.44	219.67	1.67	219.67	213.10	6.57	33.438		
200.00	200.00	201.00	200.00	3.34	3.34	0.44	219.67	1.67	219.67	213.00	6.67	32.911	CC, ES	
300.00	300.00	293.81	292.80	3.44	3.44	0.39	221.20	1.52	221.32	214.43	6.89	32.113		
400.00	400.00	386.50	385.37	3.60	3.58	0.27	225.71	1.06	226.18	218.96	7.22	31.333		
500.00	500.00	478.79	477.35	3.81	3.77	0.08	233.16	0.31	234.25	226.62	7.64	30.676		
600.00	600.00	570.51	568.47	4.04	3.99	166.67	243.47	-0.72	245.57	237.45	8.12	30.225		
700.00	699.96	661.10	658.11	4.29	4.24	166.42	256.51	-2.03	262.32	253.67	8.65	30.321		
800.00	799.78	749.93	745.56	4.57	4.50	166.27	272.03	-3.59	285.45	276.23	9.22	30.946		
900.00	899.34	836.50	830.27	4.88	4.79	166.18	289.73	-5.37	314.79	304.96	9.83	32.037		
1,000.00	998.72	920.92	912.33	5.20	5.08	166.25	309.45	-7.34	348.51	338.08	10.42	33.439		
1,100.00	1,098.10	1,003.52	992.03	5.54	5.39	166.27	331.06	-9.51	384.94	373.91	11.03	34.908		
1,200.00	1,197.49	1,089.85	1,074.70	5.90	5.74	166.26	355.76	-11.99	423.71	412.06	11.65	36.357		
1,300.00	1,296.87	1,181.87	1,162.75	6.28	6.13	166.24	382.41	-14.67	462.84	450.52	12.32	37.559		
1,400.00	1,396.25	1,273.90	1,250.79	6.66	6.53	166.23	409.07	-17.35	501.97	488.95	13.02	38.560		
1,500.00	1,495.64	1,365.92	1,338.83	7.06	6.95	166.22	435.72	-20.02	541.10	527.36	13.73	39.397		
1,600.00	1,595.02	1,457.95	1,426.87	7.46	7.37	166.21	462.37	-22.70	580.23	565.76	14.47	40.100		
1,700.00	1,694.40	1,549.98	1,514.91	7.87	7.81	166.20	489.03	-25.37	619.36	604.14	15.22	40.692		
1,800.00	1,793.79	1,642.00	1,602.95	8.29	8.25	166.19	515.68	-28.05	658.49	642.50	15.98	41.195		
1,900.00	1,893.17	1,734.03	1,690.99	8.71	8.70	166.18	542.33	-30.73	697.62	680.86	16.76	41.622		
2,000.00	1,992.55	1,826.06	1,779.03	9.13	9.15	166.18	568.99	-33.40	736.75	719.20	17.55	41.987		
2,100.00	2,091.94	1,918.08	1,867.08	9.56	9.61	166.17	595.64	-36.08	775.88	757.53	18.34	42.300		
2,200.00	2,191.32	2,010.11	1,955.12	9.99	10.07	166.17	622.30	-38.75	815.01	795.86	19.14	42.570		
2,300.00	2,290.70	2,102.14	2,043.16	10.42	10.53	166.16	648.95	-41.43	854.14	834.18	19.95	42.804		
2,400.00	2,390.09	2,205.84	2,131.20	10.86	11.06	166.16	675.60	-44.11	893.27	872.44	20.83	42.893		
2,500.00	2,489.47	2,286.19	2,219.24	11.29	11.47	166.15	702.26	-46.78	932.39	910.80	21.59	43.185		
2,600.00	2,588.86	2,378.22	2,307.28	11.73	11.94	166.15	728.91	-49.46	971.52	949.11	22.42	43.340		
2,700.00	2,688.24	2,470.24	2,395.32	12.18	12.41	166.15	755.57	-52.13	1,010.65	987.41	23.25	43.476		
2,800.00	2,787.62	2,562.27	2,483.37	12.62	12.88	166.14	782.22	-54.81	1,049.78	1,025.70	24.08	43.595		
2,900.00	2,887.01	2,654.29	2,571.41	13.06	13.36	166.14	808.87	-57.48	1,088.91	1,064.00	24.92	43.701		
3,000.00	2,986.39	2,746.32	2,659.45	13.51	13.84	166.14	835.53	-60.16	1,128.04	1,102.29	25.76	43.795		
3,100.00	3,085.77	2,838.35	2,747.49	13.95	14.32	166.14	862.18	-62.84	1,167.17	1,140.57	26.60	43.878		
3,200.00	3,185.16	2,930.37	2,835.53	14.40	14.79	166.13	888.83	-65.51	1,206.30	1,178.86	27.45	43.952		
3,300.00	3,284.54	3,022.40	2,923.57	14.85	15.28	166.13	915.49	-68.19	1,245.43	1,217.14	28.29	44.018		
3,400.00	3,383.92	3,114.43	3,011.61	15.30	15.76	166.13	942.14	-70.86	1,284.56	1,255.42	29.14	44.077		
3,500.00	3,483.31	3,206.45	3,099.65	15.75	16.24	166.13	968.80	-73.54	1,323.69	1,293.70	30.00	44.129		
3,600.00	3,582.69	3,301.52	3,187.70	16.20	16.74	166.13	995.45	-76.22	1,362.82	1,331.96	30.86	44.155		
3,700.00	3,682.07	3,409.49	3,275.74	16.65	17.31	166.12	1,022.10	-78.89	1,401.95	1,370.15	31.80	44.088		
3,800.00	3,781.46	3,482.53	3,363.78	17.10	17.69	166.12	1,048.76	-81.57	1,441.08	1,408.52	32.56	44.257		
3,900.00	3,880.84	3,574.56	3,451.82	17.56	18.18	166.12	1,075.41	-84.24	1,480.21	1,446.79	33.42	44.291		
4,000.00	3,980.22	3,666.59	3,539.86	18.01	18.66	166.12	1,102.06	-86.92	1,519.34	1,485.06	34.28	44.322		
4,100.00	4,079.61	3,758.61	3,627.90	18.46	19.15	166.12	1,128.72	-89.60	1,558.47	1,523.33	35.14	44.349		
4,200.00	4,178.99	3,850.64	3,715.94	18.92	19.63	166.12	1,155.37	-92.27	1,597.60	1,561.60	36.00	44.374		
4,300.00	4,278.38	3,942.66	3,803.99	19.37	20.12	166.12	1,182.03	-94.95	1,636.73	1,599.86	36.87	44.397		
4,400.00	4,377.76	4,034.69	3,892.03	19.83	20.61	166.12	1,208.68	-97.62	1,675.86	1,638.13	37.73	44.417		
4,500.00	4,477.14	4,126.72	3,980.07	20.28	21.10	166.11	1,235.33	-100.30	1,714.99	1,676.39	38.60	44.435		
4,600.00	4,576.53	4,218.74	4,068.11	20.74	21.58	166.11	1,261.99	-102.98	1,754.12	1,714.66	39.46	44.452		
4,700.00	4,675.91	4,310.77	4,156.15	21.19	22.07	166.11	1,288.64	-105.65	1,793.25	1,752.92	40.33	44.467		
4,800.00	4,775.29	4,402.80	4,244.19	21.65	22.56	166.11	1,315.30	-108.33	1,832.38	1,791.18	41.20	44.480		
4,900.00	4,874.68	4,505.18	4,332.23	22.10	23.10	166.11	1,341.95	-111.00	1,871.51	1,829.39	42.12	44.438		
5,000.00	4,974.06	4,586.85	4,420.27	22.56	23.54	166.11	1,368.60	-113.68	1,910.64	1,867.71	42.93	44.503		
5,100.00	5,073.44	4,678.88	4,508.32	23.02	24.03	166.11	1,395.26	-116.36	1,949.77	1,905.97	43.80	44.513		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
5,200.00	5,172.83	4,770.90	4,596.36	23.47	24.52	166.11	1,421.91	-119.03	1,988.90	1,944.23	44.67	44.522		
5,300.00	5,272.21	4,862.93	4,684.40	23.93	25.01	166.11	1,448.56	-121.71	2,028.03	1,982.48	45.54	44.529		
5,400.00	5,371.59	4,954.96	4,772.44	24.39	25.50	166.11	1,475.22	-124.38	2,067.16	2,020.74	46.42	44.536		
5,500.00	5,470.98	5,046.98	4,860.48	24.85	25.99	166.11	1,501.87	-127.06	2,106.29	2,059.00	47.29	44.542		
5,600.00	5,570.36	5,139.01	4,948.52	25.30	26.48	166.10	1,528.53	-129.74	2,145.42	2,097.26	48.16	44.548		
5,700.00	5,669.75	5,231.03	5,036.56	25.76	26.97	166.10	1,555.18	-132.41	2,184.55	2,135.51	49.03	44.553		
5,800.00	5,769.13	5,323.06	5,124.60	26.22	27.46	166.10	1,581.83	-135.09	2,223.68	2,173.77	49.91	44.557		
5,900.00	5,868.51	5,504.26	5,298.58	26.68	28.41	166.11	1,632.17	-140.14	2,262.33	2,210.73	51.60	43.847		
6,000.00	5,967.90	5,964.60	5,751.37	27.14	30.53	166.23	1,712.03	-148.16	2,290.31	2,235.48	54.83	41.774		
6,100.00	6,067.28	6,280.92	6,067.28	27.60	31.73	166.41	1,724.91	-149.45	2,303.71	2,247.40	56.31	40.911		
6,200.00	6,166.66	6,380.30	6,166.66	28.05	32.08	166.48	1,724.91	-149.45	2,314.49	2,257.36	57.13	40.510		
6,300.00	6,266.05	6,479.69	6,266.05	28.51	32.44	166.54	1,724.91	-149.45	2,325.28	2,267.32	57.96	40.120		
6,400.00	6,365.43	6,579.07	6,365.43	28.97	32.79	166.60	1,724.91	-149.45	2,336.07	2,277.28	58.78	39.740		
6,500.00	6,464.81	6,678.46	6,464.81	29.43	33.15	166.67	1,724.91	-149.45	2,346.86	2,287.24	59.61	39.370		
6,600.00	6,564.10	6,777.74	6,564.10	29.89	33.51	135.94	1,724.91	-149.45	2,357.65	2,297.21	60.44	39.008		
6,700.00	6,661.75	6,877.70	6,664.03	30.34	33.87	112.02	1,724.90	-150.75	2,368.44	2,307.19	61.26	38.664		
6,800.00	6,755.38	6,982.80	6,767.89	30.77	34.25	103.74	1,724.78	-166.07	2,378.98	2,316.91	62.06	38.333		
6,900.00	6,842.67	7,091.66	6,871.28	31.17	34.62	99.65	1,724.52	-199.70	2,388.95	2,326.08	62.87	37.997		
7,000.00	6,921.48	7,204.41	6,970.71	31.54	34.99	97.21	1,724.10	-252.54	2,398.09	2,334.37	63.72	37.635		
7,100.00	6,989.86	7,320.96	7,062.04	31.91	35.33	95.62	1,723.54	-324.69	2,406.12	2,341.44	64.68	37.202		
7,200.00	7,046.13	7,440.99	7,140.74	32.35	35.64	94.54	1,722.83	-415.08	2,412.78	2,346.93	65.85	36.640		
7,300.00	7,088.91	7,563.85	7,202.29	32.98	36.02	93.81	1,722.00	-521.20	2,417.86	2,350.49	67.37	35.888		
7,400.00	7,117.14	7,688.64	7,242.79	33.84	36.71	93.33	1,721.08	-639.01	2,421.19	2,351.86	69.33	34.922		
7,500.00	7,130.13	7,814.20	7,259.59	34.90	37.88	93.08	1,720.11	-763.23	2,422.66	2,350.94	71.73	33.775		
7,600.00	7,130.72	7,919.32	7,259.69	36.13	39.11	93.05	1,719.29	-868.35	2,422.74	2,348.47	74.27	32.623		
7,700.00	7,130.29	8,019.32	7,259.31	37.54	40.47	93.05	1,718.50	-968.34	2,422.74	2,345.66	77.08	31.432		
7,800.00	7,129.85	8,119.32	7,258.93	39.12	41.98	93.05	1,717.72	-1,068.34	2,422.74	2,342.54	80.20	30.209		
7,900.00	7,129.42	8,219.32	7,258.55	40.83	43.64	93.06	1,716.94	-1,168.33	2,422.73	2,339.14	83.59	28.983		
8,000.00	7,128.98	8,319.32	7,258.17	42.67	45.41	93.06	1,716.16	-1,268.33	2,422.73	2,335.50	87.23	27.775		
8,100.00	7,128.55	8,419.32	7,257.79	44.62	47.29	93.06	1,715.38	-1,368.33	2,422.73	2,331.65	91.08	26.601		
8,200.00	7,128.12	8,519.32	7,257.42	46.66	49.27	93.06	1,714.59	-1,468.32	2,422.73	2,327.62	95.11	25.472		
8,300.00	7,127.68	8,619.32	7,257.04	48.79	51.33	93.06	1,713.81	-1,568.32	2,422.73	2,323.41	99.31	24.395		
8,400.00	7,127.25	8,719.32	7,256.66	50.98	53.46	93.06	1,713.03	-1,668.32	2,422.73	2,319.07	103.66	23.372		
8,500.00	7,126.81	8,819.32	7,256.28	53.24	55.66	93.06	1,712.25	-1,768.31	2,422.72	2,314.59	108.13	22.406		
8,600.00	7,126.38	8,919.32	7,255.90	55.56	57.92	93.06	1,711.47	-1,868.31	2,422.72	2,310.01	112.71	21.495		
8,700.00	7,125.95	9,019.32	7,255.52	57.92	60.22	93.07	1,710.68	-1,968.30	2,422.72	2,305.33	117.39	20.638		
8,800.00	7,125.51	9,119.32	7,255.14	60.33	62.58	93.07	1,709.90	-2,068.30	2,422.72	2,300.56	122.16	19.832		
8,900.00	7,125.08	9,219.32	7,254.76	62.77	64.97	93.07	1,709.12	-2,168.30	2,422.72	2,295.71	127.01	19.075		
9,000.00	7,124.64	9,319.32	7,254.38	65.25	67.40	93.07	1,708.34	-2,268.29	2,422.72	2,290.79	131.92	18.364		
9,100.00	7,124.21	9,419.32	7,254.00	67.76	69.86	93.07	1,707.56	-2,368.29	2,422.71	2,285.81	136.90	17.697		
9,200.00	7,123.78	9,519.32	7,253.62	70.29	72.35	93.07	1,706.77	-2,468.29	2,422.71	2,280.78	141.93	17.069		
9,300.00	7,123.34	9,619.32	7,253.24	72.85	74.87	93.07	1,705.99	-2,568.28	2,422.71	2,275.70	147.01	16.479		
9,400.00	7,122.91	9,719.32	7,252.86	75.43	77.41	93.07	1,705.21	-2,668.28	2,422.71	2,270.57	152.14	15.924		
9,500.00	7,122.48	9,819.32	7,252.48	78.03	79.98	93.08	1,704.43	-2,768.27	2,422.71	2,265.40	157.31	15.401		
9,600.00	7,122.04	9,919.32	7,252.10	80.65	82.56	93.08	1,703.65	-2,868.27	2,422.71	2,260.20	162.51	14.908		
9,700.00	7,121.61	10,019.32	7,251.72	83.28	85.16	93.08	1,702.86	-2,968.27	2,422.70	2,254.96	167.74	14.443		
9,800.00	7,121.17	10,119.32	7,251.34	85.93	87.77	93.08	1,702.08	-3,068.26	2,422.70	2,249.69	173.01	14.003		
9,900.00	7,120.74	10,219.32	7,250.96	88.59	90.40	93.08	1,701.30	-3,168.26	2,422.70	2,244.40	178.30	13.588		
10,000.00	7,120.31	10,319.32	7,250.58	91.26	93.05	93.08	1,700.52	-3,268.26	2,422.70	2,239.08	183.62	13.194		
10,100.00	7,119.87	10,419.32	7,250.20	93.95	95.70	93.08	1,699.74	-3,368.25	2,422.70	2,233.74	188.96	12.821		
10,200.00	7,119.44	10,519.32	7,249.82	96.64	98.37	93.09	1,698.95	-3,468.25	2,422.69	2,228.38	194.32	12.468		
10,300.00	7,119.00	10,619.32	7,249.45	99.34	101.05	93.09	1,698.17	-3,568.24	2,422.69	2,223.00	199.70	12.132		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	7,118.57	10,719.32	7,249.07	102.05	103.74	93.09	1,697.39	-3,668.24	2,422.69	2,217.60	205.10	11.813		
10,500.00	7,118.14	10,819.32	7,248.69	104.77	106.43	93.09	1,696.61	-3,768.24	2,422.69	2,212.18	210.51	11.509		
10,600.00	7,117.70	10,919.32	7,248.31	107.50	109.14	93.09	1,695.83	-3,868.23	2,422.69	2,206.75	215.94	11.219		
10,700.00	7,117.27	11,019.32	7,247.93	110.23	111.85	93.09	1,695.04	-3,968.23	2,422.69	2,201.30	221.38	10.943		
10,800.00	7,116.83	11,119.32	7,247.55	112.97	114.57	93.09	1,694.26	-4,068.22	2,422.68	2,195.85	226.84	10.680		
10,900.00	7,116.40	11,219.32	7,247.17	115.72	117.30	93.09	1,693.48	-4,168.22	2,422.68	2,190.38	232.31	10.429		
11,000.00	7,115.97	11,319.32	7,246.79	118.47	120.03	93.10	1,692.70	-4,268.22	2,422.68	2,184.90	237.79	10.188		
11,100.00	7,115.53	11,419.32	7,246.41	121.22	122.77	93.10	1,691.92	-4,368.21	2,422.68	2,179.40	243.28	9.959		
11,200.00	7,115.10	11,519.32	7,246.03	123.98	125.51	93.10	1,691.13	-4,468.21	2,422.68	2,173.90	248.78	9.738		
11,300.00	7,114.66	11,619.32	7,245.65	126.74	128.26	93.10	1,690.35	-4,568.21	2,422.68	2,168.39	254.28	9.527		
11,400.00	7,114.23	11,719.32	7,245.27	129.51	131.01	93.10	1,689.57	-4,668.20	2,422.67	2,162.87	259.80	9.325		
11,500.00	7,113.80	11,819.32	7,244.89	132.29	133.77	93.10	1,688.79	-4,768.20	2,422.67	2,157.34	265.33	9.131		
11,600.00	7,113.36	11,919.32	7,244.51	135.06	136.53	93.10	1,688.01	-4,868.19	2,422.67	2,151.81	270.86	8.944		
11,700.00	7,112.93	12,019.32	7,244.13	137.84	139.30	93.10	1,687.22	-4,968.19	2,422.67	2,146.27	276.40	8.765		
11,800.00	7,112.49	12,119.32	7,243.75	140.62	142.07	93.11	1,686.44	-5,068.19	2,422.67	2,140.72	281.95	8.593		
11,900.00	7,112.06	12,219.32	7,243.37	143.41	144.84	93.11	1,685.66	-5,168.18	2,422.67	2,135.16	287.50	8.427		
12,000.00	7,111.63	12,319.32	7,242.99	146.20	147.61	93.11	1,684.88	-5,268.18	2,422.66	2,129.60	293.06	8.267		
12,100.00	7,111.19	12,419.32	7,242.61	148.99	150.39	93.11	1,684.10	-5,368.18	2,422.66	2,124.04	298.62	8.113		
12,200.00	7,110.76	12,519.32	7,242.23	151.78	153.18	93.11	1,683.31	-5,468.17	2,422.66	2,118.47	304.19	7.964		
12,300.00	7,110.33	12,619.32	7,241.86	154.58	155.96	93.11	1,682.53	-5,568.17	2,422.66	2,112.89	309.77	7.821		
12,400.00	7,109.89	12,719.32	7,241.48	157.37	158.75	93.11	1,681.75	-5,668.16	2,422.66	2,107.31	315.35	7.682		
12,500.00	7,109.46	12,819.32	7,241.10	160.17	161.54	93.11	1,680.97	-5,768.16	2,422.66	2,101.72	320.93	7.549		
12,600.00	7,109.02	12,919.32	7,240.72	162.98	164.33	93.12	1,680.18	-5,868.16	2,422.65	2,096.13	326.52	7.420		
12,700.00	7,108.59	13,019.32	7,240.34	165.78	167.12	93.12	1,679.40	-5,968.15	2,422.65	2,090.54	332.11	7.295		
12,800.00	7,108.16	13,119.32	7,239.96	168.59	169.92	93.12	1,678.62	-6,068.15	2,422.65	2,084.94	337.71	7.174		
12,900.00	7,107.72	13,219.32	7,239.58	171.39	172.72	93.12	1,677.84	-6,168.15	2,422.65	2,079.34	343.31	7.057		
13,000.00	7,107.29	13,319.32	7,239.20	174.20	175.52	93.12	1,677.06	-6,268.14	2,422.65	2,073.73	348.91	6.943		
13,100.00	7,106.85	13,419.32	7,238.82	177.01	178.32	93.12	1,676.27	-6,368.14	2,422.65	2,068.12	354.52	6.834		
13,200.00	7,106.42	13,519.32	7,238.44	179.83	181.13	93.12	1,675.49	-6,468.13	2,422.64	2,062.51	360.13	6.727		
13,300.00	7,105.99	13,619.32	7,238.06	182.64	183.93	93.13	1,674.71	-6,568.13	2,422.64	2,056.90	365.74	6.624		
13,400.00	7,105.55	13,719.32	7,237.68	185.45	186.74	93.13	1,673.93	-6,668.13	2,422.64	2,051.28	371.36	6.524		
13,500.00	7,105.12	13,819.32	7,237.30	188.27	189.55	93.13	1,673.15	-6,768.12	2,422.64	2,045.66	376.98	6.426		
13,600.00	7,104.68	13,919.32	7,236.92	191.09	192.36	93.13	1,672.36	-6,868.12	2,422.64	2,040.04	382.60	6.332		
13,700.00	7,104.25	14,019.32	7,236.54	193.91	195.17	93.13	1,671.58	-6,968.11	2,422.64	2,034.41	388.22	6.240		
13,800.00	7,103.82	14,119.32	7,236.16	196.73	197.98	93.13	1,670.80	-7,068.11	2,422.63	2,028.78	393.85	6.151		
13,900.00	7,103.38	14,219.32	7,235.78	199.55	200.80	93.13	1,670.02	-7,168.11	2,422.63	2,023.15	399.48	6.064		
14,000.00	7,102.95	14,319.32	7,235.40	202.37	203.61	93.13	1,669.24	-7,268.10	2,422.63	2,017.52	405.11	5.980		
14,100.00	7,102.51	14,419.32	7,235.02	205.19	206.43	93.14	1,668.45	-7,368.10	2,422.63	2,011.89	410.74	5.898		
14,200.00	7,102.08	14,519.32	7,234.64	208.02	209.25	93.14	1,667.67	-7,468.10	2,422.63	2,006.25	416.38	5.818		
14,300.00	7,101.65	14,619.32	7,234.26	210.84	212.07	93.14	1,666.89	-7,568.09	2,422.63	2,000.61	422.01	5.741		
14,400.00	7,101.21	14,719.32	7,233.89	213.67	214.88	93.14	1,666.11	-7,668.09	2,422.62	1,994.97	427.65	5.665		
14,500.00	7,100.78	14,819.32	7,233.51	216.50	217.71	93.14	1,665.33	-7,768.08	2,422.62	1,989.33	433.29	5.591		
14,600.00	7,100.35	14,919.32	7,233.13	219.32	220.53	93.14	1,664.54	-7,868.08	2,422.62	1,983.69	438.93	5.519		
14,700.00	7,099.91	15,019.32	7,232.75	222.15	223.35	93.14	1,663.76	-7,968.08	2,422.62	1,978.04	444.58	5.449		
14,800.00	7,099.48	15,119.32	7,232.37	224.98	226.17	93.14	1,662.98	-8,068.07	2,422.62	1,972.39	450.22	5.381		
14,898.30	7,099.05	15,217.62	7,231.99	227.76	228.95	93.15	1,662.21	-8,166.37	2,422.62	1,966.84	455.77	5.315		
14,900.00	7,099.04	15,216.01	7,232.00	227.81	228.91	93.15	1,662.22	-8,164.76	2,422.62	1,966.84	455.78	5.315		
14,909.96	7,099.00	15,216.01	7,232.00	228.09	228.91	93.15	1,662.22	-8,164.76	2,422.65	1,966.59	456.06	5.312 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	1.00	0.00	3.28	3.28	0.48	200.00	1.67	200.01					
100.00	100.00	101.00	100.00	3.28	3.28	0.48	200.00	1.67	200.01	193.44	6.57	30.444		
200.00	200.00	201.00	200.00	3.34	3.34	0.48	200.00	1.67	200.01	193.33	6.67	29.964		
300.00	300.00	301.00	300.00	3.44	3.45	0.48	200.00	1.67	200.01	193.12	6.89	29.024 CC, ES		
400.00	400.00	394.43	393.41	3.60	3.59	0.42	201.54	1.47	201.66	194.45	7.21	27.986		
500.00	500.00	487.73	486.59	3.81	3.78	0.25	206.10	0.89	206.54	198.92	7.62	27.119		
600.00	600.00	580.62	579.17	4.04	4.01	166.82	213.62	-0.08	214.70	206.60	8.10	26.505		
700.00	699.96	672.62	670.57	4.29	4.26	166.55	224.00	-1.41	228.35	219.72	8.63	26.473		
800.00	799.78	763.10	760.09	4.57	4.53	166.37	237.05	-3.08	248.46	239.26	9.20	27.009		
900.00	899.34	851.53	847.13	4.88	4.81	166.26	252.50	-5.06	274.89	265.08	9.81	28.027		
1,000.00	998.72	944.86	938.62	5.20	5.13	166.31	270.80	-7.40	304.97	294.56	10.41	29.298		
1,100.00	1,098.10	1,040.20	1,032.06	5.54	5.47	166.34	289.58	-9.81	335.13	324.07	11.06	30.308		
1,200.00	1,197.49	1,135.55	1,125.50	5.90	5.83	166.37	308.36	-12.22	365.29	353.56	11.73	31.136		
1,300.00	1,296.87	1,230.89	1,218.95	6.28	6.21	166.40	327.14	-14.62	395.46	383.02	12.43	31.810		
1,400.00	1,396.25	1,326.23	1,312.39	6.66	6.60	166.42	345.91	-17.03	425.62	412.47	13.15	32.357		
1,500.00	1,495.64	1,421.57	1,405.84	7.06	6.99	166.44	364.69	-19.44	455.78	441.89	13.89	32.805		
1,600.00	1,595.02	1,516.91	1,499.28	7.46	7.40	166.45	383.47	-21.84	485.95	471.30	14.65	33.172		
1,700.00	1,694.40	1,612.26	1,592.72	7.87	7.81	166.47	402.25	-24.25	516.11	500.69	15.42	33.474		
1,800.00	1,793.79	1,707.60	1,686.17	8.29	8.23	166.48	421.02	-26.65	546.27	530.08	16.20	33.724		
1,900.00	1,893.17	1,802.94	1,779.61	8.71	8.65	166.49	439.80	-29.06	576.44	559.45	16.99	33.932		
2,000.00	1,992.55	1,901.72	1,873.06	9.13	9.09	166.50	458.58	-31.47	606.60	588.80	17.80	34.075		
2,100.00	2,091.94	2,006.38	1,966.50	9.56	9.56	166.51	477.36	-33.87	636.77	618.12	18.65	34.146		
2,200.00	2,191.32	2,088.97	2,059.94	9.99	9.93	166.52	496.13	-36.28	666.93	647.52	19.41	34.369		
2,300.00	2,290.70	2,184.31	2,153.39	10.42	10.37	166.53	514.91	-38.69	697.09	676.87	20.22	34.470		
2,400.00	2,390.09	2,279.65	2,246.83	10.86	10.80	166.54	533.69	-41.09	727.26	706.21	21.05	34.555		
2,500.00	2,489.47	2,374.99	2,340.27	11.29	11.24	166.54	552.47	-43.50	757.42	735.55	21.87	34.626		
2,600.00	2,588.86	2,470.34	2,433.72	11.73	11.68	166.55	571.24	-45.90	787.59	764.88	22.71	34.687		
2,700.00	2,688.24	2,565.68	2,527.16	12.18	12.12	166.55	590.02	-48.31	817.75	794.21	23.54	34.737		
2,800.00	2,787.62	2,661.02	2,620.61	12.62	12.57	166.56	608.80	-50.72	847.91	823.53	24.38	34.780		
2,900.00	2,887.01	2,756.36	2,714.05	13.06	13.01	166.56	627.58	-53.12	878.08	852.86	25.22	34.816		
3,000.00	2,986.39	2,851.70	2,807.49	13.51	13.46	166.57	646.35	-55.53	908.24	882.18	26.06	34.846		
3,100.00	3,085.77	2,947.05	2,900.94	13.95	13.90	166.57	665.13	-57.93	938.41	911.49	26.91	34.871		
3,200.00	3,185.16	3,042.39	2,994.38	14.40	14.35	166.58	683.91	-60.34	968.57	940.81	27.76	34.892		
3,300.00	3,284.54	3,137.73	3,087.82	14.85	14.80	166.58	702.69	-62.75	998.73	970.12	28.61	34.909		
3,400.00	3,383.92	3,233.07	3,181.27	15.30	15.25	166.58	721.46	-65.15	1,028.90	999.44	29.46	34.924		
3,500.00	3,483.31	3,328.42	3,274.71	15.75	15.70	166.59	740.24	-67.56	1,059.06	1,028.75	30.32	34.935		
3,600.00	3,582.69	3,423.76	3,368.16	16.20	16.15	166.59	759.02	-69.97	1,089.22	1,058.05	31.17	34.944		
3,700.00	3,682.07	3,519.10	3,461.60	16.65	16.60	166.59	777.80	-72.37	1,119.39	1,087.36	32.03	34.951		
3,800.00	3,781.46	3,614.44	3,555.04	17.10	17.05	166.60	796.57	-74.78	1,149.55	1,116.67	32.88	34.957		
3,900.00	3,880.84	3,709.78	3,648.49	17.56	17.50	166.60	815.35	-77.18	1,179.72	1,145.97	33.74	34.961		
4,000.00	3,980.22	3,805.13	3,741.93	18.01	17.96	166.60	834.13	-79.59	1,209.88	1,175.28	34.60	34.963		
4,100.00	4,079.61	3,900.47	3,835.38	18.46	18.41	166.60	852.90	-82.00	1,240.04	1,204.58	35.47	34.965		
4,200.00	4,178.99	4,004.19	3,928.82	18.92	18.90	166.61	871.68	-84.40	1,270.21	1,233.84	36.37	34.928		
4,300.00	4,278.38	4,108.85	4,022.26	19.37	19.40	166.61	890.46	-86.81	1,300.37	1,263.10	37.27	34.888		
4,400.00	4,377.76	4,186.50	4,115.71	19.83	19.77	166.61	909.24	-89.22	1,330.54	1,292.48	38.05	34.964		
4,500.00	4,477.14	4,281.84	4,209.15	20.28	20.23	166.61	928.01	-91.62	1,360.70	1,321.78	38.92	34.962		
4,600.00	4,576.53	4,377.18	4,302.59	20.74	20.68	166.61	946.79	-94.03	1,390.86	1,351.08	39.78	34.960		
4,700.00	4,675.91	4,472.52	4,396.04	21.19	21.14	166.62	965.57	-96.43	1,421.03	1,380.38	40.65	34.957		
4,800.00	4,775.29	4,567.86	4,489.48	21.65	21.59	166.62	984.35	-98.84	1,451.19	1,409.67	41.52	34.953		
4,900.00	4,874.68	4,663.21	4,582.93	22.10	22.05	166.62	1,003.12	-101.25	1,481.36	1,438.97	42.39	34.950		
5,000.00	4,974.06	4,758.55	4,676.37	22.56	22.51	166.62	1,021.90	-103.65	1,511.52	1,468.27	43.25	34.946		
5,100.00	5,073.44	4,853.89	4,769.81	23.02	22.96	166.62	1,040.68	-106.06	1,541.68	1,497.56	44.12	34.942		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	5,172.83	4,949.23	4,863.26	23.47	23.42	166.62	1,059.46	-108.47	1,571.85	1,526.86	44.99	34.937		
5,300.00	5,272.21	5,044.57	4,956.70	23.93	23.87	166.63	1,078.23	-110.87	1,602.01	1,556.15	45.86	34.932		
5,400.00	5,371.59	5,139.92	5,050.15	24.39	24.33	166.63	1,097.01	-113.28	1,632.18	1,585.45	46.73	34.927		
5,500.00	5,470.98	5,235.26	5,143.59	24.85	24.79	166.63	1,115.79	-115.68	1,662.34	1,614.74	47.60	34.922		
5,600.00	5,570.36	5,330.60	5,237.03	25.30	25.25	166.63	1,134.57	-118.09	1,692.50	1,644.03	48.47	34.917		
5,700.00	5,669.75	5,425.94	5,330.48	25.76	25.70	166.63	1,153.34	-120.50	1,722.67	1,673.33	49.34	34.912		
5,800.00	5,769.13	5,521.29	5,423.92	26.22	26.16	166.63	1,172.12	-122.90	1,752.83	1,702.62	50.22	34.906		
5,900.00	5,868.51	5,616.63	5,517.36	26.68	26.62	166.63	1,190.90	-125.31	1,783.00	1,731.91	51.09	34.901		
6,000.00	5,967.90	5,711.97	5,610.81	27.14	27.08	166.63	1,209.68	-127.72	1,813.16	1,761.20	51.96	34.895		
6,100.00	6,067.28	5,807.31	5,704.25	27.60	27.53	166.64	1,228.45	-130.12	1,843.32	1,790.49	52.83	34.890		
6,200.00	6,166.66	5,902.65	5,797.70	28.05	27.99	166.64	1,247.23	-132.53	1,873.49	1,819.78	53.71	34.884		
6,300.00	6,266.05	6,002.00	5,891.14	28.51	28.47	166.64	1,266.01	-134.93	1,903.65	1,849.05	54.60	34.866		
6,400.00	6,365.43	6,106.66	5,984.58	28.97	28.97	166.64	1,284.79	-137.34	1,933.82	1,878.30	55.52	34.833		
6,500.00	6,464.81	6,188.68	6,078.03	29.43	29.37	166.64	1,303.56	-139.75	1,963.98	1,907.65	56.33	34.867		
6,600.00	6,564.10	6,283.97	6,171.42	29.89	29.83	134.93	1,322.33	-142.15	1,994.14	1,936.93	57.20	34.861		
6,700.00	6,661.75	6,378.03	6,263.60	30.34	30.28	109.21	1,340.86	-144.52	2,024.02	1,965.96	58.06	34.859		
6,800.00	6,755.38	6,468.57	6,352.35	30.77	30.71	99.50	1,358.69	-146.81	2,053.27	1,994.38	58.89	34.865		
6,900.00	6,842.67	6,553.39	6,435.47	31.17	31.12	94.30	1,375.39	-148.95	2,081.81	2,022.12	59.68	34.881		
7,000.00	6,921.48	6,648.81	6,528.78	31.54	31.58	91.21	1,394.12	-155.04	2,109.56	2,048.94	60.62	34.801		
7,100.00	6,989.86	6,765.12	6,639.83	31.91	32.13	89.37	1,416.27	-180.88	2,135.58	2,073.77	61.81	34.551		
7,200.00	7,046.13	6,903.15	6,763.00	32.35	32.75	88.40	1,440.65	-237.56	2,158.91	2,095.66	63.26	34.128		
7,300.00	7,088.91	7,071.16	6,892.43	32.98	33.47	88.15	1,465.97	-340.86	2,178.34	2,113.28	65.06	33.484		
7,400.00	7,117.14	7,275.36	7,007.50	33.84	34.55	88.33	1,487.96	-507.04	2,192.19	2,124.74	67.45	32.500		
7,500.00	7,130.13	7,509.92	7,068.67	34.90	36.67	88.46	1,498.69	-731.86	2,198.67	2,127.83	70.84	31.037		
7,600.00	7,130.72	7,643.44	7,070.78	36.13	38.28	88.44	1,498.19	-865.31	2,199.01	2,125.27	73.74	29.820		
7,700.00	7,130.29	7,743.44	7,070.50	37.54	39.67	88.44	1,497.44	-965.30	2,199.03	2,122.44	76.59	28.710		
7,800.00	7,129.85	7,843.44	7,070.22	39.12	41.22	88.45	1,496.69	-1,065.30	2,199.05	2,119.30	79.75	27.573		
7,900.00	7,129.42	7,943.44	7,069.93	40.83	42.90	88.45	1,495.94	-1,165.30	2,199.07	2,115.89	83.19	26.435		
8,000.00	7,128.98	8,043.44	7,069.65	42.67	44.70	88.45	1,495.18	-1,265.29	2,199.09	2,112.23	86.86	25.317		
8,100.00	7,128.55	8,143.44	7,069.36	44.62	46.61	88.46	1,494.43	-1,365.29	2,199.12	2,108.37	90.75	24.234		
8,200.00	7,128.12	8,243.44	7,069.08	46.66	48.61	88.46	1,493.68	-1,465.29	2,199.14	2,104.32	94.82	23.193		
8,300.00	7,127.68	8,343.44	7,068.79	48.79	50.70	88.47	1,492.93	-1,565.28	2,199.16	2,100.11	99.05	22.202		
8,400.00	7,127.25	8,443.44	7,068.51	50.98	52.86	88.47	1,492.17	-1,665.28	2,199.18	2,095.75	103.43	21.263		
8,500.00	7,126.81	8,543.44	7,068.22	53.24	55.08	88.47	1,491.42	-1,765.28	2,199.20	2,091.27	107.93	20.376		
8,600.00	7,126.38	8,643.44	7,067.94	55.56	57.36	88.48	1,490.67	-1,865.27	2,199.22	2,086.68	112.54	19.541		
8,700.00	7,125.95	8,743.44	7,067.65	57.92	59.69	88.48	1,489.92	-1,965.27	2,199.24	2,081.99	117.25	18.757		
8,800.00	7,125.51	8,843.44	7,067.37	60.33	62.06	88.48	1,489.16	-2,065.27	2,199.26	2,077.22	122.05	18.020		
8,900.00	7,125.08	8,943.44	7,067.08	62.77	64.47	88.49	1,488.41	-2,165.26	2,199.28	2,072.37	126.92	17.328		
9,000.00	7,124.64	9,043.44	7,066.80	65.25	66.92	88.49	1,487.66	-2,265.26	2,199.30	2,067.45	131.86	16.679		
9,100.00	7,124.21	9,143.44	7,066.51	67.76	69.40	88.50	1,486.91	-2,365.26	2,199.33	2,062.47	136.86	16.070		
9,200.00	7,123.78	9,243.44	7,066.23	70.29	71.91	88.50	1,486.15	-2,465.25	2,199.35	2,057.44	141.91	15.498		
9,300.00	7,123.34	9,343.44	7,065.94	72.85	74.44	88.50	1,485.40	-2,565.25	2,199.37	2,052.35	147.01	14.960		
9,400.00	7,122.91	9,443.44	7,065.66	75.43	77.00	88.51	1,484.65	-2,665.25	2,199.39	2,047.23	152.16	14.455		
9,500.00	7,122.48	9,543.44	7,065.37	78.03	79.57	88.51	1,483.90	-2,765.24	2,199.41	2,042.07	157.34	13.978		
9,600.00	7,122.04	9,643.44	7,065.09	80.65	82.17	88.52	1,483.14	-2,865.24	2,199.43	2,036.87	162.56	13.530		
9,700.00	7,121.61	9,743.44	7,064.80	83.28	84.78	88.52	1,482.39	-2,965.24	2,199.45	2,031.63	167.82	13.106		
9,800.00	7,121.17	9,843.44	7,064.52	85.93	87.41	88.52	1,481.64	-3,065.23	2,199.47	2,026.37	173.10	12.706		
9,900.00	7,120.74	9,943.44	7,064.24	88.59	90.05	88.53	1,480.89	-3,165.23	2,199.49	2,021.08	178.41	12.328		
10,000.00	7,120.31	10,043.44	7,063.95	91.26	92.70	88.53	1,480.13	-3,265.23	2,199.51	2,015.77	183.74	11.971		
10,100.00	7,119.87	10,143.44	7,063.67	93.95	95.37	88.54	1,479.38	-3,365.22	2,199.54	2,010.44	189.10	11.632		
10,200.00	7,119.44	10,243.44	7,063.38	96.64	98.05	88.54	1,478.63	-3,465.22	2,199.56	2,005.08	194.47	11.310		
10,300.00	7,119.00	10,343.44	7,063.10	99.34	100.74	88.54	1,477.88	-3,565.22	2,199.58	1,999.71	199.87	11.005		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	7,118.57	10,443.44	7,062.81	102.05	103.43	88.55	1,477.12	-3,665.21	2,199.60	1,994.32	205.28	10.715		
10,500.00	7,118.14	10,543.44	7,062.53	104.77	106.14	88.55	1,476.37	-3,765.21	2,199.62	1,988.91	210.71	10.439		
10,600.00	7,117.70	10,643.44	7,062.24	107.50	108.85	88.56	1,475.62	-3,865.21	2,199.64	1,983.49	216.15	10.176		
10,700.00	7,117.27	10,743.44	7,061.96	110.23	111.57	88.56	1,474.87	-3,965.20	2,199.66	1,978.05	221.61	9.926		
10,800.00	7,116.83	10,843.44	7,061.67	112.97	114.30	88.56	1,474.11	-4,065.20	2,199.68	1,972.60	227.08	9.687		
10,900.00	7,116.40	10,943.44	7,061.39	115.72	117.03	88.57	1,473.36	-4,165.20	2,199.70	1,967.14	232.56	9.459		
11,000.00	7,115.97	11,043.44	7,061.10	118.47	119.77	88.57	1,472.61	-4,265.19	2,199.73	1,961.67	238.05	9.240		
11,100.00	7,115.53	11,143.44	7,060.82	121.22	122.51	88.57	1,471.86	-4,365.19	2,199.75	1,956.19	243.56	9.032		
11,200.00	7,115.10	11,243.44	7,060.53	123.98	125.26	88.58	1,471.10	-4,465.19	2,199.77	1,950.70	249.07	8.832		
11,300.00	7,114.66	11,343.44	7,060.25	126.74	128.02	88.58	1,470.35	-4,565.18	2,199.79	1,945.20	254.59	8.640		
11,400.00	7,114.23	11,443.44	7,059.96	129.51	130.77	88.59	1,469.60	-4,665.18	2,199.81	1,939.69	260.12	8.457		
11,500.00	7,113.80	11,543.44	7,059.68	132.29	133.54	88.59	1,468.85	-4,765.18	2,199.83	1,934.17	265.66	8.281		
11,600.00	7,113.36	11,643.44	7,059.39	135.06	136.30	88.59	1,468.10	-4,865.17	2,199.85	1,928.65	271.20	8.111		
11,700.00	7,112.93	11,743.44	7,059.11	137.84	139.08	88.60	1,467.34	-4,965.17	2,199.87	1,923.12	276.76	7.949		
11,800.00	7,112.49	11,843.44	7,058.82	140.62	141.85	88.60	1,466.59	-5,065.17	2,199.90	1,917.58	282.31	7.792		
11,900.00	7,112.06	11,943.44	7,058.54	143.41	144.63	88.61	1,465.84	-5,165.16	2,199.92	1,912.04	287.88	7.642		
12,000.00	7,111.63	12,043.44	7,058.26	146.20	147.41	88.61	1,465.09	-5,265.16	2,199.94	1,906.49	293.45	7.497		
12,100.00	7,111.19	12,143.44	7,057.97	148.99	150.19	88.61	1,464.33	-5,365.16	2,199.96	1,900.93	299.03	7.357		
12,200.00	7,110.76	12,243.43	7,057.69	151.78	152.98	88.62	1,463.58	-5,465.15	2,199.98	1,895.37	304.61	7.222		
12,300.00	7,110.33	12,343.43	7,057.40	154.58	155.76	88.62	1,462.83	-5,565.15	2,200.00	1,889.81	310.19	7.092		
12,400.00	7,109.89	12,443.43	7,057.12	157.37	158.56	88.63	1,462.08	-5,665.15	2,200.02	1,884.24	315.78	6.967		
12,500.00	7,109.46	12,543.43	7,056.83	160.17	161.35	88.63	1,461.32	-5,765.14	2,200.05	1,878.67	321.38	6.846		
12,600.00	7,109.02	12,643.43	7,056.55	162.98	164.15	88.63	1,460.57	-5,865.14	2,200.07	1,873.09	326.98	6.728		
12,700.00	7,108.59	12,743.43	7,056.26	165.78	166.94	88.64	1,459.82	-5,965.14	2,200.09	1,867.51	332.58	6.615		
12,800.00	7,108.16	12,843.43	7,055.98	168.59	169.74	88.64	1,459.07	-6,065.13	2,200.11	1,861.92	338.19	6.506		
12,900.00	7,107.72	12,943.43	7,055.69	171.39	172.55	88.64	1,458.31	-6,165.13	2,200.13	1,856.33	343.80	6.399		
13,000.00	7,107.29	13,043.43	7,055.41	174.20	175.35	88.65	1,457.56	-6,265.13	2,200.15	1,850.74	349.41	6.297		
13,100.00	7,106.85	13,143.43	7,055.12	177.01	178.15	88.65	1,456.81	-6,365.12	2,200.17	1,845.14	355.03	6.197		
13,200.00	7,106.42	13,243.43	7,054.84	179.83	180.96	88.66	1,456.06	-6,465.12	2,200.19	1,839.54	360.65	6.101		
13,300.00	7,105.99	13,343.43	7,054.55	182.64	183.77	88.66	1,455.30	-6,565.12	2,200.22	1,833.94	366.27	6.007		
13,400.00	7,105.55	13,443.43	7,054.27	185.45	186.58	88.66	1,454.55	-6,665.11	2,200.24	1,828.34	371.90	5.916		
13,500.00	7,105.12	13,543.43	7,053.98	188.27	189.39	88.67	1,453.80	-6,765.11	2,200.26	1,822.73	377.53	5.828		
13,600.00	7,104.68	13,643.43	7,053.70	191.09	192.20	88.67	1,453.05	-6,865.11	2,200.28	1,817.12	383.16	5.742		
13,700.00	7,104.25	13,743.43	7,053.41	193.91	195.02	88.68	1,452.29	-6,965.10	2,200.30	1,811.51	388.80	5.659		
13,800.00	7,103.82	13,843.43	7,053.13	196.73	197.83	88.68	1,451.54	-7,065.10	2,200.32	1,805.89	394.43	5.578		
13,900.00	7,103.38	13,943.43	7,052.84	199.55	200.65	88.68	1,450.79	-7,165.10	2,200.35	1,800.27	400.07	5.500		
14,000.00	7,102.95	14,043.43	7,052.56	202.37	203.47	88.69	1,450.04	-7,265.09	2,200.37	1,794.66	405.71	5.423		
14,100.00	7,102.51	14,143.43	7,052.28	205.19	206.29	88.69	1,449.28	-7,365.09	2,200.39	1,789.03	411.35	5.349		
14,200.00	7,102.08	14,243.43	7,051.99	208.02	209.11	88.70	1,448.53	-7,465.09	2,200.41	1,783.41	417.00	5.277		
14,300.00	7,101.65	14,343.43	7,051.71	210.84	211.93	88.70	1,447.78	-7,565.08	2,200.43	1,777.78	422.65	5.206		
14,400.00	7,101.21	14,443.43	7,051.42	213.67	214.75	88.70	1,447.03	-7,665.08	2,200.45	1,772.16	428.29	5.138		
14,500.00	7,100.78	14,543.43	7,051.14	216.50	217.57	88.71	1,446.27	-7,765.08	2,200.47	1,766.53	433.95	5.071		
14,600.00	7,100.35	14,643.43	7,050.85	219.32	220.40	88.71	1,445.52	-7,865.07	2,200.50	1,760.90	439.60	5.006		
14,700.00	7,099.91	14,743.43	7,050.57	222.15	223.22	88.72	1,444.77	-7,965.07	2,200.52	1,755.27	445.25	4.942		
14,800.00	7,099.48	14,843.43	7,050.28	224.98	226.05	88.72	1,444.02	-8,065.07	2,200.54	1,749.63	450.91	4.880		
14,900.00	7,099.04	14,943.43	7,050.00	227.81	228.88	88.72	1,443.26	-8,165.06	2,200.56	1,744.00	456.56	4.820		
14,909.96	7,099.00	14,942.37	7,050.00	228.09	228.85	88.72	1,443.27	-8,164.00	2,200.59	1,743.77	456.82	4.817 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	0.00	0.00	3.28	3.28	0.40	119.85	0.83	119.85					
100.00	100.00	100.00	100.00	3.28	3.28	0.40	119.85	0.83	119.85	113.28	6.57	18.244		
200.00	200.00	200.00	200.00	3.34	3.34	0.40	119.85	0.83	119.85	113.18	6.67	17.958		
300.00	300.00	300.00	300.00	3.44	3.44	0.40	119.85	0.83	119.85	112.96	6.89	17.395		
400.00	400.00	400.00	400.00	3.60	3.60	0.40	119.85	0.83	119.85	112.64	7.21	16.631		
500.00	500.00	500.00	500.00	3.81	3.81	0.40	119.85	0.83	119.85	112.24	7.61	15.745 CC		
502.78	502.78	502.78	502.78	3.81	3.81	167.25	119.85	0.83	119.85	112.23	7.62	15.720		
600.00	600.00	600.00	600.00	4.04	4.05	167.25	119.85	0.83	119.92	111.83	8.09	14.823 ES		
700.00	699.96	696.16	696.15	4.29	4.31	167.18	121.34	0.21	123.84	115.24	8.60	14.394		
800.00	799.78	791.82	791.68	4.57	4.59	166.86	125.76	-1.66	134.23	125.05	9.18	14.625		
900.00	899.34	909.34	890.30	4.88	4.97	166.63	131.73	-4.18	149.39	139.53	9.86	15.153		
1,000.00	998.72	989.24	988.67	5.20	5.23	166.64	137.69	-6.70	166.17	155.73	10.44	15.914		
1,100.00	1,098.10	1,087.82	1,087.04	5.54	5.58	166.65	143.64	-9.22	182.95	171.83	11.12	16.456		
1,200.00	1,197.49	1,186.41	1,185.41	5.90	5.94	166.65	149.60	-11.73	199.73	187.91	11.82	16.895		
1,300.00	1,296.87	1,284.99	1,283.78	6.28	6.30	166.65	155.55	-14.25	216.51	203.97	12.55	17.255		
1,400.00	1,396.25	1,383.57	1,382.15	6.66	6.68	166.66	161.51	-16.76	233.30	220.00	13.29	17.551		
1,500.00	1,495.64	1,482.15	1,480.52	7.06	7.06	166.66	167.46	-19.28	250.08	236.03	14.05	17.796		
1,600.00	1,595.02	1,580.73	1,578.89	7.46	7.45	166.66	173.42	-21.79	266.86	252.03	14.83	17.999		
1,700.00	1,694.40	1,679.32	1,677.26	7.87	7.84	166.67	179.37	-24.31	283.64	268.03	15.61	18.169		
1,800.00	1,793.79	1,777.90	1,775.63	8.29	8.24	166.67	185.33	-26.82	300.42	284.02	16.41	18.311		
1,900.00	1,893.17	1,876.48	1,874.00	8.71	8.64	166.67	191.28	-29.34	317.20	299.99	17.21	18.432		
2,000.00	1,992.55	1,975.06	1,972.37	9.13	9.04	166.67	197.24	-31.85	333.99	315.97	18.02	18.534		
2,100.00	2,091.94	2,073.64	2,070.74	9.56	9.45	166.67	203.19	-34.37	350.77	331.93	18.84	18.621		
2,200.00	2,191.32	2,172.22	2,169.11	9.99	9.86	166.68	209.15	-36.89	367.55	347.89	19.66	18.696		
2,300.00	2,290.70	2,270.81	2,267.48	10.42	10.27	166.68	215.10	-39.40	384.33	363.84	20.49	18.760		
2,400.00	2,390.09	2,369.39	2,365.85	10.86	10.69	166.68	221.06	-41.92	401.11	379.79	21.32	18.816		
2,500.00	2,489.47	2,467.97	2,464.22	11.29	11.10	166.68	227.01	-44.43	417.89	395.74	22.15	18.864		
2,600.00	2,588.86	2,566.55	2,562.59	11.73	11.52	166.68	232.97	-46.95	434.68	411.68	22.99	18.906		
2,700.00	2,688.24	2,665.13	2,660.96	12.18	11.94	166.68	238.93	-49.46	451.46	427.62	23.83	18.942		
2,800.00	2,787.62	2,763.72	2,759.33	12.62	12.36	166.68	244.88	-51.98	468.24	443.56	24.68	18.974		
2,900.00	2,887.01	2,862.30	2,857.70	13.06	12.78	166.68	250.84	-54.49	485.02	459.50	25.52	19.002		
3,000.00	2,986.39	2,960.88	2,956.07	13.51	13.20	166.68	256.79	-57.01	501.80	475.43	26.37	19.026		
3,100.00	3,085.77	3,059.46	3,054.44	13.95	13.62	166.68	262.75	-59.53	518.58	491.36	27.23	19.048		
3,200.00	3,185.16	3,158.04	3,152.81	14.40	14.05	166.68	268.70	-62.04	535.37	507.29	28.08	19.067		
3,300.00	3,284.54	3,256.62	3,251.18	14.85	14.47	166.68	274.66	-64.56	552.15	523.21	28.93	19.084		
3,400.00	3,383.92	3,355.21	3,349.55	15.30	14.90	166.69	280.61	-67.07	568.93	539.14	29.79	19.099		
3,500.00	3,483.31	3,453.79	3,447.92	15.75	15.32	166.69	286.57	-69.59	585.71	555.06	30.65	19.112		
3,600.00	3,582.69	3,552.37	3,546.28	16.20	15.75	166.69	292.52	-72.10	602.49	570.99	31.51	19.124		
3,700.00	3,682.07	3,650.95	3,644.65	16.65	16.18	166.69	298.48	-74.62	619.27	586.91	32.37	19.134		
3,800.00	3,781.46	3,749.53	3,743.02	17.10	16.60	166.69	304.43	-77.13	636.06	602.83	33.23	19.143		
3,900.00	3,880.84	3,848.12	3,841.39	17.56	17.03	166.69	310.39	-79.65	652.84	618.75	34.09	19.151		
4,000.00	3,980.22	3,946.70	3,939.76	18.01	17.46	166.69	316.34	-82.16	669.62	634.67	34.95	19.158		
4,100.00	4,079.61	4,045.28	4,038.13	18.46	17.89	166.69	322.30	-84.68	686.40	650.58	35.82	19.165		
4,200.00	4,178.99	4,143.86	4,136.50	18.92	18.32	166.69	328.25	-87.20	703.18	666.50	36.68	19.171		
4,300.00	4,278.38	4,242.44	4,234.87	19.37	18.75	166.69	334.21	-89.71	719.96	682.42	37.55	19.176		
4,400.00	4,377.76	4,341.02	4,333.24	19.83	19.18	166.69	340.16	-92.23	736.75	698.33	38.41	19.180		
4,500.00	4,477.14	4,439.61	4,431.61	20.28	19.61	166.69	346.12	-94.74	753.53	714.25	39.28	19.184		
4,600.00	4,576.53	4,538.19	4,529.98	20.74	20.04	166.69	352.08	-97.26	770.31	730.16	40.15	19.188		
4,700.00	4,675.91	4,636.77	4,628.35	21.19	20.47	166.69	358.03	-99.77	787.09	746.08	41.01	19.191		
4,800.00	4,775.29	4,735.35	4,726.72	21.65	20.90	166.69	363.99	-102.29	803.87	761.99	41.88	19.193		
4,900.00	4,874.68	4,833.93	4,825.09	22.10	21.33	166.69	369.94	-104.80	820.65	777.90	42.75	19.196		
5,000.00	4,974.06	4,932.52	4,923.46	22.56	21.76	166.69	375.90	-107.32	837.43	793.81	43.62	19.198		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
5,100.00	5,073.44	5,031.10	5,021.83	23.02	22.19	166.69	381.85	-109.83	854.22	809.72	44.49	19.200		
5,200.00	5,172.83	5,129.68	5,120.20	23.47	22.63	166.69	387.81	-112.35	871.00	825.64	45.36	19.201		
5,300.00	5,272.21	5,228.26	5,218.57	23.93	23.06	166.69	393.76	-114.87	887.78	841.55	46.23	19.202		
5,400.00	5,371.59	5,326.84	5,316.94	24.39	23.49	166.69	399.72	-117.38	904.56	857.46	47.10	19.203		
5,500.00	5,470.98	5,425.42	5,415.31	24.85	23.92	166.69	405.67	-119.90	921.34	873.37	47.98	19.204		
5,600.00	5,570.36	5,524.01	5,513.68	25.30	24.35	166.69	411.63	-122.41	938.12	889.28	48.85	19.205		
5,700.00	5,669.75	5,622.59	5,612.05	25.76	24.79	166.69	417.58	-124.93	954.91	905.19	49.72	19.206		
5,800.00	5,769.13	5,721.17	5,710.42	26.22	25.22	166.69	423.54	-127.44	971.69	921.10	50.59	19.206		
5,900.00	5,868.51	5,819.75	5,808.79	26.68	25.65	166.69	429.49	-129.96	988.47	937.00	51.47	19.206		
6,000.00	5,967.90	5,918.33	5,907.16	27.14	26.08	166.69	435.45	-132.47	1,005.25	952.91	52.34	19.207		
6,100.00	6,067.28	6,016.92	6,005.53	27.60	26.52	166.69	441.40	-134.99	1,022.03	968.82	53.21	19.207		
6,200.00	6,166.66	6,115.50	6,103.90	28.05	26.95	166.69	447.36	-137.50	1,038.81	984.73	54.09	19.207		
6,300.00	6,266.05	6,214.08	6,202.26	28.51	27.38	166.69	453.31	-140.02	1,055.60	1,000.64	54.96	19.207		
6,400.00	6,365.43	6,312.66	6,300.63	28.97	27.82	166.69	459.27	-142.54	1,072.38	1,016.54	55.83	19.206		
6,500.00	6,464.81	6,411.24	6,399.00	29.43	28.25	166.69	465.22	-145.05	1,089.16	1,032.45	56.71	19.206		
6,600.00	6,564.10	6,509.77	6,497.32	29.89	28.68	135.69	471.18	-147.57	1,105.94	1,048.36	57.58	19.206		
6,700.00	6,661.75	6,607.03	6,594.37	30.34	29.11	111.59	477.05	-150.05	1,122.70	1,064.26	58.44	19.211		
6,800.00	6,755.38	6,704.33	6,691.32	30.77	29.54	103.65	482.94	-155.13	1,139.58	1,080.28	59.30	19.218		
6,900.00	6,842.67	6,807.40	6,792.09	31.17	30.00	99.98	489.14	-175.28	1,156.35	1,096.14	60.21	19.205		
7,000.00	6,921.48	6,916.45	6,893.69	31.54	30.48	97.99	495.50	-214.01	1,172.53	1,111.34	61.19	19.163		
7,100.00	6,989.86	7,032.26	6,992.67	31.91	31.01	96.85	501.83	-273.48	1,187.60	1,125.35	62.26	19.076		
7,200.00	7,046.13	7,155.36	7,084.25	32.35	31.64	96.21	507.84	-355.25	1,200.99	1,137.50	63.49	18.916		
7,300.00	7,088.91	7,285.81	7,162.24	32.98	32.47	95.88	513.17	-459.40	1,212.08	1,147.07	65.02	18.642		
7,400.00	7,117.14	7,422.86	7,219.58	33.84	33.59	95.74	517.36	-583.51	1,220.31	1,153.32	66.99	18.215		
7,500.00	7,130.13	7,564.78	7,249.64	34.90	35.06	95.70	519.99	-721.88	1,225.19	1,155.68	69.51	17.625		
7,600.00	7,130.72	7,685.48	7,252.80	36.13	36.54	95.71	520.89	-842.46	1,226.94	1,154.71	72.23	16.987		
7,700.00	7,130.29	7,785.47	7,252.44	37.54	37.95	95.70	521.46	-942.45	1,228.28	1,153.23	75.06	16.365		
7,800.00	7,129.85	7,885.46	7,252.07	39.12	39.51	95.70	522.03	-1,042.44	1,229.63	1,151.44	78.19	15.726		
7,900.00	7,129.42	7,985.46	7,251.71	40.83	41.22	95.70	522.59	-1,142.43	1,230.97	1,149.37	81.61	15.084		
8,000.00	7,128.98	8,085.45	7,251.34	42.67	43.04	95.70	523.16	-1,242.42	1,232.32	1,147.05	85.26	14.453		
8,100.00	7,128.55	8,185.44	7,250.97	44.62	44.98	95.69	523.73	-1,342.41	1,233.66	1,144.53	89.13	13.841		
8,200.00	7,128.12	8,285.43	7,250.61	46.66	47.00	95.69	524.29	-1,442.40	1,235.01	1,141.81	93.19	13.252		
8,300.00	7,127.68	8,385.42	7,250.24	48.79	49.12	95.69	524.86	-1,542.38	1,236.35	1,138.93	97.41	12.692		
8,400.00	7,127.25	8,485.41	7,249.87	50.98	51.30	95.68	525.43	-1,642.37	1,237.69	1,135.91	101.78	12.160		
8,500.00	7,126.81	8,585.40	7,249.51	53.24	53.55	95.68	525.99	-1,742.36	1,239.04	1,132.77	106.27	11.659		
8,600.00	7,126.38	8,685.39	7,249.14	55.56	55.85	95.68	526.56	-1,842.35	1,240.38	1,129.51	110.87	11.187		
8,700.00	7,125.95	8,785.38	7,248.78	57.92	58.21	95.67	527.13	-1,942.34	1,241.73	1,126.15	115.57	10.744		
8,800.00	7,125.51	8,885.37	7,248.41	60.33	60.60	95.67	527.69	-2,042.33	1,243.07	1,122.71	120.36	10.328		
8,900.00	7,125.08	8,985.37	7,248.04	62.77	63.04	95.67	528.26	-2,142.32	1,244.42	1,119.19	125.22	9.938		
9,000.00	7,124.64	9,085.36	7,247.68	65.25	65.51	95.67	528.83	-2,242.30	1,245.76	1,115.61	130.15	9.572		
9,100.00	7,124.21	9,185.35	7,247.31	67.76	68.01	95.66	529.40	-2,342.29	1,247.10	1,111.96	135.14	9.228		
9,200.00	7,123.78	9,285.34	7,246.95	70.29	70.54	95.66	529.96	-2,442.28	1,248.45	1,108.26	140.18	8.906		
9,300.00	7,123.34	9,385.33	7,246.58	72.85	73.10	95.66	530.53	-2,542.27	1,249.79	1,104.52	145.28	8.603		
9,400.00	7,122.91	9,485.32	7,246.21	75.43	75.67	95.65	531.10	-2,642.26	1,251.14	1,100.73	150.41	8.318		
9,500.00	7,122.48	9,585.31	7,245.85	78.03	78.27	95.65	531.66	-2,742.25	1,252.48	1,096.90	155.58	8.050		
9,600.00	7,122.04	9,685.30	7,245.48	80.65	80.88	95.65	532.23	-2,842.24	1,253.83	1,093.03	160.79	7.798		
9,700.00	7,121.61	9,785.29	7,245.11	83.28	83.51	95.64	532.80	-2,942.23	1,255.17	1,089.13	166.04	7.560		
9,800.00	7,121.17	9,885.28	7,244.75	85.93	86.16	95.64	533.36	-3,042.21	1,256.51	1,085.21	171.31	7.335		
9,900.00	7,120.74	9,985.27	7,244.38	88.59	88.81	95.64	533.93	-3,142.20	1,257.86	1,081.26	176.60	7.123		
10,000.00	7,120.31	10,085.27	7,244.02	91.26	91.49	95.64	534.50	-3,242.19	1,259.20	1,077.28	181.92	6.922		
10,100.00	7,119.87	10,185.26	7,243.65	93.95	94.17	95.63	535.06	-3,342.18	1,260.55	1,073.28	187.27	6.731		
10,200.00	7,119.44	10,285.25	7,243.28	96.64	96.86	95.63	535.63	-3,442.17	1,261.89	1,069.26	192.63	6.551		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
10,300.00	7,119.00	10,385.24	7,242.92	99.34	99.56	95.63	536.20	-3,542.16	1,263.24	1,065.23	198.01	6.380		
10,400.00	7,118.57	10,485.23	7,242.55	102.05	102.27	95.62	536.76	-3,642.15	1,264.58	1,061.17	203.41	6.217		
10,500.00	7,118.14	10,585.22	7,242.19	104.77	104.99	95.62	537.33	-3,742.13	1,265.93	1,057.10	208.82	6.062		
10,600.00	7,117.70	10,685.21	7,241.82	107.50	107.72	95.62	537.90	-3,842.12	1,267.27	1,053.02	214.25	5.915		
10,700.00	7,117.27	10,785.20	7,241.45	110.23	110.45	95.61	538.46	-3,942.11	1,268.61	1,048.92	219.69	5.774		
10,800.00	7,116.83	10,885.19	7,241.09	112.97	113.19	95.61	539.03	-4,042.10	1,269.96	1,044.81	225.15	5.641		
10,900.00	7,116.40	10,985.18	7,240.72	115.72	115.93	95.61	539.60	-4,142.09	1,271.30	1,040.69	230.62	5.513		
11,000.00	7,115.97	11,085.17	7,240.35	118.47	118.68	95.61	540.16	-4,242.08	1,272.65	1,036.55	236.09	5.390		
11,100.00	7,115.53	11,185.17	7,239.99	121.22	121.44	95.60	540.73	-4,342.07	1,273.99	1,032.41	241.58	5.274		
11,200.00	7,115.10	11,285.16	7,239.62	123.98	124.20	95.60	541.30	-4,442.06	1,275.34	1,028.26	247.08	5.162		
11,300.00	7,114.66	11,385.15	7,239.26	126.74	126.97	95.60	541.87	-4,542.04	1,276.68	1,024.10	252.58	5.054		
11,400.00	7,114.23	11,485.14	7,238.89	129.51	129.73	95.59	542.43	-4,642.03	1,278.02	1,019.93	258.10	4.952		
11,500.00	7,113.80	11,585.13	7,238.52	132.29	132.51	95.59	543.00	-4,742.02	1,279.37	1,015.75	263.62	4.853		
11,600.00	7,113.36	11,685.12	7,238.16	135.06	135.29	95.59	543.57	-4,842.01	1,280.71	1,011.56	269.15	4.758		
11,700.00	7,112.93	11,785.11	7,237.79	137.84	138.07	95.59	544.13	-4,942.00	1,282.06	1,007.37	274.69	4.667		
11,800.00	7,112.49	11,885.10	7,237.42	140.62	140.85	95.58	544.70	-5,041.99	1,283.40	1,003.17	280.23	4.580		
11,900.00	7,112.06	11,985.09	7,237.06	143.41	143.64	95.58	545.27	-5,141.98	1,284.75	998.97	285.78	4.496		
12,000.00	7,111.63	12,085.08	7,236.69	146.20	146.43	95.58	545.83	-5,241.96	1,286.09	994.76	291.33	4.415		
12,100.00	7,111.19	12,185.08	7,236.33	148.99	149.22	95.57	546.40	-5,341.95	1,287.44	990.54	296.89	4.336		
12,200.00	7,110.76	12,285.07	7,235.96	151.78	152.01	95.57	546.97	-5,441.94	1,288.78	986.32	302.46	4.261		
12,300.00	7,110.33	12,385.06	7,235.59	154.58	154.81	95.57	547.53	-5,541.93	1,290.12	982.10	308.03	4.188		
12,400.00	7,109.89	12,485.05	7,235.23	157.37	157.61	95.57	548.10	-5,641.92	1,291.47	977.87	313.60	4.118		
12,500.00	7,109.46	12,585.04	7,234.86	160.17	160.41	95.56	548.67	-5,741.91	1,292.81	973.63	319.18	4.050		
12,600.00	7,109.02	12,685.03	7,234.50	162.98	163.22	95.56	549.23	-5,841.90	1,294.16	969.40	324.76	3.985		
12,700.00	7,108.59	12,785.02	7,234.13	165.78	166.02	95.56	549.80	-5,941.89	1,295.50	965.15	330.35	3.922		
12,800.00	7,108.16	12,885.01	7,233.76	168.59	168.83	95.56	550.37	-6,041.87	1,296.85	960.91	335.94	3.860		
12,900.00	7,107.72	12,985.00	7,233.40	171.39	171.64	95.55	550.93	-6,141.86	1,298.19	956.66	341.53	3.801		
13,000.00	7,107.29	13,084.99	7,233.03	174.20	174.45	95.55	551.50	-6,241.85	1,299.54	952.41	347.13	3.744		
13,100.00	7,106.85	13,184.98	7,232.66	177.01	177.27	95.55	552.07	-6,341.84	1,300.88	948.15	352.73	3.688		
13,200.00	7,106.42	13,284.98	7,232.30	179.83	180.08	95.54	552.63	-6,441.83	1,302.22	943.89	358.33	3.634		
13,300.00	7,105.99	13,384.97	7,231.93	182.64	182.90	95.54	553.20	-6,541.82	1,303.57	939.63	363.94	3.582		
13,400.00	7,105.55	13,484.96	7,231.57	185.45	185.71	95.54	553.77	-6,641.81	1,304.91	935.36	369.55	3.531		
13,500.00	7,105.12	13,584.95	7,231.20	188.27	188.53	95.54	554.34	-6,741.79	1,306.26	931.10	375.16	3.482		
13,600.00	7,104.68	13,684.94	7,230.83	191.09	191.35	95.53	554.90	-6,841.78	1,307.60	926.83	380.78	3.434		
13,700.00	7,104.25	13,784.93	7,230.47	193.91	194.18	95.53	555.47	-6,941.77	1,308.95	922.55	386.39	3.388		
13,800.00	7,103.82	13,884.92	7,230.10	196.73	197.00	95.53	556.04	-7,041.76	1,310.29	918.28	392.01	3.342		
13,900.00	7,103.38	13,984.91	7,229.74	199.55	199.82	95.53	556.60	-7,141.75	1,311.64	914.00	397.63	3.299		
14,000.00	7,102.95	14,084.90	7,229.37	202.37	202.65	95.52	557.17	-7,241.74	1,312.98	909.72	403.26	3.256		
14,100.00	7,102.51	14,184.89	7,229.00	205.19	205.47	95.52	557.74	-7,341.73	1,314.32	905.44	408.88	3.214		
14,200.00	7,102.08	14,284.89	7,228.64	208.02	208.30	95.52	558.30	-7,441.72	1,315.67	901.16	414.51	3.174		
14,300.00	7,101.65	14,384.88	7,228.27	210.84	211.13	95.51	558.87	-7,541.70	1,317.01	896.87	420.14	3.135		
14,400.00	7,101.21	14,484.87	7,227.90	213.67	213.96	95.51	559.44	-7,641.69	1,318.36	892.59	425.77	3.096		
14,500.00	7,100.78	14,584.86	7,227.54	216.50	216.79	95.51	560.00	-7,741.68	1,319.70	888.30	431.41	3.059		
14,600.00	7,100.35	14,684.85	7,227.17	219.32	219.62	95.51	560.57	-7,841.67	1,321.05	884.01	437.04	3.023		
14,700.00	7,099.91	14,784.84	7,226.81	222.15	222.45	95.50	561.14	-7,941.66	1,322.39	879.71	442.68	2.987		
14,800.00	7,099.48	14,884.83	7,226.44	224.98	225.28	95.50	561.70	-8,041.65	1,323.74	875.42	448.32	2.953		
14,900.00	7,099.04	14,984.82	7,226.07	227.81	228.11	95.50	562.27	-8,141.64	1,325.08	871.13	453.96	2.919		
14,909.96	7,099.00	14,994.79	7,226.04	228.09	228.39	95.50	562.33	-8,151.60	1,325.21	870.70	454.52	2.916 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
0.00	0.00	1.00	0.00	3.28	3.28	-179.47	-179.98	-1.67	179.99					
100.00	100.00	101.00	100.00	3.28	3.28	-179.47	-179.98	-1.67	179.99	173.42	6.57	27.397		
200.00	200.00	199.00	200.00	3.34	3.34	-179.47	-179.98	-1.67	179.99	173.31	6.67	26.971	CC, ES	
300.00	300.00	293.13	294.11	3.44	3.43	-179.43	-181.49	-1.79	181.59	174.71	6.89	26.371		
400.00	400.00	387.00	387.87	3.60	3.57	-179.33	-186.06	-2.17	186.47	179.26	7.21	25.877		
500.00	500.00	480.47	481.02	3.81	3.75	-179.17	-193.65	-2.81	194.60	186.98	7.62	25.543		
600.00	600.00	573.35	573.30	4.04	3.97	-12.11	-204.19	-3.68	205.89	197.79	8.10	25.412		
700.00	699.96	665.78	664.73	4.29	4.21	-11.96	-217.63	-4.80	218.09	209.47	8.62	25.297		
800.00	799.78	757.87	755.35	4.57	4.50	-11.93	-233.94	-6.16	230.09	220.90	9.19	25.041		
900.00	899.34	849.63	845.07	4.88	4.81	-12.02	-253.07	-7.75	241.88	232.09	9.79	24.709		
1,000.00	998.72	940.84	933.61	5.20	5.16	-12.18	-274.91	-9.56	255.19	244.76	10.43	24.456		
1,100.00	1,098.10	1,034.92	1,024.25	5.54	5.54	-12.28	-300.06	-11.66	271.34	260.24	11.10	24.438		
1,200.00	1,197.49	1,133.53	1,119.11	5.90	5.97	-12.38	-326.87	-13.88	287.98	276.17	11.81	24.387		
1,300.00	1,296.87	1,232.13	1,213.97	6.28	6.41	-12.46	-353.69	-16.11	304.62	292.08	12.54	24.284		
1,400.00	1,396.25	1,330.74	1,308.83	6.66	6.87	-12.53	-380.50	-18.34	321.26	307.96	13.31	24.146		
1,500.00	1,495.64	1,429.34	1,403.70	7.06	7.34	-12.59	-407.31	-20.57	337.91	323.82	14.09	23.987		
1,600.00	1,595.02	1,527.95	1,498.56	7.46	7.82	-12.65	-434.13	-22.80	354.55	339.66	14.89	23.817		
1,700.00	1,694.40	1,626.55	1,593.42	7.87	8.31	-12.71	-460.94	-25.03	371.19	355.49	15.70	23.641		
1,800.00	1,793.79	1,725.16	1,688.29	8.29	8.81	-12.76	-487.75	-27.26	387.83	371.30	16.53	23.464		
1,900.00	1,893.17	1,823.76	1,783.15	8.71	9.31	-12.80	-514.57	-29.49	404.48	387.11	17.37	23.289		
2,000.00	1,992.55	1,922.37	1,878.01	9.13	9.81	-12.84	-541.38	-31.72	421.12	402.90	18.22	23.118		
2,100.00	2,091.94	2,020.97	1,972.88	9.56	10.32	-12.88	-568.19	-33.95	437.76	418.69	19.07	22.953		
2,200.00	2,191.32	2,119.58	2,067.74	9.99	10.84	-12.92	-595.01	-36.18	454.41	434.47	19.94	22.793		
2,300.00	2,290.70	2,218.18	2,162.60	10.42	11.35	-12.95	-621.82	-38.41	471.05	450.25	20.81	22.640		
2,400.00	2,390.09	2,316.79	2,257.46	10.86	11.87	-12.98	-648.63	-40.64	487.70	466.01	21.68	22.494		
2,500.00	2,489.47	2,415.39	2,352.33	11.29	12.39	-13.01	-675.45	-42.87	504.34	481.78	22.56	22.354		
2,600.00	2,588.86	2,514.00	2,447.19	11.73	12.92	-13.04	-702.26	-45.10	520.98	497.54	23.45	22.220		
2,700.00	2,688.24	2,612.60	2,542.05	12.18	13.44	-13.06	-729.08	-47.33	537.63	513.29	24.33	22.093		
2,800.00	2,787.62	2,711.21	2,636.92	12.62	13.97	-13.09	-755.89	-49.56	554.27	529.05	25.23	21.971		
2,900.00	2,887.01	2,809.81	2,731.78	13.06	14.50	-13.11	-782.70	-51.79	570.92	544.80	26.12	21.856		
3,000.00	2,986.39	2,908.42	2,826.64	13.51	15.02	-13.13	-809.52	-54.02	587.56	560.54	27.02	21.745		
3,100.00	3,085.77	3,007.02	2,921.50	13.95	15.55	-13.15	-836.33	-56.25	604.21	576.29	27.92	21.640		
3,200.00	3,185.16	3,105.63	3,016.37	14.40	16.09	-13.17	-863.14	-58.48	620.85	592.03	28.82	21.540		
3,300.00	3,284.54	3,204.23	3,111.23	14.85	16.62	-13.19	-889.96	-60.71	637.50	607.77	29.73	21.444		
3,400.00	3,383.92	3,302.84	3,206.09	15.30	17.15	-13.20	-916.77	-62.94	654.14	623.51	30.63	21.353		
3,500.00	3,483.31	3,401.44	3,300.96	15.75	17.68	-13.22	-943.58	-65.17	670.79	639.24	31.54	21.266		
3,600.00	3,582.69	3,500.05	3,395.82	16.20	18.22	-13.23	-970.40	-67.40	687.43	654.98	32.45	21.182		
3,700.00	3,682.07	3,601.35	3,490.68	16.65	18.77	-13.25	-997.21	-69.63	704.08	670.70	33.38	21.094		
3,800.00	3,781.46	3,702.75	3,585.54	17.10	19.32	-13.26	-1,024.02	-71.86	720.72	686.42	34.30	21.010		
3,900.00	3,880.84	3,804.14	3,680.41	17.56	19.87	-13.28	-1,050.84	-74.09	737.37	702.14	35.23	20.929		
4,000.00	3,980.22	3,894.46	3,775.27	18.01	20.36	-13.29	-1,077.65	-76.32	754.01	717.91	36.11	20.883		
4,100.00	4,079.61	4,006.93	3,870.13	18.46	20.98	-13.30	-1,104.46	-78.55	770.66	733.57	37.09	20.778		
4,200.00	4,178.99	4,108.33	3,965.00	18.92	21.53	-13.31	-1,131.28	-80.78	787.30	749.28	38.02	20.707		
4,300.00	4,278.38	4,209.72	4,059.86	19.37	22.08	-13.32	-1,158.09	-83.01	803.95	764.99	38.95	20.639		
4,400.00	4,377.76	4,288.88	4,154.72	19.83	22.51	-13.33	-1,184.90	-85.24	820.59	780.82	39.78	20.630		
4,500.00	4,477.14	4,387.49	4,249.59	20.28	23.05	-13.34	-1,211.72	-87.47	837.24	796.54	40.70	20.572		
4,600.00	4,576.53	4,486.09	4,344.45	20.74	23.59	-13.35	-1,238.53	-89.70	853.88	812.27	41.62	20.517		
4,700.00	4,675.91	4,584.70	4,439.31	21.19	24.13	-13.36	-1,265.34	-91.93	870.53	827.99	42.54	20.464		
4,800.00	4,775.29	4,683.30	4,534.17	21.65	24.67	-13.37	-1,292.16	-94.16	887.18	843.71	43.46	20.413		
4,900.00	4,874.68	4,781.91	4,629.04	22.10	25.21	-13.38	-1,318.97	-96.39	903.82	859.44	44.38	20.364		
5,000.00	4,974.06	4,880.51	4,723.90	22.56	25.75	-13.39	-1,345.78	-98.62	920.47	875.16	45.31	20.316		
5,100.00	5,073.44	4,979.12	4,818.76	23.02	26.29	-13.40	-1,372.60	-100.85	937.11	890.88	46.23	20.270		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: O-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	5,172.83	5,077.72	4,913.63	23.47	26.83	-13.41	-1,399.41	-103.08	953.76	906.60	47.15	20.226		
5,300.00	5,272.21	5,176.33	5,008.49	23.93	27.37	-13.41	-1,426.23	-105.31	970.40	922.32	48.08	20.183		
5,400.00	5,371.59	5,274.93	5,103.35	24.39	27.91	-13.42	-1,453.04	-107.54	987.05	938.04	49.00	20.142		
5,500.00	5,470.98	5,373.54	5,198.21	24.85	28.45	-13.43	-1,479.85	-109.77	1,003.69	953.76	49.93	20.102		
5,600.00	5,570.36	5,472.14	5,293.08	25.30	28.99	-13.44	-1,506.67	-112.00	1,020.34	969.48	50.86	20.063		
5,700.00	5,669.75	5,570.75	5,387.94	25.76	29.54	-13.44	-1,533.48	-114.23	1,036.99	985.20	51.78	20.026		
5,800.00	5,769.13	5,669.35	5,482.80	26.22	30.08	-13.45	-1,560.29	-116.46	1,053.63	1,000.92	52.71	19.989		
5,900.00	5,868.51	5,767.96	5,577.67	26.68	30.62	-13.46	-1,587.11	-118.69	1,070.28	1,016.64	53.64	19.954		
6,000.00	5,967.90	5,866.56	5,672.53	27.14	31.16	-13.46	-1,613.92	-120.92	1,086.92	1,032.36	54.56	19.920		
6,100.00	6,067.28	5,965.17	5,767.39	27.60	31.70	-13.47	-1,640.73	-123.15	1,103.57	1,048.08	55.49	19.887		
6,200.00	6,166.66	6,063.77	5,862.26	28.05	32.24	-13.47	-1,667.55	-125.38	1,120.21	1,063.79	56.42	19.855		
6,300.00	6,266.05	6,162.38	5,957.12	28.51	32.79	-13.48	-1,694.36	-127.61	1,136.86	1,079.51	57.35	19.824		
6,400.00	6,365.43	6,260.98	6,051.98	28.97	33.33	-13.48	-1,721.17	-129.84	1,153.50	1,095.23	58.28	19.793		
6,500.00	6,464.81	6,359.59	6,146.84	29.43	33.87	-13.49	-1,747.99	-132.07	1,170.15	1,110.94	59.21	19.764		
6,600.00	6,564.10	6,458.14	6,241.66	29.89	34.41	-13.48	-1,774.79	-134.30	1,186.79	1,126.65	60.14	19.735		
6,700.00	6,661.75	6,555.42	6,335.25	30.34	34.95	-13.47	-1,801.24	-136.50	1,203.33	1,142.26	61.07	19.705		
6,800.00	6,755.38	6,649.08	6,425.35	30.77	35.46	-13.46	-1,826.71	-138.61	1,219.96	1,157.96	61.99	19.680		
6,900.00	6,842.67	6,736.81	6,509.76	31.17	35.95	-13.45	-1,850.57	-140.60	1,237.34	1,174.44	62.91	19.669		
7,000.00	6,921.48	6,816.46	6,586.38	31.54	36.38	-13.44	-1,872.22	-142.40	1,256.50	1,192.66	63.84	19.682		
7,100.00	6,989.86	6,886.57	6,653.83	31.91	36.77	-13.43	-1,891.29	-143.99	1,278.56	1,213.74	64.82	19.724		
7,200.00	7,046.13	6,998.35	6,760.56	32.35	37.38	-13.42	-1,921.53	-146.53	1,303.35	1,237.02	66.33	19.648		
7,300.00	7,088.91	7,146.24	6,895.41	32.98	38.10	-13.41	-1,959.97	-149.47	1,329.07	1,261.07	68.00	19.545		
7,400.00	7,117.14	7,200.00	7,047.77	33.84	39.11	-13.40	-2,003.80	-152.38	1,352.89	1,283.20	69.70	19.411		
7,500.00	7,130.13	7,202.12	7,228.97	34.90	40.01	-13.39	-2,057.29	-155.73	1,368.52	1,297.90	70.63	19.377		
7,600.00	7,130.72	7,232.04	7,249.65	36.13	41.09	-13.38	-2,064.84	-158.68	1,370.09	1,296.60	73.49	18.643		
7,700.00	7,130.29	8,032.04	7,249.05	37.54	41.93	-13.37	-2,065.43	-161.67	1,369.88	1,293.69	76.19	17.979		
7,800.00	7,129.85	8,132.04	7,248.46	39.12	43.06	-13.36	-2,066.01	-164.67	1,369.68	1,290.46	79.22	17.290		
7,900.00	7,129.42	8,232.04	7,247.86	40.83	44.43	-13.35	-2,066.59	-167.67	1,369.47	1,286.95	82.52	16.595		
8,000.00	7,128.98	8,332.04	7,247.27	42.67	45.99	-13.34	-2,067.18	-170.67	1,369.26	1,283.19	86.08	15.907		
8,100.00	7,128.55	8,432.04	7,246.67	44.62	47.70	-13.33	-2,067.76	-173.67	1,369.06	1,279.20	89.86	15.236		
8,200.00	7,128.12	8,532.04	7,246.07	46.66	49.54	-13.32	-2,068.34	-176.67	1,368.85	1,275.02	93.83	14.589		
8,300.00	7,127.68	8,632.04	7,245.48	48.79	51.48	-13.31	-2,068.93	-179.67	1,368.64	1,270.67	97.97	13.970		
8,400.00	7,127.25	8,732.04	7,244.88	50.98	53.51	-13.30	-2,069.51	-182.67	1,368.44	1,266.17	102.26	13.381		
8,500.00	7,126.81	8,832.04	7,244.29	53.24	55.63	-13.29	-2,070.10	-185.67	1,368.23	1,261.54	106.69	12.825		
8,600.00	7,126.38	8,932.04	7,243.69	55.56	57.81	-13.28	-2,070.68	-188.67	1,368.02	1,256.79	111.23	12.299		
8,700.00	7,125.95	9,032.04	7,243.09	57.92	60.05	-13.27	-2,071.26	-191.67	1,367.82	1,251.94	115.87	11.804		
8,800.00	7,125.51	9,132.04	7,242.50	60.33	62.34	-13.26	-2,071.85	-194.67	1,367.61	1,247.00	120.61	11.339		
8,900.00	7,125.08	9,232.04	7,241.90	62.77	64.68	-13.25	-2,072.43	-197.67	1,367.40	1,241.98	125.42	10.902		
9,000.00	7,124.64	9,332.04	7,241.31	65.25	67.06	-13.24	-2,073.01	-200.67	1,367.20	1,236.89	130.31	10.492		
9,100.00	7,124.21	9,432.04	7,240.71	67.76	69.48	-13.23	-2,073.60	-203.67	1,366.99	1,231.73	135.26	10.107		
9,200.00	7,123.78	9,532.04	7,240.12	70.29	71.93	-13.22	-2,074.18	-206.67	1,366.78	1,226.52	140.27	9.744		
9,300.00	7,123.34	9,632.04	7,239.52	72.85	74.42	-13.21	-2,074.77	-209.67	1,366.58	1,221.25	145.32	9.404		
9,400.00	7,122.91	9,732.04	7,238.92	75.43	76.92	-13.20	-2,075.35	-212.67	1,366.37	1,215.94	150.43	9.083		
9,500.00	7,122.48	9,832.04	7,238.33	78.03	79.46	-13.19	-2,075.93	-215.67	1,366.16	1,210.59	155.57	8.781		
9,600.00	7,122.04	9,932.04	7,237.73	80.65	82.01	-13.18	-2,076.52	-218.67	1,365.96	1,205.20	160.76	8.497		
9,700.00	7,121.61	10,032.04	7,237.14	83.28	84.58	-13.17	-2,077.10	-221.67	1,365.75	1,199.77	165.98	8.229		
9,800.00	7,121.17	10,132.04	7,236.54	85.93	87.17	-13.16	-2,077.68	-224.67	1,365.54	1,194.32	171.22	7.975		
9,900.00	7,120.74	10,232.04	7,235.94	88.59	89.78	-13.15	-2,078.27	-227.67	1,365.34	1,188.83	176.50	7.736		
10,000.00	7,120.31	10,332.04	7,235.35	91.26	92.41	-13.14	-2,078.85	-230.67	1,365.13	1,183.33	181.80	7.509		
10,100.00	7,119.87	10,432.04	7,234.75	93.95	95.04	-13.13	-2,079.44	-233.67	1,364.92	1,177.79	187.13	7.294		
10,200.00	7,119.44	10,532.04	7,234.16	96.64	97.69	-13.12	-2,080.02	-236.67	1,364.72	1,172.24	192.48	7.090		
10,300.00	7,119.00	10,632.04	7,233.56	99.34	100.35	-13.11	-2,080.60	-239.67	1,364.51	1,166.66	197.85	6.897		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
10,400.00	7,118.57	10,732.03	7,232.97	102.05	103.02	-94.81	-2,081.19	-3,641.57	1,364.30	1,161.07	203.23	6.713		
10,500.00	7,118.14	10,832.03	7,232.37	104.77	105.71	-94.80	-2,081.77	-3,741.57	1,364.10	1,155.46	208.64	6.538		
10,600.00	7,117.70	10,932.03	7,231.77	107.50	108.40	-94.80	-2,082.35	-3,841.56	1,363.89	1,149.84	214.05	6.372		
10,700.00	7,117.27	11,032.03	7,231.18	110.23	111.10	-94.79	-2,082.94	-3,941.56	1,363.68	1,144.20	219.49	6.213		
10,800.00	7,116.83	11,132.03	7,230.58	112.97	113.80	-94.79	-2,083.52	-4,041.56	1,363.48	1,138.54	224.93	6.062		
10,900.00	7,116.40	11,232.03	7,229.99	115.72	116.52	-94.78	-2,084.11	-4,141.55	1,363.27	1,132.88	230.39	5.917		
11,000.00	7,115.97	11,332.03	7,229.39	118.47	119.24	-94.77	-2,084.69	-4,241.55	1,363.07	1,127.20	235.86	5.779		
11,100.00	7,115.53	11,432.03	7,228.79	121.22	121.97	-94.77	-2,085.27	-4,341.54	1,362.86	1,121.51	241.35	5.647		
11,200.00	7,115.10	11,532.03	7,228.20	123.98	124.70	-94.76	-2,085.86	-4,441.54	1,362.65	1,115.81	246.84	5.520		
11,300.00	7,114.66	11,632.03	7,227.60	126.74	127.44	-94.76	-2,086.44	-4,541.54	1,362.45	1,110.11	252.34	5.399		
11,400.00	7,114.23	11,732.03	7,227.01	129.51	130.18	-94.75	-2,087.03	-4,641.53	1,362.24	1,104.39	257.85	5.283		
11,500.00	7,113.80	11,832.03	7,226.41	132.29	132.93	-94.74	-2,087.61	-4,741.53	1,362.03	1,098.67	263.37	5.172		
11,600.00	7,113.36	11,932.03	7,225.82	135.06	135.68	-94.74	-2,088.19	-4,841.53	1,361.83	1,092.93	268.89	5.065		
11,700.00	7,112.93	12,032.03	7,225.22	137.84	138.44	-94.73	-2,088.78	-4,941.52	1,361.62	1,087.19	274.43	4.962		
11,800.00	7,112.49	12,132.03	7,224.62	140.62	141.20	-94.72	-2,089.36	-5,041.52	1,361.41	1,081.45	279.97	4.863		
11,900.00	7,112.06	12,232.03	7,224.03	143.41	143.97	-94.72	-2,089.94	-5,141.51	1,361.21	1,075.69	285.51	4.768		
12,000.00	7,111.63	12,332.03	7,223.43	146.20	146.74	-94.71	-2,090.53	-5,241.51	1,361.00	1,069.93	291.07	4.676		
12,100.00	7,111.19	12,432.03	7,222.84	148.99	149.51	-94.71	-2,091.11	-5,341.51	1,360.80	1,064.17	296.63	4.588		
12,200.00	7,110.76	12,532.03	7,222.24	151.78	152.29	-94.70	-2,091.70	-5,441.50	1,360.59	1,058.40	302.19	4.502		
12,300.00	7,110.33	12,632.03	7,221.64	154.58	155.07	-94.69	-2,092.28	-5,541.50	1,360.38	1,052.62	307.76	4.420		
12,400.00	7,109.89	12,732.03	7,221.05	157.37	157.85	-94.69	-2,092.86	-5,641.50	1,360.18	1,046.84	313.34	4.341		
12,500.00	7,109.46	12,832.03	7,220.45	160.17	160.63	-94.68	-2,093.45	-5,741.49	1,359.97	1,041.06	318.92	4.264		
12,600.00	7,109.02	12,932.03	7,219.86	162.98	163.42	-94.68	-2,094.03	-5,841.49	1,359.77	1,035.27	324.50	4.190		
12,700.00	7,108.59	13,032.03	7,219.26	165.78	166.21	-94.67	-2,094.61	-5,941.48	1,359.56	1,029.47	330.09	4.119		
12,800.00	7,108.16	13,132.03	7,218.66	168.59	169.00	-94.66	-2,095.20	-6,041.48	1,359.35	1,023.67	335.68	4.050		
12,900.00	7,107.72	13,232.03	7,218.07	171.39	171.80	-94.66	-2,095.78	-6,141.48	1,359.15	1,017.87	341.27	3.983		
13,000.00	7,107.29	13,332.03	7,217.47	174.20	174.59	-94.65	-2,096.37	-6,241.47	1,358.94	1,012.07	346.87	3.918		
13,100.00	7,106.85	13,432.03	7,216.88	177.01	177.39	-94.65	-2,096.95	-6,341.47	1,358.73	1,006.26	352.48	3.855		
13,200.00	7,106.42	13,532.03	7,216.28	179.83	180.19	-94.64	-2,097.53	-6,441.47	1,358.53	1,000.45	358.08	3.794		
13,300.00	7,105.99	13,632.03	7,215.69	182.64	182.99	-94.63	-2,098.12	-6,541.46	1,358.32	994.63	363.69	3.735		
13,400.00	7,105.55	13,732.03	7,215.09	185.45	185.80	-94.63	-2,098.70	-6,641.46	1,358.12	988.81	369.30	3.677		
13,500.00	7,105.12	13,832.02	7,214.49	188.27	188.60	-94.62	-2,099.28	-6,741.45	1,357.91	982.99	374.92	3.622		
13,600.00	7,104.68	13,932.02	7,213.90	191.09	191.41	-94.61	-2,099.87	-6,841.45	1,357.70	977.17	380.54	3.568		
13,700.00	7,104.25	14,032.02	7,213.30	193.91	194.22	-94.61	-2,100.45	-6,941.45	1,357.50	971.34	386.16	3.515		
13,800.00	7,103.82	14,132.02	7,212.71	196.73	197.03	-94.60	-2,101.04	-7,041.44	1,357.29	965.51	391.78	3.464		
13,900.00	7,103.38	14,232.02	7,212.11	199.55	199.84	-94.60	-2,101.62	-7,141.44	1,357.09	959.68	397.41	3.415		
14,000.00	7,102.95	14,332.02	7,211.51	202.37	202.65	-94.59	-2,102.20	-7,241.43	1,356.88	953.85	403.04	3.367		
14,100.00	7,102.51	14,432.02	7,210.92	205.19	205.46	-94.58	-2,102.79	-7,341.43	1,356.68	948.01	408.67	3.320		
14,200.00	7,102.08	14,532.02	7,210.32	208.02	208.28	-94.58	-2,103.37	-7,441.43	1,356.47	942.17	414.30	3.274		
14,300.00	7,101.65	14,632.02	7,209.73	210.84	211.09	-94.57	-2,103.95	-7,541.42	1,356.26	936.33	419.93	3.230		
14,400.00	7,101.21	14,732.02	7,209.13	213.67	213.91	-94.57	-2,104.54	-7,641.42	1,356.06	930.49	425.57	3.186		
14,500.00	7,100.78	14,832.02	7,208.54	216.50	216.73	-94.56	-2,105.12	-7,741.42	1,355.85	924.64	431.21	3.144		
14,600.00	7,100.35	14,932.02	7,207.94	219.32	219.55	-94.55	-2,105.71	-7,841.41	1,355.65	918.80	436.85	3.103		
14,700.00	7,099.91	15,032.02	7,207.34	222.15	222.37	-94.55	-2,106.29	-7,941.41	1,355.44	912.95	442.49	3.063		
14,800.00	7,099.48	15,132.02	7,206.75	224.98	225.19	-94.54	-2,106.87	-8,041.40	1,355.23	907.10	448.13	3.024		
14,900.00	7,099.04	15,232.02	7,206.15	227.81	228.01	-94.53	-2,107.46	-8,141.40	1,355.03	901.25	453.78	2.986		
14,909.96	7,099.00	15,241.98	7,206.09	228.09	228.30	-94.53	-2,107.52	-8,151.36	1,355.01	900.67	454.34	2.982 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	2.00	0.00	3.28	3.28	-179.52	-300.19	-2.50	300.20					
100.00	100.00	102.00	100.00	3.28	3.29	-179.52	-300.19	-2.50	300.20	293.63	6.57	45.694		
200.00	200.00	198.00	200.00	3.34	3.34	-179.52	-300.19	-2.50	300.20	293.53	6.67	44.991	CC, ES	
300.00	300.00	288.68	290.67	3.44	3.43	-179.51	-301.56	-2.57	301.72	294.84	6.88	43.857		
400.00	400.00	379.00	380.88	3.60	3.56	-179.48	-305.78	-2.76	306.39	299.20	7.19	42.612		
500.00	500.00	468.96	470.56	3.81	3.73	-179.43	-312.79	-3.09	314.19	306.60	7.59	41.396		
600.00	600.00	558.40	559.47	4.04	3.93	-12.52	-322.56	-3.54	325.05	316.99	8.06	40.332		
700.00	699.96	647.44	647.62	4.29	4.16	-12.47	-335.03	-4.11	336.69	328.13	8.56	39.321		
800.00	799.78	736.19	735.07	4.57	4.43	-12.52	-350.17	-4.81	348.03	338.92	9.11	38.187		
900.00	899.34	824.66	821.73	4.88	4.72	-12.66	-367.95	-5.64	359.06	349.36	9.70	37.009		
1,000.00	998.72	912.67	907.34	5.20	5.05	-12.87	-388.29	-6.58	371.52	361.19	10.33	35.969		
1,100.00	1,098.10	999.92	991.56	5.54	5.40	-13.05	-411.03	-7.63	387.01	376.03	10.98	35.250		
1,200.00	1,197.49	1,086.27	1,074.20	5.90	5.77	-13.19	-436.05	-8.79	405.48	393.84	11.64	34.823		
1,300.00	1,296.87	1,171.57	1,155.05	6.28	6.16	-13.30	-463.19	-10.04	426.89	414.57	12.32	34.657		
1,400.00	1,396.25	1,255.70	1,233.97	6.66	6.57	-13.38	-492.31	-11.39	451.18	438.18	12.99	34.720		
1,500.00	1,495.64	1,338.55	1,310.81	7.06	7.00	-13.44	-523.24	-12.82	478.28	464.61	13.67	34.984		
1,600.00	1,595.02	1,419.99	1,385.45	7.46	7.44	-13.48	-555.79	-14.32	508.12	493.78	14.34	35.425		
1,700.00	1,694.40	1,499.95	1,457.80	7.87	7.89	-13.49	-589.79	-15.90	540.64	525.63	15.01	36.023		
1,800.00	1,793.79	1,578.34	1,527.77	8.29	8.36	-13.50	-625.08	-17.53	575.75	560.09	15.67	36.753		
1,900.00	1,893.17	1,655.09	1,595.32	8.71	8.84	-13.49	-661.46	-19.21	613.38	597.07	16.31	37.605		
2,000.00	1,992.55	1,730.14	1,660.42	9.13	9.33	-13.47	-698.78	-20.94	653.45	636.51	16.94	38.567		
2,100.00	2,091.94	1,803.46	1,723.04	9.56	9.82	-13.44	-736.87	-22.70	695.88	678.32	17.56	39.627		
2,200.00	2,191.32	1,886.61	1,793.16	9.99	10.40	-13.40	-781.52	-24.76	740.13	721.83	18.31	40.429		
2,300.00	2,290.70	1,976.21	1,868.64	10.42	11.03	-13.37	-829.74	-27.00	784.54	765.39	19.15	40.977		
2,400.00	2,390.09	2,065.81	1,944.12	10.86	11.68	-13.34	-877.96	-29.23	828.95	808.95	20.00	41.452		
2,500.00	2,489.47	2,155.40	2,019.60	11.29	12.33	-13.31	-926.19	-31.46	873.36	852.49	20.86	41.865		
2,600.00	2,588.86	2,245.00	2,095.08	11.73	12.99	-13.28	-974.41	-33.69	917.76	896.03	21.74	42.225		
2,700.00	2,688.24	2,334.60	2,170.56	12.18	13.65	-13.26	-1,022.63	-35.92	962.17	939.55	22.62	42.541		
2,800.00	2,787.62	2,424.20	2,246.04	12.62	14.32	-13.24	-1,070.86	-38.15	1,006.58	983.07	23.51	42.818		
2,900.00	2,887.01	2,513.80	2,321.52	13.06	15.00	-13.22	-1,119.08	-40.38	1,050.99	1,026.58	24.41	43.063		
3,000.00	2,986.39	2,603.39	2,397.00	13.51	15.67	-13.20	-1,167.30	-42.61	1,095.40	1,070.09	25.31	43.281		
3,100.00	3,085.77	2,707.01	2,472.48	13.95	16.46	-13.18	-1,215.52	-44.84	1,139.81	1,113.50	26.30	43.335		
3,200.00	3,185.16	2,782.59	2,547.96	14.40	17.04	-13.17	-1,263.75	-47.07	1,184.22	1,157.08	27.13	43.645		
3,300.00	3,284.54	2,872.19	2,623.45	14.85	17.72	-13.15	-1,311.97	-49.30	1,228.62	1,200.57	28.05	43.798		
3,400.00	3,383.92	2,961.79	2,698.93	15.30	18.41	-13.14	-1,360.19	-51.53	1,273.03	1,244.06	28.98	43.935		
3,500.00	3,483.31	3,051.38	2,774.41	15.75	19.10	-13.13	-1,408.42	-53.76	1,317.44	1,287.54	29.90	44.059		
3,600.00	3,582.69	3,140.98	2,849.89	16.20	19.79	-13.12	-1,456.64	-55.99	1,361.85	1,331.02	30.83	44.170		
3,700.00	3,682.07	3,230.58	2,925.37	16.65	20.48	-13.11	-1,504.86	-58.22	1,406.26	1,374.49	31.77	44.271		
3,800.00	3,781.46	3,320.18	3,000.85	17.10	21.18	-13.10	-1,553.08	-60.45	1,450.67	1,417.97	32.70	44.362		
3,900.00	3,880.84	3,409.77	3,076.33	17.56	21.87	-13.09	-1,601.31	-62.68	1,495.08	1,461.44	33.64	44.444		
4,000.00	3,980.22	3,500.63	3,151.81	18.01	22.58	-13.08	-1,649.53	-64.91	1,539.49	1,504.90	34.59	44.509		
4,100.00	4,079.61	3,588.97	3,227.29	18.46	23.27	-13.07	-1,697.75	-67.14	1,583.90	1,548.37	35.52	44.587		
4,200.00	4,178.99	3,678.57	3,302.77	18.92	23.97	-13.06	-1,745.98	-69.37	1,628.30	1,591.84	36.47	44.649		
4,300.00	4,278.38	3,768.17	3,378.25	19.37	24.67	-13.05	-1,794.20	-71.60	1,672.71	1,635.30	37.42	44.706		
4,400.00	4,377.76	3,857.76	3,453.74	19.83	25.37	-13.05	-1,842.42	-73.83	1,717.12	1,678.76	38.36	44.758		
4,500.00	4,477.14	3,947.36	3,529.22	20.28	26.07	-13.04	-1,890.64	-76.06	1,761.53	1,722.22	39.32	44.805		
4,600.00	4,576.53	4,036.96	3,604.70	20.74	26.77	-13.03	-1,938.87	-78.29	1,805.94	1,765.67	40.27	44.849		
4,700.00	4,675.91	4,126.56	3,680.18	21.19	27.47	-13.03	-1,987.09	-80.52	1,850.35	1,809.13	41.22	44.889		
4,800.00	4,775.29	4,216.16	3,755.66	21.65	28.18	-13.02	-2,035.31	-82.75	1,894.76	1,852.58	42.18	44.925		
4,900.00	4,874.68	4,305.75	3,831.14	22.10	28.88	-13.02	-2,083.54	-84.98	1,939.17	1,896.04	43.13	44.959		
5,000.00	4,974.06	4,404.65	3,906.62	22.56	29.66	-13.01	-2,131.76	-87.21	1,983.58	1,939.43	44.15	44.931		
5,100.00	5,073.44	4,484.95	3,982.10	23.02	30.29	-13.01	-2,179.98	-89.44	2,027.99	1,982.94	45.05	45.019		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
5,200.00	5,172.83	4,574.55	4,057.58	23.47	31.00	-13.00	-2,228.20	-91.67	2,072.40	2,026.39	46.01	45.045		
5,300.00	5,272.21	4,664.15	4,133.06	23.93	31.70	-13.00	-2,276.43	-93.90	2,116.81	2,069.84	46.97	45.069		
5,400.00	5,371.59	4,753.74	4,208.54	24.39	32.41	-12.99	-2,324.65	-96.14	2,161.22	2,113.29	47.93	45.092		
5,500.00	5,470.98	4,843.34	4,284.03	24.85	33.11	-12.99	-2,372.87	-98.37	2,205.63	2,156.73	48.89	45.112		
5,600.00	5,570.36	4,932.94	4,359.51	25.30	33.82	-12.98	-2,421.10	-100.60	2,250.03	2,200.18	49.86	45.131		
5,700.00	5,669.75	5,022.54	4,434.99	25.76	34.53	-12.98	-2,469.32	-102.83	2,294.44	2,243.62	50.82	45.149		
5,800.00	5,769.13	5,112.14	4,510.47	26.22	35.24	-12.98	-2,517.54	-105.06	2,338.85	2,287.07	51.78	45.165		
5,900.00	5,868.51	5,201.73	4,585.95	26.68	35.94	-12.97	-2,565.76	-107.29	2,383.26	2,330.51	52.75	45.180		
6,000.00	5,967.90	5,308.67	4,661.43	27.14	36.79	-12.97	-2,613.99	-109.52	2,427.67	2,373.85	53.83	45.102		
6,100.00	6,067.28	5,380.93	4,736.91	27.60	37.36	-12.97	-2,662.21	-111.75	2,472.08	2,417.40	54.68	45.207		
6,200.00	6,166.66	5,470.53	4,812.39	28.05	38.07	-12.96	-2,710.43	-113.98	2,516.49	2,460.84	55.65	45.219		
6,300.00	6,266.05	5,560.12	4,887.87	28.51	38.78	-12.96	-2,758.66	-116.21	2,560.90	2,504.28	56.62	45.229		
6,400.00	6,365.43	5,649.72	4,963.35	28.97	39.49	-12.96	-2,806.88	-118.44	2,605.31	2,547.72	57.59	45.239		
6,500.00	6,464.81	5,739.32	5,038.84	29.43	40.19	-12.95	-2,855.10	-120.67	2,649.72	2,591.16	58.56	45.248		
6,600.00	6,564.10	5,828.94	5,114.32	29.89	40.70	-12.95	-2,903.32	-122.90	2,694.13	2,636.57	59.53	45.257		
6,700.00	6,661.75	5,918.57	5,189.80	30.34	41.21	-12.95	-2,951.54	-125.13	2,738.54	2,681.98	60.50	45.266		
6,800.00	6,755.38	6,008.10	5,265.28	30.77	41.72	-12.95	-3,000.00	-127.36	2,782.95	2,728.39	61.47	45.275		
6,900.00	6,842.67	6,097.63	5,341.06	31.17	42.23	-12.95	-3,048.46	-129.59	2,827.36	2,773.80	62.44	45.284		
7,000.00	6,921.48	6,187.26	5,416.54	31.54	42.74	-12.95	-3,096.92	-131.82	2,871.77	2,819.21	63.41	45.293		
7,100.00	6,989.86	6,276.85	5,492.02	31.91	50.16	-12.95	-3,121.76	-132.76	2,842.30	2,573.40	68.90	38.350		
7,200.00	7,046.13	6,366.44	5,567.50	32.35	50.34	-12.95	-3,122.27	-136.60	2,836.42	2,566.69	69.73	37.806		
7,300.00	7,088.91	8,102.64	7,175.28	32.98	50.47	-12.95	-3,322.87	-149.57	2,631.98	2,561.12	70.86	37.144		
7,400.00	7,117.14	8,220.99	7,217.91	33.84	50.56	-12.95	-3,323.55	-160.30	2,629.03	2,556.63	72.41	36.310		
7,500.00	7,130.13	8,341.14	7,239.58	34.90	50.62	-12.97	-3,324.27	-172.30	2,627.62	2,553.22	74.41	35.314		
7,600.00	7,130.72	8,451.23	7,241.79	36.13	50.67	-12.92	-3,324.94	-183.31	2,627.40	2,550.63	76.77	34.224		
7,700.00	7,130.29	8,551.23	7,241.39	37.54	50.72	-12.92	-3,325.56	-193.31	2,627.24	2,547.85	79.39	33.093		
7,800.00	7,129.85	8,651.23	7,240.98	39.12	50.80	-12.92	-3,326.17	-1,033.30	2,627.07	2,544.75	82.32	31.912		
7,900.00	7,129.42	8,751.23	7,240.58	40.83	50.92	-12.92	-3,326.78	-1,133.30	2,626.91	2,541.37	85.54	30.711		
8,000.00	7,128.98	8,851.23	7,240.17	42.67	51.15	-12.92	-3,327.39	-1,233.30	2,626.74	2,537.74	89.00	29.514		
8,100.00	7,128.55	8,951.23	7,239.77	44.62	51.59	-12.92	-3,328.01	-1,333.30	2,626.58	2,533.89	92.69	28.338		
8,200.00	7,128.12	9,051.23	7,239.36	46.66	52.48	-12.92	-3,328.62	-1,433.29	2,626.42	2,529.85	96.57	27.197		
8,300.00	7,127.68	9,151.23	7,238.95	48.79	53.88	-12.92	-3,329.23	-1,533.29	2,626.25	2,525.63	100.63	26.099		
8,400.00	7,127.25	9,251.23	7,238.55	50.98	55.62	-12.92	-3,329.84	-1,633.29	2,626.09	2,521.25	104.84	25.049		
8,500.00	7,126.81	9,351.23	7,238.14	53.24	57.55	-12.92	-3,330.46	-1,733.28	2,625.93	2,516.74	109.18	24.051		
8,600.00	7,126.38	9,451.23	7,237.74	55.56	59.60	-12.92	-3,331.07	-1,833.28	2,625.76	2,512.11	113.65	23.104		
8,700.00	7,125.95	9,551.23	7,237.33	57.92	61.73	-12.92	-3,331.68	-1,933.28	2,625.60	2,507.38	118.22	22.209		
8,800.00	7,125.51	9,651.23	7,236.93	60.33	63.94	-12.92	-3,332.29	-2,033.28	2,625.44	2,502.55	122.89	21.364		
8,900.00	7,125.08	9,751.23	7,236.52	62.77	66.20	-12.92	-3,332.91	-2,133.27	2,625.27	2,497.63	127.64	20.567		
9,000.00	7,124.64	9,851.23	7,236.11	65.25	68.52	-12.92	-3,333.52	-2,233.27	2,625.11	2,492.64	132.47	19.816		
9,100.00	7,124.21	9,951.23	7,235.71	67.76	70.87	-12.92	-3,334.13	-2,333.27	2,624.95	2,487.58	137.37	19.109		
9,200.00	7,123.78	10,051.23	7,235.30	70.29	73.27	-12.92	-3,334.74	-2,433.26	2,624.78	2,482.46	142.33	18.442		
9,300.00	7,123.34	10,151.23	7,234.90	72.85	75.70	-12.92	-3,335.36	-2,533.26	2,624.62	2,477.28	147.34	17.814		
9,400.00	7,122.91	10,251.23	7,234.49	75.43	78.16	-12.92	-3,335.97	-2,633.26	2,624.46	2,472.06	152.40	17.221		
9,500.00	7,122.48	10,351.23	7,234.08	78.03	80.64	-12.92	-3,336.58	-2,733.26	2,624.29	2,466.79	157.50	16.662		
9,600.00	7,122.04	10,451.23	7,233.68	80.65	83.15	-12.92	-3,337.19	-2,833.25	2,624.13	2,461.48	162.65	16.134		
9,700.00	7,121.61	10,551.23	7,233.27	83.28	85.69	-12.92	-3,337.81	-2,933.25	2,623.96	2,456.13	167.83	15.634		
9,800.00	7,121.17	10,651.23	7,232.87	85.93	88.24	-12.92	-3,338.42	-3,033.25	2,623.80	2,450.75	173.05	15.162		
9,900.00	7,120.74	10,751.23	7,232.46	88.59	90.81	-12.92	-3,339.03	-3,133.24	2,623.64	2,445.34	178.29	14.715		
10,000.00	7,120.31	10,851.23	7,232.06	91.26	93.40	-12.92	-3,339.64	-3,233.24	2,623.47	2,439.91	183.57	14.292		
10,100.00	7,119.87	10,951.23	7,231.65	93.95	96.01	-12.92	-3,340.26	-3,333.24	2,623.31	2,434.44	188.87	13.890		
10,200.00	7,119.44	11,051.23	7,231.24	96.64	98.62	-12.92	-3,340.87	-3,433.24	2,623.15	2,428.96	194.19	13.508		
10,300.00	7,119.00	11,151.23	7,230.84	99.34	101.26	-12.92	-3,341.48	-3,533.23	2,622.98	2,423.45	199.53	13.146		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	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	7,118.57	11,251.23	7,230.43	102.05	103.90	-92.44	-3,342.09	-3,633.23	2,622.82	2,417.92	204.90	12.801		
10,500.00	7,118.14	11,351.23	7,230.03	104.77	106.56	-92.45	-3,342.71	-3,733.23	2,622.66	2,412.38	210.28	12.472		
10,600.00	7,117.70	11,451.23	7,229.62	107.50	109.22	-92.45	-3,343.32	-3,833.23	2,622.49	2,406.81	215.68	12.159		
10,700.00	7,117.27	11,551.23	7,229.22	110.23	111.90	-92.45	-3,343.93	-3,933.22	2,622.33	2,401.23	221.09	11.861		
10,800.00	7,116.83	11,651.23	7,228.81	112.97	114.58	-92.45	-3,344.54	-4,033.22	2,622.17	2,395.64	226.52	11.576		
10,900.00	7,116.40	11,751.23	7,228.40	115.72	117.27	-92.45	-3,345.16	-4,133.22	2,622.00	2,390.03	231.97	11.303		
11,000.00	7,115.97	11,851.23	7,228.00	118.47	119.97	-92.45	-3,345.77	-4,233.21	2,621.84	2,384.41	237.42	11.043		
11,100.00	7,115.53	11,951.23	7,227.59	121.22	122.68	-92.45	-3,346.38	-4,333.21	2,621.67	2,378.78	242.89	10.794		
11,200.00	7,115.10	12,051.22	7,227.19	123.98	125.39	-92.45	-3,346.99	-4,433.21	2,621.51	2,373.14	248.37	10.555		
11,300.00	7,114.66	12,151.22	7,226.78	126.74	128.11	-92.45	-3,347.61	-4,533.21	2,621.35	2,367.49	253.86	10.326		
11,400.00	7,114.23	12,251.22	7,226.38	129.51	130.84	-92.45	-3,348.22	-4,633.20	2,621.18	2,361.83	259.36	10.106		
11,500.00	7,113.80	12,351.22	7,225.97	132.29	133.57	-92.45	-3,348.83	-4,733.20	2,621.02	2,356.16	264.87	9.896		
11,600.00	7,113.36	12,451.22	7,225.56	135.06	136.31	-92.45	-3,349.44	-4,833.20	2,620.86	2,350.48	270.38	9.693		
11,700.00	7,112.93	12,551.22	7,225.16	137.84	139.05	-92.45	-3,350.06	-4,933.19	2,620.69	2,344.79	275.91	9.499		
11,800.00	7,112.49	12,651.22	7,224.75	140.62	141.80	-92.46	-3,350.67	-5,033.19	2,620.53	2,339.09	281.44	9.311		
11,900.00	7,112.06	12,751.22	7,224.35	143.41	144.55	-92.46	-3,351.28	-5,133.19	2,620.37	2,333.39	286.98	9.131		
12,000.00	7,111.63	12,851.22	7,223.94	146.20	147.31	-92.46	-3,351.89	-5,233.19	2,620.20	2,327.68	292.52	8.957		
12,100.00	7,111.19	12,951.22	7,223.54	148.99	150.06	-92.46	-3,352.51	-5,333.18	2,620.04	2,321.97	298.07	8.790		
12,200.00	7,110.76	13,051.22	7,223.13	151.78	152.83	-92.46	-3,353.12	-5,433.18	2,619.88	2,316.24	303.63	8.628		
12,300.00	7,110.33	13,151.22	7,222.72	154.58	155.59	-92.46	-3,353.73	-5,533.18	2,619.71	2,310.52	309.19	8.473		
12,400.00	7,109.89	13,251.22	7,222.32	157.37	158.36	-92.46	-3,354.34	-5,633.17	2,619.55	2,304.79	314.76	8.322		
12,500.00	7,109.46	13,351.22	7,221.91	160.17	161.14	-92.46	-3,354.96	-5,733.17	2,619.39	2,299.05	320.34	8.177		
12,600.00	7,109.02	13,451.22	7,221.51	162.98	163.91	-92.46	-3,355.57	-5,833.17	2,619.22	2,293.31	325.92	8.037		
12,700.00	7,108.59	13,551.22	7,221.10	165.78	166.69	-92.46	-3,356.18	-5,933.17	2,619.06	2,287.56	331.50	7.901		
12,800.00	7,108.16	13,651.22	7,220.70	168.59	169.47	-92.46	-3,356.79	-6,033.16	2,618.89	2,281.81	337.09	7.769		
12,900.00	7,107.72	13,751.22	7,220.29	171.39	172.26	-92.46	-3,357.41	-6,133.16	2,618.73	2,276.05	342.68	7.642		
13,000.00	7,107.29	13,851.22	7,219.88	174.20	175.04	-92.46	-3,358.02	-6,233.16	2,618.57	2,270.29	348.27	7.519		
13,100.00	7,106.85	13,951.22	7,219.48	177.01	177.83	-92.47	-3,358.63	-6,333.15	2,618.40	2,264.53	353.87	7.399		
13,200.00	7,106.42	14,051.22	7,219.07	179.83	180.62	-92.47	-3,359.24	-6,433.15	2,618.24	2,258.77	359.48	7.284		
13,300.00	7,105.99	14,151.22	7,218.67	182.64	183.41	-92.47	-3,359.86	-6,533.15	2,618.08	2,253.00	365.08	7.171		
13,400.00	7,105.55	14,251.22	7,218.26	185.45	186.21	-92.47	-3,360.47	-6,633.15	2,617.91	2,247.22	370.69	7.062		
13,500.00	7,105.12	14,351.22	7,217.86	188.27	189.00	-92.47	-3,361.08	-6,733.14	2,617.75	2,241.45	376.30	6.956		
13,600.00	7,104.68	14,451.22	7,217.45	191.09	191.80	-92.47	-3,361.69	-6,833.14	2,617.59	2,235.67	381.92	6.854		
13,700.00	7,104.25	14,551.22	7,217.04	193.91	194.60	-92.47	-3,362.31	-6,933.14	2,617.42	2,229.89	387.54	6.754		
13,800.00	7,103.82	14,651.22	7,216.64	196.73	197.41	-92.47	-3,362.92	-7,033.13	2,617.26	2,224.10	393.16	6.657		
13,900.00	7,103.38	14,751.22	7,216.23	199.55	200.21	-92.47	-3,363.53	-7,133.13	2,617.10	2,218.31	398.78	6.563		
14,000.00	7,102.95	14,851.22	7,215.83	202.37	203.01	-92.47	-3,364.14	-7,233.13	2,616.93	2,212.52	404.41	6.471		
14,100.00	7,102.51	14,951.22	7,215.42	205.19	205.82	-92.47	-3,364.75	-7,333.13	2,616.77	2,206.73	410.04	6.382		
14,200.00	7,102.08	15,051.22	7,215.02	208.02	208.63	-92.47	-3,365.37	-7,433.12	2,616.61	2,200.94	415.67	6.295		
14,300.00	7,101.65	15,151.22	7,214.61	210.84	211.44	-92.47	-3,365.98	-7,533.12	2,616.44	2,195.14	421.30	6.210		
14,400.00	7,101.21	15,251.22	7,214.20	213.67	214.25	-92.48	-3,366.59	-7,633.12	2,616.28	2,189.34	426.94	6.128		
14,500.00	7,100.78	15,351.22	7,213.80	216.50	217.06	-92.48	-3,367.20	-7,733.11	2,616.11	2,183.54	432.57	6.048		
14,600.00	7,100.35	15,451.22	7,213.39	219.32	219.87	-92.48	-3,367.82	-7,833.11	2,615.95	2,177.74	438.21	5.970		
14,700.00	7,099.91	15,551.22	7,212.99	222.15	222.69	-92.48	-3,368.43	-7,933.11	2,615.79	2,171.93	443.85	5.893		
14,800.00	7,099.48	15,651.22	7,212.58	224.98	225.50	-92.48	-3,369.04	-8,033.11	2,615.62	2,166.13	449.50	5.819		
14,900.00	7,099.04	15,751.22	7,212.17	227.81	228.32	-92.48	-3,369.65	-8,133.10	2,615.46	2,160.32	455.14	5.746		
14,909.96	7,099.00	15,761.18	7,212.13	228.09	228.60	-92.48	-3,369.72	-8,143.07	2,615.44	2,159.74	455.70	5.739 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	0.00	0.00	3.28	3.28	0.40	79.77	0.56	79.78					
100.00	100.00	100.00	100.00	3.28	3.28	0.40	79.77	0.56	79.78	73.21	6.57	12.144		
200.00	200.00	200.00	200.00	3.34	3.34	0.40	79.77	0.56	79.78	73.10	6.67	11.953		
300.00	300.00	300.00	300.00	3.44	3.44	0.40	79.77	0.56	79.78	72.89	6.89	11.579		
400.00	400.00	400.00	400.00	3.60	3.60	0.40	79.77	0.56	79.78	72.57	7.21	11.070		
500.00	500.00	500.00	500.00	3.81	3.81	0.40	79.77	0.56	79.78	72.16	7.61	10.480 CC		
502.78	502.78	502.78	502.78	3.81	3.81	167.25	79.77	0.56	79.78	72.15	7.62	10.463		
600.00	600.00	600.00	600.00	4.04	4.05	167.26	79.77	0.56	79.84	71.75	8.09	9.870 ES		
700.00	699.96	701.33	698.65	4.29	4.32	166.63	80.66	-0.86	83.12	74.50	8.61	9.651		
800.00	799.78	801.61	798.32	4.57	4.61	165.87	82.23	-3.37	90.47	81.29	9.19	9.849		
900.00	899.34	902.20	897.70	4.88	4.93	165.72	83.79	-5.87	101.20	91.39	9.81	10.316		
1,000.00	998.72	1,002.96	996.89	5.20	5.26	165.84	85.35	-8.36	113.56	103.09	10.46	10.852		
1,100.00	1,098.10	1,103.73	1,096.08	5.54	5.62	165.94	86.91	-10.86	125.91	114.76	11.15	11.291		
1,200.00	1,197.49	1,204.50	1,195.27	5.90	5.98	166.02	88.47	-13.36	138.27	126.40	11.87	11.652		
1,300.00	1,296.87	1,305.26	1,294.46	6.28	6.35	166.09	90.03	-15.85	150.63	138.02	12.60	11.952		
1,400.00	1,396.25	1,406.03	1,393.65	6.66	6.73	166.15	91.59	-18.35	162.98	149.62	13.36	12.201		
1,500.00	1,495.64	1,506.79	1,492.84	7.06	7.12	166.20	93.15	-20.85	175.34	161.21	14.13	12.409		
1,600.00	1,595.02	1,607.56	1,592.03	7.46	7.52	166.25	94.71	-23.35	187.70	172.78	14.91	12.585		
1,700.00	1,694.40	1,708.33	1,691.22	7.87	7.92	166.28	96.27	-25.84	200.05	184.34	15.71	12.734		
1,800.00	1,793.79	1,809.09	1,790.41	8.29	8.32	166.32	97.83	-28.34	212.41	195.89	16.51	12.862		
1,900.00	1,893.17	1,909.86	1,889.60	8.71	8.73	166.35	99.39	-30.84	224.77	207.44	17.33	12.971		
2,000.00	1,992.55	1,989.37	1,988.79	9.13	9.05	166.38	100.95	-33.33	237.12	219.06	18.06	13.128		
2,100.00	2,091.94	2,088.61	2,087.98	9.56	9.46	166.40	102.51	-35.83	249.48	230.60	18.88	13.212		
2,200.00	2,191.32	2,187.84	2,187.17	9.99	9.87	166.42	104.07	-38.33	261.84	242.13	19.71	13.286		
2,300.00	2,290.70	2,287.07	2,286.36	10.42	10.28	166.44	105.63	-40.82	274.19	253.66	20.54	13.350		
2,400.00	2,390.09	2,386.31	2,385.55	10.86	10.70	166.46	107.19	-43.32	286.55	265.18	21.37	13.407		
2,500.00	2,489.47	2,485.54	2,484.74	11.29	11.11	166.48	108.75	-45.82	298.91	276.70	22.21	13.457		
2,600.00	2,588.86	2,584.77	2,583.93	11.73	11.53	166.49	110.31	-48.31	311.27	288.21	23.05	13.502		
2,700.00	2,688.24	2,684.01	2,683.12	12.18	11.95	166.51	111.87	-50.81	323.62	299.72	23.90	13.542		
2,800.00	2,787.62	2,783.24	2,782.31	12.62	12.37	166.52	113.43	-53.31	335.98	311.23	24.75	13.577		
2,900.00	2,887.01	2,882.47	2,881.50	13.06	12.79	166.53	114.99	-55.80	348.34	322.74	25.60	13.609		
3,000.00	2,986.39	2,981.71	2,980.68	13.51	13.21	166.54	116.55	-58.30	360.69	334.25	26.45	13.638		
3,100.00	3,085.77	3,080.94	3,079.87	13.95	13.64	166.55	118.11	-60.80	373.05	345.75	27.30	13.664		
3,200.00	3,185.16	3,180.18	3,179.06	14.40	14.06	166.56	119.67	-63.30	385.41	357.25	28.16	13.687		
3,300.00	3,284.54	3,279.41	3,278.25	14.85	14.48	166.57	121.23	-65.79	397.77	368.75	29.02	13.709		
3,400.00	3,383.92	3,378.64	3,377.44	15.30	14.91	166.58	122.79	-68.29	410.12	380.25	29.87	13.728		
3,500.00	3,483.31	3,477.88	3,476.63	15.75	15.34	166.59	124.35	-70.79	422.48	391.75	30.74	13.746		
3,600.00	3,582.69	3,577.11	3,575.82	16.20	15.76	166.60	125.91	-73.28	434.84	403.24	31.60	13.762		
3,700.00	3,682.07	3,676.34	3,675.01	16.65	16.19	166.61	127.47	-75.78	447.20	414.74	32.46	13.777		
3,800.00	3,781.46	3,775.58	3,774.20	17.10	16.62	166.61	129.03	-78.28	459.55	426.23	33.32	13.790		
3,900.00	3,880.84	3,874.81	3,873.39	17.56	17.05	166.62	130.59	-80.77	471.91	437.72	34.19	13.803		
4,000.00	3,980.22	3,974.04	3,972.58	18.01	17.47	166.63	132.16	-83.27	484.27	449.21	35.05	13.815		
4,100.00	4,079.61	4,073.28	4,071.77	18.46	17.90	166.63	133.72	-85.77	496.63	460.70	35.92	13.825		
4,200.00	4,178.99	4,172.51	4,170.96	18.92	18.33	166.64	135.28	-88.26	508.98	472.19	36.79	13.835		
4,300.00	4,278.38	4,271.74	4,270.15	19.37	18.76	166.64	136.84	-90.76	521.34	483.68	37.66	13.844		
4,400.00	4,377.76	4,370.98	4,369.34	19.83	19.19	166.65	138.40	-93.26	533.70	495.17	38.53	13.853		
4,500.00	4,477.14	4,470.21	4,468.53	20.28	19.62	166.65	139.96	-95.75	546.05	506.66	39.40	13.861		
4,600.00	4,576.53	4,569.45	4,567.72	20.74	20.05	166.66	141.52	-98.25	558.41	518.15	40.27	13.868		
4,700.00	4,675.91	4,668.68	4,666.91	21.19	20.48	166.66	143.08	-100.75	570.77	529.63	41.14	13.875		
4,800.00	4,775.29	4,767.91	4,766.10	21.65	20.91	166.67	144.64	-103.24	583.13	541.12	42.01	13.881		
4,900.00	4,874.68	4,867.15	4,865.29	22.10	21.35	166.67	146.20	-105.74	595.48	552.60	42.88	13.887		
5,000.00	4,974.06	4,966.38	4,964.48	22.56	21.78	166.67	147.76	-108.24	607.84	564.09	43.75	13.893		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
5,100.00	5,073.44	5,065.61	5,063.67	23.02	22.21	166.68	149.32	-110.74	620.20	575.57	44.63	13.898		
5,200.00	5,172.83	5,164.85	5,162.86	23.47	22.64	166.68	150.88	-113.23	632.56	587.06	45.50	13.903		
5,300.00	5,272.21	5,264.08	5,262.05	23.93	23.07	166.69	152.44	-115.73	644.91	598.54	46.37	13.907		
5,400.00	5,371.59	5,363.31	5,361.24	24.39	23.51	166.69	154.00	-118.23	657.27	610.03	47.25	13.912		
5,500.00	5,470.98	5,462.55	5,460.43	24.85	23.94	166.69	155.56	-120.72	669.63	621.51	48.12	13.916		
5,600.00	5,570.36	5,561.78	5,559.62	25.30	24.37	166.70	157.12	-123.22	681.99	632.99	49.00	13.919		
5,700.00	5,669.75	5,661.01	5,658.81	25.76	24.80	166.70	158.68	-125.72	694.34	644.47	49.87	13.923		
5,800.00	5,769.13	5,760.25	5,758.00	26.22	25.24	166.70	160.24	-128.21	706.70	655.96	50.75	13.926		
5,900.00	5,868.51	5,859.48	5,857.19	26.68	25.67	166.70	161.80	-130.71	719.06	667.44	51.62	13.930		
6,000.00	5,967.90	5,958.71	5,956.38	27.14	26.10	166.71	163.36	-133.21	731.42	678.92	52.50	13.933		
6,100.00	6,067.28	6,057.95	6,055.57	27.60	26.54	166.71	164.92	-135.70	743.77	690.40	53.37	13.935		
6,200.00	6,166.66	6,157.18	6,154.76	28.05	26.97	166.71	166.48	-138.20	756.13	701.88	54.25	13.938		
6,300.00	6,266.05	6,256.42	6,253.95	28.51	27.40	166.71	168.04	-140.70	768.49	713.36	55.13	13.941		
6,400.00	6,365.43	6,355.65	6,353.14	28.97	27.84	166.72	169.60	-143.19	780.85	724.84	56.00	13.943		
6,500.00	6,464.81	6,454.88	6,452.33	29.43	28.27	166.72	171.16	-145.69	793.20	736.32	56.88	13.945		
6,600.00	6,564.10	6,554.06	6,551.47	29.89	28.70	135.96	172.72	-148.19	805.57	747.81	57.76	13.948		
6,700.00	6,661.75	6,652.87	6,650.21	30.34	29.14	112.53	174.27	-151.16	818.00	759.38	58.62	13.954		
6,800.00	6,755.38	6,755.54	6,751.69	30.77	29.59	104.97	175.77	-165.96	830.43	770.91	59.52	13.953		
6,900.00	6,842.67	6,861.84	6,852.83	31.17	30.07	101.56	177.14	-198.24	842.47	782.03	60.44	13.939		
7,000.00	6,921.48	6,971.97	6,950.44	31.54	30.57	99.75	178.30	-248.93	853.75	792.35	61.40	13.905		
7,100.00	6,989.86	7,085.99	7,040.74	31.91	31.13	98.73	179.21	-318.29	863.87	801.43	62.44	13.835		
7,200.00	7,046.13	7,203.74	7,119.48	32.35	31.79	98.13	179.80	-405.61	872.45	808.79	63.66	13.704		
7,300.00	7,088.91	7,324.77	7,182.27	32.98	32.65	97.78	180.01	-508.87	879.14	813.93	65.20	13.483		
7,400.00	7,117.14	7,448.32	7,225.05	33.84	33.75	97.58	179.81	-624.56	883.62	816.45	67.17	13.156		
7,500.00	7,130.13	7,573.35	7,244.82	34.90	35.12	97.48	179.19	-747.82	885.70	816.09	69.60	12.725		
7,600.00	7,130.72	7,681.60	7,245.79	36.13	36.48	97.46	178.38	-856.04	885.85	813.64	72.21	12.267		
7,700.00	7,130.29	7,781.60	7,245.47	37.54	37.91	97.47	177.61	-956.03	885.88	810.82	75.06	11.803		
7,800.00	7,129.85	7,881.60	7,245.16	39.12	39.50	97.48	176.84	-1,056.03	885.90	807.70	78.21	11.328		
7,900.00	7,129.42	7,981.60	7,244.85	40.83	41.22	97.49	176.07	-1,156.03	885.93	804.30	81.63	10.853		
8,000.00	7,128.98	8,081.60	7,244.54	42.67	43.07	97.49	175.31	-1,256.02	885.95	800.66	85.29	10.387		
8,100.00	7,128.55	8,181.60	7,244.23	44.62	45.01	97.50	174.54	-1,356.02	885.98	796.81	89.16	9.936		
8,200.00	7,128.12	8,281.60	7,243.91	46.66	47.06	97.51	173.77	-1,456.02	886.00	792.78	93.22	9.504		
8,300.00	7,127.68	8,381.60	7,243.60	48.79	49.18	97.52	173.00	-1,556.01	886.03	788.59	97.44	9.093		
8,400.00	7,127.25	8,481.60	7,243.29	50.98	51.38	97.53	172.24	-1,656.01	886.06	784.26	101.80	8.704		
8,500.00	7,126.81	8,581.60	7,242.98	53.24	53.63	97.53	171.47	-1,756.01	886.08	779.80	106.28	8.337		
8,600.00	7,126.38	8,681.60	7,242.67	55.56	55.95	97.54	170.70	-1,856.00	886.11	775.23	110.87	7.992		
8,700.00	7,125.95	8,781.60	7,242.35	57.92	58.31	97.55	169.93	-1,956.00	886.13	770.57	115.56	7.668		
8,800.00	7,125.51	8,881.60	7,242.04	60.33	60.71	97.56	169.16	-2,056.00	886.16	765.83	120.33	7.364		
8,900.00	7,125.08	8,981.60	7,241.73	62.77	63.15	97.56	168.40	-2,155.99	886.18	761.01	125.18	7.079		
9,000.00	7,124.64	9,081.60	7,241.42	65.25	65.63	97.57	167.63	-2,255.99	886.21	756.12	130.09	6.812		
9,100.00	7,124.21	9,181.60	7,241.11	67.76	68.14	97.58	166.86	-2,355.99	886.24	751.17	135.06	6.562		
9,200.00	7,123.78	9,281.60	7,240.80	70.29	70.67	97.59	166.09	-2,455.98	886.26	746.17	140.09	6.326		
9,300.00	7,123.34	9,381.60	7,240.48	72.85	73.22	97.60	165.33	-2,555.98	886.29	741.13	145.16	6.106		
9,400.00	7,122.91	9,481.60	7,240.17	75.43	75.80	97.60	164.56	-2,655.98	886.31	736.04	150.27	5.898		
9,500.00	7,122.48	9,581.60	7,239.86	78.03	78.40	97.61	163.79	-2,755.97	886.34	730.91	155.43	5.703		
9,600.00	7,122.04	9,681.60	7,239.55	80.65	81.01	97.62	163.02	-2,855.97	886.36	725.75	160.61	5.519		
9,700.00	7,121.61	9,781.60	7,239.24	83.28	83.65	97.63	162.26	-2,955.96	886.39	720.56	165.83	5.345		
9,800.00	7,121.17	9,881.60	7,238.92	85.93	86.29	97.63	161.49	-3,055.96	886.42	715.34	171.08	5.181		
9,900.00	7,120.74	9,981.60	7,238.61	88.59	88.95	97.64	160.72	-3,155.96	886.44	710.09	176.35	5.027		
10,000.00	7,120.31	10,081.60	7,238.30	91.26	91.62	97.65	159.95	-3,255.95	886.47	704.82	181.65	4.880		
10,100.00	7,119.87	10,181.60	7,237.99	93.95	94.30	97.66	159.19	-3,355.95	886.49	699.53	186.96	4.742		
10,200.00	7,119.44	10,281.60	7,237.68	96.64	96.99	97.66	158.42	-3,455.95	886.52	694.22	192.30	4.610		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	
10,300.00	7,119.00	10,381.60	7,237.36	99.34	99.69	97.67	157.65	-3,555.94	886.55	688.89	197.66	4.485	
10,400.00	7,118.57	10,481.60	7,237.05	102.05	102.40	97.68	156.88	-3,655.94	886.57	683.54	203.03	4.367	
10,500.00	7,118.14	10,581.60	7,236.74	104.77	105.12	97.69	156.12	-3,755.94	886.60	678.18	208.42	4.254	
10,600.00	7,117.70	10,681.60	7,236.43	107.50	107.85	97.70	155.35	-3,855.93	886.62	672.80	213.82	4.147	
10,700.00	7,117.27	10,781.60	7,236.12	110.23	110.58	97.70	154.58	-3,955.93	886.65	667.42	219.23	4.044	
10,800.00	7,116.83	10,881.60	7,235.80	112.97	113.31	97.71	153.81	-4,055.93	886.68	662.01	224.66	3.947	
10,900.00	7,116.40	10,981.60	7,235.49	115.72	116.06	97.72	153.05	-4,155.92	886.70	656.60	230.10	3.854	
11,000.00	7,115.97	11,081.60	7,235.18	118.47	118.81	97.73	152.28	-4,255.92	886.73	651.18	235.55	3.765	
11,100.00	7,115.53	11,181.60	7,234.87	121.22	121.56	97.73	151.51	-4,355.92	886.75	645.75	241.01	3.679	
11,200.00	7,115.10	11,281.60	7,234.56	123.98	124.32	97.74	150.74	-4,455.91	886.78	640.30	246.48	3.598	
11,300.00	7,114.66	11,381.60	7,234.25	126.74	127.08	97.75	149.98	-4,555.91	886.81	634.85	251.95	3.520	
11,400.00	7,114.23	11,481.60	7,233.93	129.51	129.85	97.76	149.21	-4,655.90	886.83	629.40	257.44	3.445	
11,500.00	7,113.80	11,581.60	7,233.62	132.29	132.62	97.77	148.44	-4,755.90	886.86	623.93	262.93	3.373	
11,600.00	7,113.36	11,681.60	7,233.31	135.06	135.40	97.77	147.67	-4,855.90	886.89	618.46	268.43	3.304	
11,700.00	7,112.93	11,781.60	7,233.00	137.84	138.17	97.78	146.90	-4,955.89	886.91	612.98	273.93	3.238	
11,800.00	7,112.49	11,881.60	7,232.69	140.62	140.95	97.79	146.14	-5,055.89	886.94	607.49	279.44	3.174	
11,900.00	7,112.06	11,981.60	7,232.37	143.41	143.74	97.80	145.37	-5,155.89	886.96	602.00	284.96	3.113	
12,000.00	7,111.63	12,081.60	7,232.06	146.20	146.53	97.80	144.60	-5,255.88	886.99	596.51	290.48	3.053	
12,100.00	7,111.19	12,181.60	7,231.75	148.99	149.32	97.81	143.83	-5,355.88	887.02	591.00	296.01	2.997	
12,200.00	7,110.76	12,281.60	7,231.44	151.78	152.11	97.82	143.07	-5,455.88	887.04	585.50	301.54	2.942	
12,300.00	7,110.33	12,381.60	7,231.13	154.58	154.90	97.83	142.30	-5,555.87	887.07	579.99	307.08	2.889	
12,400.00	7,109.89	12,481.60	7,230.81	157.37	157.70	97.83	141.53	-5,655.87	887.10	574.47	312.62	2.838	
12,500.00	7,109.46	12,581.60	7,230.50	160.17	160.50	97.84	140.76	-5,755.87	887.12	568.95	318.17	2.788	
12,600.00	7,109.02	12,681.60	7,230.19	162.98	163.30	97.85	140.00	-5,855.86	887.15	563.43	323.72	2.741	
12,700.00	7,108.59	12,781.60	7,229.88	165.78	166.10	97.86	139.23	-5,955.86	887.17	557.90	329.27	2.694	
12,800.00	7,108.16	12,881.60	7,229.57	168.59	168.91	97.87	138.46	-6,055.86	887.20	552.37	334.83	2.650	
12,900.00	7,107.72	12,981.60	7,229.25	171.39	171.72	97.87	137.69	-6,155.85	887.23	546.84	340.39	2.607	
13,000.00	7,107.29	13,081.60	7,228.94	174.20	174.52	97.88	136.93	-6,255.85	887.25	541.30	345.95	2.565	
13,100.00	7,106.85	13,181.60	7,228.63	177.01	177.33	97.89	136.16	-6,355.85	887.28	535.77	351.51	2.524	
13,200.00	7,106.42	13,281.60	7,228.32	179.83	180.15	97.90	135.39	-6,455.84	887.31	530.22	357.08	2.485	
13,300.00	7,105.99	13,381.60	7,228.01	182.64	182.96	97.90	134.62	-6,555.84	887.33	524.68	362.65	2.447	
13,400.00	7,105.55	13,481.60	7,227.69	185.45	185.77	97.91	133.86	-6,655.83	887.36	519.13	368.23	2.410	
13,500.00	7,105.12	13,581.60	7,227.38	188.27	188.59	97.92	133.09	-6,755.83	887.39	513.58	373.80	2.374	
13,600.00	7,104.68	13,681.60	7,227.07	191.09	191.41	97.93	132.32	-6,855.83	887.41	508.03	379.38	2.339	
13,700.00	7,104.25	13,781.60	7,226.76	193.91	194.22	97.93	131.55	-6,955.82	887.44	502.48	384.96	2.305	
13,800.00	7,103.82	13,881.60	7,226.45	196.73	197.04	97.94	130.79	-7,055.82	887.47	496.92	390.55	2.272	
13,900.00	7,103.38	13,981.60	7,226.14	199.55	199.86	97.95	130.02	-7,155.82	887.49	491.36	396.13	2.240	
14,000.00	7,102.95	14,081.60	7,225.82	202.37	202.69	97.96	129.25	-7,255.81	887.52	485.80	401.72	2.209	
14,100.00	7,102.51	14,181.60	7,225.51	205.19	205.51	97.97	128.48	-7,355.81	887.55	480.24	407.31	2.179	
14,200.00	7,102.08	14,281.60	7,225.20	208.02	208.33	97.97	127.72	-7,455.81	887.57	474.68	412.90	2.150	
14,300.00	7,101.65	14,381.60	7,224.89	210.84	211.16	97.98	126.95	-7,555.80	887.60	469.11	418.49	2.121	
14,400.00	7,101.21	14,481.60	7,224.58	213.67	213.98	97.99	126.18	-7,655.80	887.62	463.54	424.08	2.093	
14,500.00	7,100.78	14,581.60	7,224.26	216.50	216.81	98.00	125.41	-7,755.80	887.65	457.98	429.67	2.066	
14,600.00	7,100.35	14,681.60	7,223.95	219.32	219.63	98.00	124.65	-7,855.79	887.68	452.41	435.27	2.039	
14,700.00	7,099.91	14,781.60	7,223.64	222.15	222.46	98.01	123.88	-7,955.79	887.70	446.84	440.87	2.014	
14,800.00	7,099.48	14,881.60	7,223.33	224.98	225.29	98.02	123.11	-8,055.79	887.73	441.26	446.47	1.988	
14,900.00	7,099.04	14,981.60	7,223.02	227.81	228.12	98.03	122.34	-8,155.78	887.76	435.69	452.07	1.964	
14,909.96	7,099.00	14,991.56	7,222.98	228.09	228.40	98.03	122.27	-8,165.75	887.76	435.14	452.63	1.961 SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	-179.43	-140.27	-1.39	140.28					
100.00	100.00	101.00	100.00	3.28	3.28	-179.43	-140.27	-1.39	140.28	133.71	6.57	21.352		
200.00	200.00	199.00	200.00	3.34	3.34	-179.43	-140.27	-1.39	140.28	133.60	6.67	21.021	CC, ES	
300.00	300.00	294.36	295.35	3.44	3.43	-179.37	-141.81	-1.56	141.90	135.01	6.89	20.602		
400.00	400.00	389.47	390.34	3.60	3.57	-179.20	-146.50	-2.05	146.83	139.62	7.21	20.363		
500.00	500.00	484.17	484.70	3.81	3.76	-178.93	-154.27	-2.88	155.06	147.43	7.63	20.328		
600.00	600.00	578.25	578.15	4.04	3.98	-11.75	-165.06	-4.03	166.48	158.37	8.12	20.512		
700.00	699.96	671.86	670.73	4.29	4.23	-11.48	-178.82	-5.50	178.85	170.21	8.64	20.699		
800.00	799.78	765.11	762.45	4.57	4.52	-11.37	-195.51	-7.28	191.05	181.84	9.21	20.736		
900.00	899.34	858.60	853.82	4.88	4.84	-11.39	-215.20	-9.38	203.06	193.24	9.82	20.682		
1,000.00	998.72	957.92	950.59	5.20	5.22	-11.52	-237.40	-11.75	214.75	204.29	10.46	20.529		
1,100.00	1,098.10	1,057.23	1,047.36	5.54	5.62	-11.63	-259.61	-14.12	226.44	215.30	11.14	20.319		
1,200.00	1,197.49	1,156.54	1,144.13	5.90	6.03	-11.73	-281.81	-16.48	238.14	226.28	11.86	20.079		
1,300.00	1,296.87	1,255.86	1,240.90	6.28	6.46	-11.82	-304.01	-18.85	249.83	237.23	12.60	19.824		
1,400.00	1,396.25	1,355.17	1,337.67	6.66	6.90	-11.90	-326.21	-21.22	261.53	248.16	13.37	19.565		
1,500.00	1,495.64	1,454.48	1,434.45	7.06	7.35	-11.98	-348.41	-23.59	273.23	259.08	14.15	19.307		
1,600.00	1,595.02	1,553.79	1,531.22	7.46	7.81	-12.05	-370.61	-25.95	284.92	269.97	14.95	19.056		
1,700.00	1,694.40	1,653.11	1,627.99	7.87	8.28	-12.11	-392.81	-28.32	296.62	280.86	15.77	18.814		
1,800.00	1,793.79	1,752.42	1,724.76	8.29	8.75	-12.17	-415.01	-30.69	308.32	291.73	16.59	18.583		
1,900.00	1,893.17	1,851.73	1,821.53	8.71	9.23	-12.22	-437.22	-33.06	320.02	302.59	17.43	18.364		
2,000.00	1,992.55	1,951.05	1,918.30	9.13	9.71	-12.28	-459.42	-35.42	331.72	313.45	18.27	18.156		
2,100.00	2,091.94	2,050.36	2,015.07	9.56	10.19	-12.32	-481.62	-37.79	343.42	324.29	19.12	17.959		
2,200.00	2,191.32	2,149.67	2,111.84	9.99	10.68	-12.37	-503.82	-40.16	355.11	335.13	19.98	17.774		
2,300.00	2,290.70	2,248.99	2,208.61	10.42	11.17	-12.41	-526.02	-42.53	366.81	345.97	20.84	17.599		
2,400.00	2,390.09	2,348.30	2,305.38	10.86	11.66	-12.45	-548.22	-44.89	378.51	356.80	21.71	17.433		
2,500.00	2,489.47	2,447.61	2,402.15	11.29	12.16	-12.48	-570.42	-47.26	390.21	367.63	22.58	17.278		
2,600.00	2,588.86	2,546.92	2,498.92	11.73	12.65	-12.52	-592.62	-49.63	401.91	378.45	23.46	17.130		
2,700.00	2,688.24	2,646.24	2,595.69	12.18	13.15	-12.55	-614.82	-52.00	413.61	389.27	24.34	16.991		
2,800.00	2,787.62	2,745.55	2,692.46	12.62	13.65	-12.58	-637.03	-54.36	425.31	400.09	25.23	16.860		
2,900.00	2,887.01	2,844.86	2,789.24	13.06	14.15	-12.61	-659.23	-56.73	437.01	410.90	26.11	16.736		
3,000.00	2,986.39	2,944.18	2,886.01	13.51	14.65	-12.64	-681.43	-59.10	448.71	421.71	27.00	16.618		
3,100.00	3,085.77	3,043.49	2,982.78	13.95	15.16	-12.67	-703.63	-61.47	460.41	432.52	27.89	16.506		
3,200.00	3,185.16	3,142.80	3,079.55	14.40	15.66	-12.69	-725.83	-63.83	472.11	443.33	28.79	16.401		
3,300.00	3,284.54	3,242.12	3,176.32	14.85	16.16	-12.71	-748.03	-66.20	483.81	454.13	29.68	16.300		
3,400.00	3,383.92	3,341.43	3,273.09	15.30	16.67	-12.74	-770.23	-68.57	495.51	464.93	30.58	16.205		
3,500.00	3,483.31	3,440.74	3,369.86	15.75	17.17	-12.76	-792.43	-70.94	507.21	475.74	31.48	16.114		
3,600.00	3,582.69	3,540.05	3,466.63	16.20	17.68	-12.78	-814.63	-73.30	518.91	486.54	32.38	16.027		
3,700.00	3,682.07	3,639.37	3,563.40	16.65	18.19	-12.80	-836.84	-75.67	530.61	497.33	33.28	15.944		
3,800.00	3,781.46	3,738.68	3,660.17	17.10	18.70	-12.82	-859.04	-78.04	542.31	508.13	34.18	15.866		
3,900.00	3,880.84	3,837.99	3,756.94	17.56	19.20	-12.83	-881.24	-80.41	554.02	518.93	35.09	15.790		
4,000.00	3,980.22	3,937.31	3,853.71	18.01	19.71	-12.85	-903.44	-82.77	565.72	529.73	35.99	15.719		
4,100.00	4,079.61	4,036.62	3,950.48	18.46	20.22	-12.87	-925.64	-85.14	577.42	540.52	36.90	15.650		
4,200.00	4,178.99	4,135.93	4,047.25	18.92	20.73	-12.88	-947.84	-87.51	589.12	551.31	37.80	15.584		
4,300.00	4,278.38	4,235.24	4,144.02	19.37	21.24	-12.90	-970.04	-89.88	600.82	562.11	38.71	15.521		
4,400.00	4,377.76	4,334.56	4,240.80	19.83	21.75	-12.91	-992.24	-92.25	612.52	572.90	39.62	15.460		
4,500.00	4,477.14	4,433.87	4,337.57	20.28	22.26	-12.93	-1,014.45	-94.61	624.22	583.69	40.53	15.402		
4,600.00	4,576.53	4,533.18	4,434.34	20.74	22.77	-12.94	-1,036.65	-96.98	635.92	594.48	41.44	15.346		
4,700.00	4,675.91	4,632.50	4,531.11	21.19	23.28	-12.96	-1,058.85	-99.35	647.62	605.27	42.35	15.293		
4,800.00	4,775.29	4,731.81	4,627.88	21.65	23.79	-12.97	-1,081.05	-101.72	659.32	616.06	43.26	15.241		
4,900.00	4,874.68	4,831.12	4,724.65	22.10	24.30	-12.98	-1,103.25	-104.08	671.02	626.85	44.17	15.191		
5,000.00	4,974.06	4,930.44	4,821.42	22.56	24.82	-12.99	-1,125.45	-106.45	682.73	637.64	45.08	15.144		
5,100.00	5,073.44	5,029.75	4,918.19	23.02	25.33	-13.00	-1,147.65	-108.82	694.43	648.43	46.00	15.098		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
5,200.00	5,172.83	5,129.06	5,014.96	23.47	25.84	-13.01	-1,169.85	-111.19	706.13	659.22	46.91	15.053		
5,300.00	5,272.21	5,228.37	5,111.73	23.93	26.35	-13.03	-1,192.05	-113.55	717.83	670.01	47.82	15.010		
5,400.00	5,371.59	5,327.69	5,208.50	24.39	26.86	-13.04	-1,214.26	-115.92	729.53	680.79	48.74	14.969		
5,500.00	5,470.98	5,427.00	5,305.27	24.85	27.38	-13.05	-1,236.46	-118.29	741.23	691.58	49.65	14.929		
5,600.00	5,570.36	5,526.31	5,402.04	25.30	27.89	-13.06	-1,258.66	-120.66	752.93	702.37	50.57	14.890		
5,700.00	5,669.75	5,625.63	5,498.81	25.76	28.40	-13.06	-1,280.86	-123.02	764.63	713.15	51.48	14.853		
5,800.00	5,769.13	5,724.94	5,595.59	26.22	28.91	-13.07	-1,303.06	-125.39	776.34	723.94	52.40	14.816		
5,900.00	5,868.51	5,824.25	5,692.36	26.68	29.43	-13.08	-1,325.26	-127.76	788.04	734.72	53.31	14.781		
6,000.00	5,967.90	5,923.57	5,789.13	27.14	29.94	-13.09	-1,347.46	-130.13	799.74	745.51	54.23	14.747		
6,100.00	6,067.28	6,022.88	5,885.90	27.60	30.45	-13.10	-1,369.66	-132.49	811.44	756.29	55.15	14.715		
6,200.00	6,166.66	6,122.19	5,982.67	28.05	30.97	-13.11	-1,391.87	-134.86	823.14	767.08	56.06	14.683		
6,300.00	6,266.05	6,221.50	6,079.44	28.51	31.48	-13.12	-1,414.07	-137.23	834.84	777.86	56.98	14.652		
6,400.00	6,365.43	6,320.82	6,176.21	28.97	31.99	-13.12	-1,436.27	-139.60	846.54	788.65	57.90	14.622		
6,500.00	6,464.81	6,420.13	6,272.98	29.43	32.51	-13.13	-1,458.47	-141.96	858.25	799.43	58.81	14.593		
6,600.00	6,564.10	6,519.39	6,369.70	29.89	33.02	-13.14	-1,480.66	-144.33	869.93	810.20	59.73	14.564		
6,700.00	6,661.75	6,617.48	6,465.28	30.34	33.53	-13.15	-1,502.85	-146.68	881.54	820.88	60.66	14.533		
6,800.00	6,755.38	6,711.53	6,563.06	30.77	34.04	-13.16	-1,525.08	-149.01	893.20	831.57	61.62	14.494		
6,900.00	6,842.67	6,823.67	6,661.63	31.17	34.55	-13.17	-1,547.86	-151.33	904.82	842.00	62.63	14.445		
7,000.00	6,921.48	6,933.27	6,758.08	31.54	35.03	-13.18	-1,570.27	-153.65	915.45	851.80	63.65	14.383		
7,100.00	6,989.86	7,047.57	6,848.78	31.91	35.47	-13.19	-1,591.50	-155.97	925.29	860.58	64.72	14.298		
7,200.00	7,046.13	7,166.55	6,923.38	32.35	35.88	-13.20	-1,610.53	-158.29	933.75	867.85	65.90	14.169		
7,300.00	7,088.91	7,289.87	6,995.11	32.98	36.27	-13.21	-1,626.27	-160.61	940.42	873.11	67.31	13.971		
7,400.00	7,117.14	7,416.76	7,041.25	33.84	36.72	-13.22	-1,637.62	-162.94	944.96	875.86	69.10	13.676		
7,500.00	7,130.13	7,546.04	7,064.01	34.90	37.42	-13.23	-1,643.66	-165.27	947.09	875.77	71.32	13.279		
7,600.00	7,130.72	7,658.23	7,065.87	36.13	38.39	-13.24	-1,644.82	-167.60	947.12	873.26	73.85	12.824		
7,700.00	7,130.29	7,758.23	7,065.64	37.54	39.53	-13.25	-1,645.41	-169.93	946.92	870.29	76.63	12.357		
7,800.00	7,129.85	7,858.23	7,065.41	39.12	40.90	-13.26	-1,646.01	-172.26	946.73	867.01	79.72	11.875		
7,900.00	7,129.42	7,958.23	7,065.18	40.83	42.45	-13.27	-1,646.61	-174.59	946.54	863.45	83.09	11.392		
8,000.00	7,128.98	8,058.23	7,064.95	42.67	44.16	-13.28	-1,647.21	-176.92	946.35	859.64	86.70	10.915		
8,100.00	7,128.55	8,158.23	7,064.71	44.62	45.99	-13.29	-1,647.81	-179.25	946.16	855.62	90.53	10.451		
8,200.00	7,128.12	8,258.23	7,064.48	46.66	47.93	-13.30	-1,648.41	-181.58	945.96	851.41	94.55	10.005		
8,300.00	7,127.68	8,358.23	7,064.25	48.79	49.96	-13.31	-1,649.01	-183.91	945.77	847.04	98.73	9.579		
8,400.00	7,127.25	8,458.23	7,064.02	50.98	52.08	-13.32	-1,649.61	-186.24	945.58	842.52	103.06	9.175		
8,500.00	7,126.81	8,558.23	7,063.79	53.24	54.26	-13.33	-1,650.21	-188.57	945.39	837.87	107.52	8.793		
8,600.00	7,126.38	8,658.23	7,063.56	55.56	56.51	-13.34	-1,650.80	-190.90	945.20	833.10	112.09	8.432		
8,700.00	7,125.95	8,758.23	7,063.33	57.92	58.81	-13.35	-1,651.40	-193.23	945.01	828.24	116.76	8.093		
8,800.00	7,125.51	8,858.23	7,063.10	60.33	61.16	-13.36	-1,652.00	-195.56	944.81	823.29	121.52	7.775		
8,900.00	7,125.08	8,958.23	7,062.87	62.77	63.55	-13.37	-1,652.60	-197.89	944.62	818.26	126.36	7.476		
9,000.00	7,124.64	9,058.23	7,062.64	65.25	65.98	-13.38	-1,653.20	-200.22	944.43	813.16	131.27	7.195		
9,100.00	7,124.21	9,158.23	7,062.41	67.76	68.44	-13.39	-1,653.80	-202.55	944.24	808.00	136.24	6.931		
9,200.00	7,123.78	9,258.23	7,062.18	70.29	70.93	-13.40	-1,654.40	-204.88	944.05	802.78	141.27	6.683		
9,300.00	7,123.34	9,358.23	7,061.95	72.85	73.45	-13.41	-1,655.00	-207.21	943.86	797.52	146.34	6.450		
9,400.00	7,122.91	9,458.23	7,061.72	75.43	75.99	-13.42	-1,655.59	-209.54	943.67	792.20	151.46	6.230		
9,500.00	7,122.48	9,558.23	7,061.49	78.03	78.56	-13.43	-1,656.19	-211.87	943.47	786.85	156.62	6.024		
9,600.00	7,122.04	9,658.23	7,061.26	80.65	81.15	-13.44	-1,656.79	-214.20	943.28	781.46	161.82	5.829		
9,700.00	7,121.61	9,758.23	7,061.03	83.28	83.75	-13.45	-1,657.39	-216.53	943.09	776.04	167.05	5.645		
9,800.00	7,121.17	9,858.23	7,060.80	85.93	86.37	-13.46	-1,657.99	-218.86	942.90	770.59	172.31	5.472		
9,900.00	7,120.74	9,958.23	7,060.57	88.59	89.00	-13.47	-1,658.59	-221.19	942.71	765.11	177.60	5.308		
10,000.00	7,120.31	10,058.23	7,060.34	91.26	91.65	-13.48	-1,659.19	-223.52	942.52	759.60	182.92	5.153		
10,100.00	7,119.87	10,158.23	7,060.11	93.95	94.31	-13.49	-1,659.79	-225.85	942.33	754.07	188.25	5.006		
10,200.00	7,119.44	10,258.23	7,059.88	96.64	96.98	-13.50	-1,660.39	-228.18	942.14	748.52	193.61	4.866		
10,300.00	7,119.00	10,358.23	7,059.65	99.34	99.67	-13.51	-1,660.98	-230.51	941.94	742.95	198.99	4.734		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
10,400.00	7,118.57	10,458.22	7,059.42	102.05	102.36	-86.40	-1,661.58	-3,643.06	941.75	737.37	204.39	4.608		
10,500.00	7,118.14	10,558.22	7,059.19	104.77	105.06	-86.41	-1,662.18	-3,743.06	941.56	731.76	209.80	4.488		
10,600.00	7,117.70	10,658.22	7,058.96	107.50	107.77	-86.42	-1,662.78	-3,843.06	941.37	726.15	215.23	4.374		
10,700.00	7,117.27	10,758.22	7,058.72	110.23	110.48	-86.43	-1,663.38	-3,943.05	941.18	720.51	220.67	4.265		
10,800.00	7,116.83	10,858.22	7,058.49	112.97	113.21	-86.45	-1,663.98	-4,043.05	940.99	714.87	226.12	4.161		
10,900.00	7,116.40	10,958.22	7,058.26	115.72	115.94	-86.46	-1,664.58	-4,143.05	940.80	709.21	231.59	4.062		
11,000.00	7,115.97	11,058.22	7,058.03	118.47	118.67	-86.47	-1,665.18	-4,243.05	940.61	703.54	237.07	3.968		
11,100.00	7,115.53	11,158.22	7,057.80	121.22	121.41	-86.48	-1,665.77	-4,343.04	940.42	697.86	242.56	3.877		
11,200.00	7,115.10	11,258.22	7,057.57	123.98	124.16	-86.49	-1,666.37	-4,443.04	940.23	692.17	248.06	3.790		
11,300.00	7,114.66	11,358.22	7,057.34	126.74	126.91	-86.50	-1,666.97	-4,543.04	940.04	686.47	253.57	3.707		
11,400.00	7,114.23	11,458.22	7,057.11	129.51	129.67	-86.52	-1,667.57	-4,643.04	939.85	680.76	259.09	3.628		
11,500.00	7,113.80	11,558.22	7,056.88	132.29	132.43	-86.53	-1,668.17	-4,743.03	939.66	675.04	264.61	3.551		
11,600.00	7,113.36	11,658.22	7,056.65	135.06	135.20	-86.54	-1,668.77	-4,843.03	939.46	669.32	270.14	3.478		
11,700.00	7,112.93	11,758.22	7,056.42	137.84	137.96	-86.55	-1,669.37	-4,943.03	939.27	663.59	275.69	3.407		
11,800.00	7,112.49	11,858.22	7,056.19	140.62	140.74	-86.56	-1,669.97	-5,043.03	939.08	657.85	281.23	3.339		
11,900.00	7,112.06	11,958.22	7,055.96	143.41	143.51	-86.57	-1,670.57	-5,143.03	938.89	652.11	286.79	3.274		
12,000.00	7,111.63	12,058.22	7,055.73	146.20	146.29	-86.59	-1,671.16	-5,243.02	938.70	646.36	292.35	3.211		
12,100.00	7,111.19	12,158.22	7,055.50	148.99	149.07	-86.60	-1,671.76	-5,343.02	938.51	640.60	297.91	3.150		
12,200.00	7,110.76	12,258.22	7,055.27	151.78	151.86	-86.61	-1,672.36	-5,443.02	938.32	634.84	303.48	3.092		
12,300.00	7,110.33	12,358.22	7,055.04	154.58	154.65	-86.62	-1,672.96	-5,543.02	938.13	629.07	309.06	3.035		
12,400.00	7,109.89	12,458.22	7,054.81	157.37	157.44	-86.63	-1,673.56	-5,643.01	937.94	623.30	314.64	2.981		
12,500.00	7,109.46	12,558.22	7,054.58	160.17	160.23	-86.65	-1,674.16	-5,743.01	937.75	617.52	320.23	2.928		
12,600.00	7,109.02	12,658.21	7,054.35	162.98	163.03	-86.66	-1,674.76	-5,843.01	937.56	611.74	325.82	2.878		
12,700.00	7,108.59	12,758.21	7,054.12	165.78	165.82	-86.67	-1,675.36	-5,943.01	937.37	605.96	331.41	2.828		
12,800.00	7,108.16	12,858.21	7,053.89	168.59	168.62	-86.68	-1,675.96	-6,043.00	937.18	600.17	337.01	2.781		
12,900.00	7,107.72	12,958.21	7,053.66	171.39	171.42	-86.69	-1,676.55	-6,143.00	936.99	594.38	342.61	2.735		
13,000.00	7,107.29	13,058.21	7,053.43	174.20	174.23	-86.70	-1,677.15	-6,243.00	936.80	588.58	348.22	2.690		
13,100.00	7,106.85	13,158.21	7,053.20	177.01	177.03	-86.72	-1,677.75	-6,343.00	936.61	582.78	353.83	2.647		
13,200.00	7,106.42	13,258.21	7,052.97	179.83	179.84	-86.73	-1,678.35	-6,442.99	936.42	576.98	359.44	2.605		
13,300.00	7,105.99	13,358.21	7,052.73	182.64	182.65	-86.74	-1,678.95	-6,542.99	936.23	571.18	365.06	2.565		
13,400.00	7,105.55	13,458.21	7,052.50	185.45	185.45	-86.75	-1,679.55	-6,642.99	936.04	565.37	370.68	2.525		
13,500.00	7,105.12	13,558.21	7,052.27	188.27	188.27	-86.76	-1,680.15	-6,742.99	935.85	559.56	376.30	2.487		
13,600.00	7,104.68	13,658.21	7,052.04	191.09	191.08	-86.78	-1,680.75	-6,842.98	935.66	553.74	381.92	2.450		
13,700.00	7,104.25	13,758.21	7,051.81	193.91	193.89	-86.79	-1,681.34	-6,942.98	935.47	547.92	387.55	2.414		
13,800.00	7,103.82	13,858.21	7,051.58	196.73	196.71	-86.80	-1,681.94	-7,042.98	935.28	542.11	393.18	2.379		
13,900.00	7,103.38	13,958.21	7,051.35	199.55	199.52	-86.81	-1,682.54	-7,142.98	935.09	536.28	398.81	2.345		
14,000.00	7,102.95	14,058.21	7,051.12	202.37	202.34	-86.82	-1,683.14	-7,242.97	934.90	530.46	404.44	2.312		
14,100.00	7,102.51	14,158.21	7,050.89	205.19	205.16	-86.83	-1,683.74	-7,342.97	934.71	524.63	410.08	2.279		
14,200.00	7,102.08	14,258.21	7,050.66	208.02	207.98	-86.85	-1,684.34	-7,442.97	934.53	518.81	415.72	2.248		
14,300.00	7,101.65	14,358.21	7,050.43	210.84	210.80	-86.86	-1,684.94	-7,542.97	934.34	512.98	421.36	2.217		
14,400.00	7,101.21	14,458.21	7,050.20	213.67	213.62	-86.87	-1,685.54	-7,642.96	934.15	507.14	427.00	2.188		
14,500.00	7,100.78	14,558.21	7,049.97	216.50	216.45	-86.88	-1,686.14	-7,742.96	933.96	501.31	432.65	2.159		
14,600.00	7,100.35	14,658.21	7,049.74	219.32	219.27	-86.89	-1,686.73	-7,842.96	933.77	495.47	438.29	2.130		
14,700.00	7,099.91	14,758.21	7,049.51	222.15	222.10	-86.91	-1,687.33	-7,942.96	933.58	489.64	443.94	2.103		
14,800.00	7,099.48	14,858.21	7,049.28	224.98	224.92	-86.92	-1,687.93	-8,042.95	933.39	483.80	449.59	2.076		
14,900.00	7,099.04	14,958.21	7,049.05	227.81	227.75	-86.93	-1,688.53	-8,142.95	933.20	477.96	455.24	2.050		
14,909.96	7,099.00	14,968.17	7,049.03	228.09	228.03	-86.93	-1,688.59	-8,152.92	933.18	477.37	455.81	2.047 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	2.00	0.00	3.28	3.28	-179.47	-240.09	-2.23	240.10					
100.00	100.00	102.00	100.00	3.28	3.29	-179.47	-240.09	-2.23	240.10	233.53	6.57	36.546		
200.00	200.00	198.00	200.00	3.34	3.34	-179.47	-240.09	-2.23	240.10	233.43	6.67	35.984	CC, ES	
300.00	300.00	290.40	292.39	3.44	3.43	-179.45	-241.51	-2.32	241.64	234.76	6.88	35.112		
400.00	400.00	382.46	384.34	3.60	3.56	-179.40	-245.89	-2.59	246.40	239.20	7.20	34.237		
500.00	500.00	474.15	475.73	3.81	3.74	-179.31	-253.17	-3.06	254.35	246.75	7.60	33.456		
600.00	600.00	565.28	566.29	4.04	3.95	-12.34	-263.30	-3.70	265.41	257.33	8.08	32.852		
700.00	699.96	655.99	656.06	4.29	4.19	-12.25	-276.23	-4.52	277.31	268.72	8.59	32.284		
800.00	799.78	746.38	745.07	4.57	4.46	-12.28	-291.93	-5.52	288.96	279.81	9.15	31.584		
900.00	899.34	836.47	833.25	4.88	4.77	-12.40	-310.36	-6.69	300.35	290.60	9.74	30.826		
1,000.00	998.72	926.06	920.31	5.20	5.10	-12.60	-331.42	-8.03	313.22	302.84	10.38	30.179		
1,100.00	1,098.10	1,014.84	1,005.90	5.54	5.46	-12.74	-354.96	-9.53	329.16	318.13	11.04	29.825		
1,200.00	1,197.49	1,102.66	1,089.80	5.90	5.84	-12.85	-380.84	-11.17	348.14	336.44	11.71	29.735		
1,300.00	1,296.87	1,189.38	1,171.83	6.28	6.24	-12.92	-408.90	-12.95	370.10	357.71	12.39	29.875		
1,400.00	1,396.25	1,280.84	1,257.53	6.66	6.69	-12.96	-440.77	-14.98	394.60	381.49	13.10	30.116		
1,500.00	1,495.64	1,377.70	1,348.19	7.06	7.19	-12.99	-474.82	-17.14	419.44	405.57	13.87	30.245		
1,600.00	1,595.02	1,474.57	1,438.84	7.46	7.70	-13.02	-508.88	-19.31	444.28	429.63	14.66	30.315		
1,700.00	1,694.40	1,571.43	1,529.50	7.87	8.22	-13.05	-542.93	-21.47	469.13	453.66	15.46	30.339		
1,800.00	1,793.79	1,668.30	1,620.15	8.29	8.75	-13.08	-576.98	-23.64	493.97	477.68	16.29	30.332		
1,900.00	1,893.17	1,765.16	1,710.81	8.71	9.29	-13.10	-611.04	-25.80	518.81	501.69	17.12	30.300		
2,000.00	1,992.55	1,862.03	1,801.46	9.13	9.84	-13.12	-645.09	-27.97	543.66	525.69	17.97	30.252		
2,100.00	2,091.94	1,958.89	1,892.12	9.56	10.39	-13.14	-679.14	-30.13	568.50	549.67	18.83	30.191		
2,200.00	2,191.32	2,055.75	1,982.78	9.99	10.95	-13.16	-713.20	-32.29	593.34	573.65	19.70	30.122		
2,300.00	2,290.70	2,152.62	2,073.43	10.42	11.51	-13.17	-747.25	-34.46	618.19	597.61	20.57	30.048		
2,400.00	2,390.09	2,249.48	2,164.09	10.86	12.07	-13.19	-781.30	-36.62	643.03	621.58	21.46	29.970		
2,500.00	2,489.47	2,346.35	2,254.74	11.29	12.64	-13.20	-815.36	-38.79	667.88	645.53	22.34	29.890		
2,600.00	2,588.86	2,443.21	2,345.40	11.73	13.21	-13.22	-849.41	-40.95	692.72	669.48	23.24	29.810		
2,700.00	2,688.24	2,540.08	2,436.05	12.18	13.78	-13.23	-883.47	-43.12	717.56	693.43	24.14	29.729		
2,800.00	2,787.62	2,636.94	2,526.71	12.62	14.35	-13.24	-917.52	-45.28	742.41	717.37	25.04	29.650		
2,900.00	2,887.01	2,733.81	2,617.36	13.06	14.93	-13.25	-951.57	-47.45	767.25	741.31	25.95	29.571		
3,000.00	2,986.39	2,830.67	2,708.02	13.51	15.51	-13.26	-985.63	-49.61	792.09	765.24	26.86	29.495		
3,100.00	3,085.77	2,927.54	2,798.68	13.95	16.09	-13.27	-1,019.68	-51.77	816.94	789.17	27.77	29.420		
3,200.00	3,185.16	3,024.40	2,889.33	14.40	16.67	-13.28	-1,053.73	-53.94	841.78	813.10	28.68	29.347		
3,300.00	3,284.54	3,121.27	2,979.99	14.85	17.25	-13.28	-1,087.79	-56.10	866.63	837.02	29.60	29.276		
3,400.00	3,383.92	3,218.13	3,070.64	15.30	17.83	-13.29	-1,121.84	-58.27	891.47	860.95	30.52	29.207		
3,500.00	3,483.31	3,315.00	3,161.30	15.75	18.41	-13.30	-1,155.89	-60.43	916.31	884.87	31.45	29.140		
3,600.00	3,582.69	3,411.86	3,251.95	16.20	19.00	-13.31	-1,189.95	-62.60	941.16	908.79	32.37	29.076		
3,700.00	3,682.07	3,508.72	3,342.61	16.65	19.58	-13.31	-1,224.00	-64.76	966.00	932.71	33.30	29.013		
3,800.00	3,781.46	3,605.59	3,433.26	17.10	20.17	-13.32	-1,258.06	-66.92	990.85	956.62	34.22	28.952		
3,900.00	3,880.84	3,702.45	3,523.92	17.56	20.75	-13.32	-1,292.11	-69.09	1,015.69	980.54	35.15	28.894		
4,000.00	3,980.22	3,800.68	3,614.58	18.01	21.35	-13.33	-1,326.16	-71.25	1,040.53	1,004.44	36.09	28.831		
4,100.00	4,079.61	3,903.82	3,705.23	18.46	21.97	-13.33	-1,360.22	-73.42	1,065.38	1,028.32	37.06	28.751		
4,200.00	4,178.99	4,006.95	3,795.89	18.92	22.60	-13.34	-1,394.27	-75.58	1,090.22	1,052.20	38.02	28.674		
4,300.00	4,278.38	4,089.91	3,886.54	19.37	23.10	-13.34	-1,428.32	-77.75	1,115.07	1,076.18	38.88	28.678		
4,400.00	4,377.76	4,186.78	3,977.20	19.83	23.69	-13.35	-1,462.38	-79.91	1,139.91	1,100.09	39.82	28.628		
4,500.00	4,477.14	4,283.64	4,067.85	20.28	24.28	-13.35	-1,496.43	-82.08	1,164.76	1,124.00	40.75	28.580		
4,600.00	4,576.53	4,380.51	4,158.51	20.74	24.87	-13.36	-1,530.48	-84.24	1,189.60	1,147.91	41.69	28.534		
4,700.00	4,675.91	4,477.37	4,249.16	21.19	25.46	-13.36	-1,564.54	-86.40	1,214.44	1,171.81	42.63	28.489		
4,800.00	4,775.29	4,574.24	4,339.82	21.65	26.05	-13.37	-1,598.59	-88.57	1,239.29	1,195.72	43.57	28.445		
4,900.00	4,874.68	4,671.10	4,430.48	22.10	26.64	-13.37	-1,632.64	-90.73	1,264.13	1,219.62	44.51	28.403		
5,000.00	4,974.06	4,767.97	4,521.13	22.56	27.23	-13.37	-1,666.70	-92.90	1,288.98	1,243.53	45.45	28.362		
5,100.00	5,073.44	4,864.83	4,611.79	23.02	27.82	-13.38	-1,700.75	-95.06	1,313.82	1,267.43	46.39	28.322		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
5,200.00	5,172.83	4,961.69	4,702.44	23.47	28.41	-13.38	-1,734.81	-97.23	1,338.66	1,291.33	47.33	28.284		
5,300.00	5,272.21	5,058.56	4,793.10	23.93	29.01	-13.38	-1,768.86	-99.39	1,363.51	1,315.24	48.27	28.247		
5,400.00	5,371.59	5,155.42	4,883.75	24.39	29.60	-13.39	-1,802.91	-101.55	1,388.35	1,339.14	49.21	28.210		
5,500.00	5,470.98	5,252.29	4,974.41	24.85	30.19	-13.39	-1,836.97	-103.72	1,413.20	1,363.04	50.16	28.175		
5,600.00	5,570.36	5,349.15	5,065.06	25.30	30.78	-13.39	-1,871.02	-105.88	1,438.04	1,386.94	51.10	28.141		
5,700.00	5,669.75	5,446.02	5,155.72	25.76	31.37	-13.40	-1,905.07	-108.05	1,462.88	1,410.84	52.04	28.108		
5,800.00	5,769.13	5,542.88	5,246.38	26.22	31.97	-13.40	-1,939.13	-110.21	1,487.73	1,434.74	52.99	28.076		
5,900.00	5,868.51	5,639.75	5,337.03	26.68	32.56	-13.40	-1,973.18	-112.38	1,512.57	1,458.64	53.93	28.045		
6,000.00	5,967.90	5,736.61	5,427.69	27.14	33.15	-13.40	-2,007.23	-114.54	1,537.42	1,482.54	54.88	28.014		
6,100.00	6,067.28	5,833.48	5,518.34	27.60	33.75	-13.41	-2,041.29	-116.71	1,562.26	1,506.44	55.83	27.985		
6,200.00	6,166.66	5,930.34	5,609.00	28.05	34.34	-13.41	-2,075.34	-118.87	1,587.11	1,530.33	56.77	27.956		
6,300.00	6,266.05	6,027.21	5,699.65	28.51	34.93	-13.41	-2,109.40	-121.03	1,611.95	1,554.23	57.72	27.928		
6,400.00	6,365.43	6,124.07	5,790.31	28.97	35.53	-13.41	-2,143.45	-123.20	1,636.79	1,578.13	58.67	27.901		
6,500.00	6,464.81	6,220.94	5,880.96	29.43	36.12	-13.41	-2,177.50	-125.36	1,661.64	1,602.03	59.61	27.874		
6,600.00	6,564.10	6,317.75	5,971.57	29.89	36.71	-42.68	-2,211.54	-127.53	1,686.47	1,625.91	60.56	27.847		
6,700.00	6,661.75	6,413.33	6,061.02	30.34	37.30	-64.30	-2,245.14	-129.66	1,711.04	1,649.53	61.51	27.818		
6,800.00	6,755.38	6,505.36	6,147.16	30.77	37.86	-70.86	-2,277.49	-131.72	1,735.16	1,672.72	62.44	27.788		
6,900.00	6,842.67	6,591.58	6,227.85	31.17	38.39	-73.66	-2,307.81	-133.64	1,759.01	1,695.65	63.36	27.760		
7,000.00	6,921.48	6,669.87	6,301.13	31.54	38.87	-75.04	-2,335.33	-135.39	1,783.01	1,718.71	64.29	27.733		
7,100.00	6,989.86	6,738.31	6,365.17	31.91	39.29	-75.61	-2,359.39	-136.92	1,807.71	1,742.45	65.26	27.702		
7,200.00	7,046.13	6,804.81	6,418.41	32.35	39.70	-75.51	-2,379.39	-138.19	1,833.68	1,767.34	66.34	27.639		
7,300.00	7,088.91	6,839.13	6,459.54	32.98	39.91	-74.71	-2,394.84	-139.18	1,861.36	1,793.94	67.42	27.607		
7,400.00	7,117.14	6,869.05	6,487.53	33.84	40.09	-73.17	-2,405.35	-139.84	1,890.94	1,822.29	68.65	27.544		
7,500.00	7,130.13	6,884.20	6,501.71	34.90	40.19	-70.86	-2,410.68	-140.18	1,922.28	1,852.35	69.94	27.486		
7,600.00	7,130.72	6,887.30	6,504.61	36.13	40.20	-69.88	-2,411.77	-140.25	1,955.66	1,884.41	71.25	27.449		
7,700.00	7,130.29	6,889.40	6,506.58	37.54	40.22	-69.95	-2,412.51	-140.30	1,993.27	1,920.64	72.63	27.444		
7,800.00	7,129.85	8,302.69	7,245.72	39.12	46.41	-93.32	-2,696.98	-1,037.77	1,998.88	1,917.75	81.13	24.639		
7,900.00	7,129.42	8,402.69	7,245.22	40.83	47.32	-93.32	-2,697.57	-1,137.77	1,998.69	1,914.33	84.36	23.692		
8,000.00	7,128.98	8,502.69	7,244.72	42.67	48.50	-93.32	-2,698.16	-1,237.77	1,998.50	1,910.64	87.86	22.747		
8,100.00	7,128.55	8,602.69	7,244.22	44.62	49.91	-93.32	-2,698.75	-1,337.76	1,998.30	1,906.73	91.57	21.823		
8,200.00	7,128.12	8,702.69	7,243.72	46.66	51.52	-93.32	-2,699.34	-1,437.76	1,998.11	1,902.63	95.48	20.928		
8,300.00	7,127.68	8,802.69	7,243.21	48.79	53.29	-93.32	-2,699.93	-1,537.76	1,997.92	1,898.36	99.56	20.067		
8,400.00	7,127.25	8,902.69	7,242.71	50.98	55.18	-93.31	-2,700.51	-1,637.75	1,997.72	1,893.93	103.79	19.247		
8,500.00	7,126.81	9,002.69	7,242.21	53.24	57.17	-93.31	-2,701.10	-1,737.75	1,997.53	1,889.37	108.17	18.467		
8,600.00	7,126.38	9,102.69	7,241.71	55.56	59.25	-93.31	-2,701.69	-1,837.75	1,997.34	1,884.68	112.66	17.729		
8,700.00	7,125.95	9,202.69	7,241.21	57.92	61.39	-93.31	-2,702.28	-1,937.74	1,997.15	1,879.89	117.25	17.033		
8,800.00	7,125.51	9,302.69	7,240.71	60.33	63.61	-93.31	-2,702.87	-2,037.74	1,996.95	1,875.01	121.94	16.376		
8,900.00	7,125.08	9,402.69	7,240.21	62.77	65.87	-93.31	-2,703.45	-2,137.74	1,996.76	1,870.04	126.72	15.758		
9,000.00	7,124.64	9,502.69	7,239.71	65.25	68.19	-93.30	-2,704.04	-2,237.73	1,996.57	1,865.00	131.56	15.176		
9,100.00	7,124.21	9,602.69	7,239.21	67.76	70.55	-93.30	-2,704.63	-2,337.73	1,996.38	1,859.90	136.48	14.628		
9,200.00	7,123.78	9,702.69	7,238.71	70.29	72.95	-93.30	-2,705.22	-2,437.73	1,996.18	1,854.73	141.45	14.112		
9,300.00	7,123.34	9,802.69	7,238.21	72.85	75.38	-93.30	-2,705.81	-2,537.72	1,995.99	1,849.51	146.48	13.626		
9,400.00	7,122.91	9,902.69	7,237.71	75.43	77.84	-93.30	-2,706.39	-2,637.72	1,995.80	1,844.24	151.56	13.169		
9,500.00	7,122.48	10,002.69	7,237.21	78.03	80.33	-93.30	-2,706.98	-2,737.72	1,995.60	1,838.93	156.68	12.737		
9,600.00	7,122.04	10,102.69	7,236.71	80.65	82.84	-93.29	-2,707.57	-2,837.71	1,995.41	1,833.58	161.83	12.330		
9,700.00	7,121.61	10,202.69	7,236.21	83.28	85.38	-93.29	-2,708.16	-2,937.71	1,995.22	1,828.19	167.03	11.945		
9,800.00	7,121.17	10,302.69	7,235.70	85.93	87.93	-93.29	-2,708.75	-3,037.71	1,995.03	1,822.77	172.26	11.582		
9,900.00	7,120.74	10,402.69	7,235.20	88.59	90.51	-93.29	-2,709.34	-3,137.71	1,994.83	1,817.32	177.51	11.238		
10,000.00	7,120.31	10,502.69	7,234.70	91.26	93.10	-93.29	-2,709.92	-3,237.70	1,994.64	1,811.84	182.80	10.912		
10,100.00	7,119.87	10,602.69	7,234.20	93.95	95.71	-93.29	-2,710.51	-3,337.70	1,994.45	1,806.34	188.11	10.603		
10,200.00	7,119.44	10,702.69	7,233.70	96.64	98.33	-93.29	-2,711.10	-3,437.70	1,994.26	1,800.82	193.44	10.310		
10,300.00	7,119.00	10,802.69	7,233.20	99.34	100.96	-93.28	-2,711.69	-3,537.69	1,994.06	1,795.27	198.79	10.031		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
10,400.00	7,118.57	10,902.69	7,232.70	102.05	103.61	-93.28	-2,712.28	-3,637.69	1,993.87	1,789.71	204.16	9.766		
10,500.00	7,118.14	11,002.69	7,232.20	104.77	106.27	-93.28	-2,712.86	-3,737.69	1,993.68	1,784.12	209.55	9.514		
10,600.00	7,117.70	11,102.69	7,231.70	107.50	108.94	-93.28	-2,713.45	-3,837.68	1,993.48	1,778.52	214.96	9.274		
10,700.00	7,117.27	11,202.68	7,231.20	110.23	111.61	-93.28	-2,714.04	-3,937.68	1,993.29	1,772.91	220.38	9.045		
10,800.00	7,116.83	11,302.68	7,230.70	112.97	114.30	-93.28	-2,714.63	-4,037.68	1,993.10	1,767.28	225.82	8.826		
10,900.00	7,116.40	11,402.68	7,230.20	115.72	117.00	-93.27	-2,715.22	-4,137.67	1,992.91	1,761.64	231.27	8.617		
11,000.00	7,115.97	11,502.68	7,229.70	118.47	119.70	-93.27	-2,715.81	-4,237.67	1,992.71	1,755.98	236.73	8.418		
11,100.00	7,115.53	11,602.68	7,229.20	121.22	122.41	-93.27	-2,716.39	-4,337.67	1,992.52	1,750.32	242.20	8.227		
11,200.00	7,115.10	11,702.68	7,228.70	123.98	125.13	-93.27	-2,716.98	-4,437.66	1,992.33	1,744.64	247.69	8.044		
11,300.00	7,114.66	11,802.68	7,228.19	126.74	127.85	-93.27	-2,717.57	-4,537.66	1,992.14	1,738.96	253.18	7.868		
11,400.00	7,114.23	11,902.68	7,227.69	129.51	130.58	-93.27	-2,718.16	-4,637.66	1,991.94	1,733.26	258.68	7.700		
11,500.00	7,113.80	12,002.68	7,227.19	132.29	133.31	-93.26	-2,718.75	-4,737.65	1,991.75	1,727.55	264.20	7.539		
11,600.00	7,113.36	12,102.68	7,226.69	135.06	136.05	-93.26	-2,719.33	-4,837.65	1,991.56	1,721.84	269.72	7.384		
11,700.00	7,112.93	12,202.68	7,226.19	137.84	138.80	-93.26	-2,719.92	-4,937.65	1,991.37	1,716.12	275.24	7.235		
11,800.00	7,112.49	12,302.68	7,225.69	140.62	141.55	-93.26	-2,720.51	-5,037.64	1,991.17	1,710.39	280.78	7.092		
11,900.00	7,112.06	12,402.68	7,225.19	143.41	144.30	-93.26	-2,721.10	-5,137.64	1,990.98	1,704.66	286.32	6.954		
12,000.00	7,111.63	12,502.68	7,224.69	146.20	147.06	-93.26	-2,721.69	-5,237.64	1,990.79	1,698.92	291.87	6.821		
12,100.00	7,111.19	12,602.68	7,224.19	148.99	149.82	-93.25	-2,722.28	-5,337.64	1,990.59	1,693.17	297.43	6.693		
12,200.00	7,110.76	12,702.68	7,223.69	151.78	152.58	-93.25	-2,722.86	-5,437.63	1,990.40	1,687.42	302.99	6.569		
12,300.00	7,110.33	12,802.68	7,223.19	154.58	155.35	-93.25	-2,723.45	-5,537.63	1,990.21	1,681.66	308.55	6.450		
12,400.00	7,109.89	12,902.68	7,222.69	157.37	158.12	-93.25	-2,724.04	-5,637.63	1,990.02	1,675.89	314.12	6.335		
12,500.00	7,109.46	13,002.68	7,222.19	160.17	160.90	-93.25	-2,724.63	-5,737.62	1,989.82	1,670.12	319.70	6.224		
12,600.00	7,109.02	13,102.68	7,221.69	162.98	163.68	-93.25	-2,725.22	-5,837.62	1,989.63	1,664.35	325.28	6.117		
12,700.00	7,108.59	13,202.68	7,221.19	165.78	166.46	-93.24	-2,725.80	-5,937.62	1,989.44	1,658.57	330.87	6.013		
12,800.00	7,108.16	13,302.68	7,220.68	168.59	169.24	-93.24	-2,726.39	-6,037.61	1,989.25	1,652.79	336.46	5.912		
12,900.00	7,107.72	13,402.68	7,220.18	171.39	172.02	-93.24	-2,726.98	-6,137.61	1,989.05	1,647.00	342.05	5.815		
13,000.00	7,107.29	13,502.68	7,219.68	174.20	174.81	-93.24	-2,727.57	-6,237.61	1,988.86	1,641.21	347.65	5.721		
13,100.00	7,106.85	13,602.68	7,219.18	177.01	177.60	-93.24	-2,728.16	-6,337.60	1,988.67	1,635.42	353.25	5.630		
13,200.00	7,106.42	13,702.68	7,218.68	179.83	180.39	-93.24	-2,728.75	-6,437.60	1,988.48	1,629.62	358.85	5.541		
13,300.00	7,105.99	13,802.68	7,218.18	182.64	183.19	-93.24	-2,729.33	-6,537.60	1,988.28	1,623.82	364.46	5.455		
13,400.00	7,105.55	13,902.68	7,217.68	185.45	185.99	-93.23	-2,729.92	-6,637.59	1,988.09	1,618.02	370.07	5.372		
13,500.00	7,105.12	14,002.68	7,217.18	188.27	188.78	-93.23	-2,730.51	-6,737.59	1,987.90	1,612.21	375.69	5.291		
13,600.00	7,104.68	14,102.68	7,216.68	191.09	191.58	-93.23	-2,731.10	-6,837.59	1,987.70	1,606.40	381.30	5.213		
13,700.00	7,104.25	14,202.68	7,216.18	193.91	194.39	-93.23	-2,731.69	-6,937.58	1,987.51	1,600.59	386.92	5.137		
13,800.00	7,103.82	14,302.68	7,215.68	196.73	197.19	-93.23	-2,732.27	-7,037.58	1,987.32	1,594.77	392.54	5.063		
13,900.00	7,103.38	14,402.68	7,215.18	199.55	199.99	-93.23	-2,732.86	-7,137.58	1,987.13	1,588.96	398.17	4.991		
14,000.00	7,102.95	14,502.68	7,214.68	202.37	202.80	-93.22	-2,733.45	-7,237.57	1,986.93	1,583.14	403.80	4.921		
14,100.00	7,102.51	14,602.68	7,214.18	205.19	205.61	-93.22	-2,734.04	-7,337.57	1,986.74	1,577.31	409.43	4.853		
14,200.00	7,102.08	14,702.68	7,213.67	208.02	208.42	-93.22	-2,734.63	-7,437.57	1,986.55	1,571.49	415.06	4.786		
14,300.00	7,101.65	14,802.68	7,213.17	210.84	211.23	-93.22	-2,735.22	-7,537.57	1,986.36	1,565.66	420.69	4.722		
14,400.00	7,101.21	14,902.68	7,212.67	213.67	214.04	-93.22	-2,735.80	-7,637.56	1,986.16	1,559.84	426.33	4.659		
14,500.00	7,100.78	15,002.68	7,212.17	216.50	216.85	-93.22	-2,736.39	-7,737.56	1,985.97	1,554.00	431.97	4.598		
14,600.00	7,100.35	15,102.68	7,211.67	219.32	219.67	-93.21	-2,736.98	-7,837.56	1,985.78	1,548.17	437.61	4.538		
14,700.00	7,099.91	15,202.68	7,211.17	222.15	222.48	-93.21	-2,737.57	-7,937.55	1,985.59	1,542.34	443.25	4.480		
14,800.00	7,099.48	15,302.68	7,210.67	224.98	225.30	-93.21	-2,738.16	-8,037.55	1,985.39	1,536.50	448.89	4.423		
14,900.00	7,099.04	15,402.68	7,210.17	227.81	228.12	-93.21	-2,738.74	-8,137.55	1,985.20	1,530.66	454.54	4.368		
14,909.96	7,099.00	15,412.64	7,210.12	228.09	228.40	-93.21	-2,738.80	-8,147.51	1,985.18	1,530.08	455.10	4.362 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 STATE 33N-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	-179.49	-220.05	-1.95	220.06					
100.00	100.00	102.00	100.00	3.28	3.29	-179.49	-220.05	-1.95	220.06	213.49	6.57	33.496		
200.00	200.00	198.00	200.00	3.34	3.34	-179.49	-220.05	-1.95	220.06	213.39	6.67	32.981	CC, ES	
300.00	300.00	290.99	292.97	3.44	3.43	-179.47	-221.49	-2.05	221.61	214.73	6.88	32.198		
400.00	400.00	383.65	385.52	3.60	3.56	-179.40	-225.92	-2.35	226.40	219.20	7.20	31.448		
500.00	500.00	475.92	477.49	3.81	3.74	-179.30	-233.30	-2.86	234.40	226.79	7.61	30.814		
600.00	600.00	567.63	568.62	4.04	3.95	-12.31	-243.55	-3.57	245.52	237.44	8.09	30.365		
700.00	699.96	658.91	658.95	4.29	4.19	-12.20	-256.64	-4.48	257.51	248.91	8.60	29.947		
800.00	799.78	749.86	748.49	4.57	4.47	-12.21	-272.54	-5.58	269.27	260.11	9.16	29.394		
900.00	899.34	840.51	837.18	4.88	4.78	-12.33	-291.19	-6.87	280.78	271.02	9.76	28.777		
1,000.00	998.72	930.63	924.74	5.20	5.12	-12.52	-312.50	-8.34	293.79	283.39	10.40	28.260		
1,100.00	1,098.10	1,019.94	1,010.79	5.54	5.48	-12.65	-336.31	-9.99	309.89	298.84	11.06	28.028		
1,200.00	1,197.49	1,108.26	1,095.12	5.90	5.87	-12.74	-362.49	-11.80	329.04	317.31	11.73	28.050		
1,300.00	1,296.87	1,200.90	1,181.04	6.28	6.29	-12.79	-391.92	-13.84	351.01	338.58	12.43	28.229		
1,400.00	1,396.25	1,296.51	1,272.96	6.66	6.76	-12.84	-424.06	-16.06	373.62	360.45	13.17	28.360		
1,500.00	1,495.64	1,406.08	1,364.89	7.06	7.31	-12.87	-456.20	-18.28	396.23	382.23	14.00	28.305		
1,600.00	1,595.02	1,508.67	1,456.82	7.46	7.85	-12.91	-488.33	-20.50	418.84	404.02	14.82	28.269		
1,700.00	1,694.40	1,588.74	1,548.75	7.87	8.27	-12.94	-520.47	-22.73	441.45	425.90	15.55	28.389		
1,800.00	1,793.79	1,686.15	1,640.68	8.29	8.79	-12.97	-552.61	-24.95	464.05	447.68	16.38	28.338		
1,900.00	1,893.17	1,783.56	1,732.61	8.71	9.32	-12.99	-584.75	-27.17	486.66	469.45	17.21	28.271		
2,000.00	1,992.55	1,880.97	1,824.54	9.13	9.86	-13.02	-616.89	-29.40	509.27	491.21	18.06	28.193		
2,100.00	2,091.94	1,978.38	1,916.47	9.56	10.40	-13.04	-649.03	-31.62	531.88	512.96	18.92	28.108		
2,200.00	2,191.32	2,075.80	2,008.40	9.99	10.94	-13.06	-681.17	-33.84	554.49	534.70	19.79	28.018		
2,300.00	2,290.70	2,173.21	2,100.33	10.42	11.49	-13.08	-713.31	-36.07	577.10	556.43	20.67	27.926		
2,400.00	2,390.09	2,270.62	2,192.26	10.86	12.04	-13.09	-745.45	-38.29	599.71	578.16	21.55	27.833		
2,500.00	2,489.47	2,368.03	2,284.18	11.29	12.60	-13.11	-777.58	-40.51	622.32	599.88	22.43	27.740		
2,600.00	2,588.86	2,465.44	2,376.11	11.73	13.16	-13.12	-809.72	-42.74	644.92	621.60	23.33	27.649		
2,700.00	2,688.24	2,562.85	2,468.04	12.18	13.72	-13.14	-841.86	-44.96	667.53	643.31	24.22	27.559		
2,800.00	2,787.62	2,660.26	2,559.97	12.62	14.28	-13.15	-874.00	-47.18	690.14	665.02	25.12	27.471		
2,900.00	2,887.01	2,757.67	2,651.90	13.06	14.84	-13.16	-906.14	-49.41	712.75	686.73	26.03	27.386		
3,000.00	2,986.39	2,855.08	2,743.83	13.51	15.40	-13.17	-938.28	-51.63	735.36	708.43	26.93	27.303		
3,100.00	3,085.77	2,952.49	2,835.76	13.95	15.97	-13.18	-970.42	-53.85	757.97	730.13	27.84	27.223		
3,200.00	3,185.16	3,049.90	2,927.69	14.40	16.54	-13.19	-1,002.56	-56.07	780.58	751.82	28.76	27.145		
3,300.00	3,284.54	3,147.31	3,019.62	14.85	17.10	-13.20	-1,034.69	-58.30	803.19	773.52	29.67	27.070		
3,400.00	3,383.92	3,244.72	3,111.55	15.30	17.67	-13.21	-1,066.83	-60.52	825.80	795.21	30.59	26.997		
3,500.00	3,483.31	3,342.13	3,203.48	15.75	18.24	-13.22	-1,098.97	-62.74	848.41	816.90	31.51	26.927		
3,600.00	3,582.69	3,439.54	3,295.41	16.20	18.81	-13.23	-1,131.11	-64.97	871.02	838.59	32.43	26.860		
3,700.00	3,682.07	3,536.95	3,387.33	16.65	19.38	-13.23	-1,163.25	-67.19	893.62	860.27	33.35	26.795		
3,800.00	3,781.46	3,634.36	3,479.26	17.10	19.96	-13.24	-1,195.39	-69.41	916.23	881.96	34.27	26.732		
3,900.00	3,880.84	3,731.77	3,571.19	17.56	20.53	-13.25	-1,227.53	-71.64	938.84	903.64	35.20	26.672		
4,000.00	3,980.22	3,829.18	3,663.12	18.01	21.10	-13.25	-1,259.67	-73.86	961.45	925.33	36.13	26.613		
4,100.00	4,079.61	3,926.60	3,755.05	18.46	21.67	-13.26	-1,291.81	-76.08	984.06	947.01	37.05	26.557		
4,200.00	4,178.99	4,024.01	3,846.98	18.92	22.25	-13.27	-1,323.94	-78.31	1,006.67	968.69	37.98	26.502		
4,300.00	4,278.38	4,121.42	3,938.91	19.37	22.82	-13.27	-1,356.08	-80.53	1,029.28	990.37	38.91	26.450		
4,400.00	4,377.76	4,218.83	4,030.84	19.83	23.40	-13.28	-1,388.22	-82.75	1,051.89	1,012.04	39.85	26.399		
4,500.00	4,477.14	4,316.24	4,122.77	20.28	23.97	-13.28	-1,420.36	-84.98	1,074.50	1,033.72	40.78	26.350		
4,600.00	4,576.53	4,413.65	4,214.70	20.74	24.55	-13.29	-1,452.50	-87.20	1,097.11	1,055.40	41.71	26.303		
4,700.00	4,675.91	4,511.06	4,306.63	21.19	25.12	-13.29	-1,484.64	-89.42	1,119.72	1,077.07	42.64	26.257		
4,800.00	4,775.29	4,608.47	4,398.55	21.65	25.70	-13.30	-1,516.78	-91.65	1,142.33	1,098.75	43.58	26.213		
4,900.00	4,874.68	4,705.88	4,490.48	22.10	26.28	-13.30	-1,548.92	-93.87	1,164.94	1,120.42	44.51	26.170		
5,000.00	4,974.06	4,803.29	4,582.41	22.56	26.85	-13.30	-1,581.06	-96.09	1,187.54	1,142.10	45.45	26.129		
5,100.00	5,073.44	4,900.70	4,674.34	23.02	27.43	-13.31	-1,613.19	-98.31	1,210.15	1,163.77	46.39	26.089		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 STATE 33N-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	5,172.83	5,001.89	4,766.27	23.47	28.03	-13.31	-1,645.33	-100.54	1,232.76	1,185.42	47.34	26.039		
5,300.00	5,272.21	5,104.48	4,858.20	23.93	28.64	-13.32	-1,677.47	-102.76	1,255.37	1,207.07	48.31	25.988		
5,400.00	5,371.59	5,207.07	4,950.13	24.39	29.25	-13.32	-1,709.61	-104.98	1,277.98	1,228.71	49.27	25.937		
5,500.00	5,470.98	5,309.66	5,042.06	24.85	29.86	-13.32	-1,741.75	-107.21	1,300.59	1,250.35	50.24	25.889		
5,600.00	5,570.36	5,387.75	5,133.99	25.30	30.32	-13.33	-1,773.89	-109.43	1,323.20	1,272.12	51.08	25.907		
5,700.00	5,669.75	5,485.16	5,225.92	25.76	30.90	-13.33	-1,806.03	-111.65	1,345.81	1,293.79	52.02	25.873		
5,800.00	5,769.13	5,582.57	5,317.85	26.22	31.48	-13.33	-1,838.17	-113.88	1,368.42	1,315.46	52.96	25.841		
5,900.00	5,868.51	5,679.98	5,409.78	26.68	32.05	-13.34	-1,870.30	-116.10	1,391.03	1,337.13	53.90	25.810		
6,000.00	5,967.90	5,777.40	5,501.70	27.14	32.63	-13.34	-1,902.44	-118.32	1,413.64	1,358.80	54.84	25.779		
6,100.00	6,067.28	5,874.81	5,593.63	27.60	33.21	-13.34	-1,934.58	-120.55	1,436.25	1,380.47	55.78	25.749		
6,200.00	6,166.66	5,972.22	5,685.56	28.05	33.79	-13.34	-1,966.72	-122.77	1,458.86	1,402.14	56.72	25.721		
6,300.00	6,266.05	6,069.63	5,777.49	28.51	34.37	-13.35	-1,998.86	-124.99	1,481.47	1,423.81	57.66	25.693		
6,400.00	6,365.43	6,167.04	5,869.42	28.97	34.95	-13.35	-2,031.00	-127.22	1,504.08	1,445.47	58.60	25.665		
6,500.00	6,464.81	6,264.45	5,961.35	29.43	35.53	-13.35	-2,063.14	-129.44	1,526.68	1,467.14	59.55	25.639		
6,600.00	6,564.10	6,361.81	6,053.23	29.89	36.11	-42.73	-2,095.26	-131.66	1,549.28	1,488.79	60.49	25.612		
6,700.00	6,661.75	6,457.93	6,143.94	30.34	36.68	-64.61	-2,126.97	-133.85	1,571.63	1,510.20	61.43	25.583		
6,800.00	6,755.38	6,550.48	6,231.29	30.77	37.23	-71.47	-2,157.51	-135.97	1,593.66	1,531.29	62.36	25.555		
6,900.00	6,842.67	6,637.20	6,313.13	31.17	37.75	-74.56	-2,186.12	-137.95	1,615.63	1,552.35	63.28	25.530		
7,000.00	6,921.48	6,715.94	6,387.44	31.54	38.21	-76.21	-2,212.10	-139.74	1,638.11	1,573.90	64.21	25.512		
7,100.00	6,989.86	6,784.77	6,452.39	31.91	38.62	-77.02	-2,234.81	-141.31	1,661.80	1,596.63	65.18	25.497		
7,200.00	7,046.13	6,841.99	6,506.39	32.35	38.96	-77.08	-2,253.69	-142.62	1,687.39	1,621.17	66.22	25.482		
7,300.00	7,088.91	6,886.19	6,548.11	32.98	39.23	-76.35	-2,268.27	-143.63	1,715.39	1,648.03	67.36	25.467		
7,400.00	7,117.14	7,400.00	6,595.01	33.84	42.27	-75.42	-2,284.68	-146.23	1,745.74	1,674.47	71.27	24.495		
7,500.00	7,130.13	7,296.22	6,908.35	34.90	41.35	-83.37	-2,395.19	-272.24	1,775.76	1,703.75	72.01	24.661		
7,600.00	7,130.72	7,942.36	7,145.68	36.13	43.43	-90.48	-2,482.70	-838.09	1,782.86	1,707.30	75.56	23.596		
7,700.00	7,130.29	8,042.36	7,145.11	37.54	43.99	-90.48	-2,483.32	-938.09	1,782.69	1,704.45	78.24	22.785		
7,800.00	7,129.85	8,142.36	7,144.54	39.12	44.80	-90.47	-2,483.93	-1,038.09	1,782.53	1,701.29	81.24	21.943		
7,900.00	7,129.42	8,242.36	7,143.97	40.83	45.89	-90.47	-2,484.54	-1,138.08	1,782.36	1,697.85	84.51	21.090		
8,000.00	7,128.98	8,342.36	7,143.41	42.67	47.23	-90.46	-2,485.16	-1,238.08	1,782.20	1,694.16	88.04	20.244		
8,100.00	7,128.55	8,442.36	7,142.84	44.62	48.78	-90.46	-2,485.77	-1,338.08	1,782.03	1,690.25	91.78	19.416		
8,200.00	7,128.12	8,542.36	7,142.27	46.66	50.49	-90.46	-2,486.38	-1,438.07	1,781.87	1,686.14	95.72	18.615		
8,300.00	7,127.68	8,642.36	7,141.70	48.79	52.34	-90.45	-2,486.99	-1,538.07	1,781.70	1,681.87	99.84	17.846		
8,400.00	7,127.25	8,742.36	7,141.13	50.98	54.29	-90.45	-2,487.61	-1,638.06	1,781.54	1,677.44	104.10	17.114		
8,500.00	7,126.81	8,842.36	7,140.56	53.24	56.34	-90.44	-2,488.22	-1,738.06	1,781.37	1,672.87	108.50	16.419		
8,600.00	7,126.38	8,942.36	7,140.00	55.56	58.46	-90.44	-2,488.83	-1,838.06	1,781.20	1,668.19	113.01	15.761		
8,700.00	7,125.95	9,042.36	7,139.43	57.92	60.65	-90.43	-2,489.45	-1,938.05	1,781.04	1,663.41	117.63	15.141		
8,800.00	7,125.51	9,142.36	7,138.86	60.33	62.90	-90.43	-2,490.06	-2,038.05	1,780.87	1,658.53	122.34	14.556		
8,900.00	7,125.08	9,242.36	7,138.29	62.77	65.21	-90.43	-2,490.67	-2,138.05	1,780.71	1,653.57	127.14	14.006		
9,000.00	7,124.64	9,342.36	7,137.72	65.25	67.55	-90.42	-2,491.29	-2,238.04	1,780.54	1,648.54	132.00	13.488		
9,100.00	7,124.21	9,442.36	7,137.15	67.76	69.94	-90.42	-2,491.90	-2,338.04	1,780.38	1,643.44	136.94	13.001		
9,200.00	7,123.78	9,542.36	7,136.58	70.29	72.36	-90.41	-2,492.51	-2,438.03	1,780.21	1,638.28	141.93	12.543		
9,300.00	7,123.34	9,642.36	7,136.02	72.85	74.82	-90.41	-2,493.12	-2,538.03	1,780.05	1,633.07	146.98	12.111		
9,400.00	7,122.91	9,742.36	7,135.45	75.43	77.30	-90.40	-2,493.74	-2,638.03	1,779.88	1,627.81	152.07	11.704		
9,500.00	7,122.48	9,842.36	7,134.88	78.03	79.81	-90.40	-2,494.35	-2,738.02	1,779.72	1,622.51	157.20	11.321		
9,600.00	7,122.04	9,942.36	7,134.31	80.65	82.34	-90.40	-2,494.96	-2,838.02	1,779.55	1,617.17	162.38	10.959		
9,700.00	7,121.61	10,042.36	7,133.74	83.28	84.90	-90.39	-2,495.58	-2,938.02	1,779.39	1,611.80	167.59	10.618		
9,800.00	7,121.17	10,142.36	7,133.17	85.93	87.47	-90.39	-2,496.19	-3,038.01	1,779.22	1,606.39	172.83	10.295		
9,900.00	7,120.74	10,242.35	7,132.61	88.59	90.06	-90.38	-2,496.80	-3,138.01	1,779.05	1,600.95	178.10	9.989		
10,000.00	7,120.31	10,342.35	7,132.04	91.26	92.67	-90.38	-2,497.42	-3,238.00	1,778.89	1,595.49	183.40	9.700		
10,100.00	7,119.87	10,442.35	7,131.47	93.95	95.29	-90.37	-2,498.03	-3,338.00	1,778.72	1,590.00	188.72	9.425		
10,200.00	7,119.44	10,542.35	7,130.90	96.64	97.93	-90.37	-2,498.64	-3,438.00	1,778.56	1,584.49	194.07	9.165		
10,300.00	7,119.00	10,642.35	7,130.33	99.34	100.57	-90.37	-2,499.25	-3,537.99	1,778.39	1,578.96	199.43	8.917		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 STATE 33N-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	7,118.57	10,742.35	7,129.76	102.05	103.23	-90.36	-2,499.87	-3,637.99	1,778.23	1,573.41	204.82	8.682		
10,500.00	7,118.14	10,842.35	7,129.20	104.77	105.90	-90.36	-2,500.48	-3,737.99	1,778.06	1,567.85	210.22	8.458		
10,600.00	7,117.70	10,942.35	7,128.63	107.50	108.58	-90.35	-2,501.09	-3,837.98	1,777.90	1,562.26	215.64	8.245		
10,700.00	7,117.27	11,042.35	7,128.06	110.23	111.27	-90.35	-2,501.71	-3,937.98	1,777.73	1,556.66	221.07	8.042		
10,800.00	7,116.83	11,142.35	7,127.49	112.97	113.97	-90.34	-2,502.32	-4,037.98	1,777.57	1,551.05	226.52	7.847		
10,900.00	7,116.40	11,242.35	7,126.92	115.72	116.67	-90.34	-2,502.93	-4,137.97	1,777.40	1,545.43	231.98	7.662		
11,000.00	7,115.97	11,342.35	7,126.35	118.47	119.39	-90.34	-2,503.54	-4,237.97	1,777.24	1,539.79	237.45	7.485		
11,100.00	7,115.53	11,442.35	7,125.78	121.22	122.10	-90.33	-2,504.16	-4,337.96	1,777.07	1,534.14	242.93	7.315		
11,200.00	7,115.10	11,542.35	7,125.22	123.98	124.83	-90.33	-2,504.77	-4,437.96	1,776.91	1,528.48	248.43	7.153		
11,300.00	7,114.66	11,642.35	7,124.65	126.74	127.56	-90.32	-2,505.38	-4,537.96	1,776.74	1,522.81	253.93	6.997		
11,400.00	7,114.23	11,742.35	7,124.08	129.51	130.30	-90.32	-2,506.00	-4,637.95	1,776.58	1,517.13	259.45	6.848		
11,500.00	7,113.80	11,842.35	7,123.51	132.29	133.04	-90.31	-2,506.61	-4,737.95	1,776.41	1,511.44	264.97	6.704		
11,600.00	7,113.36	11,942.35	7,122.94	135.06	135.79	-90.31	-2,507.22	-4,837.95	1,776.25	1,505.75	270.50	6.567		
11,700.00	7,112.93	12,042.35	7,122.37	137.84	138.54	-90.31	-2,507.84	-4,937.94	1,776.08	1,500.05	276.04	6.434		
11,800.00	7,112.49	12,142.35	7,121.81	140.62	141.29	-90.30	-2,508.45	-5,037.94	1,775.92	1,494.34	281.58	6.307		
11,900.00	7,112.06	12,242.35	7,121.24	143.41	144.05	-90.30	-2,509.06	-5,137.93	1,775.75	1,488.62	287.13	6.184		
12,000.00	7,111.63	12,342.35	7,120.67	146.20	146.82	-90.29	-2,509.67	-5,237.93	1,775.59	1,482.89	292.69	6.066		
12,100.00	7,111.19	12,442.35	7,120.10	148.99	149.58	-90.29	-2,510.29	-5,337.93	1,775.42	1,477.17	298.26	5.953		
12,200.00	7,110.76	12,542.35	7,119.53	151.78	152.35	-90.28	-2,510.90	-5,437.92	1,775.26	1,471.43	303.83	5.843		
12,300.00	7,110.33	12,642.35	7,118.96	154.58	155.13	-90.28	-2,511.51	-5,537.92	1,775.09	1,465.69	309.40	5.737		
12,400.00	7,109.89	12,742.35	7,118.39	157.37	157.90	-90.27	-2,512.13	-5,637.92	1,774.93	1,459.94	314.98	5.635		
12,500.00	7,109.46	12,842.35	7,117.83	160.17	160.68	-90.27	-2,512.74	-5,737.91	1,774.76	1,454.19	320.57	5.536		
12,600.00	7,109.02	12,942.35	7,117.26	162.98	163.46	-90.27	-2,513.35	-5,837.91	1,774.60	1,448.44	326.16	5.441		
12,700.00	7,108.59	13,042.35	7,116.69	165.78	166.25	-90.26	-2,513.97	-5,937.90	1,774.43	1,442.68	331.75	5.349		
12,800.00	7,108.16	13,142.35	7,116.12	168.59	169.04	-90.26	-2,514.58	-6,037.90	1,774.27	1,436.92	337.35	5.259		
12,900.00	7,107.72	13,242.35	7,115.55	171.39	171.83	-90.25	-2,515.19	-6,137.90	1,774.10	1,431.15	342.95	5.173		
13,000.00	7,107.29	13,342.35	7,114.98	174.20	174.62	-90.25	-2,515.80	-6,237.89	1,773.94	1,425.38	348.56	5.089		
13,100.00	7,106.85	13,442.35	7,114.42	177.01	177.41	-90.24	-2,516.42	-6,337.89	1,773.77	1,419.60	354.17	5.008		
13,200.00	7,106.42	13,542.35	7,113.85	179.83	180.21	-90.24	-2,517.03	-6,437.89	1,773.61	1,413.83	359.78	4.930		
13,300.00	7,105.99	13,642.35	7,113.28	182.64	183.01	-90.24	-2,517.64	-6,537.88	1,773.44	1,408.04	365.40	4.853		
13,400.00	7,105.55	13,742.35	7,112.71	185.45	185.81	-90.23	-2,518.26	-6,637.88	1,773.28	1,402.26	371.02	4.780		
13,500.00	7,105.12	13,842.35	7,112.14	188.27	188.61	-90.23	-2,518.87	-6,737.87	1,773.11	1,396.47	376.64	4.708		
13,600.00	7,104.68	13,942.35	7,111.57	191.09	191.41	-90.22	-2,519.48	-6,837.87	1,772.95	1,390.68	382.26	4.638		
13,700.00	7,104.25	14,042.35	7,111.00	193.91	194.22	-90.22	-2,520.10	-6,937.87	1,772.78	1,384.89	387.89	4.570		
13,800.00	7,103.82	14,142.35	7,110.44	196.73	197.02	-90.21	-2,520.71	-7,037.86	1,772.62	1,379.10	393.52	4.505		
13,900.00	7,103.38	14,242.35	7,109.87	199.55	199.83	-90.21	-2,521.32	-7,137.86	1,772.45	1,373.30	399.15	4.441		
14,000.00	7,102.95	14,342.35	7,109.30	202.37	202.64	-90.21	-2,521.93	-7,237.86	1,772.29	1,367.50	404.79	4.378		
14,100.00	7,102.51	14,442.35	7,108.73	205.19	205.45	-90.20	-2,522.55	-7,337.85	1,772.12	1,361.69	410.43	4.318		
14,200.00	7,102.08	14,542.35	7,108.16	208.02	208.26	-90.20	-2,523.16	-7,437.85	1,771.96	1,355.89	416.07	4.259		
14,300.00	7,101.65	14,642.34	7,107.59	210.84	211.08	-90.19	-2,523.77	-7,537.84	1,771.79	1,350.08	421.71	4.201		
14,400.00	7,101.21	14,742.34	7,107.03	213.67	213.89	-90.19	-2,524.39	-7,637.84	1,771.63	1,344.27	427.35	4.146		
14,500.00	7,100.78	14,842.34	7,106.46	216.50	216.71	-90.18	-2,525.00	-7,737.84	1,771.46	1,338.46	433.00	4.091		
14,600.00	7,100.35	14,942.34	7,105.89	219.32	219.53	-90.18	-2,525.61	-7,837.83	1,771.30	1,332.65	438.65	4.038		
14,700.00	7,099.91	15,042.34	7,105.32	222.15	222.34	-90.18	-2,526.22	-7,937.83	1,771.13	1,326.84	444.30	3.986		
14,800.00	7,099.48	15,142.34	7,104.75	224.98	225.16	-90.17	-2,526.84	-8,037.83	1,770.97	1,321.02	449.95	3.936		
14,900.00	7,099.04	15,242.34	7,104.18	227.81	227.98	-90.17	-2,527.45	-8,137.82	1,770.80	1,315.20	455.60	3.887		
14,909.96	7,099.00	15,252.31	7,104.13	228.09	228.26	-90.17	-2,527.51	-8,147.79	1,770.79	1,314.62	456.16	3.882 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	1.00	0.00	3.28	0.00	0.44	179.96	1.39	179.97					
100.00	100.00	101.00	100.00	3.28	0.18	0.44	179.96	1.39	179.97	176.50	3.46	51.945		
200.00	200.00	201.00	200.00	3.34	0.62	0.44	179.96	1.39	179.97	176.01	3.96	45.496		
300.00	300.00	301.00	300.00	3.44	1.06	0.44	179.96	1.39	179.97	175.47	4.50	39.972		
400.00	400.00	401.00	400.00	3.60	1.50	0.44	179.96	1.39	179.97	174.87	5.10	35.291		
500.00	500.00	501.00	500.00	3.81	1.93	0.44	179.96	1.39	179.97	174.23	5.74	31.348	CC, ES	
600.00	600.00	595.05	594.03	4.04	2.35	167.22	181.53	1.18	181.69	175.29	6.40	28.378		
700.00	699.96	688.78	687.64	4.29	2.76	167.14	186.12	0.55	188.98	181.89	7.09	26.664		
800.00	799.78	781.53	780.08	4.57	3.18	167.13	193.66	-0.47	202.85	195.04	7.80	25.993		
900.00	899.34	872.73	870.68	4.88	3.58	167.15	203.95	-1.87	223.20	214.66	8.54	26.132		
1,000.00	998.72	962.27	959.26	5.20	3.98	167.24	216.84	-3.63	248.19	238.93	9.27	26.786		
1,100.00	1,098.10	1,052.01	1,047.62	5.54	4.39	167.22	232.43	-5.75	276.09	266.09	9.99	27.634		
1,200.00	1,197.49	1,147.77	1,141.72	5.90	4.81	167.18	249.97	-8.13	304.90	294.17	10.74	28.400		
1,300.00	1,296.87	1,243.53	1,235.83	6.28	5.24	167.14	267.50	-10.52	333.72	322.22	11.50	29.015		
1,400.00	1,396.25	1,339.28	1,329.94	6.66	5.68	167.11	285.04	-12.90	362.54	350.26	12.28	29.521		
1,500.00	1,495.64	1,435.04	1,424.05	7.06	6.13	167.09	302.57	-15.29	391.36	378.28	13.07	29.939		
1,600.00	1,595.02	1,530.80	1,518.16	7.46	6.57	167.07	320.11	-17.68	420.17	406.30	13.87	30.287		
1,700.00	1,694.40	1,626.56	1,612.26	7.87	7.02	167.05	337.65	-20.06	448.99	434.31	14.68	30.580		
1,800.00	1,793.79	1,722.31	1,706.37	8.29	7.47	167.03	355.18	-22.45	477.81	462.31	15.50	30.827		
1,900.00	1,893.17	1,818.07	1,800.48	8.71	7.92	167.02	372.72	-24.83	506.63	490.31	16.32	31.038		
2,000.00	1,992.55	1,913.83	1,894.59	9.13	8.37	167.00	390.25	-27.22	535.45	518.30	17.15	31.219		
2,100.00	2,091.94	2,009.59	1,988.70	9.56	8.82	166.99	407.79	-29.60	564.27	546.28	17.98	31.375		
2,200.00	2,191.32	2,105.35	2,082.80	9.99	9.27	166.98	425.32	-31.99	593.08	574.26	18.82	31.510		
2,300.00	2,290.70	2,201.10	2,176.91	10.42	9.72	166.97	442.86	-34.37	621.90	602.24	19.66	31.627		
2,400.00	2,390.09	2,303.14	2,271.02	10.86	10.21	166.96	460.39	-36.76	650.72	630.18	20.54	31.686		
2,500.00	2,489.47	2,392.62	2,365.13	11.29	10.63	166.96	477.93	-39.14	679.54	658.18	21.35	31.821		
2,600.00	2,588.86	2,488.38	2,459.24	11.73	11.08	166.95	495.46	-41.53	708.36	686.15	22.20	31.902		
2,700.00	2,688.24	2,584.13	2,553.34	12.18	11.54	166.94	513.00	-43.92	737.17	714.12	23.06	31.973		
2,800.00	2,787.62	2,679.89	2,647.45	12.62	11.99	166.94	530.53	-46.30	765.99	742.08	23.91	32.037		
2,900.00	2,887.01	2,775.65	2,741.56	13.06	12.45	166.93	548.07	-48.69	794.81	770.05	24.77	32.093		
3,000.00	2,986.39	2,871.41	2,835.67	13.51	12.90	166.92	565.60	-51.07	823.63	798.01	25.62	32.144		
3,100.00	3,085.77	2,967.16	2,929.78	13.95	13.35	166.92	583.14	-53.46	852.45	825.97	26.48	32.190		
3,200.00	3,185.16	3,062.92	3,023.88	14.40	13.81	166.91	600.68	-55.84	881.27	853.92	27.34	32.232		
3,300.00	3,284.54	3,158.68	3,117.99	14.85	14.27	166.91	618.21	-58.23	910.08	881.88	28.20	32.269		
3,400.00	3,383.92	3,254.44	3,212.10	15.30	14.72	166.91	635.75	-60.61	938.90	909.84	29.07	32.303		
3,500.00	3,483.31	3,350.19	3,306.21	15.75	15.18	166.90	653.28	-63.00	967.72	937.79	29.93	32.334		
3,600.00	3,582.69	3,445.95	3,400.32	16.20	15.63	166.90	670.82	-65.39	996.54	965.75	30.79	32.362		
3,700.00	3,682.07	3,541.71	3,494.42	16.65	16.09	166.89	688.35	-67.77	1,025.36	993.70	31.66	32.388		
3,800.00	3,781.46	3,637.47	3,588.53	17.10	16.54	166.89	705.89	-70.16	1,054.18	1,021.65	32.52	32.411		
3,900.00	3,880.84	3,733.22	3,682.64	17.56	17.00	166.89	723.42	-72.54	1,082.99	1,049.60	33.39	32.433		
4,000.00	3,980.22	3,828.98	3,776.75	18.01	17.46	166.89	740.96	-74.93	1,111.81	1,077.55	34.26	32.453		
4,100.00	4,079.61	3,924.74	3,870.86	18.46	17.91	166.88	758.49	-77.31	1,140.63	1,105.50	35.13	32.471		
4,200.00	4,178.99	4,020.50	3,964.96	18.92	18.37	166.88	776.03	-79.70	1,169.45	1,133.45	36.00	32.488		
4,300.00	4,278.38	4,116.25	4,059.07	19.37	18.82	166.88	793.56	-82.08	1,198.27	1,161.40	36.87	32.504		
4,400.00	4,377.76	4,212.01	4,153.18	19.83	19.28	166.88	811.10	-84.47	1,227.09	1,189.35	37.74	32.518		
4,500.00	4,477.14	4,307.77	4,247.29	20.28	19.74	166.87	828.63	-86.86	1,255.90	1,217.30	38.61	32.532		
4,600.00	4,576.53	4,403.53	4,341.40	20.74	20.19	166.87	846.17	-89.24	1,284.72	1,245.25	39.48	32.544		
4,700.00	4,675.91	4,500.72	4,435.50	21.19	20.66	166.87	863.71	-91.63	1,313.54	1,273.19	40.35	32.550		
4,800.00	4,775.29	4,604.96	4,529.61	21.65	21.15	166.87	881.24	-94.01	1,342.36	1,301.09	41.27	32.530		
4,900.00	4,874.68	4,709.20	4,623.72	22.10	21.65	166.86	898.78	-96.40	1,371.18	1,329.00	42.18	32.510		
5,000.00	4,974.06	4,786.56	4,717.83	22.56	22.02	166.86	916.31	-98.78	1,400.00	1,357.03	42.96	32.585		
5,100.00	5,073.44	4,882.31	4,811.94	23.02	22.48	166.86	933.85	-101.17	1,428.81	1,384.98	43.84	32.594		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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		
5,200.00	5,172.83	4,978.07	4,906.04	23.47	22.93	166.86	951.38	-103.55	1,457.63	1,412.92	44.71	32.602		
5,300.00	5,272.21	5,073.83	5,000.15	23.93	23.39	166.86	968.92	-105.94	1,486.45	1,440.87	45.58	32.609		
5,400.00	5,371.59	5,169.59	5,094.26	24.39	23.85	166.86	986.45	-108.32	1,515.27	1,468.81	46.46	32.616		
5,500.00	5,470.98	5,265.34	5,188.37	24.85	24.30	166.85	1,003.99	-110.71	1,544.09	1,496.76	47.33	32.623		
5,600.00	5,570.36	5,361.10	5,282.48	25.30	24.76	166.85	1,021.52	-113.10	1,572.91	1,524.70	48.21	32.629		
5,700.00	5,669.75	5,456.86	5,376.59	25.76	25.22	166.85	1,039.06	-115.48	1,601.72	1,552.64	49.08	32.634		
5,800.00	5,769.13	5,552.62	5,470.69	26.22	25.67	166.85	1,056.59	-117.87	1,630.54	1,580.59	49.96	32.640		
5,900.00	5,868.51	5,648.37	5,564.80	26.68	26.13	166.85	1,074.13	-120.25	1,659.36	1,608.53	50.83	32.645		
6,000.00	5,967.90	5,744.13	5,658.91	27.14	26.59	166.85	1,091.66	-122.64	1,688.18	1,636.47	51.71	32.649		
6,100.00	6,067.28	5,839.89	5,753.02	27.60	27.04	166.85	1,109.20	-125.02	1,717.00	1,664.41	52.58	32.654		
6,200.00	6,166.66	5,935.65	5,847.13	28.05	27.50	166.85	1,126.74	-127.41	1,745.82	1,692.36	53.46	32.658		
6,300.00	6,266.05	6,031.40	5,941.23	28.51	27.96	166.84	1,144.27	-129.79	1,774.63	1,720.30	54.33	32.661		
6,400.00	6,365.43	6,127.16	6,035.34	28.97	28.41	166.84	1,161.81	-132.18	1,803.45	1,748.24	55.21	32.665		
6,500.00	6,464.81	6,222.92	6,129.45	29.43	28.87	166.84	1,179.34	-134.57	1,832.27	1,776.18	56.09	32.668		
6,600.00	6,564.10	6,318.62	6,223.51	29.89	29.33	135.21	1,196.87	-136.95	1,861.09	1,804.12	56.96	32.671		
6,700.00	6,661.75	6,413.08	6,316.34	30.34	29.78	109.64	1,214.16	-139.30	1,889.70	1,831.88	57.83	32.679		
6,800.00	6,755.38	6,504.02	6,405.70	30.77	30.21	100.10	1,230.82	-141.57	1,917.81	1,859.15	58.66	32.695		
6,900.00	6,842.67	6,589.18	6,489.41	31.17	30.62	95.07	1,246.41	-143.69	1,945.40	1,885.95	59.45	32.723		
7,000.00	6,921.48	6,666.49	6,565.38	31.54	30.99	91.86	1,260.57	-145.62	1,972.71	1,912.49	60.22	32.760		
7,100.00	6,989.86	6,734.03	6,631.76	31.91	31.31	89.50	1,272.94	-147.30	2,000.10	1,939.12	60.98	32.799		
7,200.00	7,046.13	6,835.75	6,731.36	32.35	31.80	88.51	1,291.41	-155.38	2,027.52	1,965.33	62.19	32.602		
7,300.00	7,088.91	6,998.06	6,884.21	32.98	32.55	89.14	1,319.23	-200.83	2,053.23	1,989.23	64.00	32.084		
7,400.00	7,117.14	7,400.00	7,075.96	33.84	34.34	91.08	1,352.93	-334.07	2,074.36	2,007.16	67.20	30.868		
7,500.00	7,130.13	7,500.00	7,258.31	34.90	35.00	93.59	1,380.70	-731.79	2,083.77	2,015.00	68.76	30.303		
7,600.00	7,130.72	7,835.59	7,260.60	36.13	38.71	93.58	1,378.72	-883.97	2,083.01	2,009.10	73.91	28.182		
7,700.00	7,130.29	7,935.59	7,260.18	37.54	40.12	93.58	1,377.06	-983.95	2,082.13	2,005.36	76.77	27.121		
7,800.00	7,129.85	8,035.58	7,259.76	39.12	41.69	93.58	1,375.40	-1,083.93	2,081.25	2,001.31	79.94	26.036		
7,900.00	7,129.42	8,135.58	7,259.34	40.83	43.38	93.58	1,373.75	-1,183.91	2,080.37	1,997.00	83.38	24.952		
8,000.00	7,128.98	8,235.58	7,258.92	42.67	45.20	93.58	1,372.09	-1,283.89	2,079.50	1,992.45	87.05	23.889		
8,100.00	7,128.55	8,335.57	7,258.50	44.62	47.11	93.59	1,370.43	-1,383.87	2,078.62	1,987.68	90.93	22.859		
8,200.00	7,128.12	8,435.57	7,258.08	46.66	49.12	93.59	1,368.77	-1,483.85	2,077.74	1,982.74	95.00	21.871		
8,300.00	7,127.68	8,535.56	7,257.66	48.79	51.21	93.59	1,367.11	-1,583.84	2,076.86	1,977.63	99.23	20.930		
8,400.00	7,127.25	8,635.56	7,257.24	50.98	53.37	93.59	1,365.45	-1,683.82	2,075.98	1,972.38	103.60	20.038		
8,500.00	7,126.81	8,735.56	7,256.82	53.24	55.60	93.59	1,363.79	-1,783.80	2,075.10	1,967.01	108.10	19.197		
8,600.00	7,126.38	8,835.55	7,256.40	55.56	57.87	93.60	1,362.14	-1,883.78	2,074.22	1,961.52	112.70	18.405		
8,700.00	7,125.95	8,935.55	7,255.98	57.92	60.20	93.60	1,360.48	-1,983.76	2,073.34	1,955.94	117.40	17.661		
8,800.00	7,125.51	9,035.55	7,255.56	60.33	62.57	93.60	1,358.82	-2,083.74	2,072.47	1,950.28	122.18	16.962		
8,900.00	7,125.08	9,135.54	7,255.14	62.77	64.99	93.60	1,357.16	-2,183.72	2,071.59	1,944.54	127.05	16.306		
9,000.00	7,124.64	9,235.54	7,254.72	65.25	67.43	93.60	1,355.50	-2,283.71	2,070.71	1,938.73	131.97	15.690		
9,100.00	7,124.21	9,335.53	7,254.30	67.76	69.91	93.61	1,353.84	-2,383.69	2,069.83	1,932.87	136.96	15.112		
9,200.00	7,123.78	9,435.53	7,253.88	70.29	72.41	93.61	1,352.18	-2,483.67	2,068.95	1,926.94	142.01	14.570		
9,300.00	7,123.34	9,535.53	7,253.46	72.85	74.94	93.61	1,350.53	-2,583.65	2,068.07	1,920.98	147.10	14.059		
9,400.00	7,122.91	9,635.52	7,253.04	75.43	77.50	93.61	1,348.87	-2,683.63	2,067.19	1,914.96	152.23	13.579		
9,500.00	7,122.48	9,735.52	7,252.62	78.03	80.07	93.61	1,347.21	-2,783.61	2,066.31	1,908.91	157.40	13.128		
9,600.00	7,122.04	9,835.51	7,252.20	80.65	82.66	93.62	1,345.55	-2,883.60	2,065.44	1,902.82	162.61	12.702		
9,700.00	7,121.61	9,935.51	7,251.78	83.28	85.27	93.62	1,343.89	-2,983.58	2,064.56	1,896.71	167.85	12.300		
9,800.00	7,121.17	10,035.51	7,251.36	85.93	87.89	93.62	1,342.23	-3,083.56	2,063.68	1,890.56	173.12	11.920		
9,900.00	7,120.74	10,135.50	7,250.93	88.59	90.53	93.62	1,340.57	-3,183.54	2,062.80	1,884.38	178.42	11.562		
10,000.00	7,120.31	10,235.50	7,250.51	91.26	93.18	93.62	1,338.92	-3,283.52	2,061.92	1,878.18	183.74	11.222		
10,100.00	7,119.87	10,335.49	7,250.09	93.95	95.84	93.62	1,337.26	-3,383.50	2,061.04	1,871.96	189.08	10.900		
10,200.00	7,119.44	10,435.49	7,249.67	96.64	98.52	93.63	1,335.60	-3,483.48	2,060.16	1,865.72	194.44	10.595		
10,300.00	7,119.00	10,535.49	7,249.25	99.34	101.20	93.63	1,333.94	-3,583.47	2,059.28	1,859.46	199.82	10.305		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	7,118.57	10,635.48	7,248.83	102.05	103.89	93.63	1,332.28	-3,683.45	2,058.41	1,853.18	205.22	10.030		
10,500.00	7,118.14	10,735.48	7,248.41	104.77	106.59	93.63	1,330.62	-3,783.43	2,057.53	1,846.89	210.64	9.768		
10,600.00	7,117.70	10,835.48	7,247.99	107.50	109.30	93.63	1,328.96	-3,883.41	2,056.65	1,840.58	216.07	9.519		
10,700.00	7,117.27	10,935.47	7,247.57	110.23	112.02	93.64	1,327.31	-3,983.39	2,055.77	1,834.26	221.51	9.281		
10,800.00	7,116.83	11,035.47	7,247.15	112.97	114.74	93.64	1,325.65	-4,083.37	2,054.89	1,827.92	226.97	9.054		
10,900.00	7,116.40	11,135.46	7,246.73	115.72	117.47	93.64	1,323.99	-4,183.35	2,054.01	1,821.58	232.43	8.837		
11,000.00	7,115.97	11,235.46	7,246.31	118.47	120.20	93.64	1,322.33	-4,283.34	2,053.13	1,815.22	237.91	8.630		
11,100.00	7,115.53	11,335.46	7,245.89	121.22	122.94	93.64	1,320.67	-4,383.32	2,052.25	1,808.85	243.40	8.432		
11,200.00	7,115.10	11,435.45	7,245.47	123.98	125.69	93.65	1,319.01	-4,483.30	2,051.38	1,802.48	248.90	8.242		
11,300.00	7,114.66	11,535.45	7,245.05	126.74	128.44	93.65	1,317.35	-4,583.28	2,050.50	1,796.09	254.41	8.060		
11,400.00	7,114.23	11,635.44	7,244.63	129.51	131.20	93.65	1,315.70	-4,683.26	2,049.62	1,789.70	259.92	7.885		
11,500.00	7,113.80	11,735.44	7,244.21	132.29	133.95	93.65	1,314.04	-4,783.24	2,048.74	1,783.29	265.45	7.718		
11,600.00	7,113.36	11,835.44	7,243.79	135.06	136.72	93.65	1,312.38	-4,883.22	2,047.86	1,776.88	270.98	7.557		
11,700.00	7,112.93	11,935.43	7,243.37	137.84	139.48	93.66	1,310.72	-4,983.21	2,046.98	1,770.47	276.52	7.403		
11,800.00	7,112.49	12,035.43	7,242.95	140.62	142.25	93.66	1,309.06	-5,083.19	2,046.10	1,764.04	282.06	7.254		
11,900.00	7,112.06	12,135.42	7,242.53	143.41	145.03	93.66	1,307.40	-5,183.17	2,045.23	1,757.62	287.61	7.111		
12,000.00	7,111.63	12,235.42	7,242.11	146.20	147.80	93.66	1,305.74	-5,283.15	2,044.35	1,751.18	293.17	6.973		
12,100.00	7,111.19	12,335.42	7,241.69	148.99	150.58	93.66	1,304.09	-5,383.13	2,043.47	1,744.74	298.73	6.841		
12,200.00	7,110.76	12,435.41	7,241.27	151.78	153.37	93.67	1,302.43	-5,483.11	2,042.59	1,738.30	304.29	6.713		
12,300.00	7,110.33	12,535.41	7,240.85	154.58	156.15	93.67	1,300.77	-5,583.09	2,041.71	1,731.85	309.87	6.589		
12,400.00	7,109.89	12,635.41	7,240.43	157.37	158.94	93.67	1,299.11	-5,683.08	2,040.83	1,725.39	315.44	6.470		
12,500.00	7,109.46	12,735.40	7,240.01	160.17	161.73	93.67	1,297.45	-5,783.06	2,039.95	1,718.93	321.02	6.355		
12,600.00	7,109.02	12,835.40	7,239.59	162.98	164.52	93.67	1,295.79	-5,883.04	2,039.07	1,712.47	326.61	6.243		
12,700.00	7,108.59	12,935.39	7,239.17	165.78	167.31	93.68	1,294.13	-5,983.02	2,038.20	1,706.00	332.20	6.136		
12,800.00	7,108.16	13,035.39	7,238.75	168.59	170.11	93.68	1,292.48	-6,083.00	2,037.32	1,699.53	337.79	6.031		
12,900.00	7,107.72	13,135.39	7,238.33	171.39	172.91	93.68	1,290.82	-6,182.98	2,036.44	1,693.05	343.38	5.930		
13,000.00	7,107.29	13,235.38	7,237.91	174.20	175.71	93.68	1,289.16	-6,282.97	2,035.56	1,686.58	348.98	5.833		
13,100.00	7,106.85	13,335.38	7,237.49	177.01	178.51	93.68	1,287.50	-6,382.95	2,034.68	1,680.10	354.59	5.738		
13,200.00	7,106.42	13,435.37	7,237.06	179.83	181.31	93.69	1,285.84	-6,482.93	2,033.80	1,673.61	360.19	5.646		
13,300.00	7,105.99	13,535.37	7,236.64	182.64	184.12	93.69	1,284.18	-6,582.91	2,032.92	1,667.12	365.80	5.557		
13,400.00	7,105.55	13,635.37	7,236.22	185.45	186.92	93.69	1,282.52	-6,682.89	2,032.05	1,660.63	371.41	5.471		
13,500.00	7,105.12	13,735.36	7,235.80	188.27	189.73	93.69	1,280.87	-6,782.87	2,031.17	1,654.14	377.03	5.387		
13,600.00	7,104.68	13,835.36	7,235.38	191.09	192.54	93.69	1,279.21	-6,882.85	2,030.29	1,647.65	382.64	5.306		
13,700.00	7,104.25	13,935.35	7,234.96	193.91	195.35	93.70	1,277.55	-6,982.84	2,029.41	1,641.15	388.26	5.227		
13,800.00	7,103.82	14,035.35	7,234.54	196.73	198.16	93.70	1,275.89	-7,082.82	2,028.53	1,634.65	393.88	5.150		
13,900.00	7,103.38	14,135.35	7,234.12	199.55	200.98	93.70	1,274.23	-7,182.80	2,027.65	1,628.15	399.51	5.075		
14,000.00	7,102.95	14,235.34	7,233.70	202.37	203.79	93.70	1,272.57	-7,282.78	2,026.77	1,621.64	405.13	5.003		
14,100.00	7,102.51	14,335.34	7,233.28	205.19	206.61	93.70	1,270.91	-7,382.76	2,025.90	1,615.14	410.76	4.932		
14,200.00	7,102.08	14,435.34	7,232.86	208.02	209.42	93.71	1,269.26	-7,482.74	2,025.02	1,608.63	416.39	4.863		
14,300.00	7,101.65	14,535.33	7,232.44	210.84	212.24	93.71	1,267.60	-7,582.72	2,024.14	1,602.12	422.02	4.796		
14,400.00	7,101.21	14,635.33	7,232.02	213.67	215.06	93.71	1,265.94	-7,682.71	2,023.26	1,595.61	427.65	4.731		
14,500.00	7,100.78	14,735.32	7,231.60	216.50	217.88	93.71	1,264.28	-7,782.69	2,022.38	1,589.09	433.29	4.668		
14,600.00	7,100.35	14,835.32	7,231.18	219.32	220.70	93.71	1,262.62	-7,882.67	2,021.50	1,582.58	438.92	4.606		
14,700.00	7,099.91	14,935.32	7,230.76	222.15	223.52	93.72	1,260.96	-7,982.65	2,020.62	1,576.06	444.56	4.545		
14,800.00	7,099.48	15,035.31	7,230.34	224.98	226.34	93.72	1,259.30	-8,082.63	2,019.75	1,569.54	450.20	4.486		
14,898.63	7,099.05	15,116.21	7,230.00	227.77	228.63	93.72	1,257.96	-8,163.52	2,018.96	1,563.67	455.29	4.434		
14,900.00	7,099.04	15,116.21	7,230.00	227.81	228.63	93.72	1,257.96	-8,163.52	2,018.96	1,563.63	455.33	4.434		
14,909.96	7,099.00	15,116.21	7,230.00	228.09	228.63	93.72	1,257.96	-8,163.52	2,018.99	1,563.38	455.61	4.431 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	0.00	1.00	3.28	3.28	9.34	1,490.37	245.03	1,510.37					
100.00	100.00	108.20	109.20	3.28	3.29	9.34	1,490.02	245.09	1,510.07	1,503.50	6.57	229.723		
200.00	200.00	213.91	214.91	3.34	3.34	9.35	1,489.11	245.17	1,509.23	1,502.56	6.68	226.089		
300.00	300.00	316.90	317.89	3.44	3.45	9.35	1,487.99	245.08	1,508.14	1,501.24	6.90	218.703		
400.00	400.00	409.43	410.42	3.60	3.60	9.35	1,487.09	244.91	1,507.16	1,499.96	7.20	209.341		
500.00	500.00	505.05	506.04	3.81	3.79	9.34	1,486.65	244.51	1,506.63	1,499.04	7.59	198.469		
600.00	600.00	612.60	613.58	4.04	4.04	176.18	1,486.03	244.13	1,506.08	1,498.00	8.08	186.309		
605.65	605.65	618.73	619.70	4.06	4.06	176.18	1,485.98	244.12	1,506.07	1,497.96	8.11	185.641		
700.00	699.96	708.82	709.80	4.29	4.30	176.16	1,485.41	243.50	1,507.77	1,499.18	8.59	175.528		
800.00	799.78	808.36	809.33	4.57	4.59	176.13	1,484.99	242.43	1,513.10	1,503.94	9.16	165.194		
900.00	899.34	911.85	912.81	4.88	4.92	176.11	1,484.28	241.26	1,521.63	1,511.84	9.79	155.390		
1,000.00	998.72	999.30	1,000.25	5.20	5.21	176.09	1,483.92	240.04	1,532.08	1,521.68	10.40	147.301		
1,100.00	1,098.10	1,077.60	1,078.51	5.54	5.47	176.02	1,484.76	237.84	1,543.74	1,532.74	11.00	140.314		
1,200.00	1,197.49	1,158.42	1,159.22	5.90	5.75	175.90	1,486.87	234.13	1,556.64	1,545.01	11.63	133.843		
1,300.00	1,296.87	1,233.29	1,233.86	6.28	6.02	175.73	1,490.07	229.35	1,570.91	1,558.65	12.26	128.182		
1,400.00	1,396.25	1,318.56	1,318.67	6.66	6.33	175.46	1,495.08	222.11	1,586.44	1,573.50	12.94	122.621		
1,500.00	1,495.64	1,400.23	1,399.66	7.06	6.64	175.14	1,500.81	213.28	1,602.83	1,589.20	13.62	117.644		
1,600.00	1,595.02	1,485.14	1,483.65	7.46	6.98	174.77	1,507.84	202.99	1,620.32	1,605.98	14.34	112.978		
1,700.00	1,694.40	1,578.94	1,576.34	7.87	7.37	174.34	1,516.12	191.17	1,638.39	1,623.27	15.12	108.373		
1,800.00	1,793.79	1,689.36	1,685.44	8.29	7.85	173.85	1,525.69	177.15	1,656.41	1,640.41	15.99	103.571		
1,900.00	1,893.17	1,794.31	1,789.24	8.71	8.32	173.40	1,533.81	163.91	1,673.60	1,656.74	16.86	99.274		
2,000.00	1,992.55	1,912.58	1,906.31	9.13	8.86	172.93	1,542.25	149.48	1,690.35	1,672.54	17.80	94.938		
2,100.00	2,091.94	2,019.47	2,012.23	9.56	9.35	172.52	1,548.79	136.68	1,706.19	1,687.48	18.70	91.221		
2,200.00	2,191.32	2,101.42	2,093.44	9.99	9.73	172.22	1,554.04	127.01	1,722.38	1,702.90	19.48	88.419		
2,300.00	2,290.70	2,185.05	2,176.24	10.42	10.13	171.90	1,560.09	116.89	1,739.43	1,719.16	20.27	85.815		
2,400.00	2,390.09	2,287.60	2,277.73	10.86	10.62	171.52	1,567.89	104.44	1,756.92	1,735.75	21.17	82.997		
2,500.00	2,489.47	2,372.46	2,361.75	11.29	11.03	171.22	1,574.41	94.46	1,774.59	1,752.61	21.97	80.769		
2,600.00	2,588.86	2,474.13	2,462.42	11.73	11.52	170.88	1,582.59	82.84	1,792.68	1,769.81	22.87	78.380		
2,700.00	2,688.24	2,561.19	2,548.65	12.18	11.94	170.60	1,589.64	73.14	1,810.90	1,787.21	23.69	76.442		
2,800.00	2,787.62	2,671.89	2,658.28	12.62	12.48	170.26	1,598.71	60.76	1,829.28	1,804.63	24.65	74.210		
2,900.00	2,887.01	2,772.72	2,758.19	13.06	12.97	169.94	1,606.43	49.24	1,847.15	1,821.59	25.56	72.274		
3,000.00	2,986.39	2,864.55	2,849.05	13.51	13.43	169.64	1,613.58	38.24	1,865.18	1,838.76	26.42	70.605		
3,100.00	3,085.77	2,956.63	2,940.11	13.95	13.89	169.33	1,621.03	26.85	1,883.55	1,856.27	27.28	69.039		
3,200.00	3,185.16	3,070.35	3,052.65	14.40	14.47	168.97	1,629.81	13.08	1,901.60	1,873.32	28.28	67.237		
3,300.00	3,284.54	3,161.71	3,143.10	14.85	14.92	168.69	1,636.73	2.28	1,919.60	1,890.46	29.14	65.865		
3,400.00	3,383.92	3,267.80	3,248.05	15.30	15.46	168.36	1,644.94	-10.87	1,937.80	1,907.70	30.10	64.373		
3,500.00	3,483.31	3,393.74	3,372.86	15.75	16.09	167.99	1,652.91	-25.74	1,954.60	1,923.42	31.18	62.686		
3,600.00	3,582.69	3,492.81	3,471.14	16.20	16.58	167.73	1,658.67	-36.78	1,971.02	1,938.93	32.09	61.424		
3,700.00	3,682.07	3,575.90	3,553.67	16.65	16.99	167.54	1,663.70	-44.98	1,987.74	1,954.84	32.90	60.424		
3,800.00	3,781.46	3,655.15	3,632.33	17.10	17.38	167.37	1,669.34	-52.87	2,005.50	1,971.82	33.68	59.552		
3,900.00	3,880.84	3,746.38	3,722.83	17.56	17.83	167.17	1,676.47	-61.90	2,023.98	1,989.45	34.53	58.614		
4,000.00	3,980.22	3,841.32	3,817.03	18.01	18.30	166.97	1,683.80	-71.19	2,042.41	2,007.00	35.41	57.683		
4,100.00	4,079.61	3,918.11	3,893.20	18.46	18.68	166.82	1,690.40	-78.38	2,061.70	2,025.54	36.16	57.009		
4,200.00	4,178.99	4,015.90	3,990.12	18.92	19.16	166.62	1,699.19	-87.99	2,081.42	2,044.36	37.06	56.162		
4,300.00	4,278.38	4,102.75	4,076.08	19.37	19.61	166.42	1,707.25	-97.31	2,101.46	2,063.57	37.89	55.462		
4,400.00	4,377.76	4,194.23	4,166.59	19.83	20.07	166.21	1,716.12	-107.19	2,121.94	2,083.19	38.75	54.758		
4,500.00	4,477.14	4,336.77	4,307.82	20.28	20.79	165.91	1,728.40	-122.06	2,141.31	2,101.36	39.96	53.591		
4,600.00	4,576.53	4,456.54	4,426.66	20.74	21.39	165.67	1,737.08	-134.21	2,159.42	2,118.42	41.00	52.667		
4,700.00	4,675.91	4,611.75	4,580.98	21.19	22.14	165.41	1,745.54	-148.38	2,175.77	2,133.53	42.25	51.502		
4,800.00	4,775.29	4,741.48	4,710.15	21.65	22.75	165.22	1,749.93	-159.62	2,190.06	2,146.74	43.32	50.556		
4,900.00	4,874.68	4,864.68	4,832.94	22.10	23.31	165.06	1,752.65	-169.22	2,203.20	2,158.85	44.34	49.685		
5,000.00	4,974.06	4,963.99	4,932.06	22.56	23.75	164.98	1,754.43	-174.98	2,215.87	2,170.64	45.22	48.999		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,073.44	9,139.26	7,201.88	23.02	55.69	163.08	-507.78	-176.49	2,129.79	2,105.39	24.40	87.281	
5,200.00	5,172.83	9,150.90	7,201.67	23.47	55.90	162.84	-519.43	-176.49	2,030.20	2,005.66	24.54	82.723	
5,300.00	5,272.21	9,162.25	7,201.45	23.93	56.11	162.58	-530.78	-176.49	1,930.60	1,905.91	24.69	78.199	
5,400.00	5,371.59	9,173.32	7,201.22	24.39	56.31	162.30	-541.84	-176.48	1,830.98	1,806.14	24.84	73.710	
5,500.00	5,470.98	9,184.07	7,200.99	24.85	56.50	161.98	-552.59	-176.47	1,731.36	1,706.36	25.00	69.259	
5,600.00	5,570.36	9,194.57	7,200.75	25.30	56.69	161.62	-563.08	-176.45	1,631.73	1,606.56	25.16	64.849	
5,700.00	5,669.75	9,204.79	7,200.50	25.76	56.87	161.23	-573.31	-176.42	1,532.08	1,506.75	25.33	60.481	
5,800.00	5,769.13	9,214.75	7,200.26	26.22	57.05	160.78	-583.26	-176.38	1,432.43	1,406.92	25.51	56.157	
5,900.00	5,868.51	9,224.44	7,200.00	26.68	57.23	160.27	-592.95	-176.33	1,332.77	1,307.08	25.69	51.882	
6,000.00	5,967.90	9,231.15	7,199.83	27.14	57.35	159.86	-599.65	-176.30	1,233.11	1,207.23	25.88	47.649	
6,100.00	6,067.28	9,238.88	7,199.64	27.60	57.49	159.32	-607.38	-176.26	1,133.46	1,107.38	26.08	43.465	
6,200.00	6,166.66	9,246.69	7,199.44	28.05	57.63	158.67	-615.19	-176.23	1,033.81	1,007.53	26.28	39.332	
6,300.00	6,266.05	9,254.61	7,199.25	28.51	57.78	157.88	-623.10	-176.20	934.17	907.67	26.50	35.253	
6,400.00	6,365.43	9,262.62	7,199.05	28.97	57.92	156.91	-631.11	-176.18	834.53	807.81	26.72	31.230	
6,500.00	6,464.81	9,270.71	7,198.86	29.43	58.07	155.68	-639.20	-176.15	734.90	707.95	26.95	27.265	
6,600.00	6,564.10	9,278.89	7,198.67	29.89	58.22	172.38	-647.38	-176.12	635.29	608.11	27.19	23.368	
6,700.00	6,661.75	9,286.34	7,198.51	30.34	58.35	-176.95	-654.83	-176.09	536.94	509.47	27.47	19.545	
6,800.00	6,755.38	9,293.04	7,198.38	30.77	58.48	-176.25	-661.52	-176.04	443.77	414.83	28.94	15.333	
6,900.00	6,842.67	9,299.44	7,198.27	31.17	58.59	-176.28	-667.92	-175.96	362.99	327.84	35.16	10.325	
7,000.00	6,921.48	9,305.18	7,198.20	31.54	58.70	-176.41	-673.67	-175.87	307.27	257.32	49.94	6.152	
7,079.52	6,976.79	9,309.07	7,198.16	31.83	58.77	-176.56	-677.55	-175.79	291.94	226.24	65.71	4.443 CC	
7,100.00	6,989.86	9,309.95	7,198.15	31.91	58.79	-176.61	-678.43	-175.77	292.99	223.44	69.55	4.213 ES	
7,200.00	7,046.13	9,313.52	7,198.12	32.35	58.85	-176.94	-682.00	-175.69	326.03	242.86	83.17	3.920 SF	
7,300.00	7,088.91	9,315.85	7,198.10	32.98	58.89	-177.55	-684.33	-175.64	394.08	305.39	88.69	4.443	
7,400.00	7,117.14	9,316.91	7,198.09	33.84	58.91	-178.92	-685.39	-175.61	481.32	390.98	90.34	5.328	
7,500.00	7,130.13	9,316.63	7,198.10	34.90	58.91	176.51	-685.11	-175.62	577.52	486.79	90.74	6.365	
7,600.00	7,130.72	9,315.00	7,198.11	36.13	58.88	170.12	-683.48	-175.66	676.84	586.05	90.80	7.455	
7,700.00	7,130.29	9,315.00	7,198.11	37.54	58.88	170.12	-683.48	-175.66	776.44	685.58	90.86	8.546	
7,800.00	7,129.85	9,315.00	7,198.11	39.12	58.88	170.12	-683.48	-175.66	876.12	785.22	90.90	9.639	
7,900.00	7,129.42	9,315.00	7,198.11	40.83	58.88	170.12	-683.48	-175.66	975.87	884.94	90.93	10.732	
8,000.00	7,128.98	9,315.00	7,198.11	42.67	58.88	170.12	-683.48	-175.66	1,075.67	984.71	90.95	11.827	
8,100.00	7,128.55	9,315.00	7,198.11	44.62	58.88	170.12	-683.48	-175.66	1,175.50	1,084.52	90.98	12.921	
8,200.00	7,128.12	9,315.00	7,198.11	46.66	58.88	170.12	-683.48	-175.66	1,275.35	1,184.36	91.00	14.015	
8,300.00	7,127.68	9,315.00	7,198.11	48.79	58.88	170.12	-683.48	-175.66	1,375.23	1,284.22	91.02	15.110	
8,400.00	7,127.25	9,308.58	7,198.16	50.98	58.76	164.70	-677.06	-175.80	1,475.10	1,384.22	90.88	16.232	
8,500.00	7,126.81	9,307.97	7,198.17	53.24	58.75	164.21	-676.46	-175.81	1,575.00	1,484.12	90.89	17.330	
8,600.00	7,126.38	9,307.41	7,198.17	55.56	58.74	163.75	-675.89	-175.82	1,674.92	1,584.02	90.89	18.427	
8,700.00	7,125.95	9,306.88	7,198.18	57.92	58.73	163.31	-675.36	-175.83	1,774.84	1,683.94	90.90	19.524	
8,800.00	7,125.51	9,306.38	7,198.18	60.33	58.72	162.91	-674.86	-175.84	1,874.77	1,783.86	90.91	20.621	
8,900.00	7,125.08	9,305.91	7,198.19	62.77	58.71	162.53	-674.39	-175.85	1,974.71	1,883.78	90.93	21.717	
9,000.00	7,124.64	9,305.46	7,198.20	65.25	58.70	162.17	-673.94	-175.86	2,074.65	1,983.71	90.94	22.813	
9,100.00	7,124.21	9,305.04	7,198.20	67.76	58.70	161.83	-673.52	-175.87	2,174.60	2,083.64	90.96	23.908	
9,200.00	7,123.78	9,304.64	7,198.21	70.29	58.69	161.51	-673.12	-175.88	2,274.56	2,183.58	90.98	25.002	
9,300.00	7,123.34	9,304.26	7,198.21	72.85	58.68	161.21	-672.74	-175.88	2,374.51	2,283.52	90.99	26.095	
9,400.00	7,122.91	9,303.90	7,198.21	75.43	58.68	160.93	-672.38	-175.89	2,474.47	2,383.46	91.01	27.188	
9,500.00	7,122.48	9,303.55	7,198.22	78.03	58.67	160.66	-672.04	-175.89	2,574.44	2,483.40	91.04	28.279	
9,600.00	7,122.04	9,303.23	7,198.22	80.65	58.66	160.40	-671.71	-175.90	2,674.40	2,583.34	91.06	29.370	
9,700.00	7,121.61	9,302.91	7,198.23	83.28	58.66	160.15	-671.40	-175.90	2,774.37	2,683.29	91.08	30.459	
9,800.00	7,121.17	9,302.62	7,198.23	85.93	58.65	159.92	-671.10	-175.91	2,874.34	2,783.23	91.11	31.548	
9,900.00	7,120.74	9,302.33	7,198.23	88.59	58.65	159.70	-670.81	-175.91	2,974.31	2,883.17	91.14	32.635	
10,000.00	7,120.31	9,302.06	7,198.24	91.26	58.64	159.49	-670.54	-175.92	3,074.29	2,983.12	91.17	33.721	
10,100.00	7,119.87	9,301.80	7,198.24	93.95	58.64	159.29	-670.28	-175.92	3,174.26	3,083.06	91.20	34.806	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,119.44	9,301.55	7,198.24	96.64	58.63	159.09	-670.03	-175.93	3,274.24	3,183.01	91.23	35.890		
10,300.00	7,119.00	9,301.31	7,198.25	99.34	58.63	158.91	-669.79	-175.93	3,374.22	3,282.96	91.26	36.973		
10,400.00	7,118.57	9,301.07	7,198.25	102.05	58.62	158.73	-669.56	-175.93	3,474.20	3,382.90	91.30	38.054		
10,500.00	7,118.14	9,300.85	7,198.25	104.77	58.62	158.56	-669.34	-175.94	3,574.18	3,482.85	91.33	39.134		
10,600.00	7,117.70	9,300.64	7,198.26	107.50	58.62	158.40	-669.12	-175.94	3,674.16	3,582.79	91.37	40.213		
10,700.00	7,117.27	9,300.43	7,198.26	110.23	58.61	158.24	-668.92	-175.94	3,774.14	3,682.74	91.41	41.290		
10,800.00	7,116.83	9,300.24	7,198.26	112.97	58.61	158.09	-668.72	-175.95	3,874.13	3,782.68	91.45	42.365		
10,900.00	7,116.40	9,300.05	7,198.27	115.72	58.61	157.95	-668.53	-175.95	3,974.11	3,882.62	91.49	43.440		
11,000.00	7,115.97	9,299.86	7,198.27	118.47	58.60	157.81	-668.35	-175.95	4,074.10	3,982.57	91.53	44.512		
11,100.00	7,115.53	9,299.68	7,198.27	121.22	58.60	157.67	-668.17	-175.95	4,174.08	4,082.51	91.57	45.584		
11,200.00	7,115.10	9,299.51	7,198.27	123.98	58.60	157.54	-668.00	-175.96	4,274.07	4,182.45	91.61	46.653		
11,300.00	7,114.66	9,299.35	7,198.28	126.74	58.59	157.42	-667.83	-175.96	4,374.05	4,282.40	91.66	47.721		
11,400.00	7,114.23	9,299.19	7,198.28	129.51	58.59	157.30	-667.67	-175.96	4,474.04	4,382.34	91.70	48.788		
11,500.00	7,113.80	9,299.03	7,198.28	132.29	58.59	157.18	-667.52	-175.96	4,574.03	4,482.28	91.75	49.852		
11,600.00	7,113.36	9,298.88	7,198.28	135.06	58.58	157.07	-667.36	-175.97	4,674.02	4,582.22	91.80	50.915		
11,700.00	7,112.93	9,298.74	7,198.28	137.84	58.58	156.96	-667.22	-175.97	4,774.01	4,682.16	91.85	51.976		
11,800.00	7,112.49	9,298.59	7,198.29	140.62	58.58	156.86	-667.08	-175.97	4,874.00	4,782.10	91.90	53.036		
11,900.00	7,112.06	9,298.46	7,198.29	143.41	58.58	156.76	-666.94	-175.97	4,973.99	4,882.03	91.95	54.093		
12,000.00	7,111.63	9,298.33	7,198.29	146.20	58.57	156.66	-666.81	-175.97	5,073.98	4,981.97	92.00	55.149		
12,100.00	7,111.19	9,298.20	7,198.29	148.99	58.57	156.56	-666.68	-175.98	5,173.97	5,081.91	92.06	56.203		
12,200.00	7,110.76	9,298.07	7,198.29	151.78	58.57	156.47	-666.56	-175.98	5,273.96	5,181.84	92.11	57.255		
12,300.00	7,110.33	9,297.95	7,198.30	154.58	58.57	156.38	-666.44	-175.98	5,373.95	5,281.78	92.17	58.305		
12,400.00	7,109.89	9,297.83	7,198.30	157.37	58.56	156.29	-666.32	-175.98	5,473.94	5,381.71	92.23	59.354		
12,500.00	7,109.46	9,297.72	7,198.30	160.17	58.56	156.21	-666.20	-175.98	5,573.93	5,481.65	92.28	60.400		
12,600.00	7,109.02	9,297.61	7,198.30	162.98	58.56	156.13	-666.09	-175.98	5,673.92	5,581.58	92.34	61.444		
12,700.00	7,108.59	9,297.50	7,198.30	165.78	58.56	156.05	-665.98	-175.98	5,773.92	5,681.51	92.40	62.486		
12,800.00	7,108.16	9,297.39	7,198.31	168.59	58.56	155.97	-665.88	-175.99	5,873.91	5,781.45	92.46	63.527		
12,900.00	7,107.72	9,297.29	7,198.31	171.39	58.56	155.90	-665.78	-175.99	5,973.90	5,881.38	92.53	64.565		
13,000.00	7,107.29	9,297.19	7,198.31	174.20	58.55	155.82	-665.68	-175.99	6,073.90	5,981.31	92.59	65.601		
13,100.00	7,106.85	9,297.09	7,198.31	177.01	58.55	155.75	-665.58	-175.99	6,173.89	6,081.24	92.65	66.635		
13,200.00	7,106.42	9,297.00	7,198.31	179.83	58.55	155.68	-665.48	-175.99	6,273.88	6,181.16	92.72	67.667		
13,300.00	7,105.99	9,296.91	7,198.31	182.64	58.55	155.61	-665.39	-175.99	6,373.88	6,281.09	92.78	68.696		
13,400.00	7,105.55	9,296.82	7,198.31	185.45	58.55	155.55	-665.30	-175.99	6,473.87	6,381.02	92.85	69.724		
13,500.00	7,105.12	9,296.73	7,198.32	188.27	58.54	155.48	-665.21	-175.99	6,573.86	6,480.95	92.92	70.749		
13,600.00	7,104.68	9,296.64	7,198.32	191.09	58.54	155.42	-665.13	-176.00	6,673.86	6,580.87	92.99	71.772		
13,700.00	7,104.25	9,296.56	7,198.32	193.91	58.54	155.36	-665.04	-176.00	6,773.85	6,680.80	93.06	72.793		
13,800.00	7,103.82	9,296.48	7,198.32	196.73	58.54	155.30	-664.96	-176.00	6,873.85	6,780.72	93.13	73.812		
13,900.00	7,103.38	9,296.40	7,198.32	199.55	58.54	155.24	-664.88	-176.00	6,973.84	6,880.64	93.20	74.828		
14,000.00	7,102.95	9,296.32	7,198.32	202.37	58.54	155.19	-664.80	-176.00	7,073.84	6,980.57	93.27	75.842		
14,100.00	7,102.51	9,296.24	7,198.32	205.19	58.54	155.13	-664.73	-176.00	7,173.83	7,080.49	93.34	76.853		
14,200.00	7,102.08	9,296.17	7,198.32	208.02	58.53	155.08	-664.65	-176.00	7,273.83	7,180.41	93.42	77.863		
14,300.00	7,101.65	9,296.10	7,198.33	210.84	58.53	155.03	-664.58	-176.00	7,373.82	7,280.33	93.49	78.870		
14,400.00	7,101.21	9,296.02	7,198.33	213.67	58.53	154.97	-664.51	-176.00	7,473.82	7,380.25	93.57	79.874		
14,500.00	7,100.78	9,295.96	7,198.33	216.50	58.53	154.92	-664.44	-176.00	7,573.81	7,480.17	93.65	80.876		
14,600.00	7,100.35	9,295.89	7,198.33	219.32	58.53	154.88	-664.37	-176.00	7,673.81	7,580.08	93.72	81.876		
14,700.00	7,099.91	9,295.80	7,198.33	222.15	58.29	146.35	-651.49	-176.10	7,773.87	7,680.33	93.54	83.109		
14,800.00	7,099.48	9,295.71	7,198.33	224.98	58.29	146.35	-651.49	-176.10	7,873.86	7,780.24	93.62	84.105		
14,900.00	7,099.04	9,295.62	7,198.33	227.81	58.29	146.35	-651.49	-176.10	7,973.86	7,880.16	93.70	85.099		
14,909.96	7,099.00	9,295.53	7,198.33	228.09	58.29	146.35	-651.49	-176.10	7,983.82	7,890.11	93.71	85.198		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	0.00	1.00	3.28	3.28	10.49	1,491.82	276.17	1,517.17				
100.00	100.00	102.48	103.48	3.28	3.29	10.50	1,491.67	276.37	1,517.06	1,510.49	6.57	230.822	
200.00	200.00	210.04	211.04	3.34	3.33	10.52	1,491.11	276.88	1,516.64	1,509.96	6.67	227.313	
300.00	300.00	313.85	314.84	3.44	3.44	10.52	1,490.18	276.72	1,515.73	1,508.84	6.89	220.029	
400.00	400.00	417.26	418.24	3.60	3.60	10.49	1,489.22	275.75	1,514.65	1,507.44	7.21	210.150	
500.00	500.00	521.58	522.55	3.81	3.82	10.50	1,487.80	275.73	1,513.30	1,505.68	7.62	198.547	
600.00	600.00	613.83	614.79	4.04	4.04	177.36	1,486.66	275.96	1,512.20	1,504.12	8.08	187.151	
608.40	608.40	622.41	623.37	4.06	4.06	177.37	1,486.57	275.99	1,512.18	1,504.06	8.12	186.185	
700.00	699.96	716.92	717.87	4.29	4.32	177.39	1,485.46	276.47	1,513.58	1,504.97	8.61	175.858	
800.00	799.78	820.15	821.09	4.57	4.63	177.43	1,483.89	277.11	1,518.13	1,508.93	9.19	165.146	
900.00	899.34	915.91	916.84	4.88	4.93	177.48	1,482.52	277.85	1,526.27	1,516.47	9.80	155.674	
1,000.00	998.72	1,009.00	1,009.91	5.20	5.24	177.55	1,481.35	278.99	1,536.35	1,525.91	10.43	147.239	
1,100.00	1,098.10	1,100.80	1,101.70	5.54	5.56	177.60	1,480.80	279.90	1,547.02	1,535.93	11.09	139.522	
1,200.00	1,197.49	1,199.19	1,200.10	5.90	5.91	177.64	1,480.49	280.59	1,557.91	1,546.12	11.79	132.144	
1,300.00	1,296.87	1,300.48	1,301.38	6.28	6.28	177.69	1,480.13	281.34	1,568.79	1,556.26	12.52	125.254	
1,400.00	1,396.25	1,396.90	1,397.80	6.66	6.64	177.73	1,479.75	281.88	1,579.58	1,566.32	13.26	119.128	
1,500.00	1,495.64	1,492.26	1,493.16	7.06	7.00	177.77	1,479.72	282.53	1,590.76	1,576.76	14.00	113.609	
1,600.00	1,595.02	1,591.07	1,591.97	7.46	7.38	177.81	1,479.74	283.24	1,602.00	1,587.23	14.77	108.463	
1,700.00	1,694.40	1,691.71	1,692.60	7.87	7.77	177.85	1,479.78	284.04	1,613.26	1,597.70	15.56	103.695	
1,800.00	1,793.79	1,797.94	1,798.83	8.29	8.19	177.89	1,479.58	284.70	1,624.28	1,607.89	16.38	99.150	
1,900.00	1,893.17	1,889.27	1,890.16	8.71	8.55	177.92	1,479.32	285.11	1,635.18	1,618.04	17.14	95.391	
2,000.00	1,992.55	1,974.30	1,975.18	9.13	8.87	177.90	1,479.99	284.41	1,646.86	1,628.99	17.87	92.169	
2,100.00	2,091.94	2,054.82	2,055.67	9.56	9.18	177.85	1,481.55	282.93	1,659.50	1,640.93	18.57	89.343	
2,200.00	2,191.32	2,130.81	2,131.59	9.99	9.47	177.78	1,484.13	280.99	1,673.41	1,654.14	19.26	86.868	
2,300.00	2,290.70	2,204.07	2,204.74	10.42	9.75	177.70	1,487.77	278.89	1,688.79	1,668.85	19.94	84.691	
2,400.00	2,390.09	2,288.38	2,288.85	10.86	10.08	177.60	1,492.96	276.50	1,705.33	1,684.65	20.67	82.492	
2,500.00	2,489.47	2,372.46	2,372.70	11.29	10.41	177.50	1,498.82	274.27	1,722.70	1,701.29	21.41	80.476	
2,600.00	2,588.86	2,460.67	2,460.59	11.73	10.77	177.39	1,505.67	271.72	1,740.81	1,718.64	22.16	78.542	
2,700.00	2,688.24	2,545.56	2,545.13	12.18	11.11	177.26	1,512.87	268.71	1,759.52	1,736.61	22.91	76.809	
2,800.00	2,787.62	2,629.68	2,628.83	12.62	11.46	177.13	1,520.72	265.72	1,779.04	1,755.39	23.65	75.226	
2,900.00	2,887.01	2,712.24	2,710.91	13.06	11.80	177.00	1,529.08	262.63	1,799.33	1,774.95	24.38	73.793	
3,000.00	2,986.39	2,796.76	2,794.82	13.51	12.16	176.84	1,538.55	258.98	1,820.54	1,795.41	25.13	72.444	
3,100.00	3,085.77	2,903.53	2,900.77	13.95	12.62	176.64	1,550.66	253.88	1,841.87	1,815.85	26.01	70.803	
3,200.00	3,185.16	3,012.24	3,008.73	14.40	13.09	176.43	1,562.19	248.51	1,862.45	1,835.53	26.91	69.199	
3,300.00	3,284.54	3,112.98	3,108.75	14.85	13.53	176.22	1,572.75	242.79	1,882.83	1,855.06	27.77	67.797	
3,400.00	3,383.92	3,222.37	3,217.40	15.30	14.02	176.00	1,583.84	236.59	1,902.91	1,874.22	28.69	66.338	
3,500.00	3,483.31	3,317.59	3,312.06	15.75	14.44	175.84	1,592.99	231.84	1,922.59	1,893.07	29.52	65.138	
3,600.00	3,582.69	3,407.24	3,401.18	16.20	14.84	175.70	1,601.90	227.77	1,942.67	1,912.36	30.31	64.086	
3,700.00	3,682.07	3,499.39	3,492.74	16.65	15.25	175.55	1,611.42	223.56	1,963.13	1,932.00	31.13	63.065	
3,800.00	3,781.46	3,597.68	3,590.39	17.10	15.70	175.41	1,621.69	219.28	1,983.76	1,951.77	31.98	62.023	
3,900.00	3,880.84	3,700.45	3,692.50	17.56	16.17	175.25	1,632.30	214.41	2,004.22	1,971.35	32.87	60.973	
4,000.00	3,980.22	3,805.03	3,796.41	18.01	16.64	175.07	1,642.86	208.94	2,024.41	1,990.64	33.77	59.945	
4,100.00	4,079.61	3,886.41	3,877.23	18.46	17.02	174.93	1,651.22	204.43	2,044.77	2,010.24	34.53	59.223	
4,200.00	4,178.99	3,974.23	3,964.32	18.92	17.43	174.76	1,661.07	198.86	2,065.92	2,030.59	35.32	58.485	
4,300.00	4,278.38	4,061.19	4,050.50	19.37	17.84	174.59	1,671.14	193.13	2,087.43	2,051.32	36.12	57.796	
4,400.00	4,377.76	4,153.87	4,142.30	19.83	18.28	174.41	1,682.35	187.14	2,109.48	2,072.53	36.95	57.091	
4,500.00	4,477.14	4,262.90	4,250.41	20.28	18.79	174.23	1,695.19	181.07	2,131.35	2,093.46	37.89	56.246	
4,600.00	4,576.53	4,375.30	4,361.95	20.74	19.32	174.05	1,707.62	174.93	2,152.55	2,113.69	38.86	55.393	
4,700.00	4,675.91	4,470.42	4,456.42	21.19	19.77	173.93	1,717.75	170.47	2,173.45	2,133.74	39.71	54.734	
4,800.00	4,775.29	4,568.35	4,553.72	21.65	20.23	173.82	1,728.18	166.72	2,194.47	2,153.90	40.58	54.082	
4,900.00	4,874.68	4,677.13	4,661.84	22.10	20.74	173.72	1,739.50	162.87	2,215.29	2,173.77	41.52	53.359	
5,000.00	4,974.06	4,833.46	4,817.51	22.56	21.46	173.60	1,752.96	158.00	2,234.33	2,191.57	42.76	52.258	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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						
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
5,100.00	5,073.44	9,231.00	7,232.58	23.02	55.82	-135.73	-526.65	112.98	2,171.34	2,145.02	26.32	82.488	
5,200.00	5,172.83	9,231.00	7,232.58	23.47	55.82	-135.73	-526.65	112.98	2,072.56	2,045.94	26.61	77.882	
5,300.00	5,272.21	9,231.00	7,232.58	23.93	55.82	-135.73	-526.65	112.98	1,973.89	1,946.95	26.94	73.265	
5,400.00	5,371.59	9,231.00	7,232.58	24.39	55.82	-135.73	-526.65	112.98	1,875.37	1,848.05	27.32	68.646	
5,500.00	5,470.98	9,243.17	7,232.47	24.85	56.04	-134.00	-538.78	112.07	1,776.90	1,749.12	27.79	63.947	
5,600.00	5,570.36	9,247.59	7,232.46	25.30	56.11	-133.36	-543.19	111.75	1,678.64	1,650.36	28.29	59.346	
5,700.00	5,669.75	9,252.32	7,232.47	25.76	56.20	-132.66	-547.90	111.41	1,580.57	1,551.72	28.85	54.780	
5,800.00	5,769.13	9,262.00	7,232.53	26.22	56.37	-131.18	-557.56	110.74	1,482.74	1,453.23	29.51	50.244	
5,900.00	5,868.51	9,262.00	7,232.53	26.68	56.37	-131.18	-557.56	110.74	1,385.13	1,354.88	30.25	45.786	
6,000.00	5,967.90	9,272.54	7,232.65	27.14	56.56	-129.52	-568.08	110.02	1,287.84	1,256.72	31.13	41.374	
6,100.00	6,067.28	9,282.12	7,232.79	27.60	56.73	-127.96	-577.63	109.38	1,190.90	1,158.75	32.15	37.043	
6,200.00	6,166.66	9,292.03	7,232.95	28.05	56.91	-126.29	-587.52	108.72	1,094.40	1,061.04	33.36	32.803	
6,300.00	6,266.05	9,302.99	7,233.14	28.51	57.11	-124.39	-598.46	108.00	998.46	963.64	34.83	28.669	
6,400.00	6,365.43	9,314.25	7,233.36	28.97	57.31	-122.38	-609.69	107.29	903.24	866.62	36.63	24.661	
6,500.00	6,464.81	9,325.81	7,233.59	29.43	57.52	-120.24	-621.23	106.57	809.00	770.12	38.88	20.806	
6,600.00	6,564.10	9,338.98	7,233.86	29.89	57.76	-118.83	-634.37	105.79	716.88	674.96	41.92	17.101	
6,700.00	6,661.75	9,352.46	7,234.11	30.34	58.00	-116.89	-647.83	105.05	634.13	587.10	47.03	13.485	
6,800.00	6,755.38	9,364.15	7,234.32	30.77	58.21	-114.33	-659.50	104.45	568.16	513.31	54.85	10.359	
6,900.00	6,842.67	9,374.57	7,234.52	31.17	58.40	-112.48	-669.91	104.01	527.24	462.37	64.87	8.128	
6,975.55	6,903.10	9,381.90	7,234.66	31.45	58.54	-113.26	-677.24	103.74	517.42	444.76	72.66	7.121 CC	
7,000.00	6,921.48	9,384.14	7,234.71	31.54	58.58	-113.43	-679.48	103.67	518.46	443.46	75.00	6.912 ES	
7,100.00	6,989.86	9,392.69	7,234.88	31.91	58.73	-113.82	-688.02	103.42	543.64	460.86	82.78	6.567 SF	
7,200.00	7,046.13	9,400.04	7,235.04	32.35	58.87	-113.89	-695.36	103.25	598.00	510.58	87.42	6.841	
7,300.00	7,088.91	9,405.82	7,235.17	32.98	58.98	-113.72	-701.14	103.14	673.45	583.75	89.71	7.507	
7,400.00	7,117.14	9,409.99	7,235.27	33.84	59.05	-113.28	-705.31	103.07	762.26	671.56	90.71	8.404	
7,500.00	7,130.13	9,412.59	7,235.33	34.90	59.10	-112.12	-707.91	103.04	858.51	767.41	91.10	9.424	
7,600.00	7,130.72	9,413.98	7,235.36	36.13	59.13	-110.53	-709.30	103.02	957.74	866.50	91.24	10.497	
7,700.00	7,130.29	9,415.19	7,235.39	37.54	59.15	-109.87	-710.51	103.01	1,057.22	965.88	91.34	11.575	
7,800.00	7,129.85	9,420.00	7,235.51	39.12	59.24	-107.25	-715.32	102.96	1,156.80	1,065.30	91.50	12.643	
7,900.00	7,129.42	9,420.00	7,235.51	40.83	59.24	-107.25	-715.32	102.96	1,256.44	1,164.89	91.55	13.725	
8,000.00	7,128.98	9,420.00	7,235.51	42.67	59.24	-107.25	-715.32	102.96	1,356.12	1,264.54	91.59	14.807	
8,100.00	7,128.55	9,420.00	7,235.51	44.62	59.24	-107.25	-715.32	102.96	1,455.85	1,364.23	91.62	15.890	
8,200.00	7,128.12	9,420.17	7,235.51	46.66	59.24	-107.16	-715.48	102.95	1,555.62	1,463.96	91.65	16.973	
8,300.00	7,127.68	9,421.57	7,235.55	48.79	59.27	-106.41	-716.89	102.94	1,655.41	1,563.70	91.71	18.050	
8,400.00	7,127.25	9,422.96	7,235.58	50.98	59.29	-105.67	-718.27	102.93	1,755.22	1,663.45	91.77	19.126	
8,500.00	7,126.81	9,424.31	7,235.61	53.24	59.32	-104.96	-719.62	102.92	1,855.06	1,763.23	91.83	20.201	
8,600.00	7,126.38	9,425.64	7,235.64	55.56	59.34	-104.26	-720.95	102.91	1,954.91	1,863.02	91.88	21.276	
8,700.00	7,125.95	9,426.95	7,235.67	57.92	59.37	-103.58	-722.26	102.90	2,054.77	1,962.83	91.94	22.349	
8,800.00	7,125.51	9,428.23	7,235.70	60.33	59.39	-102.91	-723.54	102.89	2,154.64	2,062.65	91.99	23.421	
8,900.00	7,125.08	9,429.49	7,235.73	62.77	59.41	-102.27	-724.80	102.88	2,254.53	2,162.48	92.05	24.493	
9,000.00	7,124.64	9,430.72	7,235.76	65.25	59.44	-101.64	-726.03	102.87	2,354.42	2,262.32	92.10	25.563	
9,100.00	7,124.21	9,431.94	7,235.79	67.76	59.46	-101.03	-727.25	102.86	2,454.33	2,362.17	92.16	26.632	
9,200.00	7,123.78	9,433.13	7,235.81	70.29	59.48	-100.43	-728.44	102.85	2,554.23	2,462.02	92.21	27.699	
9,300.00	7,123.34	9,434.30	7,235.84	72.85	59.50	-100.84	-729.61	102.84	2,654.15	2,561.88	92.27	28.765	
9,400.00	7,122.91	9,435.45	7,235.86	75.43	59.52	-100.28	-730.76	102.83	2,754.07	2,661.75	92.32	29.830	
9,500.00	7,122.48	9,436.58	7,235.88	78.03	59.54	-100.72	-731.89	102.83	2,853.99	2,761.61	92.38	30.894	
9,600.00	7,122.04	9,437.69	7,235.91	80.65	59.57	-100.18	-733.00	102.82	2,953.92	2,861.49	92.44	31.956	
9,700.00	7,121.61	9,438.79	7,235.93	83.28	59.59	-100.65	-734.10	102.81	3,053.86	2,961.37	92.49	33.017	
9,800.00	7,121.17	9,439.86	7,235.95	85.93	59.61	-100.14	-735.17	102.81	3,153.80	3,061.25	92.55	34.076	
9,900.00	7,120.74	9,440.92	7,235.97	88.59	59.62	-100.64	-736.23	102.80	3,253.74	3,161.13	92.61	35.134	
10,000.00	7,120.31	9,441.96	7,235.99	91.26	59.64	-100.15	-737.27	102.79	3,353.68	3,261.01	92.67	36.190	
10,100.00	7,119.87	9,442.98	7,236.01	93.95	59.66	-100.67	-738.29	102.79	3,453.63	3,360.90	92.73	37.245	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,119.44	9,443.99	7,236.03	96.64	59.68	-155.20	-739.29	102.78	3,553.58	3,460.79	92.79	38.298		
10,300.00	7,119.00	9,444.98	7,236.05	99.34	59.70	-154.75	-740.28	102.77	3,653.53	3,560.68	92.85	39.350		
10,400.00	7,118.57	9,445.95	7,236.07	102.05	59.72	-154.30	-741.26	102.77	3,753.48	3,660.58	92.91	40.400		
10,500.00	7,118.14	9,446.91	7,236.09	104.77	59.74	-153.87	-742.22	102.76	3,853.44	3,760.47	92.97	41.448		
10,600.00	7,117.70	9,447.85	7,236.10	107.50	59.75	-153.44	-743.16	102.76	3,953.40	3,860.37	93.03	42.495		
10,700.00	7,117.27	10,700.00	7,236.31	110.23	82.98	-145.70	-761.74	102.59	4,053.33	3,936.96	116.37	34.831		
10,800.00	7,116.83	10,800.00	7,236.32	112.97	84.84	-145.05	-763.48	102.58	4,153.29	4,035.01	118.28	35.115		
10,900.00	7,116.40	10,900.00	7,236.34	115.72	86.69	-144.40	-765.21	102.56	4,253.24	4,133.06	120.19	35.389		
11,000.00	7,115.97	11,000.00	7,236.36	118.47	88.55	-143.76	-766.94	102.54	4,353.20	4,231.11	122.09	35.655		
11,100.00	7,115.53	11,100.00	7,236.37	121.22	90.40	-143.14	-768.67	102.53	4,453.16	4,329.15	124.00	35.912		
11,200.00	7,115.10	11,200.00	7,236.39	123.98	92.26	-142.52	-770.40	102.51	4,553.12	4,427.20	125.91	36.161		
11,300.00	7,114.66	11,300.00	7,236.41	126.74	94.12	-141.92	-772.13	102.49	4,653.08	4,525.25	127.83	36.402		
11,400.00	7,114.23	11,400.00	7,236.42	129.51	95.97	-141.32	-773.87	102.48	4,753.04	4,623.30	129.74	36.636		
11,500.00	7,113.80	11,500.00	7,236.44	132.29	97.83	-140.73	-775.60	102.46	4,853.00	4,721.35	131.65	36.862		
11,600.00	7,113.36	11,600.00	7,236.46	135.06	99.69	-140.16	-777.33	102.44	4,952.97	4,819.40	133.57	37.082		
11,700.00	7,112.93	11,700.00	7,236.47	137.84	101.54	-139.59	-779.06	102.43	5,052.93	4,917.45	135.48	37.296		
11,800.00	7,112.49	11,800.00	7,236.49	140.62	103.40	-139.04	-780.79	102.41	5,152.90	5,015.50	137.40	37.503		
11,900.00	7,112.06	9,483.00	7,236.47	143.41	60.40	-139.84	-778.30	102.43	5,252.87	5,158.41	94.46	55.611		
12,000.00	7,111.63	9,483.00	7,236.47	146.20	60.40	-139.84	-778.30	102.43	5,352.83	5,258.32	94.51	56.637		
12,100.00	7,111.19	9,483.00	7,236.47	148.99	60.40	-139.84	-778.30	102.43	5,452.80	5,358.24	94.57	57.660		
12,200.00	7,110.76	9,483.00	7,236.47	151.78	60.40	-139.84	-778.30	102.43	5,552.77	5,458.15	94.62	58.682		
12,300.00	7,110.33	9,483.00	7,236.47	154.58	60.40	-139.84	-778.30	102.43	5,652.75	5,558.06	94.68	59.702		
12,400.00	7,109.89	9,483.00	7,236.47	157.37	60.40	-139.84	-778.30	102.43	5,752.72	5,657.98	94.74	60.720		
12,500.00	7,109.46	9,483.00	7,236.47	160.17	60.40	-139.84	-778.30	102.43	5,852.69	5,757.89	94.80	61.737		
12,600.00	7,109.02	9,483.00	7,236.47	162.98	60.40	-139.84	-778.30	102.43	5,952.67	5,857.81	94.86	62.751		
12,700.00	7,108.59	9,483.00	7,236.47	165.78	60.40	-139.84	-778.30	102.43	6,052.64	5,957.72	94.92	63.764		
12,800.00	7,108.16	9,483.00	7,236.47	168.59	60.40	-139.84	-778.30	102.43	6,152.62	6,057.63	94.99	64.774		
12,900.00	7,107.72	9,483.00	7,236.47	171.39	60.40	-139.84	-778.30	102.43	6,252.60	6,157.55	95.05	65.783		
13,000.00	7,107.29	9,483.00	7,236.47	174.20	60.40	-139.84	-778.30	102.43	6,352.57	6,257.46	95.11	66.790		
13,100.00	7,106.85	9,483.00	7,236.47	177.01	60.40	-139.84	-778.30	102.43	6,452.55	6,357.37	95.18	67.794		
13,200.00	7,106.42	9,483.00	7,236.47	179.83	60.40	-139.84	-778.30	102.43	6,552.53	6,457.29	95.24	68.797		
13,300.00	7,105.99	9,483.00	7,236.47	182.64	60.40	-139.84	-778.30	102.43	6,652.51	6,557.20	95.31	69.798		
13,400.00	7,105.55	9,483.00	7,236.47	185.45	60.40	-139.84	-778.30	102.43	6,752.49	6,657.11	95.38	70.796		
13,500.00	7,105.12	9,495.28	7,236.49	188.27	60.63	-136.04	-790.59	102.31	6,852.42	6,756.68	95.73	71.579		
13,600.00	7,104.68	9,495.56	7,236.49	191.09	60.64	-135.95	-790.86	102.31	6,952.40	6,856.59	95.81	72.566		
13,700.00	7,104.25	9,495.83	7,236.49	193.91	60.64	-135.88	-791.13	102.30	7,052.38	6,956.49	95.89	73.550		
13,800.00	7,103.82	9,496.09	7,236.49	196.73	60.65	-135.80	-791.40	102.30	7,152.36	7,056.39	95.96	74.533		
13,900.00	7,103.38	9,496.35	7,236.49	199.55	60.65	-135.73	-791.66	102.30	7,252.34	7,156.29	96.04	75.513		
14,000.00	7,102.95	9,496.61	7,236.49	202.37	60.66	-135.65	-791.91	102.30	7,352.32	7,256.20	96.12	76.491		
14,100.00	7,102.51	9,496.85	7,236.50	205.19	60.66	-135.58	-792.16	102.30	7,452.30	7,356.10	96.20	77.467		
14,200.00	7,102.08	9,497.10	7,236.50	208.02	60.67	-135.51	-792.40	102.30	7,552.28	7,456.00	96.28	78.441		
14,300.00	7,101.65	9,497.33	7,236.50	210.84	60.67	-135.44	-792.64	102.29	7,652.26	7,555.90	96.36	79.412		
14,400.00	7,101.21	9,497.56	7,236.50	213.67	60.68	-135.38	-792.87	102.29	7,752.25	7,655.80	96.44	80.381		
14,500.00	7,100.78	9,497.79	7,236.50	216.50	60.68	-135.31	-793.09	102.29	7,852.23	7,755.70	96.53	81.348		
14,600.00	7,100.35	9,498.01	7,236.50	219.32	60.68	-135.25	-793.32	102.29	7,952.21	7,855.60	96.61	82.313		
14,700.00	7,099.91	9,498.23	7,236.50	222.15	60.69	-135.19	-793.53	102.29	8,052.20	7,955.50	96.69	83.276		
14,800.00	7,099.48	9,498.44	7,236.50	224.98	60.69	-135.13	-793.75	102.29	8,152.18	8,055.40	96.78	84.236		
14,900.00	7,099.04	9,498.65	7,236.50	227.81	60.70	-135.07	-793.96	102.29	8,252.17	8,155.30	96.86	85.194		
14,909.96	7,099.00	9,498.67	7,236.50	228.09	60.70	-135.06	-793.98	102.29	8,262.13	8,165.26	96.87	85.289		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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	1.00	3.28	3.28	11.54	1,487.45	303.71	1,518.14					
100.00	100.00	78.79	79.78	3.28	3.29	11.56	1,487.86	304.33	1,518.80	1,512.23	6.57	231.169		
200.00	200.00	162.99	163.95	3.34	3.31	11.62	1,489.17	306.33	1,520.78	1,514.14	6.64	228.885		
300.00	300.00	280.65	281.54	3.44	3.41	11.74	1,490.77	309.89	1,522.75	1,515.90	6.85	222.240		
400.00	400.00	374.37	375.22	3.60	3.54	11.84	1,491.04	312.67	1,523.68	1,516.53	7.14	213.295		
500.00	500.00	470.09	470.91	3.81	3.72	11.86	1,493.17	313.55	1,526.02	1,518.50	7.52	202.892		
600.00	600.00	592.63	593.44	4.04	3.99	178.70	1,494.38	313.50	1,526.99	1,518.96	8.03	190.094		
700.00	699.96	682.34	683.15	4.29	4.23	178.70	1,494.93	313.84	1,530.12	1,521.60	8.52	179.667		
800.00	799.78	773.74	774.54	4.57	4.49	178.72	1,496.08	314.56	1,537.44	1,528.38	9.06	169.703		
900.00	899.34	885.02	885.81	4.88	4.83	178.75	1,497.44	315.42	1,548.20	1,538.49	9.71	159.401		
1,000.00	998.72	980.35	981.13	5.20	5.15	178.77	1,498.34	315.94	1,560.32	1,549.97	10.35	150.813		
1,100.00	1,098.10	1,067.64	1,068.42	5.54	5.45	178.78	1,499.60	316.43	1,572.92	1,561.94	10.98	143.225		
1,200.00	1,197.49	1,167.77	1,168.52	5.90	5.80	178.80	1,501.44	316.90	1,585.89	1,574.20	11.69	135.686		
1,300.00	1,296.87	1,274.80	1,275.54	6.28	6.19	178.78	1,503.15	316.55	1,598.45	1,586.01	12.44	128.504		
1,400.00	1,396.25	1,372.07	1,372.79	6.66	6.55	178.75	1,504.74	315.79	1,610.96	1,597.79	13.17	122.315		
1,500.00	1,495.64	1,466.59	1,467.30	7.06	6.91	178.72	1,506.26	315.08	1,623.46	1,609.56	13.91	116.731		
1,600.00	1,595.02	1,543.10	1,543.78	7.46	7.20	178.75	1,507.96	316.05	1,636.96	1,622.38	14.58	112.237		
1,700.00	1,694.40	1,617.00	1,617.59	7.87	7.49	178.83	1,510.35	318.61	1,651.90	1,636.64	15.26	108.257		
1,800.00	1,793.79	1,699.87	1,700.27	8.29	7.83	178.96	1,513.78	323.17	1,668.12	1,652.15	15.98	104.397		
1,900.00	1,893.17	1,777.46	1,777.55	8.71	8.14	179.14	1,517.39	328.98	1,685.31	1,668.63	16.68	101.038		
2,000.00	1,992.55	1,850.82	1,850.51	9.13	8.45	179.33	1,521.66	335.43	1,703.91	1,686.55	17.36	98.126		
2,100.00	2,091.94	1,924.83	1,924.02	9.56	8.77	179.51	1,527.04	342.13	1,723.98	1,705.92	18.05	95.490		
2,200.00	2,191.32	2,015.00	2,013.49	9.99	9.16	179.74	1,534.30	350.64	1,744.91	1,726.08	18.83	92.662		
2,300.00	2,290.70	2,105.01	2,102.82	10.42	9.55	179.94	1,542.11	358.37	1,766.29	1,746.68	19.61	90.063		
2,400.00	2,390.09	2,202.41	2,199.50	10.86	9.98	-179.87	1,550.89	366.33	1,787.90	1,767.47	20.44	87.483		
2,500.00	2,489.47	2,306.78	2,303.01	11.29	10.45	-179.63	1,559.79	376.29	1,809.40	1,788.09	21.31	84.910		
2,600.00	2,588.86	2,427.75	2,423.08	11.73	11.00	-179.34	1,568.70	387.91	1,829.78	1,807.50	22.28	82.122		
2,700.00	2,688.24	2,518.54	2,513.27	12.18	11.42	-179.14	1,575.27	396.09	1,849.98	1,826.89	23.09	80.129		
2,800.00	2,787.62	2,603.59	2,597.70	12.62	11.81	-178.95	1,581.85	403.94	1,870.73	1,846.86	23.86	78.394		
2,900.00	2,887.01	2,686.07	2,679.50	13.06	12.20	-178.77	1,588.83	411.92	1,892.30	1,867.67	24.63	76.844		
3,000.00	2,986.39	2,805.28	2,797.67	13.51	12.76	-178.49	1,598.62	424.24	1,913.85	1,888.24	25.61	74.727		
3,100.00	3,085.77	2,928.43	2,919.78	13.95	13.34	-178.15	1,606.31	438.11	1,933.73	1,907.11	26.62	72.630		
3,200.00	3,185.16	3,034.71	3,025.34	14.40	13.84	-177.91	1,612.72	448.61	1,953.14	1,925.60	27.54	70.927		
3,300.00	3,284.54	3,123.79	3,113.93	14.85	14.26	-177.75	1,618.29	456.19	1,972.44	1,944.09	28.35	69.575		
3,400.00	3,383.92	3,206.47	3,196.04	15.30	14.65	-177.58	1,623.81	464.19	1,992.45	1,963.32	29.13	68.408		
3,500.00	3,483.31	3,324.83	3,313.57	15.75	15.21	-177.34	1,632.04	475.48	2,012.78	1,982.67	30.12	66.831		
3,600.00	3,582.69	3,422.65	3,410.87	16.20	15.67	-177.18	1,638.18	483.49	2,032.07	2,001.08	30.98	65.584		
3,700.00	3,682.07	3,516.19	3,503.86	16.65	16.11	-177.02	1,644.18	491.62	2,051.63	2,019.80	31.83	64.461		
3,800.00	3,781.46	3,605.14	3,592.25	17.10	16.53	-176.86	1,650.09	499.57	2,071.49	2,038.85	32.64	63.458		
3,900.00	3,880.84	3,702.92	3,689.40	17.56	17.00	-176.70	1,656.88	508.35	2,091.66	2,058.14	33.52	62.408		
4,000.00	3,980.22	3,804.54	3,790.30	18.01	17.49	-176.50	1,663.47	518.47	2,111.70	2,077.28	34.42	61.358		
4,100.00	4,079.61	3,876.55	3,861.73	18.46	17.84	-176.34	1,668.25	526.25	2,132.18	2,097.05	35.13	60.691		
4,200.00	4,178.99	3,953.60	3,937.97	18.92	18.23	-176.16	1,674.07	535.74	2,153.93	2,118.05	35.88	60.034		
4,300.00	4,278.38	4,038.85	4,022.25	19.37	18.66	-175.95	1,680.91	546.56	2,176.30	2,139.62	36.68	59.333		
4,400.00	4,377.76	4,128.70	4,111.10	19.83	19.11	-175.76	1,688.93	557.30	2,199.29	2,161.78	37.51	58.633		
4,500.00	4,477.14	4,262.29	4,243.49	20.28	19.77	-175.55	1,700.79	570.51	2,221.72	2,183.09	38.63	57.512		
4,600.00	4,576.53	4,367.49	4,348.04	20.74	20.28	-175.44	1,709.47	578.47	2,242.79	2,203.24	39.55	56.706		
4,700.00	4,675.91	4,466.74	4,446.69	21.19	20.75	-175.36	1,717.89	585.28	2,263.91	2,223.48	40.43	55.995		
4,800.00	4,775.29	4,554.79	4,534.20	21.65	21.17	-175.29	1,725.41	591.49	2,285.13	2,243.90	41.24	55.414		
4,900.00	4,874.68	4,660.05	4,638.78	22.10	21.68	-175.20	1,734.52	599.20	2,306.56	2,264.40	42.16	54.711		
5,000.00	4,974.06	4,743.76	4,728.37	22.56	56.04	-112.65	-554.90	658.38	2,288.37	2,253.62	34.75	65.855		
5,100.00	5,073.44	4,914.00	4,898.29	23.02	56.09	-112.50	-557.14	658.33	2,195.50	2,159.76	35.74	61.433		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	9,146.00	7,128.29	23.47	56.09	-112.50	-557.14	658.33	2,103.28	2,066.47	36.81	57.134		
5,300.00	5,272.21	9,146.00	7,128.29	23.93	56.09	-112.50	-557.14	658.33	2,011.81	1,973.80	38.00	52.938		
5,400.00	5,371.59	9,155.41	7,127.98	24.39	56.26	-111.86	-566.54	658.17	1,921.12	1,881.72	39.39	48.766		
5,500.00	5,470.98	9,158.24	7,127.90	24.85	56.31	-111.67	-569.37	658.13	1,831.42	1,790.54	40.88	44.799		
5,600.00	5,570.36	9,161.21	7,127.82	25.30	56.36	-111.47	-572.35	658.10	1,742.83	1,700.30	42.53	40.978		
5,700.00	5,669.75	9,164.35	7,127.74	25.76	56.42	-111.25	-575.48	658.08	1,655.53	1,611.17	44.37	37.316		
5,800.00	5,769.13	9,167.65	7,127.66	26.22	56.48	-111.03	-578.78	658.06	1,569.73	1,523.32	46.41	33.825		
5,900.00	5,868.51	9,178.00	7,127.48	26.68	56.66	-110.32	-589.13	658.05	1,485.72	1,436.98	48.74	30.486		
6,000.00	5,967.90	9,178.00	7,127.48	27.14	56.66	-110.32	-589.13	658.05	1,403.71	1,352.48	51.23	27.398		
6,100.00	6,067.28	9,178.00	7,127.48	27.60	56.66	-110.32	-589.13	658.05	1,324.18	1,270.17	54.01	24.518		
6,200.00	6,166.66	9,184.67	7,127.40	28.05	56.79	-109.86	-595.80	658.08	1,247.57	1,190.43	57.13	21.836		
6,300.00	6,266.05	9,190.68	7,127.34	28.51	56.90	-109.45	-601.81	658.12	1,174.43	1,113.87	60.56	19.393		
6,400.00	6,365.43	9,197.03	7,127.30	28.97	57.01	-109.01	-608.16	658.17	1,105.45	1,041.16	64.29	17.195		
6,500.00	6,464.81	9,203.75	7,127.27	29.43	57.13	-108.55	-614.87	658.24	1,041.45	973.17	68.28	15.252		
6,600.00	6,564.10	9,212.37	7,127.26	29.89	57.29	-138.09	-623.50	658.34	985.06	912.53	72.53	13.582		
6,700.00	6,661.75	9,225.56	7,127.27	30.34	57.53	-160.38	-636.69	658.46	948.49	871.40	77.08	12.305		
6,795.36	6,751.16	9,238.01	7,127.29	30.75	57.76	-167.14	-649.13	658.54	936.66	855.44	81.22	11.532 CC		
6,800.00	6,755.38	9,238.61	7,127.29	30.77	57.77	-167.34	-649.73	658.54	936.69	855.28	81.41	11.506 ES		
6,900.00	6,842.67	9,251.12	7,127.31	31.17	58.00	-170.29	-662.25	658.57	950.88	865.91	84.97	11.191 SF		
7,000.00	6,921.48	9,262.77	7,127.32	31.54	58.22	-171.67	-673.90	658.58	989.65	902.13	87.52	11.308		
7,100.00	6,989.86	9,273.41	7,127.32	31.91	58.41	-172.25	-684.53	658.55	1,049.41	960.28	89.13	11.774		
7,200.00	7,046.13	9,283.24	7,127.34	32.35	58.59	-172.21	-694.36	658.50	1,125.53	1,035.48	90.05	12.499		
7,300.00	7,088.91	9,292.17	7,127.38	32.98	58.76	-171.43	-703.29	658.43	1,213.27	1,122.72	90.55	13.399		
7,400.00	7,117.14	9,299.68	7,127.44	33.84	58.90	-168.96	-710.81	658.36	1,308.41	1,217.59	90.82	14.406		
7,500.00	7,130.13	9,305.22	7,127.49	34.90	59.00	-152.52	-716.34	658.30	1,407.36	1,316.40	90.97	15.471		
7,600.00	7,130.72	9,308.90	7,127.53	36.13	59.07	-72.99	-720.03	658.25	1,507.32	1,416.27	91.05	16.555		
7,700.00	7,130.29	9,312.74	7,127.57	37.54	59.14	-74.79	-723.87	658.20	1,607.30	1,516.16	91.13	17.637		
7,800.00	7,129.85	9,317.00	7,127.62	39.12	59.21	-76.42	-728.12	658.13	1,707.27	1,616.04	91.23	18.714		
7,900.00	7,129.42	9,321.75	7,127.67	40.83	59.30	-77.88	-732.87	658.06	1,807.24	1,715.91	91.33	19.787		
8,000.00	7,128.98	9,327.07	7,127.73	42.67	59.40	-79.21	-738.19	657.96	1,907.21	1,815.76	91.45	20.855		
8,100.00	7,128.55	9,333.08	7,127.80	44.62	59.51	-80.41	-744.20	657.85	2,007.17	1,915.59	91.58	21.917		
8,200.00	7,128.12	9,339.92	7,127.89	46.66	59.64	-81.52	-751.03	657.70	2,107.13	2,015.40	91.73	22.971		
8,300.00	7,127.68	9,344.60	7,127.94	48.79	59.72	-82.14	-755.71	657.60	2,207.08	2,115.24	91.85	24.030		
8,400.00	7,127.25	9,350.74	7,128.02	50.98	59.84	-82.85	-761.85	657.45	2,307.03	2,215.04	91.99	25.080		
8,500.00	7,126.81	9,357.45	7,128.10	53.24	59.96	-83.50	-768.56	657.29	2,406.98	2,314.83	92.14	26.122		
8,600.00	7,126.38	9,364.80	7,128.19	55.56	60.10	-84.10	-775.91	657.09	2,506.92	2,414.60	92.32	27.156		
8,700.00	7,125.95	9,372.90	7,128.29	57.92	60.25	-84.65	-784.00	656.87	2,606.85	2,514.35	92.50	28.181		
8,800.00	7,125.51	9,373.68	7,128.30	60.33	60.26	-84.70	-784.78	656.85	2,706.79	2,614.24	92.55	29.246		
8,900.00	7,125.08	9,377.24	7,128.34	62.77	60.33	-84.91	-788.34	656.75	2,806.73	2,714.07	92.66	30.291		
9,000.00	7,124.64	9,380.80	7,128.38	65.25	60.39	-85.11	-791.90	656.65	2,906.66	2,813.90	92.76	31.334		
9,100.00	7,124.21	9,384.37	7,128.42	67.76	60.46	-85.29	-795.47	656.55	3,006.60	2,913.73	92.87	32.374		
9,200.00	7,123.78	9,387.93	7,128.46	70.29	60.52	-85.47	-799.03	656.45	3,106.53	3,013.55	92.98	33.411		
9,300.00	7,123.34	9,391.49	7,128.50	72.85	60.59	-85.63	-802.59	656.35	3,206.47	3,113.38	93.09	34.445		
9,400.00	7,122.91	9,395.06	7,128.54	75.43	60.66	-85.78	-806.15	656.25	3,306.41	3,213.21	93.20	35.476		
9,500.00	7,122.48	9,398.62	7,128.58	78.03	60.72	-85.92	-809.71	656.15	3,406.34	3,313.03	93.31	36.504		
9,600.00	7,122.04	9,402.19	7,128.62	80.65	60.79	-86.05	-813.28	656.05	3,506.28	3,412.85	93.43	37.529		
9,700.00	7,121.61	9,404.13	7,128.63	83.28	60.82	-86.12	-815.22	656.00	3,606.22	3,512.71	93.51	38.565		
9,800.00	7,121.17	9,406.64	7,128.66	85.93	60.87	-86.20	-817.73	655.93	3,706.15	3,612.55	93.61	39.593		
9,900.00	7,120.74	9,409.12	7,128.68	88.59	60.92	-86.28	-820.20	655.86	3,806.09	3,712.39	93.70	40.620		
10,000.00	7,120.31	9,411.55	7,128.69	91.26	60.96	-86.36	-822.64	655.80	3,906.03	3,812.24	93.80	41.644		
10,100.00	7,119.87	9,413.95	7,128.71	93.95	61.01	-86.43	-825.03	655.73	4,005.97	3,912.08	93.89	42.666		
10,200.00	7,119.44	9,416.31	7,128.72	96.64	61.05	-86.49	-827.40	655.67	4,105.92	4,011.93	93.99	43.686		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,119.00	9,418.64	7,128.73	99.34	61.09	-86.56	-829.72	655.61	4,205.86	4,111.78	94.08	44.703		
10,400.00	7,118.57	9,420.93	7,128.74	102.05	61.14	-86.62	-832.01	655.55	4,305.80	4,211.62	94.18	45.719		
10,500.00	7,118.14	9,558.00	7,128.43	104.77	63.69	-88.21	-968.94	649.96	4,405.69	4,308.37	97.32	45.271		
10,600.00	7,117.70	9,571.72	7,128.28	107.50	63.94	-88.26	-982.63	649.06	4,505.36	4,407.66	97.70	46.114		
10,700.00	7,117.27	9,572.76	7,128.28	110.23	63.96	-88.27	-983.67	649.00	4,605.15	4,507.37	97.79	47.094		
10,800.00	7,116.83	9,573.76	7,128.27	112.97	63.98	-88.27	-984.67	648.95	4,704.95	4,607.08	97.87	48.072		
10,900.00	7,116.40	9,574.73	7,128.26	115.72	64.00	-88.28	-985.63	648.89	4,804.76	4,706.80	97.96	49.049		
11,000.00	7,115.97	9,575.66	7,128.26	118.47	64.01	-88.28	-986.57	648.84	4,904.57	4,806.53	98.04	50.025		
11,100.00	7,115.53	9,576.56	7,128.25	121.22	64.03	-88.28	-987.47	648.80	5,004.39	4,906.26	98.13	50.999		
11,200.00	7,115.10	9,590.00	7,128.21	123.98	64.28	-88.35	-1,000.89	648.20	5,104.32	5,005.80	98.52	51.812		
11,300.00	7,114.66	9,590.00	7,128.21	126.74	64.28	-88.35	-1,000.89	648.20	5,204.13	5,105.55	98.58	52.791		
11,400.00	7,114.23	9,590.00	7,128.21	129.51	64.28	-88.35	-1,000.89	648.20	5,303.95	5,205.31	98.64	53.768		
11,500.00	7,113.80	9,590.00	7,128.21	132.29	64.28	-88.35	-1,000.89	648.20	5,403.78	5,305.07	98.71	54.745		
11,600.00	7,113.36	9,590.00	7,128.21	135.06	64.28	-88.35	-1,000.89	648.20	5,503.62	5,404.85	98.77	55.719		
11,700.00	7,112.93	9,590.00	7,128.21	137.84	64.28	-88.35	-1,000.89	648.20	5,603.46	5,504.62	98.84	56.693		
11,800.00	7,112.49	9,590.00	7,128.21	140.62	64.28	-88.35	-1,000.89	648.20	5,703.31	5,604.40	98.90	57.665		
11,900.00	7,112.06	9,590.00	7,128.21	143.41	64.28	-88.35	-1,000.89	648.20	5,803.16	5,704.19	98.97	58.635		
12,000.00	7,111.63	9,590.00	7,128.21	146.20	64.28	-88.35	-1,000.89	648.20	5,903.02	5,803.98	99.04	59.604		
12,100.00	7,111.19	9,590.00	7,128.21	148.99	64.28	-88.35	-1,000.89	648.20	6,002.88	5,903.77	99.10	60.572		
12,200.00	7,110.76	9,590.00	7,128.21	151.78	64.28	-88.35	-1,000.89	648.20	6,102.75	6,003.57	99.17	61.537		
12,300.00	7,110.33	9,590.00	7,128.21	154.58	64.28	-88.35	-1,000.89	648.20	6,202.62	6,103.38	99.24	62.502		
12,400.00	7,109.89	9,590.00	7,128.21	157.37	64.28	-88.35	-1,000.89	648.20	6,302.49	6,203.18	99.31	63.464		
12,500.00	7,109.46	9,590.00	7,128.21	160.17	64.28	-88.35	-1,000.89	648.20	6,402.37	6,302.99	99.38	64.425		
12,600.00	7,109.02	9,590.00	7,128.21	162.98	64.28	-88.35	-1,000.89	648.20	6,502.25	6,402.81	99.45	65.385		
12,700.00	7,108.59	9,590.00	7,128.21	165.78	64.28	-88.35	-1,000.89	648.20	6,602.14	6,502.62	99.52	66.342		
12,800.00	7,108.16	9,590.00	7,128.21	168.59	64.28	-88.35	-1,000.89	648.20	6,702.03	6,602.44	99.59	67.298		
12,900.00	7,107.72	9,590.00	7,128.21	171.39	64.28	-88.35	-1,000.89	648.20	6,801.92	6,702.26	99.66	68.253		
13,000.00	7,107.29	9,590.00	7,128.21	174.20	64.28	-88.35	-1,000.89	648.20	6,901.82	6,802.09	99.73	69.205		
13,100.00	7,106.85	9,590.00	7,128.21	177.01	64.28	-88.35	-1,000.89	648.20	7,001.71	6,901.91	99.80	70.156		
13,200.00	7,106.42	9,590.00	7,128.21	179.83	64.28	-88.35	-1,000.89	648.20	7,101.62	7,001.74	99.87	71.105		
13,300.00	7,105.99	9,590.00	7,128.21	182.64	64.28	-88.35	-1,000.89	648.20	7,201.52	7,101.57	99.95	72.052		
13,400.00	7,105.55	9,590.00	7,128.21	185.45	64.28	-88.35	-1,000.89	648.20	7,301.43	7,201.41	100.02	72.998		
13,500.00	7,105.12	9,590.00	7,128.21	188.27	64.28	-88.35	-1,000.89	648.20	7,401.34	7,301.24	100.10	73.941		
13,600.00	7,104.68	9,590.00	7,128.21	191.09	64.28	-88.35	-1,000.89	648.20	7,501.25	7,401.08	100.17	74.883		
13,700.00	7,104.25	9,590.00	7,128.21	193.91	64.28	-88.35	-1,000.89	648.20	7,601.16	7,500.91	100.25	75.823		
13,800.00	7,103.82	9,590.00	7,128.21	196.73	64.28	-88.35	-1,000.89	648.20	7,701.08	7,600.75	100.33	76.761		
13,900.00	7,103.38	9,590.00	7,128.21	199.55	64.28	-88.35	-1,000.89	648.20	7,801.00	7,700.60	100.40	77.697		
14,000.00	7,102.95	9,590.00	7,128.21	202.37	64.28	-88.35	-1,000.89	648.20	7,900.92	7,800.44	100.48	78.631		
14,100.00	7,102.51	9,590.00	7,128.21	205.19	64.28	-88.35	-1,000.89	648.20	8,000.84	7,900.28	100.56	79.563		
14,200.00	7,102.08	9,590.00	7,128.21	208.02	64.28	-88.35	-1,000.89	648.20	8,100.77	8,000.13	100.64	80.494		
14,300.00	7,101.65	9,590.00	7,128.21	210.84	64.28	-88.35	-1,000.89	648.20	8,200.69	8,099.97	100.72	81.422		
14,400.00	7,101.21	9,590.00	7,128.21	213.67	64.28	-88.35	-1,000.89	648.20	8,300.62	8,199.82	100.80	82.348		
14,500.00	7,100.78	9,590.00	7,128.21	216.50	64.28	-88.35	-1,000.89	648.20	8,400.55	8,299.67	100.88	83.272		
14,600.00	7,100.35	9,590.00	7,128.21	219.32	64.28	-88.35	-1,000.89	648.20	8,500.48	8,399.52	100.96	84.195		
14,700.00	7,099.91	9,590.00	7,128.21	222.15	64.28	-88.35	-1,000.89	648.20	8,600.42	8,499.37	101.04	85.115		
14,800.00	7,099.48	9,590.00	7,128.21	224.98	64.28	-88.35	-1,000.89	648.20	8,700.35	8,599.22	101.13	86.033		
14,900.00	7,099.04	9,590.00	7,128.21	227.81	64.28	-88.35	-1,000.89	648.20	8,800.29	8,699.07	101.21	86.949		
14,909.96	7,099.00	9,590.00	7,128.21	228.09	64.28	-88.35	-1,000.89	648.20	8,810.24	8,709.02	101.22	87.040		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	11.80	2.80	3.28	3.28	48.79	1,483.86	1,694.31	2,252.23					
100.00	100.00	142.86	133.86	3.28	3.29	48.77	1,483.76	1,692.98	2,251.41	2,244.83	6.58	342.278		
200.00	200.00	256.65	247.60	3.34	3.37	48.71	1,484.00	1,690.01	2,249.59	2,242.88	6.71	335.295		
300.00	300.00	359.43	350.30	3.44	3.51	48.63	1,484.98	1,685.97	2,247.27	2,240.32	6.95	323.363		
400.00	400.00	448.43	439.20	3.60	3.66	48.53	1,486.77	1,682.13	2,245.35	2,238.08	7.26	309.078		
500.00	500.00	547.24	537.87	3.81	3.88	48.40	1,489.27	1,677.62	2,243.61	2,235.92	7.68	292.036		
600.00	600.00	643.93	634.39	4.04	4.13	-144.90	1,492.42	1,672.74	2,242.06	2,233.89	8.17	274.494		
632.27	632.26	675.36	665.75	4.12	4.22	-144.95	1,493.57	1,671.08	2,241.90	2,233.57	8.33	269.053		
700.00	699.96	738.06	728.30	4.29	4.40	-145.08	1,496.05	1,667.68	2,242.62	2,233.94	8.69	258.171		
800.00	799.78	838.36	828.35	4.57	4.72	-145.31	1,500.60	1,662.03	2,246.35	2,237.07	9.28	242.036		
900.00	899.34	933.63	923.37	4.88	5.05	-145.54	1,504.78	1,656.51	2,252.79	2,242.88	9.91	227.359		
1,000.00	998.72	1,020.76	1,010.24	5.20	5.36	-145.84	1,509.24	1,651.52	2,261.22	2,250.67	10.54	214.481		
1,100.00	1,098.10	1,288.62	1,274.79	5.54	6.49	-147.25	1,530.13	1,616.59	2,266.32	2,254.32	11.99	188.940		
1,200.00	1,197.49	1,401.32	1,385.36	5.90	7.03	-147.91	1,538.03	1,596.26	2,267.53	2,254.66	12.88	176.085		
1,300.00	1,296.87	1,491.24	1,473.50	6.28	7.48	-148.46	1,544.47	1,579.64	2,268.82	2,255.13	13.68	165.793		
1,400.00	1,396.25	1,676.16	1,654.62	6.66	8.44	-149.55	1,555.28	1,544.13	2,269.10	2,254.12	14.98	151.485		
1,500.00	1,495.64	1,788.06	1,764.22	7.06	9.04	-150.18	1,558.85	1,521.83	2,267.12	2,251.19	15.93	142.299		
1,600.00	1,595.02	1,867.61	1,842.19	7.46	9.47	-150.61	1,560.89	1,506.21	2,265.14	2,248.40	16.74	135.325		
1,682.27	1,676.78	1,921.60	1,895.25	7.80	9.76	-150.90	1,562.51	1,496.35	2,264.65	2,247.29	17.35	130.514		
1,700.00	1,694.40	1,934.36	1,907.80	7.87	9.83	-150.96	1,562.93	1,494.11	2,264.67	2,247.19	17.49	129.492		
1,800.00	1,793.79	2,011.00	1,983.31	8.29	10.23	-151.35	1,565.60	1,481.26	2,265.60	2,247.31	18.29	123.873		
1,900.00	1,893.17	2,068.08	2,039.65	8.71	10.52	-151.63	1,568.01	1,472.38	2,268.02	2,249.03	19.00	119.399		
2,000.00	1,992.55	2,140.83	2,111.52	9.13	10.90	-151.99	1,571.91	1,461.83	2,272.12	2,252.34	19.78	114.859		
2,100.00	2,091.94	2,229.45	2,199.02	9.56	11.36	-152.44	1,577.33	1,448.86	2,276.93	2,256.27	20.66	110.227		
2,200.00	2,191.32	2,311.44	2,279.90	9.99	11.79	-152.87	1,583.10	1,436.75	2,282.51	2,261.00	21.51	106.129		
2,300.00	2,290.70	2,395.03	2,362.31	10.42	12.24	-153.32	1,589.74	1,424.37	2,288.93	2,266.55	22.37	102.306		
2,400.00	2,390.09	2,499.45	2,465.36	10.86	12.79	-153.86	1,597.63	1,409.51	2,295.61	2,272.26	23.35	98.305		
2,500.00	2,489.47	2,584.54	2,549.46	11.29	13.23	-154.28	1,603.69	1,398.12	2,302.67	2,278.45	24.22	95.073		
2,600.00	2,588.86	2,684.95	2,648.80	11.73	13.75	-154.76	1,610.65	1,385.27	2,310.11	2,284.94	25.17	91.788		
2,700.00	2,688.24	2,803.43	2,766.02	12.18	14.36	-155.31	1,618.54	1,369.86	2,317.40	2,291.18	26.22	88.388		
2,800.00	2,787.62	2,946.42	2,906.92	12.62	15.14	-156.05	1,627.93	1,347.46	2,323.10	2,295.67	27.43	84.689		
2,900.00	2,887.01	3,043.13	3,002.02	13.06	15.68	-156.57	1,634.14	1,331.05	2,328.17	2,299.76	28.40	81.971		
3,000.00	2,986.39	3,145.42	3,102.80	13.51	16.25	-157.10	1,640.07	1,314.56	2,333.44	2,304.04	29.40	79.372		
3,100.00	3,085.77	3,239.31	3,195.29	13.95	16.77	-157.57	1,645.49	1,299.38	2,338.84	2,308.49	30.35	77.059		
3,200.00	3,185.16	3,332.60	3,287.39	14.40	17.27	-158.02	1,650.33	1,285.36	2,344.61	2,313.32	31.29	74.940		
3,300.00	3,284.54	3,459.52	3,413.06	14.85	17.92	-158.55	1,654.49	1,268.12	2,349.76	2,317.38	32.37	72.584		
3,400.00	3,383.92	3,535.97	3,488.86	15.30	18.31	-158.85	1,656.63	1,258.35	2,355.14	2,321.94	33.20	70.946		
3,500.00	3,483.31	3,611.14	3,563.40	15.75	18.69	-159.14	1,659.39	1,249.06	2,361.58	2,327.57	34.01	69.437		
3,600.00	3,582.69	3,688.84	3,640.38	16.20	19.09	-159.47	1,663.30	1,239.20	2,369.07	2,334.22	34.84	67.989		
3,700.00	3,682.07	3,779.32	3,729.85	16.65	19.57	-159.87	1,669.05	1,227.06	2,377.36	2,341.60	35.76	66.476		
3,800.00	3,781.46	3,881.99	3,831.03	17.10	20.13	-160.38	1,676.76	1,211.41	2,385.79	2,349.01	36.77	64.877		
3,900.00	3,880.84	4,001.38	3,948.40	17.56	20.81	-161.01	1,686.01	1,191.62	2,393.89	2,355.99	37.90	63.156		
4,000.00	3,980.22	4,133.10	4,077.78	18.01	21.57	-161.70	1,695.02	1,168.60	2,400.98	2,361.86	39.12	61.381		
4,100.00	4,079.61	4,240.44	4,183.16	18.46	22.19	-162.26	1,701.32	1,149.19	2,407.12	2,366.95	40.17	59.917		
4,200.00	4,178.99	4,326.38	4,267.75	18.92	22.67	-162.68	1,705.97	1,134.74	2,413.72	2,372.63	41.10	58.729		
4,300.00	4,278.38	4,413.54	4,353.76	19.37	23.16	-163.08	1,710.40	1,121.36	2,420.95	2,378.93	42.02	57.609		
4,400.00	4,377.76	4,502.56	4,441.70	19.83	23.64	-163.47	1,714.98	1,108.30	2,428.71	2,385.77	42.94	56.555		
4,500.00	4,477.14	4,590.75	4,528.86	20.28	24.11	-163.84	1,719.68	1,095.73	2,436.98	2,393.12	43.86	55.566		
4,600.00	4,576.53	4,674.93	4,612.14	20.74	24.55	-164.19	1,724.28	1,084.38	2,445.86	2,401.12	44.74	54.674		
4,700.00	4,675.91	4,759.25	4,695.66	21.19	24.99	-164.52	1,728.99	1,073.82	2,455.42	2,409.80	45.61	53.833		
4,800.00	4,775.29	4,835.14	4,770.93	21.65	25.37	-164.80	1,733.40	1,065.15	2,465.79	2,419.37	46.42	53.118		
4,900.00	4,874.68	4,917.33	4,852.55	22.10	25.78	-165.08	1,738.41	1,056.82	2,477.08	2,429.82	47.26	52.419		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,000.00	4,974.06	5,009.12	4,943.80	22.56	26.22	-165.37	1,743.93	1,048.53	2,488.90	2,440.77	48.14	51.706		
5,100.00	5,073.44	9,179.18	7,241.53	23.02	55.45	-116.32	-438.24	967.84	2,421.45	2,376.30	45.15	53.630		
5,200.00	5,172.83	9,187.00	7,241.50	23.47	55.58	-115.95	-446.06	968.15	2,334.22	2,287.70	46.51	50.183		
5,300.00	5,272.21	9,194.78	7,241.48	23.93	55.72	-115.57	-453.84	968.47	2,248.00	2,200.03	47.97	46.859		
5,400.00	5,371.59	9,203.14	7,241.45	24.39	55.86	-115.17	-462.18	968.82	2,162.94	2,113.39	49.55	43.656		
5,500.00	5,470.98	9,211.48	7,241.42	24.85	56.01	-114.76	-470.52	969.20	2,079.16	2,027.93	51.23	40.585		
5,600.00	5,570.36	9,220.24	7,241.39	25.30	56.16	-114.33	-479.27	969.60	1,996.84	1,943.80	53.04	37.649		
5,700.00	5,669.75	9,232.90	7,241.34	25.76	56.38	-113.72	-489.92	970.18	1,916.14	1,861.10	55.03	34.817		
5,800.00	5,769.13	9,245.58	7,241.30	26.22	56.60	-113.09	-504.58	970.74	1,837.26	1,780.10	57.17	32.139		
5,900.00	5,868.51	9,258.00	7,240.86	26.68	56.82	-110.43	-519.71	971.25	1,760.32	1,707.92	59.40	29.592		
6,000.00	5,967.90	9,269.88	7,240.36	27.14	57.09	-108.93	-534.85	971.73	1,685.58	1,622.74	61.84	26.824		
6,100.00	6,067.28	9,279.61	7,240.12	27.60	57.30	-108.35	-549.58	972.18	1,613.47	1,548.05	64.42	24.663		
6,200.00	6,166.66	9,288.63	7,239.94	28.05	57.44	-107.95	-563.60	972.61	1,544.41	1,476.34	67.07	22.688		
6,300.00	6,266.05	9,296.41	7,239.80	28.51	57.56	-107.61	-577.37	972.64	1,478.85	1,408.04	70.82	20.883		
6,400.00	6,365.43	9,303.42	7,239.66	28.97	57.69	-107.26	-590.38	972.67	1,417.28	1,343.63	73.65	19.243		
6,500.00	6,464.81	9,310.68	7,239.53	29.43	57.82	-106.90	-602.64	972.70	1,360.24	1,283.70	76.54	17.772		
6,600.00	6,564.10	9,317.49	7,239.40	29.89	57.96	-136.73	-614.45	972.74	1,310.03	1,230.58	79.45	16.489		
6,700.00	6,661.75	9,323.89	7,239.25	30.34	58.12	-159.52	-625.85	972.79	1,278.55	1,196.14	82.42	15.513		
6,787.71	6,744.17	9,395.77	7,239.12	30.71	59.27	-166.30	-634.73	972.83	1,269.55	1,184.71	84.84	14.964 CC		
6,800.00	6,755.38	9,396.84	7,239.10	30.77	59.29	-166.90	-635.80	972.84	1,269.73	1,184.58	85.16	14.911 ES		
6,900.00	6,842.67	9,405.16	7,238.96	31.17	59.44	-170.23	-644.12	972.88	1,284.26	1,196.84	87.42	14.690 SF		
7,000.00	6,921.48	9,415.13	7,238.79	31.54	59.61	-171.90	-652.08	972.93	1,321.03	1,231.87	89.16	14.816		
7,100.00	6,989.86	9,426.38	7,238.57	31.91	59.82	-172.67	-658.33	972.95	1,377.41	1,287.01	90.40	15.237		
7,200.00	7,046.13	9,436.32	7,238.36	32.35	60.00	-172.95	-665.27	972.94	1,449.83	1,358.65	91.18	15.900		
7,300.00	7,088.91	9,444.85	7,238.16	32.98	60.15	-172.78	-670.80	972.91	1,534.41	1,442.76	91.65	16.742		
7,400.00	7,117.14	9,448.64	7,238.07	33.84	60.22	-172.30	-677.59	972.90	1,627.36	1,535.52	91.85	17.718		
7,500.00	7,130.13	9,452.06	7,237.99	34.90	60.28	-169.70	-681.00	972.88	1,725.25	1,633.29	91.96	18.761		
7,600.00	7,130.72	9,454.12	7,237.94	36.13	60.32	-164.64	-683.06	972.87	1,825.00	1,732.99	92.02	19.833		
7,700.00	7,130.29	9,456.16	7,237.89	37.54	60.36	-163.54	-684.10	972.86	1,924.85	1,832.78	92.07	20.906		
7,800.00	7,129.85	9,458.30	7,237.83	39.12	60.39	-162.40	-684.71	972.84	2,024.71	1,932.58	92.13	21.977		
7,900.00	7,129.42	9,460.55	7,237.77	40.83	60.44	-161.22	-684.99	972.83	2,124.59	2,032.40	92.19	23.046		
8,000.00	7,128.98	9,462.92	7,237.71	42.67	60.48	-159.99	-684.86	972.81	2,224.47	2,132.22	92.25	24.113		
8,100.00	7,128.55	9,465.42	7,237.64	44.62	60.52	-158.71	-684.36	972.79	2,324.36	2,232.04	92.32	25.177		
8,200.00	7,128.12	9,468.06	7,237.57	46.66	60.57	-157.39	-683.00	972.77	2,424.26	2,331.87	92.39	26.239		
8,300.00	7,127.68	9,470.85	7,237.50	48.79	60.62	-156.01	-680.79	972.75	2,524.17	2,431.70	92.47	27.297		
8,400.00	7,127.25	9,473.80	7,237.41	50.98	60.68	-154.57	-677.74	972.72	2,624.08	2,531.53	92.55	28.353		
8,500.00	7,126.81	9,476.94	7,237.32	53.24	60.73	-153.09	-673.88	972.69	2,723.99	2,631.36	92.64	29.405		
8,600.00	7,126.38	9,479.27	7,237.37	55.56	60.70	-153.88	-669.21	972.71	2,823.92	2,731.30	92.61	30.491		
8,700.00	7,125.95	9,476.49	7,237.34	57.92	60.72	-153.30	-663.42	972.70	2,923.84	2,831.18	92.66	31.555		
8,800.00	7,125.51	9,477.68	7,237.30	60.33	60.75	-152.74	-656.62	972.69	3,023.77	2,931.07	92.70	32.617		
8,900.00	7,125.08	9,478.86	7,237.27	62.77	60.77	-152.20	-649.80	972.68	3,123.71	3,030.96	92.75	33.679		
9,000.00	7,124.64	9,480.02	7,237.24	65.25	60.79	-151.67	-642.95	972.67	3,223.65	3,130.85	92.80	34.739		
9,100.00	7,124.21	9,481.16	7,237.21	67.76	60.81	-151.15	-635.09	972.66	3,323.59	3,230.74	92.84	35.797		
9,200.00	7,123.78	9,482.28	7,237.18	70.29	60.83	-150.65	-626.21	972.66	3,423.53	3,330.64	92.89	36.854		
9,300.00	7,123.34	9,483.38	7,237.15	72.85	60.85	-150.15	-616.31	972.65	3,523.48	3,430.53	92.94	37.910		
9,400.00	7,122.91	9,484.46	7,237.12	75.43	60.87	-149.67	-605.40	972.64	3,623.43	3,530.43	92.99	38.965		
9,500.00	7,122.48	9,485.53	7,237.09	78.03	60.89	-149.21	-593.46	972.63	3,723.38	3,630.33	93.04	40.017		
9,600.00	7,122.04	9,486.58	7,237.06	80.65	60.91	-148.75	-580.51	972.63	3,823.33	3,730.24	93.10	41.069		
9,700.00	7,121.61	9,487.61	7,237.03	83.28	60.93	-148.30	-566.55	972.62	3,923.29	3,830.14	93.15	42.119		
9,800.00	7,121.17	9,488.63	7,237.00	85.93	60.95	-147.87	-551.56	972.61	4,023.24	3,930.04	93.20	43.167		
9,900.00	7,120.74	9,489.64	7,236.97	88.59	60.96	-147.45	-535.57	972.60	4,123.20	4,029.95	93.26	44.214		
10,000.00	7,120.31	9,490.62	7,236.94	91.26	60.98	-147.03	-518.55	972.60	4,223.16	4,129.85	93.31	45.259		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,100.00	7,119.87	9,491.59	7,236.92	93.95	61.00	-146.63	-750.52	972.59	4,323.13	4,229.76	93.37	46.303		
10,200.00	7,119.44	9,492.55	7,236.89	96.64	61.02	-146.23	-751.48	972.59	4,423.09	4,329.67	93.42	47.345		
10,300.00	7,119.00	9,493.50	7,236.86	99.34	61.03	-145.85	-752.42	972.58	4,523.06	4,429.58	93.48	48.385		
10,400.00	7,118.57	9,494.42	7,236.84	102.05	61.05	-145.47	-753.35	972.57	4,623.02	4,529.48	93.54	49.424		
10,500.00	7,118.14	9,495.34	7,236.81	104.77	61.07	-145.10	-754.27	972.57	4,722.99	4,629.39	93.60	50.461		
10,600.00	7,117.70	9,496.24	7,236.79	107.50	61.08	-144.75	-755.17	972.56	4,822.96	4,729.30	93.66	51.496		
10,700.00	7,117.27	9,497.13	7,236.76	110.23	61.10	-144.39	-756.06	972.56	4,922.93	4,829.21	93.72	52.530		
10,800.00	7,116.83	9,498.01	7,236.74	112.97	61.12	-144.05	-756.94	972.55	5,022.90	4,929.12	93.78	53.562		
10,900.00	7,116.40	9,498.87	7,236.71	115.72	61.13	-143.71	-757.80	972.55	5,122.87	5,029.03	93.84	54.592		
11,000.00	7,115.97	9,503.00	7,236.60	118.47	61.21	-142.15	-761.93	972.53	5,222.84	5,128.86	93.98	55.575		
11,100.00	7,115.53	9,503.00	7,236.60	121.22	61.21	-142.15	-761.93	972.53	5,322.81	5,228.79	94.02	56.612		
11,200.00	7,115.10	9,503.00	7,236.60	123.98	61.21	-142.15	-761.93	972.53	5,422.79	5,328.72	94.07	57.648		
11,300.00	7,114.66	9,503.00	7,236.60	126.74	61.21	-142.15	-761.93	972.53	5,522.76	5,428.65	94.11	58.681		
11,400.00	7,114.23	9,503.00	7,236.60	129.51	61.21	-142.15	-761.93	972.53	5,622.74	5,528.58	94.16	59.714		
11,500.00	7,113.80	9,503.00	7,236.60	132.29	61.21	-142.15	-761.93	972.53	5,722.71	5,628.50	94.21	60.744		
11,600.00	7,113.36	9,503.00	7,236.60	135.06	61.21	-142.15	-761.93	972.53	5,822.69	5,728.43	94.26	61.773		
11,700.00	7,112.93	9,503.00	7,236.60	137.84	61.21	-142.15	-761.93	972.53	5,922.67	5,828.36	94.31	62.800		
11,800.00	7,112.49	9,503.00	7,236.60	140.62	61.21	-142.15	-761.93	972.53	6,022.65	5,928.28	94.36	63.825		
11,900.00	7,112.06	9,503.00	7,236.60	143.41	61.21	-142.15	-761.93	972.53	6,122.63	6,028.21	94.42	64.848		
12,000.00	7,111.63	9,503.00	7,236.60	146.20	61.21	-142.15	-761.93	972.53	6,222.61	6,128.14	94.47	65.869		
12,100.00	7,111.19	9,503.00	7,236.60	148.99	61.21	-142.15	-761.93	972.53	6,322.59	6,228.06	94.52	66.889		
12,200.00	7,110.76	9,503.00	7,236.60	151.78	61.21	-142.15	-761.93	972.53	6,422.57	6,327.99	94.58	67.907		
12,300.00	7,110.33	9,503.00	7,236.60	154.58	61.21	-142.15	-761.93	972.53	6,522.55	6,427.91	94.64	68.923		
12,400.00	7,109.89	9,503.00	7,236.60	157.37	61.21	-142.15	-761.93	972.53	6,622.53	6,527.84	94.69	69.936		
12,500.00	7,109.46	9,503.00	7,236.60	160.17	61.21	-142.15	-761.93	972.53	6,722.51	6,627.76	94.75	70.948		
12,600.00	7,109.02	9,503.00	7,236.60	162.98	61.21	-142.15	-761.93	972.53	6,822.50	6,727.68	94.81	71.958		
12,700.00	7,108.59	9,503.00	7,236.60	165.78	61.21	-142.15	-761.93	972.53	6,922.48	6,827.61	94.87	72.966		
12,800.00	7,108.16	9,503.00	7,236.60	168.59	61.21	-142.15	-761.93	972.53	7,022.46	6,927.53	94.93	73.972		
12,900.00	7,107.72	9,503.00	7,236.60	171.39	61.21	-142.15	-761.93	972.53	7,122.45	7,027.45	95.00	74.976		
13,000.00	7,107.29	9,503.00	7,236.60	174.20	61.21	-142.15	-761.93	972.53	7,222.43	7,127.37	95.06	75.978		
13,100.00	7,106.85	9,503.00	7,236.60	177.01	61.21	-142.15	-761.93	972.53	7,322.42	7,227.29	95.12	76.977		
13,200.00	7,106.42	9,503.00	7,236.60	179.83	61.21	-142.15	-761.93	972.53	7,422.41	7,327.22	95.19	77.975		
13,300.00	7,105.99	9,503.00	7,236.60	182.64	61.21	-142.15	-761.93	972.53	7,522.39	7,427.14	95.26	78.970		
13,400.00	7,105.55	9,503.00	7,236.60	185.45	61.21	-142.15	-761.93	972.53	7,622.38	7,527.05	95.32	79.963		
13,500.00	7,105.12	9,503.00	7,236.60	188.27	61.21	-142.15	-761.93	972.53	7,722.36	7,626.97	95.39	80.954		
13,600.00	7,104.68	9,503.00	7,236.60	191.09	61.21	-142.15	-761.93	972.53	7,822.35	7,726.89	95.46	81.943		
13,700.00	7,104.25	9,503.00	7,236.60	193.91	61.21	-142.15	-761.93	972.53	7,922.34	7,826.81	95.53	82.930		
13,800.00	7,103.82	9,503.00	7,236.60	196.73	61.21	-142.15	-761.93	972.53	8,022.33	7,926.73	95.60	83.914		
13,900.00	7,103.38	9,503.00	7,236.60	199.55	61.21	-142.15	-761.93	972.53	8,122.32	8,026.64	95.67	84.897		
14,000.00	7,102.95	9,513.32	7,236.33	202.37	61.39	-138.50	-772.24	972.49	8,222.28	8,126.30	95.98	85.665		
14,100.00	7,102.51	9,513.62	7,236.32	205.19	61.40	-138.39	-772.55	972.49	8,322.27	8,226.21	96.06	86.634		
14,200.00	7,102.08	9,513.93	7,236.32	208.02	61.41	-138.29	-772.85	972.48	8,422.26	8,326.11	96.14	87.601		
14,300.00	7,101.65	9,514.23	7,236.31	210.84	61.41	-138.19	-773.15	972.48	8,522.25	8,426.02	96.23	88.565		
14,400.00	7,101.21	9,514.52	7,236.30	213.67	61.42	-138.10	-773.44	972.48	8,622.23	8,525.93	96.31	89.527		
14,500.00	7,100.78	9,514.81	7,236.29	216.50	61.42	-138.00	-773.73	972.48	8,722.22	8,625.83	96.39	90.487		
14,600.00	7,100.35	9,515.09	7,236.29	219.32	61.43	-137.91	-774.01	972.48	8,822.21	8,725.74	96.48	91.445		
14,700.00	7,099.91	9,515.37	7,236.28	222.15	61.43	-137.81	-774.29	972.48	8,922.20	8,825.64	96.56	92.400		
14,800.00	7,099.48	9,515.65	7,236.28	224.98	61.44	-137.72	-774.57	972.48	9,022.19	8,925.54	96.65	93.352		
14,900.00	7,099.04	9,515.92	7,236.27	227.81	61.44	-137.63	-774.84	972.48	9,122.18	9,025.45	96.73	94.302		
14,909.96	7,099.00	9,515.94	7,236.27	228.09	61.44	-137.63	-774.87	972.48	9,132.14	9,035.40	96.74	94.397		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	-179.50	-160.30	-1.39	160.31					
100.00	100.00	101.00	100.00	3.28	3.28	-179.50	-160.30	-1.39	160.31	153.74	6.57	24.401		
200.00	200.00	199.00	200.00	3.34	3.34	-179.50	-160.30	-1.39	160.31	153.64	6.67	24.023 CC, ES		
300.00	300.00	293.74	294.72	3.44	3.43	-179.46	-161.83	-1.53	161.92	155.04	6.89	23.512		
400.00	400.00	388.22	389.08	3.60	3.57	-179.32	-166.46	-1.97	166.83	159.62	7.21	23.144		
500.00	500.00	482.29	482.84	3.81	3.75	-179.11	-174.14	-2.69	175.00	167.38	7.62	22.958		
600.00	600.00	575.77	575.69	4.04	3.97	-12.00	-184.80	-3.70	186.36	178.25	8.11	22.982		
700.00	699.96	668.77	667.69	4.29	4.22	-11.79	-198.40	-4.98	198.64	190.01	8.63	23.016		
800.00	799.78	761.43	758.85	4.57	4.51	-11.73	-214.90	-6.53	210.74	201.54	9.20	22.905		
900.00	899.34	853.76	849.10	4.88	4.83	-11.79	-234.25	-8.36	222.65	212.84	9.80	22.710		
1,000.00	998.72	945.57	938.18	5.20	5.17	-11.91	-256.35	-10.44	236.09	225.64	10.45	22.588		
1,100.00	1,098.10	1,044.43	1,033.72	5.54	5.58	-12.00	-281.66	-12.82	251.10	239.98	11.13	22.569		
1,200.00	1,197.49	1,143.30	1,129.26	5.90	6.00	-12.08	-306.97	-15.21	266.12	254.28	11.84	22.484		
1,300.00	1,296.87	1,242.16	1,224.80	6.28	6.44	-12.15	-332.28	-17.59	281.13	268.55	12.57	22.357		
1,400.00	1,396.25	1,341.03	1,320.35	6.66	6.90	-12.21	-357.59	-19.97	296.14	282.80	13.34	22.203		
1,500.00	1,495.64	1,439.90	1,415.89	7.06	7.36	-12.27	-382.90	-22.36	311.15	297.03	14.12	22.035		
1,600.00	1,595.02	1,538.76	1,511.43	7.46	7.83	-12.32	-408.21	-24.74	326.16	311.24	14.92	21.859		
1,700.00	1,694.40	1,637.63	1,606.97	7.87	8.32	-12.36	-433.52	-27.13	341.18	325.44	15.74	21.681		
1,800.00	1,793.79	1,736.50	1,702.51	8.29	8.80	-12.41	-458.83	-29.51	356.19	339.62	16.56	21.504		
1,900.00	1,893.17	1,835.36	1,798.06	8.71	9.30	-12.45	-484.14	-31.90	371.20	353.80	17.40	21.331		
2,000.00	1,992.55	1,934.23	1,893.60	9.13	9.79	-12.48	-509.45	-34.28	386.21	367.97	18.25	21.164		
2,100.00	2,091.94	2,033.10	1,989.14	9.56	10.30	-12.52	-534.76	-36.66	401.23	382.12	19.10	21.002		
2,200.00	2,191.32	2,131.96	2,084.68	9.99	10.80	-12.55	-560.07	-39.05	416.24	396.27	19.97	20.848		
2,300.00	2,290.70	2,230.83	2,180.22	10.42	11.31	-12.58	-585.38	-41.43	431.25	410.42	20.83	20.700		
2,400.00	2,390.09	2,329.69	2,275.76	10.86	11.82	-12.61	-610.69	-43.82	446.27	424.56	21.71	20.558		
2,500.00	2,489.47	2,428.56	2,371.31	11.29	12.33	-12.63	-636.00	-46.20	461.28	438.70	22.59	20.424		
2,600.00	2,588.86	2,527.43	2,466.85	11.73	12.84	-12.66	-661.31	-48.59	476.29	452.83	23.47	20.296		
2,700.00	2,688.24	2,626.29	2,562.39	12.18	13.36	-12.68	-686.62	-50.97	491.31	466.95	24.35	20.174		
2,800.00	2,787.62	2,725.16	2,657.93	12.62	13.88	-12.70	-711.93	-53.35	506.32	481.08	25.24	20.058		
2,900.00	2,887.01	2,824.03	2,753.47	13.06	14.40	-12.72	-737.24	-55.74	521.34	495.20	26.14	19.948		
3,000.00	2,986.39	2,922.89	2,849.02	13.51	14.92	-12.74	-762.55	-58.12	536.35	509.32	27.03	19.842		
3,100.00	3,085.77	3,021.76	2,944.56	13.95	15.44	-12.76	-787.86	-60.51	551.36	523.44	27.93	19.742		
3,200.00	3,185.16	3,120.63	3,040.10	14.40	15.96	-12.77	-813.17	-62.89	566.38	537.55	28.83	19.647		
3,300.00	3,284.54	3,219.49	3,135.64	14.85	16.48	-12.79	-838.48	-65.27	581.39	551.66	29.73	19.556		
3,400.00	3,383.92	3,318.36	3,231.18	15.30	17.01	-12.80	-863.79	-67.66	596.41	565.77	30.63	19.469		
3,500.00	3,483.31	3,417.22	3,326.73	15.75	17.53	-12.82	-889.10	-70.04	611.42	579.88	31.54	19.387		
3,600.00	3,582.69	3,516.09	3,422.27	16.20	18.06	-12.83	-914.41	-72.43	626.43	593.99	32.44	19.308		
3,700.00	3,682.07	3,614.96	3,517.81	16.65	18.58	-12.84	-939.72	-74.81	641.45	608.10	33.35	19.232		
3,800.00	3,781.46	3,713.82	3,613.35	17.10	19.11	-12.86	-965.03	-77.20	656.46	622.20	34.26	19.160		
3,900.00	3,880.84	3,812.69	3,708.89	17.56	19.63	-12.87	-990.34	-79.58	671.48	636.30	35.17	19.091		
4,000.00	3,980.22	3,911.56	3,804.44	18.01	20.16	-12.88	-1,015.66	-81.96	686.49	650.41	36.09	19.024		
4,100.00	4,079.61	4,010.42	3,899.98	18.46	20.69	-12.89	-1,040.97	-84.35	701.51	664.51	37.00	18.961		
4,200.00	4,178.99	4,109.29	3,995.52	18.92	21.22	-12.90	-1,066.28	-86.73	716.52	678.61	37.91	18.900		
4,300.00	4,278.38	4,208.15	4,091.06	19.37	21.75	-12.91	-1,091.59	-89.12	731.54	692.71	38.83	18.841		
4,400.00	4,377.76	4,307.02	4,186.60	19.83	22.27	-12.92	-1,116.90	-91.50	746.55	706.81	39.74	18.785		
4,500.00	4,477.14	4,405.89	4,282.15	20.28	22.80	-12.93	-1,142.21	-93.88	761.56	720.91	40.66	18.731		
4,600.00	4,576.53	4,504.75	4,377.69	20.74	23.33	-12.94	-1,167.52	-96.27	776.58	735.00	41.58	18.679		
4,700.00	4,675.91	4,603.62	4,473.23	21.19	23.86	-12.95	-1,192.83	-98.65	791.59	749.10	42.49	18.629		
4,800.00	4,775.29	4,702.49	4,568.77	21.65	24.39	-12.96	-1,218.14	-101.04	806.61	763.20	43.41	18.580		
4,900.00	4,874.68	4,801.35	4,664.31	22.10	24.92	-12.96	-1,243.45	-103.42	821.62	777.29	44.33	18.534		
5,000.00	4,974.06	4,900.22	4,759.86	22.56	25.45	-12.97	-1,268.76	-105.81	836.64	791.39	45.25	18.489		
5,100.00	5,073.44	4,999.09	4,855.40	23.02	25.98	-12.98	-1,294.07	-108.19	851.65	805.48	46.17	18.446		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,200.00	5,172.83	5,102.05	4,950.94	23.47	26.54	-12.99	-1,319.38	-110.57	866.67	819.56	47.11	18.396		
5,300.00	5,272.21	5,203.18	5,046.48	23.93	27.08	-12.99	-1,344.69	-112.96	881.68	833.64	48.04	18.352		
5,400.00	5,371.59	5,304.32	5,142.02	24.39	27.62	-13.00	-1,370.00	-115.34	896.70	847.72	48.98	18.309		
5,500.00	5,470.98	5,405.45	5,237.56	24.85	28.17	-13.01	-1,395.31	-117.73	911.71	861.80	49.91	18.268		
5,600.00	5,570.36	5,506.58	5,333.11	25.30	28.71	-13.01	-1,420.62	-120.11	926.72	875.88	50.84	18.228		
5,700.00	5,669.75	5,592.28	5,428.65	25.76	29.17	-13.02	-1,445.93	-122.49	941.74	890.04	51.70	18.215		
5,800.00	5,769.13	5,708.85	5,524.19	26.22	29.80	-13.02	-1,471.24	-124.88	956.75	904.04	52.71	18.151		
5,900.00	5,868.51	5,809.98	5,619.73	26.68	30.34	-13.03	-1,496.55	-127.26	971.77	918.12	53.64	18.115		
6,000.00	5,967.90	5,888.88	5,715.27	27.14	30.77	-13.04	-1,521.86	-129.65	986.78	932.31	54.47	18.116		
6,100.00	6,067.28	5,987.75	5,810.82	27.60	31.30	-13.04	-1,547.17	-132.03	1,001.80	946.40	55.39	18.085		
6,200.00	6,166.66	6,086.62	5,906.36	28.05	31.83	-13.05	-1,572.48	-134.42	1,016.81	960.49	56.32	18.055		
6,300.00	6,266.05	6,185.48	6,001.90	28.51	32.36	-13.05	-1,597.79	-136.80	1,031.83	974.58	57.24	18.025		
6,400.00	6,365.43	6,284.35	6,097.44	28.97	32.90	-13.06	-1,623.10	-139.18	1,046.84	988.67	58.17	17.997		
6,500.00	6,464.81	6,383.21	6,192.98	29.43	33.43	-13.06	-1,648.41	-141.57	1,061.86	1,002.76	59.09	17.969		
6,600.00	6,564.10	6,482.03	6,288.48	29.89	33.96	-13.06	-1,673.71	-143.95	1,076.85	1,016.83	60.02	17.941		
6,700.00	6,661.75	6,580.30	6,383.40	30.34	34.49	-13.06	-1,698.86	-147.18	1,091.67	1,030.71	60.95	17.909		
6,800.00	6,755.38	6,681.16	6,479.61	30.77	35.02	-13.07	-1,724.44	-150.41	1,106.15	1,044.23	61.92	17.864		
6,900.00	6,842.67	6,785.31	6,575.14	31.17	35.53	-13.07	-1,749.96	-153.64	1,119.94	1,057.02	62.91	17.801		
7,000.00	6,921.48	6,893.02	6,667.17	31.54	36.00	-13.07	-1,774.67	-156.87	1,132.66	1,068.72	63.94	17.714		
7,100.00	6,989.86	7,004.41	6,752.36	31.91	36.43	-13.07	-1,797.70	-159.99	1,143.94	1,078.90	65.04	17.589		
7,200.00	7,046.13	7,119.41	6,826.93	32.35	36.82	-13.07	-1,818.03	-162.75	1,153.40	1,087.12	66.29	17.401		
7,300.00	7,088.91	7,237.70	6,886.94	32.98	37.19	-13.07	-1,834.62	-165.00	1,160.73	1,092.94	67.79	17.123		
7,400.00	7,117.14	7,358.68	6,928.66	33.84	37.59	-13.07	-1,846.45	-166.84	1,165.63	1,095.98	69.65	16.736		
7,500.00	7,130.13	7,481.48	6,949.16	34.90	38.16	-13.07	-1,852.72	-168.15	1,167.91	1,096.01	71.90	16.243		
7,600.00	7,130.72	7,608.67	6,950.78	36.13	39.10	-13.07	-1,853.92	-169.35	1,167.95	1,093.32	74.63	15.651		
7,700.00	7,130.29	7,708.67	6,950.40	37.54	40.16	-13.07	-1,854.52	-170.41	1,167.76	1,090.35	77.41	15.085		
7,800.00	7,129.85	7,808.68	6,950.02	39.12	41.48	-13.07	-1,855.12	-171.34	1,167.58	1,087.08	80.50	14.504		
7,900.00	7,129.42	7,908.68	6,949.65	40.83	43.00	-13.07	-1,855.72	-172.14	1,167.39	1,083.53	83.86	13.921		
8,000.00	7,128.98	8,008.68	6,949.27	42.67	44.69	-13.07	-1,856.32	-172.81	1,167.21	1,079.75	87.45	13.346		
8,100.00	7,128.55	8,108.68	6,948.89	44.62	46.51	-13.07	-1,856.91	-173.33	1,167.02	1,075.77	91.26	12.788		
8,200.00	7,128.12	8,208.68	6,948.51	46.66	48.44	-13.07	-1,857.51	-173.71	1,166.84	1,071.59	95.25	12.251		
8,300.00	7,127.68	8,291.32	6,948.13	48.79	50.11	-13.07	-1,858.11	-173.93	1,166.65	1,067.62	99.03	11.780		
8,400.00	7,127.25	8,408.68	6,947.75	50.98	52.58	-13.07	-1,858.71	-174.01	1,166.47	1,062.78	103.69	11.250		
8,500.00	7,126.81	8,508.68	6,947.37	53.24	54.76	-13.07	-1,859.31	-173.93	1,166.28	1,058.18	108.10	10.789		
8,600.00	7,126.38	8,608.68	6,946.99	55.56	57.00	-13.07	-1,859.91	-173.71	1,166.10	1,053.47	112.63	10.353		
8,700.00	7,125.95	8,708.68	6,946.61	57.92	59.30	-13.07	-1,860.51	-173.33	1,165.91	1,048.66	117.26	9.943		
8,800.00	7,125.51	8,791.32	6,946.23	60.33	61.24	-13.07	-1,861.10	-172.81	1,165.73	1,044.17	121.56	9.590		
8,900.00	7,125.08	8,908.68	6,945.85	62.77	64.04	-13.07	-1,861.70	-172.14	1,165.54	1,038.79	126.76	9.195		
9,000.00	7,124.64	9,008.68	6,945.47	65.25	66.47	-13.07	-1,862.30	-171.34	1,165.36	1,033.74	131.61	8.854		
9,100.00	7,124.21	9,108.68	6,945.09	67.76	68.93	-13.07	-1,862.90	-170.41	1,165.17	1,028.64	136.53	8.534		
9,200.00	7,123.78	9,208.68	6,944.71	70.29	71.42	-13.07	-1,863.50	-169.35	1,164.99	1,023.48	141.51	8.233		
9,300.00	7,123.34	9,308.68	6,944.33	72.85	73.94	-13.07	-1,864.10	-168.15	1,164.80	1,018.27	146.53	7.949		
9,400.00	7,122.91	9,408.68	6,943.96	75.43	76.48	-13.07	-1,864.70	-166.84	1,164.62	1,013.02	151.60	7.682		
9,500.00	7,122.48	9,508.68	6,943.58	78.03	79.04	-13.07	-1,865.30	-165.39	1,164.43	1,007.73	156.71	7.431		
9,600.00	7,122.04	9,608.68	6,943.20	80.65	81.63	-13.07	-1,865.89	-163.93	1,164.25	1,002.40	161.85	7.193		
9,700.00	7,121.61	9,708.68	6,942.82	83.28	84.23	-13.07	-1,866.49	-162.48	1,164.06	997.03	167.03	6.969		
9,800.00	7,121.17	9,808.68	6,942.44	85.93	86.85	-13.07	-1,867.09	-161.01	1,163.88	991.64	172.24	6.757		
9,900.00	7,120.74	9,908.68	6,942.06	88.59	89.48	-13.07	-1,867.69	-159.56	1,163.69	986.22	177.47	6.557		
10,000.00	7,120.31	10,008.68	6,941.68	91.26	92.13	-13.07	-1,868.29	-158.01	1,163.51	980.78	182.73	6.367		
10,100.00	7,119.87	10,108.68	6,941.30	93.95	94.79	-13.07	-1,868.89	-156.46	1,163.32	975.31	188.02	6.187		
10,200.00	7,119.44	10,208.68	6,940.92	96.64	97.46	-13.07	-1,869.49	-154.91	1,163.14	969.82	193.32	6.017		
10,300.00	7,119.00	10,308.68	6,940.54	99.34	100.14	-13.07	-1,870.08	-153.36	1,162.95	964.31	198.64	5.854		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,400.00	7,118.57	10,408.68	6,940.16	102.05	102.83	-81.17	-1,870.68	-3,641.27	1,162.77	958.78	203.98	5.700		
10,500.00	7,118.14	10,508.68	6,939.78	104.77	105.53	-81.18	-1,871.28	-3,741.27	1,162.58	953.24	209.34	5.554		
10,600.00	7,117.70	10,608.68	6,939.40	107.50	108.24	-81.18	-1,871.88	-3,841.27	1,162.40	947.68	214.71	5.414		
10,700.00	7,117.27	10,708.68	6,939.02	110.23	110.96	-81.18	-1,872.48	-3,941.26	1,162.21	942.11	220.10	5.280		
10,800.00	7,116.83	10,808.68	6,938.64	112.97	113.68	-81.18	-1,873.08	-4,041.26	1,162.03	936.53	225.50	5.153		
10,900.00	7,116.40	10,908.68	6,938.27	115.72	116.41	-81.18	-1,873.68	-4,141.26	1,161.84	930.93	230.92	5.031		
11,000.00	7,115.97	11,008.68	6,937.89	118.47	119.14	-81.18	-1,874.27	-4,241.25	1,161.66	925.32	236.34	4.915		
11,100.00	7,115.53	11,108.68	6,937.51	121.22	121.88	-81.18	-1,874.87	-4,341.25	1,161.47	919.70	241.77	4.804		
11,200.00	7,115.10	11,208.68	6,937.13	123.98	124.63	-81.18	-1,875.47	-4,441.25	1,161.29	914.07	247.22	4.697		
11,300.00	7,114.66	11,308.68	6,936.75	126.74	127.38	-81.19	-1,876.07	-4,541.25	1,161.10	908.43	252.67	4.595		
11,400.00	7,114.23	11,408.68	6,936.37	129.51	130.14	-81.19	-1,876.67	-4,641.24	1,160.92	902.78	258.13	4.497		
11,500.00	7,113.80	11,508.68	6,935.99	132.29	132.90	-81.19	-1,877.27	-4,741.24	1,160.73	897.13	263.61	4.403		
11,600.00	7,113.36	11,608.68	6,935.61	135.06	135.66	-81.19	-1,877.87	-4,841.24	1,160.55	891.47	269.08	4.313		
11,700.00	7,112.93	11,708.68	6,935.23	137.84	138.43	-81.19	-1,878.47	-4,941.24	1,160.36	885.80	274.57	4.226		
11,800.00	7,112.49	11,808.68	6,934.85	140.62	141.20	-81.19	-1,879.06	-5,041.23	1,160.18	880.12	280.06	4.143		
11,900.00	7,112.06	11,908.68	6,934.47	143.41	143.98	-81.19	-1,879.66	-5,141.23	1,159.99	874.43	285.56	4.062		
12,000.00	7,111.63	12,008.68	6,934.09	146.20	146.76	-81.20	-1,880.26	-5,241.23	1,159.81	868.74	291.07	3.985		
12,100.00	7,111.19	12,108.68	6,933.71	148.99	149.54	-81.20	-1,880.86	-5,341.23	1,159.62	863.05	296.58	3.910		
12,200.00	7,110.76	12,208.68	6,933.33	151.78	152.32	-81.20	-1,881.46	-5,441.22	1,159.44	857.35	302.09	3.838		
12,300.00	7,110.33	12,308.68	6,932.95	154.58	155.11	-81.20	-1,882.06	-5,541.22	1,159.25	851.64	307.61	3.769		
12,400.00	7,109.89	12,408.68	6,932.58	157.37	157.90	-81.20	-1,882.66	-5,641.22	1,159.07	845.93	313.14	3.701		
12,500.00	7,109.46	12,508.68	6,932.20	160.17	160.69	-81.20	-1,883.25	-5,741.21	1,158.88	840.22	318.67	3.637		
12,600.00	7,109.02	12,608.68	6,931.82	162.98	163.48	-81.20	-1,883.85	-5,841.21	1,158.70	834.50	324.20	3.574		
12,700.00	7,108.59	12,708.68	6,931.44	165.78	166.28	-81.20	-1,884.45	-5,941.21	1,158.51	828.77	329.74	3.513		
12,800.00	7,108.16	12,808.68	6,931.06	168.59	169.08	-81.21	-1,885.05	-6,041.21	1,158.33	823.04	335.29	3.455		
12,900.00	7,107.72	12,908.68	6,930.68	171.39	171.88	-81.21	-1,885.65	-6,141.20	1,158.14	817.31	340.83	3.398		
13,000.00	7,107.29	12,991.32	6,930.30	174.20	174.20	-81.21	-1,886.25	-6,241.20	1,157.96	812.06	345.90	3.348		
13,100.00	7,106.85	13,108.68	6,929.92	177.01	177.49	-81.21	-1,886.85	-6,341.20	1,157.77	806.84	351.94	3.290		
13,200.00	7,106.42	13,208.68	6,929.54	179.83	180.29	-81.21	-1,887.44	-6,441.20	1,157.59	800.10	357.49	3.238		
13,300.00	7,105.99	13,308.68	6,929.16	182.64	183.10	-81.21	-1,888.04	-6,541.19	1,157.40	794.35	363.05	3.188		
13,400.00	7,105.55	13,408.68	6,928.78	185.45	185.91	-81.21	-1,888.64	-6,641.19	1,157.22	788.60	368.62	3.139		
13,500.00	7,105.12	13,508.69	6,928.40	188.27	188.72	-81.22	-1,889.24	-6,741.19	1,157.03	782.85	374.18	3.092		
13,600.00	7,104.68	13,608.69	6,928.02	191.09	191.53	-81.22	-1,889.84	-6,841.19	1,156.85	777.10	379.75	3.046		
13,700.00	7,104.25	13,708.69	6,927.64	193.91	194.35	-81.22	-1,890.44	-6,941.18	1,156.66	771.34	385.32	3.002		
13,800.00	7,103.82	13,808.69	6,927.26	196.73	197.16	-81.22	-1,891.04	-7,041.18	1,156.48	765.59	390.89	2.959		
13,900.00	7,103.38	13,908.69	6,926.89	199.55	199.98	-81.22	-1,891.64	-7,141.18	1,156.29	759.83	396.47	2.916		
14,000.00	7,102.95	14,008.69	6,926.51	202.37	202.80	-81.22	-1,892.23	-7,241.17	1,156.11	754.06	402.05	2.876		
14,100.00	7,102.51	14,091.31	6,926.13	205.19	205.12	-81.22	-1,892.83	-7,341.17	1,155.93	748.78	407.14	2.839		
14,200.00	7,102.08	14,208.69	6,925.75	208.02	208.43	-81.22	-1,893.43	-7,441.17	1,155.74	742.53	413.21	2.797		
14,300.00	7,101.65	14,291.31	6,925.37	210.84	210.76	-81.23	-1,894.03	-7,541.17	1,155.56	737.24	418.31	2.762		
14,400.00	7,101.21	14,408.69	6,924.99	213.67	214.08	-81.23	-1,894.63	-7,641.16	1,155.37	730.99	424.38	2.722		
14,500.00	7,100.78	14,508.69	6,924.61	216.50	216.90	-81.23	-1,895.23	-7,741.16	1,155.19	725.22	429.97	2.687		
14,600.00	7,100.35	14,608.69	6,924.23	219.32	219.72	-81.23	-1,895.83	-7,841.16	1,155.00	719.44	435.56	2.652		
14,700.00	7,099.91	14,708.69	6,923.85	222.15	222.55	-81.23	-1,896.42	-7,941.16	1,154.82	713.66	441.15	2.618		
14,800.00	7,099.48	14,808.69	6,923.47	224.98	225.37	-81.23	-1,897.02	-8,041.15	1,154.63	707.89	446.75	2.585		
14,900.00	7,099.04	14,891.31	6,923.09	227.81	227.71	-81.23	-1,897.62	-8,141.15	1,154.45	702.59	451.85	2.555		
14,909.96	7,099.00	14,901.28	6,923.05	228.09	227.99	-81.23	-1,897.68	-8,151.11	1,154.43	702.01	452.41	2.552 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	-179.47	-120.22	-1.11	120.23					
100.00	100.00	101.00	100.00	3.28	3.28	-179.47	-120.22	-1.11	120.23	113.66	6.57	18.301		
200.00	200.00	199.00	200.00	3.34	3.34	-179.47	-120.22	-1.11	120.23	113.56	6.67	18.017	CC, ES	
300.00	300.00	295.00	295.99	3.44	3.43	-179.38	-121.79	-1.31	121.86	114.97	6.89	17.690		
400.00	400.00	390.76	391.62	3.60	3.58	-179.13	-126.52	-1.92	126.81	119.60	7.21	17.581		
500.00	500.00	486.08	486.61	3.81	3.76	-178.75	-134.38	-2.94	135.08	127.45	7.63	17.698		
600.00	600.00	580.79	580.67	4.04	3.99	-11.43	-145.29	-4.35	146.56	138.44	8.12	18.042		
700.00	699.96	675.00	673.83	4.29	4.24	-11.05	-159.19	-6.14	159.01	150.36	8.65	18.381		
800.00	799.78	771.32	768.60	4.57	4.54	-10.84	-176.21	-8.33	170.98	161.77	9.21	18.557		
900.00	899.34	870.90	866.50	4.88	4.88	-10.86	-194.29	-10.67	180.05	170.25	9.81	18.363		
1,000.00	998.72	970.62	964.54	5.20	5.25	-11.00	-212.40	-13.00	187.48	177.02	10.46	17.922		
1,100.00	1,098.10	1,070.35	1,062.57	5.54	5.63	-11.13	-230.51	-15.34	194.90	183.75	11.15	17.481		
1,200.00	1,197.49	1,170.07	1,160.61	5.90	6.04	-11.25	-248.62	-17.67	202.33	190.46	11.87	17.048		
1,300.00	1,296.87	1,269.79	1,258.65	6.28	6.45	-11.36	-266.73	-20.01	209.76	197.14	12.61	16.631		
1,400.00	1,396.25	1,369.52	1,356.69	6.66	6.88	-11.47	-284.84	-22.35	217.18	203.81	13.38	16.235		
1,500.00	1,495.64	1,469.24	1,454.72	7.06	7.31	-11.56	-302.95	-24.68	224.61	210.45	14.16	15.862		
1,600.00	1,595.02	1,568.96	1,552.76	7.46	7.75	-11.65	-321.05	-27.02	232.04	217.08	14.96	15.512		
1,700.00	1,694.40	1,668.68	1,650.80	7.87	8.20	-11.74	-339.16	-29.35	239.47	223.70	15.77	15.186		
1,800.00	1,793.79	1,768.41	1,748.84	8.29	8.65	-11.82	-357.27	-31.69	246.90	230.31	16.59	14.882		
1,900.00	1,893.17	1,868.13	1,846.87	8.71	9.11	-11.90	-375.38	-34.03	254.33	236.91	17.42	14.599		
2,000.00	1,992.55	1,967.85	1,944.91	9.13	9.57	-11.97	-393.49	-36.36	261.76	243.50	18.26	14.335		
2,100.00	2,091.94	2,067.58	2,042.95	9.56	10.03	-12.04	-411.60	-38.70	269.20	250.09	19.11	14.090		
2,200.00	2,191.32	2,167.30	2,140.98	9.99	10.50	-12.10	-429.71	-41.03	276.63	256.67	19.96	13.861		
2,300.00	2,290.70	2,267.02	2,239.02	10.42	10.97	-12.16	-447.82	-43.37	284.06	263.25	20.81	13.647		
2,400.00	2,390.09	2,366.75	2,337.06	10.86	11.44	-12.22	-465.92	-45.70	291.49	269.82	21.68	13.447		
2,500.00	2,489.47	2,466.47	2,435.10	11.29	11.91	-12.27	-484.03	-48.04	298.93	276.38	22.54	13.260		
2,600.00	2,588.86	2,566.19	2,533.13	11.73	12.39	-12.32	-502.14	-50.38	306.36	282.95	23.41	13.085		
2,700.00	2,688.24	2,665.91	2,631.17	12.18	12.86	-12.37	-520.25	-52.71	313.79	289.51	24.29	12.921		
2,800.00	2,787.62	2,765.64	2,729.21	12.62	13.34	-12.42	-538.36	-55.05	321.23	296.06	25.16	12.767		
2,900.00	2,887.01	2,865.36	2,827.24	13.06	13.82	-12.47	-556.47	-57.38	328.66	302.62	26.04	12.621		
3,000.00	2,986.39	2,965.08	2,925.28	13.51	14.30	-12.51	-574.58	-59.72	336.09	309.17	26.92	12.484		
3,100.00	3,085.77	3,064.81	3,023.32	13.95	14.78	-12.55	-592.68	-62.06	343.53	315.72	27.80	12.355		
3,200.00	3,185.16	3,164.53	3,121.36	14.40	15.26	-12.59	-610.79	-64.39	350.96	322.27	28.69	12.233		
3,300.00	3,284.54	3,264.25	3,219.39	14.85	15.74	-12.63	-628.90	-66.73	358.40	328.82	29.58	12.118		
3,400.00	3,383.92	3,363.97	3,317.43	15.30	16.23	-12.66	-647.01	-69.06	365.83	335.37	30.47	12.008		
3,500.00	3,483.31	3,463.70	3,415.47	15.75	16.71	-12.70	-665.12	-71.40	373.27	341.91	31.36	11.904		
3,600.00	3,582.69	3,563.42	3,513.51	16.20	17.19	-12.73	-683.23	-73.73	380.70	348.45	32.25	11.806		
3,700.00	3,682.07	3,663.14	3,611.54	16.65	17.68	-12.76	-701.34	-76.07	388.14	355.00	33.14	11.712		
3,800.00	3,781.46	3,762.87	3,709.58	17.10	18.16	-12.79	-719.44	-78.41	395.57	361.54	34.03	11.623		
3,900.00	3,880.84	3,862.59	3,807.62	17.56	18.65	-12.82	-737.55	-80.74	403.01	368.08	34.93	11.538		
4,000.00	3,980.22	3,962.31	3,905.65	18.01	19.14	-12.85	-755.66	-83.08	410.44	374.62	35.82	11.457		
4,100.00	4,079.61	4,062.04	4,003.69	18.46	19.62	-12.88	-773.77	-85.41	417.88	381.16	36.72	11.379		
4,200.00	4,178.99	4,161.76	4,101.73	18.92	20.11	-12.91	-791.88	-87.75	425.31	387.69	37.62	11.306		
4,300.00	4,278.38	4,261.48	4,199.77	19.37	20.60	-12.93	-809.99	-90.09	432.75	394.23	38.52	11.235		
4,400.00	4,377.76	4,361.20	4,297.80	19.83	21.08	-12.96	-828.10	-92.42	440.18	400.77	39.42	11.167		
4,500.00	4,477.14	4,460.93	4,395.84	20.28	21.57	-12.98	-846.20	-94.76	447.62	407.30	40.32	11.102		
4,600.00	4,576.53	4,560.65	4,493.88	20.74	22.06	-13.01	-864.31	-97.09	455.06	413.84	41.22	11.040		
4,700.00	4,675.91	4,660.37	4,591.91	21.19	22.55	-13.03	-882.42	-99.43	462.49	420.37	42.12	10.980		
4,800.00	4,775.29	4,760.10	4,689.95	21.65	23.04	-13.05	-900.53	-101.76	469.93	426.91	43.02	10.923		
4,900.00	4,874.68	4,859.82	4,787.99	22.10	23.53	-13.07	-918.64	-104.10	477.36	433.44	43.92	10.868		
5,000.00	4,974.06	4,959.54	4,886.03	22.56	24.02	-13.09	-936.75	-106.44	484.80	439.97	44.83	10.815		
5,100.00	5,073.44	5,059.27	4,984.06	23.02	24.50	-13.11	-954.86	-108.77	492.24	446.51	45.73	10.764		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,200.00	5,172.83	5,158.99	5,082.10	23.47	24.99	-13.13	-972.96	-111.11	499.67	453.04	46.63	10.715		
5,300.00	5,272.21	5,258.71	5,180.14	23.93	25.48	-13.15	-991.07	-113.44	507.11	459.57	47.54	10.667		
5,400.00	5,371.59	5,358.43	5,278.18	24.39	25.97	-13.17	-1,009.18	-115.78	514.55	466.10	48.44	10.621		
5,500.00	5,470.98	5,458.16	5,376.21	24.85	26.46	-13.19	-1,027.29	-118.12	521.98	472.63	49.35	10.577		
5,600.00	5,570.36	5,557.88	5,474.25	25.30	26.95	-13.20	-1,045.40	-120.45	529.42	479.16	50.25	10.535		
5,700.00	5,669.75	5,657.60	5,572.29	25.76	27.44	-13.22	-1,063.51	-122.79	536.85	485.69	51.16	10.494		
5,800.00	5,769.13	5,757.33	5,670.32	26.22	27.94	-13.24	-1,081.62	-125.12	544.29	492.22	52.07	10.454		
5,900.00	5,868.51	5,857.05	5,768.36	26.68	28.43	-13.25	-1,099.72	-127.46	551.73	498.75	52.97	10.415		
6,000.00	5,967.90	5,956.77	5,866.40	27.14	28.92	-13.27	-1,117.83	-129.79	559.16	505.28	53.88	10.378		
6,100.00	6,067.28	6,056.50	5,964.44	27.60	29.41	-13.28	-1,135.94	-132.13	566.60	511.81	54.79	10.342		
6,200.00	6,166.66	6,156.22	6,062.47	28.05	29.90	-13.30	-1,154.05	-134.47	574.04	518.34	55.69	10.307		
6,300.00	6,266.05	6,255.94	6,160.51	28.51	30.39	-13.31	-1,172.16	-136.80	581.47	524.87	56.60	10.273		
6,400.00	6,365.43	6,355.66	6,258.55	28.97	30.88	-13.32	-1,190.27	-139.14	588.91	531.40	57.51	10.240		
6,500.00	6,464.81	6,455.39	6,356.58	29.43	31.37	-13.34	-1,208.38	-141.47	596.35	537.93	58.42	10.208		
6,600.00	6,564.10	6,555.06	6,454.57	29.89	31.86	-13.35	-1,226.48	-143.81	603.78	544.45	59.33	10.177		
6,700.00	6,661.75	6,653.81	6,551.64	30.34	32.35	-13.36	-1,244.41	-146.14	611.21	551.06	60.25	10.146		
6,800.00	6,755.38	6,754.90	6,650.01	30.77	32.84	-13.37	-1,262.27	-148.47	618.64	557.67	61.17	10.118		
6,900.00	6,842.67	6,859.52	6,748.20	31.17	33.32	-13.38	-1,280.13	-150.79	626.07	564.28	62.09	10.093		
7,000.00	6,921.48	6,967.92	6,843.28	31.54	33.77	-13.39	-1,297.97	-153.11	633.50	570.89	63.01	10.068		
7,100.00	6,989.86	7,080.22	6,931.73	31.91	34.19	-13.40	-1,315.73	-155.43	640.93	577.50	63.93	10.043		
7,200.00	7,046.13	7,196.37	7,009.58	32.25	34.59	-13.41	-1,333.49	-157.75	647.96	584.11	64.85	10.018		
7,300.00	7,088.91	7,316.07	7,072.59	32.58	35.00	-13.42	-1,351.25	-159.96	654.99	590.72	65.77	9.993		
7,400.00	7,117.14	7,438.71	7,116.76	32.91	35.41	-13.43	-1,369.01	-162.17	662.02	597.29	66.69	9.968		
7,500.00	7,130.13	7,563.43	7,138.84	33.24	35.82	-13.44	-1,386.77	-164.38	669.05	603.86	67.61	9.943		
7,600.00	7,130.72	7,674.95	7,140.70	33.57	36.23	-13.45	-1,404.53	-166.59	676.08	610.43	68.53	9.918		
7,700.00	7,130.29	7,774.95	7,140.16	33.90	36.64	-13.46	-1,422.29	-168.80	683.11	617.00	69.45	9.893		
7,800.00	7,129.85	7,874.94	7,139.61	34.23	37.05	-13.47	-1,440.05	-170.96	689.14	623.57	70.37	9.868		
7,900.00	7,129.42	7,974.94	7,139.07	34.56	37.46	-13.48	-1,457.81	-173.17	695.17	630.14	71.29	9.843		
8,000.00	7,128.98	8,074.94	7,138.53	34.89	37.87	-13.49	-1,475.57	-175.38	701.20	636.71	72.21	9.818		
8,100.00	7,128.55	8,174.93	7,137.99	35.22	38.28	-13.50	-1,493.33	-177.59	707.23	643.28	73.13	9.793		
8,200.00	7,128.12	8,274.93	7,137.45	35.55	38.69	-13.51	-1,511.09	-179.80	713.26	649.85	74.05	9.768		
8,300.00	7,127.68	8,374.93	7,136.90	35.88	39.10	-13.52	-1,528.85	-181.96	719.29	656.42	74.97	9.743		
8,400.00	7,127.25	8,474.92	7,136.36	36.21	39.51	-13.53	-1,546.61	-184.17	725.32	663.00	75.89	9.718		
8,500.00	7,126.81	8,574.92	7,135.82	36.54	39.92	-13.54	-1,564.37	-186.38	731.35	669.57	76.81	9.693		
8,600.00	7,126.38	8,674.92	7,135.28	36.87	40.33	-13.55	-1,582.13	-188.59	737.38	676.14	77.73	9.668		
8,700.00	7,125.95	8,774.91	7,134.74	37.20	40.74	-13.56	-1,600.00	-190.80	743.41	682.71	78.65	9.643		
8,800.00	7,125.51	8,874.91	7,134.20	37.53	41.15	-13.57	-1,617.76	-192.96	749.44	689.28	79.57	9.618		
8,900.00	7,125.08	8,974.91	7,133.65	37.86	41.56	-13.58	-1,635.52	-195.17	755.47	695.85	80.49	9.593		
9,000.00	7,124.64	9,074.90	7,133.11	38.19	41.97	-13.59	-1,653.28	-197.38	761.50	702.42	81.41	9.568		
9,100.00	7,124.21	9,174.90	7,132.57	38.52	42.38	-13.60	-1,671.04	-199.59	767.53	708.99	82.33	9.543		
9,200.00	7,123.78	9,274.90	7,132.03	38.85	42.79	-13.61	-1,688.80	-201.80	773.56	715.56	83.25	9.518		
9,300.00	7,123.34	9,374.89	7,131.49	39.18	43.20	-13.62	-1,706.56	-203.96	779.59	722.13	84.17	9.493		
9,400.00	7,122.91	9,474.89	7,130.94	39.51	43.61	-13.63	-1,724.32	-206.17	785.62	728.70	85.09	9.468		
9,500.00	7,122.48	9,574.89	7,130.40	39.84	44.02	-13.64	-1,742.08	-208.38	791.65	735.27	86.01	9.443		
9,600.00	7,122.04	9,674.88	7,129.86	40.17	44.43	-13.65	-1,759.84	-210.59	797.68	741.84	86.93	9.418		
9,700.00	7,121.61	9,774.88	7,129.32	40.50	44.84	-13.66	-1,777.60	-212.80	803.71	748.41	87.85	9.393		
9,800.00	7,121.17	9,874.88	7,128.78	40.83	45.25	-13.67	-1,795.36	-214.96	809.74	754.98	88.77	9.368		
9,900.00	7,120.74	9,974.88	7,128.23	41.16	45.66	-13.68	-1,813.12	-217.17	815.77	761.55	89.69	9.343		
10,000.00	7,120.31	10,074.87	7,127.69	41.49	46.07	-13.69	-1,830.88	-219.38	821.80	768.12	90.61	9.318		
10,100.00	7,119.87	10,174.87	7,127.15	41.82	46.48	-13.70	-1,848.64	-221.59	827.83	774.69	91.53	9.293		
10,200.00	7,119.44	10,274.87	7,126.61	42.15	46.89	-13.71	-1,866.40	-223.80	833.86	781.26	92.45	9.268		
10,300.00	7,119.00	10,374.86	7,126.07	42.48	47.30	-13.72	-1,884.16	-225.96	839.89	787.83	93.37	9.243		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,400.00	7,118.57	10,474.86	7,125.52	102.05	102.10	-90.58	-1,408.50	-3,638.08	686.91	483.01	203.91	3.369		
10,500.00	7,118.14	10,574.86	7,124.98	104.77	104.80	-90.57	-1,410.07	-3,738.06	687.71	478.37	209.34	3.285		
10,600.00	7,117.70	10,674.85	7,124.44	107.50	107.51	-90.56	-1,411.64	-3,838.05	688.50	473.72	214.78	3.206		
10,700.00	7,117.27	10,774.85	7,123.90	110.23	110.23	-90.55	-1,413.21	-3,938.03	689.29	469.05	220.24	3.130		
10,800.00	7,116.83	10,874.85	7,123.36	112.97	112.95	-90.54	-1,414.78	-4,038.01	690.08	464.37	225.71	3.057		
10,900.00	7,116.40	10,974.84	7,122.81	115.72	115.69	-90.53	-1,416.35	-4,137.99	690.87	459.68	231.19	2.988		
11,000.00	7,115.97	11,074.84	7,122.27	118.47	118.42	-90.52	-1,417.92	-4,237.98	691.66	454.98	236.68	2.922		
11,100.00	7,115.53	11,174.84	7,121.73	121.22	121.16	-90.51	-1,419.49	-4,337.96	692.46	450.27	242.18	2.859		
11,200.00	7,115.10	11,274.83	7,121.19	123.98	123.91	-90.50	-1,421.06	-4,437.94	693.25	445.55	247.70	2.799		
11,300.00	7,114.66	11,374.83	7,120.65	126.74	126.66	-90.49	-1,422.63	-4,537.93	694.04	440.82	253.22	2.741		
11,400.00	7,114.23	11,474.83	7,120.10	129.51	129.42	-90.48	-1,424.20	-4,637.91	694.83	436.08	258.75	2.685		
11,500.00	7,113.80	11,574.82	7,119.56	132.29	132.18	-90.47	-1,425.77	-4,737.89	695.62	431.34	264.28	2.632		
11,600.00	7,113.36	11,674.82	7,119.02	135.06	134.95	-90.46	-1,427.34	-4,837.88	696.41	426.58	269.83	2.581		
11,700.00	7,112.93	11,774.82	7,118.48	137.84	137.71	-90.45	-1,428.91	-4,937.86	697.21	421.82	275.38	2.532		
11,800.00	7,112.49	11,874.81	7,117.94	140.62	140.49	-90.44	-1,430.48	-5,037.84	698.00	417.06	280.94	2.485		
11,900.00	7,112.06	11,974.81	7,117.39	143.41	143.26	-90.44	-1,432.05	-5,137.82	698.79	412.28	286.51	2.439		
12,000.00	7,111.63	12,074.81	7,116.85	146.20	146.04	-90.43	-1,433.62	-5,237.81	699.58	407.51	292.08	2.395		
12,100.00	7,111.19	12,174.80	7,116.31	148.99	148.82	-90.42	-1,435.19	-5,337.79	700.37	402.72	297.65	2.353		
12,200.00	7,110.76	12,274.80	7,115.77	151.78	151.60	-90.41	-1,436.76	-5,437.77	701.17	397.93	303.23	2.312		
12,300.00	7,110.33	12,374.80	7,115.23	154.58	154.39	-90.40	-1,438.33	-5,537.76	701.96	393.14	308.82	2.273		
12,400.00	7,109.89	12,474.80	7,114.69	157.37	157.18	-90.39	-1,439.90	-5,637.74	702.75	388.34	314.41	2.235		
12,500.00	7,109.46	12,574.79	7,114.14	160.17	159.97	-90.38	-1,441.47	-5,737.72	703.54	383.54	320.00	2.199		
12,600.00	7,109.02	12,674.79	7,113.60	162.98	162.77	-90.37	-1,443.04	-5,837.71	704.33	378.73	325.60	2.163		
12,700.00	7,108.59	12,774.79	7,113.06	165.78	165.56	-90.36	-1,444.61	-5,937.69	705.13	373.92	331.21	2.129		
12,800.00	7,108.16	12,874.78	7,112.52	168.59	168.36	-90.35	-1,446.18	-6,037.67	705.92	369.10	336.81	2.096		
12,900.00	7,107.72	12,974.78	7,111.98	171.39	171.16	-90.34	-1,447.75	-6,137.65	706.71	364.29	342.42	2.064		
13,000.00	7,107.29	13,074.78	7,111.43	174.20	173.96	-90.33	-1,449.32	-6,237.64	707.50	359.46	348.04	2.033		
13,100.00	7,106.85	13,174.77	7,110.89	177.01	176.76	-90.32	-1,450.89	-6,337.62	708.29	354.64	353.65	2.003		
13,200.00	7,106.42	13,274.77	7,110.35	179.83	179.57	-90.32	-1,452.46	-6,437.60	709.09	349.81	359.27	1.974		
13,300.00	7,105.99	13,374.77	7,109.81	182.64	182.37	-90.31	-1,454.03	-6,537.59	709.88	344.98	364.90	1.945		
13,400.00	7,105.55	13,474.76	7,109.27	185.45	185.18	-90.30	-1,455.60	-6,637.57	710.67	340.15	370.52	1.918		
13,500.00	7,105.12	13,574.76	7,108.72	188.27	187.99	-90.29	-1,457.17	-6,737.55	711.46	335.31	376.15	1.891		
13,600.00	7,104.68	13,674.76	7,108.18	191.09	190.80	-90.28	-1,458.74	-6,837.54	712.25	330.47	381.78	1.866		
13,700.00	7,104.25	13,774.75	7,107.64	193.91	193.61	-90.27	-1,460.31	-6,937.52	713.05	325.63	387.42	1.841		
13,800.00	7,103.82	13,874.75	7,107.10	196.73	196.43	-90.26	-1,461.88	-7,037.50	713.84	320.79	393.05	1.816		
13,900.00	7,103.38	13,974.75	7,106.56	199.55	199.24	-90.25	-1,463.45	-7,137.48	714.63	315.94	398.69	1.792		
14,000.00	7,102.95	14,074.74	7,106.01	202.37	202.06	-90.24	-1,465.02	-7,237.47	715.42	311.09	404.33	1.769		
14,100.00	7,102.51	14,174.74	7,105.47	205.19	204.88	-90.23	-1,466.59	-7,337.45	716.22	306.24	409.97	1.747		
14,200.00	7,102.08	14,274.74	7,104.93	208.02	207.69	-90.23	-1,468.16	-7,437.43	717.01	301.39	415.62	1.725		
14,300.00	7,101.65	14,374.73	7,104.39	210.84	210.51	-90.22	-1,469.73	-7,537.42	717.80	296.54	421.26	1.704		
14,400.00	7,101.21	14,474.73	7,103.85	213.67	213.33	-90.21	-1,471.30	-7,637.40	718.59	291.68	426.91	1.683		
14,500.00	7,100.78	14,574.73	7,103.30	216.50	216.15	-90.20	-1,472.87	-7,737.38	719.38	286.82	432.56	1.663		
14,600.00	7,100.35	14,674.72	7,102.76	219.32	218.97	-90.19	-1,474.44	-7,837.37	720.18	281.96	438.21	1.643		
14,700.00	7,099.91	14,774.72	7,102.22	222.15	221.80	-90.18	-1,476.01	-7,937.35	720.97	277.10	443.87	1.624		
14,800.00	7,099.48	14,874.72	7,101.68	224.98	224.62	-90.17	-1,477.58	-8,037.33	721.76	272.24	449.52	1.606		
14,900.00	7,099.04	14,974.72	7,101.14	227.81	227.44	-90.16	-1,479.15	-8,137.31	722.55	267.38	455.18	1.587		
14,909.96	7,099.00	14,984.68	7,101.08	228.09	227.73	-90.16	-1,479.31	-8,147.28	722.63	266.89	455.74	1.586 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	2.00	0.00	3.28	3.28	-179.51	-260.12	-2.23	260.13					
100.00	100.00	102.00	100.00	3.28	3.29	-179.51	-260.12	-2.23	260.13	253.56	6.57	39.594		
200.00	200.00	198.00	200.00	3.34	3.34	-179.51	-260.12	-2.23	260.13	253.46	6.67	38.985 CC, ES		
300.00	300.00	289.82	291.81	3.44	3.43	-179.49	-261.52	-2.31	261.66	254.78	6.88	38.025		
400.00	400.00	381.30	383.17	3.60	3.56	-179.45	-265.84	-2.57	266.39	259.19	7.19	37.026		
500.00	500.00	472.40	473.99	3.81	3.73	-179.37	-273.04	-2.99	274.29	266.69	7.60	36.099		
600.00	600.00	562.96	563.99	4.04	3.94	-12.42	-283.04	-3.59	285.28	277.20	8.07	35.340		
700.00	699.96	653.11	653.22	4.29	4.18	-12.34	-295.81	-4.35	297.09	288.51	8.58	34.624		
800.00	799.78	742.95	741.71	4.57	4.45	-12.37	-311.32	-5.28	308.64	299.50	9.14	33.779		
900.00	899.34	832.50	829.37	4.88	4.75	-12.50	-329.53	-6.36	319.90	310.17	9.73	32.880		
1,000.00	998.72	921.55	915.95	5.20	5.08	-12.69	-350.35	-7.60	332.63	322.27	10.36	32.102		
1,100.00	1,098.10	1,009.82	1,001.08	5.54	5.44	-12.84	-373.62	-8.99	348.42	337.41	11.02	31.625		
1,200.00	1,197.49	1,097.15	1,084.55	5.90	5.82	-12.95	-399.20	-10.51	367.23	355.54	11.69	31.423		
1,300.00	1,296.87	1,183.39	1,166.19	6.28	6.22	-13.03	-426.95	-12.17	389.00	376.63	12.36	31.461		
1,400.00	1,396.25	1,268.41	1,245.82	6.66	6.63	-13.08	-456.70	-13.94	413.67	400.63	13.05	31.710		
1,500.00	1,495.64	1,353.96	1,325.02	7.06	7.08	-13.10	-488.97	-15.86	441.15	427.41	13.74	32.115		
1,600.00	1,595.02	1,449.81	1,413.38	7.46	7.59	-13.11	-526.04	-18.07	469.65	455.14	14.51	32.360		
1,700.00	1,694.40	1,545.66	1,501.74	7.87	8.13	-13.12	-563.12	-20.28	498.15	482.84	15.31	32.534		
1,800.00	1,793.79	1,641.51	1,590.10	8.29	8.67	-13.13	-600.20	-22.49	526.66	510.53	16.13	32.655		
1,900.00	1,893.17	1,737.36	1,678.47	8.71	9.23	-13.14	-637.28	-24.70	555.16	538.20	16.96	32.734		
2,000.00	1,992.55	1,833.22	1,766.83	9.13	9.79	-13.15	-674.36	-26.91	583.66	565.85	17.80	32.781		
2,100.00	2,091.94	1,929.07	1,855.19	9.56	10.36	-13.15	-711.44	-29.12	612.16	593.50	18.66	32.803		
2,200.00	2,191.32	2,024.92	1,943.55	9.99	10.93	-13.16	-748.52	-31.33	640.66	621.13	19.53	32.807		
2,300.00	2,290.70	2,120.77	2,031.92	10.42	11.51	-13.17	-785.59	-33.53	669.16	648.76	20.40	32.797		
2,400.00	2,390.09	2,216.63	2,120.28	10.86	12.10	-13.17	-822.67	-35.74	697.67	676.38	21.29	32.776		
2,500.00	2,489.47	2,312.48	2,208.64	11.29	12.68	-13.18	-859.75	-37.95	726.17	703.99	22.18	32.746		
2,600.00	2,588.86	2,408.33	2,297.00	11.73	13.27	-13.18	-896.83	-40.16	754.67	731.60	23.07	32.711		
2,700.00	2,688.24	2,504.18	2,385.37	12.18	13.87	-13.19	-933.91	-42.37	783.17	759.20	23.97	32.671		
2,800.00	2,787.62	2,600.03	2,473.73	12.62	14.46	-13.19	-970.99	-44.58	811.67	786.80	24.88	32.627		
2,900.00	2,887.01	2,704.11	2,562.09	13.06	15.11	-13.19	-1,008.07	-46.79	840.18	814.35	25.83	32.527		
3,000.00	2,986.39	2,808.26	2,650.45	13.51	15.76	-13.20	-1,045.15	-49.00	868.68	841.89	26.79	32.429		
3,100.00	3,085.77	2,887.59	2,738.82	13.95	16.26	-13.20	-1,082.22	-51.21	897.18	869.56	27.62	32.487		
3,200.00	3,185.16	2,983.44	2,827.18	14.40	16.86	-13.20	-1,119.30	-53.42	925.68	897.14	28.54	32.439		
3,300.00	3,284.54	3,079.30	2,915.54	14.85	17.46	-13.21	-1,156.38	-55.63	954.18	924.72	29.46	32.391		
3,400.00	3,383.92	3,175.15	3,003.90	15.30	18.07	-13.21	-1,193.46	-57.84	982.68	952.30	30.38	32.343		
3,500.00	3,483.31	3,271.00	3,092.27	15.75	18.67	-13.21	-1,230.54	-60.05	1,011.19	979.87	31.31	32.295		
3,600.00	3,582.69	3,366.85	3,180.63	16.20	19.28	-13.21	-1,267.62	-62.25	1,039.69	1,007.45	32.24	32.248		
3,700.00	3,682.07	3,462.70	3,268.99	16.65	19.89	-13.22	-1,304.70	-64.46	1,068.19	1,035.02	33.17	32.202		
3,800.00	3,781.46	3,558.56	3,357.35	17.10	20.49	-13.22	-1,341.77	-66.67	1,096.69	1,062.59	34.10	32.157		
3,900.00	3,880.84	3,654.41	3,445.72	17.56	21.10	-13.22	-1,378.85	-68.88	1,125.19	1,090.15	35.04	32.113		
4,000.00	3,980.22	3,750.26	3,534.08	18.01	21.71	-13.22	-1,415.93	-71.09	1,153.69	1,117.72	35.98	32.069		
4,100.00	4,079.61	3,846.11	3,622.44	18.46	22.32	-13.23	-1,453.01	-73.30	1,182.20	1,145.28	36.91	32.027		
4,200.00	4,178.99	3,941.97	3,710.81	18.92	22.93	-13.23	-1,490.09	-75.51	1,210.70	1,172.85	37.85	31.985		
4,300.00	4,278.38	4,037.82	3,799.17	19.37	23.54	-13.23	-1,527.17	-77.72	1,239.20	1,200.41	38.79	31.945		
4,400.00	4,377.76	4,133.67	3,887.53	19.83	24.16	-13.23	-1,564.25	-79.93	1,267.70	1,227.97	39.73	31.906		
4,500.00	4,477.14	4,229.52	3,975.89	20.28	24.77	-13.23	-1,601.32	-82.14	1,296.20	1,255.53	40.67	31.867		
4,600.00	4,576.53	4,325.37	4,064.26	20.74	25.38	-13.23	-1,638.40	-84.35	1,324.71	1,283.09	41.62	31.830		
4,700.00	4,675.91	4,421.23	4,152.62	21.19	25.99	-13.24	-1,675.48	-86.56	1,353.21	1,310.64	42.56	31.794		
4,800.00	4,775.29	4,517.08	4,240.98	21.65	26.61	-13.24	-1,712.56	-88.77	1,381.71	1,338.20	43.51	31.758		
4,900.00	4,874.68	4,612.93	4,329.34	22.10	27.22	-13.24	-1,749.64	-90.97	1,410.21	1,365.76	44.45	31.724		
5,000.00	4,974.06	4,708.78	4,417.71	22.56	27.83	-13.24	-1,786.72	-93.18	1,438.71	1,393.31	45.40	31.690		
5,100.00	5,073.44	4,804.64	4,506.07	23.02	28.45	-13.24	-1,823.80	-95.39	1,467.21	1,420.87	46.35	31.657		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,200.00	5,172.83	4,900.49	4,594.43	23.47	29.06	-13.24	-1,860.88	-97.60	1,495.72	1,448.42	47.29	31.625		
5,300.00	5,272.21	5,003.66	4,682.79	23.93	29.72	-13.24	-1,897.95	-99.81	1,524.22	1,475.93	48.28	31.568		
5,400.00	5,371.59	5,107.81	4,771.16	24.39	30.39	-13.24	-1,935.03	-102.02	1,552.72	1,503.44	49.28	31.509		
5,500.00	5,470.98	5,188.04	4,859.52	24.85	30.91	-13.24	-1,972.11	-104.23	1,581.22	1,531.08	50.14	31.535		
5,600.00	5,570.36	5,283.90	4,947.88	25.30	31.52	-13.25	-2,009.19	-106.44	1,609.72	1,558.63	51.09	31.506		
5,700.00	5,669.75	5,379.75	5,036.24	25.76	32.14	-13.25	-2,046.27	-108.65	1,638.22	1,586.18	52.04	31.478		
5,800.00	5,769.13	5,475.60	5,124.61	26.22	32.75	-13.25	-2,083.35	-110.86	1,666.73	1,613.73	53.00	31.451		
5,900.00	5,868.51	5,571.45	5,212.97	26.68	33.37	-13.25	-2,120.43	-113.07	1,695.23	1,641.28	53.95	31.424		
6,000.00	5,967.90	5,667.31	5,301.33	27.14	33.99	-13.25	-2,157.50	-115.28	1,723.73	1,668.83	54.90	31.398		
6,100.00	6,067.28	5,763.16	5,389.69	27.60	34.60	-13.25	-2,194.58	-117.49	1,752.23	1,696.38	55.85	31.373		
6,200.00	6,166.66	5,859.01	5,478.06	28.05	35.22	-13.25	-2,231.66	-119.69	1,780.73	1,723.93	56.81	31.348		
6,300.00	6,266.05	5,954.86	5,566.42	28.51	35.83	-13.25	-2,268.74	-121.90	1,809.24	1,751.48	57.76	31.324		
6,400.00	6,365.43	6,050.71	5,654.78	28.97	36.45	-13.25	-2,305.82	-124.11	1,837.74	1,779.02	58.71	31.300		
6,500.00	6,464.81	6,146.57	5,743.14	29.43	37.07	-13.25	-2,342.90	-126.32	1,866.24	1,806.57	59.67	31.277		
6,600.00	6,564.10	6,242.37	5,831.46	29.89	37.68	-42.33	-2,379.96	-128.53	1,894.72	1,834.09	60.62	31.254		
6,700.00	6,661.75	6,336.97	5,918.67	30.34	38.29	-63.53	-2,416.55	-130.71	1,922.84	1,861.27	61.58	31.227		
6,800.00	6,755.38	6,428.08	6,002.66	30.77	38.88	-69.67	-2,451.79	-132.81	1,950.30	1,887.78	62.52	31.197		
6,900.00	6,842.67	6,513.46	6,081.37	31.17	39.43	-72.04	-2,484.82	-134.78	1,977.07	1,913.63	63.44	31.163		
7,000.00	6,921.48	6,608.99	6,152.86	31.54	40.05	-73.03	-2,514.82	-136.57	2,003.41	1,938.94	64.47	31.075		
7,100.00	6,989.86	6,658.81	6,215.36	31.91	40.37	-73.28	-2,541.05	-138.13	2,029.70	1,964.37	65.33	31.067		
7,200.00	7,046.13	6,715.21	6,267.35	32.35	40.73	-72.96	-2,562.86	-139.43	2,056.34	1,989.97	66.36	30.986		
7,300.00	7,088.91	6,758.80	6,307.54	32.98	41.01	-72.08	-2,579.73	-140.43	2,083.64	2,016.15	67.49	30.874		
7,400.00	7,117.14	6,788.52	6,334.94	33.84	41.20	-70.60	-2,591.22	-141.12	2,111.75	2,043.04	68.71	30.734		
7,500.00	7,130.13	6,803.63	6,348.87	34.90	41.30	-68.53	-2,597.07	-141.47	2,140.53	2,070.53	70.00	30.579		
7,600.00	7,130.72	6,806.83	6,351.82	36.13	41.32	-67.67	-2,598.31	-141.54	2,170.46	2,099.13	71.33	30.430		
7,700.00	7,130.29	6,809.03	6,353.85	37.54	41.33	-67.73	-2,599.16	-141.59	2,204.25	2,131.51	72.74	30.301		
7,800.00	7,129.85	8,205.84	7,070.24	39.12	47.33	-88.45	-2,906.10	-1,035.57	2,205.46	2,122.75	82.70	26.667		
7,900.00	7,129.42	8,305.84	7,069.94	40.83	48.08	-88.46	-2,906.70	-1,135.57	2,205.27	2,119.34	85.93	25.663		
8,000.00	7,128.98	8,405.84	7,069.65	42.67	49.09	-88.46	-2,907.30	-1,235.56	2,205.09	2,115.68	89.41	24.663		
8,100.00	7,128.55	8,505.84	7,069.35	44.62	50.35	-88.46	-2,907.90	-1,335.56	2,204.91	2,111.80	93.11	23.681		
8,200.00	7,128.12	8,605.84	7,069.05	46.66	51.85	-88.47	-2,908.50	-1,435.56	2,204.72	2,107.72	97.00	22.729		
8,300.00	7,127.68	8,705.84	7,068.75	48.79	53.53	-88.47	-2,909.09	-1,535.56	2,204.54	2,103.47	101.07	21.813		
8,400.00	7,127.25	8,805.84	7,068.46	50.98	55.35	-88.47	-2,909.69	-1,635.55	2,204.36	2,099.07	105.28	20.937		
8,500.00	7,126.81	8,905.84	7,068.16	53.24	57.29	-88.48	-2,910.29	-1,735.55	2,204.17	2,094.54	109.64	20.104		
8,600.00	7,126.38	9,005.84	7,067.86	55.56	59.33	-88.48	-2,910.89	-1,835.55	2,203.99	2,089.88	114.11	19.315		
8,700.00	7,125.95	9,105.84	7,067.56	57.92	61.45	-88.48	-2,911.49	-1,935.55	2,203.81	2,085.12	118.69	18.568		
8,800.00	7,125.51	9,205.84	7,067.27	60.33	63.64	-88.49	-2,912.08	-2,035.54	2,203.63	2,080.26	123.36	17.863		
8,900.00	7,125.08	9,305.84	7,066.97	62.77	65.89	-88.49	-2,912.68	-2,135.54	2,203.44	2,075.32	128.12	17.198		
9,000.00	7,124.64	9,405.84	7,066.67	65.25	68.19	-88.49	-2,913.28	-2,235.54	2,203.26	2,070.31	132.95	16.572		
9,100.00	7,124.21	9,505.84	7,066.37	67.76	70.54	-88.50	-2,913.88	-2,335.54	2,203.08	2,065.23	137.85	15.982		
9,200.00	7,123.78	9,605.84	7,066.08	70.29	72.92	-88.50	-2,914.48	-2,435.54	2,202.89	2,060.08	142.81	15.425		
9,300.00	7,123.34	9,705.84	7,065.78	72.85	75.34	-88.50	-2,915.07	-2,535.53	2,202.71	2,054.89	147.83	14.901		
9,400.00	7,122.91	9,805.84	7,065.48	75.43	77.80	-88.51	-2,915.67	-2,635.53	2,202.53	2,049.64	152.89	14.406		
9,500.00	7,122.48	9,905.83	7,065.18	78.03	80.28	-88.51	-2,916.27	-2,735.53	2,202.34	2,044.35	158.00	13.939		
9,600.00	7,122.04	10,005.83	7,064.89	80.65	82.78	-88.51	-2,916.87	-2,835.53	2,202.16	2,039.02	163.14	13.498		
9,700.00	7,121.61	10,105.83	7,064.59	83.28	85.31	-88.52	-2,917.47	-2,935.52	2,201.98	2,033.65	168.33	13.081		
9,800.00	7,121.17	10,205.83	7,064.29	85.93	87.87	-88.52	-2,918.06	-3,035.52	2,201.80	2,028.25	173.55	12.687		
9,900.00	7,120.74	10,305.83	7,063.99	88.59	90.44	-88.52	-2,918.66	-3,135.52	2,201.61	2,022.82	178.79	12.314		
10,000.00	7,120.31	10,405.83	7,063.70	91.26	93.02	-88.53	-2,919.26	-3,235.52	2,201.43	2,017.36	184.07	11.960		
10,100.00	7,119.87	10,505.83	7,063.40	93.95	95.63	-88.53	-2,919.86	-3,335.51	2,201.25	2,011.88	189.37	11.624		
10,200.00	7,119.44	10,605.83	7,063.10	96.64	98.24	-88.53	-2,920.45	-3,435.51	2,201.06	2,006.37	194.69	11.305		
10,300.00	7,119.00	10,705.83	7,062.80	99.34	100.88	-88.54	-2,921.05	-3,535.51	2,200.88	2,000.84	200.04	11.002		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Semi Major Axis 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	7,118.57	10,805.83	7,062.50	102.05	103.52	-88.54	-2,921.65	-3,635.51	2,200.70	1,995.29	205.41	10.714		
10,500.00	7,118.14	10,905.83	7,062.21	104.77	106.18	-88.54	-2,922.25	-3,735.50	2,200.52	1,989.72	210.79	10.439		
10,600.00	7,117.70	11,005.83	7,061.91	107.50	108.84	-88.55	-2,922.85	-3,835.50	2,200.33	1,984.14	216.19	10.178		
10,700.00	7,117.27	11,105.83	7,061.61	110.23	111.52	-88.55	-2,923.44	-3,935.50	2,200.15	1,978.54	221.61	9.928		
10,800.00	7,116.83	11,205.83	7,061.31	112.97	114.20	-88.55	-2,924.04	-4,035.50	2,199.97	1,972.93	227.04	9.690		
10,900.00	7,116.40	11,305.83	7,061.02	115.72	116.90	-88.56	-2,924.64	-4,135.49	2,199.78	1,967.30	232.48	9.462		
11,000.00	7,115.97	11,405.83	7,060.72	118.47	119.60	-88.56	-2,925.24	-4,235.49	2,199.60	1,961.66	237.94	9.244		
11,100.00	7,115.53	11,505.83	7,060.42	121.22	122.30	-88.56	-2,925.84	-4,335.49	2,199.42	1,956.01	243.41	9.036		
11,200.00	7,115.10	11,605.83	7,060.12	123.98	125.02	-88.57	-2,926.43	-4,435.49	2,199.24	1,950.34	248.89	8.836		
11,300.00	7,114.66	11,705.83	7,059.83	126.74	127.74	-88.57	-2,927.03	-4,535.48	2,199.05	1,944.67	254.38	8.645		
11,400.00	7,114.23	11,805.83	7,059.53	129.51	130.47	-88.57	-2,927.63	-4,635.48	2,198.87	1,938.99	259.88	8.461		
11,500.00	7,113.80	11,905.83	7,059.23	132.29	133.20	-88.58	-2,928.23	-4,735.48	2,198.69	1,933.29	265.39	8.285		
11,600.00	7,113.36	12,005.83	7,058.93	135.06	135.94	-88.58	-2,928.83	-4,835.48	2,198.50	1,927.59	270.91	8.115		
11,700.00	7,112.93	12,105.83	7,058.64	137.84	138.68	-88.59	-2,929.42	-4,935.47	2,198.32	1,921.88	276.44	7.952		
11,800.00	7,112.49	12,205.83	7,058.34	140.62	141.43	-88.59	-2,930.02	-5,035.47	2,198.14	1,916.17	281.97	7.796		
11,900.00	7,112.06	12,305.83	7,058.04	143.41	144.18	-88.59	-2,930.62	-5,135.47	2,197.96	1,910.45	287.51	7.645		
12,000.00	7,111.63	12,405.83	7,057.74	146.20	146.94	-88.60	-2,931.22	-5,235.47	2,197.77	1,904.71	293.06	7.499		
12,100.00	7,111.19	12,505.83	7,057.45	148.99	149.70	-88.60	-2,931.82	-5,335.46	2,197.59	1,898.98	298.61	7.359		
12,200.00	7,110.76	12,605.83	7,057.15	151.78	152.46	-88.60	-2,932.41	-5,435.46	2,197.41	1,893.24	304.17	7.224		
12,300.00	7,110.33	12,705.83	7,056.85	154.58	155.23	-88.61	-2,933.01	-5,535.46	2,197.23	1,887.49	309.74	7.094		
12,400.00	7,109.89	12,805.83	7,056.55	157.37	158.00	-88.61	-2,933.61	-5,635.46	2,197.04	1,881.73	315.31	6.968		
12,500.00	7,109.46	12,905.83	7,056.26	160.17	160.77	-88.61	-2,934.21	-5,735.45	2,196.86	1,875.98	320.88	6.846		
12,600.00	7,109.02	13,005.83	7,055.96	162.98	163.55	-88.62	-2,934.80	-5,835.45	2,196.68	1,870.21	326.46	6.729		
12,700.00	7,108.59	13,105.83	7,055.66	165.78	166.33	-88.62	-2,935.40	-5,935.45	2,196.49	1,864.45	332.05	6.615		
12,800.00	7,108.16	13,205.83	7,055.36	168.59	169.11	-88.62	-2,936.00	-6,035.45	2,196.31	1,858.67	337.64	6.505		
12,900.00	7,107.72	13,305.83	7,055.06	171.39	171.90	-88.63	-2,936.60	-6,135.44	2,196.13	1,852.90	343.23	6.398		
13,000.00	7,107.29	13,405.83	7,054.77	174.20	174.68	-88.63	-2,937.20	-6,235.44	2,195.95	1,847.12	348.83	6.295		
13,100.00	7,106.85	13,505.83	7,054.47	177.01	177.47	-88.63	-2,937.79	-6,335.44	2,195.76	1,841.33	354.43	6.195		
13,200.00	7,106.42	13,605.83	7,054.17	179.83	180.27	-88.64	-2,938.39	-6,435.44	2,195.58	1,835.54	360.04	6.098		
13,300.00	7,105.99	13,705.83	7,053.87	182.64	183.06	-88.64	-2,938.99	-6,535.43	2,195.40	1,829.75	365.65	6.004		
13,400.00	7,105.55	13,805.83	7,053.58	185.45	185.85	-88.64	-2,939.59	-6,635.43	2,195.22	1,823.96	371.26	5.913		
13,500.00	7,105.12	13,905.82	7,053.28	188.27	188.65	-88.65	-2,940.19	-6,735.43	2,195.03	1,818.16	376.87	5.824		
13,600.00	7,104.68	14,005.82	7,052.98	191.09	191.45	-88.65	-2,940.78	-6,835.43	2,194.85	1,812.36	382.49	5.738		
13,700.00	7,104.25	14,105.82	7,052.68	193.91	194.25	-88.65	-2,941.38	-6,935.42	2,194.67	1,806.56	388.11	5.655		
13,800.00	7,103.82	14,205.82	7,052.39	196.73	197.06	-88.66	-2,941.98	-7,035.42	2,194.49	1,800.75	393.73	5.574		
13,900.00	7,103.38	14,305.82	7,052.09	199.55	199.86	-88.66	-2,942.58	-7,135.42	2,194.30	1,794.94	399.36	5.495		
14,000.00	7,102.95	14,405.82	7,051.79	202.37	202.67	-88.66	-2,943.18	-7,235.42	2,194.12	1,789.13	404.99	5.418		
14,100.00	7,102.51	14,505.82	7,051.49	205.19	205.47	-88.67	-2,943.77	-7,335.41	2,193.94	1,783.32	410.62	5.343		
14,200.00	7,102.08	14,605.82	7,051.20	208.02	208.28	-88.67	-2,944.37	-7,435.41	2,193.76	1,777.50	416.25	5.270		
14,300.00	7,101.65	14,705.82	7,050.90	210.84	211.09	-88.67	-2,944.97	-7,535.41	2,193.57	1,771.69	421.89	5.199		
14,400.00	7,101.21	14,805.82	7,050.60	213.67	213.90	-88.68	-2,945.57	-7,635.41	2,193.39	1,765.87	427.52	5.130		
14,500.00	7,100.78	14,905.82	7,050.30	216.50	216.72	-88.68	-2,946.17	-7,735.40	2,193.21	1,760.04	433.16	5.063		
14,600.00	7,100.35	15,005.82	7,050.01	219.32	219.53	-88.69	-2,946.76	-7,835.40	2,193.02	1,754.22	438.81	4.998		
14,700.00	7,099.91	15,105.82	7,049.71	222.15	222.35	-88.69	-2,947.36	-7,935.40	2,192.84	1,748.39	444.45	4.934		
14,800.00	7,099.48	15,205.82	7,049.41	224.98	225.16	-88.69	-2,947.96	-8,035.40	2,192.66	1,742.56	450.09	4.872		
14,900.00	7,099.04	15,305.82	7,049.11	227.81	227.98	-88.70	-2,948.56	-8,135.39	2,192.48	1,736.74	455.74	4.811		
14,909.96	7,099.00	15,315.79	7,049.08	228.09	228.26	-88.70	-2,948.62	-8,145.36	2,192.46	1,736.15	456.30	4.805 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	0.00	0.00	3.28	3.28	0.48	99.82	0.83	99.82					
100.00	100.00	100.00	100.00	3.28	3.28	0.48	99.82	0.83	99.82	93.25	6.57	15.195		
200.00	200.00	200.00	200.00	3.34	3.34	0.48	99.82	0.83	99.82	93.15	6.67	14.957		
300.00	300.00	300.00	300.00	3.44	3.44	0.48	99.82	0.83	99.82	92.93	6.89	14.489		
400.00	400.00	400.00	400.00	3.60	3.60	0.48	99.82	0.83	99.82	92.62	7.21	13.852		
500.00	500.00	500.00	500.00	3.81	3.81	0.48	99.82	0.83	99.82	92.21	7.61	13.114 CC, ES		
600.00	600.00	596.97	596.95	4.04	4.04	166.90	101.28	0.08	101.39	93.30	8.09	12.537		
700.00	699.96	705.00	694.87	4.29	4.33	166.02	105.41	-2.06	107.99	99.36	8.64	12.506		
800.00	799.78	805.56	794.18	4.57	4.63	165.52	110.07	-4.47	118.45	109.24	9.21	12.855		
900.00	899.34	906.52	893.07	4.88	4.96	165.47	114.71	-6.87	132.27	122.42	9.84	13.435		
1,000.00	998.72	1,007.72	991.74	5.20	5.30	165.64	119.33	-9.27	147.70	137.20	10.50	14.063		
1,100.00	1,098.10	1,108.92	1,090.40	5.54	5.65	165.79	123.96	-11.67	163.14	151.94	11.19	14.575		
1,200.00	1,197.49	1,189.88	1,189.06	5.90	5.95	165.91	128.58	-14.06	178.57	166.74	11.83	15.088		
1,300.00	1,296.87	1,288.68	1,287.73	6.28	6.31	166.01	133.21	-16.46	194.01	181.44	12.56	15.442		
1,400.00	1,396.25	1,387.49	1,386.39	6.66	6.69	166.10	137.84	-18.85	209.44	196.13	13.31	15.736		
1,500.00	1,495.64	1,486.29	1,485.05	7.06	7.07	166.17	142.46	-21.25	224.88	210.81	14.07	15.980		
1,600.00	1,595.02	1,585.09	1,583.72	7.46	7.46	166.24	147.09	-23.65	240.32	225.47	14.85	16.185		
1,700.00	1,694.40	1,683.89	1,682.38	7.87	7.85	166.29	151.71	-26.04	255.75	240.12	15.63	16.358		
1,800.00	1,793.79	1,782.69	1,781.05	8.29	8.25	166.34	156.34	-28.44	271.19	254.76	16.43	16.505		
1,900.00	1,893.17	1,881.49	1,879.71	8.71	8.65	166.39	160.97	-30.83	286.63	269.39	17.24	16.630		
2,000.00	1,992.55	1,980.29	1,978.37	9.13	9.06	166.43	165.59	-33.23	302.07	284.02	18.05	16.737		
2,100.00	2,091.94	2,079.09	2,077.04	9.56	9.47	166.46	170.22	-35.62	317.50	298.64	18.87	16.830		
2,200.00	2,191.32	2,177.89	2,175.70	9.99	9.88	166.50	174.84	-38.02	332.94	313.25	19.69	16.910		
2,300.00	2,290.70	2,276.69	2,274.36	10.42	10.29	166.53	179.47	-40.42	348.38	327.86	20.52	16.980		
2,400.00	2,390.09	2,375.50	2,373.03	10.86	10.70	166.55	184.10	-42.81	363.82	342.47	21.35	17.040		
2,500.00	2,489.47	2,474.30	2,471.69	11.29	11.12	166.58	188.72	-45.21	379.26	357.07	22.19	17.094		
2,600.00	2,588.86	2,573.10	2,570.35	11.73	11.53	166.60	193.35	-47.60	394.69	371.67	23.03	17.141		
2,700.00	2,688.24	2,671.90	2,669.02	12.18	11.95	166.63	197.97	-50.00	410.13	386.26	23.87	17.183		
2,800.00	2,787.62	2,770.70	2,767.68	12.62	12.37	166.65	202.60	-52.39	425.57	400.86	24.71	17.220		
2,900.00	2,887.01	2,869.50	2,866.34	13.06	12.79	166.66	207.23	-54.79	441.01	415.45	25.56	17.252		
3,000.00	2,986.39	2,968.30	2,965.01	13.51	13.22	166.68	211.85	-57.19	456.45	430.04	26.41	17.282		
3,100.00	3,085.77	3,067.10	3,063.67	13.95	13.64	166.70	216.48	-59.58	471.89	444.62	27.26	17.308		
3,200.00	3,185.16	3,165.90	3,162.34	14.40	14.06	166.71	221.10	-61.98	487.33	459.21	28.12	17.332		
3,300.00	3,284.54	3,264.70	3,261.00	14.85	14.49	166.73	225.73	-64.37	502.76	473.79	28.97	17.353		
3,400.00	3,383.92	3,363.51	3,359.66	15.30	14.91	166.74	230.36	-66.77	518.20	488.37	29.83	17.372		
3,500.00	3,483.31	3,462.31	3,458.33	15.75	15.34	166.75	234.98	-69.16	533.64	502.95	30.69	17.389		
3,600.00	3,582.69	3,561.11	3,556.99	16.20	15.76	166.76	239.61	-71.56	549.08	517.53	31.55	17.404		
3,700.00	3,682.07	3,659.91	3,655.65	16.65	16.19	166.78	244.23	-73.96	564.52	532.11	32.41	17.419		
3,800.00	3,781.46	3,758.71	3,754.32	17.10	16.62	166.79	248.86	-76.35	579.96	546.69	33.27	17.431		
3,900.00	3,880.84	3,857.51	3,852.98	17.56	17.04	166.80	253.49	-78.75	595.40	561.26	34.13	17.443		
4,000.00	3,980.22	3,956.31	3,951.64	18.01	17.47	166.81	258.11	-81.14	610.83	575.84	35.00	17.454		
4,100.00	4,079.61	4,055.11	4,050.31	18.46	17.90	166.82	262.74	-83.54	626.27	590.41	35.86	17.463		
4,200.00	4,178.99	4,153.91	4,148.97	18.92	18.33	166.82	267.37	-85.93	641.71	604.98	36.73	17.472		
4,300.00	4,278.38	4,252.71	4,247.63	19.37	18.76	166.83	271.99	-88.33	657.15	619.56	37.59	17.480		
4,400.00	4,377.76	4,351.52	4,346.30	19.83	19.19	166.84	276.62	-90.73	672.59	634.13	38.46	17.488		
4,500.00	4,477.14	4,450.32	4,444.96	20.28	19.62	166.85	281.24	-93.12	688.03	648.70	39.33	17.495		
4,600.00	4,576.53	4,549.12	4,543.62	20.74	20.05	166.86	285.87	-95.52	703.47	663.27	40.20	17.501		
4,700.00	4,675.91	4,647.92	4,642.29	21.19	20.48	166.86	290.50	-97.91	718.91	677.84	41.06	17.507		
4,800.00	4,775.29	4,746.72	4,740.95	21.65	20.91	166.87	295.12	-100.31	734.34	692.41	41.93	17.512		
4,900.00	4,874.68	4,845.52	4,839.62	22.10	21.34	166.87	299.75	-102.71	749.78	706.98	42.80	17.517		
5,000.00	4,974.06	4,944.32	4,938.28	22.56	21.77	166.88	304.37	-105.10	765.22	721.55	43.67	17.521		
5,100.00	5,073.44	5,043.12	5,036.94	23.02	22.20	166.89	309.00	-107.50	780.66	736.12	44.54	17.525		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,141.92	5,135.61	23.47	22.63	166.89	313.63	-109.89	796.10	750.68	45.42	17.529		
5,300.00	5,272.21	5,240.72	5,234.27	23.93	23.07	166.90	318.25	-112.29	811.54	765.25	46.29	17.533		
5,400.00	5,371.59	5,339.53	5,332.93	24.39	23.50	166.90	322.88	-114.68	826.98	779.82	47.16	17.536		
5,500.00	5,470.98	5,438.33	5,431.60	24.85	23.93	166.91	327.50	-117.08	842.42	794.39	48.03	17.539		
5,600.00	5,570.36	5,537.13	5,530.26	25.30	24.36	166.91	332.13	-119.48	857.86	808.95	48.90	17.542		
5,700.00	5,669.75	5,635.93	5,628.92	25.76	24.79	166.92	336.76	-121.87	873.29	823.52	49.78	17.544		
5,800.00	5,769.13	5,734.73	5,727.59	26.22	25.23	166.92	341.38	-124.27	888.73	838.08	50.65	17.547		
5,900.00	5,868.51	5,833.53	5,826.25	26.68	25.66	166.93	346.01	-126.66	904.17	852.65	51.52	17.549		
6,000.00	5,967.90	5,932.33	5,924.91	27.14	26.09	166.93	350.63	-129.06	919.61	867.21	52.40	17.551		
6,100.00	6,067.28	6,031.13	6,023.58	27.60	26.52	166.93	355.26	-131.45	935.05	881.78	53.27	17.553		
6,200.00	6,166.66	6,129.93	6,122.24	28.05	26.96	166.94	359.89	-133.85	950.49	896.34	54.15	17.554		
6,300.00	6,266.05	6,228.73	6,220.91	28.51	27.39	166.94	364.51	-136.25	965.93	910.91	55.02	17.556		
6,400.00	6,365.43	6,327.54	6,319.57	28.97	27.82	166.95	369.14	-138.64	981.37	925.47	55.89	17.557		
6,500.00	6,464.81	6,426.34	6,418.23	29.43	28.25	166.95	373.76	-141.04	996.81	940.04	56.77	17.559		
6,600.00	6,564.10	6,526.31	6,517.76	29.89	28.69	135.75	378.40	-148.20	1,012.21	954.55	57.66	17.556		
6,700.00	6,661.75	6,626.09	6,614.83	30.34	29.13	110.78	382.82	-170.42	1,027.37	968.84	58.53	17.552		
6,800.00	6,755.38	6,725.38	6,706.81	30.77	29.58	101.43	386.90	-207.31	1,041.95	982.56	59.40	17.543		
6,900.00	6,842.67	6,824.26	6,791.62	31.17	30.03	96.34	390.55	-257.82	1,055.59	995.33	60.26	17.517		
7,000.00	6,921.48	6,922.81	6,867.37	31.54	30.52	93.00	393.69	-320.63	1,067.93	1,006.75	61.18	17.456		
7,100.00	6,989.86	7,021.09	6,932.39	31.91	31.09	90.62	396.26	-394.16	1,078.68	1,016.46	62.22	17.337		
7,200.00	7,046.13	7,119.15	6,985.23	32.35	31.77	88.89	398.19	-476.62	1,087.57	1,024.09	63.48	17.133		
7,300.00	7,088.91	7,216.99	7,024.74	32.98	32.59	87.65	399.45	-566.02	1,094.38	1,029.34	65.03	16.828		
7,400.00	7,117.14	7,314.61	7,050.08	33.84	33.58	86.83	400.01	-660.20	1,098.94	1,032.02	66.92	16.422		
7,500.00	7,130.13	7,412.01	7,060.74	34.90	34.70	86.41	399.86	-756.92	1,101.13	1,032.02	69.12	15.931		
7,600.00	7,130.72	7,511.09	7,059.83	36.13	35.99	86.31	399.16	-855.97	1,101.40	1,029.76	71.65	15.373		
7,700.00	7,130.29	7,611.08	7,058.08	37.54	37.46	86.24	398.41	-955.94	1,101.51	1,026.98	74.53	14.779		
7,800.00	7,129.85	7,711.07	7,056.33	39.12	39.08	86.17	397.65	-1,055.92	1,101.63	1,023.90	77.73	14.173		
7,900.00	7,129.42	7,811.06	7,054.58	40.83	40.84	86.11	396.90	-1,155.89	1,101.74	1,020.54	81.20	13.568		
8,000.00	7,128.98	7,911.05	7,052.84	42.67	42.71	86.04	396.15	-1,255.86	1,101.85	1,016.94	84.91	12.977		
8,100.00	7,128.55	8,011.04	7,051.09	44.62	44.69	85.97	395.39	-1,355.84	1,101.97	1,013.14	88.83	12.405		
8,200.00	7,128.12	8,111.03	7,049.34	46.66	46.77	85.90	394.64	-1,455.81	1,102.09	1,009.15	92.94	11.858		
8,300.00	7,127.68	8,211.02	7,047.59	48.79	48.92	85.83	393.89	-1,555.78	1,102.21	1,005.00	97.20	11.339		
8,400.00	7,127.25	8,311.02	7,045.84	50.98	51.14	85.76	393.14	-1,655.76	1,102.33	1,000.72	101.61	10.849		
8,500.00	7,126.81	8,411.01	7,044.09	53.24	53.42	85.70	392.38	-1,755.73	1,102.45	996.32	106.14	10.387		
8,600.00	7,126.38	8,511.00	7,042.34	55.56	55.75	85.63	391.63	-1,855.70	1,102.58	991.81	110.77	9.954		
8,700.00	7,125.95	8,610.99	7,040.59	57.92	58.13	85.56	390.88	-1,955.68	1,102.70	987.20	115.50	9.547		
8,800.00	7,125.51	8,710.98	7,038.84	60.33	60.55	85.49	390.13	-2,055.65	1,102.83	982.52	120.31	9.167		
8,900.00	7,125.08	8,810.97	7,037.09	62.77	63.01	85.42	389.37	-2,155.62	1,102.96	977.76	125.19	8.810		
9,000.00	7,124.64	8,910.96	7,035.34	65.25	65.50	85.36	388.62	-2,255.60	1,103.09	972.94	130.14	8.476		
9,100.00	7,124.21	9,010.96	7,033.59	67.76	68.02	85.29	387.87	-2,355.57	1,103.22	968.07	135.15	8.163		
9,200.00	7,123.78	9,110.95	7,031.84	70.29	70.57	85.22	387.12	-2,455.54	1,103.35	963.15	140.21	7.870		
9,300.00	7,123.34	9,210.94	7,030.09	72.85	73.14	85.15	386.36	-2,555.51	1,103.49	958.18	145.31	7.594		
9,400.00	7,122.91	9,310.93	7,028.34	75.43	75.73	85.08	385.61	-2,655.49	1,103.62	953.17	150.45	7.335		
9,500.00	7,122.48	9,410.92	7,026.59	78.03	78.33	85.02	384.86	-2,755.46	1,103.76	948.13	155.63	7.092		
9,600.00	7,122.04	9,510.91	7,024.85	80.65	80.96	84.95	384.11	-2,855.43	1,103.90	943.06	160.85	6.863		
9,700.00	7,121.61	9,610.90	7,023.10	83.28	83.60	84.88	383.35	-2,955.41	1,104.04	937.95	166.09	6.647		
9,800.00	7,121.17	9,710.90	7,021.35	85.93	86.25	84.81	382.60	-3,055.38	1,104.19	932.83	171.36	6.444		
9,900.00	7,120.74	9,810.89	7,019.60	88.59	88.92	84.74	381.85	-3,155.35	1,104.33	927.68	176.65	6.251		
10,000.00	7,120.31	9,910.88	7,017.85	91.26	91.60	84.68	381.10	-3,255.33	1,104.48	922.51	181.97	6.070		
10,100.00	7,119.87	10,010.87	7,016.10	93.95	94.29	84.61	380.34	-3,355.30	1,104.62	917.32	187.31	5.897		
10,200.00	7,119.44	10,110.86	7,014.35	96.64	96.98	84.54	379.59	-3,455.27	1,104.77	912.11	192.66	5.734		
10,300.00	7,119.00	10,210.85	7,012.60	99.34	99.69	84.47	378.84	-3,555.25	1,104.92	906.89	198.03	5.580		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,118.57	10,310.84	7,010.85	102.05	102.41	84.41	378.09	-3,655.22	1,105.07	901.66	203.42	5.433		
10,500.00	7,118.14	10,410.83	7,009.10	104.77	105.13	84.34	377.33	-3,755.19	1,105.23	896.41	208.82	5.293		
10,600.00	7,117.70	10,510.83	7,007.35	107.50	107.86	84.27	376.58	-3,855.17	1,105.38	891.15	214.23	5.160		
10,700.00	7,117.27	10,610.82	7,005.60	110.23	110.60	84.20	375.83	-3,955.14	1,105.54	885.88	219.66	5.033		
10,800.00	7,116.83	10,710.81	7,003.85	112.97	113.34	84.13	375.08	-4,055.11	1,105.70	880.61	225.09	4.912		
10,900.00	7,116.40	10,810.80	7,002.10	115.72	116.09	84.07	374.32	-4,155.09	1,105.86	875.32	230.54	4.797		
11,000.00	7,115.97	10,910.79	7,000.35	118.47	118.84	84.00	373.57	-4,255.06	1,106.02	870.03	235.99	4.687		
11,100.00	7,115.53	11,010.78	6,998.60	121.22	121.60	83.93	372.82	-4,355.03	1,106.18	864.73	241.45	4.581		
11,200.00	7,115.10	11,110.77	6,996.86	123.98	124.36	83.86	372.07	-4,455.01	1,106.35	859.42	246.92	4.481		
11,300.00	7,114.66	11,210.77	6,995.11	126.74	127.13	83.80	371.31	-4,554.98	1,106.51	854.11	252.40	4.384		
11,400.00	7,114.23	11,310.76	6,993.36	129.51	129.90	83.73	370.56	-4,654.95	1,106.68	848.80	257.88	4.291		
11,500.00	7,113.80	11,410.75	6,991.61	132.29	132.67	83.66	369.81	-4,754.93	1,106.85	843.48	263.37	4.203		
11,600.00	7,113.36	11,510.74	6,989.86	135.06	135.45	83.59	369.06	-4,854.90	1,107.02	838.15	268.87	4.117		
11,700.00	7,112.93	11,610.73	6,988.11	137.84	138.23	83.53	368.30	-4,954.87	1,107.19	832.82	274.37	4.035		
11,800.00	7,112.49	11,710.72	6,986.36	140.62	141.02	83.46	367.55	-5,054.85	1,107.36	827.49	279.87	3.957		
11,900.00	7,112.06	11,810.71	6,984.61	143.41	143.80	83.39	366.80	-5,154.82	1,107.54	822.16	285.38	3.881		
12,000.00	7,111.63	11,910.70	6,982.86	146.20	146.59	83.32	366.04	-5,254.79	1,107.72	816.82	290.89	3.808		
12,100.00	7,111.19	12,010.70	6,981.11	148.99	149.38	83.26	365.29	-5,354.76	1,107.89	811.49	296.41	3.738		
12,200.00	7,110.76	12,110.69	6,979.36	151.78	152.18	83.19	364.54	-5,454.74	1,108.07	806.15	301.93	3.670		
12,300.00	7,110.33	12,210.68	6,977.61	154.58	154.98	83.12	363.79	-5,554.71	1,108.26	800.81	307.45	3.605		
12,400.00	7,109.89	12,310.67	6,975.86	157.37	157.78	83.05	363.03	-5,654.68	1,108.44	795.47	312.97	3.542		
12,500.00	7,109.46	12,410.66	6,974.11	160.17	160.58	82.99	362.28	-5,754.66	1,108.62	790.12	318.50	3.481		
12,600.00	7,109.02	12,510.65	6,972.36	162.98	163.38	82.92	361.53	-5,854.63	1,108.81	784.78	324.03	3.422		
12,700.00	7,108.59	12,610.64	6,970.61	165.78	166.18	82.85	360.78	-5,954.60	1,109.00	779.44	329.56	3.365		
12,800.00	7,108.16	12,710.64	6,968.86	168.59	168.99	82.79	360.02	-6,054.58	1,109.18	774.09	335.09	3.310		
12,900.00	7,107.72	12,810.63	6,967.12	171.39	171.80	82.72	359.27	-6,154.55	1,109.37	768.75	340.63	3.257		
13,000.00	7,107.29	12,910.62	6,965.37	174.20	174.61	82.65	358.52	-6,254.52	1,109.57	763.41	346.16	3.205		
13,100.00	7,106.85	13,010.61	6,963.62	177.01	177.42	82.58	357.77	-6,354.50	1,109.76	758.06	351.70	3.155		
13,200.00	7,106.42	13,110.60	6,961.87	179.83	180.24	82.52	357.01	-6,454.47	1,109.96	752.72	357.23	3.107		
13,300.00	7,105.99	13,210.59	6,960.12	182.64	183.05	82.45	356.26	-6,554.44	1,110.15	747.38	362.77	3.060		
13,400.00	7,105.55	13,310.58	6,958.37	185.45	185.87	82.38	355.51	-6,654.42	1,110.35	742.04	368.31	3.015		
13,500.00	7,105.12	13,410.57	6,956.62	188.27	188.68	82.31	354.76	-6,754.39	1,110.55	736.70	373.85	2.971		
13,600.00	7,104.68	13,510.57	6,954.87	191.09	191.50	82.25	354.00	-6,854.36	1,110.75	731.36	379.39	2.928		
13,700.00	7,104.25	13,610.56	6,953.12	193.91	194.32	82.18	353.25	-6,954.34	1,110.95	726.02	384.93	2.886		
13,800.00	7,103.82	13,710.55	6,951.37	196.73	197.14	82.11	352.50	-7,054.31	1,111.16	720.68	390.47	2.846		
13,900.00	7,103.38	13,810.54	6,949.62	199.55	199.96	82.05	351.75	-7,154.28	1,111.36	715.35	396.02	2.806		
14,000.00	7,102.95	13,910.53	6,947.87	202.37	202.79	81.98	350.99	-7,254.26	1,111.57	710.01	401.56	2.768		
14,100.00	7,102.51	14,010.52	6,946.12	205.19	205.61	81.91	350.24	-7,354.23	1,111.78	704.68	407.10	2.731		
14,200.00	7,102.08	14,110.51	6,944.37	208.02	208.43	81.85	349.49	-7,454.20	1,111.99	699.35	412.64	2.695		
14,300.00	7,101.65	14,210.51	6,942.62	210.84	211.26	81.78	348.74	-7,554.18	1,112.20	694.02	418.18	2.660		
14,400.00	7,101.21	14,310.50	6,940.87	213.67	214.09	81.71	347.98	-7,654.15	1,112.41	688.70	423.72	2.625		
14,500.00	7,100.78	14,410.49	6,939.13	216.50	216.91	81.65	347.23	-7,754.12	1,112.63	683.37	429.26	2.592		
14,600.00	7,100.35	14,510.48	6,937.38	219.32	219.74	81.58	346.48	-7,854.09	1,112.85	678.05	434.80	2.559		
14,700.00	7,099.91	14,610.47	6,935.63	222.15	222.57	81.51	345.73	-7,954.07	1,113.06	672.73	440.33	2.528		
14,800.00	7,099.48	14,710.46	6,933.88	224.98	225.40	81.44	344.97	-8,054.04	1,113.28	667.41	445.87	2.497		
14,900.00	7,099.04	14,810.45	6,932.13	227.81	228.23	81.38	344.22	-8,154.01	1,113.50	662.10	451.41	2.467		
14,909.96	7,099.00	14,817.75	6,932.00	228.09	228.43	81.37	344.17	-8,161.31	1,113.53	661.65	451.88	2.464 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	-179.52	-100.19	-0.83	100.19					
100.00	100.00	101.00	100.00	3.28	3.28	-179.52	-100.19	-0.83	100.19	93.62	6.57	15.251		
200.00	200.00	199.00	200.00	3.34	3.34	-179.52	-100.19	-0.83	100.19	93.52	6.67	15.014	CC	
300.00	300.00	295.65	296.63	3.44	3.43	-179.40	-101.77	-1.06	101.83	94.94	6.89	14.781		
400.00	400.00	392.04	392.90	3.60	3.58	-179.07	-106.56	-1.73	106.81	99.59	7.22	14.803		
500.00	500.00	488.01	488.52	3.81	3.77	-178.57	-114.51	-2.86	115.12	107.48	7.64	15.074		
600.00	600.00	583.34	583.19	4.04	4.01	-11.13	-125.54	-4.42	126.67	118.54	8.13	15.578		
700.00	699.96	678.46	677.24	4.29	4.30	-10.65	-139.65	-6.41	139.20	130.54	8.66	16.077		
800.00	799.78	777.90	775.33	4.57	4.66	-10.42	-155.80	-8.69	149.74	140.53	9.21	16.258		
900.00	899.34	877.64	873.72	4.88	5.05	-10.46	-172.00	-10.98	156.88	147.07	9.81	15.992		
1,000.00	998.72	977.48	972.21	5.20	5.48	-10.63	-188.22	-13.27	162.35	151.89	10.47	15.513		
1,100.00	1,098.10	1,077.33	1,070.71	5.54	5.92	-10.79	-204.43	-15.56	167.83	156.68	11.16	15.044		
1,200.00	1,197.49	1,177.18	1,169.21	5.90	6.39	-10.93	-220.65	-17.85	173.31	161.44	11.88	14.592		
1,300.00	1,296.87	1,277.03	1,267.70	6.28	6.87	-11.07	-236.87	-20.14	178.80	166.17	12.62	14.165		
1,400.00	1,396.25	1,376.88	1,366.20	6.66	7.36	-11.20	-253.08	-22.43	184.28	170.89	13.39	13.764		
1,500.00	1,495.64	1,476.73	1,464.70	7.06	7.86	-11.32	-269.30	-24.72	189.76	175.59	14.17	13.391		
1,600.00	1,595.02	1,576.58	1,563.19	7.46	8.36	-11.44	-285.52	-27.02	195.25	180.28	14.97	13.043		
1,700.00	1,694.40	1,676.43	1,661.69	7.87	8.88	-11.55	-301.73	-29.31	200.73	184.95	15.78	12.721		
1,800.00	1,793.79	1,776.27	1,760.19	8.29	9.40	-11.65	-317.95	-31.60	206.22	189.62	16.60	12.423		
1,900.00	1,893.17	1,876.12	1,858.68	8.71	9.92	-11.75	-334.17	-33.89	211.70	194.27	17.43	12.146		
2,000.00	1,992.55	1,975.97	1,957.18	9.13	10.45	-11.84	-350.38	-36.18	217.19	198.92	18.27	11.889		
2,100.00	2,091.94	2,075.82	2,055.68	9.56	10.98	-11.93	-366.60	-38.47	222.68	203.57	19.11	11.651		
2,200.00	2,191.32	2,175.67	2,154.17	9.99	11.51	-12.01	-382.82	-40.76	228.17	208.20	19.96	11.430		
2,300.00	2,290.70	2,275.52	2,252.67	10.42	12.05	-12.09	-399.03	-43.05	233.65	212.84	20.82	11.223		
2,400.00	2,390.09	2,375.37	2,351.16	10.86	12.59	-12.17	-415.25	-45.34	239.14	217.46	21.68	11.031		
2,500.00	2,489.47	2,475.22	2,449.66	11.29	13.13	-12.24	-431.47	-47.63	244.63	222.09	22.54	10.852		
2,600.00	2,588.86	2,575.06	2,548.16	11.73	13.67	-12.31	-447.68	-49.93	250.12	226.71	23.41	10.684		
2,700.00	2,688.24	2,674.91	2,646.65	12.18	14.21	-12.38	-463.90	-52.22	255.61	231.33	24.28	10.526		
2,800.00	2,787.62	2,774.76	2,745.15	12.62	14.75	-12.44	-480.12	-54.51	261.10	235.95	25.16	10.379		
2,900.00	2,887.01	2,874.61	2,843.65	13.06	15.30	-12.50	-496.33	-56.80	266.59	240.56	26.03	10.240		
3,000.00	2,986.39	2,974.46	2,942.14	13.51	15.85	-12.56	-512.55	-59.09	272.08	245.17	26.91	10.109		
3,100.00	3,085.77	3,074.31	3,040.64	13.95	16.39	-12.62	-528.77	-61.38	277.58	249.78	27.80	9.986		
3,200.00	3,185.16	3,174.16	3,139.14	14.40	16.94	-12.67	-544.98	-63.67	283.07	254.39	28.68	9.870		
3,300.00	3,284.54	3,274.01	3,237.63	14.85	17.49	-12.73	-561.20	-65.96	288.56	258.99	29.56	9.760		
3,400.00	3,383.92	3,373.85	3,336.13	15.30	18.04	-12.78	-577.42	-68.25	294.05	263.60	30.45	9.656		
3,500.00	3,483.31	3,473.70	3,434.62	15.75	18.59	-12.82	-593.63	-70.54	299.54	268.20	31.34	9.558		
3,600.00	3,582.69	3,573.55	3,533.12	16.20	19.14	-12.87	-609.85	-72.83	305.04	272.81	32.23	9.464		
3,700.00	3,682.07	3,673.40	3,631.62	16.65	19.69	-12.92	-626.07	-75.13	310.53	277.41	33.12	9.375		
3,800.00	3,781.46	3,773.25	3,730.11	17.10	20.25	-12.96	-642.28	-77.42	316.02	282.01	34.01	9.291		
3,900.00	3,880.84	3,873.10	3,828.61	17.56	20.80	-13.00	-658.50	-79.71	321.51	286.61	34.91	9.211		
4,000.00	3,980.22	3,972.95	3,927.11	18.01	21.35	-13.04	-674.72	-82.00	327.01	291.21	35.80	9.134		
4,100.00	4,079.61	4,072.80	4,025.60	18.46	21.90	-13.08	-690.93	-84.29	332.50	295.80	36.70	9.061		
4,200.00	4,178.99	4,172.64	4,124.10	18.92	22.46	-13.12	-707.15	-86.58	337.99	300.40	37.59	8.991		
4,300.00	4,278.38	4,272.49	4,222.60	19.37	23.01	-13.16	-723.37	-88.87	343.49	305.00	38.49	8.924		
4,400.00	4,377.76	4,372.34	4,321.09	19.83	23.56	-13.19	-739.58	-91.16	348.98	309.59	39.39	8.860		
4,500.00	4,477.14	4,472.19	4,419.59	20.28	24.12	-13.23	-755.80	-93.45	354.48	314.19	40.29	8.799		
4,600.00	4,576.53	4,572.04	4,518.09	20.74	24.67	-13.26	-772.02	-95.74	359.97	318.78	41.19	8.740		
4,700.00	4,675.91	4,671.89	4,616.58	21.19	25.23	-13.29	-788.23	-98.04	365.46	323.38	42.09	8.684		
4,800.00	4,775.29	4,771.74	4,715.08	21.65	25.78	-13.32	-804.45	-100.33	370.96	327.97	42.99	8.630		
4,900.00	4,874.68	4,871.59	4,813.57	22.10	26.34	-13.35	-820.67	-102.62	376.45	332.57	43.89	8.578		
5,000.00	4,974.06	4,971.43	4,912.07	22.56	26.90	-13.38	-836.88	-104.91	381.95	337.16	44.79	8.528		
5,100.00	5,073.44	5,071.28	5,010.57	23.02	27.45	-13.41	-853.10	-107.20	387.44	341.75	45.69	8.480		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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-16M - 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		
5,200.00	5,172.83	5,171.13	5,109.06	23.47	28.01	-13.44	-869.32	-109.49	392.94	346.34	46.59	8.434		
5,300.00	5,272.21	5,270.98	5,207.56	23.93	28.56	-13.47	-885.53	-111.78	398.43	350.94	47.49	8.389		
5,400.00	5,371.59	5,370.83	5,306.06	24.39	29.12	-13.49	-901.75	-114.07	403.93	355.53	48.40	8.346		
5,500.00	5,470.98	5,470.68	5,404.55	24.85	29.68	-13.52	-917.97	-116.36	409.42	360.12	49.30	8.304		
5,600.00	5,570.36	5,570.53	5,503.05	25.30	30.23	-13.54	-934.18	-118.65	414.92	364.71	50.21	8.264		
5,700.00	5,669.75	5,670.38	5,601.55	25.76	30.79	-13.57	-950.40	-120.94	420.41	369.30	51.11	8.226		
5,800.00	5,769.13	5,770.22	5,700.04	26.22	31.35	-13.59	-966.62	-123.24	425.91	373.89	52.01	8.188		
5,900.00	5,868.51	5,870.07	5,798.54	26.68	31.90	-13.62	-982.83	-125.53	431.40	378.48	52.92	8.152		
6,000.00	5,967.90	5,969.92	5,897.04	27.14	32.46	-13.64	-999.05	-127.82	436.90	383.07	53.82	8.117		
6,100.00	6,067.28	6,069.77	5,995.53	27.60	33.02	-13.66	-1,015.27	-130.11	442.39	387.66	54.73	8.083		
6,200.00	6,166.66	6,169.62	6,094.03	28.05	33.57	-13.68	-1,031.48	-132.40	447.89	392.25	55.64	8.050		
6,300.00	6,266.05	6,269.47	6,192.52	28.51	34.13	-13.70	-1,047.70	-134.69	453.38	396.84	56.54	8.019		
6,400.00	6,365.43	6,369.32	6,291.02	28.97	34.69	-13.72	-1,063.92	-136.98	458.88	401.43	57.45	7.988		
6,500.00	6,464.81	6,469.17	6,389.52	29.43	35.25	-13.74	-1,080.13	-139.27	464.37	406.02	58.35	7.958		
6,600.00	6,564.10	6,568.96	6,487.96	29.89	35.80	-13.76	-1,096.34	-141.56	469.88	410.61	59.27	7.928		
6,700.00	6,661.75	6,667.45	6,585.12	30.34	36.35	-13.78	-1,112.54	-143.82	475.39	415.44	60.25	7.895		
6,800.00	6,755.38	6,766.20	6,682.43	30.77	36.91	-13.80	-1,128.73	-146.09	480.90	420.27	61.25	7.862		
6,900.00	6,842.67	6,872.17	6,785.10	31.17	37.50	-13.82	-1,145.39	-148.31	486.41	425.06	62.25	7.829		
7,000.00	6,921.48	6,984.60	6,888.95	31.54	38.13	-13.84	-1,162.73	-150.45	491.92	429.81	63.25	7.796		
7,100.00	6,989.86	7,104.16	6,990.08	31.91	38.79	-13.86	-1,179.78	-152.55	497.43	434.52	64.25	7.763		
7,200.00	7,046.13	7,231.20	7,083.16	32.25	39.50	-13.88	-1,196.66	-154.60	502.94	439.19	65.25	7.730		
7,300.00	7,088.91	7,365.45	7,161.44	32.58	40.25	-13.90	-1,213.39	-156.61	508.45	443.81	66.25	7.697		
7,400.00	7,117.14	7,505.82	7,217.53	32.84	41.03	-13.92	-1,229.92	-158.57	513.96	448.38	67.25	7.664		
7,500.00	7,130.13	7,650.22	7,244.96	33.04	41.83	-13.94	-1,246.23	-160.48	519.47	452.90	68.25	7.631		
7,600.00	7,130.72	7,767.41	7,246.67	33.13	42.63	-13.96	-1,262.23	-162.35	524.98	457.37	69.25	7.598		
7,700.00	7,130.29	7,867.41	7,246.14	33.14	43.43	-13.98	-1,277.92	-164.17	530.49	461.79	70.25	7.565		
7,800.00	7,129.85	7,967.41	7,245.62	33.09	44.23	-14.00	-1,293.31	-165.94	535.99	466.16	71.25	7.532		
7,900.00	7,129.42	8,067.41	7,245.09	32.94	45.03	-14.02	-1,308.50	-167.66	541.49	470.49	72.25	7.499		
8,000.00	7,128.98	8,167.41	7,244.56	32.70	45.83	-14.04	-1,323.49	-169.33	546.99	474.77	73.25	7.466		
8,100.00	7,128.55	8,267.41	7,244.03	32.37	46.63	-14.06	-1,338.18	-170.95	552.49	478.99	74.25	7.433		
8,200.00	7,128.12	8,367.41	7,243.50	31.94	47.43	-14.08	-1,352.57	-172.52	557.99	483.16	75.25	7.400		
8,300.00	7,127.68	8,467.41	7,242.97	31.42	48.23	-14.10	-1,366.66	-174.04	563.49	487.29	76.25	7.367		
8,400.00	7,127.25	8,567.41	7,242.44	30.80	49.03	-14.12	-1,380.45	-175.51	568.99	491.37	77.25	7.334		
8,500.00	7,126.81	8,667.41	7,241.91	30.09	49.83	-14.14	-1,393.94	-176.93	574.49	495.40	78.25	7.301		
8,600.00	7,126.38	8,767.41	7,241.39	29.29	50.63	-14.16	-1,407.13	-178.30	579.99	499.39	79.25	7.268		
8,700.00	7,125.95	8,867.41	7,240.86	28.40	51.43	-14.18	-1,420.02	-179.62	585.49	503.34	80.25	7.235		
8,800.00	7,125.51	8,967.41	7,240.33	27.43	52.23	-14.20	-1,432.61	-180.89	590.99	507.25	81.25	7.202		
8,900.00	7,125.08	9,067.41	7,239.80	26.38	53.03	-14.22	-1,444.90	-182.11	596.49	511.12	82.25	7.169		
9,000.00	7,124.64	9,167.41	7,239.27	25.25	53.83	-14.24	-1,456.89	-183.29	601.99	514.95	83.25	7.136		
9,100.00	7,124.21	9,267.41	7,238.74	24.04	54.63	-14.26	-1,468.58	-184.42	607.49	518.74	84.25	7.103		
9,200.00	7,123.78	9,367.41	7,238.21	22.75	55.43	-14.28	-1,479.97	-185.50	612.99	522.49	85.25	7.070		
9,300.00	7,123.34	9,467.41	7,237.68	21.38	56.23	-14.30	-1,491.16	-186.53	618.49	526.19	86.25	7.037		
9,400.00	7,122.91	9,567.41	7,237.16	20.03	57.03	-14.32	-1,502.15	-187.51	623.99	529.84	87.25	7.004		
9,500.00	7,122.48	9,667.41	7,236.63	18.60	57.83	-14.34	-1,512.94	-188.44	629.49	533.45	88.25	6.971		
9,600.00	7,122.04	9,767.41	7,236.10	17.09	58.63	-14.36	-1,523.53	-189.32	634.99	536.91	89.25	6.938		
9,700.00	7,121.61	9,867.41	7,235.57	15.50	59.43	-14.38	-1,533.92	-190.15	640.49	540.32	90.25	6.905		
9,800.00	7,121.17	9,967.40	7,235.04	13.83	60.23	-14.40	-1,544.11	-190.93	645.99	543.69	91.25	6.872		
9,900.00	7,120.74	10,067.40	7,234.51	12.08	61.03	-14.42	-1,554.10	-191.66	651.49	547.01	92.25	6.839		
10,000.00	7,120.31	10,167.40	7,233.98	10.25	61.83	-14.44	-1,563.89	-192.34	656.99	550.29	93.25	6.806		
10,100.00	7,119.87	10,267.40	7,233.45	8.34	62.63	-14.46	-1,573.48	-192.97	662.49	553.53	94.25	6.773		
10,200.00	7,119.44	10,367.40	7,232.93	6.35	63.43	-14.48	-1,582.87	-193.55	667.99	556.73	95.25	6.740		
10,300.00	7,119.00	10,467.40	7,232.40	4.28	64.23	-14.50	-1,592.06	-194.08	673.49	559.89	96.25	6.707		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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				Separation Factor	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)	
10,400.00	7,118.57	10,567.40	7,231.87	102.05	120.84	-102.28	-1,242.23	-3,646.38	532.72	316.77	215.95	2.467		
10,500.00	7,118.14	10,667.40	7,231.34	104.77	124.02	-102.27	-1,242.82	-3,746.38	532.51	310.74	221.77	2.401		
10,600.00	7,117.70	10,767.40	7,230.81	107.50	127.21	-102.27	-1,243.40	-3,846.38	532.30	304.70	227.61	2.339		
10,700.00	7,117.27	10,867.40	7,230.28	110.23	130.40	-102.26	-1,243.99	-3,946.37	532.09	298.64	233.45	2.279		
10,800.00	7,116.83	10,967.40	7,229.75	112.97	133.60	-102.26	-1,244.57	-4,046.37	531.88	292.57	239.31	2.223		
10,900.00	7,116.40	11,067.40	7,229.23	115.72	136.81	-102.25	-1,245.15	-4,146.37	531.68	286.49	245.18	2.169		
11,000.00	7,115.97	11,167.40	7,228.70	118.47	140.03	-102.25	-1,245.74	-4,246.36	531.47	280.41	251.06	2.117		
11,100.00	7,115.53	11,267.40	7,228.17	121.22	143.25	-102.24	-1,246.32	-4,346.36	531.26	274.31	256.95	2.068		
11,200.00	7,115.10	11,367.40	7,227.64	123.98	146.47	-102.24	-1,246.91	-4,446.36	531.05	268.20	262.85	2.020		
11,300.00	7,114.66	11,467.40	7,227.11	126.74	149.70	-102.23	-1,247.49	-4,546.35	530.84	262.09	268.75	1.975		
11,400.00	7,114.23	11,567.40	7,226.58	129.51	152.94	-102.22	-1,248.08	-4,646.35	530.63	255.97	274.66	1.932		
11,500.00	7,113.80	11,667.40	7,226.05	132.29	156.18	-102.22	-1,248.66	-4,746.35	530.42	249.84	280.58	1.890		
11,600.00	7,113.36	11,767.40	7,225.52	135.06	159.42	-102.21	-1,249.25	-4,846.34	530.21	243.70	286.51	1.851		
11,700.00	7,112.93	11,867.40	7,225.00	137.84	162.67	-102.21	-1,249.83	-4,946.34	530.01	237.56	292.44	1.812		
11,800.00	7,112.49	11,967.40	7,224.47	140.62	165.92	-102.20	-1,250.41	-5,046.34	529.80	231.42	298.38	1.776		
11,900.00	7,112.06	12,067.40	7,223.94	143.41	169.17	-102.20	-1,251.00	-5,146.33	529.59	225.26	304.33	1.740		
12,000.00	7,111.63	12,167.40	7,223.41	146.20	172.43	-102.19	-1,251.58	-5,246.33	529.38	219.10	310.28	1.706		
12,100.00	7,111.19	12,267.40	7,222.88	148.99	175.68	-102.19	-1,252.17	-5,346.33	529.17	212.94	316.23	1.673		
12,200.00	7,110.76	12,367.40	7,222.35	151.78	178.95	-102.18	-1,252.75	-5,446.32	528.96	206.77	322.19	1.642		
12,300.00	7,110.33	12,467.40	7,221.82	154.58	182.21	-102.17	-1,253.34	-5,546.32	528.75	200.60	328.15	1.611		
12,400.00	7,109.89	12,567.40	7,221.29	157.37	185.48	-102.17	-1,253.92	-5,646.32	528.55	194.42	334.12	1.582		
12,500.00	7,109.46	12,667.40	7,220.77	160.17	188.75	-102.16	-1,254.50	-5,746.31	528.34	188.24	340.09	1.554		
12,600.00	7,109.02	12,767.40	7,220.24	162.98	192.02	-102.16	-1,255.09	-5,846.31	528.13	182.06	346.07	1.526		
12,700.00	7,108.59	12,867.40	7,219.71	165.78	195.29	-102.15	-1,255.67	-5,946.31	527.92	175.87	352.05	1.500 Level 3		
12,800.00	7,108.16	12,967.40	7,219.18	168.59	198.57	-102.15	-1,256.26	-6,046.30	527.71	169.68	358.03	1.474 Level 3		
12,900.00	7,107.72	13,067.40	7,218.65	171.39	201.85	-102.14	-1,256.84	-6,146.30	527.50	163.48	364.02	1.449 Level 3		
13,000.00	7,107.29	13,167.40	7,218.12	174.20	205.13	-102.13	-1,257.43	-6,246.30	527.29	157.29	370.01	1.425 Level 3		
13,100.00	7,106.85	13,267.40	7,217.59	177.01	208.41	-102.13	-1,258.01	-6,346.29	527.08	151.08	376.00	1.402 Level 3		
13,200.00	7,106.42	13,367.40	7,217.06	179.83	211.69	-102.12	-1,258.59	-6,446.29	526.88	144.88	382.00	1.379 Level 3		
13,300.00	7,105.99	13,467.40	7,216.54	182.64	214.98	-102.12	-1,259.18	-6,546.29	526.67	138.67	388.00	1.357 Level 3		
13,400.00	7,105.55	13,567.40	7,216.01	185.45	218.26	-102.11	-1,259.76	-6,646.28	526.46	132.46	394.00	1.336 Level 3		
13,500.00	7,105.12	13,667.40	7,215.48	188.27	221.55	-102.11	-1,260.35	-6,746.28	526.25	126.25	400.00	1.316 Level 3		
13,600.00	7,104.68	13,767.40	7,214.95	191.09	224.84	-102.10	-1,260.93	-6,846.28	526.04	120.04	406.01	1.296 Level 3		
13,700.00	7,104.25	13,867.40	7,214.42	193.91	228.13	-102.09	-1,261.52	-6,946.27	525.83	113.82	412.01	1.276 Level 3		
13,800.00	7,103.82	13,967.40	7,213.89	196.73	231.42	-102.09	-1,262.10	-7,046.27	525.62	107.60	418.02	1.257 Level 3		
13,900.00	7,103.38	14,067.40	7,213.36	199.55	234.71	-102.08	-1,262.69	-7,146.27	525.42	101.38	424.04	1.239 Level 2		
14,000.00	7,102.95	14,167.40	7,212.84	202.37	238.01	-102.08	-1,263.27	-7,246.26	525.21	95.15	430.05	1.221 Level 2		
14,100.00	7,102.51	14,267.39	7,212.31	205.19	241.30	-102.07	-1,263.85	-7,346.26	525.00	88.93	436.07	1.204 Level 2		
14,200.00	7,102.08	14,367.39	7,211.78	208.02	244.60	-102.07	-1,264.44	-7,446.26	524.79	82.70	442.09	1.187 Level 2		
14,300.00	7,101.65	14,467.39	7,211.25	210.84	247.90	-102.06	-1,265.02	-7,546.25	524.58	76.47	448.11	1.171 Level 2		
14,400.00	7,101.21	14,567.39	7,210.72	213.67	251.19	-102.05	-1,265.61	-7,646.25	524.37	70.24	454.13	1.155 Level 2		
14,500.00	7,100.78	14,667.39	7,210.19	216.50	254.49	-102.05	-1,266.19	-7,746.25	524.16	64.01	460.16	1.139 Level 2		
14,600.00	7,100.35	14,767.39	7,209.66	219.32	257.79	-102.04	-1,266.78	-7,846.24	523.96	57.77	466.18	1.124 Level 2		
14,700.00	7,099.91	14,867.39	7,209.13	222.15	261.09	-102.04	-1,267.36	-7,946.24	523.75	51.54	472.21	1.109 Level 2		
14,800.00	7,099.48	14,967.39	7,208.61	224.98	264.39	-102.03	-1,267.94	-8,046.24	523.54	45.30	478.24	1.095 Level 2		
14,900.00	7,099.04	15,067.39	7,208.08	227.81	267.70	-102.03	-1,268.53	-8,146.23	523.33	39.06	484.27	1.081 Level 2		
14,909.96	7,099.00	15,077.36	7,208.02	228.09	268.02	-102.03	-1,268.59	-8,156.20	523.31	38.44	484.87	1.079 Level 2, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	0.00	0.00	3.28	3.28	0.01	19.67	0.00	19.67					
100.00	100.00	100.00	100.00	3.28	3.28	0.01	19.67	0.00	19.67	13.10	6.57	2.994		
200.00	200.00	200.00	200.00	3.34	3.34	0.01	19.67	0.00	19.67	12.99	6.67	2.947		
300.00	300.00	300.00	300.00	3.44	3.44	0.01	19.67	0.00	19.67	12.78	6.89	2.855		
400.00	400.00	400.00	400.00	3.60	3.60	0.01	19.67	0.00	19.67	12.46	7.21	2.729		
500.00	500.00	500.00	500.00	3.81	3.81	0.01	19.67	0.00	19.67	12.06	7.61	2.584		
600.00	600.00	600.62	600.60	4.04	4.04	165.15	17.99	-0.55	18.08	9.99	8.09	2.235		
700.00	699.96	701.12	700.96	4.29	4.29	160.85	12.96	-2.20	15.53	6.93	8.60	1.806		
795.41	795.21	803.37	796.18	4.56	4.58	156.00	5.94	-4.51	14.11	4.96	9.15	1.542 CC		
800.00	799.78	801.22	800.75	4.57	4.57	155.87	5.60	-4.62	14.11	4.96	9.15	1.542		
900.00	899.34	901.20	900.42	4.88	4.88	155.96	-1.86	-7.06	15.85	6.09	9.76	1.624		
1,000.00	998.72	1,001.14	1,000.06	5.20	5.20	158.09	-9.31	-9.51	19.14	8.74	10.41	1.839		
1,100.00	1,098.10	1,101.08	1,099.69	5.54	5.55	159.59	-16.76	-11.95	22.45	11.37	11.09	2.025		
1,200.00	1,197.49	1,201.03	1,199.33	5.90	5.91	160.71	-24.21	-14.40	25.78	13.98	11.80	2.185		
1,300.00	1,296.87	1,300.97	1,298.96	6.28	6.28	161.57	-31.66	-16.84	29.10	16.57	12.53	2.323		
1,400.00	1,396.25	1,400.92	1,398.60	6.66	6.66	162.26	-39.11	-19.29	32.44	19.16	13.28	2.442		
1,500.00	1,495.64	1,500.86	1,498.24	7.06	7.05	162.82	-46.57	-21.73	35.78	21.73	14.05	2.546		
1,600.00	1,595.02	1,600.80	1,597.87	7.46	7.45	163.28	-54.02	-24.17	39.12	24.29	14.83	2.637		
1,700.00	1,694.40	1,700.75	1,697.51	7.87	7.85	163.67	-61.47	-26.62	42.46	26.83	15.63	2.717		
1,800.00	1,793.79	1,800.69	1,797.14	8.29	8.26	164.00	-68.92	-29.06	45.81	29.37	16.43	2.787		
1,900.00	1,893.17	1,900.63	1,896.78	8.71	8.67	164.29	-76.37	-31.51	49.16	31.91	17.25	2.850		
2,000.00	1,992.55	2,000.58	1,996.41	9.13	9.08	164.54	-83.82	-33.95	52.50	34.43	18.07	2.906		
2,100.00	2,091.94	2,100.52	2,096.05	9.56	9.50	164.76	-91.27	-36.40	55.85	36.95	18.90	2.956		
2,200.00	2,191.32	2,200.47	2,195.69	9.99	9.93	164.95	-98.72	-38.84	59.20	39.47	19.73	3.000		
2,300.00	2,290.70	2,300.41	2,295.32	10.42	10.35	165.13	-106.17	-41.29	62.55	41.98	20.57	3.041		
2,400.00	2,390.09	2,400.35	2,394.96	10.86	10.78	165.29	-113.62	-43.73	65.90	44.49	21.41	3.078		
2,500.00	2,489.47	2,500.30	2,494.59	11.29	11.20	165.43	-121.08	-46.18	69.25	46.99	22.26	3.111		
2,600.00	2,588.86	2,600.24	2,594.23	11.73	11.64	165.56	-128.53	-48.62	72.60	49.49	23.11	3.142		
2,700.00	2,688.24	2,700.18	2,693.86	12.18	12.07	165.67	-135.98	-51.07	75.95	51.99	23.96	3.170		
2,800.00	2,787.62	2,800.13	2,793.50	12.62	12.50	165.78	-143.43	-53.51	79.31	54.49	24.82	3.195		
2,900.00	2,887.01	2,900.07	2,893.13	13.06	12.93	165.88	-150.88	-55.95	82.66	56.98	25.68	3.219		
3,000.00	2,986.39	3,000.01	2,992.77	13.51	13.37	165.97	-158.33	-58.40	86.01	59.47	26.54	3.241		
3,100.00	3,085.77	3,099.96	3,092.41	13.95	13.81	166.05	-165.78	-60.84	89.36	61.96	27.40	3.261		
3,200.00	3,185.16	3,200.10	3,192.04	14.40	14.25	166.13	-173.23	-63.29	92.72	64.45	28.27	3.280		
3,300.00	3,284.54	3,300.15	3,291.68	14.85	14.68	166.20	-180.68	-65.73	96.07	66.93	29.14	3.297		
3,400.00	3,383.92	3,400.21	3,391.31	15.30	15.12	166.27	-188.14	-68.18	99.42	69.42	30.01	3.313		
3,500.00	3,483.31	3,500.27	3,490.95	15.75	15.56	166.34	-195.59	-70.62	102.78	71.90	30.88	3.329		
3,600.00	3,582.69	3,600.32	3,590.58	16.20	16.01	166.40	-203.04	-73.07	106.13	74.38	31.75	3.343		
3,700.00	3,682.07	3,700.38	3,690.22	16.65	16.45	166.45	-210.49	-75.51	109.48	76.86	32.62	3.356		
3,800.00	3,781.46	3,800.44	3,789.85	17.10	16.89	166.50	-217.94	-77.96	112.84	79.34	33.50	3.369		
3,900.00	3,880.84	3,900.49	3,889.49	17.56	17.33	166.55	-225.39	-80.40	116.19	81.82	34.37	3.380		
4,000.00	3,980.22	4,000.55	3,989.13	18.01	17.78	166.60	-232.84	-82.85	119.54	84.30	35.25	3.392		
4,100.00	4,079.61	4,100.60	4,088.76	18.46	18.22	166.64	-240.29	-85.29	122.90	86.77	36.12	3.402		
4,200.00	4,178.99	4,199.34	4,188.40	18.92	18.66	166.68	-247.74	-87.73	126.25	89.25	37.00	3.413		
4,300.00	4,278.38	4,299.28	4,288.03	19.37	19.10	166.72	-255.19	-90.18	129.60	91.73	37.87	3.422		
4,400.00	4,377.76	4,399.23	4,387.67	19.83	19.55	166.76	-262.65	-92.62	132.96	94.21	38.75	3.431		
4,500.00	4,477.14	4,500.83	4,487.30	20.28	20.00	166.80	-270.10	-95.07	136.31	96.67	39.64	3.439		
4,600.00	4,576.53	4,600.89	4,586.94	20.74	20.44	166.83	-277.55	-97.51	139.67	99.15	40.52	3.447		
4,700.00	4,675.91	4,700.94	4,686.57	21.19	20.89	166.86	-285.00	-99.96	143.02	101.62	41.40	3.454		
4,800.00	4,775.29	4,801.00	4,786.21	21.65	21.34	166.89	-292.45	-102.40	146.37	104.09	42.28	3.462		
4,900.00	4,874.68	4,901.06	4,885.85	22.10	21.78	166.92	-299.90	-104.85	149.73	106.56	43.17	3.469		
5,000.00	4,974.06	4,998.89	4,985.48	22.56	22.22	166.95	-307.35	-107.29	153.08	109.04	44.04	3.476		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,100.00	5,073.44	5,101.17	5,085.12	23.02	22.67	166.98	-314.80	-109.74	156.44	111.51	44.93	3.482		
5,200.00	5,172.83	5,201.22	5,184.75	23.47	23.12	167.01	-322.25	-112.18	159.79	113.98	45.82	3.488		
5,300.00	5,272.21	5,301.28	5,284.39	23.93	23.57	167.03	-329.71	-114.63	163.15	116.45	46.70	3.494		
5,400.00	5,371.59	5,401.34	5,384.02	24.39	24.02	167.05	-337.16	-117.07	166.50	118.92	47.58	3.499		
5,500.00	5,470.98	5,501.39	5,483.66	24.85	24.46	167.08	-344.61	-119.51	169.85	121.39	48.47	3.504		
5,600.00	5,570.36	5,601.45	5,583.30	25.30	24.91	167.10	-352.06	-121.96	173.21	123.86	49.35	3.510		
5,700.00	5,669.75	5,701.51	5,682.93	25.76	25.36	167.12	-359.51	-124.40	176.56	126.32	50.24	3.514		
5,800.00	5,769.13	5,798.44	5,782.57	26.22	25.79	167.14	-366.96	-126.85	179.92	128.81	51.11	3.520		
5,900.00	5,868.51	5,901.62	5,882.20	26.68	26.26	167.16	-374.41	-129.29	183.27	131.26	52.01	3.524		
6,000.00	5,967.90	6,001.67	5,981.84	27.14	26.70	167.18	-381.86	-131.74	186.63	133.73	52.90	3.528		
6,100.00	6,067.28	6,101.73	6,081.47	27.60	27.15	167.20	-389.31	-134.18	189.98	136.20	53.78	3.532		
6,200.00	6,166.66	6,201.79	6,181.11	28.05	27.60	167.21	-396.77	-136.63	193.34	138.67	54.67	3.536		
6,300.00	6,266.05	6,301.84	6,280.74	28.51	28.05	167.23	-404.22	-139.07	196.69	141.13	55.56	3.540		
6,400.00	6,365.43	6,401.90	6,380.38	28.97	28.50	167.25	-411.67	-141.52	200.04	143.60	56.44	3.544		
6,500.00	6,464.81	6,501.96	6,480.02	29.43	28.95	167.26	-419.12	-143.96	203.40	146.07	57.33	3.548		
6,600.00	6,564.10	6,602.07	6,579.60	29.89	29.40	137.32	-426.57	-146.40	206.79	148.57	58.22	3.552		
6,700.00	6,661.75	6,698.21	6,679.44	30.34	29.83	117.22	-434.05	-151.29	210.83	151.78	59.05	3.570		
6,800.00	6,755.38	6,801.26	6,780.17	30.77	30.28	112.90	-441.73	-171.02	215.74	155.87	59.87	3.603		
6,900.00	6,842.67	6,906.90	6,878.75	31.17	30.73	112.41	-449.38	-207.87	221.20	160.63	60.57	3.652		
7,000.00	6,921.48	7,015.15	6,972.03	31.54	31.15	113.16	-456.77	-262.03	226.88	165.81	61.07	3.715		
7,100.00	6,989.86	7,125.93	7,056.60	31.91	31.58	114.27	-463.66	-333.03	232.36	170.99	61.37	3.786		
7,200.00	7,046.13	7,239.02	7,128.95	32.35	32.07	115.37	-469.76	-419.54	237.27	175.64	61.63	3.850		
7,300.00	7,088.91	7,354.07	7,185.72	32.98	32.77	116.28	-474.80	-519.30	241.23	179.12	62.11	3.884		
7,400.00	7,117.14	7,470.59	7,224.04	33.84	33.76	116.89	-478.55	-629.10	243.94	180.82	63.13	3.864		
7,500.00	7,130.13	7,587.98	7,241.84	34.90	35.00	117.16	-480.82	-744.95	245.20	180.28	64.92	3.777		
7,600.00	7,130.72	7,694.15	7,242.74	36.13	36.31	117.18	-481.74	-851.08	245.28	178.00	67.28	3.646		
7,700.00	7,130.29	7,805.86	7,242.35	37.54	37.91	117.18	-482.53	-951.08	245.30	175.23	70.06	3.501		
7,800.00	7,129.85	7,905.86	7,241.96	39.12	39.50	117.19	-483.31	-1,051.08	245.31	172.34	72.97	3.362		
7,900.00	7,129.42	7,994.15	7,241.56	40.83	41.02	117.20	-484.09	-1,151.07	245.33	169.41	75.92	3.231		
8,000.00	7,128.98	8,105.86	7,241.17	42.67	43.09	117.21	-484.87	-1,251.07	245.34	165.88	79.46	3.088		
8,100.00	7,128.55	8,205.86	7,240.78	44.62	45.04	117.22	-485.66	-1,351.07	245.35	162.36	82.99	2.956		
8,200.00	7,128.12	8,305.86	7,240.38	46.66	47.09	117.23	-486.44	-1,451.06	245.37	158.68	86.69	2.830		
8,300.00	7,127.68	8,405.86	7,239.99	48.79	49.23	117.24	-487.22	-1,551.06	245.38	154.86	90.53	2.711		
8,400.00	7,127.25	8,505.86	7,239.60	50.98	51.43	117.25	-488.00	-1,651.05	245.40	150.91	94.49	2.597		
8,500.00	7,126.81	8,594.15	7,239.20	53.24	53.42	117.26	-488.78	-1,751.05	245.41	147.09	98.32	2.496		
8,600.00	7,126.38	8,705.86	7,238.81	55.56	56.01	117.27	-489.57	-1,851.05	245.43	142.70	102.72	2.389		
8,700.00	7,125.95	8,805.86	7,238.42	57.92	58.38	117.27	-490.35	-1,951.04	245.44	138.46	106.98	2.294		
8,800.00	7,125.51	8,905.86	7,238.02	60.33	60.78	117.28	-491.13	-2,051.04	245.45	134.15	111.30	2.205		
8,900.00	7,125.08	8,994.15	7,237.63	62.77	62.94	117.29	-491.91	-2,151.03	245.47	130.03	115.43	2.126		
9,000.00	7,124.64	9,105.86	7,237.24	65.25	65.71	117.30	-492.70	-2,251.03	245.48	125.34	120.14	2.043		
9,100.00	7,124.21	9,194.15	7,236.84	67.76	67.92	117.31	-493.48	-2,351.03	245.50	121.12	124.38	1.974		
9,200.00	7,123.78	9,305.86	7,236.45	70.29	70.76	117.32	-494.26	-2,451.02	245.51	116.31	129.20	1.900		
9,300.00	7,123.34	9,405.86	7,236.06	72.85	73.32	117.33	-495.04	-2,551.02	245.53	111.74	133.79	1.835		
9,400.00	7,122.91	9,505.86	7,235.66	75.43	75.90	117.34	-495.82	-2,651.02	245.54	107.12	138.42	1.774		
9,500.00	7,122.48	9,605.86	7,235.27	78.03	78.50	117.35	-496.61	-2,751.01	245.55	102.47	143.09	1.716		
9,600.00	7,122.04	9,705.86	7,234.88	80.65	81.11	117.35	-497.39	-2,851.01	245.57	97.79	147.78	1.662		
9,700.00	7,121.61	9,805.86	7,234.48	83.28	83.75	117.36	-498.17	-2,951.00	245.58	93.08	152.50	1.610		
9,800.00	7,121.17	9,905.86	7,234.09	85.93	86.39	117.37	-498.95	-3,051.00	245.60	88.35	157.25	1.562		
9,900.00	7,120.74	10,005.86	7,233.70	88.59	89.05	117.38	-499.74	-3,151.00	245.61	83.59	162.02	1.516		
10,000.00	7,120.31	10,105.86	7,233.30	91.26	91.73	117.39	-500.52	-3,250.99	245.63	78.81	166.82	1.472 Level 3		
10,100.00	7,119.87	10,205.86	7,232.91	93.95	94.41	117.40	-501.30	-3,350.99	245.64	74.01	171.63	1.431 Level 3		
10,200.00	7,119.44	10,305.86	7,232.52	96.64	97.10	117.41	-502.08	-3,450.98	245.65	69.20	176.46	1.392 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	10,405.86	7,232.12	99.34	99.81	117.42	-502.86	-3,550.98	245.67	64.37	181.30	1.355	Level 3	
10,400.00	7,118.57	10,494.15	7,231.73	102.05	102.20	117.43	-503.65	-3,650.98	245.68	59.81	185.87	1.322	Level 3	
10,500.00	7,118.14	10,605.86	7,231.34	104.77	105.24	117.43	-504.43	-3,750.97	245.70	54.66	191.03	1.286	Level 3	
10,600.00	7,117.70	10,705.86	7,230.94	107.50	107.96	117.44	-505.21	-3,850.97	245.71	49.79	195.92	1.254	Level 3	
10,700.00	7,117.27	10,805.86	7,230.55	110.23	110.69	117.45	-505.99	-3,950.97	245.73	44.91	200.82	1.224	Level 2	
10,800.00	7,116.83	10,905.86	7,230.16	112.97	113.43	117.46	-506.78	-4,050.96	245.74	40.02	205.72	1.195	Level 2	
10,900.00	7,116.40	11,005.86	7,229.76	115.72	116.18	117.47	-507.56	-4,150.96	245.76	35.11	210.64	1.167	Level 2	
11,000.00	7,115.97	11,105.86	7,229.37	118.47	118.93	117.48	-508.34	-4,250.95	245.77	30.20	215.57	1.140	Level 2	
11,100.00	7,115.53	11,205.86	7,228.98	121.22	121.68	117.49	-509.12	-4,350.95	245.78	25.28	220.50	1.115	Level 2	
11,200.00	7,115.10	11,305.86	7,228.58	123.98	124.44	117.50	-509.90	-4,450.95	245.80	20.35	225.45	1.090	Level 2	
11,300.00	7,114.66	11,405.86	7,228.19	126.74	127.21	117.51	-510.69	-4,550.94	245.81	15.42	230.40	1.067	Level 2	
11,400.00	7,114.23	11,494.15	7,227.80	129.51	129.65	117.52	-511.47	-4,650.94	245.83	10.76	235.06	1.046	Level 2	
11,500.00	7,113.80	11,605.86	7,227.41	132.29	132.75	117.52	-512.25	-4,750.93	245.84	5.52	240.32	1.023	Level 2	
11,600.00	7,113.36	11,705.86	7,227.01	135.06	135.52	117.53	-513.03	-4,850.93	245.86	0.57	245.29	1.002	Level 2	
11,700.00	7,112.93	11,805.86	7,226.62	137.84	138.30	117.54	-513.82	-4,950.93	245.87	-4.39	250.26	0.982	Level 1	
11,800.00	7,112.49	11,905.86	7,226.23	140.62	141.08	117.55	-514.60	-5,050.92	245.89	-9.36	255.24	0.963	Level 1	
11,900.00	7,112.06	12,005.86	7,225.83	143.41	143.87	117.56	-515.38	-5,150.92	245.90	-14.33	260.23	0.945	Level 1	
12,000.00	7,111.63	12,105.86	7,225.44	146.20	146.66	117.57	-516.16	-5,250.92	245.91	-19.30	265.22	0.927	Level 1	
12,100.00	7,111.19	12,194.15	7,225.05	148.99	149.12	117.58	-516.94	-5,350.91	245.93	-23.99	269.92	0.911	Level 1	
12,200.00	7,110.76	12,305.86	7,224.65	151.78	152.24	117.59	-517.73	-5,450.91	245.94	-29.26	275.21	0.894	Level 1	
12,300.00	7,110.33	12,405.86	7,224.26	154.58	155.03	117.60	-518.51	-5,550.90	245.96	-34.25	280.21	0.878	Level 1	
12,400.00	7,109.89	12,505.86	7,223.87	157.37	157.83	117.60	-519.29	-5,650.90	245.97	-39.24	285.21	0.862	Level 1	
12,500.00	7,109.46	12,605.86	7,223.47	160.17	160.63	117.61	-520.07	-5,750.90	245.99	-44.23	290.22	0.848	Level 1	
12,600.00	7,109.02	12,705.86	7,223.08	162.98	163.43	117.62	-520.86	-5,850.89	246.00	-49.23	295.23	0.833	Level 1	
12,700.00	7,108.59	12,805.86	7,222.69	165.78	166.24	117.63	-521.64	-5,950.89	246.02	-54.23	300.25	0.819	Level 1	
12,800.00	7,108.16	12,905.86	7,222.29	168.59	169.04	117.64	-522.42	-6,050.88	246.03	-59.23	305.26	0.806	Level 1	
12,900.00	7,107.72	13,005.86	7,221.90	171.39	171.85	117.65	-523.20	-6,150.88	246.05	-64.23	310.28	0.793	Level 1	
13,000.00	7,107.29	13,105.86	7,221.51	174.20	174.66	117.66	-523.98	-6,250.88	246.06	-69.24	315.30	0.780	Level 1	
13,100.00	7,106.85	13,205.86	7,221.11	177.01	177.47	117.67	-524.77	-6,350.87	246.07	-74.25	320.32	0.768	Level 1	
13,200.00	7,106.42	13,294.15	7,220.72	179.83	179.95	117.68	-525.55	-6,450.87	246.09	-78.97	325.05	0.757	Level 1	
13,300.00	7,105.99	13,405.86	7,220.33	182.64	183.09	117.68	-526.33	-6,550.87	246.10	-84.27	330.38	0.745	Level 1	
13,400.00	7,105.55	13,505.86	7,219.93	185.45	185.91	117.69	-527.11	-6,650.86	246.12	-89.29	335.41	0.734	Level 1	
13,500.00	7,105.12	13,605.86	7,219.54	188.27	188.73	117.70	-527.90	-6,750.86	246.13	-94.30	340.44	0.723	Level 1	
13,600.00	7,104.68	13,705.86	7,219.15	191.09	191.54	117.71	-528.68	-6,850.85	246.15	-99.32	345.47	0.713	Level 1	
13,700.00	7,104.25	13,805.86	7,218.75	193.91	194.36	117.72	-529.46	-6,950.85	246.16	-104.34	350.50	0.702	Level 1	
13,800.00	7,103.82	13,905.86	7,218.36	196.73	197.18	117.73	-530.24	-7,050.85	246.18	-109.36	355.54	0.692	Level 1	
13,900.00	7,103.38	14,005.86	7,217.97	199.55	200.00	117.74	-531.02	-7,150.84	246.19	-114.38	360.58	0.683	Level 1	
14,000.00	7,102.95	14,105.86	7,217.57	202.37	202.82	117.75	-531.81	-7,250.84	246.21	-119.41	365.61	0.673	Level 1	
14,100.00	7,102.51	14,205.86	7,217.18	205.19	205.65	117.76	-532.59	-7,350.84	246.22	-124.43	370.65	0.664	Level 1	
14,200.00	7,102.08	14,305.86	7,216.79	208.02	208.47	117.76	-533.37	-7,450.83	246.24	-129.46	375.69	0.655	Level 1	
14,300.00	7,101.65	14,405.86	7,216.39	210.84	211.29	117.77	-534.15	-7,550.83	246.25	-134.48	380.73	0.647	Level 1	
14,400.00	7,101.21	14,505.86	7,216.00	213.67	214.12	117.78	-534.94	-7,650.82	246.26	-139.51	385.77	0.638	Level 1	
14,500.00	7,100.78	14,605.86	7,215.61	216.50	216.95	117.79	-535.72	-7,750.82	246.28	-144.54	390.82	0.630	Level 1	
14,600.00	7,100.35	14,705.86	7,215.21	219.32	219.77	117.80	-536.50	-7,850.82	246.29	-149.57	395.86	0.622	Level 1	
14,700.00	7,099.91	14,805.86	7,214.82	222.15	222.60	117.81	-537.28	-7,950.81	246.31	-154.60	400.90	0.614	Level 1	
14,800.00	7,099.48	14,894.14	7,214.43	224.98	225.10	117.82	-538.06	-8,050.81	246.32	-159.33	405.65	0.607	Level 1	
14,900.00	7,099.04	14,994.14	7,214.03	227.81	227.93	117.83	-538.85	-8,150.80	246.34	-164.36	410.70	0.600	Level 1	
14,909.96	7,099.00	15,004.11	7,213.99	228.09	228.21	117.83	-538.92	-8,160.77	246.34	-164.86	411.20	0.599	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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	-179.40	-80.15	-0.83	80.16					
100.00	100.00	101.00	100.00	3.28	3.28	-179.40	-80.15	-0.83	80.16	73.59	6.57	12.201		
200.00	200.00	201.00	200.00	3.34	3.34	-179.40	-80.15	-0.83	80.16	73.48	6.67	12.009		
300.00	300.00	299.00	300.00	3.44	3.44	-179.40	-80.15	-0.83	80.16	73.27	6.89	11.636 CC		
400.00	400.00	396.30	397.29	3.60	3.59	-179.22	-81.75	-1.11	81.80	74.60	7.20	11.358		
500.00	500.00	493.36	494.21	3.81	3.77	-178.71	-86.58	-1.95	86.79	79.18	7.61	11.408		
600.00	600.00	589.98	590.48	4.04	4.00	-11.13	-94.60	-3.34	95.07	86.97	8.09	11.747		
700.00	699.96	686.22	686.05	4.29	4.25	-10.49	-105.76	-5.28	104.36	95.74	8.62	12.110		
800.00	799.78	785.13	783.98	4.57	4.54	-10.12	-119.48	-7.66	112.52	103.35	9.17	12.268		
900.00	899.34	885.01	882.85	4.88	4.87	-10.09	-133.40	-10.08	117.34	107.56	9.77	12.005		
1,000.00	998.72	984.96	981.80	5.20	5.22	-10.21	-147.34	-12.50	120.50	110.07	10.43	11.558		
1,100.00	1,098.10	1,084.91	1,080.74	5.54	5.59	-10.33	-161.27	-14.92	123.65	112.54	11.11	11.128		
1,200.00	1,197.49	1,184.86	1,179.68	5.90	5.97	-10.45	-175.20	-17.34	126.81	114.99	11.83	10.721		
1,300.00	1,296.87	1,284.81	1,278.63	6.28	6.36	-10.56	-189.13	-19.75	129.97	117.41	12.57	10.341		
1,400.00	1,396.25	1,384.76	1,377.57	6.66	6.77	-10.66	-203.07	-22.17	133.13	119.80	13.33	9.988		
1,500.00	1,495.64	1,484.71	1,476.52	7.06	7.18	-10.76	-217.00	-24.59	136.29	122.19	14.11	9.661		
1,600.00	1,595.02	1,584.66	1,575.46	7.46	7.61	-10.85	-230.93	-27.01	139.46	124.56	14.90	9.360		
1,700.00	1,694.40	1,684.61	1,674.41	7.87	8.03	-10.94	-244.86	-29.43	142.62	126.91	15.70	9.082		
1,800.00	1,793.79	1,784.56	1,773.35	8.29	8.46	-11.03	-258.80	-31.85	145.78	129.26	16.52	8.825		
1,900.00	1,893.17	1,884.51	1,872.29	8.71	8.90	-11.11	-272.73	-34.27	148.94	131.60	17.34	8.588		
2,000.00	1,992.55	1,984.46	1,971.24	9.13	9.34	-11.19	-286.66	-36.69	152.10	133.93	18.17	8.369		
2,100.00	2,091.94	2,084.41	2,070.18	9.56	9.79	-11.27	-300.59	-39.11	155.27	136.25	19.01	8.166		
2,200.00	2,191.32	2,184.36	2,169.13	9.99	10.23	-11.34	-314.53	-41.52	158.43	138.57	19.86	7.978		
2,300.00	2,290.70	2,284.31	2,268.07	10.42	10.68	-11.41	-328.46	-43.94	161.59	140.89	20.71	7.804		
2,400.00	2,390.09	2,384.26	2,367.02	10.86	11.13	-11.48	-342.39	-46.36	164.76	143.20	21.56	7.641		
2,500.00	2,489.47	2,484.21	2,465.96	11.29	11.58	-11.54	-356.32	-48.78	167.92	145.50	22.42	7.490		
2,600.00	2,588.86	2,584.16	2,564.91	11.73	12.04	-11.60	-370.26	-51.20	171.08	147.80	23.28	7.349		
2,700.00	2,688.24	2,684.11	2,663.85	12.18	12.49	-11.66	-384.19	-53.62	174.25	150.10	24.15	7.216		
2,800.00	2,787.62	2,784.06	2,762.79	12.62	12.95	-11.72	-398.12	-56.04	177.41	152.40	25.01	7.093		
2,900.00	2,887.01	2,884.00	2,861.74	13.06	13.41	-11.78	-412.06	-58.46	180.58	154.69	25.88	6.976		
3,000.00	2,986.39	2,983.95	2,960.68	13.51	13.87	-11.83	-425.99	-60.88	183.74	156.98	26.76	6.867		
3,100.00	3,085.77	3,083.90	3,059.63	13.95	14.33	-11.88	-439.92	-63.29	186.91	159.27	27.63	6.764		
3,200.00	3,185.16	3,183.85	3,158.57	14.40	14.79	-11.93	-453.85	-65.71	190.07	161.56	28.51	6.667		
3,300.00	3,284.54	3,283.80	3,257.52	14.85	15.25	-11.98	-467.79	-68.13	193.24	163.85	29.39	6.575		
3,400.00	3,383.92	3,383.75	3,356.46	15.30	15.72	-12.03	-481.72	-70.55	196.40	166.13	30.27	6.489		
3,500.00	3,483.31	3,483.70	3,455.40	15.75	16.18	-12.08	-495.65	-72.97	199.57	168.42	31.15	6.407		
3,600.00	3,582.69	3,583.65	3,554.35	16.20	16.65	-12.12	-509.58	-75.39	202.73	170.70	32.03	6.329		
3,700.00	3,682.07	3,683.60	3,653.29	16.65	17.11	-12.16	-523.52	-77.81	205.90	172.98	32.92	6.255		
3,800.00	3,781.46	3,783.55	3,752.24	17.10	17.58	-12.20	-537.45	-80.23	209.06	175.26	33.80	6.185		
3,900.00	3,880.84	3,883.50	3,851.18	17.56	18.04	-12.24	-551.38	-82.65	212.23	177.54	34.69	6.118		
4,000.00	3,980.22	3,983.45	3,950.13	18.01	18.51	-12.28	-565.31	-85.06	215.39	179.82	35.58	6.055		
4,100.00	4,079.61	4,083.40	4,049.07	18.46	18.97	-12.32	-579.25	-87.48	218.56	182.10	36.46	5.994		
4,200.00	4,178.99	4,183.35	4,148.02	18.92	19.44	-12.36	-593.18	-89.90	221.73	184.37	37.35	5.936		
4,300.00	4,278.38	4,283.30	4,246.96	19.37	19.91	-12.39	-607.11	-92.32	224.89	186.65	38.24	5.881		
4,400.00	4,377.76	4,383.25	4,345.90	19.83	20.38	-12.43	-621.05	-94.74	228.06	188.93	39.13	5.828		
4,500.00	4,477.14	4,483.20	4,444.85	20.28	20.85	-12.46	-634.98	-97.16	231.23	191.20	40.03	5.777		
4,600.00	4,576.53	4,583.15	4,543.79	20.74	21.31	-12.50	-648.91	-99.58	234.39	193.47	40.92	5.728		
4,700.00	4,675.91	4,683.10	4,642.74	21.19	21.78	-12.53	-662.84	-102.00	237.56	195.75	41.81	5.682		
4,800.00	4,775.29	4,783.05	4,741.68	21.65	22.25	-12.56	-676.78	-104.41	240.73	198.02	42.70	5.637		
4,900.00	4,874.68	4,883.00	4,840.63	22.10	22.72	-12.59	-690.71	-106.83	243.89	200.30	43.60	5.594		
5,000.00	4,974.06	4,982.95	4,939.57	22.56	23.19	-12.62	-704.64	-109.25	247.06	202.57	44.49	5.553		
5,100.00	5,073.44	5,082.90	5,038.51	23.02	23.66	-12.65	-718.57	-111.67	250.23	204.84	45.39	5.513		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,182.85	5,137.46	23.47	24.13	-12.68	-732.51	-114.09	253.39	207.11	46.28	5.475		
5,300.00	5,272.21	5,282.80	5,236.40	23.93	24.60	-12.70	-746.44	-116.51	256.56	209.38	47.18	5.438		
5,400.00	5,371.59	5,382.75	5,335.35	24.39	25.07	-12.73	-760.37	-118.93	259.73	211.65	48.07	5.403		
5,500.00	5,470.98	5,482.70	5,434.29	24.85	25.54	-12.76	-774.30	-121.35	262.89	213.92	48.97	5.369		
5,600.00	5,570.36	5,582.65	5,533.24	25.30	26.01	-12.78	-788.24	-123.77	266.06	216.20	49.86	5.336		
5,700.00	5,669.75	5,682.60	5,632.18	25.76	26.48	-12.81	-802.17	-126.18	269.23	218.47	50.76	5.304		
5,800.00	5,769.13	5,782.55	5,731.12	26.22	26.95	-12.83	-816.10	-128.60	272.39	220.74	51.66	5.273		
5,900.00	5,868.51	5,882.50	5,830.07	26.68	27.42	-12.86	-830.04	-131.02	275.56	223.01	52.56	5.243		
6,000.00	5,967.90	5,982.45	5,929.01	27.14	27.89	-12.88	-843.97	-133.44	278.73	225.27	53.45	5.214		
6,100.00	6,067.28	6,082.40	6,027.96	27.60	28.37	-12.90	-857.90	-135.86	281.90	227.54	54.35	5.186		
6,200.00	6,166.66	6,182.35	6,126.90	28.05	28.84	-12.93	-871.83	-138.28	285.06	229.81	55.25	5.159		
6,300.00	6,266.05	6,282.30	6,225.85	28.51	29.31	-12.95	-885.77	-140.70	288.23	232.08	56.15	5.133		
6,400.00	6,365.43	6,382.25	6,324.79	28.97	29.78	-12.97	-899.70	-143.12	291.40	234.35	57.05	5.108		
6,500.00	6,464.81	6,482.20	6,423.74	29.43	30.25	-12.99	-913.63	-145.54	294.57	236.62	57.95	5.083		
6,600.00	6,564.10	6,581.71	6,522.00	29.89	30.72	-12.99	-927.50	-147.94	297.76	238.92	58.84	5.061		
6,700.00	6,661.75	6,680.63	6,617.60	30.34	31.17	-12.99	-941.33	-150.32	300.94	241.24	59.70	5.041		
6,800.00	6,755.38	6,779.08	6,708.39	30.77	31.59	-12.99	-955.16	-152.69	304.03	243.50	60.53	5.023		
6,900.00	6,842.67	6,877.10	6,792.33	31.17	31.98	-12.99	-968.93	-155.04	306.94	245.59	61.35	5.003		
7,000.00	6,921.48	6,974.76	6,867.56	31.54	32.34	-12.99	-982.63	-157.38	309.59	247.39	62.20	4.977		
7,100.00	6,999.86	7,072.11	6,932.46	31.91	32.68	-12.99	-996.26	-159.70	311.90	248.74	63.16	4.938		
7,200.00	7,076.13	7,169.22	6,985.64	32.25	33.04	-12.99	-1009.82	-162.00	313.82	249.49	64.33	4.878		
7,300.00	7,088.91	7,266.14	7,025.99	32.58	33.34	-12.99	-1023.31	-164.28	315.29	249.49	65.80	4.792		
7,400.00	7,117.14	7,362.95	7,052.66	32.84	34.27	-12.99	-1036.72	-166.54	316.27	248.66	67.61	4.678		
7,500.00	7,130.13	7,459.71	7,065.08	33.00	35.23	-12.99	-1049.97	-168.78	316.73	246.96	69.76	4.540		
7,600.00	7,130.72	7,558.48	7,065.75	33.13	36.41	-12.99	-1063.07	-170.99	316.78	244.53	72.25	4.384		
7,700.00	7,130.29	7,658.48	7,065.36	33.24	37.79	-12.99	-1076.02	-173.18	316.80	241.74	75.06	4.221		
7,800.00	7,129.85	7,758.48	7,064.97	33.33	39.12	-12.99	-1088.82	-175.34	316.83	238.66	78.17	4.053		
7,900.00	7,129.42	7,858.48	7,064.57	33.40	40.43	-12.99	-1101.47	-177.48	316.86	235.31	81.55	3.885		
8,000.00	7,128.98	7,958.48	7,064.18	33.46	41.72	-12.99	-1113.97	-179.60	316.88	231.72	85.16	3.721		
8,100.00	7,128.55	8,058.48	7,063.79	33.50	43.00	-12.99	-1126.32	-181.70	316.91	227.92	88.98	3.561		
8,200.00	7,128.12	8,158.48	7,063.39	33.53	44.27	-12.99	-1138.52	-183.78	316.93	223.94	92.99	3.408		
8,300.00	7,127.68	8,258.48	7,063.00	33.55	45.54	-12.99	-1150.67	-185.84	316.96	219.81	97.15	3.263		
8,400.00	7,127.25	8,358.48	7,062.61	33.56	46.80	-12.99	-1162.67	-187.88	316.98	215.53	101.45	3.125		
8,500.00	7,126.81	8,458.48	7,062.22	33.57	48.05	-12.99	-1174.52	-189.90	317.01	211.13	105.87	2.994		
8,600.00	7,126.38	8,558.48	7,061.82	33.58	49.29	-12.99	-1186.22	-191.90	317.03	206.63	110.41	2.872		
8,700.00	7,125.95	8,658.48	7,061.43	33.58	50.52	-12.99	-1197.77	-193.88	317.06	202.03	115.03	2.756		
8,800.00	7,125.51	8,758.48	7,061.04	33.58	51.74	-12.99	-1209.17	-195.84	317.08	197.34	119.74	2.648		
8,900.00	7,125.08	8,858.48	7,060.64	33.58	52.95	-12.99	-1220.42	-197.78	317.11	192.58	124.53	2.546		
9,000.00	7,124.64	8,958.48	7,060.25	33.58	54.15	-12.99	-1231.52	-199.70	317.13	187.75	129.38	2.451		
9,100.00	7,124.21	9,058.48	7,059.86	33.58	55.34	-12.99	-1242.47	-201.60	317.16	182.86	134.29	2.362		
9,200.00	7,123.78	9,158.48	7,059.46	33.58	56.52	-12.99	-1253.27	-203.48	317.18	177.93	139.26	2.278		
9,300.00	7,123.34	9,258.48	7,059.07	33.58	57.69	-12.99	-1263.92	-205.34	317.21	172.94	144.27	2.199		
9,400.00	7,122.91	9,358.48	7,058.68	33.58	58.85	-12.99	-1274.42	-207.18	317.24	167.91	149.33	2.124		
9,500.00	7,122.48	9,458.48	7,058.28	33.58	59.99	-12.99	-1284.77	-209.00	317.26	162.84	154.42	2.055		
9,600.00	7,122.04	9,558.48	7,057.89	33.58	61.12	-12.99	-1294.97	-210.80	317.29	157.74	159.55	1.989		
9,700.00	7,121.61	9,658.48	7,057.50	33.58	62.24	-12.99	-1305.02	-212.58	317.31	152.60	164.71	1.926		
9,800.00	7,121.17	9,758.48	7,057.10	33.58	63.35	-12.99	-1314.92	-214.34	317.34	147.44	169.90	1.868		
9,900.00	7,120.74	9,858.48	7,056.71	33.58	64.45	-12.99	-1324.67	-216.08	317.36	142.25	175.12	1.812		
10,000.00	7,120.31	9,958.48	7,056.32	33.58	65.54	-12.99	-1334.27	-217.80	317.39	137.03	180.36	1.760		
10,100.00	7,119.87	10,058.48	7,055.92	33.58	66.62	-12.99	-1343.72	-219.50	317.41	131.79	185.62	1.710		
10,200.00	7,119.44	10,158.48	7,055.53	33.58	67.69	-12.99	-1353.02	-221.18	317.44	126.54	190.90	1.663		
10,300.00	7,119.00	10,258.48	7,055.14	33.58	68.75	-12.99	-1362.17	-222.84	317.46	121.26	196.20	1.618		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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	7,118.57	10,358.48	7,054.75	102.05	102.02	-78.40	-1,032.70	-3,646.05	317.49	115.97	201.52	1.575		
10,500.00	7,118.14	10,458.48	7,054.35	104.77	104.73	-78.41	-1,033.51	-3,746.05	317.52	110.66	206.86	1.535		
10,600.00	7,117.70	10,558.48	7,053.96	107.50	107.46	-78.42	-1,034.33	-3,846.04	317.54	105.34	212.20	1.496	Level 3	
10,700.00	7,117.27	10,658.48	7,053.57	110.23	110.19	-78.43	-1,035.14	-3,946.04	317.57	100.00	217.57	1.460	Level 3	
10,800.00	7,116.83	10,758.48	7,053.17	112.97	112.92	-78.44	-1,035.95	-4,046.03	317.59	94.65	222.94	1.425	Level 3	
10,900.00	7,116.40	10,858.48	7,052.78	115.72	115.66	-78.44	-1,036.76	-4,146.03	317.62	89.29	228.33	1.391	Level 3	
11,000.00	7,115.97	10,958.48	7,052.39	118.47	118.41	-78.45	-1,037.57	-4,246.03	317.64	83.92	233.73	1.359	Level 3	
11,100.00	7,115.53	11,058.48	7,051.99	121.22	121.17	-78.46	-1,038.38	-4,346.02	317.67	78.53	239.14	1.328	Level 3	
11,200.00	7,115.10	11,158.48	7,051.60	123.98	123.92	-78.47	-1,039.20	-4,446.02	317.69	73.14	244.55	1.299	Level 3	
11,300.00	7,114.66	11,258.48	7,051.21	126.74	126.69	-78.48	-1,040.01	-4,546.01	317.72	67.74	249.98	1.271	Level 3	
11,400.00	7,114.23	11,358.48	7,050.81	129.51	129.45	-78.49	-1,040.82	-4,646.01	317.74	62.33	255.42	1.244	Level 2	
11,500.00	7,113.80	11,458.48	7,050.42	132.29	132.22	-78.50	-1,041.63	-4,746.01	317.77	56.91	260.86	1.218	Level 2	
11,600.00	7,113.36	11,558.48	7,050.03	135.06	135.00	-78.50	-1,042.44	-4,846.00	317.80	51.48	266.31	1.193	Level 2	
11,700.00	7,112.93	11,658.48	7,049.63	137.84	137.77	-78.51	-1,043.26	-4,946.00	317.82	46.05	271.77	1.169	Level 2	
11,800.00	7,112.49	11,758.48	7,049.24	140.62	140.55	-78.52	-1,044.07	-5,045.99	317.85	40.61	277.24	1.146	Level 2	
11,900.00	7,112.06	11,858.48	7,048.85	143.41	143.34	-78.53	-1,044.88	-5,145.99	317.87	35.17	282.71	1.124	Level 2	
12,000.00	7,111.63	11,958.48	7,048.45	146.20	146.12	-78.54	-1,045.69	-5,245.99	317.90	29.71	288.18	1.103	Level 2	
12,100.00	7,111.19	12,058.48	7,048.06	148.99	148.91	-78.55	-1,046.50	-5,345.98	317.92	24.26	293.67	1.083	Level 2	
12,200.00	7,110.76	12,158.48	7,047.67	151.78	151.71	-78.55	-1,047.31	-5,445.98	317.95	18.79	299.15	1.063	Level 2	
12,300.00	7,110.33	12,258.48	7,047.28	154.58	154.50	-78.56	-1,048.13	-5,545.97	317.97	13.33	304.65	1.044	Level 2	
12,400.00	7,109.89	12,358.48	7,046.88	157.37	157.30	-78.57	-1,048.94	-5,645.97	318.00	7.85	310.15	1.025	Level 2	
12,500.00	7,109.46	12,458.48	7,046.49	160.17	160.10	-78.58	-1,049.75	-5,745.97	318.03	2.38	315.65	1.008	Level 2	
12,600.00	7,109.02	12,558.48	7,046.10	162.98	162.90	-78.59	-1,050.56	-5,845.96	318.05	-3.10	321.16	0.990	Level 1	
12,700.00	7,108.59	12,658.48	7,045.70	165.78	165.70	-78.60	-1,051.37	-5,945.96	318.08	-8.59	326.67	0.974	Level 1	
12,800.00	7,108.16	12,758.48	7,045.31	168.59	168.50	-78.61	-1,052.18	-6,045.95	318.10	-14.08	332.18	0.958	Level 1	
12,900.00	7,107.72	12,858.48	7,044.92	171.39	171.31	-78.61	-1,053.00	-6,145.95	318.13	-19.57	337.70	0.942	Level 1	
13,000.00	7,107.29	12,958.48	7,044.52	174.20	174.12	-78.62	-1,053.81	-6,245.94	318.15	-25.07	343.22	0.927	Level 1	
13,100.00	7,106.85	13,058.48	7,044.13	177.01	176.93	-78.63	-1,054.62	-6,345.94	318.18	-30.57	348.75	0.912	Level 1	
13,200.00	7,106.42	13,158.48	7,043.74	179.83	179.74	-78.64	-1,055.43	-6,445.94	318.21	-36.07	354.28	0.898	Level 1	
13,300.00	7,105.99	13,258.48	7,043.34	182.64	182.55	-78.65	-1,056.24	-6,545.93	318.23	-41.58	359.81	0.884	Level 1	
13,400.00	7,105.55	13,358.48	7,042.95	185.45	185.37	-78.66	-1,057.05	-6,645.93	318.26	-47.09	365.35	0.871	Level 1	
13,500.00	7,105.12	13,458.48	7,042.56	188.27	188.18	-78.66	-1,057.87	-6,745.92	318.28	-52.60	370.88	0.858	Level 1	
13,600.00	7,104.68	13,558.48	7,042.16	191.09	191.00	-78.67	-1,058.68	-6,845.92	318.31	-58.12	376.42	0.846	Level 1	
13,700.00	7,104.25	13,658.48	7,041.77	193.91	193.82	-78.68	-1,059.49	-6,945.92	318.33	-63.63	381.97	0.833	Level 1	
13,800.00	7,103.82	13,758.48	7,041.38	196.73	196.63	-78.69	-1,060.30	-7,045.91	318.36	-69.16	387.52	0.822	Level 1	
13,900.00	7,103.38	13,858.48	7,040.98	199.55	199.45	-78.70	-1,061.11	-7,145.91	318.39	-74.68	393.06	0.810	Level 1	
14,000.00	7,102.95	13,958.48	7,040.59	202.37	202.28	-78.71	-1,061.92	-7,245.90	318.41	-80.20	398.62	0.799	Level 1	
14,100.00	7,102.51	14,058.48	7,040.20	205.19	205.10	-78.71	-1,062.74	-7,345.90	318.44	-85.73	404.17	0.788	Level 1	
14,200.00	7,102.08	14,158.48	7,039.81	208.02	207.92	-78.72	-1,063.55	-7,445.90	318.46	-91.26	409.72	0.777	Level 1	
14,300.00	7,101.65	14,258.48	7,039.41	210.84	210.75	-78.73	-1,064.36	-7,545.89	318.49	-96.79	415.28	0.767	Level 1	
14,400.00	7,101.21	14,358.48	7,039.02	213.67	213.57	-78.74	-1,065.17	-7,645.89	318.51	-102.33	420.84	0.757	Level 1	
14,500.00	7,100.78	14,458.48	7,038.63	216.50	216.40	-78.75	-1,065.98	-7,745.88	318.54	-107.87	426.40	0.747	Level 1	
14,600.00	7,100.35	14,558.48	7,038.23	219.32	219.22	-78.76	-1,066.80	-7,845.88	318.57	-113.40	431.97	0.737	Level 1	
14,700.00	7,099.91	14,658.48	7,037.84	222.15	222.05	-78.76	-1,067.61	-7,945.88	318.59	-118.94	437.53	0.728	Level 1	
14,800.00	7,099.48	14,758.48	7,037.45	224.98	224.88	-78.77	-1,068.42	-8,045.87	318.62	-124.49	443.10	0.719	Level 1	
14,900.00	7,099.04	14,858.48	7,037.05	227.81	227.71	-78.78	-1,069.23	-8,145.87	318.64	-130.03	448.67	0.710	Level 1	
14,909.96	7,099.00	14,868.44	7,037.01	228.09	227.99	-78.78	-1,069.31	-8,155.83	318.65	-130.58	449.23	0.709 Level 1, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	-179.52	-200.00	-1.67	200.01					
100.00	100.00	101.00	100.00	3.28	3.28	-179.52	-200.00	-1.67	200.01	193.44	6.57	30.445		
200.00	200.00	199.00	200.00	3.34	3.34	-179.52	-200.00	-1.67	200.01	193.34	6.67	29.972	CC, ES	
300.00	300.00	292.52	293.51	3.44	3.43	-179.49	-201.49	-1.78	201.61	194.72	6.89	29.282		
400.00	400.00	385.78	386.65	3.60	3.57	-179.41	-206.01	-2.13	206.45	199.25	7.20	28.660		
500.00	500.00	478.65	479.21	3.81	3.75	-179.27	-213.50	-2.70	214.53	206.92	7.61	28.177		
600.00	600.00	570.94	570.90	4.04	3.96	-12.25	-223.91	-3.50	225.76	217.66	8.10	27.887		
700.00	699.96	662.78	661.77	4.29	4.21	-12.12	-237.19	-4.52	237.86	229.25	8.61	27.622		
800.00	799.78	754.30	751.85	4.57	4.49	-12.11	-253.30	-5.76	249.76	240.58	9.18	27.218		
900.00	899.34	845.49	841.04	4.88	4.80	-12.21	-272.20	-7.21	261.42	251.65	9.77	26.745		
1,000.00	998.72	936.16	929.08	5.20	5.14	-12.38	-293.79	-8.87	274.60	264.18	10.42	26.361		
1,100.00	1,098.10	1,025.98	1,015.58	5.54	5.51	-12.49	-317.91	-10.72	290.89	279.81	11.08	26.253		
1,200.00	1,197.49	1,117.03	1,102.48	5.90	5.90	-12.56	-345.01	-12.80	310.15	298.39	11.76	26.369		
1,300.00	1,296.87	1,214.98	1,195.70	6.28	6.36	-12.61	-375.00	-15.10	330.31	317.82	12.49	26.448		
1,400.00	1,396.25	1,312.93	1,288.91	6.66	6.83	-12.66	-404.99	-17.40	350.47	337.22	13.24	26.464		
1,500.00	1,495.64	1,410.87	1,382.13	7.06	7.31	-12.70	-434.97	-19.70	370.62	356.60	14.02	26.435		
1,600.00	1,595.02	1,508.82	1,475.34	7.46	7.81	-12.74	-464.96	-22.00	390.78	375.96	14.82	26.374		
1,700.00	1,694.40	1,606.77	1,568.56	7.87	8.31	-12.77	-494.95	-24.30	410.94	395.31	15.63	26.291		
1,800.00	1,793.79	1,704.72	1,661.78	8.29	8.82	-12.80	-524.93	-26.60	431.10	414.64	16.46	26.194		
1,900.00	1,893.17	1,802.66	1,754.99	8.71	9.34	-12.83	-554.92	-28.90	451.25	433.96	17.30	26.088		
2,000.00	1,992.55	1,900.61	1,848.21	9.13	9.86	-12.85	-584.90	-31.20	471.41	453.26	18.15	25.977		
2,100.00	2,091.94	2,001.44	1,941.42	9.56	10.41	-12.88	-614.89	-33.50	491.57	472.55	19.02	25.846		
2,200.00	2,191.32	2,103.50	2,034.64	9.99	10.96	-12.90	-644.88	-35.80	511.73	491.82	19.91	25.708		
2,300.00	2,290.70	2,194.45	2,127.85	10.42	11.46	-12.92	-674.86	-38.10	531.88	511.14	20.75	25.638		
2,400.00	2,390.09	2,307.60	2,221.07	10.86	12.08	-12.94	-704.85	-40.41	552.04	530.34	21.70	25.442		
2,500.00	2,489.47	2,390.35	2,314.28	11.29	12.54	-12.95	-734.84	-42.71	572.20	549.69	22.51	25.420		
2,600.00	2,588.86	2,488.29	2,407.50	11.73	13.08	-12.97	-764.82	-45.01	592.36	568.96	23.40	25.315		
2,700.00	2,688.24	2,586.24	2,500.72	12.18	13.63	-12.98	-794.81	-47.31	612.52	588.22	24.29	25.214		
2,800.00	2,787.62	2,684.19	2,593.93	12.62	14.17	-13.00	-824.79	-49.61	632.67	607.48	25.19	25.116		
2,900.00	2,887.01	2,782.13	2,687.15	13.06	14.72	-13.01	-854.78	-51.91	652.83	626.74	26.09	25.022		
3,000.00	2,986.39	2,880.08	2,780.36	13.51	15.27	-13.02	-884.77	-54.21	672.99	646.00	26.99	24.931		
3,100.00	3,085.77	2,978.03	2,873.58	13.95	15.82	-13.03	-914.75	-56.51	693.15	665.25	27.90	24.844		
3,200.00	3,185.16	3,075.98	2,966.79	14.40	16.37	-13.05	-944.74	-58.81	713.31	684.50	28.81	24.760		
3,300.00	3,284.54	3,173.92	3,060.01	14.85	16.93	-13.06	-974.73	-61.11	733.47	703.75	29.72	24.679		
3,400.00	3,383.92	3,271.87	3,153.23	15.30	17.48	-13.07	-1,004.71	-63.41	753.62	722.99	30.63	24.601		
3,500.00	3,483.31	3,369.82	3,246.44	15.75	18.04	-13.07	-1,034.70	-65.71	773.78	742.23	31.55	24.527		
3,600.00	3,582.69	3,467.76	3,339.66	16.20	18.59	-13.08	-1,064.69	-68.02	793.94	761.48	32.46	24.455		
3,700.00	3,682.07	3,565.71	3,432.87	16.65	19.15	-13.09	-1,094.67	-70.32	814.10	780.72	33.38	24.387		
3,800.00	3,781.46	3,663.66	3,526.09	17.10	19.70	-13.10	-1,124.66	-72.62	834.26	799.95	34.30	24.320		
3,900.00	3,880.84	3,761.60	3,619.30	17.56	20.26	-13.11	-1,154.64	-74.92	854.42	819.19	35.22	24.257		
4,000.00	3,980.22	3,859.55	3,712.52	18.01	20.82	-13.11	-1,184.63	-77.22	874.57	838.43	36.15	24.196		
4,100.00	4,079.61	3,957.50	3,805.74	18.46	21.38	-13.12	-1,214.62	-79.52	894.73	857.66	37.07	24.137		
4,200.00	4,178.99	4,055.45	3,898.95	18.92	21.94	-13.13	-1,244.60	-81.82	914.89	876.90	37.99	24.080		
4,300.00	4,278.38	4,153.39	3,992.17	19.37	22.50	-13.13	-1,274.59	-84.12	935.05	896.13	38.92	24.025		
4,400.00	4,377.76	4,251.34	4,085.38	19.83	23.06	-13.14	-1,304.58	-86.42	955.21	915.36	39.85	23.973		
4,500.00	4,477.14	4,349.29	4,178.60	20.28	23.62	-13.15	-1,334.56	-88.72	975.37	934.59	40.77	23.922		
4,600.00	4,576.53	4,447.23	4,271.81	20.74	24.18	-13.15	-1,364.55	-91.02	995.52	953.82	41.70	23.873		
4,700.00	4,675.91	4,545.18	4,365.03	21.19	24.74	-13.16	-1,394.53	-93.33	1,015.68	973.05	42.63	23.826		
4,800.00	4,775.29	4,643.13	4,458.24	21.65	25.30	-13.16	-1,424.52	-95.63	1,035.84	992.28	43.56	23.780		
4,900.00	4,874.68	4,741.08	4,551.46	22.10	25.86	-13.17	-1,454.51	-97.93	1,056.00	1,011.51	44.49	23.736		
5,000.00	4,974.06	4,839.02	4,644.68	22.56	26.42	-13.17	-1,484.49	-100.23	1,076.16	1,030.74	45.42	23.694		
5,100.00	5,073.44	4,936.97	4,737.89	23.02	26.98	-13.18	-1,514.48	-102.53	1,096.32	1,049.97	46.35	23.653		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,200.00	5,172.83	5,034.92	4,831.11	23.47	27.54	-13.18	-1,544.47	-104.83	1,116.47	1,069.19	47.28	23.613		
5,300.00	5,272.21	5,132.86	4,924.32	23.93	28.11	-13.19	-1,574.45	-107.13	1,136.63	1,088.42	48.22	23.574		
5,400.00	5,371.59	5,230.81	5,017.54	24.39	28.67	-13.19	-1,604.44	-109.43	1,156.79	1,107.64	49.15	23.537		
5,500.00	5,470.98	5,328.76	5,110.75	24.85	29.23	-13.19	-1,634.42	-111.73	1,176.95	1,126.87	50.08	23.501		
5,600.00	5,570.36	5,426.71	5,203.97	25.30	29.79	-13.20	-1,664.41	-114.03	1,197.11	1,146.09	51.02	23.466		
5,700.00	5,669.75	5,524.65	5,297.19	25.76	30.36	-13.20	-1,694.40	-116.33	1,217.27	1,165.32	51.95	23.432		
5,800.00	5,769.13	5,622.60	5,390.40	26.22	30.92	-13.20	-1,724.38	-118.63	1,237.43	1,184.54	52.88	23.399		
5,900.00	5,868.51	5,720.55	5,483.62	26.68	31.48	-13.21	-1,754.37	-120.94	1,257.58	1,203.76	53.82	23.367		
6,000.00	5,967.90	5,818.49	5,576.83	27.14	32.05	-13.21	-1,784.36	-123.24	1,277.74	1,222.99	54.75	23.336		
6,100.00	6,067.28	5,916.44	5,670.05	27.60	32.61	-13.21	-1,814.34	-125.54	1,297.90	1,242.21	55.69	23.306		
6,200.00	6,166.66	6,014.39	5,763.26	28.05	33.17	-13.22	-1,844.33	-127.84	1,318.06	1,261.43	56.63	23.276		
6,300.00	6,266.05	6,112.33	5,856.48	28.51	33.74	-13.22	-1,874.31	-130.14	1,338.22	1,280.65	57.56	23.248		
6,400.00	6,365.43	6,210.28	5,949.70	28.97	34.30	-13.22	-1,904.30	-132.44	1,358.38	1,299.88	58.50	23.220		
6,500.00	6,464.81	6,308.23	6,042.91	29.43	34.86	-13.23	-1,934.29	-134.74	1,378.53	1,319.10	59.44	23.193		
6,600.00	6,564.10	6,406.13	6,136.08	29.89	35.43	-42.73	-1,964.26	-137.04	1,398.67	1,338.30	60.38	23.166		
6,700.00	6,661.75	6,502.78	6,228.06	30.34	35.98	-64.91	-1,993.85	-139.31	1,418.59	1,357.28	61.31	23.137		
6,800.00	6,755.38	6,604.15	6,316.64	30.77	36.57	-72.09	-2,022.34	-141.50	1,438.29	1,376.00	62.28	23.093		
6,900.00	6,842.67	6,683.06	6,399.64	31.17	37.02	-75.53	-2,049.04	-143.55	1,458.20	1,395.04	63.16	23.088		
7,000.00	6,921.48	6,762.26	6,475.01	31.54	37.48	-77.52	-2,073.29	-145.41	1,479.05	1,414.96	64.09	23.079		
7,100.00	6,989.86	6,862.43	6,569.91	31.91	38.05	-79.35	-2,103.87	-153.97	1,501.11	1,435.76	65.35	22.972		
7,200.00	7,046.13	6,986.90	6,684.14	32.35	38.71	-81.22	-2,140.84	-186.05	1,523.23	1,456.35	66.88	22.775		
7,300.00	7,088.91	7,144.57	6,816.59	32.98	39.43	-83.34	-2,183.98	-259.05	1,544.14	1,475.59	68.54	22.528		
7,400.00	7,117.14	7,353.25	6,958.19	33.84	40.19	-85.75	-2,230.62	-403.73	1,561.54	1,491.34	70.20	22.245		
7,500.00	7,130.13	7,624.27	7,062.89	34.90	40.99	-87.70	-2,266.18	-648.93	1,571.75	1,499.35	72.40	21.709		
7,600.00	7,130.72	7,814.61	7,075.82	36.13	41.77	-88.00	-2,271.79	-838.27	1,572.85	1,497.55	75.30	20.887		
7,700.00	7,130.29	7,914.61	7,075.49	37.54	42.46	-88.00	-2,272.46	-938.26	1,572.73	1,494.72	78.01	20.160		
7,800.00	7,129.85	8,014.61	7,075.17	39.12	43.43	-88.01	-2,273.13	-1,038.26	1,572.62	1,491.59	81.03	19.407		
7,900.00	7,129.42	8,114.61	7,074.84	40.83	44.68	-88.01	-2,273.80	-1,138.26	1,572.51	1,488.17	84.34	18.646		
8,000.00	7,128.98	8,214.60	7,074.52	42.67	46.14	-88.02	-2,274.46	-1,238.26	1,572.39	1,484.51	87.88	17.892		
8,100.00	7,128.55	8,314.60	7,074.19	44.62	47.79	-88.02	-2,275.13	-1,338.25	1,572.28	1,480.63	91.65	17.155		
8,200.00	7,128.12	8,414.60	7,073.87	46.66	49.58	-88.02	-2,275.80	-1,438.25	1,572.17	1,476.55	95.61	16.443		
8,300.00	7,127.68	8,514.60	7,073.54	48.79	51.49	-88.03	-2,276.47	-1,538.25	1,572.05	1,472.31	99.74	15.761		
8,400.00	7,127.25	8,614.60	7,073.22	50.98	53.49	-88.03	-2,277.13	-1,638.24	1,571.94	1,467.92	104.02	15.112		
8,500.00	7,126.81	8,714.60	7,072.89	53.24	55.59	-88.03	-2,277.80	-1,738.24	1,571.83	1,463.39	108.43	14.496		
8,600.00	7,126.38	8,814.60	7,072.57	55.56	57.75	-88.04	-2,278.47	-1,838.24	1,571.71	1,458.75	112.96	13.914		
8,700.00	7,125.95	8,914.60	7,072.24	57.92	59.97	-88.04	-2,279.14	-1,938.24	1,571.60	1,454.01	117.59	13.365		
8,800.00	7,125.51	9,014.60	7,071.92	60.33	62.26	-88.05	-2,279.80	-2,038.23	1,571.48	1,449.17	122.31	12.848		
8,900.00	7,125.08	9,114.60	7,071.59	62.77	64.59	-88.05	-2,280.47	-2,138.23	1,571.37	1,444.25	127.12	12.362		
9,000.00	7,124.64	9,214.60	7,071.27	65.25	66.96	-88.05	-2,281.14	-2,238.23	1,571.26	1,439.26	131.99	11.904		
9,100.00	7,124.21	9,314.60	7,070.94	67.76	69.37	-88.06	-2,281.81	-2,338.22	1,571.14	1,434.21	136.93	11.474		
9,200.00	7,123.78	9,414.60	7,070.62	70.29	71.81	-88.06	-2,282.47	-2,438.22	1,571.03	1,429.10	141.93	11.069		
9,300.00	7,123.34	9,514.60	7,070.29	72.85	74.29	-88.07	-2,283.14	-2,538.22	1,570.92	1,423.93	146.98	10.688		
9,400.00	7,122.91	9,614.60	7,069.97	75.43	76.79	-88.07	-2,283.81	-2,638.22	1,570.80	1,418.72	152.08	10.329		
9,500.00	7,122.48	9,714.60	7,069.64	78.03	79.32	-88.07	-2,284.48	-2,738.21	1,570.69	1,413.47	157.22	9.990		
9,600.00	7,122.04	9,814.60	7,069.32	80.65	81.87	-88.08	-2,285.14	-2,838.21	1,570.58	1,408.18	162.40	9.671		
9,700.00	7,121.61	9,914.60	7,068.99	83.28	84.44	-88.08	-2,285.81	-2,938.21	1,570.46	1,402.85	167.61	9.370		
9,800.00	7,121.17	10,014.60	7,068.67	85.93	87.03	-88.08	-2,286.48	-3,038.20	1,570.35	1,397.49	172.86	9.085		
9,900.00	7,120.74	10,114.60	7,068.34	88.59	89.63	-88.09	-2,287.15	-3,138.20	1,570.24	1,392.11	178.13	8.815		
10,000.00	7,120.31	10,214.60	7,068.02	91.26	92.25	-88.09	-2,287.81	-3,238.20	1,570.12	1,386.69	183.43	8.560		
10,100.00	7,119.87	10,314.60	7,067.69	93.95	94.88	-88.10	-2,288.48	-3,338.19	1,570.01	1,381.26	188.75	8.318		
10,200.00	7,119.44	10,414.60	7,067.37	96.64	97.53	-88.10	-2,289.15	-3,438.19	1,569.90	1,375.80	194.10	8.088		
10,300.00	7,119.00	10,514.60	7,067.04	99.34	100.19	-88.10	-2,289.82	-3,538.19	1,569.78	1,370.32	199.47	7.870		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,400.00	7,118.57	10,614.60	7,066.72	102.05	102.86	-88.11	-2,290.48	-3,638.19	1,569.67	1,364.82	204.85	7.662		
10,500.00	7,118.14	10,714.60	7,066.40	104.77	105.54	-88.11	-2,291.15	-3,738.18	1,569.56	1,359.30	210.25	7.465		
10,600.00	7,117.70	10,814.60	7,066.07	107.50	108.23	-88.11	-2,291.82	-3,838.18	1,569.44	1,353.77	215.67	7.277		
10,700.00	7,117.27	10,914.60	7,065.75	110.23	110.92	-88.12	-2,292.49	-3,938.18	1,569.33	1,348.22	221.11	7.098		
10,800.00	7,116.83	11,014.60	7,065.42	112.97	113.63	-88.12	-2,293.15	-4,038.17	1,569.22	1,342.66	226.55	6.926		
10,900.00	7,116.40	11,114.60	7,065.10	115.72	116.34	-88.13	-2,293.82	-4,138.17	1,569.10	1,337.09	232.01	6.763		
11,000.00	7,115.97	11,214.60	7,064.77	118.47	119.06	-88.13	-2,294.49	-4,238.17	1,568.99	1,331.50	237.49	6.607		
11,100.00	7,115.53	11,314.60	7,064.45	121.22	121.79	-88.13	-2,295.16	-4,338.17	1,568.88	1,325.91	242.97	6.457		
11,200.00	7,115.10	11,414.60	7,064.12	123.98	124.52	-88.14	-2,295.82	-4,438.16	1,568.76	1,320.30	248.46	6.314		
11,300.00	7,114.66	11,514.60	7,063.80	126.74	127.26	-88.14	-2,296.49	-4,538.16	1,568.65	1,314.68	253.96	6.177		
11,400.00	7,114.23	11,614.60	7,063.47	129.51	130.00	-88.15	-2,297.16	-4,638.16	1,568.54	1,309.06	259.48	6.045		
11,500.00	7,113.80	11,714.60	7,063.15	132.29	132.75	-88.15	-2,297.83	-4,738.15	1,568.42	1,303.42	265.00	5.919		
11,600.00	7,113.36	11,814.60	7,062.82	135.06	135.50	-88.15	-2,298.49	-4,838.15	1,568.31	1,297.78	270.53	5.797		
11,700.00	7,112.93	11,914.60	7,062.50	137.84	138.26	-88.16	-2,299.16	-4,938.15	1,568.20	1,292.13	276.06	5.681		
11,800.00	7,112.49	12,014.60	7,062.17	140.62	141.02	-88.16	-2,299.83	-5,038.15	1,568.08	1,286.47	281.61	5.568		
11,900.00	7,112.06	12,114.60	7,061.85	143.41	143.78	-88.17	-2,300.50	-5,138.14	1,567.97	1,280.81	287.16	5.460		
12,000.00	7,111.63	12,214.60	7,061.52	146.20	146.55	-88.17	-2,301.16	-5,238.14	1,567.86	1,275.14	292.71	5.356		
12,100.00	7,111.19	12,314.60	7,061.20	148.99	149.32	-88.17	-2,301.83	-5,338.14	1,567.74	1,269.47	298.28	5.256		
12,200.00	7,110.76	12,414.60	7,060.87	151.78	152.10	-88.18	-2,302.50	-5,438.13	1,567.63	1,263.78	303.84	5.159		
12,300.00	7,110.33	12,514.60	7,060.55	154.58	154.87	-88.18	-2,303.17	-5,538.13	1,567.52	1,258.10	309.42	5.066		
12,400.00	7,109.89	12,614.60	7,060.22	157.37	157.66	-88.18	-2,303.83	-5,638.13	1,567.40	1,252.41	315.00	4.976		
12,500.00	7,109.46	12,714.60	7,059.90	160.17	160.44	-88.19	-2,304.50	-5,738.13	1,567.29	1,246.71	320.58	4.889		
12,600.00	7,109.02	12,814.60	7,059.57	162.98	163.23	-88.19	-2,305.17	-5,838.12	1,567.18	1,241.01	326.17	4.805		
12,700.00	7,108.59	12,914.60	7,059.25	165.78	166.01	-88.20	-2,305.84	-5,938.12	1,567.06	1,235.30	331.76	4.723		
12,800.00	7,108.16	13,014.60	7,058.92	168.59	168.81	-88.20	-2,306.50	-6,038.12	1,566.95	1,229.59	337.36	4.645		
12,900.00	7,107.72	13,114.60	7,058.60	171.39	171.60	-88.20	-2,307.17	-6,138.11	1,566.84	1,223.88	342.96	4.569		
13,000.00	7,107.29	13,214.60	7,058.27	174.20	174.39	-88.21	-2,307.84	-6,238.11	1,566.72	1,218.16	348.56	4.495		
13,100.00	7,106.85	13,314.60	7,057.95	177.01	177.19	-88.21	-2,308.51	-6,338.11	1,566.61	1,212.44	354.17	4.423		
13,200.00	7,106.42	13,414.60	7,057.62	179.83	179.99	-88.22	-2,309.17	-6,438.11	1,566.50	1,206.72	359.78	4.354		
13,300.00	7,105.99	13,514.60	7,057.30	182.64	182.79	-88.22	-2,309.84	-6,538.10	1,566.38	1,200.99	365.39	4.287		
13,400.00	7,105.55	13,614.60	7,056.97	185.45	185.59	-88.22	-2,310.51	-6,638.10	1,566.27	1,195.26	371.01	4.222		
13,500.00	7,105.12	13,714.60	7,056.65	188.27	188.40	-88.23	-2,311.18	-6,738.10	1,566.16	1,189.53	376.63	4.158		
13,600.00	7,104.68	13,814.60	7,056.32	191.09	191.21	-88.23	-2,311.84	-6,838.09	1,566.04	1,183.79	382.25	4.097		
13,700.00	7,104.25	13,914.60	7,056.00	193.91	194.01	-88.23	-2,312.51	-6,938.09	1,565.93	1,178.05	387.88	4.037		
13,800.00	7,103.82	14,014.60	7,055.67	196.73	196.82	-88.24	-2,313.18	-7,038.09	1,565.82	1,172.31	393.50	3.979		
13,900.00	7,103.38	14,114.60	7,055.35	199.55	199.63	-88.24	-2,313.85	-7,138.09	1,565.70	1,166.57	399.14	3.923		
14,000.00	7,102.95	14,214.60	7,055.02	202.37	202.44	-88.25	-2,314.51	-7,238.08	1,565.59	1,160.82	404.77	3.868		
14,100.00	7,102.51	14,314.60	7,054.70	205.19	205.26	-88.25	-2,315.18	-7,338.08	1,565.48	1,155.07	410.40	3.814		
14,200.00	7,102.08	14,414.60	7,054.37	208.02	208.07	-88.25	-2,315.85	-7,438.08	1,565.36	1,149.32	416.04	3.763		
14,300.00	7,101.65	14,514.60	7,054.05	210.84	210.89	-88.26	-2,316.51	-7,538.07	1,565.25	1,143.57	421.68	3.712		
14,400.00	7,101.21	14,614.60	7,053.72	213.67	213.71	-88.26	-2,317.18	-7,638.07	1,565.14	1,137.82	427.32	3.663		
14,500.00	7,100.78	14,714.60	7,053.40	216.50	216.52	-88.27	-2,317.85	-7,738.07	1,565.02	1,132.06	432.97	3.615		
14,600.00	7,100.35	14,814.60	7,053.07	219.32	219.34	-88.27	-2,318.52	-7,838.07	1,564.91	1,126.30	438.61	3.568		
14,700.00	7,099.91	14,914.60	7,052.75	222.15	222.16	-88.27	-2,319.18	-7,938.06	1,564.80	1,120.54	444.26	3.522		
14,800.00	7,099.48	15,014.60	7,052.42	224.98	224.98	-88.28	-2,319.85	-8,038.06	1,564.68	1,114.78	449.91	3.478		
14,900.00	7,099.04	15,114.60	7,052.10	227.81	227.80	-88.28	-2,320.52	-8,138.06	1,564.57	1,109.02	455.56	3.434		
14,909.96	7,099.00	15,124.56	7,052.07	228.09	228.09	-88.28	-2,320.59	-8,148.02	1,564.56	1,108.44	456.12	3.430 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	2.00	0.00	3.28	3.28	-179.49	-280.15	-2.50	280.17					
100.00	100.00	102.00	100.00	3.28	3.29	-179.49	-280.15	-2.50	280.17	273.60	6.57	42.644		
200.00	200.00	198.00	200.00	3.34	3.34	-179.49	-280.15	-2.50	280.17	273.49	6.67	41.988 CC, ES		
300.00	300.00	289.25	291.23	3.44	3.43	-179.48	-281.54	-2.58	281.69	274.81	6.88	40.941		
400.00	400.00	380.14	382.02	3.60	3.56	-179.44	-285.81	-2.81	286.39	279.19	7.19	39.819		
500.00	500.00	470.67	472.27	3.81	3.73	-179.37	-292.91	-3.20	294.24	286.65	7.59	38.746		
600.00	600.00	560.67	561.72	4.04	3.94	-12.44	-302.79	-3.74	305.16	297.09	8.07	37.834		
700.00	699.96	650.26	650.41	4.29	4.17	-12.37	-315.41	-4.43	316.89	308.32	8.57	36.970		
800.00	799.78	739.55	738.37	4.57	4.44	-12.41	-330.74	-5.27	328.33	319.20	9.13	35.980		
900.00	899.34	828.56	825.53	4.88	4.74	-12.54	-348.73	-6.26	339.47	329.76	9.72	34.941		
1,000.00	998.72	917.09	911.62	5.20	5.07	-12.74	-369.30	-7.38	352.06	341.72	10.35	34.032		
1,100.00	1,098.10	1,004.85	996.30	5.54	5.42	-12.90	-392.30	-8.64	367.70	356.70	11.00	33.433		
1,200.00	1,197.49	1,091.68	1,079.35	5.90	5.79	-13.02	-417.60	-10.03	386.34	374.67	11.67	33.119		
1,300.00	1,296.87	1,177.46	1,160.60	6.28	6.19	-13.11	-445.05	-11.53	407.92	395.58	12.34	33.054		
1,400.00	1,396.25	1,262.03	1,239.87	6.66	6.60	-13.17	-474.48	-13.14	432.40	419.38	13.02	33.210		
1,500.00	1,495.64	1,345.30	1,317.03	7.06	7.03	-13.21	-505.72	-14.85	459.70	446.00	13.70	33.558		
1,600.00	1,595.02	1,430.79	1,395.32	7.46	7.50	-13.22	-540.02	-16.73	489.66	475.26	14.40	34.007		
1,700.00	1,694.40	1,525.96	1,482.19	7.87	8.04	-13.23	-578.84	-18.86	520.36	505.17	15.19	34.259		
1,800.00	1,793.79	1,621.14	1,569.05	8.29	8.59	-13.24	-617.67	-20.98	551.06	535.06	16.00	34.443		
1,900.00	1,893.17	1,716.31	1,655.92	8.71	9.15	-13.25	-656.49	-23.11	581.76	564.94	16.83	34.575		
2,000.00	1,992.55	1,811.48	1,742.78	9.13	9.72	-13.25	-695.32	-25.23	612.46	594.79	17.67	34.663		
2,100.00	2,091.94	1,906.65	1,829.65	9.56	10.30	-13.26	-734.14	-27.36	643.16	624.64	18.52	34.727		
2,200.00	2,191.32	2,001.82	1,916.51	9.99	10.88	-13.27	-772.97	-29.49	673.86	654.48	19.38	34.762		
2,300.00	2,290.70	2,103.01	2,003.38	10.42	11.51	-13.27	-811.79	-31.61	704.56	684.27	20.29	34.726		
2,400.00	2,390.09	2,207.84	2,090.24	10.86	12.16	-13.28	-850.62	-33.74	735.26	714.04	21.22	34.647		
2,500.00	2,489.47	2,287.33	2,177.11	11.29	12.66	-13.28	-889.44	-35.86	765.96	743.93	22.03	34.770		
2,600.00	2,588.86	2,382.50	2,263.98	11.73	13.27	-13.29	-928.27	-37.99	796.66	773.74	22.92	34.751		
2,700.00	2,688.24	2,477.67	2,350.84	12.18	13.87	-13.29	-967.09	-40.11	827.37	803.54	23.83	34.726		
2,800.00	2,787.62	2,572.84	2,437.71	12.62	14.48	-13.29	-1,005.92	-42.24	858.07	833.33	24.73	34.695		
2,900.00	2,887.01	2,668.01	2,524.57	13.06	15.09	-13.30	-1,044.74	-44.37	888.77	863.12	25.64	34.660		
3,000.00	2,986.39	2,763.18	2,611.44	13.51	15.70	-13.30	-1,083.57	-46.49	919.47	892.91	26.56	34.623		
3,100.00	3,085.77	2,858.36	2,698.30	13.95	16.31	-13.30	-1,122.39	-48.62	950.17	922.69	27.47	34.583		
3,200.00	3,185.16	2,953.53	2,785.17	14.40	16.93	-13.30	-1,161.22	-50.74	980.87	952.47	28.40	34.543		
3,300.00	3,284.54	3,048.70	2,872.03	14.85	17.54	-13.31	-1,200.05	-52.87	1,011.57	982.25	29.32	34.501		
3,400.00	3,383.92	3,143.87	2,958.90	15.30	18.16	-13.31	-1,238.87	-54.99	1,042.27	1,012.02	30.25	34.459		
3,500.00	3,483.31	3,239.04	3,045.76	15.75	18.78	-13.31	-1,277.70	-57.12	1,072.97	1,041.79	31.18	34.416		
3,600.00	3,582.69	3,334.21	3,132.63	16.20	19.40	-13.31	-1,316.52	-59.25	1,103.67	1,071.56	32.11	34.374		
3,700.00	3,682.07	3,429.38	3,219.49	16.65	20.02	-13.32	-1,355.35	-61.37	1,134.37	1,101.33	33.04	34.332		
3,800.00	3,781.46	3,524.55	3,306.36	17.10	20.64	-13.32	-1,394.17	-63.50	1,165.07	1,131.09	33.98	34.290		
3,900.00	3,880.84	3,619.72	3,393.22	17.56	21.26	-13.32	-1,433.00	-65.62	1,195.77	1,160.86	34.91	34.249		
4,000.00	3,980.22	3,714.89	3,480.09	18.01	21.88	-13.32	-1,471.82	-67.75	1,226.47	1,190.62	35.85	34.208		
4,100.00	4,079.61	3,810.06	3,566.95	18.46	22.51	-13.32	-1,510.65	-69.87	1,257.17	1,220.38	36.79	34.168		
4,200.00	4,178.99	3,905.23	3,653.82	18.92	23.13	-13.32	-1,549.47	-72.00	1,287.87	1,250.14	37.74	34.129		
4,300.00	4,278.38	4,000.40	3,740.68	19.37	23.76	-13.33	-1,588.30	-74.13	1,318.57	1,279.90	38.68	34.091		
4,400.00	4,377.76	4,104.42	3,827.55	19.83	24.44	-13.33	-1,627.12	-76.25	1,349.27	1,309.60	39.67	34.011		
4,500.00	4,477.14	4,209.25	3,914.41	20.28	25.13	-13.33	-1,665.95	-78.38	1,379.97	1,339.30	40.67	33.931		
4,600.00	4,576.53	4,285.92	4,001.28	20.74	25.63	-13.33	-1,704.77	-80.50	1,410.68	1,369.16	41.51	33.981		
4,700.00	4,675.91	4,381.09	4,088.14	21.19	26.26	-13.33	-1,743.60	-82.63	1,441.38	1,398.91	42.46	33.946		
4,800.00	4,775.29	4,476.26	4,175.01	21.65	26.89	-13.33	-1,782.42	-84.75	1,472.08	1,428.67	43.41	33.911		
4,900.00	4,874.68	4,571.43	4,261.87	22.10	27.51	-13.33	-1,821.25	-86.88	1,502.78	1,458.42	44.36	33.878		
5,000.00	4,974.06	4,666.60	4,348.74	22.56	28.14	-13.33	-1,860.07	-89.01	1,533.48	1,488.17	45.31	33.845		
5,100.00	5,073.44	4,761.77	4,435.60	23.02	28.77	-13.33	-1,898.90	-91.13	1,564.18	1,517.92	46.26	33.813		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,200.00	5,172.83	4,856.94	4,522.47	23.47	29.40	-13.34	-1,937.73	-93.26	1,594.88	1,547.67	47.21	33.782		
5,300.00	5,272.21	4,952.11	4,609.33	23.93	30.03	-13.34	-1,976.55	-95.38	1,625.58	1,577.42	48.16	33.752		
5,400.00	5,371.59	5,047.28	4,696.20	24.39	30.65	-13.34	-2,015.38	-97.51	1,656.28	1,607.16	49.12	33.722		
5,500.00	5,470.98	5,142.45	4,783.06	24.85	31.28	-13.34	-2,054.20	-99.64	1,686.98	1,636.91	50.07	33.693		
5,600.00	5,570.36	5,237.63	4,869.93	25.30	31.91	-13.34	-2,093.03	-101.76	1,717.68	1,666.66	51.02	33.665		
5,700.00	5,669.75	5,332.80	4,956.80	25.76	32.54	-13.34	-2,131.85	-103.89	1,748.38	1,696.40	51.98	33.638		
5,800.00	5,769.13	5,427.97	5,043.66	26.22	33.17	-13.34	-2,170.68	-106.01	1,779.08	1,726.15	52.93	33.611		
5,900.00	5,868.51	5,523.14	5,130.53	26.68	33.80	-13.34	-2,209.50	-108.14	1,809.78	1,755.89	53.89	33.585		
6,000.00	5,967.90	5,618.31	5,217.39	27.14	34.43	-13.34	-2,248.33	-110.26	1,840.48	1,785.64	54.84	33.559		
6,100.00	6,067.28	5,713.48	5,304.26	27.60	35.06	-13.34	-2,287.15	-112.39	1,871.18	1,815.38	55.80	33.534		
6,200.00	6,166.66	5,808.65	5,391.12	28.05	35.69	-13.34	-2,325.98	-114.52	1,901.88	1,845.13	56.76	33.509		
6,300.00	6,266.05	5,903.82	5,477.99	28.51	36.32	-13.34	-2,364.80	-116.64	1,932.58	1,874.87	57.71	33.485		
6,400.00	6,365.43	6,001.01	5,564.85	28.97	36.97	-13.35	-2,403.63	-118.77	1,963.29	1,904.60	58.68	33.456		
6,500.00	6,464.81	6,105.84	5,651.72	29.43	37.66	-13.35	-2,442.45	-120.89	1,993.99	1,934.29	59.70	33.403		
6,600.00	6,564.10	6,189.29	5,738.54	29.89	38.21	-42.30	-2,481.26	-123.02	2,024.67	1,964.08	60.59	33.416		
6,700.00	6,661.75	6,283.20	5,824.26	30.34	38.84	-63.26	-2,519.57	-125.12	2,054.98	1,993.43	61.55	33.389		
6,800.00	6,755.38	6,373.66	5,906.82	30.77	39.44	-69.13	-2,556.47	-127.14	2,084.54	2,022.05	62.49	33.358		
6,900.00	6,842.67	6,458.41	5,984.18	31.17	40.00	-71.24	-2,591.05	-129.03	2,113.24	2,049.82	63.42	33.322		
7,000.00	6,921.48	6,535.39	6,054.44	31.54	40.51	-71.98	-2,622.45	-130.75	2,141.22	2,076.87	64.35	33.276		
7,100.00	6,989.86	6,602.69	6,115.86	31.91	40.95	-72.03	-2,649.91	-132.25	2,168.75	2,103.44	65.31	33.208		
7,200.00	7,046.13	6,658.65	6,166.94	32.35	41.33	-71.55	-2,672.74	-133.50	2,196.14	2,129.81	66.33	33.107		
7,300.00	7,088.91	6,701.90	6,206.42	32.98	41.61	-70.59	-2,690.38	-134.47	2,223.64	2,156.19	67.45	32.966		
7,400.00	7,117.14	6,731.38	6,233.32	33.84	41.81	-69.11	-2,702.41	-135.13	2,251.34	2,182.67	68.67	32.786		
7,500.00	7,130.13	6,746.35	6,246.99	34.90	41.91	-67.12	-2,708.52	-135.46	2,279.09	2,209.14	69.95	32.581		
7,600.00	7,130.72	6,749.49	6,249.85	36.13	41.93	-66.32	-2,709.80	-135.53	2,307.47	2,236.19	71.28	32.372		
7,700.00	7,130.29	6,751.64	6,251.82	37.54	41.94	-66.37	-2,710.68	-135.58	2,339.48	2,266.78	72.71	32.177		
7,800.00	7,129.85	6,753.80	6,253.79	39.12	41.96	-66.43	-2,711.55	-135.63	2,375.28	2,301.08	74.20	32.012		
7,900.00	7,129.42	6,755.95	6,255.75	40.83	41.97	-66.49	-2,712.43	-135.67	2,414.69	2,338.95	75.73	31.884		
8,000.00	7,128.98	6,755.95	6,255.75	42.67	50.58	-90.35	-3,118.18	-1,234.80	2,415.22	2,325.59	89.63	26.947		
8,100.00	7,128.55	6,755.95	6,255.75	44.62	51.68	-90.34	-3,118.77	-1,334.80	2,415.03	2,321.73	93.30	25.884		
8,200.00	7,128.12	6,751.43	6,242.47	46.66	53.03	-90.34	-3,119.36	-1,434.79	2,414.84	2,317.67	97.17	24.851		
8,300.00	7,127.68	6,751.43	6,242.47	48.79	54.59	-90.34	-3,119.95	-1,534.79	2,414.65	2,313.43	101.22	23.856		
8,400.00	7,127.25	6,751.43	6,242.47	50.98	56.32	-90.34	-3,120.54	-1,634.79	2,414.46	2,309.04	105.42	22.904		
8,500.00	7,126.81	6,751.43	6,242.47	53.24	58.19	-90.33	-3,121.12	-1,734.78	2,414.27	2,304.52	109.75	21.997		
8,600.00	7,126.38	6,751.43	6,242.47	55.56	60.16	-90.33	-3,121.71	-1,834.78	2,414.08	2,299.87	114.21	21.137		
8,700.00	7,125.95	6,751.43	6,242.47	57.92	62.23	-90.33	-3,122.30	-1,934.78	2,413.89	2,295.11	118.77	20.323		
8,800.00	7,125.51	6,751.43	6,242.47	60.33	64.38	-90.33	-3,122.89	-2,034.77	2,413.70	2,290.26	123.43	19.555		
8,900.00	7,125.08	6,751.43	6,242.47	62.77	66.59	-90.32	-3,123.47	-2,134.77	2,413.51	2,285.33	128.18	18.829		
9,000.00	7,124.64	6,751.43	6,242.47	65.25	68.86	-90.32	-3,124.06	-2,234.77	2,413.32	2,280.32	133.00	18.145		
9,100.00	7,124.21	6,751.43	6,242.47	67.76	71.17	-90.32	-3,124.65	-2,334.76	2,413.13	2,275.24	137.89	17.500		
9,200.00	7,123.78	6,751.43	6,242.47	70.29	73.53	-90.32	-3,125.24	-2,434.76	2,412.94	2,270.10	142.84	16.893		
9,300.00	7,123.34	6,751.43	6,242.47	72.85	75.93	-90.31	-3,125.83	-2,534.76	2,412.75	2,264.90	147.85	16.319		
9,400.00	7,122.91	6,751.43	6,242.47	75.43	78.36	-90.31	-3,126.41	-2,634.75	2,412.56	2,259.66	152.90	15.778		
9,500.00	7,122.48	6,751.43	6,242.47	78.03	80.82	-90.31	-3,127.00	-2,734.75	2,412.37	2,254.36	158.00	15.268		
9,600.00	7,122.04	6,751.43	6,242.47	80.65	83.30	-90.31	-3,127.59	-2,834.75	2,412.18	2,249.03	163.14	14.786		
9,700.00	7,121.61	6,751.43	6,242.47	83.28	85.81	-90.30	-3,128.18	-2,934.74	2,411.99	2,243.66	168.32	14.330		
9,800.00	7,121.17	6,751.43	6,242.47	85.93	88.35	-90.30	-3,128.77	-3,034.74	2,411.80	2,238.26	173.54	13.898		
9,900.00	7,120.74	6,751.43	6,242.47	88.59	90.90	-90.30	-3,129.35	-3,134.74	2,411.61	2,232.83	178.78	13.489		
10,000.00	7,120.31	6,751.43	6,242.47	91.26	93.48	-90.30	-3,129.94	-3,234.73	2,411.42	2,227.37	184.05	13.102		
10,100.00	7,119.87	6,751.43	6,242.47	93.95	96.06	-90.29	-3,130.53	-3,334.73	2,411.23	2,221.88	189.35	12.734		
10,200.00	7,119.44	6,751.43	6,242.47	96.64	98.67	-90.29	-3,131.12	-3,434.73	2,411.04	2,216.37	194.67	12.385		
10,300.00	7,119.00	6,751.43	6,242.47	99.34	101.29	-90.29	-3,131.71	-3,534.72	2,410.85	2,210.84	200.01	12.054		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,400.00	7,118.57	10,951.43	7,130.57	102.05	103.92	-90.29	-3,132.29	-3,634.72	2,410.66	2,205.28	205.37	11.738		
10,500.00	7,118.14	11,051.43	7,130.02	104.77	106.56	-90.28	-3,132.88	-3,734.71	2,410.47	2,199.71	210.75	11.437		
10,600.00	7,117.70	11,151.43	7,129.48	107.50	109.22	-90.28	-3,133.47	-3,834.71	2,410.28	2,194.12	216.15	11.151		
10,700.00	7,117.27	11,251.43	7,128.94	110.23	111.89	-90.28	-3,134.06	-3,934.71	2,410.09	2,188.52	221.57	10.877		
10,800.00	7,116.83	11,351.43	7,128.40	112.97	114.56	-90.28	-3,134.65	-4,034.70	2,409.90	2,182.90	227.00	10.616		
10,900.00	7,116.40	11,451.43	7,127.86	115.72	117.24	-90.27	-3,135.23	-4,134.70	2,409.71	2,177.27	232.44	10.367		
11,000.00	7,115.97	11,551.43	7,127.32	118.47	119.94	-90.27	-3,135.82	-4,234.70	2,409.52	2,171.62	237.90	10.128		
11,100.00	7,115.53	11,651.43	7,126.78	121.22	122.64	-90.27	-3,136.41	-4,334.69	2,409.33	2,165.96	243.37	9.900		
11,200.00	7,115.10	11,751.43	7,126.24	123.98	125.34	-90.27	-3,137.00	-4,434.69	2,409.14	2,160.29	248.84	9.681		
11,300.00	7,114.66	11,851.43	7,125.70	126.74	128.06	-90.26	-3,137.59	-4,534.69	2,408.95	2,154.61	254.33	9.472		
11,400.00	7,114.23	11,951.43	7,125.16	129.51	130.78	-90.26	-3,138.17	-4,634.68	2,408.76	2,148.92	259.83	9.270		
11,500.00	7,113.80	12,051.43	7,124.61	132.29	133.50	-90.26	-3,138.76	-4,734.68	2,408.57	2,143.23	265.34	9.077		
11,600.00	7,113.36	12,151.43	7,124.07	135.06	136.24	-90.26	-3,139.35	-4,834.68	2,408.38	2,137.52	270.86	8.892		
11,700.00	7,112.93	12,251.43	7,123.53	137.84	138.97	-90.25	-3,139.94	-4,934.67	2,408.19	2,131.80	276.39	8.713		
11,800.00	7,112.49	12,351.43	7,122.99	140.62	141.71	-90.25	-3,140.52	-5,034.67	2,408.00	2,126.08	281.92	8.541		
11,900.00	7,112.06	12,451.43	7,122.45	143.41	144.46	-90.25	-3,141.11	-5,134.67	2,407.81	2,120.35	287.46	8.376		
12,000.00	7,111.63	12,551.43	7,121.91	146.20	147.21	-90.25	-3,141.70	-5,234.66	2,407.62	2,114.61	293.01	8.217		
12,100.00	7,111.19	12,651.42	7,121.37	148.99	149.97	-90.24	-3,142.29	-5,334.66	2,407.43	2,108.87	298.56	8.063		
12,200.00	7,110.76	12,751.42	7,120.83	151.78	152.72	-90.24	-3,142.88	-5,434.66	2,407.24	2,103.12	304.12	7.915		
12,300.00	7,110.33	12,851.42	7,120.29	154.58	155.49	-90.24	-3,143.46	-5,534.65	2,407.05	2,097.36	309.69	7.773		
12,400.00	7,109.89	12,951.42	7,119.74	157.37	158.25	-90.24	-3,144.05	-5,634.65	2,406.86	2,091.60	315.26	7.635		
12,500.00	7,109.46	13,051.42	7,119.20	160.17	161.02	-90.23	-3,144.64	-5,734.65	2,406.67	2,085.84	320.83	7.501		
12,600.00	7,109.02	13,151.42	7,118.66	162.98	163.79	-90.23	-3,145.23	-5,834.64	2,406.48	2,080.07	326.41	7.372		
12,700.00	7,108.59	13,251.42	7,118.12	165.78	166.57	-90.23	-3,145.82	-5,934.64	2,406.29	2,074.29	332.00	7.248		
12,800.00	7,108.16	13,351.42	7,117.58	168.59	169.35	-90.22	-3,146.40	-6,034.64	2,406.10	2,068.51	337.59	7.127		
12,900.00	7,107.72	13,451.42	7,117.04	171.39	172.13	-90.22	-3,146.99	-6,134.63	2,405.91	2,062.73	343.18	7.011		
13,000.00	7,107.29	13,551.42	7,116.50	174.20	174.91	-90.22	-3,147.58	-6,234.63	2,405.72	2,056.94	348.78	6.898		
13,100.00	7,106.85	13,651.42	7,115.96	177.01	177.70	-90.22	-3,148.17	-6,334.63	2,405.53	2,051.15	354.38	6.788		
13,200.00	7,106.42	13,751.42	7,115.42	179.83	180.48	-90.21	-3,148.76	-6,434.62	2,405.34	2,045.35	359.99	6.682		
13,300.00	7,105.99	13,851.42	7,114.87	182.64	183.27	-90.21	-3,149.34	-6,534.62	2,405.15	2,039.55	365.60	6.579		
13,400.00	7,105.55	13,951.42	7,114.33	185.45	186.07	-90.21	-3,149.93	-6,634.62	2,404.96	2,033.75	371.21	6.479		
13,500.00	7,105.12	14,051.42	7,113.79	188.27	188.86	-90.21	-3,150.52	-6,734.61	2,404.77	2,027.95	376.83	6.382		
13,600.00	7,104.68	14,151.42	7,113.25	191.09	191.66	-90.20	-3,151.11	-6,834.61	2,404.58	2,022.14	382.44	6.287		
13,700.00	7,104.25	14,251.42	7,112.71	193.91	194.45	-90.20	-3,151.70	-6,934.61	2,404.39	2,016.33	388.07	6.196		
13,800.00	7,103.82	14,351.42	7,112.17	196.73	197.25	-90.20	-3,152.28	-7,034.60	2,404.20	2,010.51	393.69	6.107		
13,900.00	7,103.38	14,451.42	7,111.63	199.55	200.06	-90.20	-3,152.87	-7,134.60	2,404.01	2,004.69	399.32	6.020		
14,000.00	7,102.95	14,551.42	7,111.09	202.37	202.86	-90.19	-3,153.46	-7,234.59	2,403.82	1,998.88	404.95	5.936		
14,100.00	7,102.51	14,651.42	7,110.55	205.19	205.66	-90.19	-3,154.05	-7,334.59	2,403.63	1,993.05	410.58	5.854		
14,200.00	7,102.08	14,751.42	7,110.00	208.02	208.47	-90.19	-3,154.64	-7,434.59	2,403.44	1,987.23	416.21	5.775		
14,300.00	7,101.65	14,851.42	7,109.46	210.84	211.28	-90.19	-3,155.22	-7,534.58	2,403.25	1,981.40	421.85	5.697		
14,400.00	7,101.21	14,951.42	7,108.92	213.67	214.09	-90.18	-3,155.81	-7,634.58	2,403.06	1,975.58	427.49	5.621		
14,500.00	7,100.78	15,051.42	7,108.38	216.50	216.90	-90.18	-3,156.40	-7,734.58	2,402.87	1,969.74	433.13	5.548		
14,600.00	7,100.35	15,151.42	7,107.84	219.32	219.71	-90.18	-3,156.99	-7,834.57	2,402.68	1,963.91	438.77	5.476		
14,700.00	7,099.91	15,251.42	7,107.30	222.15	222.52	-90.18	-3,157.57	-7,934.57	2,402.49	1,958.08	444.42	5.406		
14,800.00	7,099.48	15,351.42	7,106.76	224.98	225.33	-90.17	-3,158.16	-8,034.57	2,402.30	1,952.24	450.06	5.338		
14,900.00	7,099.04	15,451.42	7,106.22	227.81	228.15	-90.17	-3,158.75	-8,134.56	2,402.11	1,946.40	455.71	5.271		
14,909.96	7,099.00	15,461.38	7,106.16	228.09	228.43	-90.17	-3,158.81	-8,144.53	2,402.10	1,945.82	456.27	5.265 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	0.00	0.00	3.28	3.28	0.46	139.89	1.11	139.89					
100.00	100.00	100.00	100.00	3.28	3.28	0.46	139.89	1.11	139.89	133.32	6.57	21.294		
200.00	200.00	200.00	200.00	3.34	3.34	0.46	139.89	1.11	139.89	133.22	6.67	20.960		
300.00	300.00	300.00	300.00	3.44	3.44	0.46	139.89	1.11	139.89	133.00	6.89	20.304		
400.00	400.00	400.00	400.00	3.60	3.60	0.46	139.89	1.11	139.89	132.68	7.21	19.411		
500.00	500.00	500.00	500.00	3.81	3.81	0.46	139.89	1.11	139.89	132.28	7.61	18.378 CC		
502.78	502.78	502.78	502.78	3.81	3.81	167.30	139.89	1.11	139.89	132.27	7.62	18.348		
600.00	600.00	600.00	600.00	4.04	4.05	167.31	139.89	1.11	139.96	131.87	8.09	17.300 ES		
700.00	699.96	695.33	695.32	4.29	4.30	167.34	141.43	0.74	143.96	135.35	8.60	16.734		
800.00	799.78	789.99	789.85	4.57	4.59	167.33	146.01	-0.35	154.56	145.38	9.17	16.846		
900.00	899.34	883.35	882.89	4.88	4.89	167.28	153.50	-2.15	171.69	161.89	9.79	17.533		
1,000.00	998.72	978.00	976.95	5.20	5.20	167.20	163.77	-4.61	193.19	182.77	10.42	18.535		
1,100.00	1,098.10	1,075.56	1,073.85	5.54	5.54	167.11	174.79	-7.25	215.14	204.05	11.09	19.405		
1,200.00	1,197.49	1,173.12	1,170.75	5.90	5.90	167.03	185.80	-9.89	237.09	225.31	11.78	20.128		
1,300.00	1,296.87	1,270.68	1,267.65	6.28	6.26	166.97	196.82	-12.53	259.05	246.55	12.50	20.731		
1,400.00	1,396.25	1,368.24	1,364.55	6.66	6.63	166.92	207.84	-15.16	281.00	267.77	13.23	21.238		
1,500.00	1,495.64	1,465.80	1,461.45	7.06	7.01	166.87	218.86	-17.80	302.95	288.97	13.98	21.665		
1,600.00	1,595.02	1,563.36	1,558.35	7.46	7.40	166.83	229.87	-20.44	324.91	310.16	14.75	22.027		
1,700.00	1,694.40	1,660.92	1,655.25	7.87	7.80	166.80	240.89	-23.08	346.86	331.33	15.53	22.337		
1,800.00	1,793.79	1,758.48	1,752.15	8.29	8.20	166.77	251.91	-25.72	368.81	352.50	16.32	22.602		
1,900.00	1,893.17	1,856.04	1,849.05	8.71	8.60	166.74	262.93	-28.36	390.77	373.65	17.12	22.832		
2,000.00	1,992.55	1,953.60	1,945.95	9.13	9.01	166.72	273.94	-31.00	412.72	394.80	17.92	23.031		
2,100.00	2,091.94	2,051.16	2,042.85	9.56	9.42	166.69	284.96	-33.64	434.68	415.94	18.73	23.204		
2,200.00	2,191.32	2,148.72	2,139.75	9.99	9.83	166.67	295.98	-36.28	456.63	437.08	19.55	23.356		
2,300.00	2,290.70	2,246.28	2,236.65	10.42	10.25	166.66	307.00	-38.92	478.58	458.21	20.37	23.491		
2,400.00	2,390.09	2,343.84	2,333.55	10.86	10.66	166.64	318.01	-41.56	500.54	479.34	21.20	23.609		
2,500.00	2,489.47	2,441.40	2,430.45	11.29	11.08	166.63	329.03	-44.19	522.49	500.46	22.03	23.714		
2,600.00	2,588.86	2,538.97	2,527.35	11.73	11.50	166.61	340.05	-46.83	544.45	521.58	22.87	23.808		
2,700.00	2,688.24	2,636.53	2,624.25	12.18	11.93	166.60	351.07	-49.47	566.40	542.69	23.71	23.892		
2,800.00	2,787.62	2,734.09	2,721.15	12.62	12.35	166.59	362.09	-52.11	588.36	563.81	24.55	23.968		
2,900.00	2,887.01	2,831.65	2,818.05	13.06	12.78	166.58	373.10	-54.75	610.31	584.92	25.39	24.036		
3,000.00	2,986.39	2,929.21	2,914.95	13.51	13.20	166.57	384.12	-57.39	632.26	606.03	26.24	24.098		
3,100.00	3,085.77	3,026.77	3,011.85	13.95	13.63	166.56	395.14	-60.03	654.22	627.13	27.09	24.153		
3,200.00	3,185.16	3,124.33	3,108.75	14.40	14.06	166.55	406.16	-62.67	676.17	648.24	27.94	24.204		
3,300.00	3,284.54	3,221.89	3,205.65	14.85	14.49	166.54	417.17	-65.31	698.13	669.34	28.79	24.250		
3,400.00	3,383.92	3,319.45	3,302.55	15.30	14.92	166.53	428.19	-67.95	720.08	690.44	29.64	24.292		
3,500.00	3,483.31	3,417.01	3,399.45	15.75	15.35	166.53	439.21	-70.59	742.04	711.54	30.50	24.331		
3,600.00	3,582.69	3,514.57	3,496.35	16.20	15.78	166.52	450.23	-73.22	763.99	732.64	31.35	24.367		
3,700.00	3,682.07	3,612.13	3,593.25	16.65	16.21	166.51	461.24	-75.86	785.94	753.73	32.21	24.399		
3,800.00	3,781.46	3,709.69	3,690.15	17.10	16.64	166.51	472.26	-78.50	807.90	774.83	33.07	24.430		
3,900.00	3,880.84	3,807.25	3,787.05	17.56	17.07	166.50	483.28	-81.14	829.85	795.92	33.93	24.457		
4,000.00	3,980.22	3,904.81	3,883.95	18.01	17.51	166.50	494.30	-83.78	851.81	817.02	34.79	24.483		
4,100.00	4,079.61	4,002.37	3,980.85	18.46	17.94	166.49	505.31	-86.42	873.76	838.11	35.65	24.507		
4,200.00	4,178.99	4,100.07	4,077.75	18.92	18.38	166.49	516.33	-89.06	895.72	859.20	36.52	24.529		
4,300.00	4,278.38	4,202.51	4,174.65	19.37	18.83	166.48	527.35	-91.70	917.67	880.27	37.40	24.535		
4,400.00	4,377.76	4,304.95	4,271.55	19.83	19.29	166.48	538.37	-94.34	939.63	901.34	38.29	24.541		
4,500.00	4,477.14	4,407.39	4,368.45	20.28	19.74	166.47	549.39	-96.98	961.58	922.40	39.17	24.546		
4,600.00	4,576.53	4,509.83	4,465.35	20.74	20.20	166.47	560.40	-99.62	983.53	943.47	40.06	24.550		
4,700.00	4,675.91	4,587.73	4,562.25	21.19	20.55	166.46	571.42	-102.25	1,005.49	964.65	40.84	24.619		
4,800.00	4,775.29	4,685.29	4,659.15	21.65	20.98	166.46	582.44	-104.89	1,027.44	985.74	41.71	24.634		
4,900.00	4,874.68	4,782.85	4,756.05	22.10	21.42	166.46	593.46	-107.53	1,049.40	1,006.82	42.58	24.648		
5,000.00	4,974.06	4,880.41	4,852.95	22.56	21.86	166.45	604.47	-110.17	1,071.35	1,027.91	43.44	24.661		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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)			
5,100.00	5,073.44	4,977.97	4,949.85	23.02	22.29	166.45	615.49	-112.81	1,093.31	1,048.99	44.31	24.673		
5,200.00	5,172.83	5,075.53	5,046.76	23.47	22.73	166.45	626.51	-115.45	1,115.26	1,070.08	45.18	24.684		
5,300.00	5,272.21	5,173.09	5,143.66	23.93	23.17	166.44	637.53	-118.09	1,137.22	1,091.17	46.05	24.695		
5,400.00	5,371.59	5,270.65	5,240.56	24.39	23.60	166.44	648.54	-120.73	1,159.17	1,112.25	46.92	24.705		
5,500.00	5,470.98	5,368.21	5,337.46	24.85	24.04	166.44	659.56	-123.37	1,181.12	1,133.33	47.79	24.715		
5,600.00	5,570.36	5,465.77	5,434.36	25.30	24.48	166.44	670.58	-126.01	1,203.08	1,154.42	48.66	24.724		
5,700.00	5,669.75	5,563.33	5,531.26	25.76	24.92	166.43	681.60	-128.65	1,225.03	1,175.50	49.53	24.732		
5,800.00	5,769.13	5,660.89	5,628.16	26.22	25.35	166.43	692.61	-131.29	1,246.99	1,196.59	50.40	24.740		
5,900.00	5,868.51	5,758.45	5,725.06	26.68	25.79	166.43	703.63	-133.92	1,268.94	1,217.67	51.27	24.748		
6,000.00	5,967.90	5,856.01	5,821.96	27.14	26.23	166.43	714.65	-136.56	1,290.90	1,238.75	52.15	24.755		
6,100.00	6,067.28	5,953.57	5,918.86	27.60	26.67	166.42	725.67	-139.20	1,312.85	1,259.83	53.02	24.762		
6,200.00	6,166.66	6,051.13	6,015.76	28.05	27.11	166.42	736.69	-141.84	1,334.81	1,280.91	53.89	24.768		
6,300.00	6,266.05	6,148.69	6,112.66	28.51	27.55	166.42	747.70	-144.48	1,356.76	1,302.00	54.76	24.775		
6,400.00	6,365.43	6,246.25	6,209.56	28.97	27.98	166.42	758.72	-147.12	1,378.72	1,323.08	55.64	24.780		
6,500.00	6,464.81	6,343.81	6,306.46	29.43	28.42	166.41	769.74	-149.76	1,400.67	1,344.16	56.51	24.786		
6,600.00	6,564.10	6,441.86	6,403.60	29.89	28.86	134.99	780.76	-156.17	1,422.60	1,365.21	57.39	24.788		
6,700.00	6,661.75	6,539.83	6,498.68	30.34	29.30	109.53	791.44	-176.83	1,444.19	1,385.92	58.26	24.788		
6,800.00	6,755.38	6,637.69	6,589.38	30.77	29.73	99.75	801.52	-211.87	1,464.91	1,405.78	59.12	24.778		
6,900.00	6,842.67	6,735.61	6,673.76	31.17	30.16	94.27	810.79	-260.50	1,484.24	1,424.26	59.99	24.743		
7,000.00	6,921.48	6,833.74	6,749.89	31.54	30.62	90.60	819.03	-321.71	1,501.72	1,440.82	60.91	24.656		
7,100.00	6,989.86	6,932.17	6,815.98	31.91	31.16	87.96	826.05	-394.18	1,516.92	1,454.96	61.96	24.484		
7,200.00	7,046.13	7,030.91	6,870.35	32.35	31.83	86.02	831.66	-476.29	1,529.44	1,466.22	63.22	24.191		
7,300.00	7,088.91	7,129.94	6,911.57	32.98	32.66	84.65	835.73	-566.13	1,539.00	1,474.21	64.79	23.754		
7,400.00	7,117.14	7,229.17	6,938.51	33.84	33.66	83.78	838.12	-661.50	1,545.35	1,478.66	66.70	23.170		
7,500.00	7,130.13	7,328.47	6,950.42	34.90	34.80	83.36	838.79	-759.98	1,548.34	1,479.42	68.92	22.465		
7,600.00	7,130.72	7,428.25	6,950.79	36.13	36.10	83.33	838.13	-859.75	1,548.59	1,477.13	71.47	21.669		
7,700.00	7,130.29	7,528.25	6,950.49	37.54	37.56	83.33	837.39	-959.74	1,548.62	1,474.27	74.35	20.830		
7,800.00	7,129.85	7,628.25	6,950.19	39.12	39.18	83.34	836.65	-1,059.74	1,548.64	1,471.10	77.54	19.973		
7,900.00	7,129.42	7,728.25	6,949.90	40.83	40.93	83.34	835.91	-1,159.74	1,548.66	1,467.66	81.00	19.119		
8,000.00	7,128.98	7,828.25	6,949.60	42.67	42.80	83.35	835.18	-1,259.73	1,548.69	1,463.98	84.71	18.283		
8,100.00	7,128.55	7,928.25	6,949.30	44.62	44.77	83.35	834.44	-1,359.73	1,548.71	1,460.09	88.62	17.475		
8,200.00	7,128.12	8,028.25	6,949.00	46.66	46.84	83.36	833.70	-1,459.73	1,548.74	1,456.01	92.72	16.703		
8,300.00	7,127.68	8,128.25	6,948.70	48.79	48.99	83.36	832.96	-1,559.73	1,548.76	1,451.78	96.98	15.970		
8,400.00	7,127.25	8,228.25	6,948.40	50.98	51.20	83.37	832.22	-1,659.72	1,548.78	1,447.40	101.38	15.277		
8,500.00	7,126.81	8,328.25	6,948.11	53.24	53.48	83.37	831.49	-1,759.72	1,548.81	1,442.90	105.90	14.625		
8,600.00	7,126.38	8,428.25	6,947.81	55.56	55.81	83.38	830.75	-1,859.72	1,548.83	1,438.30	110.53	14.012		
8,700.00	7,125.95	8,528.25	6,947.51	57.92	58.18	83.38	830.01	-1,959.71	1,548.85	1,433.60	115.26	13.438		
8,800.00	7,125.51	8,628.25	6,947.21	60.33	60.60	83.39	829.27	-2,059.71	1,548.88	1,428.81	120.07	12.900		
8,900.00	7,125.08	8,728.25	6,946.91	62.77	63.06	83.39	828.54	-2,159.71	1,548.90	1,423.95	124.95	12.396		
9,000.00	7,124.64	8,828.25	6,946.61	65.25	65.55	83.40	827.80	-2,259.70	1,548.92	1,419.03	129.89	11.924		
9,100.00	7,124.21	8,928.25	6,946.31	67.76	68.06	83.40	827.06	-2,359.70	1,548.95	1,414.05	134.90	11.482		
9,200.00	7,123.78	9,028.25	6,946.02	70.29	70.61	83.41	826.32	-2,459.70	1,548.97	1,409.01	139.96	11.067		
9,300.00	7,123.34	9,128.25	6,945.72	72.85	73.17	83.42	825.58	-2,559.69	1,549.00	1,403.93	145.06	10.678		
9,400.00	7,122.91	9,228.25	6,945.42	75.43	75.76	83.42	824.85	-2,659.69	1,549.02	1,398.81	150.21	10.312		
9,500.00	7,122.48	9,328.25	6,945.12	78.03	78.37	83.43	824.11	-2,759.69	1,549.04	1,393.65	155.39	9.969		
9,600.00	7,122.04	9,428.25	6,944.82	80.65	80.99	83.43	823.37	-2,859.68	1,549.07	1,388.46	160.61	9.645		
9,700.00	7,121.61	9,528.25	6,944.52	83.28	83.63	83.44	822.63	-2,959.68	1,549.09	1,383.23	165.86	9.340		
9,800.00	7,121.17	9,628.25	6,944.23	85.93	86.28	83.44	821.90	-3,059.68	1,549.12	1,377.98	171.14	9.052		
9,900.00	7,120.74	9,728.25	6,943.93	88.59	88.95	83.45	821.16	-3,159.67	1,549.14	1,372.70	176.44	8.780		
10,000.00	7,120.31	9,828.25	6,943.63	91.26	91.62	83.45	820.42	-3,259.67	1,549.16	1,367.40	181.77	8.523		
10,100.00	7,119.87	9,928.25	6,943.33	93.95	94.31	83.46	819.68	-3,359.67	1,549.19	1,362.07	187.11	8.279		
10,200.00	7,119.44	10,028.25	6,943.03	96.64	97.01	83.46	818.94	-3,459.66	1,549.21	1,356.73	192.48	8.049		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	10,128.25	6,942.73	99.34	99.71	83.47	818.21	-3,559.66	1,549.23	1,351.37	197.87	7.830		
10,400.00	7,118.57	10,228.25	6,942.44	102.05	102.43	83.47	817.47	-3,659.66	1,549.26	1,345.99	203.27	7.622		
10,500.00	7,118.14	10,328.25	6,942.14	104.77	105.15	83.48	816.73	-3,759.65	1,549.28	1,340.60	208.68	7.424		
10,600.00	7,117.70	10,428.25	6,941.84	107.50	107.88	83.48	815.99	-3,859.65	1,549.31	1,335.19	214.11	7.236		
10,700.00	7,117.27	10,528.25	6,941.54	110.23	110.62	83.49	815.26	-3,959.65	1,549.33	1,329.77	219.56	7.057		
10,800.00	7,116.83	10,628.25	6,941.24	112.97	113.36	83.49	814.52	-4,059.64	1,549.35	1,324.34	225.01	6.886		
10,900.00	7,116.40	10,728.25	6,940.94	115.72	116.11	83.50	813.78	-4,159.64	1,549.38	1,318.90	230.48	6.722		
11,000.00	7,115.97	10,828.25	6,940.65	118.47	118.86	83.50	813.04	-4,259.64	1,549.40	1,313.44	235.96	6.566		
11,100.00	7,115.53	10,928.25	6,940.35	121.22	121.62	83.51	812.30	-4,359.63	1,549.43	1,307.98	241.45	6.417		
11,200.00	7,115.10	11,028.24	6,940.05	123.98	124.38	83.51	811.57	-4,459.63	1,549.45	1,302.51	246.94	6.275		
11,300.00	7,114.66	11,128.24	6,939.75	126.74	127.15	83.52	810.83	-4,559.63	1,549.47	1,297.03	252.45	6.138		
11,400.00	7,114.23	11,228.24	6,939.45	129.51	129.92	83.52	810.09	-4,659.62	1,549.50	1,291.54	257.96	6.007		
11,500.00	7,113.80	11,328.24	6,939.15	132.29	132.69	83.53	809.35	-4,759.62	1,549.52	1,286.04	263.48	5.881		
11,600.00	7,113.36	11,428.24	6,938.86	135.06	135.47	83.53	808.62	-4,859.62	1,549.55	1,280.54	269.01	5.760		
11,700.00	7,112.93	11,528.24	6,938.56	137.84	138.25	83.54	807.88	-4,959.61	1,549.57	1,275.02	274.55	5.644		
11,800.00	7,112.49	11,628.24	6,938.26	140.62	141.03	83.54	807.14	-5,059.61	1,549.60	1,269.51	280.09	5.533		
11,900.00	7,112.06	11,728.24	6,937.96	143.41	143.82	83.55	806.40	-5,159.61	1,549.62	1,263.98	285.63	5.425		
12,000.00	7,111.63	11,828.24	6,937.66	146.20	146.61	83.55	805.66	-5,259.60	1,549.64	1,258.46	291.19	5.322		
12,100.00	7,111.19	11,928.24	6,937.36	148.99	149.40	83.56	804.93	-5,359.60	1,549.67	1,252.92	296.74	5.222		
12,200.00	7,110.76	12,028.24	6,937.07	151.78	152.20	83.56	804.19	-5,459.60	1,549.69	1,247.38	302.31	5.126		
12,300.00	7,110.33	12,128.24	6,936.77	154.58	154.99	83.57	803.45	-5,559.59	1,549.72	1,241.84	307.87	5.034		
12,400.00	7,109.89	12,228.24	6,936.47	157.37	157.79	83.57	802.71	-5,659.59	1,549.74	1,236.29	313.45	4.944		
12,500.00	7,109.46	12,328.24	6,936.17	160.17	160.59	83.58	801.98	-5,759.59	1,549.76	1,230.74	319.02	4.858		
12,600.00	7,109.02	12,428.24	6,935.87	162.98	163.40	83.59	801.24	-5,859.58	1,549.79	1,225.19	324.60	4.774		
12,700.00	7,108.59	12,528.24	6,935.57	165.78	166.20	83.59	800.50	-5,959.58	1,549.81	1,219.63	330.19	4.694		
12,800.00	7,108.16	12,628.24	6,935.28	168.59	169.01	83.60	799.76	-6,059.58	1,549.84	1,214.06	335.77	4.616		
12,900.00	7,107.72	12,728.24	6,934.98	171.39	171.82	83.60	799.02	-6,159.57	1,549.86	1,208.50	341.36	4.540		
13,000.00	7,107.29	12,828.24	6,934.68	174.20	174.63	83.61	798.29	-6,259.57	1,549.89	1,202.93	346.96	4.467		
13,100.00	7,106.85	12,928.24	6,934.38	177.01	177.44	83.61	797.55	-6,359.57	1,549.91	1,197.35	352.56	4.396		
13,200.00	7,106.42	13,028.24	6,934.08	179.83	180.25	83.62	796.81	-6,459.57	1,549.93	1,191.78	358.16	4.328		
13,300.00	7,105.99	13,128.24	6,933.78	182.64	183.07	83.62	796.07	-6,559.56	1,549.96	1,186.20	363.76	4.261		
13,400.00	7,105.55	13,228.24	6,933.48	185.45	185.88	83.63	795.34	-6,659.56	1,549.98	1,180.62	369.37	4.196		
13,500.00	7,105.12	13,328.24	6,933.19	188.27	188.70	83.63	794.60	-6,759.56	1,550.01	1,175.03	374.98	4.134		
13,600.00	7,104.68	13,428.24	6,932.89	191.09	191.52	83.64	793.86	-6,859.55	1,550.03	1,169.44	380.59	4.073		
13,700.00	7,104.25	13,528.24	6,932.59	193.91	194.34	83.64	793.12	-6,959.55	1,550.06	1,163.86	386.20	4.014		
13,800.00	7,103.82	13,628.24	6,932.29	196.73	197.16	83.65	792.38	-7,059.55	1,550.08	1,158.26	391.82	3.956		
13,900.00	7,103.38	13,728.24	6,931.99	199.55	199.98	83.65	791.65	-7,159.54	1,550.10	1,152.67	397.43	3.900		
14,000.00	7,102.95	13,828.24	6,931.69	202.37	202.81	83.66	790.91	-7,259.54	1,550.13	1,147.07	403.05	3.846		
14,100.00	7,102.51	13,928.24	6,931.40	205.19	205.63	83.66	790.17	-7,359.54	1,550.15	1,141.48	408.68	3.793		
14,200.00	7,102.08	14,028.24	6,931.10	208.02	208.45	83.67	789.43	-7,459.53	1,550.18	1,135.88	414.30	3.742		
14,300.00	7,101.65	14,128.24	6,930.80	210.84	211.28	83.67	788.70	-7,559.53	1,550.20	1,130.27	419.93	3.692		
14,400.00	7,101.21	14,228.24	6,930.50	213.67	214.11	83.68	787.96	-7,659.53	1,550.23	1,124.67	425.56	3.643		
14,500.00	7,100.78	14,328.24	6,930.20	216.50	216.93	83.68	787.22	-7,759.52	1,550.25	1,119.07	431.18	3.595		
14,600.00	7,100.35	14,428.24	6,929.90	219.32	219.76	83.69	786.48	-7,859.52	1,550.28	1,113.46	436.82	3.549		
14,700.00	7,099.91	14,528.24	6,929.61	222.15	222.59	83.69	785.75	-7,959.52	1,550.30	1,107.85	442.45	3.504		
14,800.00	7,099.48	14,628.24	6,929.31	224.98	225.42	83.70	785.01	-8,059.51	1,550.32	1,102.24	448.08	3.460		
14,900.00	7,099.04	14,728.24	6,929.01	227.81	228.25	83.70	784.27	-8,159.51	1,550.35	1,096.63	453.72	3.417		
14,909.96	7,099.00	14,732.12	6,929.00	228.09	228.36	83.70	784.24	-8,163.39	1,550.36	1,096.26	454.11	3.414 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	0.00	0.00	3.28	3.28	0.40	159.93	1.11	159.93					
100.00	100.00	100.00	100.00	3.28	3.28	0.40	159.93	1.11	159.93	153.36	6.57	24.345		
200.00	200.00	200.00	200.00	3.34	3.34	0.40	159.93	1.11	159.93	153.26	6.67	23.964		
300.00	300.00	300.00	300.00	3.44	3.44	0.40	159.93	1.11	159.93	153.04	6.89	23.213		
400.00	400.00	400.00	400.00	3.60	3.60	0.40	159.93	1.11	159.93	152.73	7.21	22.193		
500.00	500.00	500.00	500.00	3.81	3.81	0.40	159.93	1.11	159.93	152.32	7.61	21.011	CC	
502.78	502.78	502.78	502.78	3.81	3.81	167.25	159.93	1.11	159.93	152.31	7.62	20.977		
600.00	600.00	600.00	600.00	4.04	4.05	167.25	159.93	1.11	160.00	151.91	8.09	19.778	ES	
700.00	699.96	694.64	694.62	4.29	4.30	167.32	161.47	0.86	164.01	155.41	8.60	19.070		
800.00	799.78	788.60	788.46	4.57	4.58	167.42	166.06	0.13	174.66	165.49	9.17	19.044		
900.00	899.34	881.27	880.81	4.88	4.88	167.53	173.55	-1.08	191.85	182.07	9.79	19.604		
1,000.00	998.72	972.48	971.43	5.20	5.19	167.64	183.80	-2.73	213.77	203.36	10.41	20.533		
1,100.00	1,098.10	1,068.92	1,060.08	5.54	5.53	167.60	196.64	-4.80	238.70	227.63	11.07	21.557		
1,200.00	1,197.49	1,158.50	1,155.23	5.90	5.85	167.50	212.04	-7.28	265.24	253.51	11.72	22.626		
1,300.00	1,296.87	1,254.91	1,250.37	6.28	6.21	167.42	227.44	-9.76	291.77	279.34	12.43	23.474		
1,400.00	1,396.25	1,351.33	1,345.52	6.66	6.58	167.36	242.84	-12.24	318.30	305.15	13.15	24.198		
1,500.00	1,495.64	1,447.74	1,440.66	7.06	6.96	167.30	258.24	-14.72	344.84	330.94	13.90	24.815		
1,600.00	1,595.02	1,544.16	1,535.81	7.46	7.35	167.25	273.64	-17.20	371.37	356.72	14.65	25.343		
1,700.00	1,694.40	1,640.57	1,630.95	7.87	7.75	167.21	289.04	-19.68	397.90	382.48	15.42	25.797		
1,800.00	1,793.79	1,736.99	1,726.10	8.29	8.15	167.17	304.43	-22.16	424.44	408.23	16.21	26.190		
1,900.00	1,893.17	1,833.40	1,821.24	8.71	8.56	167.14	319.83	-24.64	450.97	433.98	17.00	26.532		
2,000.00	1,992.55	1,929.82	1,916.39	9.13	8.97	167.11	335.23	-27.12	477.51	459.71	17.80	26.831		
2,100.00	2,091.94	2,026.23	2,011.53	9.56	9.39	167.09	350.63	-29.60	504.04	485.44	18.60	27.093		
2,200.00	2,191.32	2,122.65	2,106.68	9.99	9.81	167.06	366.03	-32.08	530.58	511.16	19.42	27.325		
2,300.00	2,290.70	2,219.06	2,201.82	10.42	10.23	167.04	381.43	-34.56	557.11	536.88	20.24	27.531		
2,400.00	2,390.09	2,315.48	2,296.97	10.86	10.65	167.02	396.83	-37.04	583.65	562.59	21.06	27.714		
2,500.00	2,489.47	2,411.89	2,392.11	11.29	11.08	167.01	412.23	-39.52	610.18	588.29	21.89	27.878		
2,600.00	2,588.86	2,508.31	2,487.26	11.73	11.51	166.99	427.63	-42.01	636.72	614.00	22.72	28.025		
2,700.00	2,688.24	2,604.72	2,582.40	12.18	11.94	166.97	443.03	-44.49	663.25	639.70	23.55	28.158		
2,800.00	2,787.62	2,701.14	2,677.55	12.62	12.37	166.96	458.43	-46.97	689.79	665.39	24.39	28.278		
2,900.00	2,887.01	2,802.45	2,772.69	13.06	12.82	166.95	473.83	-49.45	716.32	691.07	25.26	28.362		
3,000.00	2,986.39	2,906.03	2,867.84	13.51	13.29	166.94	489.22	-51.93	742.86	716.73	26.13	28.427		
3,100.00	3,085.77	3,009.62	2,962.98	13.95	13.76	166.93	504.62	-54.41	769.39	742.38	27.01	28.485		
3,200.00	3,185.16	3,086.80	3,058.13	14.40	14.11	166.92	520.02	-56.89	795.93	768.16	27.77	28.659		
3,300.00	3,284.54	3,183.21	3,153.27	14.85	14.55	166.91	535.42	-59.37	822.46	793.84	28.62	28.734		
3,400.00	3,383.92	3,279.63	3,248.42	15.30	14.98	166.90	550.82	-61.85	849.00	819.52	29.47	28.804		
3,500.00	3,483.31	3,376.04	3,343.56	15.75	15.42	166.89	566.22	-64.33	875.53	845.21	30.33	28.868		
3,600.00	3,582.69	3,472.46	3,438.71	16.20	15.86	166.88	581.62	-66.81	902.07	870.89	31.18	28.928		
3,700.00	3,682.07	3,568.87	3,533.85	16.65	16.30	166.87	597.02	-69.29	928.61	896.57	32.04	28.983		
3,800.00	3,781.46	3,665.29	3,629.00	17.10	16.74	166.87	612.42	-71.77	955.14	922.24	32.90	29.034		
3,900.00	3,880.84	3,761.70	3,724.14	17.56	17.18	166.86	627.82	-74.25	981.68	947.92	33.76	29.081		
4,000.00	3,980.22	3,858.12	3,819.29	18.01	17.63	166.85	643.22	-76.73	1,008.21	973.60	34.62	29.126		
4,100.00	4,079.61	3,954.53	3,914.43	18.46	18.07	166.85	658.62	-79.21	1,034.75	999.27	35.48	29.167		
4,200.00	4,178.99	4,050.95	4,009.58	18.92	18.51	166.84	674.01	-81.69	1,061.28	1,024.94	36.34	29.205		
4,300.00	4,278.38	4,147.36	4,104.72	19.37	18.95	166.84	689.41	-84.17	1,087.82	1,050.62	37.20	29.241		
4,400.00	4,377.76	4,243.78	4,199.87	19.83	19.40	166.83	704.81	-86.65	1,114.35	1,076.29	38.06	29.275		
4,500.00	4,477.14	4,340.19	4,295.01	20.28	19.84	166.83	720.21	-89.13	1,140.89	1,101.96	38.93	29.307		
4,600.00	4,576.53	4,436.61	4,390.16	20.74	20.29	166.82	735.61	-91.61	1,167.42	1,127.63	39.79	29.337		
4,700.00	4,675.91	4,533.02	4,485.30	21.19	20.73	166.82	751.01	-94.09	1,193.96	1,153.30	40.66	29.365		
4,800.00	4,775.29	4,629.44	4,580.45	21.65	21.17	166.81	766.41	-96.57	1,220.49	1,178.97	41.53	29.391		
4,900.00	4,874.68	4,725.85	4,675.59	22.10	21.62	166.81	781.81	-99.05	1,247.03	1,204.64	42.39	29.416		
5,000.00	4,974.06	4,822.27	4,770.74	22.56	22.06	166.81	797.21	-101.53	1,273.57	1,230.31	43.26	29.440		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,100.00	5,073.44	4,918.68	4,865.88	23.02	22.51	166.80	812.61	-104.01	1,300.10	1,255.97	44.13	29.462		
5,200.00	5,172.83	5,015.10	4,961.03	23.47	22.96	166.80	828.01	-106.49	1,326.64	1,281.64	45.00	29.483		
5,300.00	5,272.21	5,111.51	5,056.17	23.93	23.40	166.80	843.41	-108.97	1,353.17	1,307.31	45.86	29.503		
5,400.00	5,371.59	5,207.93	5,151.32	24.39	23.85	166.79	858.80	-111.45	1,379.71	1,332.97	46.73	29.522		
5,500.00	5,470.98	5,304.34	5,246.46	24.85	24.29	166.79	874.20	-113.94	1,406.24	1,358.64	47.60	29.540		
5,600.00	5,570.36	5,400.76	5,341.61	25.30	24.74	166.79	889.60	-116.42	1,432.78	1,384.30	48.47	29.557		
5,700.00	5,669.75	5,502.83	5,436.75	25.76	25.21	166.78	905.00	-118.90	1,459.31	1,409.94	49.37	29.558		
5,800.00	5,769.13	5,606.41	5,531.90	26.22	25.69	166.78	920.40	-121.38	1,485.85	1,435.58	50.27	29.555		
5,900.00	5,868.51	5,710.00	5,627.04	26.68	26.17	166.78	935.80	-123.86	1,512.39	1,461.21	51.18	29.551		
6,000.00	5,967.90	5,786.42	5,722.19	27.14	26.53	166.77	951.20	-126.34	1,538.92	1,486.96	51.96	29.618		
6,100.00	6,067.28	5,882.83	5,817.33	27.60	26.98	166.77	966.60	-128.82	1,565.46	1,512.63	52.83	29.631		
6,200.00	6,166.66	5,979.25	5,912.48	28.05	27.42	166.77	982.00	-131.30	1,591.99	1,538.29	53.70	29.644		
6,300.00	6,266.05	6,075.66	6,007.62	28.51	27.87	166.77	997.40	-133.78	1,618.53	1,563.95	54.58	29.656		
6,400.00	6,365.43	6,172.08	6,102.77	28.97	28.32	166.76	1,012.80	-136.26	1,645.06	1,589.61	55.45	29.668		
6,500.00	6,464.81	6,268.49	6,197.91	29.43	28.77	166.76	1,028.20	-138.74	1,671.60	1,615.28	56.32	29.679		
6,600.00	6,564.10	6,364.86	6,293.01	29.89	29.21	135.25	1,043.59	-141.22	1,698.13	1,640.94	57.20	29.690		
6,700.00	6,661.75	6,459.98	6,386.87	30.34	29.66	109.95	1,058.78	-143.66	1,724.48	1,666.43	58.06	29.704		
6,800.00	6,755.38	6,551.56	6,477.25	30.77	30.08	100.70	1,073.41	-146.02	1,750.43	1,691.55	58.88	29.727		
6,900.00	6,842.67	6,649.65	6,573.96	31.17	30.54	96.13	1,088.99	-150.45	1,775.96	1,716.17	59.79	29.705		
7,000.00	6,921.48	6,771.35	6,691.66	31.54	31.10	93.64	1,107.33	-174.43	1,799.99	1,739.06	60.93	29.543		
7,100.00	6,989.86	6,909.89	6,817.48	31.91	31.70	92.20	1,125.97	-228.64	1,821.44	1,759.22	62.23	29.270		
7,200.00	7,046.13	7,068.42	6,943.50	32.35	32.36	91.43	1,143.29	-322.57	1,839.22	1,775.48	63.74	28.855		
7,300.00	7,088.91	7,247.23	7,053.40	32.98	33.31	91.00	1,156.44	-462.26	1,852.04	1,786.40	65.64	28.216		
7,400.00	7,117.14	7,440.59	7,124.37	33.84	34.92	90.64	1,161.92	-641.24	1,858.78	1,790.55	68.23	27.244		
7,500.00	7,130.13	7,613.99	7,140.90	34.90	36.86	90.27	1,158.77	-813.33	1,858.97	1,787.69	71.28	26.081		
7,600.00	7,130.72	7,713.93	7,140.47	36.13	38.19	90.31	1,155.31	-913.22	1,856.39	1,782.52	73.87	25.130		
7,700.00	7,130.29	7,813.90	7,140.03	37.54	39.67	90.31	1,151.85	-1,013.12	1,853.71	1,776.91	76.80	24.137		
7,800.00	7,129.85	7,913.86	7,139.60	39.12	41.30	90.31	1,148.39	-1,113.02	1,851.03	1,771.00	80.03	23.129		
7,900.00	7,129.42	8,013.82	7,139.17	40.83	43.05	90.31	1,144.93	-1,212.93	1,848.34	1,764.82	83.53	22.129		
8,000.00	7,128.98	8,113.79	7,138.73	42.67	44.92	90.31	1,141.48	-1,312.83	1,845.66	1,758.40	87.25	21.153		
8,100.00	7,128.55	8,213.75	7,138.30	44.62	46.89	90.31	1,138.02	-1,412.73	1,842.98	1,751.79	91.19	20.211		
8,200.00	7,128.12	8,313.72	7,137.87	46.66	48.94	90.31	1,134.56	-1,512.64	1,840.29	1,744.99	95.30	19.311		
8,300.00	7,127.68	8,413.68	7,137.43	48.79	51.07	90.31	1,131.10	-1,612.54	1,837.61	1,738.04	99.57	18.455		
8,400.00	7,127.25	8,513.64	7,137.00	50.98	53.26	90.31	1,127.64	-1,712.44	1,834.93	1,730.95	103.98	17.647		
8,500.00	7,126.81	8,613.61	7,136.56	53.24	55.52	90.31	1,124.18	-1,812.35	1,832.24	1,723.73	108.51	16.886		
8,600.00	7,126.38	8,713.57	7,136.13	55.56	57.82	90.31	1,120.72	-1,912.25	1,829.56	1,716.42	113.14	16.170		
8,700.00	7,125.95	8,813.54	7,135.70	57.92	60.18	90.31	1,117.26	-2,012.15	1,826.88	1,709.00	117.87	15.499		
8,800.00	7,125.51	8,913.50	7,135.26	60.33	62.57	90.31	1,113.80	-2,112.06	1,824.19	1,701.51	122.68	14.869		
8,900.00	7,125.08	9,013.46	7,134.83	62.77	65.00	90.31	1,110.34	-2,211.96	1,821.51	1,693.94	127.57	14.279		
9,000.00	7,124.64	9,113.43	7,134.40	65.25	67.47	90.31	1,106.88	-2,311.86	1,818.83	1,686.30	132.52	13.725		
9,100.00	7,124.21	9,213.39	7,133.96	67.76	69.96	90.31	1,103.43	-2,411.76	1,816.14	1,678.61	137.53	13.205		
9,200.00	7,123.78	9,313.36	7,133.53	70.29	72.48	90.31	1,099.97	-2,511.67	1,813.46	1,670.87	142.59	12.718		
9,300.00	7,123.34	9,413.32	7,133.10	72.85	75.02	90.32	1,096.51	-2,611.57	1,810.78	1,663.07	147.70	12.260		
9,400.00	7,122.91	9,513.28	7,132.66	75.43	77.59	90.32	1,093.05	-2,711.47	1,808.09	1,655.24	152.85	11.829		
9,500.00	7,122.48	9,613.25	7,132.23	78.03	80.17	90.32	1,089.59	-2,811.38	1,805.41	1,647.37	158.04	11.424		
9,600.00	7,122.04	9,713.21	7,131.79	80.65	82.77	90.32	1,086.13	-2,911.28	1,802.73	1,639.46	163.27	11.042		
9,700.00	7,121.61	9,813.18	7,131.36	83.28	85.39	90.32	1,082.67	-3,011.18	1,800.04	1,631.52	168.52	10.681		
9,800.00	7,121.17	9,913.14	7,130.93	85.93	88.02	90.32	1,079.21	-3,111.09	1,797.36	1,623.56	173.80	10.341		
9,900.00	7,120.74	10,013.10	7,130.49	88.59	90.66	90.32	1,075.75	-3,210.99	1,794.68	1,615.56	179.11	10.020		
10,000.00	7,120.31	10,113.07	7,130.06	91.26	93.32	90.32	1,072.29	-3,310.89	1,791.99	1,607.55	184.44	9.716		
10,100.00	7,119.87	10,213.03	7,129.63	93.95	95.98	90.32	1,068.83	-3,410.80	1,789.31	1,599.51	189.80	9.427		
10,200.00	7,119.44	10,313.00	7,129.19	96.64	98.66	90.32	1,065.38	-3,510.70	1,786.63	1,591.45	195.17	9.154		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	10,412.96	7,128.76	99.34	101.35	90.32	1,061.92	-3,610.60	1,783.94	1,583.38	200.57	8.895		
10,400.00	7,118.57	10,512.92	7,128.33	102.05	104.04	90.32	1,058.46	-3,710.51	1,781.26	1,575.28	205.97	8.648		
10,500.00	7,118.14	10,612.89	7,127.89	104.77	106.74	90.32	1,055.00	-3,810.41	1,778.58	1,567.18	211.40	8.413		
10,600.00	7,117.70	10,712.85	7,127.46	107.50	109.45	90.32	1,051.54	-3,910.31	1,775.89	1,559.05	216.84	8.190		
10,700.00	7,117.27	10,812.82	7,127.03	110.23	112.17	90.32	1,048.08	-4,010.22	1,773.21	1,550.92	222.29	7.977		
10,800.00	7,116.83	10,912.78	7,126.59	112.97	114.89	90.32	1,044.62	-4,110.12	1,770.53	1,542.77	227.76	7.774		
10,900.00	7,116.40	11,012.74	7,126.16	115.72	117.62	90.32	1,041.16	-4,210.02	1,767.84	1,534.61	233.23	7.580		
11,000.00	7,115.97	11,112.71	7,125.72	118.47	120.36	90.32	1,037.70	-4,309.93	1,765.16	1,526.44	238.72	7.394		
11,100.00	7,115.53	11,212.67	7,125.29	121.22	123.10	90.32	1,034.24	-4,409.83	1,762.48	1,518.26	244.22	7.217		
11,200.00	7,115.10	11,312.64	7,124.86	123.98	125.84	90.32	1,030.78	-4,509.73	1,759.79	1,510.07	249.72	7.047		
11,300.00	7,114.66	11,412.60	7,124.42	126.74	128.59	90.33	1,027.32	-4,609.63	1,757.11	1,501.87	255.24	6.884		
11,400.00	7,114.23	11,512.56	7,123.99	129.51	131.34	90.33	1,023.87	-4,709.54	1,754.43	1,493.67	260.76	6.728		
11,500.00	7,113.80	11,612.53	7,123.56	132.29	134.10	90.33	1,020.41	-4,809.44	1,751.74	1,485.45	266.29	6.578		
11,600.00	7,113.36	11,712.49	7,123.12	135.06	136.86	90.33	1,016.95	-4,909.34	1,749.06	1,477.23	271.83	6.434		
11,700.00	7,112.93	11,812.46	7,122.69	137.84	139.63	90.33	1,013.49	-5,009.25	1,746.38	1,469.00	277.37	6.296		
11,800.00	7,112.49	11,912.42	7,122.26	140.62	142.39	90.33	1,010.03	-5,109.15	1,743.69	1,460.77	282.92	6.163		
11,900.00	7,112.06	12,012.38	7,121.82	143.41	145.16	90.33	1,006.57	-5,209.05	1,741.01	1,452.53	288.48	6.035		
12,000.00	7,111.63	12,112.35	7,121.39	146.20	147.94	90.33	1,003.11	-5,308.96	1,738.33	1,444.28	294.04	5.912		
12,100.00	7,111.19	12,212.31	7,120.95	148.99	150.71	90.33	999.65	-5,408.86	1,735.64	1,436.03	299.61	5.793		
12,200.00	7,110.76	12,312.28	7,120.52	151.78	153.49	90.33	996.19	-5,508.76	1,732.96	1,427.77	305.18	5.678		
12,300.00	7,110.33	12,412.24	7,120.09	154.58	156.27	90.33	992.73	-5,608.67	1,730.28	1,419.51	310.76	5.568		
12,400.00	7,109.89	12,512.20	7,119.65	157.37	159.06	90.33	989.27	-5,708.57	1,727.59	1,411.25	316.34	5.461		
12,500.00	7,109.46	12,612.17	7,119.22	160.17	161.84	90.33	985.82	-5,808.47	1,724.91	1,402.98	321.93	5.358		
12,600.00	7,109.02	12,712.13	7,118.79	162.98	164.63	90.33	982.36	-5,908.38	1,722.23	1,394.70	327.52	5.258		
12,700.00	7,108.59	12,812.10	7,118.35	165.78	167.42	90.33	978.90	-6,008.28	1,719.54	1,386.43	333.12	5.162		
12,800.00	7,108.16	12,912.06	7,117.92	168.59	170.21	90.33	975.44	-6,108.18	1,716.86	1,378.14	338.71	5.069		
12,900.00	7,107.72	13,012.02	7,117.49	171.39	173.01	90.33	971.98	-6,208.09	1,714.18	1,369.86	344.32	4.978		
13,000.00	7,107.29	13,111.99	7,117.05	174.20	175.80	90.33	968.52	-6,307.99	1,711.49	1,361.57	349.92	4.891		
13,100.00	7,106.85	13,211.95	7,116.62	177.01	178.60	90.33	965.06	-6,407.89	1,708.81	1,353.28	355.53	4.806		
13,200.00	7,106.42	13,311.92	7,116.18	179.83	181.40	90.33	961.60	-6,507.80	1,706.13	1,344.99	361.14	4.724		
13,300.00	7,105.99	13,411.88	7,115.75	182.64	184.20	90.34	958.14	-6,607.70	1,703.44	1,336.69	366.75	4.645		
13,400.00	7,105.55	13,511.84	7,115.32	185.45	187.00	90.34	954.68	-6,707.60	1,700.76	1,328.39	372.37	4.567		
13,500.00	7,105.12	13,611.81	7,114.88	188.27	189.80	90.34	951.22	-6,807.50	1,698.08	1,320.09	377.99	4.492		
13,600.00	7,104.68	13,711.77	7,114.45	191.09	192.61	90.34	947.77	-6,907.41	1,695.39	1,311.78	383.61	4.420		
13,700.00	7,104.25	13,811.74	7,114.02	193.91	195.41	90.34	944.31	-7,007.31	1,692.71	1,303.47	389.24	4.349		
13,800.00	7,103.82	13,911.70	7,113.58	196.73	198.22	90.34	940.85	-7,107.21	1,690.03	1,295.16	394.86	4.280		
13,900.00	7,103.38	14,011.66	7,113.15	199.55	201.03	90.34	937.39	-7,207.12	1,687.34	1,286.85	400.49	4.213		
14,000.00	7,102.95	14,111.63	7,112.72	202.37	203.84	90.34	933.93	-7,307.02	1,684.66	1,278.54	406.12	4.148		
14,100.00	7,102.51	14,211.59	7,112.28	205.19	206.65	90.34	930.47	-7,406.92	1,681.98	1,270.22	411.76	4.085		
14,200.00	7,102.08	14,311.56	7,111.85	208.02	209.46	90.34	927.01	-7,506.83	1,679.29	1,261.90	417.39	4.023		
14,300.00	7,101.65	14,411.52	7,111.41	210.84	212.27	90.34	923.55	-7,606.73	1,676.61	1,253.58	423.03	3.963		
14,400.00	7,101.21	14,511.48	7,110.98	213.67	215.08	90.34	920.09	-7,706.63	1,673.93	1,245.26	428.67	3.905		
14,500.00	7,100.78	14,611.45	7,110.55	216.50	217.90	90.34	916.63	-7,806.54	1,671.24	1,236.94	434.31	3.848		
14,600.00	7,100.35	14,711.41	7,110.11	219.32	220.71	90.34	913.17	-7,906.44	1,668.56	1,228.61	439.95	3.793		
14,700.00	7,099.91	14,811.38	7,109.68	222.15	223.53	90.34	909.72	-8,006.34	1,665.88	1,220.28	445.59	3.739		
14,800.00	7,099.48	14,911.34	7,109.25	224.98	226.35	90.34	906.26	-8,106.25	1,663.19	1,211.95	451.24	3.686		
14,900.00	7,099.04	14,969.16	7,109.00	227.81	227.97	90.34	904.26	-8,164.03	1,661.04	1,205.30	455.74	3.645		
14,902.43	7,099.03	14,969.16	7,109.00	227.88	227.97	90.34	904.26	-8,164.03	1,661.04	1,205.24	455.81	3.644		
14,909.96	7,099.00	14,969.16	7,109.00	228.09	227.97	90.34	904.26	-8,164.03	1,661.06	1,205.07	455.99	3.643 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	0.00	0.00	3.28	3.28	0.40	39.71	0.28	39.71					
100.00	100.00	100.00	100.00	3.28	3.28	0.40	39.71	0.28	39.71	33.14	6.57	6.045		
200.00	200.00	200.00	200.00	3.34	3.34	0.40	39.71	0.28	39.71	33.04	6.67	5.950		
300.00	300.00	300.00	300.00	3.44	3.44	0.40	39.71	0.28	39.71	32.82	6.89	5.764		
400.00	400.00	400.00	400.00	3.60	3.60	0.40	39.71	0.28	39.71	32.50	7.21	5.510		
500.00	500.00	501.07	501.04	3.81	3.80	-1.23	38.31	-0.82	38.33	30.72	7.61	5.037		
600.00	600.00	601.13	601.03	4.04	4.03	161.55	35.18	-3.29	35.41	27.34	8.07	4.387		
665.69	665.68	666.80	666.65	4.20	4.19	159.19	33.11	-4.92	34.68	26.28	8.40	4.129 CC, ES		
700.00	699.96	701.10	700.92	4.29	4.28	158.28	32.03	-5.77	34.88	26.30	8.58	4.066		
800.00	799.78	801.06	800.80	4.57	4.57	157.15	28.87	-8.25	37.65	28.50	9.14	4.118		
900.00	899.34	900.87	900.53	4.88	4.88	158.00	25.73	-10.73	43.64	33.88	9.76	4.473		
1,000.00	998.72	1,000.58	1,000.16	5.20	5.21	159.37	22.58	-13.20	51.21	40.81	10.41	4.922		
1,100.00	1,098.10	1,100.29	1,099.78	5.54	5.55	160.38	19.44	-15.67	58.81	47.72	11.09	5.304		
1,200.00	1,197.49	1,200.01	1,199.41	5.90	5.91	161.16	16.29	-18.15	66.41	54.62	11.80	5.629		
1,300.00	1,296.87	1,300.30	1,299.04	6.28	6.28	161.78	13.15	-20.62	74.03	61.50	12.53	5.907		
1,400.00	1,396.25	1,400.60	1,398.66	6.66	6.66	162.29	10.00	-23.10	81.66	68.37	13.29	6.146		
1,500.00	1,495.64	1,500.89	1,498.29	7.06	7.05	162.71	6.86	-25.57	89.29	75.23	14.06	6.352		
1,600.00	1,595.02	1,601.18	1,597.91	7.46	7.44	163.06	3.71	-28.05	96.92	82.08	14.84	6.531		
1,700.00	1,694.40	1,701.48	1,697.54	7.87	7.84	163.36	0.57	-30.52	104.56	88.92	15.63	6.688		
1,800.00	1,793.79	1,801.77	1,797.17	8.29	8.24	163.62	-2.57	-33.00	112.20	95.76	16.44	6.825		
1,900.00	1,893.17	1,902.06	1,896.79	8.71	8.65	163.85	-5.72	-35.47	119.84	102.58	17.25	6.946		
2,000.00	1,992.55	2,002.36	1,996.42	9.13	9.06	164.05	-8.86	-37.95	127.48	109.41	18.07	7.054		
2,100.00	2,091.94	2,102.65	2,096.05	9.56	9.47	164.23	-12.01	-40.42	135.12	116.23	18.90	7.150		
2,200.00	2,191.32	2,202.94	2,195.67	9.99	9.89	164.38	-15.15	-42.89	142.77	123.04	19.73	7.236		
2,300.00	2,290.70	2,303.24	2,295.30	10.42	10.31	164.53	-18.30	-45.37	150.42	129.85	20.57	7.313		
2,400.00	2,390.09	2,403.53	2,394.92	10.86	10.73	164.65	-21.44	-47.84	158.06	136.65	21.41	7.383		
2,500.00	2,489.47	2,503.82	2,494.55	11.29	11.15	164.77	-24.59	-50.32	165.71	143.46	22.26	7.446		
2,600.00	2,588.86	2,604.12	2,594.18	11.73	11.58	164.88	-27.73	-52.79	173.36	150.26	23.10	7.503		
2,700.00	2,688.24	2,704.41	2,693.80	12.18	12.00	164.97	-30.88	-55.27	181.01	157.05	23.96	7.556		
2,800.00	2,787.62	2,804.70	2,793.43	12.62	12.43	165.06	-34.02	-57.74	188.66	163.85	24.81	7.604		
2,900.00	2,887.01	2,905.00	2,893.06	13.06	12.86	165.15	-37.16	-60.22	196.31	170.64	25.67	7.648		
3,000.00	2,986.39	3,005.29	2,992.68	13.51	13.29	165.22	-40.31	-62.69	203.96	177.43	26.53	7.689		
3,100.00	3,085.77	3,105.58	3,092.31	13.95	13.72	165.29	-43.45	-65.16	211.61	184.22	27.39	7.727		
3,200.00	3,185.16	3,205.88	3,191.93	14.40	14.15	165.36	-46.60	-67.64	219.26	191.01	28.25	7.761		
3,300.00	3,284.54	3,306.17	3,291.56	14.85	14.58	165.42	-49.74	-70.11	226.91	197.80	29.12	7.794		
3,400.00	3,383.92	3,406.46	3,391.19	15.30	15.01	165.48	-52.89	-72.59	234.57	204.58	29.98	7.824		
3,500.00	3,483.31	3,506.76	3,490.81	15.75	15.45	165.53	-56.03	-75.06	242.22	211.37	30.85	7.852		
3,600.00	3,582.69	3,607.05	3,590.44	16.20	15.88	165.58	-59.18	-77.54	249.87	218.15	31.72	7.878		
3,700.00	3,682.07	3,707.34	3,690.06	16.65	16.32	165.63	-62.32	-80.01	257.52	224.93	32.59	7.902		
3,800.00	3,781.46	3,807.64	3,789.69	17.10	16.75	165.67	-65.47	-82.49	265.18	231.72	33.46	7.925		
3,900.00	3,880.84	3,907.93	3,889.32	17.56	17.19	165.72	-68.61	-84.96	272.83	238.50	34.33	7.947		
4,000.00	3,980.22	4,008.22	3,988.94	18.01	17.62	165.76	-71.75	-87.44	280.48	245.28	35.20	7.967		
4,100.00	4,079.61	4,108.52	4,088.57	18.46	18.06	165.79	-74.90	-89.91	288.13	252.06	36.08	7.986		
4,200.00	4,178.99	4,208.81	4,188.20	18.92	18.50	165.83	-78.04	-92.38	295.79	258.83	36.95	8.004		
4,300.00	4,278.38	4,309.11	4,287.82	19.37	18.93	165.86	-81.19	-94.86	303.44	265.61	37.83	8.022		
4,400.00	4,377.76	4,409.40	4,387.45	19.83	19.37	165.90	-84.33	-97.33	311.09	272.39	38.70	8.038		
4,500.00	4,477.14	4,509.69	4,487.07	20.28	19.81	165.93	-87.48	-99.81	318.75	279.17	39.58	8.053		
4,600.00	4,576.53	4,609.99	4,586.70	20.74	20.25	165.96	-90.62	-102.28	326.40	285.94	40.46	8.068		
4,700.00	4,675.91	4,689.72	4,686.33	21.19	20.60	165.98	-93.77	-104.76	334.05	292.81	41.25	8.099		
4,800.00	4,775.29	4,789.43	4,785.95	21.65	21.03	166.01	-96.91	-107.23	341.71	299.58	42.12	8.112		
4,900.00	4,874.68	4,889.13	4,885.58	22.10	21.47	166.04	-100.06	-109.71	349.36	306.36	43.00	8.125		
5,000.00	4,974.06	4,988.84	4,985.21	22.56	21.90	166.06	-103.20	-112.18	357.01	313.14	43.88	8.137		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,100.00	5,073.44	5,088.55	5,084.83	23.02	22.34	166.08	-106.34	-114.65	364.67	319.91	44.75	8.148		
5,200.00	5,172.83	5,188.25	5,184.46	23.47	22.78	166.11	-109.49	-117.13	372.32	326.69	45.63	8.159		
5,300.00	5,272.21	5,287.96	5,284.08	23.93	23.21	166.13	-112.63	-119.60	379.98	333.47	46.51	8.170		
5,400.00	5,371.59	5,387.67	5,383.71	24.39	23.65	166.15	-115.78	-122.08	387.63	340.24	47.39	8.180		
5,500.00	5,470.98	5,487.37	5,483.34	24.85	24.09	166.17	-118.92	-124.55	395.28	347.02	48.27	8.190		
5,600.00	5,570.36	5,587.08	5,582.96	25.30	24.53	166.19	-122.07	-127.03	402.94	353.79	49.15	8.199		
5,700.00	5,669.75	5,686.79	5,682.59	25.76	24.96	166.21	-125.21	-129.50	410.59	360.57	50.02	8.208		
5,800.00	5,769.13	5,786.49	5,782.22	26.22	25.40	166.22	-128.36	-131.98	418.25	367.34	50.90	8.216		
5,900.00	5,868.51	5,886.20	5,881.84	26.68	25.84	166.24	-131.50	-134.45	425.90	374.11	51.78	8.224		
6,000.00	5,967.90	5,985.91	5,981.47	27.14	26.28	166.26	-134.65	-136.93	433.55	380.89	52.67	8.232		
6,100.00	6,067.28	6,085.61	6,081.09	27.60	26.72	166.27	-137.79	-139.40	441.21	387.66	53.55	8.240		
6,200.00	6,166.66	6,185.32	6,180.72	28.05	27.15	166.29	-140.93	-141.87	448.86	394.44	54.43	8.247		
6,300.00	6,266.05	6,285.03	6,280.35	28.51	27.59	166.30	-144.08	-144.35	456.52	401.21	55.31	8.254		
6,400.00	6,365.43	6,384.73	6,379.97	28.97	28.03	166.32	-147.22	-146.82	464.17	407.98	56.19	8.261		
6,500.00	6,464.81	6,484.33	6,479.43	29.43	28.47	166.19	-150.37	-150.48	471.83	414.76	57.07	8.268		
6,600.00	6,564.10	6,582.16	6,575.83	29.89	28.90	134.11	-153.49	-166.32	479.68	421.74	57.94	8.279		
6,700.00	6,661.75	6,677.92	6,666.74	30.34	29.31	108.56	-156.53	-195.94	487.78	429.01	58.77	8.300		
6,800.00	6,755.38	6,771.97	6,750.73	30.77	29.71	98.72	-159.43	-237.99	495.87	436.33	59.55	8.327		
6,900.00	6,842.67	6,864.55	6,826.47	31.17	30.10	93.22	-162.13	-291.01	503.67	443.39	60.29	8.355		
7,000.00	6,921.48	6,955.87	6,892.88	31.54	30.53	89.57	-164.60	-353.54	510.92	449.89	61.03	8.371		
7,100.00	6,989.86	7,046.16	6,949.09	31.91	31.03	86.95	-166.80	-424.06	517.36	455.49	61.87	8.362		
7,200.00	7,046.13	7,135.61	6,994.40	32.35	31.64	85.05	-168.69	-501.08	522.79	459.90	62.89	8.313		
7,300.00	7,088.91	7,224.43	7,028.28	32.98	32.39	83.71	-170.26	-583.09	527.02	462.83	64.19	8.210		
7,400.00	7,117.14	7,312.80	7,050.34	33.84	33.27	82.86	-171.48	-668.58	529.91	464.09	65.82	8.051		
7,500.00	7,130.13	7,400.92	7,060.36	34.90	34.28	82.47	-172.33	-756.06	531.37	463.59	67.79	7.839		
7,600.00	7,130.72	7,503.33	7,060.72	36.13	35.60	82.43	-172.92	-851.79	531.65	461.34	70.32	7.561		
7,700.00	7,130.29	7,603.33	7,060.28	37.54	37.08	82.44	-173.52	-951.79	531.83	458.63	73.20	7.266		
7,800.00	7,129.85	7,703.33	7,059.85	39.12	38.70	82.44	-174.12	-1,051.78	532.01	455.62	76.39	6.964		
7,900.00	7,129.42	7,803.33	7,059.41	40.83	40.47	82.44	-174.72	-1,151.78	532.19	452.32	79.86	6.664		
8,000.00	7,128.98	7,903.33	7,058.98	42.67	42.35	82.44	-175.32	-1,251.78	532.36	448.79	83.58	6.370		
8,100.00	7,128.55	8,003.33	7,058.55	44.62	44.34	82.45	-175.92	-1,351.77	532.54	445.04	87.50	6.086		
8,200.00	7,128.12	8,103.33	7,058.11	46.66	46.42	82.45	-176.52	-1,451.77	532.72	441.11	91.61	5.815		
8,300.00	7,127.68	8,203.33	7,057.68	48.79	48.58	82.45	-177.11	-1,551.77	532.89	437.02	95.87	5.558		
8,400.00	7,127.25	8,303.33	7,057.24	50.98	50.80	82.45	-177.71	-1,651.77	533.07	432.79	100.28	5.316		
8,500.00	7,126.81	8,403.33	7,056.81	53.24	53.09	82.46	-178.31	-1,751.76	533.25	428.44	104.81	5.088		
8,600.00	7,126.38	8,503.33	7,056.38	55.56	55.43	82.46	-178.91	-1,851.76	533.42	423.98	109.45	4.874		
8,700.00	7,125.95	8,603.34	7,055.94	57.92	57.82	82.46	-179.51	-1,951.76	533.60	419.43	114.18	4.674		
8,800.00	7,125.51	8,703.34	7,055.51	60.33	60.25	82.46	-180.11	-2,051.75	533.78	414.79	118.99	4.486		
8,900.00	7,125.08	8,803.34	7,055.07	62.77	62.72	82.47	-180.71	-2,151.75	533.96	410.08	123.88	4.310		
9,000.00	7,124.64	8,903.34	7,054.64	65.25	65.22	82.47	-181.31	-2,251.75	534.13	405.31	128.83	4.146		
9,100.00	7,124.21	9,003.34	7,054.21	67.76	67.74	82.47	-181.90	-2,351.75	534.31	400.47	133.84	3.992		
9,200.00	7,123.78	9,103.34	7,053.77	70.29	70.29	82.47	-182.50	-2,451.74	534.49	395.59	138.90	3.848		
9,300.00	7,123.34	9,203.34	7,053.34	72.85	72.87	82.48	-183.10	-2,551.74	534.66	390.66	144.00	3.713		
9,400.00	7,122.91	9,303.34	7,052.90	75.43	75.46	82.48	-183.70	-2,651.74	534.84	385.69	149.15	3.586		
9,500.00	7,122.48	9,403.34	7,052.47	78.03	78.08	82.48	-184.30	-2,751.73	535.02	380.69	154.33	3.467		
9,600.00	7,122.04	9,503.34	7,052.04	80.65	80.71	82.48	-184.90	-2,851.73	535.20	375.64	159.55	3.354		
9,700.00	7,121.61	9,596.66	7,051.60	83.28	83.18	82.49	-185.50	-2,951.73	535.37	370.75	164.62	3.252		
9,800.00	7,121.17	9,703.34	7,051.17	85.93	86.01	82.49	-186.10	-3,051.73	535.55	365.47	170.08	3.149		
9,900.00	7,120.74	9,803.34	7,050.73	88.59	88.68	82.49	-186.69	-3,151.72	535.73	360.35	175.38	3.055		
10,000.00	7,120.31	9,903.34	7,050.30	91.26	91.36	82.49	-187.29	-3,251.72	535.90	355.20	180.70	2.966		
10,100.00	7,119.87	10,003.34	7,049.87	93.95	94.06	82.50	-187.89	-3,351.72	536.08	350.04	186.05	2.881		
10,200.00	7,119.44	10,103.34	7,049.43	96.64	96.76	82.50	-188.49	-3,451.71	536.26	344.85	191.41	2.802		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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							
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	7,119.00	10,203.34	7,049.00	99.34	99.47	82.50	-189.09	-3,551.71	536.43	339.64	196.79	2.726	
10,400.00	7,118.57	10,303.34	7,048.56	102.05	102.19	82.50	-189.69	-3,651.71	536.61	334.42	202.19	2.654	
10,500.00	7,118.14	10,403.34	7,048.13	104.77	104.92	82.51	-190.29	-3,751.71	536.79	329.19	207.60	2.586	
10,600.00	7,117.70	10,503.34	7,047.70	107.50	107.65	82.51	-190.89	-3,851.70	536.97	323.94	213.03	2.521	
10,700.00	7,117.27	10,603.34	7,047.26	110.23	110.39	82.51	-191.48	-3,951.70	537.14	318.68	218.47	2.459	
10,800.00	7,116.83	10,703.34	7,046.83	112.97	113.14	82.51	-192.08	-4,051.70	537.32	313.40	223.92	2.400	
10,900.00	7,116.40	10,803.34	7,046.39	115.72	115.89	82.52	-192.68	-4,151.69	537.50	308.12	229.38	2.343	
11,000.00	7,115.97	10,903.34	7,045.96	118.47	118.65	82.52	-193.28	-4,251.69	537.67	302.82	234.85	2.289	
11,100.00	7,115.53	11,003.34	7,045.53	121.22	121.41	82.52	-193.88	-4,351.69	537.85	297.52	240.34	2.238	
11,200.00	7,115.10	11,103.34	7,045.09	123.98	124.17	82.52	-194.48	-4,451.68	538.03	292.20	245.83	2.189	
11,300.00	7,114.66	11,203.34	7,044.66	126.74	126.94	82.53	-195.08	-4,551.68	538.21	286.88	251.33	2.141	
11,400.00	7,114.23	11,303.34	7,044.22	129.51	129.72	82.53	-195.68	-4,651.68	538.38	281.55	256.83	2.096	
11,500.00	7,113.80	11,403.34	7,043.79	132.29	132.49	82.53	-196.28	-4,751.68	538.56	276.21	262.35	2.053	
11,600.00	7,113.36	11,503.34	7,043.36	135.06	135.27	82.53	-196.87	-4,851.67	538.74	270.87	267.87	2.011	
11,700.00	7,112.93	11,603.34	7,042.92	137.84	138.06	82.54	-197.47	-4,951.67	538.91	265.52	273.40	1.971	
11,800.00	7,112.49	11,703.34	7,042.49	140.62	140.84	82.54	-198.07	-5,051.67	539.09	260.16	278.93	1.933	
11,900.00	7,112.06	11,803.34	7,042.05	143.41	143.63	82.54	-198.67	-5,151.66	539.27	254.80	284.47	1.896	
12,000.00	7,111.63	11,903.34	7,041.62	146.20	146.43	82.54	-199.27	-5,251.66	539.45	249.43	290.01	1.860	
12,100.00	7,111.19	12,003.34	7,041.19	148.99	149.22	82.55	-199.87	-5,351.66	539.62	244.06	295.56	1.826	
12,200.00	7,110.76	12,103.34	7,040.75	151.78	152.02	82.55	-200.47	-5,451.66	539.80	238.68	301.12	1.793	
12,300.00	7,110.33	12,203.34	7,040.32	154.58	154.82	82.55	-201.07	-5,551.65	539.98	233.30	306.68	1.761	
12,400.00	7,109.89	12,303.34	7,039.88	157.37	157.62	82.55	-201.66	-5,651.65	540.15	227.91	312.24	1.730	
12,500.00	7,109.46	12,403.34	7,039.45	160.17	160.42	82.56	-202.26	-5,751.65	540.33	222.52	317.81	1.700	
12,600.00	7,109.02	12,503.34	7,039.02	162.98	163.23	82.56	-202.86	-5,851.64	540.51	217.13	323.38	1.671	
12,700.00	7,108.59	12,603.34	7,038.58	165.78	166.03	82.56	-203.46	-5,951.64	540.69	211.73	328.96	1.644	
12,800.00	7,108.16	12,703.34	7,038.15	168.59	168.84	82.56	-204.06	-6,051.64	540.86	206.33	334.54	1.617	
12,900.00	7,107.72	12,803.34	7,037.71	171.39	171.65	82.56	-204.66	-6,151.64	541.04	200.92	340.12	1.591	
13,000.00	7,107.29	12,903.34	7,037.28	174.20	174.47	82.57	-205.26	-6,251.63	541.22	195.51	345.70	1.566	
13,100.00	7,106.85	13,003.34	7,036.85	177.01	177.28	82.57	-205.86	-6,351.63	541.39	190.10	351.29	1.541	
13,200.00	7,106.42	13,103.34	7,036.41	179.83	180.10	82.57	-206.45	-6,451.63	541.57	184.69	356.88	1.518	
13,300.00	7,105.99	13,203.34	7,035.98	182.64	182.91	82.57	-207.05	-6,551.62	541.75	179.27	362.48	1.495 Level 3	
13,400.00	7,105.55	13,303.34	7,035.54	185.45	185.73	82.58	-207.65	-6,651.62	541.93	173.85	368.07	1.472 Level 3	
13,500.00	7,105.12	13,403.34	7,035.11	188.27	188.55	82.58	-208.25	-6,751.62	542.10	168.43	373.67	1.451 Level 3	
13,600.00	7,104.68	13,503.34	7,034.68	191.09	191.37	82.58	-208.85	-6,851.62	542.28	163.00	379.27	1.430 Level 3	
13,700.00	7,104.25	13,603.34	7,034.24	193.91	194.19	82.58	-209.45	-6,951.61	542.46	157.58	384.88	1.409 Level 3	
13,800.00	7,103.82	13,703.34	7,033.81	196.73	197.01	82.59	-210.05	-7,051.61	542.63	152.15	390.48	1.390 Level 3	
13,900.00	7,103.38	13,803.34	7,033.37	199.55	199.84	82.59	-210.65	-7,151.61	542.81	146.72	396.09	1.370 Level 3	
14,000.00	7,102.95	13,903.34	7,032.94	202.37	202.66	82.59	-211.24	-7,251.60	542.99	141.28	401.70	1.352 Level 3	
14,100.00	7,102.51	14,003.34	7,032.51	205.19	205.49	82.59	-211.84	-7,351.60	543.16	135.85	407.32	1.334 Level 3	
14,200.00	7,102.08	14,103.34	7,032.07	208.02	208.31	82.60	-212.44	-7,451.60	543.34	130.41	412.93	1.316 Level 3	
14,300.00	7,101.65	14,203.34	7,031.64	210.84	211.14	82.60	-213.04	-7,551.60	543.52	124.97	418.55	1.299 Level 3	
14,400.00	7,101.21	14,303.34	7,031.20	213.67	213.97	82.60	-213.64	-7,651.59	543.70	119.53	424.16	1.282 Level 3	
14,500.00	7,100.78	14,403.34	7,030.77	216.50	216.80	82.60	-214.24	-7,751.59	543.87	114.09	429.78	1.265 Level 3	
14,600.00	7,100.35	14,503.34	7,030.34	219.32	219.63	82.61	-214.84	-7,851.59	544.05	108.65	435.40	1.250 Level 2	
14,700.00	7,099.91	14,603.34	7,029.90	222.15	222.46	82.61	-215.44	-7,951.58	544.23	103.20	441.03	1.234 Level 2	
14,800.00	7,099.48	14,703.34	7,029.47	224.98	225.29	82.61	-216.03	-8,051.58	544.40	97.75	446.65	1.219 Level 2	
14,900.00	7,099.04	14,796.66	7,029.03	227.81	227.93	82.61	-216.63	-8,151.58	544.58	92.49	452.09	1.205 Level 2	
14,909.96	7,099.00	14,806.62	7,028.99	228.09	228.21	82.61	-216.69	-8,161.54	544.60	91.95	452.65	1.203 Level 2, 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	0.00	0.00	3.28	3.28	0.27	59.74	0.28	59.74					
100.00	100.00	100.00	100.00	3.28	3.28	0.27	59.74	0.28	59.74	53.17	6.57	9.094		
200.00	200.00	200.00	200.00	3.34	3.34	0.27	59.74	0.28	59.74	53.07	6.67	8.951		
300.00	300.00	300.00	300.00	3.44	3.44	0.27	59.74	0.28	59.74	52.85	6.89	8.671		
400.00	400.00	400.00	400.00	3.60	3.60	0.27	59.74	0.28	59.74	52.54	7.21	8.290		
500.00	500.00	500.00	500.00	3.81	3.81	0.27	59.74	0.28	59.74	52.13	7.61	7.849 CC		
501.52	501.52	501.52	501.52	3.81	3.81	167.11	59.74	0.28	59.74	52.12	7.62	7.842		
600.00	600.00	600.02	599.97	4.04	4.04	165.59	59.74	-1.33	59.82	51.74	8.08	7.401 ES		
700.00	699.96	700.07	699.88	4.29	4.30	163.84	59.74	-3.82	62.27	53.68	8.59	7.247		
800.00	799.78	800.25	799.67	4.57	4.59	163.10	59.74	-6.32	68.11	58.94	9.16	7.433		
900.00	899.34	900.67	899.22	4.88	4.90	163.23	59.74	-8.81	77.27	67.49	9.78	7.899		
1,000.00	998.72	1,001.26	998.60	5.20	5.24	163.69	59.74	-11.29	88.05	77.61	10.44	8.437		
1,100.00	1,098.10	1,101.84	1,097.99	5.54	5.58	164.05	59.74	-13.77	98.83	87.71	11.12	8.887		
1,200.00	1,197.49	1,202.43	1,197.37	5.90	5.94	164.33	59.74	-16.26	109.61	97.78	11.83	9.263		
1,300.00	1,296.87	1,303.01	1,296.75	6.28	6.32	164.57	59.74	-18.74	120.40	107.83	12.57	9.579		
1,400.00	1,396.25	1,403.60	1,396.14	6.66	6.70	164.77	59.74	-21.23	131.18	117.86	13.32	9.846		
1,500.00	1,495.64	1,504.18	1,495.52	7.06	7.08	164.94	59.74	-23.71	141.97	127.88	14.09	10.074		
1,600.00	1,595.02	1,604.76	1,594.91	7.46	7.48	165.08	59.74	-26.19	152.76	137.89	14.88	10.269		
1,700.00	1,694.40	1,705.35	1,694.29	7.87	7.87	165.21	59.74	-28.68	163.55	147.88	15.67	10.436		
1,800.00	1,793.79	1,805.93	1,793.68	8.29	8.28	165.31	59.74	-31.16	174.34	157.87	16.48	10.582		
1,900.00	1,893.17	1,906.52	1,893.06	8.71	8.68	165.41	59.74	-33.65	185.14	167.85	17.29	10.708		
2,000.00	1,992.55	2,007.10	1,992.45	9.13	9.09	165.50	59.74	-36.13	195.93	177.82	18.11	10.819		
2,100.00	2,091.94	2,107.69	2,091.83	9.56	9.51	165.57	59.74	-38.61	206.72	187.78	18.94	10.917		
2,200.00	2,191.32	2,208.27	2,191.22	9.99	9.92	165.64	59.74	-41.10	217.51	197.74	19.77	11.004		
2,300.00	2,290.70	2,308.86	2,290.60	10.42	10.34	165.71	59.74	-43.58	228.31	207.70	20.60	11.081		
2,400.00	2,390.09	2,409.44	2,389.98	10.86	10.76	165.76	59.74	-46.07	239.10	217.65	21.45	11.149		
2,500.00	2,489.47	2,489.98	2,489.37	11.29	11.10	165.82	59.74	-48.55	249.89	227.69	22.21	11.253		
2,600.00	2,588.86	2,589.39	2,588.75	11.73	11.52	165.86	59.74	-51.04	260.69	237.64	23.05	11.310		
2,700.00	2,688.24	2,688.81	2,688.14	12.18	11.94	165.91	59.74	-53.52	271.48	247.58	23.89	11.361		
2,800.00	2,787.62	2,788.22	2,787.52	12.62	12.36	165.95	59.74	-56.00	282.27	257.53	24.74	11.408		
2,900.00	2,887.01	2,887.64	2,886.91	13.06	12.78	165.99	59.74	-58.49	293.07	267.47	25.59	11.450		
3,000.00	2,986.39	2,987.05	2,986.29	13.51	13.20	166.02	59.74	-60.97	303.86	277.41	26.45	11.489		
3,100.00	3,085.77	3,086.47	3,085.68	13.95	13.62	166.06	59.74	-63.46	314.66	287.35	27.30	11.524		
3,200.00	3,185.16	3,185.88	3,185.06	14.40	14.05	166.09	59.74	-65.94	325.45	297.29	28.16	11.557		
3,300.00	3,284.54	3,285.30	3,284.44	14.85	14.47	166.11	59.74	-68.42	336.25	307.23	29.02	11.587		
3,400.00	3,383.92	3,384.72	3,383.83	15.30	14.90	166.14	59.74	-70.91	347.04	317.16	29.88	11.614		
3,500.00	3,483.31	3,484.13	3,483.21	15.75	15.33	166.17	59.74	-73.39	357.83	327.09	30.74	11.640		
3,600.00	3,582.69	3,583.55	3,582.60	16.20	15.76	166.19	59.74	-75.88	368.63	337.02	31.60	11.664		
3,700.00	3,682.07	3,682.96	3,681.98	16.65	16.18	166.21	59.74	-78.36	379.42	346.96	32.47	11.686		
3,800.00	3,781.46	3,782.38	3,781.37	17.10	16.61	166.23	59.74	-80.84	390.22	356.88	33.33	11.706		
3,900.00	3,880.84	3,881.79	3,880.75	17.56	17.04	166.25	59.74	-83.33	401.01	366.81	34.20	11.725		
4,000.00	3,980.22	3,981.21	3,980.14	18.01	17.47	166.27	59.74	-85.81	411.81	376.74	35.07	11.743		
4,100.00	4,079.61	4,080.62	4,079.52	18.46	17.90	166.29	59.74	-88.30	422.60	386.67	35.94	11.760		
4,200.00	4,178.99	4,180.04	4,178.91	18.92	18.33	166.31	59.74	-90.78	433.40	396.59	36.80	11.776		
4,300.00	4,278.38	4,279.45	4,278.29	19.37	18.76	166.32	59.74	-93.26	444.19	406.52	37.67	11.790		
4,400.00	4,377.76	4,378.87	4,377.67	19.83	19.19	166.34	59.74	-95.75	454.99	416.44	38.54	11.804		
4,500.00	4,477.14	4,478.29	4,477.06	20.28	19.62	166.35	59.74	-98.23	465.78	426.37	39.42	11.817		
4,600.00	4,576.53	4,577.70	4,576.44	20.74	20.05	166.37	59.74	-100.72	476.58	436.29	40.29	11.830		
4,700.00	4,675.91	4,677.12	4,675.83	21.19	20.49	166.38	59.74	-103.20	487.37	446.22	41.16	11.841		
4,800.00	4,775.29	4,776.53	4,775.21	21.65	20.92	166.39	59.74	-105.69	498.17	456.14	42.03	11.852		
4,900.00	4,874.68	4,875.95	4,874.60	22.10	21.35	166.41	59.74	-108.17	508.97	466.06	42.90	11.863		
5,000.00	4,974.06	4,975.36	4,973.98	22.56	21.78	166.42	59.74	-110.65	519.76	475.98	43.78	11.873		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	
5,100.00	5,073.44	5,074.78	5,073.37	23.02	22.21	166.43	59.74	-113.14	530.56	485.90	44.65	11.882	
5,200.00	5,172.83	5,174.19	5,172.75	23.47	22.65	166.44	59.74	-115.62	541.35	495.82	45.53	11.891	
5,300.00	5,272.21	5,273.61	5,272.13	23.93	23.08	166.45	59.74	-118.11	552.15	505.74	46.40	11.899	
5,400.00	5,371.59	5,373.03	5,371.52	24.39	23.51	166.46	59.74	-120.59	562.94	515.66	47.28	11.907	
5,500.00	5,470.98	5,472.44	5,470.90	24.85	23.95	166.47	59.74	-123.07	573.74	525.58	48.15	11.915	
5,600.00	5,570.36	5,571.86	5,570.29	25.30	24.38	166.48	59.74	-125.56	584.53	535.50	49.03	11.922	
5,700.00	5,669.75	5,671.27	5,669.67	25.76	24.81	166.49	59.74	-128.04	595.33	545.42	49.90	11.929	
5,800.00	5,769.13	5,770.69	5,769.06	26.22	25.25	166.50	59.74	-130.53	606.12	555.34	50.78	11.936	
5,900.00	5,868.51	5,870.10	5,868.44	26.68	25.68	166.51	59.74	-133.01	616.92	565.26	51.66	11.942	
6,000.00	5,967.90	5,969.52	5,967.83	27.14	26.12	166.51	59.74	-135.49	627.71	575.18	52.53	11.949	
6,100.00	6,067.28	6,068.93	6,067.21	27.60	26.55	166.52	59.74	-137.98	638.51	585.10	53.41	11.954	
6,200.00	6,166.66	6,168.35	6,166.60	28.05	26.98	166.53	59.74	-140.46	649.30	595.01	54.29	11.960	
6,300.00	6,266.05	6,267.77	6,265.98	28.51	27.42	166.54	59.74	-142.95	660.10	604.93	55.17	11.965	
6,400.00	6,365.43	6,367.18	6,365.36	28.97	27.85	166.54	59.74	-145.43	670.90	614.85	56.05	11.971	
6,500.00	6,464.81	6,466.60	6,464.75	29.43	28.29	166.55	59.74	-147.91	681.69	624.77	56.92	11.975	
6,600.00	6,564.10	6,566.94	6,564.94	29.89	28.73	135.70	59.70	-152.78	692.45	634.64	57.81	11.978	
6,700.00	6,661.75	6,668.04	6,664.11	30.34	29.18	111.33	59.37	-171.89	702.87	644.16	58.71	11.973	
6,800.00	6,755.38	6,769.12	6,758.98	30.77	29.63	102.57	58.74	-206.44	712.68	653.09	59.59	11.960	
6,900.00	6,842.67	6,870.16	6,847.17	31.17	30.10	98.02	57.82	-255.53	721.63	661.16	60.48	11.933	
7,000.00	6,921.48	6,971.17	6,926.47	31.54	30.59	95.18	56.64	-317.91	729.52	668.10	61.41	11.879	
7,100.00	6,989.86	7,072.11	6,994.87	31.91	31.15	93.23	55.23	-391.98	736.13	673.66	62.48	11.783	
7,200.00	7,046.13	7,172.95	7,050.67	32.35	31.83	91.86	53.61	-475.84	741.32	677.56	63.76	11.627	
7,300.00	7,088.91	7,273.65	7,092.49	32.98	32.65	90.91	51.85	-567.31	744.95	679.61	65.34	11.402	
7,400.00	7,117.14	7,374.16	7,119.33	33.84	33.65	90.31	49.97	-664.04	746.93	679.68	67.25	11.106	
7,500.00	7,130.13	7,474.42	7,130.63	34.90	34.79	90.02	48.03	-763.54	747.22	677.73	69.50	10.752	
7,600.00	7,130.72	7,574.43	7,130.72	36.13	36.10	90.00	46.07	-863.53	746.16	674.10	72.05	10.356	
7,700.00	7,130.29	7,674.43	7,130.36	37.54	37.56	90.01	44.12	-963.50	744.98	670.03	74.95	9.940	
7,800.00	7,129.85	7,774.42	7,129.99	39.12	39.17	90.01	42.16	-1,063.48	743.80	665.65	78.15	9.518	
7,900.00	7,129.42	7,874.41	7,129.63	40.83	40.92	90.02	40.21	-1,163.45	742.62	660.99	81.63	9.098	
8,000.00	7,128.98	7,974.40	7,129.26	42.67	42.79	90.02	38.25	-1,263.42	741.44	656.09	85.35	8.687	
8,100.00	7,128.55	8,074.40	7,128.89	44.62	44.76	90.03	36.29	-1,363.39	740.26	650.99	89.28	8.292	
8,200.00	7,128.12	8,174.39	7,128.53	46.66	46.82	90.03	34.34	-1,463.37	739.09	645.69	93.39	7.914	
8,300.00	7,127.68	8,274.38	7,128.16	48.79	48.97	90.04	32.38	-1,563.34	737.91	640.24	97.67	7.555	
8,400.00	7,127.25	8,374.38	7,127.79	50.98	51.18	90.05	30.43	-1,663.31	736.73	634.64	102.08	7.217	
8,500.00	7,126.81	8,474.37	7,127.43	53.24	53.45	90.05	28.47	-1,763.29	735.55	628.93	106.62	6.899	
8,600.00	7,126.38	8,574.36	7,127.06	55.56	55.78	90.06	26.52	-1,863.26	734.37	623.10	111.27	6.600	
8,700.00	7,125.95	8,674.36	7,126.70	57.92	58.15	90.06	24.56	-1,963.23	733.19	617.18	116.01	6.320	
8,800.00	7,125.51	8,774.35	7,126.33	60.33	60.57	90.07	22.61	-2,063.21	732.02	611.18	120.84	6.058	
8,900.00	7,125.08	8,874.34	7,125.96	62.77	63.02	90.07	20.65	-2,163.18	730.84	605.10	125.74	5.812	
9,000.00	7,124.64	8,974.33	7,125.60	65.25	65.51	90.08	18.70	-2,263.15	729.66	598.95	130.71	5.582	
9,100.00	7,124.21	9,074.33	7,125.23	67.76	68.02	90.08	16.74	-2,363.13	728.48	592.75	135.73	5.367	
9,200.00	7,123.78	9,174.32	7,124.87	70.29	70.56	90.09	14.79	-2,463.10	727.30	586.49	140.81	5.165	
9,300.00	7,123.34	9,274.31	7,124.50	72.85	73.12	90.09	12.83	-2,563.07	726.13	580.19	145.94	4.976	
9,400.00	7,122.91	9,374.31	7,124.13	75.43	75.71	90.10	10.87	-2,663.05	724.95	573.84	151.10	4.798	
9,500.00	7,122.48	9,474.30	7,123.77	78.03	78.31	90.11	8.92	-2,763.02	723.77	567.46	156.31	4.630	
9,600.00	7,122.04	9,574.29	7,123.40	80.65	80.93	90.11	6.96	-2,862.99	722.59	561.04	161.55	4.473	
9,700.00	7,121.61	9,674.29	7,123.03	83.28	83.56	90.12	5.01	-2,962.97	721.41	554.59	166.82	4.325	
9,800.00	7,121.17	9,774.28	7,122.67	85.93	86.21	90.12	3.05	-3,062.94	720.23	548.12	172.12	4.185	
9,900.00	7,120.74	9,874.27	7,122.30	88.59	88.87	90.13	1.10	-3,162.91	719.06	541.62	177.44	4.052	
10,000.00	7,120.31	9,974.27	7,121.94	91.26	91.55	90.13	-0.86	-3,262.89	717.88	535.09	182.79	3.927	
10,100.00	7,119.87	10,074.26	7,121.57	93.95	94.23	90.14	-2.81	-3,362.86	716.70	528.54	188.16	3.809	
10,200.00	7,119.44	10,174.25	7,121.20	96.64	96.92	90.14	-4.77	-3,462.83	715.52	521.98	193.55	3.697	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	10,274.24	7,120.84	99.34	99.63	90.15	-6.72	-3,562.81	714.34	515.39	198.95	3.591		
10,400.00	7,118.57	10,374.24	7,120.47	102.05	102.34	90.16	-8.68	-3,662.78	713.17	508.79	204.38	3.489		
10,500.00	7,118.14	10,474.23	7,120.11	104.77	105.06	90.16	-10.64	-3,762.75	711.99	502.17	209.82	3.393		
10,600.00	7,117.70	10,574.22	7,119.74	107.50	107.78	90.17	-12.59	-3,862.73	710.81	495.54	215.27	3.302		
10,700.00	7,117.27	10,674.22	7,119.37	110.23	110.51	90.17	-14.55	-3,962.70	709.63	488.90	220.73	3.215		
10,800.00	7,116.83	10,774.21	7,119.01	112.97	113.25	90.18	-16.50	-4,062.67	708.45	482.24	226.21	3.132		
10,900.00	7,116.40	10,874.20	7,118.64	115.72	115.99	90.18	-18.46	-4,162.65	707.28	475.57	231.70	3.053		
11,000.00	7,115.97	10,974.20	7,118.27	118.47	118.74	90.19	-20.41	-4,262.62	706.10	468.90	237.20	2.977		
11,100.00	7,115.53	11,074.19	7,117.91	121.22	121.50	90.20	-22.37	-4,362.59	704.92	462.21	242.71	2.904		
11,200.00	7,115.10	11,174.18	7,117.54	123.98	124.25	90.20	-24.32	-4,462.57	703.74	455.51	248.23	2.835		
11,300.00	7,114.66	11,274.17	7,117.18	126.74	127.02	90.21	-26.28	-4,562.54	702.56	448.81	253.76	2.769		
11,400.00	7,114.23	11,374.17	7,116.81	129.51	129.78	90.21	-28.23	-4,662.51	701.39	442.09	259.29	2.705		
11,500.00	7,113.80	11,474.16	7,116.44	132.29	132.55	90.22	-30.19	-4,762.49	700.21	435.37	264.83	2.644		
11,600.00	7,113.36	11,574.15	7,116.08	135.06	135.33	90.23	-32.14	-4,862.46	699.03	428.64	270.38	2.585		
11,700.00	7,112.93	11,674.15	7,115.71	137.84	138.10	90.23	-34.10	-4,962.43	697.85	421.91	275.94	2.529		
11,800.00	7,112.49	11,774.14	7,115.35	140.62	140.88	90.24	-36.06	-5,062.41	696.67	415.17	281.50	2.475		
11,900.00	7,112.06	11,874.13	7,114.98	143.41	143.67	90.24	-38.01	-5,162.38	695.50	408.42	287.07	2.423		
12,000.00	7,111.63	11,974.13	7,114.61	146.20	146.45	90.25	-39.97	-5,262.35	694.32	401.67	292.65	2.373		
12,100.00	7,111.19	12,074.12	7,114.25	148.99	149.24	90.26	-41.92	-5,362.32	693.14	394.91	298.23	2.324		
12,200.00	7,110.76	12,174.11	7,113.88	151.78	152.03	90.26	-43.88	-5,462.30	691.96	388.15	303.81	2.278		
12,300.00	7,110.33	12,274.10	7,113.51	154.58	154.82	90.27	-45.83	-5,562.27	690.78	381.38	309.40	2.233		
12,400.00	7,109.89	12,374.10	7,113.15	157.37	157.62	90.27	-47.79	-5,662.24	689.61	374.61	314.99	2.189		
12,500.00	7,109.46	12,474.09	7,112.78	160.17	160.41	90.28	-49.74	-5,762.22	688.43	367.84	320.59	2.147		
12,600.00	7,109.02	12,574.08	7,112.42	162.98	163.21	90.29	-51.70	-5,862.19	687.25	361.06	326.19	2.107		
12,700.00	7,108.59	12,674.08	7,112.05	165.78	166.01	90.29	-53.65	-5,962.16	686.07	354.28	331.80	2.068		
12,800.00	7,108.16	12,774.07	7,111.68	168.59	168.82	90.30	-55.61	-6,062.14	684.89	347.49	337.40	2.030		
12,900.00	7,107.72	12,874.06	7,111.32	171.39	171.62	90.30	-57.57	-6,162.11	683.72	340.70	343.02	1.993		
13,000.00	7,107.29	12,974.06	7,110.95	174.20	174.43	90.31	-59.52	-6,262.08	682.54	333.91	348.63	1.958		
13,100.00	7,106.85	13,074.05	7,110.59	177.01	177.24	90.32	-61.48	-6,362.06	681.36	327.11	354.25	1.923		
13,200.00	7,106.42	13,174.04	7,110.22	179.83	180.04	90.32	-63.43	-6,462.03	680.18	320.31	359.87	1.890		
13,300.00	7,105.99	13,274.04	7,109.85	182.64	182.86	90.33	-65.39	-6,562.00	679.00	313.51	365.50	1.858		
13,400.00	7,105.55	13,374.03	7,109.49	185.45	185.67	90.34	-67.34	-6,661.98	677.83	306.70	371.12	1.826		
13,500.00	7,105.12	13,474.02	7,109.12	188.27	188.48	90.34	-69.30	-6,761.95	676.65	299.90	376.75	1.796		
13,600.00	7,104.68	13,574.01	7,108.75	191.09	191.29	90.35	-71.25	-6,861.92	675.47	293.09	382.38	1.766		
13,700.00	7,104.25	13,674.01	7,108.39	193.91	194.11	90.35	-73.21	-6,961.90	674.29	286.28	388.02	1.738		
13,800.00	7,103.82	13,774.00	7,108.02	196.73	196.93	90.36	-75.16	-7,061.87	673.12	279.46	393.65	1.710		
13,900.00	7,103.38	13,873.99	7,107.66	199.55	199.74	90.37	-77.12	-7,161.84	671.94	272.64	399.29	1.683		
14,000.00	7,102.95	13,973.99	7,107.29	202.37	202.56	90.37	-79.08	-7,261.82	670.76	265.83	404.93	1.656		
14,100.00	7,102.51	14,073.98	7,106.92	205.19	205.38	90.38	-81.03	-7,361.79	669.58	259.01	410.58	1.631		
14,200.00	7,102.08	14,173.97	7,106.56	208.02	208.20	90.39	-82.99	-7,461.76	668.40	252.18	416.22	1.606		
14,300.00	7,101.65	14,273.97	7,106.19	210.84	211.02	90.39	-84.94	-7,561.74	667.23	245.36	421.87	1.582		
14,400.00	7,101.21	14,373.96	7,105.83	213.67	213.85	90.40	-86.90	-7,661.71	666.05	238.53	427.51	1.558		
14,500.00	7,100.78	14,473.95	7,105.46	216.50	216.67	90.41	-88.85	-7,761.68	664.87	231.71	433.16	1.535		
14,600.00	7,100.35	14,573.94	7,105.09	219.32	219.49	90.41	-90.81	-7,861.66	663.69	224.88	438.81	1.512		
14,700.00	7,099.91	14,673.94	7,104.73	222.15	222.32	90.42	-92.76	-7,961.63	662.52	218.05	444.47	1.491 Level 3		
14,800.00	7,099.48	14,773.93	7,104.36	224.98	225.14	90.43	-94.72	-8,061.60	661.34	211.22	450.12	1.469 Level 3		
14,900.00	7,099.04	14,873.92	7,103.99	227.81	227.97	90.43	-96.67	-8,161.58	660.16	204.38	455.78	1.448 Level 3		
14,905.67	7,099.02	14,879.60	7,103.97	227.97	228.13	90.43	-96.78	-8,167.25	660.09	204.00	456.10	1.447 Level 3, SF		
14,909.96	7,099.00	14,872.41	7,104.00	228.09	227.93	90.43	-96.64	-8,160.06	660.14	204.20	455.94	1.448 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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	61.00	3.28	3.28	-115.11	-4,215.92	-8,994.59	9,933.80					
100.00	100.00	39.00	100.00	3.28	3.35	-115.11	-4,215.92	-8,994.59	9,933.62	9,926.98	6.63	1,497.239		
200.00	200.00	139.00	200.00	3.34	4.52	-115.11	-4,215.92	-8,994.59	9,933.62	9,925.76	7.85	1,264.628		
300.00	300.00	239.00	300.00	3.44	7.37	-115.11	-4,215.92	-8,994.59	9,933.62	9,922.80	10.81	918.656		
400.00	400.00	339.00	400.00	3.60	10.61	-115.11	-4,215.92	-8,994.59	9,933.62	9,919.40	14.21	698.954		
500.00	500.00	439.00	500.00	3.81	13.97	-115.11	-4,215.92	-8,994.59	9,933.62	9,915.84	17.78	558.806		
600.00	600.00	539.00	600.00	4.04	17.38	51.74	-4,215.92	-8,994.59	9,933.57	9,912.15	21.43	463.602		
700.00	699.96	638.96	699.96	4.29	20.82	51.77	-4,215.92	-8,994.59	9,932.06	9,906.95	25.11	395.512		
800.00	799.78	738.78	799.78	4.57	24.27	51.85	-4,215.92	-8,994.59	9,928.39	9,899.55	28.84	344.298		
900.00	899.34	838.34	899.34	4.88	27.72	51.99	-4,215.92	-8,994.59	9,922.57	9,889.98	32.59	304.482		
1,000.00	998.72	937.72	998.72	5.20	31.16	52.04	-4,215.92	-8,994.59	9,915.72	9,879.36	36.36	272.713		
1,100.00	1,098.10	1,037.10	1,098.10	5.54	34.62	52.09	-4,215.92	-8,994.59	9,908.88	9,868.72	40.15	246.772		
1,200.00	1,197.49	1,136.49	1,197.49	5.90	38.07	52.14	-4,215.92	-8,994.59	9,902.04	9,858.08	43.97	225.215		
1,300.00	1,296.87	1,235.87	1,296.87	6.28	41.53	52.19	-4,215.92	-8,994.59	9,895.22	9,847.42	47.80	207.033		
1,400.00	1,396.25	1,335.25	1,396.25	6.66	44.99	52.24	-4,215.92	-8,994.59	9,888.40	9,836.76	51.64	191.501		
1,500.00	1,495.64	1,434.64	1,495.64	7.06	48.45	52.29	-4,215.92	-8,994.59	9,881.59	9,826.10	55.49	178.086		
1,600.00	1,595.02	1,534.02	1,595.02	7.46	51.91	52.34	-4,215.92	-8,994.59	9,874.78	9,815.43	59.35	166.389		
1,700.00	1,694.40	1,633.40	1,694.40	7.87	55.37	52.39	-4,215.92	-8,994.59	9,867.99	9,804.77	63.22	156.102		
1,800.00	1,793.79	1,732.79	1,793.79	8.29	58.84	52.44	-4,215.92	-8,994.59	9,861.20	9,794.11	67.09	146.987		
1,900.00	1,893.17	1,832.17	1,893.17	8.71	62.30	52.49	-4,215.92	-8,994.59	9,854.42	9,783.45	70.97	138.857		
2,000.00	1,992.55	1,931.55	1,992.55	9.13	65.77	52.54	-4,215.92	-8,994.59	9,847.64	9,772.79	74.85	131.562		
2,100.00	2,091.94	2,030.94	2,091.94	9.56	69.23	52.59	-4,215.92	-8,994.59	9,840.88	9,762.14	78.74	124.981		
2,200.00	2,191.32	2,130.32	2,191.32	9.99	72.70	52.65	-4,215.92	-8,994.59	9,834.12	9,751.49	82.63	119.013		
2,300.00	2,290.70	2,229.70	2,290.70	10.42	76.16	52.70	-4,215.92	-8,994.59	9,827.37	9,740.85	86.52	113.579		
2,400.00	2,390.09	2,329.09	2,390.09	10.86	79.63	52.75	-4,215.92	-8,994.59	9,820.63	9,730.21	90.42	108.609		
2,500.00	2,489.47	2,428.47	2,489.47	11.29	83.10	52.80	-4,215.92	-8,994.59	9,813.90	9,719.58	94.32	104.048		
2,600.00	2,588.86	2,527.86	2,588.86	11.73	86.56	52.85	-4,215.92	-8,994.59	9,807.17	9,708.95	98.22	99.847		
2,700.00	2,688.24	2,627.24	2,688.24	12.18	90.03	52.90	-4,215.92	-8,994.59	9,800.46	9,698.33	102.13	95.965		
2,800.00	2,787.62	2,726.62	2,787.62	12.62	93.50	52.95	-4,215.92	-8,994.59	9,793.75	9,687.72	106.03	92.367		
2,900.00	2,887.01	2,826.01	2,887.01	13.06	96.97	53.01	-4,215.92	-8,994.59	9,787.05	9,677.11	109.94	89.024		
3,000.00	2,986.39	2,925.39	2,986.39	13.51	100.43	53.06	-4,215.92	-8,994.59	9,780.35	9,666.51	113.85	85.909		
3,100.00	3,085.77	3,024.77	3,085.77	13.95	103.90	53.11	-4,215.92	-8,994.59	9,773.67	9,655.91	117.75	83.001		
3,200.00	3,185.16	3,124.16	3,185.16	14.40	107.37	53.16	-4,215.92	-8,994.59	9,766.99	9,645.33	121.66	80.278		
3,300.00	3,284.54	3,223.54	3,284.54	14.85	110.84	53.21	-4,215.92	-8,994.59	9,760.32	9,634.75	125.58	77.725		
3,400.00	3,383.92	3,322.92	3,383.92	15.30	114.31	53.26	-4,215.92	-8,994.59	9,753.66	9,624.17	129.49	75.325		
3,500.00	3,483.31	3,422.31	3,483.31	15.75	117.77	53.32	-4,215.92	-8,994.59	9,747.01	9,613.60	133.40	73.065		
3,600.00	3,582.69	3,521.69	3,582.69	16.20	121.24	53.37	-4,215.92	-8,994.59	9,740.36	9,603.05	137.32	70.934		
3,700.00	3,682.07	3,621.07	3,682.07	16.65	124.71	53.42	-4,215.92	-8,994.59	9,733.72	9,592.49	141.23	68.921		
3,800.00	3,781.46	3,720.46	3,781.46	17.10	128.18	53.47	-4,215.92	-8,994.59	9,727.09	9,581.95	145.15	67.016		
3,900.00	3,880.84	3,819.84	3,880.84	17.56	131.65	53.53	-4,215.92	-8,994.59	9,720.47	9,571.41	149.06	65.211		
4,000.00	3,980.22	3,919.22	3,980.22	18.01	135.11	53.58	-4,215.92	-8,994.59	9,713.86	9,560.88	152.98	63.499		
4,100.00	4,079.61	4,018.61	4,079.61	18.46	138.58	53.63	-4,215.92	-8,994.59	9,707.26	9,550.36	156.89	61.871		
4,200.00	4,178.99	4,117.99	4,178.99	18.92	142.05	53.68	-4,215.92	-8,994.59	9,700.66	9,539.85	160.81	60.323		
4,300.00	4,278.38	4,217.38	4,278.38	19.37	145.52	53.74	-4,215.92	-8,994.59	9,694.07	9,529.34	164.73	58.848		
4,400.00	4,377.76	4,316.76	4,377.76	19.83	148.99	53.79	-4,215.92	-8,994.59	9,687.49	9,518.84	168.65	57.442		
4,500.00	4,477.14	4,416.14	4,477.14	20.28	152.46	53.84	-4,215.92	-8,994.59	9,680.92	9,508.35	172.57	56.099		
4,600.00	4,576.53	4,515.53	4,576.53	20.74	155.93	53.89	-4,215.92	-8,994.59	9,674.36	9,497.87	176.49	54.816		
4,700.00	4,675.91	4,614.91	4,675.91	21.19	159.40	53.95	-4,215.92	-8,994.59	9,667.80	9,487.39	180.41	53.589		
4,800.00	4,775.29	4,714.29	4,775.29	21.65	162.86	54.00	-4,215.92	-8,994.59	9,661.25	9,476.93	184.33	52.414		
4,900.00	4,874.68	4,813.68	4,874.68	22.10	166.33	54.05	-4,215.92	-8,994.59	9,654.71	9,466.47	188.25	51.287		
5,000.00	4,974.06	4,913.06	4,974.06	22.56	169.80	54.11	-4,215.92	-8,994.59	9,648.18	9,456.02	192.17	50.207		
5,100.00	5,073.44	5,012.44	5,073.44	23.02	173.27	54.16	-4,215.92	-8,994.59	9,641.66	9,445.57	196.09	49.170		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,111.83	5,172.83	23.47	176.74	54.21	-4,215.92	-8,994.59	9,635.15	9,435.14	200.01	48.173		
5,300.00	5,272.21	5,211.21	5,272.21	23.93	180.21	54.27	-4,215.92	-8,994.59	9,628.64	9,424.71	203.93	47.215		
5,400.00	5,371.59	5,310.59	5,371.59	24.39	183.68	54.32	-4,215.92	-8,994.59	9,622.15	9,414.29	207.85	46.293		
5,500.00	5,470.98	5,409.98	5,470.98	24.85	187.15	54.37	-4,215.92	-8,994.59	9,615.66	9,403.88	211.78	45.405		
5,600.00	5,570.36	5,509.36	5,570.36	25.30	190.61	54.43	-4,215.92	-8,994.59	9,609.18	9,393.48	215.70	44.549		
5,700.00	5,669.75	5,608.75	5,669.75	25.76	194.08	54.48	-4,215.92	-8,994.59	9,602.70	9,383.08	219.62	43.724		
5,800.00	5,769.13	5,708.13	5,769.13	26.22	197.55	54.53	-4,215.92	-8,994.59	9,596.24	9,372.70	223.54	42.928		
5,900.00	5,868.51	5,807.51	5,868.51	26.68	201.02	54.59	-4,215.92	-8,994.59	9,589.79	9,362.32	227.47	42.159		
6,000.00	5,967.90	5,906.90	5,967.90	27.14	204.49	54.64	-4,215.92	-8,994.59	9,583.34	9,351.95	231.39	41.417		
6,100.00	6,067.28	6,006.28	6,067.28	27.60	207.96	54.69	-4,215.92	-8,994.59	9,576.90	9,341.59	235.31	40.699		
6,200.00	6,166.66	6,105.66	6,166.66	28.05	211.43	54.75	-4,215.92	-8,994.59	9,570.47	9,331.24	239.24	40.004		
6,300.00	6,266.05	6,205.05	6,266.05	28.51	214.90	54.80	-4,215.92	-8,994.59	9,564.05	9,320.89	243.16	39.333		
6,400.00	6,365.43	6,304.43	6,365.43	28.97	218.37	54.86	-4,215.92	-8,994.59	9,557.64	9,310.56	247.08	38.682		
6,500.00	6,464.81	6,403.81	6,464.81	29.43	221.84	54.91	-4,215.92	-8,994.59	9,551.24	9,300.23	251.01	38.052		
6,600.00	6,564.10	6,503.10	6,564.10	29.89	225.30	24.45	-4,215.92	-8,994.59	9,543.03	9,288.10	254.93	37.435		
6,700.00	6,661.75	6,600.75	6,661.75	30.34	228.71	0.38	-4,215.92	-8,994.59	9,522.23	9,263.46	258.77	36.798		
6,800.00	6,755.38	6,705.62	6,755.38	30.77	232.37	-8.75	-4,215.92	-8,994.59	9,487.51	9,224.67	262.84	36.096		
6,900.00	6,842.67	6,781.67	6,842.67	31.17	235.03	-14.54	-4,215.92	-8,994.59	9,439.73	9,173.86	265.86	35.506		
7,000.00	6,921.48	6,860.48	6,921.48	31.54	237.78	-19.79	-4,215.92	-8,994.59	9,380.07	9,111.14	268.93	34.879		
7,100.00	6,989.86	6,928.86	6,989.86	31.91	240.16	-25.83	-4,215.92	-8,994.59	9,310.05	9,038.47	271.58	34.281		
7,200.00	7,046.13	6,985.13	7,046.13	32.35	242.13	-33.83	-4,215.92	-8,994.59	9,231.41	8,957.65	273.76	33.721		
7,300.00	7,088.91	7,027.91	7,088.91	32.98	243.62	-45.30	-4,215.92	-8,994.59	9,146.13	8,870.72	275.41	33.209		
7,400.00	7,117.14	7,056.14	7,117.14	33.84	244.61	-61.77	-4,215.92	-8,994.59	9,056.35	8,779.82	276.53	32.750		
7,500.00	7,130.13	7,069.13	7,130.13	34.90	245.06	-82.74	-4,215.92	-8,994.59	8,964.31	8,687.22	277.09	32.351		
7,600.00	7,130.72	7,069.72	7,130.72	36.13	245.08	-90.59	-4,215.92	-8,994.59	8,872.08	8,594.84	277.24	32.002		
7,700.00	7,130.29	7,069.29	7,130.29	37.54	245.07	-90.58	-4,215.92	-8,994.59	8,780.05	8,502.66	277.39	31.652		
7,800.00	7,129.85	7,068.85	7,129.85	39.12	245.05	-90.57	-4,215.92	-8,994.59	8,688.20	8,410.60	277.59	31.298		
7,900.00	7,129.42	7,068.42	7,129.42	40.83	245.04	-90.57	-4,215.92	-8,994.59	8,596.53	8,318.68	277.85	30.940		
8,000.00	7,128.98	7,067.98	7,128.98	42.67	245.02	-90.56	-4,215.92	-8,994.59	8,505.04	8,226.89	278.15	30.577		
8,100.00	7,128.55	7,067.55	7,128.55	44.62	245.01	-90.55	-4,215.92	-8,994.59	8,413.75	8,135.24	278.51	30.209		
8,200.00	7,128.12	7,067.12	7,128.12	46.66	244.99	-90.55	-4,215.92	-8,994.59	8,322.66	8,043.73	278.93	29.838		
8,300.00	7,127.68	7,066.68	7,127.68	48.79	244.97	-90.54	-4,215.92	-8,994.59	8,231.77	7,952.37	279.41	29.462		
8,400.00	7,127.25	7,066.25	7,127.25	50.98	244.96	-90.53	-4,215.92	-8,994.59	8,141.10	7,861.17	279.94	29.082		
8,500.00	7,126.81	7,065.81	7,126.81	53.24	244.94	-90.52	-4,215.92	-8,994.59	8,050.65	7,770.12	280.53	28.698		
8,600.00	7,126.38	7,065.38	7,126.38	55.56	244.93	-90.52	-4,215.92	-8,994.59	7,960.43	7,679.25	281.19	28.310		
8,700.00	7,125.95	7,064.95	7,125.95	57.92	244.91	-90.51	-4,215.92	-8,994.59	7,870.45	7,588.55	281.90	27.919		
8,800.00	7,125.51	7,064.51	7,125.51	60.33	244.90	-90.50	-4,215.92	-8,994.59	7,780.71	7,498.03	282.68	27.525		
8,900.00	7,125.08	7,064.08	7,125.08	62.77	244.88	-90.49	-4,215.92	-8,994.59	7,691.22	7,407.70	283.53	27.127		
9,000.00	7,124.64	7,063.64	7,124.64	65.25	244.87	-90.49	-4,215.92	-8,994.59	7,602.00	7,317.56	284.43	26.727		
9,100.00	7,124.21	7,063.21	7,124.21	67.76	244.85	-90.48	-4,215.92	-8,994.59	7,513.04	7,227.64	285.40	26.324		
9,200.00	7,123.78	7,062.78	7,123.78	70.29	244.84	-90.47	-4,215.92	-8,994.59	7,424.37	7,137.93	286.44	25.919		
9,300.00	7,123.34	7,062.34	7,123.34	72.85	244.82	-90.47	-4,215.92	-8,994.59	7,335.99	7,048.45	287.54	25.513		
9,400.00	7,122.91	7,061.91	7,122.91	75.43	244.81	-90.46	-4,215.92	-8,994.59	7,247.91	6,959.20	288.71	25.105		
9,500.00	7,122.48	7,061.48	7,122.48	78.03	244.79	-90.45	-4,215.92	-8,994.59	7,160.14	6,870.20	289.94	24.695		
9,600.00	7,122.04	7,061.04	7,122.04	80.65	244.78	-90.44	-4,215.92	-8,994.59	7,072.70	6,781.46	291.24	24.285		
9,700.00	7,121.61	7,060.61	7,121.61	83.28	244.76	-90.44	-4,215.92	-8,994.59	6,985.60	6,692.99	292.61	23.874		
9,800.00	7,121.17	7,060.17	7,121.17	85.93	244.75	-90.43	-4,215.92	-8,994.59	6,898.84	6,604.80	294.04	23.462		
9,900.00	7,120.74	7,059.74	7,120.74	88.59	244.73	-90.42	-4,215.92	-8,994.59	6,812.45	6,516.91	295.54	23.051		
10,000.00	7,120.31	7,059.31	7,120.31	91.26	244.72	-90.42	-4,215.92	-8,994.59	6,726.44	6,429.32	297.11	22.639		
10,100.00	7,119.87	7,058.87	7,119.87	93.95	244.70	-90.41	-4,215.92	-8,994.59	6,640.81	6,342.06	298.75	22.229		
10,200.00	7,119.44	7,058.44	7,119.44	96.64	244.69	-90.40	-4,215.92	-8,994.59	6,555.60	6,255.14	300.46	21.819		
10,300.00	7,119.00	7,058.00	7,119.00	99.34	244.67	-90.39	-4,215.92	-8,994.59	6,470.81	6,168.57	302.23	21.410		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,118.57	7,057.57	7,118.57	102.05	244.66	-90.39	-4,215.92	-8,994.59	6,386.45	6,082.37	304.08	21.003		
10,500.00	7,118.14	7,057.14	7,118.14	104.77	244.64	-90.38	-4,215.92	-8,994.59	6,302.56	5,996.56	306.00	20.597		
10,600.00	7,117.70	7,056.70	7,117.70	107.50	244.63	-90.37	-4,215.92	-8,994.59	6,219.14	5,911.15	307.99	20.193		
10,700.00	7,117.27	7,056.27	7,117.27	110.23	244.61	-90.37	-4,215.92	-8,994.59	6,136.22	5,826.16	310.05	19.791		
10,800.00	7,116.83	7,055.83	7,116.83	112.97	244.60	-90.36	-4,215.92	-8,994.59	6,053.81	5,741.62	312.19	19.392		
10,900.00	7,116.40	7,055.40	7,116.40	115.72	244.58	-90.35	-4,215.92	-8,994.59	5,971.94	5,657.54	314.40	18.995		
11,000.00	7,115.97	7,054.97	7,115.97	118.47	244.57	-90.34	-4,215.92	-8,994.59	5,890.63	5,573.94	316.69	18.601		
11,100.00	7,115.53	7,054.53	7,115.53	121.22	244.55	-90.34	-4,215.92	-8,994.59	5,809.90	5,490.85	319.05	18.210		
11,200.00	7,115.10	7,054.10	7,115.10	123.98	244.54	-90.33	-4,215.92	-8,994.59	5,729.78	5,408.29	321.50	17.822		
11,300.00	7,114.66	7,053.66	7,114.66	126.74	244.52	-90.32	-4,215.92	-8,994.59	5,650.30	5,326.28	324.02	17.438		
11,400.00	7,114.23	7,053.23	7,114.23	129.51	244.51	-90.31	-4,215.92	-8,994.59	5,571.47	5,244.86	326.62	17.058		
11,500.00	7,113.80	7,052.80	7,113.80	132.29	244.49	-90.31	-4,215.92	-8,994.59	5,493.34	5,164.04	329.30	16.682		
11,600.00	7,113.36	7,052.36	7,113.36	135.06	244.47	-90.30	-4,215.92	-8,994.59	5,415.92	5,083.86	332.07	16.310		
11,700.00	7,112.93	7,051.93	7,112.93	137.84	244.46	-90.29	-4,215.92	-8,994.59	5,339.26	5,004.34	334.92	15.942		
11,800.00	7,112.49	7,051.49	7,112.49	140.62	244.44	-90.29	-4,215.92	-8,994.59	5,263.38	4,925.53	337.85	15.579		
11,900.00	7,112.06	7,051.06	7,112.06	143.41	244.43	-90.28	-4,215.92	-8,994.59	5,188.31	4,847.44	340.87	15.221		
12,000.00	7,111.63	7,050.63	7,111.63	146.20	244.41	-90.27	-4,215.92	-8,994.59	5,114.10	4,770.13	343.98	14.868		
12,100.00	7,111.19	7,050.19	7,111.19	148.99	244.40	-90.26	-4,215.92	-8,994.59	5,040.78	4,693.61	347.17	14.520		
12,200.00	7,110.76	7,049.76	7,110.76	151.78	244.38	-90.26	-4,215.92	-8,994.59	4,968.39	4,617.94	350.45	14.177		
12,300.00	7,110.33	7,049.33	7,110.33	154.58	244.37	-90.25	-4,215.92	-8,994.59	4,896.98	4,543.16	353.82	13.840		
12,400.00	7,109.89	7,048.89	7,109.89	157.37	244.35	-90.24	-4,215.92	-8,994.59	4,826.58	4,469.30	357.27	13.509		
12,500.00	7,109.46	7,048.46	7,109.46	160.17	244.34	-90.24	-4,215.92	-8,994.59	4,757.23	4,396.41	360.82	13.184		
12,600.00	7,109.02	7,048.02	7,109.02	162.98	244.32	-90.23	-4,215.92	-8,994.59	4,689.00	4,324.55	364.45	12.866		
12,700.00	7,108.59	7,047.59	7,108.59	165.78	244.31	-90.22	-4,215.92	-8,994.59	4,621.92	4,253.75	368.18	12.554		
12,800.00	7,108.16	7,047.16	7,108.16	168.59	244.29	-90.21	-4,215.92	-8,994.59	4,556.05	4,184.07	371.98	12.248		
12,900.00	7,107.72	7,046.72	7,107.72	171.39	244.28	-90.21	-4,215.92	-8,994.59	4,491.44	4,115.57	375.88	11.949		
13,000.00	7,107.29	7,046.29	7,107.29	174.20	244.26	-90.20	-4,215.92	-8,994.59	4,428.15	4,048.30	379.85	11.658		
13,100.00	7,106.85	7,045.85	7,106.85	177.01	244.25	-90.19	-4,215.92	-8,994.59	4,366.23	3,982.32	383.91	11.373		
13,200.00	7,106.42	7,045.42	7,106.42	179.83	244.23	-90.19	-4,215.92	-8,994.59	4,305.74	3,917.69	388.05	11.096		
13,300.00	7,105.99	7,044.99	7,105.99	182.64	244.22	-90.18	-4,215.92	-8,994.59	4,246.75	3,854.48	392.26	10.826		
13,400.00	7,105.55	7,044.55	7,105.55	185.45	244.20	-90.17	-4,215.92	-8,994.59	4,189.31	3,792.76	396.55	10.564		
13,500.00	7,105.12	7,044.12	7,105.12	188.27	244.19	-90.16	-4,215.92	-8,994.59	4,133.49	3,732.59	400.90	10.311		
13,600.00	7,104.68	7,043.68	7,104.68	191.09	244.17	-90.16	-4,215.92	-8,994.59	4,079.36	3,674.05	405.31	10.065		
13,700.00	7,104.25	7,043.25	7,104.25	193.91	244.16	-90.15	-4,215.92	-8,994.59	4,026.99	3,617.21	409.77	9.827		
13,800.00	7,103.82	7,042.82	7,103.82	196.73	244.14	-90.14	-4,215.92	-8,994.59	3,976.44	3,562.15	414.29	9.598		
13,900.00	7,103.38	7,042.38	7,103.38	199.55	244.13	-90.13	-4,215.92	-8,994.59	3,927.79	3,508.95	418.84	9.378		
14,000.00	7,102.95	7,041.95	7,102.95	202.37	244.11	-90.13	-4,215.92	-8,994.59	3,881.10	3,457.67	423.43	9.166		
14,100.00	7,102.51	7,041.51	7,102.51	205.19	244.10	-90.12	-4,215.92	-8,994.59	3,836.46	3,408.42	428.04	8.963		
14,200.00	7,102.08	7,041.08	7,102.08	208.02	244.08	-90.11	-4,215.92	-8,994.59	3,793.92	3,361.27	432.65	8.769		
14,300.00	7,101.65	7,040.65	7,101.65	210.84	244.07	-90.11	-4,215.92	-8,994.59	3,753.57	3,316.30	437.27	8.584		
14,400.00	7,101.21	7,040.21	7,101.21	213.67	244.05	-90.10	-4,215.92	-8,994.59	3,715.47	3,273.60	441.88	8.408		
14,500.00	7,100.78	7,039.78	7,100.78	216.50	244.04	-90.09	-4,215.92	-8,994.59	3,679.70	3,233.24	446.46	8.242		
14,600.00	7,100.35	7,039.35	7,100.35	219.32	244.02	-90.08	-4,215.92	-8,994.59	3,646.32	3,195.32	451.00	8.085		
14,700.00	7,099.91	7,038.91	7,099.91	222.15	244.01	-90.08	-4,215.92	-8,994.59	3,615.39	3,159.91	455.48	7.937		
14,800.00	7,099.48	7,038.48	7,099.48	224.98	243.99	-90.07	-4,215.92	-8,994.59	3,586.99	3,127.09	459.90	7.799		
14,900.00	7,099.04	7,038.04	7,099.04	227.81	243.98	-90.06	-4,215.92	-8,994.59	3,561.17	3,096.93	464.24	7.671		
14,909.96	7,099.00	7,038.00	7,099.00	228.09	243.97	-90.06	-4,215.92	-8,994.59	3,558.74	3,094.08	464.67	7.659 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	674.25	708.08	3.28	4.34	-107.92	-2,889.28	-8,936.28	9,418.40					
100.00	100.00	724.00	757.32	3.28	4.49	-107.96	-2,894.13	-8,931.00	9,411.21	9,403.46	7.75	1,214.618		
200.00	200.00	724.00	757.32	3.34	4.49	-107.96	-2,894.13	-8,931.00	9,404.75	9,396.96	7.79	1,207.419		
300.00	300.00	724.00	757.32	3.44	4.49	-107.96	-2,894.13	-8,931.00	9,399.36	9,391.47	7.89	1,191.610		
400.00	400.00	764.65	797.50	3.60	4.63	-107.99	-2,898.93	-8,927.12	9,394.42	9,386.25	8.17	1,149.501		
500.00	500.00	779.18	811.83	3.81	4.68	-108.00	-2,900.95	-8,925.89	9,390.65	9,382.23	8.42	1,115.485		
600.00	600.00	818.00	850.05	4.04	4.81	58.81	-2,907.13	-8,923.04	9,387.96	9,379.18	8.79	1,068.412		
700.00	699.96	818.00	850.05	4.29	4.81	58.87	-2,907.13	-8,923.04	9,384.57	9,375.53	9.03	1,039.047		
800.00	799.78	818.00	850.05	4.57	4.81	58.94	-2,907.13	-8,923.04	9,380.43	9,371.12	9.31	1,007.819		
900.00	899.34	818.00	850.05	4.88	4.81	59.02	-2,907.13	-8,923.04	9,375.56	9,365.95	9.61	975.528		
1,000.00	998.72	818.00	850.05	5.20	4.81	59.02	-2,907.13	-8,923.04	9,370.89	9,360.95	9.94	943.196		
1,100.00	1,098.10	867.46	898.63	5.54	4.99	58.99	-2,916.03	-8,920.47	9,366.41	9,355.95	10.46	895.558		
1,200.00	1,197.49	912.00	942.33	5.90	5.15	58.97	-2,924.57	-8,919.33	9,363.58	9,352.59	10.99	852.369		
1,300.00	1,296.87	912.00	942.33	6.28	5.15	58.97	-2,924.57	-8,919.33	9,361.11	9,349.75	11.36	824.212		
1,400.00	1,396.25	912.00	942.33	6.66	5.15	58.97	-2,924.57	-8,919.33	9,359.70	9,347.96	11.74	797.192		
1,481.48	1,477.24	912.00	942.33	6.99	5.15	58.97	-2,924.57	-8,919.33	9,359.35	9,347.29	12.06	776.076		
1,500.00	1,495.64	912.00	942.33	7.06	5.15	58.97	-2,924.57	-8,919.33	9,359.36	9,347.23	12.13	771.403		
1,600.00	1,595.02	912.00	942.33	7.46	5.15	58.97	-2,924.57	-8,919.33	9,360.10	9,347.56	12.53	746.884		
1,700.00	1,694.40	955.32	984.81	7.87	5.31	58.94	-2,933.05	-8,919.39	9,361.20	9,348.10	13.10	714.398		
1,800.00	1,793.79	1,006.00	1,034.51	8.29	5.50	58.92	-2,942.81	-8,921.11	9,364.02	9,350.31	13.71	682.890		
1,900.00	1,893.17	1,006.00	1,034.51	8.71	5.50	58.92	-2,942.81	-8,921.11	9,366.96	9,352.83	14.12	663.150		
2,000.00	1,992.55	1,006.00	1,034.51	9.13	5.50	58.92	-2,942.81	-8,921.11	9,370.96	9,356.42	14.54	644.477		
2,100.00	2,091.94	1,006.00	1,034.51	9.56	5.50	58.92	-2,942.81	-8,921.11	9,376.02	9,361.07	14.96	626.821		
2,200.00	2,191.32	1,006.00	1,034.51	9.99	5.50	58.92	-2,942.81	-8,921.11	9,382.15	9,366.78	15.38	610.132		
2,300.00	2,290.70	1,053.50	1,081.09	10.42	5.67	58.90	-2,951.59	-8,924.17	9,388.72	9,372.74	15.98	587.421		
2,400.00	2,390.09	1,101.00	1,127.68	10.86	5.85	58.89	-2,959.78	-8,928.48	9,396.59	9,379.99	16.59	566.296		
2,500.00	2,489.47	1,101.00	1,127.68	11.29	5.85	58.89	-2,959.78	-8,928.48	9,404.89	9,387.87	17.01	552.781		
2,600.00	2,588.86	1,101.00	1,127.68	11.73	5.85	58.89	-2,959.78	-8,928.48	9,414.24	9,396.81	17.43	539.988		
2,700.00	2,688.24	1,101.00	1,127.68	12.18	5.85	58.89	-2,959.78	-8,928.48	9,424.65	9,406.79	17.85	527.874		
2,800.00	2,787.62	1,145.83	1,171.53	12.62	6.02	58.88	-2,967.59	-8,933.52	9,435.51	9,417.05	18.46	511.243		
2,900.00	2,887.01	1,197.00	1,221.30	13.06	6.23	58.86	-2,977.40	-8,940.22	9,447.78	9,428.69	19.09	494.974		
3,000.00	2,986.39	1,197.00	1,221.30	13.51	6.23	58.86	-2,977.40	-8,940.22	9,460.31	9,440.81	19.50	485.042		
3,100.00	3,085.77	1,197.00	1,221.30	13.95	6.23	58.86	-2,977.40	-8,940.22	9,473.88	9,453.96	19.92	475.619		
3,200.00	3,185.16	1,197.00	1,221.30	14.40	6.23	58.86	-2,977.40	-8,940.22	9,488.49	9,468.16	20.33	466.675		
3,300.00	3,284.54	1,238.24	1,261.18	14.85	6.40	58.85	-2,985.94	-8,946.31	9,503.68	9,482.75	20.93	454.128		
3,400.00	3,383.92	1,292.00	1,312.86	15.30	6.64	58.83	-2,997.86	-8,955.11	9,520.12	9,498.54	21.58	441.104		
3,500.00	3,483.31	1,292.00	1,312.86	15.75	6.64	58.83	-2,997.86	-8,955.11	9,536.83	9,514.84	21.99	433.700		
3,600.00	3,582.69	1,292.00	1,312.86	16.20	6.64	58.83	-2,997.86	-8,955.11	9,554.55	9,532.15	22.39	426.662		
3,700.00	3,682.07	1,292.00	1,312.86	16.65	6.64	58.83	-2,997.86	-8,955.11	9,573.28	9,550.48	22.80	419.970		
3,800.00	3,781.46	1,335.25	1,354.16	17.10	6.86	58.81	-3,008.07	-8,962.89	9,592.52	9,569.12	23.40	409.947		
3,900.00	3,880.84	1,387.00	1,403.23	17.56	7.12	58.78	-3,021.03	-8,973.00	9,613.00	9,588.94	24.06	399.526		
4,000.00	3,980.22	1,387.00	1,403.23	18.01	7.12	58.78	-3,021.03	-8,973.00	9,633.77	9,609.31	24.45	393.948		
4,100.00	4,079.61	1,410.43	1,425.35	18.46	7.25	58.77	-3,027.12	-8,977.77	9,655.49	9,630.52	24.97	386.632		
4,200.00	4,178.99	1,481.00	1,491.84	18.92	7.66	58.72	-3,045.97	-8,992.04	9,677.62	9,651.88	25.74	376.015		
4,300.00	4,278.38	1,520.11	1,528.56	19.37	7.91	58.70	-3,056.84	-8,999.96	9,700.19	9,673.83	26.35	368.086		
4,400.00	4,377.76	1,573.00	1,577.98	19.83	8.25	58.66	-3,072.19	-9,010.88	9,723.42	9,696.38	27.04	359.648		
4,500.00	4,477.14	1,700.90	1,696.93	20.28	9.15	58.55	-3,111.89	-9,036.01	9,746.54	9,718.32	28.22	345.366		
4,600.00	4,576.53	1,760.00	1,751.48	20.74	9.60	58.49	-3,131.70	-9,047.17	9,769.84	9,740.85	28.99	336.990		
4,700.00	4,675.91	1,787.84	1,777.04	21.19	9.82	58.46	-3,141.39	-9,052.44	9,793.65	9,764.08	29.56	331.272		
4,800.00	4,775.29	2,465.94	2,386.82	21.65	15.98	57.39	-3,422.33	-9,141.88	9,814.27	9,778.77	35.50	276.490		
4,900.00	4,874.68	2,513.00	2,429.24	22.10	16.42	57.32	-3,442.08	-9,146.83	9,833.24	9,796.95	36.29	270.951		
5,000.00	4,974.06	2,513.00	2,429.24	22.56	16.42	57.32	-3,442.08	-9,146.83	9,852.84	9,816.17	36.67	268.656		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,100.00	5,073.44	2,570.48	2,481.06	23.02	16.97	57.22	-3,466.04	-9,153.51	9,873.03	9,835.47	37.55	262.905		
5,200.00	5,172.83	2,608.00	2,514.91	23.47	17.33	57.17	-3,481.52	-9,158.19	9,893.83	9,855.57	38.26	258.617		
5,300.00	5,272.21	2,655.73	2,557.93	23.93	17.79	57.09	-3,501.22	-9,164.40	9,915.19	9,876.14	39.05	253.928		
5,400.00	5,371.59	2,703.00	2,600.44	24.39	18.24	57.02	-3,520.91	-9,170.74	9,937.08	9,897.25	39.83	249.478		
5,500.00	5,470.98	2,703.00	2,600.44	24.85	18.24	57.02	-3,520.91	-9,170.74	9,959.70	9,919.50	40.20	247.777		
5,600.00	5,570.36	2,752.09	2,644.36	25.30	18.74	56.94	-3,541.73	-9,177.64	9,982.82	9,941.82	41.00	243.480		
7,200.00	7,046.13	7,203.29	6,792.19	32.35	53.07	-35.78	-4,849.38	-9,550.66	9,997.55	9,920.28	77.27	129.383		
7,300.00	7,088.91	7,253.93	6,842.81	32.98	53.21	-46.58	-4,850.27	-9,551.65	9,914.53	9,837.00	77.54	127.867		
7,400.00	7,117.14	7,288.19	6,877.06	33.84	53.31	-61.51	-4,850.82	-9,552.32	9,826.79	9,749.07	77.72	126.435		
7,500.00	7,130.13	7,305.21	6,894.08	34.90	53.36	-80.16	-4,851.08	-9,552.66	9,736.54	9,658.70	77.84	125.085		
7,600.00	7,130.72	7,308.17	6,897.03	36.13	53.37	-87.26	-4,851.12	-9,552.72	9,645.86	9,567.94	77.93	123.780		
7,700.00	7,130.29	7,309.95	6,898.82	37.54	53.37	-87.28	-4,851.15	-9,552.75	9,555.38	9,477.32	78.06	122.408		
7,800.00	7,129.85	7,311.74	6,900.61	39.12	53.38	-87.31	-4,851.17	-9,552.79	9,465.09	9,386.84	78.25	120.959		
7,900.00	7,129.42	7,313.54	6,902.40	40.83	53.38	-87.33	-4,851.20	-9,552.83	9,375.00	9,296.51	78.50	119.434		
8,000.00	7,128.98	7,315.33	6,904.19	42.67	53.39	-87.36	-4,851.22	-9,552.86	9,285.11	9,206.31	78.80	117.836		
8,100.00	7,128.55	7,317.12	6,905.98	44.62	53.39	-87.38	-4,851.25	-9,552.90	9,195.43	9,116.27	79.16	116.167		
8,200.00	7,128.12	7,318.92	6,907.78	46.66	53.40	-87.41	-4,851.27	-9,552.93	9,105.96	9,026.38	79.58	114.430		
8,300.00	7,127.68	7,320.72	6,909.58	48.79	53.40	-87.43	-4,851.30	-9,552.97	9,016.72	8,936.66	80.06	112.628		
8,400.00	7,127.25	7,322.52	6,911.38	50.98	53.41	-87.46	-4,851.32	-9,553.01	8,927.70	8,847.10	80.60	110.767		
8,500.00	7,126.81	7,324.33	6,913.19	53.24	53.42	-87.48	-4,851.35	-9,553.04	8,838.91	8,757.71	81.20	108.851		
8,600.00	7,126.38	7,326.13	6,914.99	55.56	53.42	-87.51	-4,851.37	-9,553.08	8,750.37	8,668.50	81.87	106.886		
8,700.00	7,125.95	7,327.94	6,916.80	57.92	53.43	-87.53	-4,851.40	-9,553.11	8,662.08	8,579.48	82.59	104.876		
8,800.00	7,125.51	7,329.75	6,918.61	60.33	53.43	-87.56	-4,851.42	-9,553.15	8,574.04	8,490.66	83.38	102.828		
8,900.00	7,125.08	7,331.56	6,920.42	62.77	53.44	-87.58	-4,851.45	-9,553.19	8,486.27	8,402.03	84.23	100.747		
9,000.00	7,124.64	7,333.38	6,922.23	65.25	53.44	-87.61	-4,851.47	-9,553.22	8,398.77	8,313.62	85.15	98.639		
9,100.00	7,124.21	7,335.19	6,924.05	67.76	53.45	-87.63	-4,851.50	-9,553.26	8,311.55	8,225.43	86.12	96.510		
9,200.00	7,123.78	7,337.01	6,925.87	70.29	53.45	-87.66	-4,851.52	-9,553.30	8,224.63	8,137.47	87.16	94.366		
9,300.00	7,123.34	7,338.83	6,927.69	72.85	53.46	-87.68	-4,851.54	-9,553.33	8,138.00	8,049.75	88.25	92.212		
9,400.00	7,122.91	7,340.66	6,929.51	75.43	53.46	-87.71	-4,851.57	-9,553.37	8,051.68	7,962.27	89.41	90.053		
9,500.00	7,122.48	7,342.48	6,931.33	78.03	53.47	-87.74	-4,851.59	-9,553.41	7,965.69	7,875.06	90.63	87.893		
9,600.00	7,122.04	7,344.31	6,933.16	80.65	53.47	-87.76	-4,851.62	-9,553.44	7,880.02	7,788.11	91.91	85.739		
9,700.00	7,121.61	7,346.14	6,934.99	83.28	53.48	-87.79	-4,851.64	-9,553.48	7,794.69	7,701.45	93.24	83.594		
9,800.00	7,121.17	7,347.97	6,936.82	85.93	53.48	-87.81	-4,851.66	-9,553.52	7,709.72	7,615.08	94.64	81.461		
9,900.00	7,120.74	7,349.80	6,938.65	88.59	53.49	-87.84	-4,851.69	-9,553.55	7,625.11	7,529.01	96.10	79.346		
10,000.00	7,120.31	7,351.64	6,940.49	91.26	53.49	-87.86	-4,851.71	-9,553.59	7,540.88	7,443.26	97.62	77.250		
10,100.00	7,119.87	7,353.47	6,942.32	93.95	53.50	-87.89	-4,851.73	-9,553.63	7,457.03	7,357.84	99.19	75.177		
10,200.00	7,119.44	7,355.31	6,944.16	96.64	53.50	-87.92	-4,851.76	-9,553.66	7,373.59	7,272.76	100.83	73.130		
10,300.00	7,119.00	7,357.16	6,946.01	99.34	53.51	-87.94	-4,851.78	-9,553.70	7,290.56	7,188.04	102.52	71.111		
10,400.00	7,118.57	7,359.00	6,947.85	102.05	53.52	-87.97	-4,851.80	-9,553.74	7,207.97	7,103.69	104.28	69.122		
10,500.00	7,118.14	7,360.85	6,949.70	104.77	53.52	-87.99	-4,851.83	-9,553.78	7,125.82	7,019.73	106.09	67.166		
10,600.00	7,117.70	7,362.70	6,951.54	107.50	53.53	-88.02	-4,851.85	-9,553.81	7,044.13	6,936.17	107.97	65.243		
10,700.00	7,117.27	7,364.55	6,953.39	110.23	53.53	-88.04	-4,851.87	-9,553.85	6,962.92	6,853.02	109.90	63.355		
10,800.00	7,116.83	7,366.40	6,955.25	112.97	53.54	-88.07	-4,851.89	-9,553.89	6,882.21	6,770.31	111.90	61.503		
10,900.00	7,116.40	7,368.25	6,957.10	115.72	53.54	-88.10	-4,851.92	-9,553.93	6,802.00	6,688.05	113.96	59.689		
11,000.00	7,115.97	7,370.11	6,958.96	118.47	53.55	-88.12	-4,851.94	-9,553.96	6,722.33	6,606.25	116.08	57.913		
11,100.00	7,115.53	7,371.97	6,960.82	121.22	53.55	-88.15	-4,851.96	-9,554.00	6,643.20	6,524.95	118.26	56.176		
11,200.00	7,115.10	7,373.83	6,962.68	123.98	53.56	-88.18	-4,851.98	-9,554.04	6,564.65	6,444.15	120.50	54.477		
11,300.00	7,114.66	7,369.42	6,958.27	126.74	53.54	-88.11	-4,851.94	-9,553.97	6,486.71	6,363.91	122.79	52.826		
11,400.00	7,114.23	7,371.16	6,960.01	129.51	53.54	-88.14	-4,851.96	-9,554.01	6,409.35	6,284.19	125.16	51.208		
11,500.00	7,113.80	7,372.90	6,961.75	132.29	53.55	-88.16	-4,851.98	-9,554.04	6,332.63	6,205.03	127.60	49.629		
11,600.00	7,113.36	7,374.66	6,963.50	135.06	53.55	-88.19	-4,852.01	-9,554.08	6,256.57	6,126.47	130.10	48.090		
11,700.00	7,112.93	7,376.41	6,965.26	137.84	53.56	-88.21	-4,852.03	-9,554.12	6,181.19	6,048.53	132.67	46.592		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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-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	7,112.49	7,378.18	6,967.02	140.62	53.56	-88.24	-4,852.05	-9,554.15	6,106.52	5,971.22	135.30	45.133	
11,900.00	7,112.06	7,379.95	6,968.80	143.41	53.57	-88.26	-4,852.07	-9,554.19	6,032.58	5,894.58	138.00	43.715	
12,000.00	7,111.63	7,381.73	6,970.58	146.20	53.57	-88.29	-4,852.09	-9,554.23	5,959.40	5,818.63	140.77	42.336	
12,100.00	7,111.19	7,383.52	6,972.36	148.99	53.58	-88.31	-4,852.11	-9,554.27	5,887.00	5,743.40	143.60	40.996	
12,200.00	7,110.76	7,385.32	6,974.16	151.78	53.58	-88.34	-4,852.13	-9,554.31	5,815.43	5,668.93	146.50	39.695	
12,300.00	7,110.33	7,387.12	6,975.96	154.58	53.59	-88.36	-4,852.16	-9,554.34	5,744.70	5,595.23	149.48	38.432	
12,400.00	7,109.89	7,388.93	6,977.77	157.37	53.59	-88.39	-4,852.18	-9,554.38	5,674.86	5,522.34	152.52	37.208	
12,500.00	7,109.46	7,390.75	6,979.59	160.17	53.60	-88.41	-4,852.20	-9,554.42	5,605.93	5,450.30	155.63	36.021	
12,600.00	7,109.02	7,392.58	6,981.42	162.98	53.60	-88.44	-4,852.22	-9,554.46	5,537.94	5,379.13	158.81	34.872	
12,700.00	7,108.59	7,394.41	6,983.25	165.78	53.61	-88.46	-4,852.24	-9,554.50	5,470.94	5,308.88	162.06	33.759	
12,800.00	7,108.16	7,396.26	6,985.09	168.59	53.61	-88.49	-4,852.26	-9,554.54	5,404.96	5,239.58	165.38	32.683	
12,900.00	7,107.72	7,398.11	6,986.94	171.39	53.62	-88.52	-4,852.28	-9,554.58	5,340.03	5,171.27	168.76	31.642	
13,000.00	7,107.29	7,399.96	6,988.80	174.20	53.62	-88.54	-4,852.30	-9,554.62	5,276.20	5,103.98	172.22	30.637	
13,100.00	7,106.85	7,401.83	6,990.67	177.01	53.63	-88.57	-4,852.33	-9,554.66	5,213.50	5,037.76	175.74	29.665	
13,200.00	7,106.42	7,403.70	6,992.54	179.83	53.63	-88.59	-4,852.35	-9,554.70	5,151.99	4,972.65	179.33	28.728	
13,300.00	7,105.99	7,405.59	6,994.42	182.64	53.64	-88.62	-4,852.37	-9,554.74	5,091.69	4,908.70	182.99	27.825	
13,400.00	7,105.55	7,407.48	6,996.31	185.45	53.64	-88.65	-4,852.39	-9,554.78	5,032.66	4,845.94	186.71	26.954	
13,500.00	7,105.12	7,409.37	6,998.21	188.27	53.65	-88.67	-4,852.41	-9,554.82	4,974.93	4,784.43	190.50	26.115	
13,600.00	7,104.68	7,411.28	7,000.11	191.09	53.65	-88.70	-4,852.43	-9,554.87	4,918.56	4,724.22	194.35	25.308	
13,700.00	7,104.25	7,413.20	7,002.03	193.91	53.66	-88.73	-4,852.45	-9,554.91	4,863.60	4,665.35	198.25	24.532	
13,800.00	7,103.82	7,415.12	7,003.95	196.73	53.66	-88.75	-4,852.47	-9,554.95	4,810.08	4,607.87	202.21	23.787	
13,900.00	7,103.38	7,417.05	7,005.88	199.55	53.67	-88.78	-4,852.49	-9,554.99	4,758.06	4,551.84	206.23	23.072	
14,000.00	7,102.95	7,418.99	7,007.82	202.37	53.67	-88.81	-4,852.52	-9,555.04	4,707.60	4,497.30	210.29	22.386	
14,100.00	7,102.51	7,420.94	7,009.77	205.19	53.68	-88.84	-4,852.54	-9,555.08	4,658.73	4,444.32	214.41	21.729	
14,200.00	7,102.08	7,422.90	7,011.73	208.02	53.68	-88.86	-4,852.56	-9,555.12	4,611.51	4,392.95	218.56	21.100	
14,300.00	7,101.65	7,424.86	7,013.69	210.84	53.69	-88.89	-4,852.58	-9,555.17	4,565.99	4,343.24	222.75	20.498	
14,400.00	7,101.21	7,426.84	7,015.67	213.67	53.69	-88.92	-4,852.60	-9,555.21	4,522.23	4,295.25	226.98	19.924	
14,500.00	7,100.78	7,428.82	7,017.65	216.50	53.70	-88.95	-4,852.62	-9,555.25	4,480.27	4,249.04	231.23	19.376	
14,600.00	7,100.35	7,430.81	7,019.64	219.32	53.71	-88.97	-4,852.64	-9,555.30	4,440.16	4,204.67	235.50	18.854	
14,700.00	7,099.91	7,432.82	7,021.64	222.15	53.71	-89.00	-4,852.66	-9,555.34	4,401.97	4,162.18	239.79	18.358	
14,800.00	7,099.48	7,434.83	7,023.65	224.98	53.72	-89.03	-4,852.68	-9,555.39	4,365.72	4,121.64	244.08	17.886	
14,900.00	7,099.04	7,436.85	7,025.67	227.81	53.72	-89.06	-4,852.70	-9,555.43	4,331.49	4,083.11	248.38	17.439	
14,909.96	7,099.00	7,437.05	7,025.87	228.09	53.72	-89.06	-4,852.71	-9,555.44	4,328.19	4,079.38	248.81	17.396 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	64.00	3.28	3.28	-130.12	-4,143.12	-4,916.37	6,429.64					
100.00	100.00	47.70	111.70	3.28	3.28	-130.12	-4,142.97	-4,916.44	6,429.29	6,422.72	6.57	979.112		
200.00	200.00	180.25	244.23	3.34	3.33	-130.10	-4,141.13	-4,917.23	6,428.85	6,422.18	6.67	964.168		
300.00	300.00	276.33	340.29	3.44	3.43	-130.09	-4,139.28	-4,917.91	6,428.15	6,421.28	6.87	935.358		
400.00	400.00	374.14	438.09	3.60	3.57	-130.07	-4,137.71	-4,918.47	6,427.56	6,420.38	7.17	895.887		
500.00	500.00	477.71	541.65	3.81	3.77	-130.06	-4,136.26	-4,918.86	6,426.94	6,419.37	7.57	848.634		
600.00	600.00	596.26	660.19	4.04	4.04	36.80	-4,134.66	-4,919.01	6,426.12	6,418.04	8.08	794.977		
700.00	699.96	685.09	749.01	4.29	4.27	36.85	-4,133.54	-4,918.96	6,423.30	6,414.74	8.56	750.121		
800.00	799.78	786.64	850.55	4.57	4.56	36.96	-4,132.47	-4,918.85	6,417.80	6,408.67	9.13	702.883		
900.00	899.34	875.53	939.44	4.88	4.83	37.11	-4,131.54	-4,918.78	6,409.55	6,399.85	9.71	660.270		
1,000.00	998.72	968.61	1,032.52	5.20	5.13	37.17	-4,130.65	-4,918.85	6,400.14	6,389.81	10.33	619.713		
1,100.00	1,098.10	1,075.64	1,139.54	5.54	5.49	37.24	-4,129.61	-4,918.93	6,390.73	6,379.70	11.03	579.575		
1,200.00	1,197.49	1,168.68	1,232.58	5.90	5.82	37.31	-4,128.66	-4,918.96	6,381.25	6,369.55	11.71	545.166		
1,300.00	1,296.87	1,254.50	1,318.39	6.28	6.12	37.37	-4,127.83	-4,919.14	6,371.97	6,359.59	12.38	514.731		
1,400.00	1,396.25	1,341.22	1,405.11	6.66	6.44	37.42	-4,127.26	-4,919.35	6,362.91	6,349.84	13.07	486.718		
1,500.00	1,495.64	1,438.26	1,502.15	7.06	6.80	37.49	-4,126.87	-4,919.58	6,354.01	6,340.19	13.82	459.782		
1,600.00	1,595.02	1,542.71	1,606.59	7.46	7.20	37.55	-4,126.39	-4,919.74	6,345.02	6,330.42	14.61	434.364		
1,700.00	1,694.40	1,641.90	1,705.78	7.87	7.58	37.62	-4,126.12	-4,919.76	6,336.06	6,320.67	15.39	411.751		
1,800.00	1,793.79	1,742.29	1,806.17	8.29	7.97	37.68	-4,125.75	-4,919.79	6,327.05	6,310.86	16.18	390.965		
1,900.00	1,893.17	1,828.62	1,892.50	8.71	8.31	37.74	-4,125.54	-4,919.81	6,318.13	6,301.20	16.93	373.145		
2,000.00	1,992.55	1,904.98	1,968.86	9.13	8.61	37.79	-4,125.54	-4,920.01	6,309.54	6,291.90	17.65	357.515		
2,100.00	2,091.94	1,993.29	2,057.17	9.56	8.96	37.84	-4,125.65	-4,920.45	6,301.23	6,282.81	18.42	342.165		
2,200.00	2,191.32	2,087.91	2,151.79	9.99	9.33	37.90	-4,125.87	-4,921.00	6,293.05	6,273.84	19.21	327.533		
2,300.00	2,290.70	2,186.71	2,250.59	10.42	9.73	37.97	-4,126.13	-4,921.59	6,284.92	6,264.89	20.03	313.731		
2,400.00	2,390.09	2,278.29	2,342.17	10.86	10.10	38.03	-4,126.29	-4,922.28	6,276.86	6,256.03	20.83	301.360		
2,500.00	2,489.47	2,377.87	2,441.75	11.29	10.50	38.09	-4,126.47	-4,923.13	6,268.89	6,247.23	21.66	289.425		
2,600.00	2,588.86	2,472.78	2,536.65	11.73	10.89	38.15	-4,126.64	-4,923.95	6,260.93	6,238.45	22.48	278.556		
2,700.00	2,688.24	2,565.40	2,629.27	12.18	11.26	38.22	-4,126.82	-4,924.86	6,253.08	6,229.79	23.29	268.522		
2,800.00	2,787.62	2,652.25	2,716.11	12.62	11.62	38.28	-4,126.88	-4,925.95	6,245.38	6,221.30	24.08	259.387		
2,900.00	2,887.01	2,738.75	2,802.60	13.06	11.98	38.34	-4,127.07	-4,927.20	6,237.92	6,213.05	24.87	250.831		
3,000.00	2,986.39	2,829.63	2,893.47	13.51	12.35	38.40	-4,127.40	-4,928.59	6,230.63	6,204.95	25.68	242.622		
3,100.00	3,085.77	2,921.30	2,985.13	13.95	12.73	38.46	-4,127.97	-4,929.96	6,223.48	6,196.98	26.50	234.874		
3,200.00	3,185.16	3,016.26	3,080.07	14.40	13.12	38.53	-4,128.62	-4,931.48	6,216.45	6,189.12	27.33	227.466		
3,300.00	3,284.54	3,111.84	3,245.64	14.85	13.81	38.64	-4,129.53	-4,933.61	6,209.24	6,180.79	28.45	218.262		
3,400.00	3,383.92	3,280.66	3,344.45	15.30	14.22	38.70	-4,129.72	-4,934.12	6,201.09	6,171.79	29.30	211.642		
3,500.00	3,483.31	3,395.26	3,459.05	15.75	14.70	38.78	-4,129.84	-4,934.85	6,192.99	6,162.77	30.22	204.955		
3,600.00	3,582.69	3,487.62	3,551.41	16.20	15.08	38.84	-4,129.92	-4,935.30	6,184.77	6,153.73	31.04	199.220		
3,700.00	3,682.07	3,567.10	3,630.89	16.65	15.42	38.90	-4,130.12	-4,935.80	6,176.77	6,144.95	31.82	194.099		
3,800.00	3,781.46	3,645.73	3,709.51	17.10	15.74	38.95	-4,130.29	-4,936.67	6,169.13	6,136.53	32.60	189.248		
3,900.00	3,880.84	3,727.98	3,791.75	17.56	16.09	39.01	-4,130.47	-4,937.91	6,161.81	6,128.42	33.39	184.546		
4,000.00	3,980.22	3,816.80	3,880.56	18.01	16.46	39.07	-4,130.77	-4,939.40	6,154.71	6,120.50	34.21	179.923		
4,100.00	4,079.61	3,900.01	3,963.75	18.46	16.81	39.13	-4,131.28	-4,940.79	6,147.78	6,112.78	35.00	175.631		
4,200.00	4,178.99	3,973.62	4,037.35	18.92	17.12	39.18	-4,131.99	-4,942.13	6,141.21	6,105.45	35.76	171.727		
4,300.00	4,278.38	4,045.19	4,108.89	19.37	17.42	39.23	-4,132.99	-4,943.67	6,135.15	6,098.64	36.51	168.035		
4,400.00	4,377.76	4,118.08	4,181.75	19.83	17.73	39.28	-4,134.37	-4,945.34	6,129.52	6,092.25	37.27	164.480		
4,500.00	4,477.14	4,188.94	4,252.57	20.28	18.03	39.32	-4,136.00	-4,947.15	6,124.35	6,086.34	38.01	161.113		
4,600.00	4,576.53	4,323.40	4,386.96	20.74	18.60	39.41	-4,139.02	-4,950.62	6,119.19	6,080.16	39.03	156.798		
4,700.00	4,675.91	4,439.66	4,503.16	21.19	19.09	39.49	-4,140.92	-4,953.48	6,113.55	6,073.58	39.96	152.979		
4,800.00	4,775.29	4,576.56	4,640.01	21.65	19.67	39.59	-4,142.49	-4,956.78	6,107.62	6,066.63	40.99	149.016		
4,900.00	4,874.68	4,722.04	4,785.47	22.10	20.28	39.69	-4,143.62	-4,959.23	6,100.86	6,058.81	42.04	145.110		
5,000.00	4,974.06	4,839.11	4,902.53	22.56	20.78	39.77	-4,144.36	-4,960.52	6,093.56	6,050.57	42.98	141.765		
5,100.00	5,073.44	4,940.25	5,003.66	23.02	21.20	39.84	-4,144.96	-4,961.57	6,086.20	6,042.34	43.86	138.764		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,053.62	5,117.02	23.47	21.68	39.92	-4,145.29	-4,962.80	6,078.72	6,033.94	44.79	135.728		
5,300.00	5,272.21	5,160.76	5,224.15	23.93	22.14	40.00	-4,145.23	-4,963.96	6,071.02	6,025.33	45.69	132.882		
5,400.00	5,371.59	5,267.08	5,330.47	24.39	22.59	40.08	-4,144.73	-4,965.34	6,063.27	6,016.68	46.59	130.154		
5,500.00	5,470.98	5,353.69	5,417.07	24.85	22.96	40.15	-4,144.30	-4,966.44	6,055.49	6,008.09	47.41	127.739		
5,600.00	5,570.36	5,464.59	5,527.96	25.30	23.43	40.23	-4,144.06	-4,967.93	6,047.97	5,999.64	48.32	125.159		
5,700.00	5,669.75	5,556.13	5,619.49	25.76	23.81	40.31	-4,143.69	-4,968.92	6,040.12	5,990.96	49.16	122.860		
5,800.00	5,769.13	5,632.41	5,695.76	26.22	24.14	40.36	-4,143.85	-4,969.81	6,032.70	5,982.75	49.94	120.793		
5,900.00	5,868.51	5,718.62	5,781.96	26.68	24.50	40.43	-4,144.09	-4,971.07	6,025.58	5,974.81	50.76	118.701		
6,000.00	5,967.90	5,813.55	5,876.89	27.14	24.91	40.50	-4,144.51	-4,972.48	6,018.57	5,966.95	51.62	116.599		
6,100.00	6,067.28	5,892.82	5,956.15	27.60	25.24	40.56	-4,144.79	-4,973.93	6,011.80	5,959.39	52.41	114.707		
6,200.00	6,166.66	5,989.91	6,053.20	28.05	25.66	40.63	-4,144.89	-4,976.12	6,005.24	5,951.97	53.27	112.722		
6,300.00	6,266.05	6,103.73	6,167.00	28.51	26.14	40.73	-4,145.06	-4,978.51	5,998.60	5,944.39	54.21	110.660		
6,400.00	6,365.43	6,183.43	6,246.68	28.97	26.48	40.79	-4,145.10	-4,980.29	5,992.00	5,937.00	55.00	108.940		
6,500.00	6,464.81	6,262.43	6,325.65	29.43	26.82	40.86	-4,145.06	-4,982.42	5,985.74	5,929.95	55.79	107.282		
6,600.00	6,564.10	6,359.83	6,423.02	29.89	27.23	40.94	-4,145.49	-4,985.01	5,978.17	5,921.51	56.66	105.509		
6,700.00	6,661.75	6,460.53	6,523.68	30.34	27.66	-14.04	-4,145.54	-4,987.84	5,959.48	5,901.95	57.52	103.603		
6,800.00	6,755.38	6,548.54	6,611.65	30.77	28.04	-23.73	-4,145.69	-4,990.31	5,928.69	5,870.38	58.30	101.685		
6,900.00	6,842.67	6,625.33	6,688.42	31.17	28.36	-30.26	-4,146.20	-4,992.31	5,886.68	5,827.67	59.00	99.769		
7,000.00	6,921.48	6,689.23	6,752.28	31.54	28.64	-36.34	-4,146.49	-4,994.29	5,834.64	5,775.03	59.61	97.881		
7,100.00	6,989.86	6,744.22	6,807.24	31.91	28.87	-43.04	-4,146.55	-4,996.32	5,773.94	5,713.79	60.14	96.001		
7,200.00	7,046.13	6,790.41	6,853.39	32.35	29.07	-50.98	-4,146.46	-4,998.28	5,706.14	5,645.51	60.62	94.126		
7,300.00	7,088.91	6,823.23	6,886.17	32.98	29.21	-60.41	-4,146.36	-4,999.80	5,632.98	5,571.93	61.05	92.273		
7,400.00	7,117.14	6,845.37	6,908.28	33.84	29.30	-71.22	-4,146.32	-5,000.87	5,556.37	5,494.91	61.46	90.412		
7,500.00	7,130.13	6,857.46	6,920.36	34.90	29.35	-82.70	-4,146.31	-5,001.46	5,478.27	5,416.39	61.88	88.538		
7,600.00	7,130.72	6,861.24	6,924.14	36.13	29.37	-86.84	-4,146.31	-5,001.65	5,400.48	5,338.14	62.34	86.631		
7,700.00	7,130.29	6,864.36	6,927.25	37.54	29.38	-86.89	-4,146.31	-5,001.80	5,323.45	5,260.52	62.92	84.601		
7,800.00	7,129.85	6,867.50	6,930.38	39.12	29.40	-86.95	-4,146.31	-5,001.96	5,247.19	5,183.55	63.64	82.453		
7,900.00	7,129.42	6,870.67	6,933.55	40.83	29.41	-87.00	-4,146.31	-5,002.12	5,171.74	5,107.25	64.49	80.200		
8,000.00	7,128.98	6,873.86	6,936.74	42.67	29.42	-87.05	-4,146.32	-5,002.28	5,097.13	5,031.66	65.47	77.857		
8,100.00	7,128.55	6,877.09	6,939.96	44.62	29.44	-87.11	-4,146.32	-5,002.44	5,023.40	4,956.82	66.58	75.444		
8,200.00	7,128.12	6,880.34	6,943.21	46.66	29.45	-87.16	-4,146.32	-5,002.61	4,950.59	4,882.76	67.84	72.979		
8,300.00	7,127.68	6,883.63	6,946.49	48.79	29.46	-87.21	-4,146.32	-5,002.78	4,878.74	4,809.52	69.22	70.480		
8,400.00	7,127.25	6,886.94	6,949.80	50.98	29.48	-87.27	-4,146.33	-5,002.95	4,807.89	4,737.15	70.74	67.965		
8,500.00	7,126.81	6,890.28	6,953.14	53.24	29.49	-87.33	-4,146.33	-5,003.12	4,738.10	4,665.71	72.39	65.452		
8,600.00	7,126.38	6,900.01	6,962.86	55.56	29.53	-87.49	-4,146.35	-5,003.63	4,669.40	4,595.21	74.19	62.939		
8,700.00	7,125.95	6,900.01	6,962.86	57.92	29.53	-87.49	-4,146.35	-5,003.63	4,601.83	4,525.75	76.08	60.487		
8,800.00	7,125.51	6,900.01	6,962.86	60.33	29.53	-87.49	-4,146.35	-5,003.63	4,535.47	4,457.37	78.09	58.078		
8,900.00	7,125.08	6,900.01	6,962.86	62.77	29.53	-87.49	-4,146.35	-5,003.63	4,470.35	4,390.13	80.22	55.723		
9,000.00	7,124.64	6,900.01	6,962.86	65.25	29.53	-87.49	-4,146.35	-5,003.63	4,406.55	4,324.07	82.47	53.430		
9,100.00	7,124.21	6,900.01	6,962.86	67.76	29.53	-87.49	-4,146.35	-5,003.63	4,344.10	4,259.27	84.83	51.208		
9,200.00	7,123.78	6,912.73	6,975.56	70.29	29.59	-87.70	-4,146.39	-5,004.30	4,283.06	4,195.71	87.35	49.035		
9,300.00	7,123.34	6,915.92	6,978.74	72.85	29.60	-87.76	-4,146.40	-5,004.47	4,223.51	4,133.58	89.93	46.963		
9,400.00	7,122.91	6,919.15	6,981.96	75.43	29.62	-87.81	-4,146.41	-5,004.64	4,165.51	4,072.89	92.62	44.975		
9,500.00	7,122.48	6,922.42	6,985.23	78.03	29.63	-87.86	-4,146.42	-5,004.82	4,109.12	4,013.71	95.40	43.071		
9,600.00	7,122.04	6,925.74	6,988.55	80.65	29.64	-87.92	-4,146.43	-5,005.01	4,054.40	3,956.12	98.28	41.254		
9,700.00	7,121.61	6,929.11	6,991.92	83.28	29.66	-87.98	-4,146.45	-5,005.19	4,001.44	3,900.19	101.24	39.523		
9,800.00	7,121.17	6,932.53	6,995.33	85.93	29.67	-88.03	-4,146.47	-5,005.38	3,950.29	3,846.00	104.29	37.877		
9,900.00	7,120.74	6,936.00	6,998.79	88.59	29.69	-88.09	-4,146.48	-5,005.58	3,901.03	3,793.61	107.42	36.317		
10,000.00	7,120.31	6,939.52	7,002.31	91.26	29.70	-88.15	-4,146.50	-5,005.77	3,853.73	3,743.12	110.61	34.840		
10,100.00	7,119.87	6,943.10	7,005.88	93.95	29.72	-88.21	-4,146.52	-5,005.98	3,808.47	3,694.59	113.87	33.444		
10,200.00	7,119.44	6,946.73	7,009.50	96.64	29.73	-88.27	-4,146.54	-5,006.18	3,765.31	3,648.12	117.19	32.129		
10,300.00	7,119.00	6,950.41	7,013.18	99.34	29.75	-88.33	-4,146.56	-5,006.40	3,724.34	3,603.77	120.56	30.891		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,118.57	6,954.15	7,016.91	102.05	29.77	-88.40	-4,146.59	-5,006.61	3,685.61	3,561.64	123.98	29.728		
10,500.00	7,118.14	6,957.94	7,020.70	104.77	29.78	-88.46	-4,146.61	-5,006.83	3,649.21	3,521.79	127.42	28.639		
10,600.00	7,117.70	6,961.80	7,024.55	107.50	29.80	-88.52	-4,146.64	-5,007.06	3,615.21	3,484.32	130.89	27.620		
10,700.00	7,117.27	6,965.71	7,028.45	110.23	29.81	-88.59	-4,146.67	-5,007.29	3,583.67	3,449.29	134.38	26.669		
10,800.00	7,116.83	6,969.69	7,032.42	112.97	29.83	-88.66	-4,146.70	-5,007.53	3,554.65	3,416.79	137.86	25.784		
10,900.00	7,116.40	6,973.73	7,036.46	115.72	29.85	-88.72	-4,146.73	-5,007.77	3,528.23	3,386.88	141.35	24.962		
11,000.00	7,115.97	6,977.83	7,040.55	118.47	29.87	-88.79	-4,146.77	-5,008.02	3,504.46	3,359.65	144.81	24.200		
11,100.00	7,115.53	6,982.01	7,044.72	121.22	29.88	-88.86	-4,146.80	-5,008.27	3,483.38	3,335.14	148.25	23.497		
11,200.00	7,115.10	6,986.24	7,048.95	123.98	29.90	-88.93	-4,146.84	-5,008.53	3,465.07	3,313.42	151.64	22.850		
11,300.00	7,114.66	6,990.55	7,053.24	126.74	29.92	-89.00	-4,146.88	-5,008.80	3,449.54	3,294.55	154.99	22.257		
11,400.00	7,114.23	6,994.93	7,057.62	129.51	29.94	-89.08	-4,146.93	-5,009.07	3,436.85	3,278.58	158.27	21.715		
11,500.00	7,113.80	7,000.01	7,062.69	132.29	29.96	-89.16	-4,146.98	-5,009.39	3,427.03	3,265.54	161.48	21.222		
11,600.00	7,113.36	7,004.28	7,066.94	135.06	29.98	-89.23	-4,147.02	-5,009.66	3,420.09	3,255.48	164.61	20.777		
11,700.00	7,112.93	7,009.24	7,071.90	137.84	30.00	-89.32	-4,147.08	-5,009.97	3,416.06	3,248.41	167.65	20.377		
11,788.18	7,112.55	7,013.63	7,076.27	140.29	30.02	-89.39	-4,147.12	-5,010.25	3,414.92	3,244.68	170.24	20.060 CC		
11,800.00	7,112.49	7,014.21	7,076.86	140.62	30.02	-89.40	-4,147.13	-5,010.29	3,414.94	3,244.36	170.58	20.020		
11,900.00	7,112.06	7,019.19	7,081.82	143.41	30.04	-89.48	-4,147.19	-5,010.60	3,416.75	3,243.35	173.40	19.704 ES		
12,000.00	7,111.63	7,024.17	7,086.79	146.20	30.06	-89.57	-4,147.24	-5,010.92	3,421.47	3,245.36	176.11	19.428		
12,100.00	7,111.19	7,029.15	7,091.76	148.99	30.09	-89.65	-4,147.30	-5,011.23	3,429.09	3,250.40	178.69	19.190		
12,200.00	7,110.76	7,034.13	7,096.74	151.78	30.11	-89.73	-4,147.36	-5,011.55	3,439.59	3,258.45	181.14	18.988		
12,300.00	7,110.33	7,039.12	7,101.72	154.58	30.13	-89.82	-4,147.42	-5,011.86	3,452.95	3,269.49	183.46	18.821		
12,400.00	7,109.89	7,044.12	7,106.70	157.37	30.15	-89.90	-4,147.49	-5,012.18	3,469.14	3,283.50	185.64	18.687		
12,500.00	7,109.46	7,049.12	7,111.69	160.17	30.17	-89.99	-4,147.55	-5,012.49	3,488.11	3,300.42	187.69	18.585		
12,600.00	7,109.02	7,054.12	7,116.69	162.98	30.19	-90.07	-4,147.62	-5,012.81	3,509.82	3,320.23	189.59	18.513		
12,700.00	7,108.59	7,059.13	7,121.68	165.78	30.21	-90.15	-4,147.68	-5,013.13	3,534.21	3,342.86	191.36	18.469		
12,800.00	7,108.16	7,064.14	7,126.69	168.59	30.24	-90.24	-4,147.75	-5,013.45	3,561.24	3,368.26	192.98	18.454 SF		
12,900.00	7,107.72	7,069.16	7,131.69	171.39	30.26	-90.32	-4,147.82	-5,013.76	3,590.85	3,396.37	194.47	18.464		
13,000.00	7,107.29	7,074.18	7,136.70	174.20	30.28	-90.41	-4,147.89	-5,014.08	3,622.97	3,427.13	195.83	18.500		
13,100.00	7,106.85	7,079.21	7,141.72	177.01	30.30	-90.49	-4,147.97	-5,014.40	3,657.53	3,460.46	197.06	18.560		
13,200.00	7,106.42	7,084.24	7,146.74	179.83	30.32	-90.57	-4,148.04	-5,014.72	3,694.46	3,496.30	198.17	18.643		
13,300.00	7,105.99	7,089.27	7,151.76	182.64	30.34	-90.66	-4,148.12	-5,015.04	3,733.71	3,534.55	199.15	18.748		
13,400.00	7,105.55	7,094.31	7,156.79	185.45	30.36	-90.74	-4,148.20	-5,015.36	3,775.18	3,575.16	200.02	18.874		
13,500.00	7,105.12	7,099.35	7,161.82	188.27	30.39	-90.83	-4,148.27	-5,015.68	3,818.82	3,618.04	200.78	19.020		
13,600.00	7,104.68	7,105.17	7,167.62	191.09	30.41	-90.92	-4,148.37	-5,016.05	3,864.54	3,663.11	201.44	19.185		
13,700.00	7,104.25	7,111.10	7,173.54	193.91	30.44	-91.02	-4,148.46	-5,016.43	3,912.28	3,710.29	202.00	19.368		
13,800.00	7,103.82	7,117.03	7,179.46	196.73	30.46	-91.12	-4,148.55	-5,016.80	3,961.96	3,759.50	202.46	19.569		
13,900.00	7,103.38	7,122.96	7,185.38	199.55	30.49	-91.22	-4,148.65	-5,017.18	4,013.50	3,810.66	202.84	19.786		
14,000.00	7,102.95	7,128.89	7,191.30	202.37	30.51	-91.32	-4,148.74	-5,017.56	4,066.85	3,863.71	203.14	20.020		
14,100.00	7,102.51	7,134.82	7,197.21	205.19	30.54	-91.42	-4,148.83	-5,017.93	4,121.92	3,918.56	203.36	20.269		
14,200.00	7,102.08	7,140.75	7,203.13	208.02	30.56	-91.52	-4,148.93	-5,018.31	4,178.65	3,975.14	203.51	20.533		
14,300.00	7,101.65	7,146.68	7,209.05	210.84	30.59	-91.62	-4,149.02	-5,018.69	4,236.97	4,033.37	203.60	20.810		
14,400.00	7,101.21	7,152.61	7,214.96	213.67	30.61	-91.72	-4,149.11	-5,019.06	4,296.82	4,093.19	203.63	21.101		
14,500.00	7,100.78	7,158.54	7,220.88	216.50	30.64	-91.82	-4,149.21	-5,019.44	4,358.14	4,154.54	203.60	21.405		
14,600.00	7,100.35	7,164.47	7,226.80	219.32	30.67	-91.92	-4,149.30	-5,019.82	4,420.86	4,217.33	203.52	21.722		
14,700.00	7,099.91	7,170.40	7,232.71	222.15	30.69	-92.01	-4,149.39	-5,020.19	4,484.92	4,281.52	203.40	22.050		
14,800.00	7,099.48	7,176.33	7,238.63	224.98	30.72	-92.11	-4,149.49	-5,020.57	4,550.27	4,347.04	203.23	22.389		
14,900.00	7,099.04	7,182.25	7,244.54	227.81	30.74	-92.21	-4,149.58	-5,020.95	4,616.86	4,413.83	203.03	22.740		
14,909.96	7,099.00	7,182.84	7,245.13	228.09	30.74	-92.22	-4,149.59	-5,020.98	4,623.56	4,420.55	203.01	22.775		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	
0.00	0.00	25.00	73.00	3.28	3.28	-148.01	-5,273.41	-3,293.31	6,217.72				
100.00	100.00	89.44	137.44	3.28	3.28	-148.01	-5,273.26	-3,293.18	6,217.21	6,210.65	6.57	946.601	
200.00	200.00	192.42	240.42	3.34	3.33	-148.01	-5,272.50	-3,292.99	6,216.48	6,209.82	6.67	932.578	
300.00	300.00	263.03	311.02	3.44	3.39	-148.01	-5,272.00	-3,293.21	6,216.05	6,209.21	6.84	909.072	
400.00	400.00	1,462.71	1,497.90	3.60	7.45	-147.09	-5,135.85	-3,323.48	6,215.13	6,204.15	10.98	566.139	
500.00	500.00	1,521.11	1,554.72	3.81	7.76	-147.01	-5,122.53	-3,325.63	6,197.79	6,186.36	11.43	542.261	
600.00	600.00	1,593.91	1,625.64	4.04	8.15	19.97	-5,106.36	-3,328.43	6,180.98	6,168.98	11.99	515.330	
700.00	699.96	1,669.17	1,698.91	4.29	8.57	20.22	-5,089.52	-3,331.83	6,162.26	6,149.67	12.60	489.219	
800.00	799.78	1,732.00	1,760.16	4.57	8.92	20.48	-5,075.77	-3,334.82	6,140.89	6,127.72	13.17	466.145	
900.00	899.34	1,871.47	1,895.93	4.88	9.71	20.92	-5,044.62	-3,341.64	6,116.02	6,101.84	14.18	431.346	
1,000.00	998.72	1,965.87	1,987.78	5.20	10.26	21.11	-5,023.34	-3,346.26	6,089.61	6,074.64	14.96	406.957	
1,100.00	1,098.10	2,060.26	2,079.63	5.54	10.81	21.30	-5,002.07	-3,350.87	6,063.26	6,047.49	15.77	384.394	
1,200.00	1,197.49	2,154.66	2,171.48	5.90	11.37	21.49	-4,980.80	-3,355.48	6,036.98	6,020.37	16.60	363.574	
1,300.00	1,296.87	2,254.96	2,263.34	6.28	11.97	21.68	-4,959.53	-3,360.10	6,010.76	5,993.27	17.49	343.764	
1,400.00	1,396.25	2,343.45	2,355.19	6.66	12.50	21.88	-4,938.26	-3,364.71	5,984.61	5,966.29	18.32	326.696	
1,500.00	1,495.64	2,437.85	2,447.04	7.06	13.07	22.08	-4,916.99	-3,369.32	5,958.53	5,939.33	19.20	310.389	
1,600.00	1,595.02	2,532.24	2,538.89	7.46	13.64	22.27	-4,895.72	-3,373.93	5,932.52	5,912.43	20.09	295.338	
1,700.00	1,694.40	2,626.64	2,630.75	7.87	14.21	22.47	-4,874.45	-3,378.55	5,906.58	5,885.59	20.99	281.429	
1,800.00	1,793.79	2,721.03	2,722.60	8.29	14.79	22.68	-4,853.18	-3,383.16	5,880.70	5,858.81	21.90	268.556	
1,900.00	1,893.17	2,815.43	2,814.45	8.71	15.37	22.88	-4,831.90	-3,387.77	5,854.90	5,832.09	22.82	256.620	
2,000.00	1,992.55	2,909.83	2,906.30	9.13	15.95	23.08	-4,810.63	-3,392.38	5,829.18	5,805.44	23.74	245.534	
2,100.00	2,091.94	3,004.22	2,998.16	9.56	16.54	23.29	-4,789.36	-3,397.00	5,803.52	5,778.85	24.67	235.221	
2,200.00	2,191.32	3,101.38	3,090.01	9.99	17.14	23.50	-4,768.09	-3,401.61	5,777.94	5,752.32	25.63	225.472	
2,300.00	2,290.70	3,193.02	3,181.86	10.42	17.71	23.71	-4,746.82	-3,406.22	5,752.44	5,725.89	26.55	216.631	
2,400.00	2,390.09	3,287.41	3,273.72	10.86	18.29	23.92	-4,725.55	-3,410.84	5,727.01	5,699.51	27.50	208.235	
2,500.00	2,489.47	3,381.81	3,365.57	11.29	18.88	24.13	-4,704.28	-3,415.45	5,701.67	5,673.21	28.46	200.368	
2,600.00	2,588.86	3,476.20	3,457.42	11.73	19.47	24.35	-4,683.01	-3,420.06	5,676.40	5,646.98	29.41	192.986	
2,700.00	2,688.24	3,570.60	3,549.27	12.18	20.06	24.57	-4,661.74	-3,424.67	5,651.21	5,620.83	30.38	186.046	
2,800.00	2,787.62	3,665.00	3,641.13	12.62	20.65	24.79	-4,640.46	-3,429.29	5,626.10	5,594.76	31.34	179.513	
2,900.00	2,887.01	3,759.39	3,732.98	13.06	21.24	25.01	-4,619.19	-3,433.90	5,601.07	5,568.76	32.31	173.353	
3,000.00	2,986.39	10,710.49	7,245.44	13.51	120.53	-16.87	-3,792.19	29.75	5,544.01	5,449.69	94.32	58.777	
3,100.00	3,085.77	10,706.19	7,245.52	13.95	120.40	-16.79	-3,792.21	25.44	5,461.07	5,365.78	95.29	57.313	
3,200.00	3,185.16	10,701.88	7,245.59	14.40	120.26	-16.70	-3,792.22	21.14	5,378.71	5,282.43	96.28	55.866	
3,300.00	3,284.54	10,702.43	7,245.67	14.85	120.28	-16.62	-3,792.23	16.83	5,296.95	5,199.54	97.41	54.377	
3,400.00	3,383.92	10,693.27	7,245.74	15.30	119.99	-16.54	-3,792.25	12.52	5,215.82	5,117.46	98.36	53.028	
3,500.00	3,483.31	10,688.96	7,245.82	15.75	119.85	-16.46	-3,792.26	8.22	5,135.36	5,035.91	99.45	51.639	
3,600.00	3,582.69	10,684.65	7,245.89	16.20	119.71	-16.38	-3,792.28	3.91	5,055.59	4,955.02	100.57	50.272	
3,700.00	3,682.07	10,680.35	7,245.97	16.65	119.58	-16.30	-3,792.29	-0.39	4,976.55	4,874.83	101.71	48.927	
3,800.00	3,781.46	10,676.04	7,246.05	17.10	119.44	-16.22	-3,792.31	-4.70	4,898.27	4,795.37	102.89	47.605	
3,900.00	3,880.84	10,671.73	7,246.12	17.56	119.30	-16.14	-3,792.32	-9.01	4,820.78	4,716.68	104.10	46.307	
4,000.00	3,980.22	10,667.43	7,246.20	18.01	119.17	-16.06	-3,792.33	-13.31	4,744.14	4,638.80	105.34	45.035	
4,100.00	4,079.61	10,663.12	7,246.27	18.46	119.03	-15.98	-3,792.35	-17.62	4,668.38	4,561.76	106.61	43.788	
4,200.00	4,178.99	10,658.81	7,246.35	18.92	118.89	-15.90	-3,792.36	-21.92	4,593.54	4,485.63	107.91	42.567	
4,300.00	4,278.38	10,654.51	7,246.42	19.37	118.76	-15.82	-3,792.38	-26.23	4,519.67	4,410.43	109.24	41.374	
4,400.00	4,377.76	10,650.20	7,246.50	19.83	118.62	-15.74	-3,792.39	-30.54	4,446.82	4,336.13	110.68	40.176	
4,500.00	4,477.14	10,645.89	7,246.58	20.28	118.49	-15.66	-3,792.41	-34.84	4,375.03	4,263.06	111.97	39.072	
4,600.00	4,576.53	10,641.59	7,246.65	20.74	118.35	-15.58	-3,792.42	-39.15	4,304.37	4,190.99	113.38	37.964	
4,700.00	4,675.91	10,637.28	7,246.73	21.19	118.21	-15.50	-3,792.44	-43.45	4,234.89	4,120.08	114.81	36.887	
4,800.00	4,775.29	10,632.97	7,246.80	21.65	118.08	-15.42	-3,792.45	-47.76	4,166.64	4,050.38	116.26	35.840	
4,900.00	4,874.68	10,628.67	7,246.88	22.10	117.94	-15.34	-3,792.46	-52.07	4,099.69	3,981.97	117.72	34.824	
5,000.00	4,974.06	10,624.36	7,246.96	22.56	117.80	-15.26	-3,792.48	-56.37	4,034.11	3,914.90	119.21	33.840	
5,100.00	5,073.44	10,620.05	7,247.03	23.02	117.67	-15.18	-3,792.49	-60.68	3,969.95	3,849.24	120.71	32.889	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,200.00	5,172.83	10,615.75	7,247.11	23.47	117.53	-15.10	-3,792.51	-64.98	3,907.30	3,785.08	122.22	31.970		
5,300.00	5,272.21	10,611.44	7,247.18	23.93	117.40	-15.02	-3,792.52	-69.29	3,846.22	3,722.49	123.73	31.085		
5,400.00	5,371.59	10,607.13	7,247.26	24.39	117.26	-14.94	-3,792.54	-73.60	3,786.80	3,661.55	125.25	30.233		
5,500.00	5,470.98	10,602.83	7,247.33	24.85	117.12	-14.86	-3,792.55	-77.90	3,729.10	3,602.33	126.77	29.417		
5,600.00	5,570.36	10,601.48	7,247.41	25.30	117.08	-14.78	-3,792.56	-82.21	3,673.22	3,544.85	128.36	28.616		
5,700.00	5,669.75	10,594.21	7,247.49	25.76	116.85	-14.70	-3,792.58	-86.51	3,619.23	3,489.45	129.78	27.888		
5,800.00	5,769.13	10,589.90	7,247.56	26.22	116.72	-14.62	-3,792.59	-90.82	3,567.22	3,435.97	131.25	27.178		
5,900.00	5,868.51	10,585.60	7,247.64	26.68	116.58	-14.54	-3,792.61	-95.13	3,517.28	3,384.58	132.71	26.504		
6,000.00	5,967.90	10,581.29	7,247.71	27.14	116.44	-14.46	-3,792.62	-99.43	3,469.50	3,335.38	134.13	25.867		
6,100.00	6,067.28	10,576.98	7,247.79	27.60	116.31	-14.38	-3,792.64	-103.74	3,423.97	3,288.46	135.51	25.268		
6,200.00	6,166.66	10,572.68	7,247.86	28.05	116.17	-14.30	-3,792.65	-108.04	3,380.78	3,243.94	136.84	24.706		
6,300.00	6,266.05	10,568.37	7,247.94	28.51	116.04	-14.22	-3,792.67	-112.35	3,340.02	3,201.91	138.12	24.183		
6,400.00	6,365.43	10,564.06	7,248.02	28.97	115.90	-14.14	-3,792.68	-116.66	3,301.78	3,162.46	139.33	23.698		
6,500.00	6,464.81	10,559.76	7,248.09	29.43	115.76	-14.06	-3,792.69	-120.96	3,266.16	3,125.69	140.46	23.253		
6,600.00	6,564.10	10,555.50	7,248.20	29.89	115.57	-14.01	-3,792.72	-125.22	3,233.25	3,091.80	141.46	22.857		
6,700.00	6,661.75	10,553.66	7,248.55	30.34	114.94	-14.11	-3,792.78	-129.51	3,203.57	3,061.65	141.91	22.574		
6,800.00	6,755.38	10,498.74	7,249.16	30.77	113.84	-14.23	-3,792.90	-133.81	3,177.65	3,035.89	141.76	22.415		
6,900.00	6,842.67	10,454.43	7,250.03	31.17	112.45	-14.35	-3,793.06	-138.10	3,155.75	3,014.57	141.18	22.353		
7,000.00	6,921.48	10,387.91	7,251.11	31.54	110.36	-14.47	-3,793.27	-142.39	3,137.87	2,998.07	139.80	22.445		
7,100.00	6,989.86	10,309.28	7,251.62	31.91	107.89	-14.59	-3,793.53	-146.68	3,123.72	2,985.74	137.98	22.639		
7,200.00	7,046.13	10,226.99	7,251.62	32.35	105.32	-14.71	-3,793.81	-150.97	3,113.02	2,976.92	136.10	22.874		
7,300.00	7,088.91	10,136.86	7,251.62	32.98	102.52	-14.83	-3,794.11	-155.26	3,105.41	2,971.34	134.07	23.162		
7,400.00	7,117.14	10,041.10	7,251.62	33.84	99.55	-14.95	-3,794.43	-159.55	3,100.53	2,968.51	132.03	23.484		
7,500.00	7,130.13	9,942.07	7,251.62	34.90	96.50	-15.07	-3,794.76	-163.84	3,098.11	2,968.06	130.05	23.823		
7,600.00	7,130.72	9,842.09	7,251.62	36.13	93.44	-15.19	-3,795.09	-168.13	3,097.53	2,969.33	128.20	24.162		
7,700.00	7,130.29	9,742.09	7,251.62	37.54	90.39	-15.31	-3,795.42	-172.42	3,097.10	2,970.56	126.55	24.474		
7,800.00	7,129.85	9,642.09	7,251.62	39.12	87.36	-15.43	-3,795.76	-176.71	3,096.68	2,971.61	125.07	24.760		
7,900.00	7,129.42	9,542.09	7,251.62	40.83	84.36	-15.55	-3,796.09	-181.00	3,096.25	2,972.50	123.75	25.020		
8,000.00	7,128.98	9,442.09	7,251.62	42.67	81.39	-15.67	-3,796.43	-185.29	3,095.82	2,973.24	122.58	25.255		
8,100.00	7,128.55	9,342.10	7,251.62	44.62	78.44	-15.79	-3,796.76	-189.58	3,095.40	2,973.86	121.54	25.468		
8,200.00	7,128.12	9,242.10	7,251.62	46.66	75.53	-15.91	-3,797.09	-193.87	3,094.97	2,974.35	120.63	25.658		
8,300.00	7,127.68	9,142.10	7,251.62	48.79	72.65	-16.03	-3,797.43	-198.16	3,094.55	2,974.72	119.82	25.826		
8,400.00	7,127.25	9,042.10	7,251.62	50.98	69.82	-16.15	-3,797.76	-202.45	3,094.12	2,974.99	119.13	25.973		
8,500.00	7,126.81	8,942.10	7,251.62	53.24	67.04	-16.27	-3,798.10	-206.74	3,093.70	2,975.16	118.54	26.098		
8,600.00	7,126.38	8,842.11	7,251.62	55.56	64.31	-16.39	-3,798.43	-211.03	3,093.27	2,975.22	118.05	26.203		
8,700.00	7,125.95	8,742.11	7,251.62	57.92	61.65	-16.51	-3,798.76	-215.32	3,092.84	2,975.18	117.66	26.285		
8,800.00	7,125.51	8,642.11	7,251.62	60.33	59.06	-16.63	-3,799.10	-219.61	3,092.42	2,975.04	117.38	26.345		
8,900.00	7,125.08	8,542.11	7,251.62	62.77	56.56	-16.75	-3,799.43	-223.90	3,091.99	2,974.79	117.21	26.381		
9,000.00	7,124.64	8,442.11	7,251.62	65.25	54.17	-16.87	-3,799.77	-228.19	3,091.57	2,974.42	117.14	26.391		
9,100.00	7,124.21	8,342.11	7,251.62	67.76	51.91	-16.99	-3,800.10	-232.48	3,091.14	2,973.94	117.21	26.374		
9,200.00	7,123.78	8,242.12	7,251.62	70.29	49.81	-17.11	-3,800.43	-236.77	3,090.72	2,973.32	117.40	26.326		
9,300.00	7,123.34	8,142.12	7,251.62	72.85	47.92	-17.23	-3,800.77	-241.06	3,090.29	2,972.55	117.75	26.245		
9,400.00	7,122.91	8,042.12	7,251.62	75.43	46.31	-17.35	-3,801.10	-245.35	3,089.87	2,971.61	118.26	26.129		
9,500.00	7,122.48	7,942.12	7,251.62	78.03	45.03	-17.47	-3,801.44	-249.64	3,089.44	2,970.49	118.95	25.973		
9,600.00	7,122.04	7,842.12	7,251.62	80.65	44.11	-17.59	-3,801.77	-253.93	3,089.02	2,969.17	119.85	25.774		
9,700.00	7,121.61	7,742.13	7,251.62	83.28	43.52	-17.71	-3,802.10	-258.22	3,088.59	2,967.62	120.98	25.531		
9,731.80	7,121.47	7,723.44	7,251.46	84.12	43.43	-17.73	-3,802.20	-259.73	3,088.52	2,966.92	121.59	25.400 CC		
9,800.00	7,121.17	7,687.54	7,249.67	85.93	43.29	-17.85	-3,802.74	-264.02	3,088.87	2,965.88	122.99	25.115		
9,900.00	7,120.74	7,635.51	7,243.59	88.59	43.13	-17.97	-3,804.32	-268.31	3,090.70	2,965.63	125.07	24.711 ES		
10,000.00	7,120.31	7,586.07	7,234.02	91.26	43.00	-18.09	-3,806.70	-272.60	3,094.11	2,966.90	127.21	24.323		
10,100.00	7,119.87	7,535.90	7,220.61	93.95	42.88	-18.21	-3,809.97	-276.89	3,099.19	2,969.82	129.37	23.955		
10,200.00	7,119.44	7,489.35	7,204.88	96.64	42.78	-18.33	-3,813.76	-281.18	3,106.01	2,974.43	131.59	23.605		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	7,452.02	7,190.05	99.34	42.71	-91.29	-3,817.31	-3,219.08	3,114.70	2,980.82	133.88	23.266		
10,400.00	7,118.57	7,400.00	7,166.20	102.05	42.61	-90.85	-3,822.99	-3,264.94	3,125.32	2,989.27	136.04	22.973		
10,500.00	7,118.14	7,365.84	7,148.58	104.77	42.53	-90.53	-3,827.17	-3,293.90	3,137.99	2,999.67	138.32	22.686		
10,600.00	7,117.70	7,330.29	7,128.67	107.50	42.46	-90.16	-3,831.88	-3,322.96	3,152.80	3,012.27	140.53	22.435		
10,700.00	7,117.27	7,300.00	7,110.48	110.23	42.39	-89.83	-3,836.18	-3,346.80	3,169.84	3,027.13	142.71	22.211		
10,800.00	7,116.83	7,267.16	7,089.53	112.97	42.31	-89.45	-3,841.11	-3,371.60	3,189.15	3,044.32	144.83	22.021		
10,900.00	7,116.40	7,239.27	7,070.78	115.72	42.24	-89.11	-3,845.53	-3,391.77	3,210.79	3,063.91	146.88	21.860		
11,000.00	7,115.97	7,208.36	7,049.03	118.47	42.16	-88.71	-3,850.64	-3,413.10	3,234.80	3,085.95	148.85	21.733		
11,100.00	7,115.53	7,200.00	7,042.96	121.22	42.13	-88.60	-3,852.06	-3,418.69	3,261.21	3,110.42	150.79	21.627		
11,200.00	7,115.10	7,168.18	7,019.27	123.98	42.04	-88.17	-3,857.62	-3,439.19	3,289.91	3,137.32	152.59	21.561		
11,300.00	7,114.66	7,152.01	7,006.86	126.74	41.99	-87.95	-3,860.53	-3,449.12	3,321.03	3,166.71	154.32	21.520		
11,400.00	7,114.23	7,129.55	6,989.21	129.51	41.91	-87.63	-3,864.67	-3,462.39	3,354.48	3,198.53	155.95	21.510 SF		
11,500.00	7,113.80	7,100.00	6,965.32	132.29	41.82	-87.20	-3,870.26	-3,478.85	3,390.34	3,232.86	157.47	21.530		
11,600.00	7,113.36	7,100.00	6,965.32	135.06	41.82	-87.20	-3,870.26	-3,478.85	3,428.32	3,269.36	158.95	21.568		
11,700.00	7,112.93	7,081.81	6,950.25	137.84	41.75	-86.93	-3,873.78	-3,488.41	3,468.59	3,308.28	160.31	21.636		
11,800.00	7,112.49	7,052.01	6,925.01	140.62	41.65	-86.48	-3,879.68	-3,503.10	3,511.18	3,349.63	161.56	21.733		
11,900.00	7,112.06	7,052.01	6,925.01	143.41	41.65	-86.48	-3,879.68	-3,503.10	3,555.63	3,392.87	162.76	21.846		
12,000.00	7,111.63	7,049.69	6,923.02	146.20	41.64	-86.45	-3,880.15	-3,504.20	3,602.28	3,438.42	163.86	21.984		
12,100.00	7,111.19	7,032.44	6,908.08	148.99	41.57	-86.18	-3,883.64	-3,512.09	3,650.89	3,486.02	164.87	22.144		
12,200.00	7,110.76	7,010.76	6,889.02	151.78	41.48	-85.85	-3,888.08	-3,521.41	3,701.53	3,535.75	165.78	22.328		
12,300.00	7,110.33	7,010.76	6,889.02	154.58	41.48	-85.85	-3,888.08	-3,521.41	3,753.89	3,587.25	166.64	22.526		
12,400.00	7,109.89	7,000.00	6,879.45	157.37	41.44	-85.68	-3,890.32	-3,525.79	3,808.13	3,640.71	167.42	22.746		
12,500.00	7,109.46	7,000.00	6,879.45	160.17	41.44	-85.68	-3,890.32	-3,525.79	3,864.11	3,695.98	168.13	22.983		
12,600.00	7,109.02	7,000.00	6,879.45	162.98	41.44	-85.68	-3,890.32	-3,525.79	3,921.83	3,753.06	168.77	23.238		
12,700.00	7,108.59	6,978.97	6,860.54	165.78	41.35	-85.35	-3,894.72	-3,533.87	3,980.96	3,811.61	169.34	23.508		
12,800.00	7,108.16	6,971.79	6,854.02	168.59	41.31	-85.23	-3,896.24	-3,536.48	4,041.73	3,871.87	169.86	23.795		
12,900.00	7,107.72	6,952.01	6,835.94	171.39	41.23	-84.91	-3,900.46	-3,543.27	4,104.09	3,933.78	170.31	24.097		
13,000.00	7,107.29	6,952.01	6,835.94	174.20	41.23	-84.91	-3,900.46	-3,543.27	4,167.67	3,996.95	170.72	24.412		
13,100.00	7,106.85	6,952.01	6,835.94	177.01	41.23	-84.91	-3,900.46	-3,543.27	4,232.66	4,061.58	171.08	24.741		
13,200.00	7,106.42	6,952.01	6,835.94	179.83	41.23	-84.91	-3,900.46	-3,543.27	4,298.99	4,127.60	171.39	25.083		
13,300.00	7,105.99	6,952.01	6,835.94	182.64	41.23	-84.91	-3,900.46	-3,543.27	4,366.60	4,194.95	171.66	25.438		
13,400.00	7,105.55	6,952.01	6,835.94	185.45	41.23	-84.91	-3,900.46	-3,543.27	4,435.44	4,263.56	171.88	25.806		
13,500.00	7,105.12	6,931.00	6,816.50	188.27	41.13	-84.57	-3,904.98	-3,549.86	4,505.14	4,333.06	172.08	26.180		
13,600.00	7,104.68	6,926.26	6,812.09	191.09	41.11	-84.50	-3,906.01	-3,551.25	4,576.11	4,403.87	172.24	26.569		
13,700.00	7,104.25	6,921.73	6,807.87	193.91	41.09	-84.42	-3,906.99	-3,552.55	4,648.11	4,475.75	172.36	26.967		
13,800.00	7,103.82	6,900.00	6,787.47	196.73	40.98	-84.07	-3,911.74	-3,558.36	4,721.32	4,548.86	172.46	27.376		
13,900.00	7,103.38	6,900.00	6,787.47	199.55	40.98	-84.07	-3,911.74	-3,558.36	4,795.18	4,622.64	172.53	27.793		
14,000.00	7,102.95	6,900.00	6,787.47	202.37	40.98	-84.07	-3,911.74	-3,558.36	4,869.96	4,697.38	172.58	28.219		
14,100.00	7,102.51	6,900.00	6,787.47	205.19	40.98	-84.07	-3,911.74	-3,558.36	4,945.64	4,773.04	172.60	28.654		
14,200.00	7,102.08	6,900.00	6,787.47	208.02	40.98	-84.07	-3,911.74	-3,558.36	5,022.17	4,849.57	172.60	29.097		
14,300.00	7,101.65	6,900.00	6,787.47	210.84	40.98	-84.07	-3,911.74	-3,558.36	5,099.52	4,926.94	172.58	29.548		
14,400.00	7,101.21	6,900.00	6,787.47	213.67	40.98	-84.07	-3,911.74	-3,558.36	5,177.64	5,005.09	172.55	30.007		
14,500.00	7,100.78	6,900.00	6,787.47	216.50	40.98	-84.07	-3,911.74	-3,558.36	5,256.50	5,084.00	172.49	30.474		
14,600.00	7,100.35	6,900.00	6,787.47	219.32	40.98	-84.07	-3,911.74	-3,558.36	5,336.07	5,163.64	172.43	30.947		
14,700.00	7,099.91	6,900.00	6,787.47	222.15	40.98	-84.07	-3,911.74	-3,558.36	5,416.31	5,243.97	172.35	31.427		
14,800.00	7,099.48	6,900.00	6,787.47	224.98	40.98	-84.07	-3,911.74	-3,558.36	5,497.21	5,324.95	172.25	31.913		
14,900.00	7,099.04	6,900.00	6,787.47	227.81	40.98	-84.07	-3,911.74	-3,558.36	5,578.72	5,406.57	172.15	32.406		
14,909.96	7,099.00	6,900.00	6,787.47	228.09	40.98	-84.07	-3,911.74	-3,558.36	5,586.88	5,414.74	172.14	32.455		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	73.00	3.28	3.28	-147.92	-5,253.37	-3,293.31	6,200.74					
100.00	100.00	1,229.71	1,260.55	3.28	6.91	-146.84	-5,089.88	-3,325.75	6,189.86	6,179.76	10.10	613.084		
200.00	200.00	1,373.53	1,399.15	3.34	7.77	-146.58	-5,052.40	-3,334.07	6,170.96	6,160.08	10.88	567.108		
300.00	300.00	1,445.82	1,468.90	3.44	8.21	-146.45	-5,033.73	-3,337.56	6,151.75	6,140.42	11.34	542.575		
400.00	400.00	1,561.99	1,581.15	3.60	8.92	-146.26	-5,004.21	-3,342.42	6,132.62	6,120.53	12.09	507.392		
500.00	500.00	1,619.11	1,636.42	3.81	9.27	-146.17	-4,989.95	-3,344.58	6,113.70	6,101.14	12.56	486.785		
600.00	600.00	1,712.03	1,726.47	4.04	9.84	20.86	-4,967.27	-3,348.08	6,095.21	6,081.94	13.27	459.442		
700.00	699.96	1,866.49	1,875.57	4.29	10.82	21.29	-4,927.57	-3,354.91	6,073.75	6,059.40	14.35	423.187		
800.00	799.78	1,961.27	1,966.94	4.57	11.44	21.67	-4,902.76	-3,359.31	6,049.03	6,033.89	15.15	399.321		
900.00	899.34	2,054.94	2,057.24	4.88	12.06	22.09	-4,878.24	-3,363.66	6,021.26	6,005.29	15.97	376.971		
1,000.00	998.72	2,148.04	2,146.99	5.20	12.67	22.30	-4,853.88	-3,367.98	5,992.07	5,975.27	16.80	356.724		
1,100.00	1,098.10	2,241.14	2,236.74	5.54	13.29	22.52	-4,829.51	-3,372.31	5,962.95	5,945.31	17.65	337.926		
1,200.00	1,197.49	2,335.77	2,326.49	5.90	13.92	22.73	-4,805.14	-3,376.63	5,933.92	5,915.40	18.52	320.354		
1,300.00	1,296.87	2,427.34	2,416.24	6.28	14.53	22.95	-4,780.77	-3,380.95	5,904.97	5,885.57	19.40	304.379		
1,400.00	1,396.25	2,520.44	2,505.99	6.66	15.15	23.17	-4,756.41	-3,385.28	5,876.10	5,855.80	20.30	289.448		
1,500.00	1,495.64	2,613.53	2,595.74	7.06	15.78	23.40	-4,732.04	-3,389.60	5,847.32	5,826.11	21.22	275.619		
1,600.00	1,595.02	2,706.63	2,685.49	7.46	16.41	23.62	-4,707.67	-3,393.92	5,818.63	5,796.49	22.14	262.799		
1,700.00	1,694.40	2,800.27	2,775.24	7.87	17.04	23.85	-4,683.30	-3,398.25	5,790.03	5,766.95	23.08	250.866		
1,800.00	1,793.79	2,892.83	2,864.99	8.29	17.67	24.08	-4,658.94	-3,402.57	5,761.51	5,737.49	24.02	239.841		
1,900.00	1,893.17	2,985.93	2,954.74	8.71	18.30	24.31	-4,634.57	-3,406.89	5,733.08	5,708.11	24.98	229.546		
2,000.00	1,992.55	3,079.03	3,044.49	9.13	18.93	24.54	-4,610.20	-3,411.22	5,704.75	5,678.81	25.94	219.950		
2,100.00	2,091.94	3,172.13	3,134.24	9.56	19.56	24.78	-4,585.83	-3,415.54	5,676.51	5,649.61	26.90	210.988		
2,200.00	2,191.32	3,265.23	3,223.99	9.99	20.20	25.01	-4,561.47	-3,419.86	5,648.37	5,620.49	27.88	202.607		
2,300.00	2,290.70	3,358.33	3,313.74	10.42	20.83	25.25	-4,537.10	-3,424.19	5,620.32	5,591.46	28.86	194.755		
2,400.00	2,390.09	3,451.43	3,403.49	10.86	21.47	25.50	-4,512.73	-3,428.51	5,592.36	5,562.52	29.84	187.389		
2,500.00	2,489.47	3,544.53	3,493.24	11.29	22.10	25.74	-4,488.36	-3,432.84	5,564.51	5,533.68	30.83	180.467		
2,600.00	2,588.86	3,637.63	3,582.99	11.73	22.74	25.99	-4,463.99	-3,437.16	5,536.76	5,504.93	31.83	173.952		
2,700.00	2,688.24	10,485.66	7,077.96	12.18	117.91	-15.24	-3,529.31	-62.04	5,502.39	5,413.65	88.74	62.008		
2,800.00	2,787.62	10,483.26	7,077.95	12.62	117.84	-15.19	-3,529.30	-64.44	5,416.83	5,327.20	89.63	60.434		
2,900.00	2,887.01	10,480.87	7,077.95	13.06	117.76	-15.14	-3,529.29	-66.83	5,331.77	5,241.21	90.56	58.874		
3,000.00	2,986.39	10,478.47	7,077.95	13.51	117.68	-15.09	-3,529.29	-69.23	5,247.24	5,155.71	91.53	57.331		
3,100.00	3,085.77	10,476.07	7,077.95	13.95	117.61	-15.04	-3,529.28	-71.63	5,163.26	5,070.74	92.52	55.804		
3,200.00	3,185.16	10,473.68	7,077.95	14.40	117.53	-14.99	-3,529.28	-74.03	5,079.86	4,986.30	93.56	54.296		
3,300.00	3,284.54	10,471.28	7,077.94	14.85	117.46	-14.94	-3,529.27	-76.42	4,997.07	4,902.44	94.63	52.808		
3,400.00	3,383.92	10,468.88	7,077.94	15.30	117.38	-14.90	-3,529.27	-78.82	4,914.91	4,819.18	95.73	51.342		
3,500.00	3,483.31	10,466.48	7,077.94	15.75	117.31	-14.85	-3,529.26	-81.22	4,833.43	4,736.56	96.87	49.897		
3,600.00	3,582.69	10,464.09	7,077.94	16.20	117.23	-14.80	-3,529.25	-83.61	4,752.66	4,654.62	98.04	48.476		
3,700.00	3,682.07	10,461.69	7,077.93	16.65	117.16	-14.75	-3,529.25	-86.01	4,672.62	4,573.37	99.25	47.079		
3,800.00	3,781.46	10,459.29	7,077.93	17.10	117.08	-14.70	-3,529.24	-88.41	4,593.37	4,492.88	100.49	45.708		
3,900.00	3,880.84	10,456.90	7,077.93	17.56	117.01	-14.65	-3,529.24	-90.81	4,514.94	4,413.17	101.77	44.363		
4,000.00	3,980.22	10,454.50	7,077.93	18.01	116.93	-14.60	-3,529.23	-93.20	4,437.38	4,334.29	103.09	43.045		
4,100.00	4,079.61	10,452.10	7,077.92	18.46	116.85	-14.56	-3,529.22	-95.60	4,360.73	4,256.29	104.43	41.756		
4,200.00	4,178.99	10,449.70	7,077.92	18.92	116.78	-14.51	-3,529.22	-98.00	4,285.04	4,179.22	105.82	40.495		
4,300.00	4,278.38	10,447.31	7,077.92	19.37	116.70	-14.46	-3,529.21	-100.39	4,210.36	4,103.13	107.23	39.264		
4,400.00	4,377.76	10,444.91	7,077.92	19.83	116.63	-14.41	-3,529.21	-102.79	4,136.75	4,028.08	108.68	38.064		
4,500.00	4,477.14	10,442.51	7,077.91	20.28	116.55	-14.36	-3,529.20	-105.19	4,064.27	3,954.12	110.16	36.896		
4,600.00	4,576.53	10,440.12	7,077.91	20.74	116.48	-14.31	-3,529.19	-107.58	3,992.98	3,881.32	111.66	35.760		
4,700.00	4,675.91	10,437.72	7,077.91	21.19	116.40	-14.26	-3,529.19	-109.98	3,922.94	3,809.74	113.20	34.656		
4,800.00	4,775.29	10,435.32	7,077.91	21.65	116.33	-14.22	-3,529.18	-112.38	3,854.21	3,739.46	114.76	33.586		
4,900.00	4,874.68	10,432.92	7,077.90	22.10	116.26	-14.17	-3,529.18	-114.78	3,786.88	3,670.44	116.45	32.520		
5,000.00	4,974.06	10,430.52	7,077.90	22.56	116.19	-14.12	-3,529.17	-117.17	3,721.02	3,602.84	118.18	31.486		
5,100.00	5,073.44	10,428.13	7,077.90	23.02	116.10	-14.07	-3,529.16	-119.57	3,656.71	3,537.15	119.56	30.585		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,200.00	5,172.83	10,425.73	7,077.90	23.47	116.02	-14.02	-3,529.16	-121.97	3,594.02	3,472.83	121.19	29.656		
5,300.00	5,272.21	10,423.34	7,077.90	23.93	115.95	-13.97	-3,529.15	-124.36	3,533.05	3,410.23	122.83	28.765		
5,400.00	5,371.59	10,420.94	7,077.89	24.39	115.87	-13.92	-3,529.15	-126.76	3,473.89	3,349.43	124.47	27.910		
5,500.00	5,470.98	10,418.54	7,077.89	24.85	115.80	-13.87	-3,529.14	-129.16	3,416.64	3,290.53	126.10	27.094		
5,600.00	5,570.36	10,416.14	7,077.89	25.30	115.72	-13.83	-3,529.13	-131.56	3,361.38	3,233.65	127.73	26.317		
5,700.00	5,669.75	10,413.75	7,077.89	25.76	115.65	-13.78	-3,529.13	-133.95	3,308.21	3,178.88	129.34	25.578		
5,800.00	5,769.13	10,411.35	7,077.88	26.22	115.57	-13.73	-3,529.12	-136.35	3,257.25	3,126.34	130.92	24.880		
5,900.00	5,868.51	10,408.95	7,077.88	26.68	115.50	-13.68	-3,529.12	-138.75	3,208.60	3,076.13	132.47	24.222		
6,000.00	5,967.90	10,406.56	7,077.88	27.14	115.42	-13.63	-3,529.11	-141.14	3,162.36	3,028.39	133.97	23.605		
6,100.00	6,067.28	10,404.16	7,077.88	27.60	115.35	-13.58	-3,529.11	-143.54	3,118.64	2,983.22	135.42	23.030		
6,200.00	6,166.66	10,401.76	7,077.87	28.05	115.27	-13.53	-3,529.10	-145.94	3,077.54	2,940.74	136.80	22.496		
6,300.00	6,266.05	10,399.36	7,077.87	28.51	115.20	-13.49	-3,529.09	-148.34	3,039.19	2,901.07	138.12	22.005		
6,400.00	6,365.43	10,403.03	7,077.87	28.97	115.31	-13.44	-3,529.09	-150.73	3,003.66	2,864.14	139.53	21.528		
6,500.00	6,464.81	10,394.57	7,077.87	29.43	115.05	-13.39	-3,529.08	-153.13	2,971.08	2,830.62	140.47	21.152		
6,600.00	6,564.10	10,390.22	7,077.86	29.89	114.91	-13.34	-3,529.07	-155.53	2,941.55	2,800.13	141.42	20.800		
6,700.00	6,661.75	10,372.25	7,077.84	30.34	114.34	-13.29	-3,529.03	-157.93	2,915.40	2,773.58	141.82	20.558		
6,800.00	6,755.38	10,339.13	7,077.81	30.77	113.31	-13.24	-3,528.94	-160.33	2,893.07	2,751.50	141.57	20.435		
6,900.00	6,842.67	10,291.68	7,077.76	31.17	111.82	-13.19	-3,528.83	-162.73	2,874.70	2,733.97	140.74	20.426		
7,000.00	6,921.48	10,238.98	7,077.70	31.54	110.17	-13.14	-3,528.68	-165.13	2,860.15	2,720.52	139.63	20.484		
7,100.00	6,989.86	10,158.76	7,077.63	31.91	107.67	-13.09	-3,528.50	-167.53	2,849.04	2,711.43	137.62	20.703		
7,200.00	7,046.13	10,076.57	7,077.55	32.35	105.12	-13.04	-3,528.30	-169.93	2,840.88	2,705.29	135.60	20.951		
7,300.00	7,088.91	9,986.52	7,077.46	32.98	102.33	-12.99	-3,528.07	-172.33	2,835.13	2,701.67	133.46	21.243		
7,400.00	7,117.14	9,890.81	7,077.37	33.84	99.38	-12.94	-3,527.84	-174.73	2,831.30	2,699.96	131.34	21.557		
7,500.00	7,130.13	9,791.80	7,077.27	34.90	96.35	-12.89	-3,527.59	-177.13	2,829.04	2,699.71	129.33	21.875		
7,600.00	7,130.72	9,691.82	7,077.17	36.13	93.31	-12.84	-3,527.34	-179.53	2,827.92	2,700.44	127.48	22.183		
7,700.00	7,130.29	9,591.83	7,077.07	37.54	90.29	-12.79	-3,527.10	-181.93	2,826.89	2,701.06	125.83	22.467		
7,800.00	7,129.85	9,491.84	7,076.97	39.12	87.29	-12.74	-3,526.85	-184.33	2,825.86	2,701.51	124.35	22.725		
7,900.00	7,129.42	9,391.84	7,076.87	40.83	84.32	-12.69	-3,526.60	-186.73	2,824.83	2,701.79	123.03	22.960		
8,000.00	7,128.98	9,291.85	7,076.77	42.67	81.38	-12.64	-3,526.36	-189.13	2,823.80	2,701.93	121.86	23.172		
8,100.00	7,128.55	9,192.23	7,076.68	44.62	78.48	-12.59	-3,526.11	-191.53	2,822.77	2,701.93	120.84	23.360		
8,200.00	7,128.12	9,092.24	7,076.55	46.66	75.61	-12.54	-3,525.86	-193.93	2,821.75	2,701.83	119.92	23.530		
8,300.00	7,127.68	8,992.24	7,076.43	48.79	72.78	-12.49	-3,525.61	-196.33	2,820.74	2,701.62	119.12	23.681		
8,400.00	7,127.25	8,892.25	7,076.40	50.98	70.01	-12.44	-3,525.37	-198.73	2,819.72	2,701.30	118.42	23.811		
8,500.00	7,126.81	8,792.26	7,076.31	53.24	67.29	-12.39	-3,525.12	-201.13	2,818.70	2,700.87	117.83	23.922		
8,600.00	7,126.38	8,692.26	7,076.24	55.56	64.64	-12.34	-3,524.87	-203.53	2,817.68	2,700.34	117.34	24.013		
8,700.00	7,125.95	8,592.27	7,076.15	57.92	62.07	-12.29	-3,524.63	-205.93	2,816.67	2,699.71	116.96	24.083		
8,800.00	7,125.51	8,492.27	7,076.09	60.33	59.60	-12.24	-3,524.38	-208.33	2,815.65	2,699.97	116.68	24.132		
8,900.00	7,125.08	8,392.28	7,076.06	62.77	57.25	-12.19	-3,524.13	-210.73	2,814.63	2,699.12	116.51	24.158		
9,000.00	7,124.64	8,292.29	7,076.04	65.25	55.05	-12.14	-3,523.88	-213.13	2,813.62	2,697.16	116.46	24.160		
9,100.00	7,124.21	8,192.29	7,076.02	67.76	53.03	-12.09	-3,523.64	-215.53	2,812.60	2,696.07	116.53	24.136		
9,200.00	7,123.78	8,092.30	7,076.02	70.29	51.26	-12.04	-3,523.39	-217.93	2,811.58	2,694.84	116.74	24.083		
9,300.00	7,123.34	7,992.30	7,076.55	72.85	49.77	-11.99	-3,523.14	-220.33	2,810.57	2,693.46	117.11	24.000		
9,400.00	7,122.91	7,892.31	7,076.53	75.43	48.59	-11.94	-3,522.90	-222.73	2,809.55	2,691.91	117.65	23.882		
9,500.00	7,122.48	7,792.32	7,076.49	78.03	47.74	-11.89	-3,522.65	-225.13	2,808.54	2,690.16	118.37	23.726		
9,600.00	7,122.04	7,692.32	7,076.47	80.65	47.15	-11.84	-3,522.40	-227.53	2,807.52	2,688.21	119.31	23.531		
9,700.00	7,121.61	7,600.00	7,076.39	83.28	46.79	-11.79	-3,522.18	-229.93	2,806.52	2,686.90	120.61	23.269		
9,738.69	7,121.44	7,582.15	7,076.26	84.31	46.73	-11.78	-3,522.24	-230.48	2,806.37	2,684.91	121.46	23.106 CC		
9,800.00	7,121.17	7,550.00	7,076.00	85.93	46.64	-11.77	-3,522.67	-231.53	2,806.75	2,684.03	122.72	22.871		
9,900.00	7,120.74	7,510.90	7,075.86	88.59	46.54	-11.76	-3,523.77	-232.58	2,808.96	2,683.97	124.99	22.473 ES		
10,000.00	7,120.31	7,472.62	7,075.01	91.26	46.45	-11.75	-3,525.45	-233.63	2,813.20	2,685.95	127.25	22.107		
10,100.00	7,119.87	7,425.95	7,073.73	93.95	46.35	-11.74	-3,528.30	-234.68	2,819.50	2,690.10	129.40	21.790		
10,200.00	7,119.44	7,385.64	7,072.43	96.64	46.26	-11.73	-3,531.46	-235.73	2,827.93	2,696.33	131.60	21.488		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,119.00	7,350.00	7,012.63	99.34	46.19	-87.81	-3,534.77	-3,190.49	2,838.56	2,704.74	133.82	21.211		
10,400.00	7,118.57	7,310.43	6,996.36	102.05	46.11	-87.48	-3,539.02	-3,226.29	2,851.44	2,715.48	135.96	20.973		
10,500.00	7,118.14	7,275.78	6,980.37	104.77	46.03	-87.17	-3,543.21	-3,256.75	2,866.64	2,728.50	138.14	20.751		
10,600.00	7,117.70	7,243.14	6,963.87	107.50	45.96	-86.84	-3,547.56	-3,284.56	2,884.22	2,743.99	140.22	20.569		
10,700.00	7,117.27	7,212.52	6,947.15	110.23	45.88	-86.51	-3,551.97	-3,309.84	2,904.21	2,761.94	142.28	20.413		
10,800.00	7,116.83	7,183.10	6,930.01	112.97	45.81	-86.17	-3,556.51	-3,333.30	2,926.66	2,782.40	144.26	20.288		
10,900.00	7,116.40	7,150.00	6,909.49	115.72	45.72	-85.77	-3,561.96	-3,358.70	2,951.62	2,805.48	146.14	20.197		
11,000.00	7,115.97	7,135.01	6,899.79	118.47	45.68	-85.58	-3,564.54	-3,369.83	2,979.01	2,830.98	148.04	20.124		
11,100.00	7,115.53	7,108.77	6,882.21	121.22	45.60	-85.24	-3,569.22	-3,388.73	3,008.91	2,859.13	149.78	20.089		
11,200.00	7,115.10	7,100.00	6,876.16	123.98	45.57	-85.12	-3,570.83	-3,394.88	3,041.37	2,889.87	151.50	20.075 SF		
11,300.00	7,114.66	7,066.77	6,852.54	126.74	45.47	-84.66	-3,577.13	-3,417.38	3,076.09	2,923.06	153.03	20.102		
11,400.00	7,114.23	7,050.00	6,840.20	129.51	45.42	-84.42	-3,580.43	-3,428.25	3,113.31	2,958.80	154.51	20.149		
11,500.00	7,113.80	7,035.01	6,828.94	132.29	45.36	-84.21	-3,583.44	-3,437.67	3,152.90	2,996.99	155.91	20.222		
11,600.00	7,113.36	7,013.73	6,812.59	135.06	45.29	-83.89	-3,587.81	-3,450.57	3,194.78	3,037.59	157.19	20.324		
11,700.00	7,112.93	7,000.00	6,801.83	137.84	45.24	-83.69	-3,590.69	-3,458.59	3,238.93	3,080.53	158.40	20.448		
11,800.00	7,112.49	7,000.00	6,801.83	140.62	45.24	-83.69	-3,590.69	-3,458.59	3,285.42	3,125.86	159.55	20.591		
11,900.00	7,112.06	6,970.35	6,778.03	143.41	45.12	-83.24	-3,597.07	-3,475.07	3,333.71	3,173.17	160.54	20.765		
12,000.00	7,111.63	6,950.00	6,761.27	146.20	45.05	-82.92	-3,601.57	-3,485.72	3,384.25	3,222.79	161.46	20.960		
12,100.00	7,111.19	6,950.00	6,761.27	148.99	45.05	-82.92	-3,601.57	-3,485.72	3,436.72	3,274.37	162.35	21.169		
12,200.00	7,110.76	6,935.01	6,748.73	151.78	44.98	-82.68	-3,604.93	-3,493.20	3,491.10	3,327.98	163.12	21.402		
12,300.00	7,110.33	6,935.01	6,748.73	154.58	44.98	-82.68	-3,604.93	-3,493.20	3,547.40	3,383.57	163.84	21.652		
12,400.00	7,109.89	6,914.04	6,730.90	157.37	44.89	-82.35	-3,609.72	-3,503.15	3,605.31	3,440.85	164.46	21.922		
12,500.00	7,109.46	6,900.00	6,718.80	160.17	44.83	-82.12	-3,612.98	-3,509.47	3,665.00	3,499.99	165.02	22.210		
12,600.00	7,109.02	6,900.00	6,718.80	162.98	44.83	-82.12	-3,612.98	-3,509.47	3,726.30	3,560.77	165.53	22.511		
12,700.00	7,108.59	6,900.00	6,718.80	165.78	44.83	-82.12	-3,612.98	-3,509.47	3,789.24	3,623.26	165.98	22.829		
12,800.00	7,108.16	6,879.42	6,700.82	168.59	44.74	-81.79	-3,617.81	-3,518.23	3,853.45	3,687.09	166.36	23.163		
12,900.00	7,107.72	6,871.88	6,694.16	171.39	44.70	-81.66	-3,619.60	-3,521.29	3,919.18	3,752.49	166.70	23.511		
13,000.00	7,107.29	6,850.00	6,674.66	174.20	44.60	-81.30	-3,624.86	-3,529.70	3,986.42	3,819.45	166.98	23.874		
13,100.00	7,106.85	6,850.00	6,674.66	177.01	44.60	-81.30	-3,624.86	-3,529.70	4,054.69	3,887.46	167.23	24.247		
13,200.00	7,106.42	6,850.00	6,674.66	179.83	44.60	-81.30	-3,624.86	-3,529.70	4,124.25	3,956.82	167.43	24.632		
13,300.00	7,105.99	6,850.00	6,674.66	182.64	44.60	-81.30	-3,624.86	-3,529.70	4,195.04	4,027.44	167.60	25.031		
13,400.00	7,105.55	6,835.01	6,661.14	185.45	44.53	-81.05	-3,628.50	-3,535.06	4,266.93	4,099.20	167.73	25.440		
13,500.00	7,105.12	6,835.01	6,661.14	188.27	44.53	-81.05	-3,628.50	-3,535.06	4,339.88	4,172.05	167.82	25.860		
13,600.00	7,104.68	6,835.01	6,661.14	191.09	44.53	-81.05	-3,628.50	-3,535.06	4,413.88	4,245.99	167.89	26.290		
13,700.00	7,104.25	6,835.01	6,661.14	193.91	44.53	-81.05	-3,628.50	-3,535.06	4,488.90	4,320.97	167.93	26.731		
13,800.00	7,103.82	6,818.42	6,646.04	196.73	44.44	-80.77	-3,632.57	-3,540.61	4,564.66	4,396.71	167.95	27.179		
13,900.00	7,103.38	6,800.00	6,629.13	199.55	44.35	-80.47	-3,637.13	-3,546.28	4,641.55	4,473.60	167.95	27.637		
14,000.00	7,102.95	6,800.00	6,629.13	202.37	44.35	-80.47	-3,637.13	-3,546.28	4,719.07	4,551.14	167.92	28.102		
14,100.00	7,102.51	6,800.00	6,629.13	205.19	44.35	-80.47	-3,637.13	-3,546.28	4,797.41	4,629.53	167.88	28.577		
14,200.00	7,102.08	6,800.00	6,629.13	208.02	44.35	-80.47	-3,637.13	-3,546.28	4,876.54	4,708.73	167.81	29.059		
14,300.00	7,101.65	6,800.00	6,629.13	210.84	44.35	-80.47	-3,637.13	-3,546.28	4,956.43	4,788.70	167.73	29.550		
14,400.00	7,101.21	6,800.00	6,629.13	213.67	44.35	-80.47	-3,637.13	-3,546.28	5,037.04	4,869.40	167.64	30.047		
14,500.00	7,100.78	6,800.00	6,629.13	216.50	44.35	-80.47	-3,637.13	-3,546.28	5,118.33	4,950.80	167.53	30.551		
14,600.00	7,100.35	6,800.00	6,629.13	219.32	44.35	-80.47	-3,637.13	-3,546.28	5,200.28	5,032.86	167.41	31.062		
14,700.00	7,099.91	6,800.00	6,629.13	222.15	44.35	-80.47	-3,637.13	-3,546.28	5,282.84	5,115.56	167.29	31.580		
14,800.00	7,099.48	6,800.00	6,629.13	224.98	44.35	-80.47	-3,637.13	-3,546.28	5,366.00	5,198.85	167.15	32.103		
14,900.00	7,099.04	6,775.92	6,606.79	227.81	44.22	-80.06	-3,643.16	-3,552.93	5,449.28	5,282.23	167.04	32.622		
14,909.96	7,099.00	6,775.62	6,606.50	228.09	44.22	-80.05	-3,643.23	-3,553.01	5,457.64	5,290.61	167.03	32.675		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	66.00	3.28	3.28	-124.56	-4,370.85	-6,344.63	7,704.74					
100.00	100.00	34.00	100.00	3.28	3.33	-124.56	-4,370.85	-6,344.63	7,704.46	7,697.84	6.62	1,164.170		
200.00	200.00	134.00	200.00	3.34	4.40	-124.56	-4,370.85	-6,344.63	7,704.46	7,696.72	7.74	995.825		
300.00	300.00	234.00	300.00	3.44	7.21	-124.56	-4,370.85	-6,344.63	7,704.46	7,693.80	10.66	722.926		
400.00	400.00	334.00	400.00	3.60	10.44	-124.56	-4,370.85	-6,344.63	7,704.46	7,690.41	14.05	548.506		
500.00	500.00	434.00	500.00	3.81	13.80	-124.56	-4,370.85	-6,344.63	7,704.46	7,686.85	17.61	437.582		
600.00	600.00	534.00	600.00	4.04	17.21	42.29	-4,370.85	-6,344.63	7,704.40	7,683.15	21.26	362.465		
700.00	699.96	633.96	699.96	4.29	20.65	42.32	-4,370.85	-6,344.63	7,702.60	7,677.66	24.94	308.848		
800.00	799.78	733.78	799.78	4.57	24.10	42.41	-4,370.85	-6,344.63	7,698.21	7,669.55	28.66	268.564		
900.00	899.34	833.34	899.34	4.88	27.54	42.55	-4,370.85	-6,344.63	7,691.26	7,658.84	32.42	237.263		
1,000.00	998.72	932.72	998.72	5.20	30.99	42.61	-4,370.85	-6,344.63	7,683.07	7,646.88	36.19	212.319		
1,100.00	1,098.10	1,032.10	1,098.10	5.54	34.44	42.66	-4,370.85	-6,344.63	7,674.89	7,634.91	39.98	191.972		
1,200.00	1,197.49	1,131.49	1,197.49	5.90	37.90	42.72	-4,370.85	-6,344.63	7,666.72	7,622.93	43.79	175.077		
1,300.00	1,296.87	1,230.87	1,296.87	6.28	41.35	42.77	-4,370.85	-6,344.63	7,658.55	7,610.94	47.62	160.836		
1,400.00	1,396.25	1,330.25	1,396.25	6.66	44.81	42.83	-4,370.85	-6,344.63	7,650.40	7,598.94	51.46	148.679		
1,500.00	1,495.64	1,429.64	1,495.64	7.06	48.27	42.89	-4,370.85	-6,344.63	7,642.25	7,586.94	55.31	138.183		
1,600.00	1,595.02	1,529.02	1,595.02	7.46	51.74	42.94	-4,370.85	-6,344.63	7,634.10	7,574.94	59.16	129.035		
1,700.00	1,694.40	1,628.40	1,694.40	7.87	55.20	43.00	-4,370.85	-6,344.63	7,625.97	7,562.94	63.03	120.993		
1,800.00	1,793.79	1,727.79	1,793.79	8.29	58.66	43.06	-4,370.85	-6,344.63	7,617.84	7,550.94	66.90	113.869		
1,900.00	1,893.17	1,827.17	1,893.17	8.71	62.13	43.11	-4,370.85	-6,344.63	7,609.72	7,538.94	70.78	107.518		
2,000.00	1,992.55	1,926.55	1,992.55	9.13	65.59	43.17	-4,370.85	-6,344.63	7,601.61	7,526.95	74.66	101.819		
2,100.00	2,091.94	2,025.94	2,091.94	9.56	69.06	43.23	-4,370.85	-6,344.63	7,593.50	7,514.96	78.54	96.679		
2,200.00	2,191.32	2,125.32	2,191.32	9.99	72.52	43.28	-4,370.85	-6,344.63	7,585.40	7,502.97	82.43	92.020		
2,300.00	2,290.70	2,224.70	2,290.70	10.42	75.99	43.34	-4,370.85	-6,344.63	7,577.31	7,490.99	86.32	87.778		
2,400.00	2,390.09	2,324.09	2,390.09	10.86	79.46	43.40	-4,370.85	-6,344.63	7,569.23	7,479.01	90.22	83.899		
2,500.00	2,489.47	2,423.47	2,489.47	11.29	82.92	43.46	-4,370.85	-6,344.63	7,561.16	7,467.04	94.12	80.339		
2,600.00	2,588.86	2,522.86	2,588.86	11.73	86.39	43.51	-4,370.85	-6,344.63	7,553.09	7,455.08	98.01	77.061		
2,700.00	2,688.24	2,622.24	2,688.24	12.18	89.86	43.57	-4,370.85	-6,344.63	7,545.03	7,443.11	101.92	74.032		
2,800.00	2,787.62	2,721.62	2,787.62	12.62	93.32	43.63	-4,370.85	-6,344.63	7,536.98	7,431.16	105.82	71.226		
2,900.00	2,887.01	2,821.01	2,887.01	13.06	96.79	43.69	-4,370.85	-6,344.63	7,528.93	7,419.21	109.72	68.618		
3,000.00	2,986.39	2,920.39	2,986.39	13.51	100.26	43.75	-4,370.85	-6,344.63	7,520.90	7,407.27	113.63	66.189		
3,100.00	3,085.77	3,019.77	3,085.77	13.95	103.73	43.80	-4,370.85	-6,344.63	7,512.87	7,395.33	117.53	63.921		
3,200.00	3,185.16	3,119.16	3,185.16	14.40	107.19	43.86	-4,370.85	-6,344.63	7,504.85	7,383.41	121.44	61.798		
3,300.00	3,284.54	3,218.54	3,284.54	14.85	110.66	43.92	-4,370.85	-6,344.63	7,496.83	7,371.48	125.35	59.807		
3,400.00	3,383.92	3,317.92	3,383.92	15.30	114.13	43.98	-4,370.85	-6,344.63	7,488.83	7,359.57	129.26	57.936		
3,500.00	3,483.31	3,417.31	3,483.31	15.75	117.60	44.04	-4,370.85	-6,344.63	7,480.83	7,347.66	133.17	56.174		
3,600.00	3,582.69	3,516.69	3,582.69	16.20	121.07	44.10	-4,370.85	-6,344.63	7,472.84	7,335.76	137.08	54.513		
3,700.00	3,682.07	3,616.07	3,682.07	16.65	124.54	44.16	-4,370.85	-6,344.63	7,464.86	7,323.86	141.00	52.944		
3,800.00	3,781.46	3,715.46	3,781.46	17.10	128.00	44.22	-4,370.85	-6,344.63	7,456.89	7,311.98	144.91	51.459		
3,900.00	3,880.84	3,814.84	3,880.84	17.56	131.47	44.28	-4,370.85	-6,344.63	7,448.92	7,300.10	148.82	50.053		
4,000.00	3,980.22	3,914.22	3,980.22	18.01	134.94	44.33	-4,370.85	-6,344.63	7,440.96	7,288.23	152.74	48.718		
4,100.00	4,079.61	4,013.61	4,079.61	18.46	138.41	44.39	-4,370.85	-6,344.63	7,433.01	7,276.36	156.65	47.450		
4,200.00	4,178.99	4,112.99	4,178.99	18.92	141.88	44.45	-4,370.85	-6,344.63	7,425.07	7,264.51	160.57	46.243		
4,300.00	4,278.38	4,212.38	4,278.38	19.37	145.35	44.51	-4,370.85	-6,344.63	7,417.14	7,252.66	164.48	45.094		
4,400.00	4,377.76	4,311.76	4,377.76	19.83	148.81	44.57	-4,370.85	-6,344.63	7,409.21	7,240.81	168.40	43.998		
4,500.00	4,477.14	4,411.14	4,477.14	20.28	152.28	44.63	-4,370.85	-6,344.63	7,401.29	7,228.98	172.31	42.952		
4,600.00	4,576.53	4,510.53	4,576.53	20.74	155.75	44.69	-4,370.85	-6,344.63	7,393.39	7,217.15	176.23	41.953		
4,700.00	4,675.91	4,609.91	4,675.91	21.19	159.22	44.75	-4,370.85	-6,344.63	7,385.48	7,205.34	180.15	40.997		
4,800.00	4,775.29	4,709.29	4,775.29	21.65	162.69	44.81	-4,370.85	-6,344.63	7,377.59	7,193.53	184.07	40.081		
4,900.00	4,874.68	4,808.68	4,874.68	22.10	166.16	44.88	-4,370.85	-6,344.63	7,369.71	7,181.72	187.98	39.204		
5,000.00	4,974.06	4,908.06	4,974.06	22.56	169.63	44.94	-4,370.85	-6,344.63	7,361.83	7,169.93	191.90	38.362		
5,100.00	5,073.44	5,007.44	5,073.44	23.02	173.10	45.00	-4,370.85	-6,344.63	7,353.96	7,158.14	195.82	37.554		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,106.83	5,172.83	23.47	176.56	45.06	-4,370.85	-6,344.63	7,346.10	7,146.36	199.74	36.778		
5,300.00	5,272.21	5,206.21	5,272.21	23.93	180.03	45.12	-4,370.85	-6,344.63	7,338.25	7,134.59	203.66	36.032		
5,400.00	5,371.59	5,305.59	5,371.59	24.39	183.50	45.18	-4,370.85	-6,344.63	7,330.41	7,122.83	207.58	35.314		
5,500.00	5,470.98	5,404.98	5,470.98	24.85	186.97	45.24	-4,370.85	-6,344.63	7,322.57	7,111.07	211.50	34.622		
5,600.00	5,570.36	5,504.36	5,570.36	25.30	190.44	45.30	-4,370.85	-6,344.63	7,314.75	7,099.33	215.42	33.956		
5,700.00	5,669.75	5,603.75	5,669.75	25.76	193.91	45.36	-4,370.85	-6,344.63	7,306.93	7,087.59	219.34	33.313		
5,800.00	5,769.13	5,703.13	5,769.13	26.22	197.38	45.43	-4,370.85	-6,344.63	7,299.12	7,075.86	223.26	32.694		
5,900.00	5,868.51	5,802.51	5,868.51	26.68	200.85	45.49	-4,370.85	-6,344.63	7,291.32	7,064.14	227.18	32.095		
6,000.00	5,967.90	5,901.90	5,967.90	27.14	204.32	45.55	-4,370.85	-6,344.63	7,283.53	7,052.43	231.10	31.517		
6,100.00	6,067.28	6,001.28	6,067.28	27.60	207.79	45.61	-4,370.85	-6,344.63	7,275.74	7,040.72	235.02	30.958		
6,200.00	6,166.66	6,100.66	6,166.66	28.05	211.25	45.67	-4,370.85	-6,344.63	7,267.97	7,029.02	238.94	30.417		
6,300.00	6,266.05	6,200.05	6,266.05	28.51	214.72	45.74	-4,370.85	-6,344.63	7,260.20	7,017.34	242.86	29.894		
6,400.00	6,365.43	6,300.57	6,365.43	28.97	218.23	45.80	-4,370.85	-6,344.63	7,252.44	7,005.62	246.82	29.383		
6,500.00	6,464.81	6,401.19	6,464.81	29.43	221.74	45.86	-4,370.85	-6,344.63	7,244.69	6,993.90	250.79	28.888		
6,600.00	6,564.10	6,501.90	6,564.10	29.89	225.26	15.32	-4,370.85	-6,344.63	7,235.28	6,980.52	254.76	28.401		
6,700.00	6,661.75	6,604.25	6,661.75	30.34	228.83	-9.06	-4,370.85	-6,344.63	7,214.24	6,955.48	258.76	27.880		
6,800.00	6,755.38	6,689.38	6,755.38	30.77	231.80	-18.69	-4,370.85	-6,344.63	7,180.40	6,918.26	262.14	27.392		
6,900.00	6,842.67	6,776.67	6,842.67	31.17	234.85	-25.18	-4,370.85	-6,344.63	7,134.62	6,869.07	265.55	26.867		
7,000.00	6,921.48	6,855.48	6,921.48	31.54	237.60	-31.30	-4,370.85	-6,344.63	7,078.08	6,809.45	268.62	26.350		
7,100.00	6,989.86	6,923.86	6,989.86	31.91	239.99	-38.28	-4,370.85	-6,344.63	7,012.24	6,740.96	271.29	25.848		
7,200.00	7,046.13	6,980.13	7,046.13	32.35	241.95	-46.95	-4,370.85	-6,344.63	6,938.83	6,665.33	273.49	25.371		
7,300.00	7,088.91	7,022.91	7,088.91	32.98	243.45	-57.87	-4,370.85	-6,344.63	6,859.74	6,584.53	275.21	24.926		
7,400.00	7,117.14	7,051.14	7,117.14	33.84	244.43	-71.03	-4,370.85	-6,344.63	6,777.02	6,500.60	276.42	24.517		
7,500.00	7,130.13	7,064.13	7,130.13	34.90	244.89	-85.30	-4,370.85	-6,344.63	6,692.80	6,415.67	277.13	24.150		
7,600.00	7,130.72	7,064.72	7,130.72	36.13	244.91	-90.38	-4,370.85	-6,344.63	6,608.95	6,331.49	277.46	23.819		
7,700.00	7,130.29	7,064.29	7,130.29	37.54	244.89	-90.37	-4,370.85	-6,344.63	6,525.60	6,247.75	277.85	23.486		
7,800.00	7,129.85	7,063.85	7,129.85	39.12	244.88	-90.36	-4,370.85	-6,344.63	6,442.72	6,164.38	278.33	23.148		
7,900.00	7,129.42	7,063.42	7,129.42	40.83	244.86	-90.36	-4,370.85	-6,344.63	6,360.33	6,081.41	278.92	22.804		
8,000.00	7,128.98	7,062.98	7,128.98	42.67	244.85	-90.35	-4,370.85	-6,344.63	6,278.45	5,998.85	279.61	22.455		
8,100.00	7,128.55	7,062.55	7,128.55	44.62	244.83	-90.34	-4,370.85	-6,344.63	6,197.11	5,916.71	280.40	22.101		
8,200.00	7,128.12	7,062.12	7,128.12	46.66	244.82	-90.34	-4,370.85	-6,344.63	6,116.32	5,835.02	281.30	21.743		
8,300.00	7,127.68	7,061.68	7,127.68	48.79	244.80	-90.33	-4,370.85	-6,344.63	6,036.11	5,753.80	282.31	21.381		
8,400.00	7,127.25	7,061.25	7,127.25	50.98	244.79	-90.32	-4,370.85	-6,344.63	5,956.49	5,673.07	283.42	21.017		
8,500.00	7,126.81	7,060.81	7,126.81	53.24	244.77	-90.32	-4,370.85	-6,344.63	5,877.50	5,592.86	284.64	20.649		
8,600.00	7,126.38	7,060.38	7,126.38	55.56	244.75	-90.31	-4,370.85	-6,344.63	5,799.15	5,513.19	285.96	20.280		
8,700.00	7,125.95	7,059.95	7,125.95	57.92	244.74	-90.30	-4,370.85	-6,344.63	5,721.48	5,434.09	287.39	19.908		
8,800.00	7,125.51	7,059.51	7,125.51	60.33	244.72	-90.30	-4,370.85	-6,344.63	5,644.51	5,355.59	288.92	19.536		
8,900.00	7,125.08	7,059.08	7,125.08	62.77	244.71	-90.29	-4,370.85	-6,344.63	5,568.28	5,277.72	290.56	19.164		
9,000.00	7,124.64	7,058.64	7,124.64	65.25	244.69	-90.28	-4,370.85	-6,344.63	5,492.81	5,200.51	292.30	18.792		
9,100.00	7,124.21	7,058.21	7,124.21	67.76	244.68	-90.28	-4,370.85	-6,344.63	5,418.13	5,123.99	294.14	18.420		
9,200.00	7,123.78	7,057.78	7,123.78	70.29	244.66	-90.27	-4,370.85	-6,344.63	5,344.28	5,048.20	296.08	18.050		
9,300.00	7,123.34	7,057.34	7,123.34	72.85	244.65	-90.26	-4,370.85	-6,344.63	5,271.29	4,973.18	298.11	17.682		
9,400.00	7,122.91	7,056.91	7,122.91	75.43	244.63	-90.26	-4,370.85	-6,344.63	5,199.20	4,898.95	300.25	17.316		
9,500.00	7,122.48	7,056.48	7,122.48	78.03	244.62	-90.25	-4,370.85	-6,344.63	5,128.05	4,825.57	302.48	16.953		
9,600.00	7,122.04	7,056.04	7,122.04	80.65	244.60	-90.24	-4,370.85	-6,344.63	5,057.87	4,753.07	304.80	16.594		
9,700.00	7,121.61	7,055.61	7,121.61	83.28	244.59	-90.23	-4,370.85	-6,344.63	4,988.71	4,681.49	307.22	16.238		
9,800.00	7,121.17	7,055.17	7,121.17	85.93	244.57	-90.23	-4,370.85	-6,344.63	4,920.61	4,610.88	309.73	15.887		
9,900.00	7,120.74	7,054.74	7,120.74	88.59	244.56	-90.22	-4,370.85	-6,344.63	4,853.62	4,541.29	312.33	15.540		
10,000.00	7,120.31	7,054.31	7,120.31	91.26	244.54	-90.21	-4,370.85	-6,344.63	4,787.78	4,472.76	315.02	15.198		
10,100.00	7,119.87	7,053.87	7,119.87	93.95	244.53	-90.21	-4,370.85	-6,344.63	4,723.14	4,405.33	317.80	14.862		
10,200.00	7,119.44	7,053.44	7,119.44	96.64	244.51	-90.20	-4,370.85	-6,344.63	4,659.74	4,339.07	320.67	14.531		
10,300.00	7,119.00	7,053.00	7,119.00	99.34	244.50	-90.19	-4,370.85	-6,344.63	4,597.65	4,274.03	323.62	14.207		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,118.57	7,052.57	7,118.57	102.05	244.48	-90.19	-4,370.85	-6,344.63	4,536.91	4,210.26	326.65	13.889		
10,500.00	7,118.14	7,052.14	7,118.14	104.77	244.47	-90.18	-4,370.85	-6,344.63	4,477.58	4,147.82	329.77	13.578		
10,600.00	7,117.70	7,051.70	7,117.70	107.50	244.45	-90.17	-4,370.85	-6,344.63	4,419.72	4,086.76	332.96	13.274		
10,700.00	7,117.27	7,051.27	7,117.27	110.23	244.44	-90.17	-4,370.85	-6,344.63	4,363.39	4,027.16	336.23	12.977		
10,800.00	7,116.83	7,050.83	7,116.83	112.97	244.42	-90.16	-4,370.85	-6,344.63	4,308.63	3,969.07	339.57	12.689		
10,900.00	7,116.40	7,050.40	7,116.40	115.72	244.41	-90.15	-4,370.85	-6,344.63	4,255.53	3,912.55	342.97	12.408		
11,000.00	7,115.97	7,049.97	7,115.97	118.47	244.39	-90.15	-4,370.85	-6,344.63	4,204.13	3,857.69	346.44	12.135		
11,100.00	7,115.53	7,049.53	7,115.53	121.22	244.38	-90.14	-4,370.85	-6,344.63	4,154.50	3,804.53	349.97	11.871		
11,200.00	7,115.10	7,049.10	7,115.10	123.98	244.36	-90.13	-4,370.85	-6,344.63	4,106.71	3,753.16	353.55	11.616		
11,300.00	7,114.66	7,048.66	7,114.66	126.74	244.35	-90.13	-4,370.85	-6,344.63	4,060.82	3,703.64	357.18	11.369		
11,400.00	7,114.23	7,048.23	7,114.23	129.51	244.33	-90.12	-4,370.85	-6,344.63	4,016.89	3,656.04	360.85	11.132		
11,500.00	7,113.80	7,047.80	7,113.80	132.29	244.32	-90.11	-4,370.85	-6,344.63	3,975.00	3,610.44	364.56	10.904		
11,600.00	7,113.36	7,047.36	7,113.36	135.06	244.30	-90.10	-4,370.85	-6,344.63	3,935.20	3,566.91	368.29	10.685		
11,700.00	7,112.93	7,046.93	7,112.93	137.84	244.29	-90.10	-4,370.85	-6,344.63	3,897.56	3,525.52	372.04	10.476		
11,800.00	7,112.49	7,046.49	7,112.49	140.62	244.27	-90.09	-4,370.85	-6,344.63	3,862.14	3,486.35	375.80	10.277		
11,900.00	7,112.06	7,046.06	7,112.06	143.41	244.25	-90.08	-4,370.85	-6,344.63	3,829.01	3,449.45	379.56	10.088		
12,000.00	7,111.63	7,045.63	7,111.63	146.20	244.24	-90.08	-4,370.85	-6,344.63	3,798.23	3,414.91	383.31	9.909		
12,100.00	7,111.19	7,045.19	7,111.19	148.99	244.22	-90.07	-4,370.85	-6,344.63	3,769.84	3,382.80	387.04	9.740		
12,200.00	7,110.76	7,044.76	7,110.76	151.78	244.21	-90.06	-4,370.85	-6,344.63	3,743.91	3,353.16	390.75	9.581		
12,300.00	7,110.33	7,044.33	7,110.33	154.58	244.19	-90.06	-4,370.85	-6,344.63	3,720.49	3,326.08	394.41	9.433		
12,400.00	7,109.89	7,043.89	7,109.89	157.37	244.18	-90.05	-4,370.85	-6,344.63	3,699.63	3,301.60	398.03	9.295		
12,500.00	7,109.46	7,043.46	7,109.46	160.17	244.16	-90.04	-4,370.85	-6,344.63	3,681.36	3,279.78	401.58	9.167		
12,600.00	7,109.02	7,043.02	7,109.02	162.98	244.15	-90.04	-4,370.85	-6,344.63	3,665.73	3,260.67	405.06	9.050		
12,700.00	7,108.59	7,042.59	7,108.59	165.78	244.13	-90.03	-4,370.85	-6,344.63	3,652.78	3,244.32	408.46	8.943		
12,800.00	7,108.16	7,042.16	7,108.16	168.59	244.12	-90.02	-4,370.85	-6,344.63	3,642.52	3,230.76	411.76	8.846		
12,900.00	7,107.72	7,041.72	7,107.72	171.39	244.10	-90.02	-4,370.85	-6,344.63	3,634.99	3,220.02	414.97	8.760		
13,000.00	7,107.29	7,041.29	7,107.29	174.20	244.09	-90.01	-4,370.85	-6,344.63	3,630.19	3,212.13	418.06	8.683		
13,100.00	7,106.85	7,040.85	7,106.85	177.01	244.07	-90.00	-4,370.85	-6,344.63	3,628.15	3,207.12	421.04	8.617		
13,124.12	7,106.75	7,040.75	7,106.75	177.69	244.07	-90.00	-4,370.85	-6,344.63	3,628.07	3,206.34	421.73	8.603 CC		
13,200.00	7,106.42	7,040.42	7,106.42	179.83	244.06	-89.99	-4,370.85	-6,344.63	3,628.87	3,204.98	423.88	8.561 ES		
13,300.00	7,105.99	7,039.99	7,105.99	182.64	244.04	-89.99	-4,370.85	-6,344.63	3,632.33	3,205.74	426.60	8.515		
13,400.00	7,105.55	7,039.55	7,105.55	185.45	244.03	-89.98	-4,370.85	-6,344.63	3,638.55	3,209.37	429.17	8.478		
13,500.00	7,105.12	7,039.12	7,105.12	188.27	244.01	-89.97	-4,370.85	-6,344.63	3,647.49	3,215.89	431.60	8.451		
13,600.00	7,104.68	7,038.68	7,104.68	191.09	244.00	-89.97	-4,370.85	-6,344.63	3,659.15	3,225.26	433.89	8.433		
13,700.00	7,104.25	7,038.25	7,104.25	193.91	243.98	-89.96	-4,370.85	-6,344.63	3,673.49	3,237.47	436.02	8.425 SF		
13,800.00	7,103.82	7,037.82	7,103.82	196.73	243.97	-89.95	-4,370.85	-6,344.63	3,690.49	3,252.48	438.01	8.426		
13,900.00	7,103.38	7,037.38	7,103.38	199.55	243.95	-89.95	-4,370.85	-6,344.63	3,710.11	3,270.27	439.84	8.435		
14,000.00	7,102.95	7,036.95	7,102.95	202.37	243.94	-89.94	-4,370.85	-6,344.63	3,732.30	3,290.78	441.52	8.453		
14,100.00	7,102.51	7,036.51	7,102.51	205.19	243.92	-89.93	-4,370.85	-6,344.63	3,757.02	3,313.97	443.05	8.480		
14,200.00	7,102.08	7,036.08	7,102.08	208.02	243.91	-89.93	-4,370.85	-6,344.63	3,784.23	3,339.80	444.43	8.515		
14,300.00	7,101.65	7,035.65	7,101.65	210.84	243.89	-89.92	-4,370.85	-6,344.63	3,813.87	3,368.19	445.67	8.558		
14,400.00	7,101.21	7,035.21	7,101.21	213.67	243.88	-89.91	-4,370.85	-6,344.63	3,845.87	3,399.10	446.77	8.608		
14,500.00	7,100.78	7,034.78	7,100.78	216.50	243.86	-89.91	-4,370.85	-6,344.63	3,880.20	3,432.46	447.73	8.666		
14,600.00	7,100.35	7,034.35	7,100.35	219.32	243.85	-89.90	-4,370.85	-6,344.63	3,916.77	3,468.20	448.57	8.732		
14,700.00	7,099.91	7,033.91	7,099.91	222.15	243.83	-89.89	-4,370.85	-6,344.63	3,955.54	3,506.26	449.27	8.804		
14,800.00	7,099.48	7,033.48	7,099.48	224.98	243.82	-89.89	-4,370.85	-6,344.63	3,996.43	3,546.57	449.86	8.884		
14,900.00	7,099.04	7,033.04	7,099.04	227.81	243.80	-89.88	-4,370.85	-6,344.63	4,039.38	3,589.05	450.33	8.970		
14,909.96	7,099.00	7,033.00	7,099.00	228.09	243.80	-89.88	-4,370.85	-6,344.63	4,043.77	3,593.40	450.37	8.979		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	19.00	3.28	3.28	-69.09	2,428.18	-6,357.07	6,805.05				
100.00	100.00	81.00	100.00	3.28	3.57	-69.09	2,428.18	-6,357.07	6,805.03	6,798.17	6.86	992.498	
200.00	200.00	181.00	200.00	3.34	5.63	-69.09	2,428.18	-6,357.07	6,805.03	6,796.06	8.96	759.076	
300.00	300.00	281.00	300.00	3.44	8.71	-69.09	2,428.18	-6,357.07	6,805.03	6,792.87	12.15	560.054	
400.00	400.00	381.00	400.00	3.60	12.01	-69.09	2,428.18	-6,357.07	6,805.03	6,789.41	15.62	435.799	
500.00	500.00	481.00	500.00	3.81	15.40	-69.09	2,428.18	-6,357.07	6,805.03	6,785.82	19.21	354.325	
502.78	502.78	483.78	502.78	3.81	15.49	97.75	2,428.18	-6,357.07	6,805.03	6,785.72	19.31	352.473	
600.00	600.00	581.00	600.00	4.04	18.83	97.75	2,428.18	-6,357.07	6,805.03	6,782.17	22.87	297.568	
700.00	699.96	680.96	699.96	4.29	22.27	97.77	2,428.18	-6,357.07	6,805.36	6,778.80	26.56	256.220	
800.00	799.78	780.78	799.78	4.57	25.72	97.80	2,428.18	-6,357.07	6,806.17	6,775.88	30.29	224.708	
900.00	899.34	880.34	899.34	4.88	29.17	97.85	2,428.18	-6,357.07	6,807.46	6,773.41	34.04	199.972	
1,000.00	998.72	979.72	998.72	5.20	32.62	97.95	2,428.18	-6,357.07	6,808.99	6,771.17	37.82	180.046	
1,100.00	1,098.10	1,079.10	1,098.10	5.54	36.08	98.04	2,428.18	-6,357.07	6,810.54	6,768.92	41.62	163.648	
1,200.00	1,197.49	1,178.49	1,197.49	5.90	39.53	98.13	2,428.18	-6,357.07	6,812.11	6,766.67	45.43	149.931	
1,300.00	1,296.87	1,277.87	1,296.87	6.28	42.99	98.22	2,428.18	-6,357.07	6,813.69	6,764.43	49.27	138.299	
1,400.00	1,396.25	1,377.25	1,396.25	6.66	46.45	98.31	2,428.18	-6,357.07	6,815.30	6,762.18	53.11	128.315	
1,500.00	1,495.64	1,476.64	1,495.64	7.06	49.91	98.40	2,428.18	-6,357.07	6,816.92	6,759.95	56.97	119.658	
1,600.00	1,595.02	1,576.02	1,595.02	7.46	53.37	98.50	2,428.18	-6,357.07	6,818.56	6,757.72	60.83	112.083	
1,700.00	1,694.40	1,675.40	1,694.40	7.87	56.84	98.59	2,428.18	-6,357.07	6,820.21	6,755.51	64.71	105.401	
1,800.00	1,793.79	1,774.79	1,793.79	8.29	60.30	98.68	2,428.18	-6,357.07	6,821.89	6,753.30	68.59	99.465	
1,900.00	1,893.17	1,874.17	1,893.17	8.71	63.77	98.77	2,428.18	-6,357.07	6,823.58	6,751.11	72.47	94.158	
2,000.00	1,992.55	1,973.55	1,992.55	9.13	67.23	98.86	2,428.18	-6,357.07	6,825.29	6,748.93	76.36	89.385	
2,100.00	2,091.94	2,072.94	2,091.94	9.56	70.70	98.95	2,428.18	-6,357.07	6,827.02	6,746.77	80.25	85.071	
2,200.00	2,191.32	2,172.32	2,191.32	9.99	74.16	99.04	2,428.18	-6,357.07	6,828.76	6,744.61	84.15	81.153	
2,300.00	2,290.70	2,271.70	2,290.70	10.42	77.63	99.14	2,428.18	-6,357.07	6,830.52	6,742.48	88.05	77.579	
2,400.00	2,390.09	2,371.09	2,390.09	10.86	81.10	99.23	2,428.18	-6,357.07	6,832.30	6,740.36	91.95	74.307	
2,500.00	2,489.47	2,470.47	2,489.47	11.29	84.56	99.32	2,428.18	-6,357.07	6,834.10	6,738.25	95.85	71.299	
2,600.00	2,588.86	2,569.86	2,588.86	11.73	88.03	99.41	2,428.18	-6,357.07	6,835.91	6,736.16	99.76	68.525	
2,700.00	2,688.24	2,669.24	2,688.24	12.18	91.50	99.50	2,428.18	-6,357.07	6,837.75	6,734.08	103.67	65.960	
2,800.00	2,787.62	2,768.62	2,787.62	12.62	94.96	99.59	2,428.18	-6,357.07	6,839.60	6,732.02	107.58	63.580	
2,900.00	2,887.01	2,868.01	2,887.01	13.06	98.43	99.68	2,428.18	-6,357.07	6,841.46	6,729.98	111.49	61.366	
3,000.00	2,986.39	2,967.39	2,986.39	13.51	101.90	99.77	2,428.18	-6,357.07	6,843.35	6,727.95	115.40	59.302	
3,100.00	3,085.77	3,066.77	3,085.77	13.95	105.37	99.86	2,428.18	-6,357.07	6,845.25	6,725.94	119.31	57.372	
3,200.00	3,185.16	3,166.16	3,185.16	14.40	108.83	99.95	2,428.18	-6,357.07	6,847.17	6,723.94	123.23	55.565	
3,300.00	3,284.54	3,265.54	3,284.54	14.85	112.30	100.05	2,428.18	-6,357.07	6,849.11	6,721.96	127.14	53.869	
3,400.00	3,383.92	3,364.92	3,383.92	15.30	115.77	100.14	2,428.18	-6,357.07	6,851.06	6,720.00	131.06	52.274	
3,500.00	3,483.31	3,464.31	3,483.31	15.75	119.24	100.23	2,428.18	-6,357.07	6,853.03	6,718.06	134.98	50.772	
3,600.00	3,582.69	3,563.69	3,582.69	16.20	122.71	100.32	2,428.18	-6,357.07	6,855.02	6,716.13	138.90	49.354	
3,700.00	3,682.07	3,663.07	3,682.07	16.65	126.18	100.41	2,428.18	-6,357.07	6,857.03	6,714.21	142.81	48.014	
3,800.00	3,781.46	3,762.46	3,781.46	17.10	129.64	100.50	2,428.18	-6,357.07	6,859.05	6,712.32	146.73	46.745	
3,900.00	3,880.84	3,861.84	3,880.84	17.56	133.11	100.59	2,428.18	-6,357.07	6,861.09	6,710.44	150.65	45.542	
4,000.00	3,980.22	3,961.22	3,980.22	18.01	136.58	100.68	2,428.18	-6,357.07	6,863.15	6,708.58	154.57	44.400	
4,100.00	4,079.61	4,060.61	4,079.61	18.46	140.05	100.77	2,428.18	-6,357.07	6,865.23	6,706.73	158.50	43.315	
4,200.00	4,178.99	4,159.99	4,178.99	18.92	143.52	100.86	2,428.18	-6,357.07	6,867.32	6,704.90	162.42	42.282	
4,300.00	4,278.38	4,259.38	4,278.38	19.37	146.99	100.95	2,428.18	-6,357.07	6,869.43	6,703.09	166.34	41.298	
4,400.00	4,377.76	4,358.76	4,377.76	19.83	150.45	101.04	2,428.18	-6,357.07	6,871.56	6,701.29	170.26	40.359	
4,500.00	4,477.14	4,458.14	4,477.14	20.28	153.92	101.13	2,428.18	-6,357.07	6,873.70	6,699.52	174.18	39.462	
4,600.00	4,576.53	4,557.53	4,576.53	20.74	157.39	101.22	2,428.18	-6,357.07	6,875.86	6,697.75	178.11	38.605	
4,700.00	4,675.91	4,656.91	4,675.91	21.19	160.86	101.31	2,428.18	-6,357.07	6,878.04	6,696.01	182.03	37.785	
4,800.00	4,775.29	4,756.29	4,775.29	21.65	164.33	101.40	2,428.18	-6,357.07	6,880.24	6,694.28	185.95	37.000	
4,900.00	4,874.68	4,855.68	4,874.68	22.10	167.80	101.49	2,428.18	-6,357.07	6,882.45	6,692.57	189.88	36.247	
5,000.00	4,974.06	4,955.06	4,974.06	22.56	171.27	101.58	2,428.18	-6,357.07	6,884.68	6,690.88	193.80	35.524	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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)			
5,100.00	5,073.44	5,054.44	5,073.44	23.02	174.74	101.67	2,428.18	-6,357.07	6,886.93	6,689.20	197.73	34.830		
5,200.00	5,172.83	5,153.83	5,172.83	23.47	178.21	101.76	2,428.18	-6,357.07	6,889.19	6,687.54	201.65	34.164		
5,300.00	5,272.21	5,253.21	5,272.21	23.93	181.67	101.85	2,428.18	-6,357.07	6,891.47	6,685.90	205.58	33.523		
5,400.00	5,371.59	5,352.59	5,371.59	24.39	185.14	101.94	2,428.18	-6,357.07	6,893.77	6,684.27	209.50	32.906		
5,500.00	5,470.98	5,451.98	5,470.98	24.85	188.61	102.03	2,428.18	-6,357.07	6,896.09	6,682.66	213.43	32.311		
5,600.00	5,570.36	5,551.36	5,570.36	25.30	192.08	102.12	2,428.18	-6,357.07	6,898.42	6,681.07	217.35	31.738		
5,700.00	5,669.75	5,650.75	5,669.75	25.76	195.55	102.21	2,428.18	-6,357.07	6,900.77	6,679.49	221.28	31.186		
5,800.00	5,769.13	5,750.13	5,769.13	26.22	199.02	102.30	2,428.18	-6,357.07	6,903.14	6,677.93	225.20	30.653		
5,900.00	5,868.51	5,849.51	5,868.51	26.68	202.49	102.39	2,428.18	-6,357.07	6,905.52	6,676.39	229.13	30.138		
6,000.00	5,967.90	5,948.90	5,967.90	27.14	205.96	102.48	2,428.18	-6,357.07	6,907.92	6,674.87	233.06	29.641		
6,100.00	6,067.28	6,048.28	6,067.28	27.60	209.43	102.57	2,428.18	-6,357.07	6,910.34	6,673.36	236.98	29.160		
6,200.00	6,166.66	6,147.66	6,166.66	28.05	212.90	102.66	2,428.18	-6,357.07	6,912.78	6,671.87	240.91	28.695		
6,300.00	6,266.05	6,247.05	6,266.05	28.51	216.36	102.74	2,428.18	-6,357.07	6,915.23	6,670.39	244.83	28.244		
6,400.00	6,365.43	6,346.43	6,365.43	28.97	219.83	102.83	2,428.18	-6,357.07	6,917.70	6,668.93	248.76	27.809		
6,500.00	6,464.81	6,445.81	6,464.81	29.43	223.30	102.92	2,428.18	-6,357.07	6,920.18	6,667.49	252.69	27.386		
6,600.00	6,564.10	6,545.10	6,564.10	29.89	226.77	72.69	2,428.18	-6,357.07	6,920.94	6,664.32	256.61	26.971		
6,700.00	6,661.75	6,642.75	6,661.75	30.34	230.18	49.94	2,428.18	-6,357.07	6,909.48	6,649.01	260.47	26.527		
6,800.00	6,755.38	6,736.38	6,755.38	30.77	233.44	43.42	2,428.18	-6,357.07	6,884.38	6,620.21	264.17	26.060		
6,900.00	6,842.67	6,823.67	6,842.67	31.17	236.49	41.84	2,428.18	-6,357.07	6,846.33	6,578.69	267.63	25.581		
7,000.00	6,921.48	6,902.48	6,921.48	31.54	239.24	42.87	2,428.18	-6,357.07	6,796.33	6,525.55	270.78	25.099		
7,100.00	6,989.86	6,970.86	6,989.86	31.91	241.63	46.01	2,428.18	-6,357.07	6,735.69	6,462.15	273.54	24.624		
7,200.00	7,046.13	7,027.13	7,046.13	32.35	243.59	51.38	2,428.18	-6,357.07	6,665.99	6,390.11	275.88	24.162		
7,300.00	7,088.91	7,069.91	7,088.91	32.98	245.09	59.43	2,428.18	-6,357.07	6,589.01	6,311.25	277.76	23.722		
7,400.00	7,117.14	7,101.86	7,117.14	33.84	246.20	70.64	2,428.18	-6,357.07	6,506.69	6,227.41	279.28	23.298		
7,500.00	7,130.13	7,111.13	7,130.13	34.90	246.53	84.81	2,428.18	-6,357.07	6,421.10	6,141.06	280.04	22.929		
7,600.00	7,130.72	7,111.72	7,130.72	36.13	246.55	90.43	2,428.18	-6,357.07	6,334.40	6,053.87	280.53	22.580		
7,700.00	7,130.29	7,111.29	7,130.29	37.54	246.53	90.42	2,428.18	-6,357.07	6,248.03	5,966.97	281.06	22.230		
7,800.00	7,129.85	7,110.85	7,129.85	39.12	246.52	90.41	2,428.18	-6,357.07	6,162.08	5,880.41	281.67	21.877		
7,900.00	7,129.42	7,110.42	7,129.42	40.83	246.50	90.41	2,428.18	-6,357.07	6,076.55	5,794.19	282.36	21.521		
8,000.00	7,128.98	7,109.98	7,128.98	42.67	246.49	90.40	2,428.18	-6,357.07	5,991.47	5,708.34	283.13	21.162		
8,100.00	7,128.55	7,109.55	7,128.55	44.62	246.47	90.39	2,428.18	-6,357.07	5,906.86	5,622.88	283.99	20.800		
8,200.00	7,128.12	7,109.12	7,128.12	46.66	246.46	90.38	2,428.18	-6,357.07	5,822.74	5,537.82	284.93	20.436		
8,300.00	7,127.68	7,108.68	7,127.68	48.79	246.44	90.38	2,428.18	-6,357.07	5,739.13	5,453.18	285.95	20.070		
8,400.00	7,127.25	7,108.25	7,127.25	50.98	246.43	90.37	2,428.18	-6,357.07	5,656.05	5,368.98	287.07	19.703		
8,500.00	7,126.81	7,107.81	7,126.81	53.24	246.41	90.36	2,428.18	-6,357.07	5,573.52	5,285.25	288.27	19.334		
8,600.00	7,126.38	7,107.38	7,126.38	55.56	246.40	90.35	2,428.18	-6,357.07	5,491.58	5,202.01	289.57	18.965		
8,700.00	7,125.95	7,106.95	7,125.95	57.92	246.38	90.34	2,428.18	-6,357.07	5,410.24	5,119.29	290.95	18.595		
8,800.00	7,125.51	7,106.51	7,125.51	60.33	246.37	90.34	2,428.18	-6,357.07	5,329.54	5,037.11	292.43	18.225		
8,900.00	7,125.08	7,106.08	7,125.08	62.77	246.35	90.33	2,428.18	-6,357.07	5,249.50	4,955.51	293.99	17.856		
9,000.00	7,124.64	7,105.64	7,124.64	65.25	246.33	90.32	2,428.18	-6,357.07	5,170.16	4,874.51	295.65	17.487		
9,100.00	7,124.21	7,105.21	7,124.21	67.76	246.32	90.31	2,428.18	-6,357.07	5,091.54	4,794.14	297.40	17.120		
9,200.00	7,123.78	7,104.78	7,123.78	70.29	246.30	90.30	2,428.18	-6,357.07	5,013.69	4,714.44	299.25	16.754		
9,300.00	7,123.34	7,104.34	7,123.34	72.85	246.29	90.30	2,428.18	-6,357.07	4,936.64	4,635.45	301.18	16.391		
9,400.00	7,122.91	7,103.91	7,122.91	75.43	246.27	90.29	2,428.18	-6,357.07	4,860.42	4,557.20	303.21	16.030		
9,500.00	7,122.48	7,103.48	7,122.48	78.03	246.26	90.28	2,428.18	-6,357.07	4,785.07	4,479.74	305.34	15.672		
9,600.00	7,122.04	7,103.04	7,122.04	80.65	246.24	90.27	2,428.18	-6,357.07	4,710.65	4,403.09	307.55	15.317		
9,700.00	7,121.61	7,102.61	7,121.61	83.28	246.23	90.27	2,428.18	-6,357.07	4,637.18	4,327.32	309.86	14.965		
9,800.00	7,121.17	7,102.17	7,121.17	85.93	246.21	90.26	2,428.18	-6,357.07	4,564.73	4,252.46	312.27	14.618		
9,900.00	7,120.74	7,101.74	7,120.74	88.59	246.20	90.25	2,428.18	-6,357.07	4,493.33	4,178.56	314.77	14.275		
10,000.00	7,120.31	7,101.31	7,120.31	91.26	246.18	90.24	2,428.18	-6,357.07	4,423.04	4,105.68	317.37	13.937		
10,100.00	7,119.87	7,100.87	7,119.87	93.95	246.17	90.23	2,428.18	-6,357.07	4,353.91	4,033.86	320.05	13.604		
10,200.00	7,119.44	7,100.44	7,119.44	96.64	246.15	90.23	2,428.18	-6,357.07	4,286.00	3,963.17	322.84	13.276		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	7,100.00	7,119.00	99.34	246.14	90.22	2,428.18	-6,357.07	4,219.37	3,893.66	325.71	12.954		
10,400.00	7,118.57	7,100.43	7,118.57	102.05	246.15	90.21	2,428.18	-6,357.07	4,154.08	3,825.37	328.71	12.638		
10,500.00	7,118.14	7,100.86	7,118.14	104.77	246.17	90.20	2,428.18	-6,357.07	4,090.19	3,758.40	331.79	12.328		
10,600.00	7,117.70	7,101.30	7,117.70	107.50	246.18	90.19	2,428.18	-6,357.07	4,027.77	3,692.80	334.97	12.024		
10,700.00	7,117.27	7,101.73	7,117.27	110.23	246.20	90.19	2,428.18	-6,357.07	3,966.89	3,628.66	338.23	11.729		
10,800.00	7,116.83	7,102.17	7,116.83	112.97	246.21	90.18	2,428.18	-6,357.07	3,907.61	3,566.05	341.57	11.440		
10,900.00	7,116.40	7,102.60	7,116.40	115.72	246.23	90.17	2,428.18	-6,357.07	3,850.03	3,505.04	344.99	11.160		
11,000.00	7,115.97	7,103.03	7,115.97	118.47	246.24	90.16	2,428.18	-6,357.07	3,794.20	3,445.72	348.49	10.888		
11,100.00	7,115.53	7,103.47	7,115.53	121.22	246.26	90.16	2,428.18	-6,357.07	3,740.22	3,388.17	352.06	10.624		
11,200.00	7,115.10	7,103.90	7,115.10	123.98	246.27	90.15	2,428.18	-6,357.07	3,688.16	3,332.47	355.69	10.369		
11,300.00	7,114.66	7,104.34	7,114.66	126.74	246.29	90.14	2,428.18	-6,357.07	3,638.10	3,278.72	359.38	10.123		
11,400.00	7,114.23	7,104.77	7,114.23	129.51	246.30	90.13	2,428.18	-6,357.07	3,590.13	3,227.01	363.12	9.887		
11,500.00	7,113.80	7,105.20	7,113.80	132.29	246.32	90.12	2,428.18	-6,357.07	3,544.34	3,177.43	366.91	9.660		
11,600.00	7,113.36	7,105.64	7,113.36	135.06	246.33	90.12	2,428.18	-6,357.07	3,500.80	3,130.08	370.72	9.443		
11,700.00	7,112.93	7,106.07	7,112.93	137.84	246.35	90.11	2,428.18	-6,357.07	3,459.60	3,085.04	374.56	9.236		
11,800.00	7,112.49	7,106.51	7,112.49	140.62	246.36	90.10	2,428.18	-6,357.07	3,420.84	3,042.42	378.41	9.040		
11,900.00	7,112.06	7,106.94	7,112.06	143.41	246.38	90.09	2,428.18	-6,357.07	3,384.58	3,002.31	382.27	8.854		
12,000.00	7,111.63	7,107.37	7,111.63	146.20	246.40	90.08	2,428.18	-6,357.07	3,350.92	2,964.81	386.11	8.679		
12,100.00	7,111.19	7,107.81	7,111.19	148.99	246.41	90.08	2,428.18	-6,357.07	3,319.93	2,930.01	389.92	8.514		
12,200.00	7,110.76	7,108.24	7,110.76	151.78	246.43	90.07	2,428.18	-6,357.07	3,291.68	2,897.99	393.70	8.361		
12,300.00	7,110.33	7,108.67	7,110.33	154.58	246.44	90.06	2,428.18	-6,357.07	3,266.26	2,868.84	397.42	8.219		
12,400.00	7,109.89	7,109.11	7,109.89	157.37	246.46	90.05	2,428.18	-6,357.07	3,243.72	2,842.65	401.07	8.088		
12,500.00	7,109.46	7,109.54	7,109.46	160.17	246.47	90.05	2,428.18	-6,357.07	3,224.12	2,819.49	404.64	7.968		
12,600.00	7,109.02	7,109.98	7,109.02	162.98	246.49	90.04	2,428.18	-6,357.07	3,207.53	2,799.42	408.11	7.859		
12,700.00	7,108.59	7,109.59	7,108.59	165.78	245.77	90.03	2,428.18	-6,357.07	3,193.98	2,783.24	410.74	7.776		
12,800.00	7,108.16	7,108.16	7,108.16	168.59	245.76	90.02	2,428.18	-6,357.07	3,183.51	2,769.57	413.94	7.691		
12,900.00	7,107.72	7,108.72	7,107.72	171.39	245.74	90.01	2,428.18	-6,357.07	3,176.16	2,759.15	417.01	7.617		
13,000.00	7,107.29	7,108.29	7,107.29	174.20	245.73	90.01	2,428.18	-6,357.07	3,171.95	2,752.03	419.93	7.554		
13,083.70	7,106.92	7,108.92	7,106.92	176.56	245.72	90.00	2,428.18	-6,357.07	3,170.85	2,748.60	422.24	7.510 CC		
13,100.00	7,106.85	7,108.85	7,106.85	177.01	245.71	90.00	2,428.18	-6,357.07	3,170.89	2,748.21	422.68	7.502		
13,200.00	7,106.42	7,108.42	7,106.42	179.83	245.70	89.99	2,428.18	-6,357.07	3,172.98	2,747.71	425.27	7.461 ES		
13,300.00	7,105.99	7,108.99	7,105.99	182.64	245.68	89.98	2,428.18	-6,357.07	3,178.22	2,750.54	427.68	7.431		
13,400.00	7,105.55	7,108.55	7,105.55	185.45	245.67	89.98	2,428.18	-6,357.07	3,186.59	2,756.67	429.91	7.412		
13,500.00	7,105.12	7,108.12	7,105.12	188.27	245.65	89.97	2,428.18	-6,357.07	3,198.06	2,766.11	431.95	7.404 SF		
13,600.00	7,104.68	7,108.68	7,104.68	191.09	245.64	89.96	2,428.18	-6,357.07	3,212.61	2,778.80	433.81	7.406		
13,700.00	7,104.25	7,108.25	7,104.25	193.91	245.62	89.95	2,428.18	-6,357.07	3,230.19	2,794.71	435.48	7.418		
13,800.00	7,103.82	7,108.82	7,103.82	196.73	245.61	89.94	2,428.18	-6,357.07	3,250.75	2,813.79	436.96	7.440		
13,900.00	7,103.38	7,108.38	7,103.38	199.55	245.59	89.94	2,428.18	-6,357.07	3,274.24	2,835.98	438.25	7.471		
14,000.00	7,102.95	7,108.95	7,102.95	202.37	245.58	89.93	2,428.18	-6,357.07	3,300.59	2,861.22	439.36	7.512		
14,100.00	7,102.51	7,108.51	7,102.51	205.19	245.56	89.92	2,428.18	-6,357.07	3,329.73	2,889.43	440.30	7.562		
14,200.00	7,102.08	7,108.08	7,102.08	208.02	245.55	89.91	2,428.18	-6,357.07	3,361.60	2,920.53	441.07	7.621		
14,300.00	7,101.65	7,108.65	7,101.65	210.84	245.53	89.90	2,428.18	-6,357.07	3,396.12	2,954.45	441.68	7.689		
14,400.00	7,101.21	7,108.21	7,101.21	213.67	245.52	89.90	2,428.18	-6,357.07	3,433.21	2,991.08	442.13	7.765		
14,500.00	7,100.78	7,108.78	7,100.78	216.50	245.50	89.89	2,428.18	-6,357.07	3,472.77	3,030.34	442.43	7.849		
14,600.00	7,100.35	7,108.35	7,100.35	219.32	245.49	89.88	2,428.18	-6,357.07	3,514.74	3,072.14	442.60	7.941		
14,700.00	7,099.91	7,108.91	7,099.91	222.15	245.47	89.87	2,428.18	-6,357.07	3,559.03	3,116.38	442.64	8.040		
14,800.00	7,099.48	7,108.48	7,099.48	224.98	245.46	89.87	2,428.18	-6,357.07	3,605.54	3,162.98	442.56	8.147		
14,900.00	7,099.04	7,108.04	7,099.04	227.81	245.44	89.86	2,428.18	-6,357.07	3,654.20	3,211.82	442.38	8.260		
14,909.96	7,099.00	7,108.00	7,099.00	228.09	245.44	89.86	2,428.18	-6,357.07	3,659.16	3,216.81	442.35	8.272		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	16.00	3.28	3.28	-73.25	2,363.04	-7,853.33	8,201.15					
100.00	100.00	84.00	100.00	3.28	3.59	-73.25	2,363.04	-7,853.33	8,201.14	8,194.26	6.88	1,192.458		
200.00	200.00	184.00	200.00	3.34	5.71	-73.25	2,363.04	-7,853.33	8,201.14	8,192.09	9.05	906.172		
300.00	300.00	284.00	300.00	3.44	8.80	-73.25	2,363.04	-7,853.33	8,201.14	8,188.89	12.25	669.604		
400.00	400.00	384.00	400.00	3.60	12.11	-73.25	2,363.04	-7,853.33	8,201.14	8,185.42	15.72	521.839		
500.00	500.00	484.00	500.00	3.81	15.50	-73.25	2,363.04	-7,853.33	8,201.14	8,181.83	19.31	424.755		
502.78	502.78	486.78	502.78	3.81	15.60	93.59	2,363.04	-7,853.33	8,201.14	8,181.73	19.41	422.546		
600.00	600.00	584.00	600.00	4.04	18.93	93.59	2,363.04	-7,853.33	8,201.14	8,178.17	22.97	357.006		
700.00	699.96	683.96	699.96	4.29	22.37	93.61	2,363.04	-7,853.33	8,201.30	8,174.63	26.66	307.577		
800.00	799.78	783.78	799.78	4.57	25.83	93.64	2,363.04	-7,853.33	8,201.67	8,171.28	30.39	269.857		
900.00	899.34	883.34	899.34	4.88	29.28	93.70	2,363.04	-7,853.33	8,202.28	8,168.13	34.15	240.213		
1,000.00	998.72	982.72	998.72	5.20	32.73	93.77	2,363.04	-7,853.33	8,203.00	8,165.08	37.92	216.313		
1,100.00	1,098.10	1,082.10	1,098.10	5.54	36.18	93.85	2,363.04	-7,853.33	8,203.74	8,162.02	41.72	196.632		
1,200.00	1,197.49	1,181.49	1,197.49	5.90	39.64	93.93	2,363.04	-7,853.33	8,204.50	8,158.96	45.54	180.163		
1,300.00	1,296.87	1,280.87	1,296.87	6.28	43.09	94.00	2,363.04	-7,853.33	8,205.27	8,155.90	49.37	166.191		
1,400.00	1,396.25	1,380.25	1,396.25	6.66	46.55	94.08	2,363.04	-7,853.33	8,206.06	8,152.84	53.22	154.195		
1,500.00	1,495.64	1,479.64	1,495.64	7.06	50.02	94.16	2,363.04	-7,853.33	8,206.86	8,149.78	57.08	143.791		
1,600.00	1,595.02	1,579.02	1,595.02	7.46	53.48	94.23	2,363.04	-7,853.33	8,207.68	8,146.74	60.94	134.684		
1,700.00	1,694.40	1,678.40	1,694.40	7.87	56.94	94.31	2,363.04	-7,853.33	8,208.51	8,143.69	64.81	126.649		
1,800.00	1,793.79	1,777.79	1,793.79	8.29	60.41	94.39	2,363.04	-7,853.33	8,209.35	8,140.66	68.69	119.510		
1,900.00	1,893.17	1,877.17	1,893.17	8.71	63.87	94.46	2,363.04	-7,853.33	8,210.21	8,137.64	72.58	113.126		
2,000.00	1,992.55	1,976.55	1,992.55	9.13	67.34	94.54	2,363.04	-7,853.33	8,211.09	8,134.62	76.46	107.384		
2,100.00	2,091.94	2,075.94	2,091.94	9.56	70.80	94.62	2,363.04	-7,853.33	8,211.98	8,131.62	80.36	102.193		
2,200.00	2,191.32	2,175.32	2,191.32	9.99	74.27	94.69	2,363.04	-7,853.33	8,212.88	8,128.63	84.25	97.478		
2,300.00	2,290.70	2,274.70	2,290.70	10.42	77.73	94.77	2,363.04	-7,853.33	8,213.80	8,125.65	88.15	93.176		
2,400.00	2,390.09	2,374.09	2,390.09	10.86	81.20	94.85	2,363.04	-7,853.33	8,214.74	8,122.68	92.06	89.237		
2,500.00	2,489.47	2,473.47	2,489.47	11.29	84.67	94.92	2,363.04	-7,853.33	8,215.69	8,119.73	95.96	85.616		
2,600.00	2,588.86	2,572.86	2,588.86	11.73	88.13	95.00	2,363.04	-7,853.33	8,216.65	8,116.79	99.87	82.277		
2,700.00	2,688.24	2,672.24	2,688.24	12.18	91.60	95.08	2,363.04	-7,853.33	8,217.63	8,113.86	103.77	79.187		
2,800.00	2,787.62	2,771.62	2,787.62	12.62	95.07	95.15	2,363.04	-7,853.33	8,218.63	8,110.94	107.68	76.321		
2,900.00	2,887.01	2,871.01	2,887.01	13.06	98.54	95.23	2,363.04	-7,853.33	8,219.64	8,108.04	111.60	73.655		
3,000.00	2,986.39	2,970.39	2,986.39	13.51	102.00	95.30	2,363.04	-7,853.33	8,220.66	8,105.15	115.51	71.169		
3,100.00	3,085.77	3,069.77	3,085.77	13.95	105.47	95.38	2,363.04	-7,853.33	8,221.70	8,102.27	119.42	68.845		
3,200.00	3,185.16	3,169.16	3,185.16	14.40	108.94	95.46	2,363.04	-7,853.33	8,222.75	8,099.41	123.34	66.668		
3,300.00	3,284.54	3,268.54	3,284.54	14.85	112.41	95.53	2,363.04	-7,853.33	8,223.82	8,096.57	127.25	64.625		
3,400.00	3,383.92	3,367.92	3,383.92	15.30	115.88	95.61	2,363.04	-7,853.33	8,224.90	8,093.73	131.17	62.703		
3,500.00	3,483.31	3,467.31	3,483.31	15.75	119.34	95.69	2,363.04	-7,853.33	8,226.00	8,090.91	135.09	60.893		
3,600.00	3,582.69	3,566.69	3,582.69	16.20	122.81	95.76	2,363.04	-7,853.33	8,227.11	8,088.11	139.01	59.184		
3,700.00	3,682.07	3,666.07	3,682.07	16.65	126.28	95.84	2,363.04	-7,853.33	8,228.24	8,085.31	142.93	57.569		
3,800.00	3,781.46	3,765.46	3,781.46	17.10	129.75	95.92	2,363.04	-7,853.33	8,229.38	8,082.54	146.85	56.040		
3,900.00	3,880.84	3,864.84	3,880.84	17.56	133.22	95.99	2,363.04	-7,853.33	8,230.54	8,079.77	150.77	54.591		
4,000.00	3,980.22	3,964.22	3,980.22	18.01	136.69	96.07	2,363.04	-7,853.33	8,231.71	8,077.02	154.69	53.215		
4,100.00	4,079.61	4,063.61	4,079.61	18.46	140.15	96.14	2,363.04	-7,853.33	8,232.90	8,074.29	158.61	51.906		
4,200.00	4,178.99	4,162.99	4,178.99	18.92	143.62	96.22	2,363.04	-7,853.33	8,234.10	8,071.57	162.53	50.661		
4,300.00	4,278.38	4,262.38	4,278.38	19.37	147.09	96.30	2,363.04	-7,853.33	8,235.32	8,068.86	166.46	49.475		
4,400.00	4,377.76	4,361.76	4,377.76	19.83	150.56	96.37	2,363.04	-7,853.33	8,236.55	8,066.17	170.38	48.343		
4,500.00	4,477.14	4,461.14	4,477.14	20.28	154.03	96.45	2,363.04	-7,853.33	8,237.79	8,063.49	174.30	47.262		
4,600.00	4,576.53	4,560.53	4,576.53	20.74	157.50	96.53	2,363.04	-7,853.33	8,239.05	8,060.83	178.23	46.228		
4,700.00	4,675.91	4,659.91	4,675.91	21.19	160.97	96.60	2,363.04	-7,853.33	8,240.33	8,058.18	182.15	45.239		
4,800.00	4,775.29	4,759.29	4,775.29	21.65	164.43	96.68	2,363.04	-7,853.33	8,241.62	8,055.54	186.07	44.292		
4,900.00	4,874.68	4,858.68	4,874.68	22.10	167.90	96.75	2,363.04	-7,853.33	8,242.92	8,052.92	190.00	43.384		
5,000.00	4,974.06	4,958.06	4,974.06	22.56	171.37	96.83	2,363.04	-7,853.33	8,244.24	8,050.32	193.92	42.513		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,100.00	5,073.44	5,057.44	5,073.44	23.02	174.84	96.91	2,363.04	-7,853.33	8,245.58	8,047.73	197.85	41.676		
5,200.00	5,172.83	5,156.83	5,172.83	23.47	178.31	96.98	2,363.04	-7,853.33	8,246.92	8,045.15	201.77	40.872		
5,300.00	5,272.21	5,256.21	5,272.21	23.93	181.78	97.06	2,363.04	-7,853.33	8,248.29	8,042.59	205.70	40.099		
5,400.00	5,371.59	5,355.59	5,371.59	24.39	185.25	97.13	2,363.04	-7,853.33	8,249.67	8,040.04	209.63	39.354		
5,500.00	5,470.98	5,454.98	5,470.98	24.85	188.72	97.21	2,363.04	-7,853.33	8,251.06	8,037.51	213.55	38.637		
5,600.00	5,570.36	5,554.36	5,570.36	25.30	192.19	97.29	2,363.04	-7,853.33	8,252.47	8,034.99	217.48	37.946		
5,700.00	5,669.75	5,653.75	5,669.75	25.76	195.65	97.36	2,363.04	-7,853.33	8,253.89	8,032.48	221.40	37.280		
5,800.00	5,769.13	5,753.13	5,769.13	26.22	199.12	97.44	2,363.04	-7,853.33	8,255.32	8,029.99	225.33	36.637		
5,900.00	5,868.51	5,852.51	5,868.51	26.68	202.59	97.51	2,363.04	-7,853.33	8,256.78	8,027.52	229.26	36.015		
6,000.00	5,967.90	5,951.90	5,967.90	27.14	206.06	97.59	2,363.04	-7,853.33	8,258.24	8,025.06	233.18	35.415		
6,100.00	6,067.28	6,051.28	6,067.28	27.60	209.53	97.67	2,363.04	-7,853.33	8,259.72	8,022.61	237.11	34.835		
6,200.00	6,166.66	6,150.66	6,166.66	28.05	213.00	97.74	2,363.04	-7,853.33	8,261.22	8,020.18	241.04	34.274		
6,300.00	6,266.05	6,250.05	6,266.05	28.51	216.47	97.82	2,363.04	-7,853.33	8,262.73	8,017.76	244.96	33.730		
6,400.00	6,365.43	6,349.43	6,365.43	28.97	219.94	97.89	2,363.04	-7,853.33	8,264.25	8,015.36	248.89	33.204		
6,500.00	6,464.81	6,448.81	6,464.81	29.43	223.41	97.97	2,363.04	-7,853.33	8,265.79	8,012.97	252.82	32.694		
6,600.00	6,564.10	6,548.10	6,564.10	29.89	226.87	97.74	2,363.04	-7,853.33	8,265.53	8,008.78	256.74	32.194		
6,700.00	6,661.75	6,645.75	6,661.75	30.34	230.28	44.93	2,363.04	-7,853.33	8,252.57	7,991.97	260.60	31.667		
6,800.00	6,755.38	6,739.38	6,755.38	30.77	233.55	38.25	2,363.04	-7,853.33	8,225.44	7,961.14	264.30	31.121		
6,900.00	6,842.67	6,826.67	6,842.67	31.17	236.60	36.42	2,363.04	-7,853.33	8,184.85	7,917.09	267.76	30.568		
7,000.00	6,921.48	6,905.48	6,921.48	31.54	239.35	37.13	2,363.04	-7,853.33	8,131.84	7,860.95	270.89	30.019		
7,100.00	6,989.86	6,973.86	6,989.86	31.91	241.73	39.91	2,363.04	-7,853.33	8,067.75	7,794.12	273.64	29.484		
7,200.00	7,046.13	7,030.13	7,046.13	32.35	243.70	45.03	2,363.04	-7,853.33	7,994.21	7,718.28	275.94	28.971		
7,300.00	7,088.91	7,072.91	7,088.91	32.98	245.19	53.30	2,363.04	-7,853.33	7,913.07	7,635.31	277.76	28.489		
7,400.00	7,117.14	7,101.14	7,117.14	33.84	246.18	65.88	2,363.04	-7,853.33	7,826.34	7,547.27	279.07	28.044		
7,500.00	7,130.13	7,114.13	7,130.13	34.90	246.63	83.34	2,363.04	-7,853.33	7,736.18	7,456.33	279.85	27.644		
7,600.00	7,130.72	7,114.72	7,130.72	36.13	246.65	90.56	2,363.04	-7,853.33	7,644.82	7,364.61	280.21	27.282		
7,700.00	7,130.29	7,114.29	7,130.29	37.54	246.64	90.55	2,363.04	-7,853.33	7,553.62	7,273.04	280.59	26.921		
7,800.00	7,129.85	7,113.85	7,129.85	39.12	246.62	90.54	2,363.04	-7,853.33	7,462.65	7,181.63	281.02	26.556		
7,900.00	7,129.42	7,113.42	7,129.42	40.83	246.61	90.53	2,363.04	-7,853.33	7,371.91	7,090.41	281.50	26.188		
8,000.00	7,128.98	7,112.98	7,128.98	42.67	246.59	90.52	2,363.04	-7,853.33	7,281.42	6,999.38	282.04	25.817		
8,100.00	7,128.55	7,112.55	7,128.55	44.62	246.58	90.52	2,363.04	-7,853.33	7,191.18	6,908.54	282.64	25.443		
8,200.00	7,128.12	7,112.12	7,128.12	46.66	246.56	90.51	2,363.04	-7,853.33	7,101.19	6,817.90	283.29	25.066		
8,300.00	7,127.68	7,111.68	7,127.68	48.79	246.55	90.50	2,363.04	-7,853.33	7,011.48	6,727.47	284.01	24.687		
8,400.00	7,127.25	7,111.25	7,127.25	50.98	246.53	90.49	2,363.04	-7,853.33	6,922.05	6,637.26	284.79	24.306		
8,500.00	7,126.81	7,110.81	7,126.81	53.24	246.52	90.48	2,363.04	-7,853.33	6,832.92	6,547.28	285.63	23.922		
8,600.00	7,126.38	7,110.38	7,126.38	55.56	246.50	90.48	2,363.04	-7,853.33	6,744.09	6,457.55	286.54	23.537		
8,700.00	7,125.95	7,109.95	7,125.95	57.92	246.49	90.47	2,363.04	-7,853.33	6,655.57	6,368.06	287.51	23.149		
8,800.00	7,125.51	7,109.51	7,125.51	60.33	246.47	90.46	2,363.04	-7,853.33	6,567.39	6,278.84	288.54	22.760		
8,900.00	7,125.08	7,109.08	7,125.08	62.77	246.45	90.45	2,363.04	-7,853.33	6,479.54	6,189.90	289.65	22.371		
9,000.00	7,124.64	7,108.64	7,124.64	65.25	246.44	90.45	2,363.04	-7,853.33	6,392.06	6,101.24	290.82	21.980		
9,100.00	7,124.21	7,108.21	7,124.21	67.76	246.42	90.44	2,363.04	-7,853.33	6,304.95	6,012.89	292.06	21.588		
9,200.00	7,123.78	7,107.78	7,123.78	70.29	246.41	90.43	2,363.04	-7,853.33	6,218.22	5,924.86	293.36	21.196		
9,300.00	7,123.34	7,107.34	7,123.34	72.85	246.39	90.42	2,363.04	-7,853.33	6,131.90	5,837.16	294.74	20.804		
9,400.00	7,122.91	7,106.91	7,122.91	75.43	246.38	90.41	2,363.04	-7,853.33	6,046.00	5,749.81	296.19	20.412		
9,500.00	7,122.48	7,106.48	7,122.48	78.03	246.36	90.41	2,363.04	-7,853.33	5,960.54	5,662.83	297.71	20.021		
9,600.00	7,122.04	7,106.04	7,122.04	80.65	246.35	90.40	2,363.04	-7,853.33	5,875.54	5,576.24	299.31	19.630		
9,700.00	7,121.61	7,105.61	7,121.61	83.28	246.33	90.39	2,363.04	-7,853.33	5,791.02	5,490.05	300.98	19.241		
9,800.00	7,121.17	7,105.17	7,121.17	85.93	246.32	90.38	2,363.04	-7,853.33	5,707.00	5,404.28	302.72	18.852		
9,900.00	7,120.74	7,104.74	7,120.74	88.59	246.30	90.37	2,363.04	-7,853.33	5,623.51	5,318.96	304.54	18.465		
10,000.00	7,120.31	7,104.31	7,120.31	91.26	246.29	90.37	2,363.04	-7,853.33	5,540.56	5,234.11	306.44	18.080		
10,100.00	7,119.87	7,103.87	7,119.87	93.95	246.27	90.36	2,363.04	-7,853.33	5,458.18	5,149.76	308.42	17.697		
10,200.00	7,119.44	7,103.44	7,119.44	96.64	246.26	90.35	2,363.04	-7,853.33	5,376.39	5,065.92	310.47	17.317		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	7,103.00	7,119.00	99.34	246.24	90.34	2,363.04	-7,853.33	5,295.24	4,982.63	312.61	16.939		
10,400.00	7,118.57	7,102.57	7,118.57	102.05	246.23	90.33	2,363.04	-7,853.33	5,214.74	4,899.90	314.83	16.564		
10,500.00	7,118.14	7,102.14	7,118.14	104.77	246.21	90.33	2,363.04	-7,853.33	5,134.92	4,817.78	317.14	16.191		
10,600.00	7,117.70	7,101.70	7,117.70	107.50	246.20	90.32	2,363.04	-7,853.33	5,055.82	4,736.30	319.53	15.823		
10,700.00	7,117.27	7,101.27	7,117.27	110.23	246.18	90.31	2,363.04	-7,853.33	4,977.48	4,655.47	322.00	15.458		
10,800.00	7,116.83	7,100.83	7,116.83	112.97	246.17	90.30	2,363.04	-7,853.33	4,899.92	4,575.35	324.57	15.097		
10,900.00	7,116.40	7,100.40	7,116.40	115.72	246.15	90.29	2,363.04	-7,853.33	4,823.19	4,495.97	327.22	14.740		
11,000.00	7,115.97	7,100.03	7,115.97	118.47	246.14	90.29	2,363.04	-7,853.33	4,747.32	4,417.36	329.96	14.387		
11,100.00	7,115.53	7,100.47	7,115.53	121.22	246.15	90.28	2,363.04	-7,853.33	4,672.36	4,339.53	332.83	14.038		
11,200.00	7,115.10	7,100.90	7,115.10	123.98	246.17	90.27	2,363.04	-7,853.33	4,598.36	4,262.57	335.79	13.694		
11,300.00	7,114.66	7,101.34	7,114.66	126.74	246.18	90.26	2,363.04	-7,853.33	4,525.35	4,186.52	338.83	13.356		
11,400.00	7,114.23	7,101.77	7,114.23	129.51	246.20	90.25	2,363.04	-7,853.33	4,453.40	4,111.42	341.98	13.022		
11,500.00	7,113.80	7,102.20	7,113.80	132.29	246.21	90.25	2,363.04	-7,853.33	4,382.54	4,037.33	345.22	12.695		
11,600.00	7,113.36	7,102.64	7,113.36	135.06	246.23	90.24	2,363.04	-7,853.33	4,312.84	3,964.29	348.55	12.374		
11,700.00	7,112.93	7,103.07	7,112.93	137.84	246.25	90.23	2,363.04	-7,853.33	4,244.35	3,892.38	351.97	12.059		
11,800.00	7,112.49	7,103.51	7,112.49	140.62	246.26	90.22	2,363.04	-7,853.33	4,177.13	3,821.64	355.49	11.750		
11,900.00	7,112.06	7,103.94	7,112.06	143.41	246.28	90.21	2,363.04	-7,853.33	4,111.25	3,752.15	359.10	11.449		
12,000.00	7,111.63	7,104.37	7,111.63	146.20	246.29	90.21	2,363.04	-7,853.33	4,046.76	3,683.96	362.80	11.154		
12,100.00	7,111.19	7,104.81	7,111.19	148.99	246.31	90.20	2,363.04	-7,853.33	3,983.74	3,617.15	366.59	10.867		
12,200.00	7,110.76	7,105.24	7,110.76	151.78	246.32	90.19	2,363.04	-7,853.33	3,922.26	3,551.80	370.46	10.587		
12,300.00	7,110.33	7,105.67	7,110.33	154.58	246.34	90.18	2,363.04	-7,853.33	3,862.39	3,487.97	374.42	10.316		
12,400.00	7,109.89	7,106.11	7,109.89	157.37	246.35	90.17	2,363.04	-7,853.33	3,804.21	3,425.75	378.46	10.052		
12,500.00	7,109.46	7,106.54	7,109.46	160.17	246.37	90.17	2,363.04	-7,853.33	3,747.79	3,365.23	382.56	9.797		
12,600.00	7,109.02	7,106.98	7,109.02	162.98	246.38	90.16	2,363.04	-7,853.33	3,693.21	3,306.48	386.73	9.550		
12,700.00	7,108.59	7,107.41	7,108.59	165.78	246.40	90.15	2,363.04	-7,853.33	3,640.57	3,249.60	390.97	9.312		
12,800.00	7,108.16	7,107.84	7,108.16	168.59	246.41	90.14	2,363.04	-7,853.33	3,589.94	3,194.69	395.25	9.083		
12,900.00	7,107.72	7,108.28	7,107.72	171.39	246.43	90.13	2,363.04	-7,853.33	3,541.41	3,141.84	399.57	8.863		
13,000.00	7,107.29	7,108.71	7,107.29	174.20	246.44	90.13	2,363.04	-7,853.33	3,495.07	3,091.14	403.93	8.653		
13,100.00	7,106.85	7,109.15	7,106.85	177.01	246.46	90.12	2,363.04	-7,853.33	3,451.00	3,042.70	408.31	8.452		
13,200.00	7,106.42	7,109.58	7,106.42	179.83	246.47	90.11	2,363.04	-7,853.33	3,409.30	2,996.61	412.69	8.261		
13,300.00	7,105.99	7,089.99	7,105.99	182.64	245.79	90.10	2,363.04	-7,853.33	3,370.05	2,953.69	416.37	8.094		
13,400.00	7,105.55	7,089.55	7,105.55	185.45	245.77	90.09	2,363.04	-7,853.33	3,333.34	2,912.65	420.69	7.923		
13,500.00	7,105.12	7,089.12	7,105.12	188.27	245.76	90.09	2,363.04	-7,853.33	3,299.26	2,874.28	424.98	7.763		
13,600.00	7,104.68	7,088.68	7,104.68	191.09	245.74	90.08	2,363.04	-7,853.33	3,267.88	2,838.66	429.21	7.614		
13,700.00	7,104.25	7,088.25	7,104.25	193.91	245.73	90.07	2,363.04	-7,853.33	3,239.28	2,805.90	433.38	7.475		
13,800.00	7,103.82	7,087.82	7,103.82	196.73	245.71	90.06	2,363.04	-7,853.33	3,213.54	2,776.09	437.45	7.346		
13,900.00	7,103.38	7,087.38	7,103.38	199.55	245.70	90.05	2,363.04	-7,853.33	3,190.73	2,749.31	441.42	7.228		
14,000.00	7,102.95	7,086.95	7,102.95	202.37	245.68	90.05	2,363.04	-7,853.33	3,170.91	2,725.64	445.27	7.121		
14,100.00	7,102.51	7,086.51	7,102.51	205.19	245.67	90.04	2,363.04	-7,853.33	3,154.14	2,705.16	448.98	7.025		
14,200.00	7,102.08	7,086.08	7,102.08	208.02	245.65	90.03	2,363.04	-7,853.33	3,140.47	2,687.94	452.53	6.940		
14,300.00	7,101.65	7,085.65	7,101.65	210.84	245.64	90.02	2,363.04	-7,853.33	3,129.93	2,674.02	455.91	6.865		
14,400.00	7,101.21	7,085.21	7,101.21	213.67	245.62	90.01	2,363.04	-7,853.33	3,122.56	2,663.46	459.10	6.802		
14,500.00	7,100.78	7,084.78	7,100.78	216.50	245.61	90.01	2,363.04	-7,853.33	3,118.38	2,656.29	462.09	6.748		
14,580.43	7,100.43	7,084.43	7,100.43	218.77	245.59	90.00	2,363.04	-7,853.33	3,117.34	2,653.00	464.34	6.713 CC		
14,600.00	7,100.35	7,084.35	7,100.35	219.32	245.59	90.00	2,363.04	-7,853.33	3,117.40	2,652.53	464.87	6.706		
14,700.00	7,099.91	7,083.91	7,099.91	222.15	245.58	89.99	2,363.04	-7,853.33	3,119.63	2,652.20	467.43	6.674 ES		
14,800.00	7,099.48	7,083.48	7,099.48	224.98	245.56	89.98	2,363.04	-7,853.33	3,125.06	2,655.30	469.76	6.652		
14,900.00	7,099.04	7,083.04	7,099.04	227.81	245.55	89.97	2,363.04	-7,853.33	3,133.67	2,661.81	471.86	6.641		
14,909.96	7,099.00	7,083.00	7,099.00	228.09	245.54	89.97	2,363.04	-7,853.33	3,134.71	2,662.65	472.06	6.640 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	1.00	0.00	3.28	3.28	-55.67	2,478.63	-3,628.79	4,394.51				
100.00	100.00	101.00	100.00	3.28	3.73	-55.67	2,478.63	-3,628.79	4,394.51	4,387.49	7.02	626.288	
200.00	200.00	201.00	200.00	3.34	6.21	-55.67	2,478.63	-3,628.79	4,394.51	4,384.97	9.55	460.371	
300.00	300.00	301.00	300.00	3.44	9.36	-55.67	2,478.63	-3,628.79	4,394.51	4,381.71	12.80	343.292	
400.00	400.00	401.00	400.00	3.60	12.68	-55.67	2,478.63	-3,628.79	4,394.51	4,378.22	16.29	269.798	
500.00	500.00	501.00	500.00	3.81	16.08	-55.67	2,478.63	-3,628.79	4,394.51	4,374.62	19.89	220.958	
502.78	502.78	503.78	502.78	3.81	16.18	111.18	2,478.63	-3,628.79	4,394.51	4,374.52	19.99	219.840	
600.00	600.00	601.00	600.00	4.04	19.51	111.18	2,478.63	-3,628.79	4,394.54	4,370.98	23.56	186.551	
700.00	699.96	700.96	699.96	4.29	22.96	111.20	2,478.63	-3,628.79	4,395.42	4,368.17	27.25	161.290	
800.00	799.78	800.78	799.78	4.57	26.41	111.23	2,478.63	-3,628.79	4,397.57	4,366.59	30.98	141.939	
900.00	899.34	900.34	899.34	4.88	29.87	111.28	2,478.63	-3,628.79	4,400.99	4,366.26	34.74	126.694	
1,000.00	998.72	1,000.28	998.72	5.20	33.34	111.41	2,478.63	-3,628.79	4,405.05	4,366.52	38.53	114.319	
1,100.00	1,098.10	1,100.90	1,098.10	5.54	36.83	111.55	2,478.63	-3,628.79	4,409.13	4,366.76	42.37	104.051	
1,200.00	1,197.49	1,201.51	1,197.49	5.90	40.33	111.68	2,478.63	-3,628.79	4,413.24	4,367.00	46.23	95.453	
1,300.00	1,296.87	1,302.13	1,296.87	6.28	43.83	111.81	2,478.63	-3,628.79	4,417.37	4,367.26	50.11	88.154	
1,400.00	1,396.25	1,402.75	1,396.25	6.66	47.34	111.94	2,478.63	-3,628.79	4,421.52	4,367.52	54.00	81.884	
1,500.00	1,495.64	1,503.36	1,495.64	7.06	50.84	112.08	2,478.63	-3,628.79	4,425.70	4,367.80	57.90	76.443	
1,600.00	1,595.02	1,603.98	1,595.02	7.46	54.35	112.21	2,478.63	-3,628.79	4,429.90	4,368.10	61.80	71.679	
1,700.00	1,694.40	1,704.60	1,694.40	7.87	57.86	112.34	2,478.63	-3,628.79	4,434.12	4,368.41	65.72	67.474	
1,800.00	1,793.79	1,805.21	1,793.79	8.29	61.36	112.47	2,478.63	-3,628.79	4,438.37	4,368.74	69.64	63.737	
1,900.00	1,893.17	1,905.83	1,893.17	8.71	64.87	112.60	2,478.63	-3,628.79	4,442.64	4,369.08	73.56	60.394	
2,000.00	1,992.55	2,006.45	1,992.55	9.13	68.38	112.74	2,478.63	-3,628.79	4,446.94	4,369.45	77.49	57.387	
2,100.00	2,091.94	2,107.06	2,091.94	9.56	71.89	112.87	2,478.63	-3,628.79	4,451.26	4,369.83	81.42	54.668	
2,200.00	2,191.32	2,207.68	2,191.32	9.99	75.40	113.00	2,478.63	-3,628.79	4,455.60	4,370.24	85.36	52.197	
2,300.00	2,290.70	2,308.30	2,290.70	10.42	78.91	113.13	2,478.63	-3,628.79	4,459.97	4,370.66	89.30	49.943	
2,400.00	2,390.09	2,408.91	2,390.09	10.86	82.42	113.26	2,478.63	-3,628.79	4,464.35	4,371.11	93.24	47.878	
2,500.00	2,489.47	2,509.53	2,489.47	11.29	85.92	113.39	2,478.63	-3,628.79	4,468.77	4,371.58	97.19	45.980	
2,600.00	2,588.86	2,589.86	2,588.86	11.73	88.73	113.52	2,478.63	-3,628.79	4,473.20	4,372.77	100.43	44.542	
2,700.00	2,688.24	2,689.24	2,688.24	12.18	92.19	113.65	2,478.63	-3,628.79	4,477.66	4,373.33	104.33	42.917	
2,800.00	2,787.62	2,788.62	2,787.62	12.62	95.66	113.78	2,478.63	-3,628.79	4,482.14	4,373.90	108.24	41.409	
2,900.00	2,887.01	2,888.01	2,887.01	13.06	99.13	113.90	2,478.63	-3,628.79	4,486.65	4,374.50	112.15	40.006	
3,000.00	2,986.39	2,987.39	2,986.39	13.51	102.60	114.03	2,478.63	-3,628.79	4,491.17	4,375.11	116.06	38.697	
3,100.00	3,085.77	3,086.77	3,085.77	13.95	106.06	114.16	2,478.63	-3,628.79	4,495.72	4,375.75	119.97	37.474	
3,200.00	3,185.16	3,186.16	3,185.16	14.40	109.53	114.29	2,478.63	-3,628.79	4,500.30	4,376.41	123.88	36.327	
3,300.00	3,284.54	3,285.54	3,284.54	14.85	113.00	114.42	2,478.63	-3,628.79	4,504.89	4,377.10	127.80	35.251	
3,400.00	3,383.92	3,384.92	3,383.92	15.30	116.47	114.55	2,478.63	-3,628.79	4,509.51	4,377.80	131.71	34.238	
3,500.00	3,483.31	3,484.31	3,483.31	15.75	119.94	114.67	2,478.63	-3,628.79	4,514.15	4,378.53	135.62	33.284	
3,600.00	3,582.69	3,583.69	3,582.69	16.20	123.40	114.80	2,478.63	-3,628.79	4,518.81	4,379.27	139.54	32.384	
3,700.00	3,682.07	3,683.07	3,682.07	16.65	126.87	114.93	2,478.63	-3,628.79	4,523.50	4,380.04	143.46	31.532	
3,800.00	3,781.46	3,782.46	3,781.46	17.10	130.34	115.05	2,478.63	-3,628.79	4,528.21	4,380.83	147.37	30.726	
3,900.00	3,880.84	3,881.84	3,880.84	17.56	133.81	115.18	2,478.63	-3,628.79	4,532.93	4,381.64	151.29	29.962	
4,000.00	3,980.22	3,981.22	3,980.22	18.01	137.28	115.31	2,478.63	-3,628.79	4,537.69	4,382.48	155.21	29.236	
4,100.00	4,079.61	4,080.61	4,079.61	18.46	140.75	115.43	2,478.63	-3,628.79	4,542.46	4,383.33	159.13	28.546	
4,200.00	4,178.99	4,179.99	4,178.99	18.92	144.22	115.56	2,478.63	-3,628.79	4,547.26	4,384.21	163.04	27.890	
4,300.00	4,278.38	4,279.38	4,278.38	19.37	147.68	115.68	2,478.63	-3,628.79	4,552.07	4,385.11	166.96	27.264	
4,400.00	4,377.76	4,378.76	4,377.76	19.83	151.15	115.81	2,478.63	-3,628.79	4,556.91	4,386.03	170.88	26.667	
4,500.00	4,477.14	4,478.14	4,477.14	20.28	154.62	115.93	2,478.63	-3,628.79	4,561.78	4,386.97	174.80	26.097	
4,600.00	4,576.53	4,577.53	4,576.53	20.74	158.09	116.06	2,478.63	-3,628.79	4,566.66	4,387.94	178.72	25.552	
4,700.00	4,675.91	4,676.91	4,675.91	21.19	161.56	116.18	2,478.63	-3,628.79	4,571.56	4,388.92	182.64	25.030	
4,800.00	4,775.29	4,776.29	4,775.29	21.65	165.03	116.30	2,478.63	-3,628.79	4,576.49	4,389.93	186.56	24.530	
4,900.00	4,874.68	4,875.68	4,874.68	22.10	168.50	116.43	2,478.63	-3,628.79	4,581.44	4,390.95	190.48	24.051	
5,000.00	4,974.06	4,975.06	4,974.06	22.56	171.97	116.55	2,478.63	-3,628.79	4,586.41	4,392.00	194.41	23.592	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	5,073.44	5,074.44	5,073.44	23.02	175.43	116.67	2,478.63	-3,628.79	4,591.40	4,393.07	198.33	23.151		
5,200.00	5,172.83	5,173.83	5,172.83	23.47	178.90	116.80	2,478.63	-3,628.79	4,596.41	4,394.16	202.25	22.727		
5,300.00	5,272.21	5,273.21	5,272.21	23.93	182.37	116.92	2,478.63	-3,628.79	4,601.44	4,395.27	206.17	22.319		
5,400.00	5,371.59	5,372.59	5,371.59	24.39	185.84	117.04	2,478.63	-3,628.79	4,606.50	4,396.41	210.09	21.926		
5,500.00	5,470.98	5,471.98	5,470.98	24.85	189.31	117.16	2,478.63	-3,628.79	4,611.58	4,397.56	214.01	21.548		
5,600.00	5,570.36	5,571.36	5,570.36	25.30	192.78	117.29	2,478.63	-3,628.79	4,616.67	4,398.74	217.94	21.184		
5,700.00	5,669.75	5,670.75	5,669.75	25.76	196.25	117.41	2,478.63	-3,628.79	4,621.79	4,399.93	221.86	20.832		
5,800.00	5,769.13	5,770.13	5,769.13	26.22	199.72	117.53	2,478.63	-3,628.79	4,626.93	4,401.15	225.78	20.493		
5,900.00	5,868.51	5,869.51	5,868.51	26.68	203.19	117.65	2,478.63	-3,628.79	4,632.09	4,402.39	229.70	20.166		
6,000.00	5,967.90	5,968.90	5,967.90	27.14	206.66	117.77	2,478.63	-3,628.79	4,637.27	4,403.64	233.63	19.849		
6,100.00	6,067.28	6,068.28	6,067.28	27.60	210.12	117.89	2,478.63	-3,628.79	4,642.47	4,404.92	237.55	19.543		
6,200.00	6,166.66	6,167.66	6,166.66	28.05	213.59	118.01	2,478.63	-3,628.79	4,647.69	4,406.22	241.47	19.247		
6,300.00	6,266.05	6,267.05	6,266.05	28.51	217.06	118.13	2,478.63	-3,628.79	4,652.93	4,407.54	245.39	18.961		
6,400.00	6,365.43	6,366.43	6,365.43	28.97	220.53	118.25	2,478.63	-3,628.79	4,658.20	4,408.88	249.32	18.684		
6,500.00	6,464.81	6,465.81	6,464.81	29.43	224.00	118.37	2,478.63	-3,628.79	4,663.48	4,410.24	253.24	18.415		
6,600.00	6,564.10	6,565.10	6,564.10	29.89	227.47	88.09	2,478.63	-3,628.79	4,667.33	4,410.17	257.16	18.150		
6,700.00	6,661.75	6,662.75	6,661.75	30.34	230.87	65.35	2,478.63	-3,628.79	4,661.05	4,400.03	261.02	17.857		
6,800.00	6,755.38	6,756.38	6,755.38	30.77	234.14	59.00	2,478.63	-3,628.79	4,643.45	4,378.72	264.72	17.541		
6,900.00	6,842.67	6,843.67	6,842.67	31.17	237.19	57.68	2,478.63	-3,628.79	4,615.15	4,346.96	268.19	17.208		
7,000.00	6,921.48	6,922.48	6,921.48	31.54	239.94	58.94	2,478.63	-3,628.79	4,577.09	4,305.73	271.36	16.867		
7,100.00	6,989.86	7,009.14	6,989.86	31.91	242.97	62.03	2,478.63	-3,628.79	4,530.45	4,255.62	274.83	16.485		
7,200.00	7,046.13	7,047.13	7,046.13	32.35	244.29	66.66	2,478.63	-3,628.79	4,476.66	4,200.01	276.65	16.182		
7,300.00	7,088.91	7,089.91	7,088.91	32.98	245.79	72.63	2,478.63	-3,628.79	4,417.27	4,138.57	278.71	15.849		
7,400.00	7,117.14	7,118.14	7,117.14	33.84	246.77	79.67	2,478.63	-3,628.79	4,353.98	4,073.62	280.36	15.530		
7,500.00	7,130.13	7,131.13	7,130.13	34.90	247.22	87.36	2,478.63	-3,628.79	4,288.49	4,006.89	281.60	15.229		
7,600.00	7,130.72	7,131.72	7,130.72	36.13	247.25	90.21	2,478.63	-3,628.79	4,222.67	3,940.15	282.52	14.947		
7,700.00	7,130.29	7,131.29	7,130.29	37.54	247.23	90.21	2,478.63	-3,628.79	4,158.11	3,874.56	283.55	14.664		
7,800.00	7,129.85	7,130.85	7,129.85	39.12	247.21	90.20	2,478.63	-3,628.79	4,094.98	3,810.24	284.74	14.382		
7,900.00	7,129.42	7,130.42	7,129.42	40.83	247.20	90.19	2,478.63	-3,628.79	4,033.35	3,747.27	286.08	14.099		
8,000.00	7,128.98	7,129.98	7,128.98	42.67	247.18	90.18	2,478.63	-3,628.79	3,973.27	3,685.70	287.57	13.817		
8,100.00	7,128.55	7,129.55	7,128.55	44.62	247.17	90.18	2,478.63	-3,628.79	3,914.83	3,625.62	289.20	13.537		
8,200.00	7,128.12	7,129.12	7,128.12	46.66	247.15	90.17	2,478.63	-3,628.79	3,858.09	3,567.11	290.98	13.259		
8,300.00	7,127.68	7,128.68	7,127.68	48.79	247.14	90.16	2,478.63	-3,628.79	3,803.14	3,510.25	292.89	12.985		
8,400.00	7,127.25	7,128.25	7,127.25	50.98	247.12	90.15	2,478.63	-3,628.79	3,750.05	3,455.12	294.93	12.715		
8,500.00	7,126.81	7,127.81	7,126.81	53.24	247.11	90.14	2,478.63	-3,628.79	3,698.90	3,401.81	297.09	12.451		
8,600.00	7,126.38	7,127.38	7,126.38	55.56	247.09	90.14	2,478.63	-3,628.79	3,649.77	3,350.41	299.36	12.192		
8,700.00	7,125.95	7,126.95	7,125.95	57.92	247.08	90.13	2,478.63	-3,628.79	3,602.75	3,301.01	301.74	11.940		
8,800.00	7,125.51	7,126.51	7,125.51	60.33	247.06	90.12	2,478.63	-3,628.79	3,557.92	3,253.71	304.21	11.695		
8,900.00	7,125.08	7,126.08	7,125.08	62.77	247.05	90.11	2,478.63	-3,628.79	3,515.37	3,208.59	306.78	11.459		
9,000.00	7,124.64	7,125.64	7,124.64	65.25	247.03	90.11	2,478.63	-3,628.79	3,475.17	3,165.74	309.42	11.231		
9,100.00	7,124.21	7,125.21	7,124.21	67.76	247.02	90.10	2,478.63	-3,628.79	3,437.41	3,125.27	312.14	11.012		
9,200.00	7,123.78	7,124.78	7,123.78	70.29	247.00	90.09	2,478.63	-3,628.79	3,402.17	3,087.26	314.91	10.803		
9,300.00	7,123.34	7,124.34	7,123.34	72.85	246.99	90.08	2,478.63	-3,628.79	3,369.53	3,051.79	317.74	10.605		
9,400.00	7,122.91	7,123.91	7,122.91	75.43	246.97	90.07	2,478.63	-3,628.79	3,339.57	3,018.97	320.60	10.417		
9,500.00	7,122.48	7,123.48	7,122.48	78.03	246.96	90.07	2,478.63	-3,628.79	3,312.36	2,988.87	323.49	10.239		
9,600.00	7,122.04	7,123.04	7,122.04	80.65	246.94	90.06	2,478.63	-3,628.79	3,287.96	2,961.57	326.39	10.074		
9,700.00	7,121.61	7,122.61	7,121.61	83.28	246.93	90.05	2,478.63	-3,628.79	3,266.45	2,937.15	329.30	9.919		
9,800.00	7,121.17	7,122.17	7,121.17	85.93	246.91	90.04	2,478.63	-3,628.79	3,247.87	2,915.67	332.20	9.777		
9,900.00	7,120.74	7,121.74	7,120.74	88.59	246.90	90.04	2,478.63	-3,628.79	3,232.28	2,897.20	335.08	9.646		
10,000.00	7,120.31	7,121.31	7,120.31	91.26	246.88	90.03	2,478.63	-3,628.79	3,219.73	2,881.80	337.93	9.528		
10,100.00	7,119.87	7,120.87	7,119.87	93.95	246.87	90.02	2,478.63	-3,628.79	3,210.24	2,869.51	340.73	9.422		
10,200.00	7,119.44	7,120.44	7,119.44	96.64	246.85	90.01	2,478.63	-3,628.79	3,203.84	2,860.36	343.48	9.328		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	7,120.00	7,119.00	99.34	246.84	90.00	2,478.63	-3,628.79	3,200.56	2,854.40	346.17	9.246		
10,355.08	7,118.76	7,119.76	7,118.76	100.83	246.83	90.00	2,478.63	-3,628.79	3,200.09	2,852.48	347.61	9.206 CC		
10,400.00	7,118.57	7,119.57	7,118.57	102.05	246.82	90.00	2,478.63	-3,628.79	3,200.40	2,851.63	348.77	9.176 ES		
10,500.00	7,118.14	7,119.14	7,118.14	104.77	246.81	89.99	2,478.63	-3,628.79	3,203.37	2,852.07	351.30	9.119		
10,600.00	7,117.70	7,118.70	7,117.70	107.50	246.79	89.98	2,478.63	-3,628.79	3,209.45	2,855.72	353.73	9.073		
10,700.00	7,117.27	7,118.27	7,117.27	110.23	246.78	89.97	2,478.63	-3,628.79	3,218.62	2,862.56	356.06	9.039		
10,800.00	7,116.83	7,117.83	7,116.83	112.97	246.76	89.97	2,478.63	-3,628.79	3,230.87	2,872.58	358.29	9.017		
10,900.00	7,116.40	7,117.40	7,116.40	115.72	246.75	89.96	2,478.63	-3,628.79	3,246.15	2,885.74	360.41	9.007 SF		
11,000.00	7,115.97	7,116.97	7,115.97	118.47	246.73	89.95	2,478.63	-3,628.79	3,264.43	2,902.02	362.41	9.008		
11,100.00	7,115.53	7,116.53	7,115.53	121.22	246.71	89.94	2,478.63	-3,628.79	3,285.64	2,921.35	364.30	9.019		
11,200.00	7,115.10	7,116.10	7,115.10	123.98	246.70	89.93	2,478.63	-3,628.79	3,309.75	2,943.68	366.06	9.041		
11,300.00	7,114.66	7,115.66	7,114.66	126.74	246.68	89.93	2,478.63	-3,628.79	3,336.68	2,968.96	367.71	9.074		
11,400.00	7,114.23	7,115.23	7,114.23	129.51	246.67	89.92	2,478.63	-3,628.79	3,366.36	2,997.12	369.25	9.117		
11,500.00	7,113.80	7,114.80	7,113.80	132.29	246.65	89.91	2,478.63	-3,628.79	3,398.73	3,028.07	370.66	9.169		
11,600.00	7,113.36	7,114.36	7,113.36	135.06	246.64	89.90	2,478.63	-3,628.79	3,433.71	3,061.74	371.96	9.231		
11,700.00	7,112.93	7,113.93	7,112.93	137.84	246.62	89.90	2,478.63	-3,628.79	3,471.21	3,098.06	373.15	9.302		
11,800.00	7,112.49	7,113.49	7,112.49	140.62	246.61	89.89	2,478.63	-3,628.79	3,511.17	3,136.93	374.24	9.382		
11,900.00	7,112.06	7,113.06	7,112.06	143.41	246.59	89.88	2,478.63	-3,628.79	3,553.49	3,178.27	375.22	9.470		
12,000.00	7,111.63	7,112.63	7,111.63	146.20	246.58	89.87	2,478.63	-3,628.79	3,598.09	3,221.99	376.10	9.567		
12,100.00	7,111.19	7,112.19	7,111.19	148.99	246.56	89.86	2,478.63	-3,628.79	3,644.89	3,268.01	376.88	9.671		
12,200.00	7,110.76	7,111.76	7,110.76	151.78	246.55	89.86	2,478.63	-3,628.79	3,693.81	3,316.23	377.58	9.783		
12,300.00	7,110.33	7,111.33	7,110.33	154.58	246.53	89.85	2,478.63	-3,628.79	3,744.76	3,366.56	378.19	9.902		
12,400.00	7,109.89	7,110.89	7,109.89	157.37	246.52	89.84	2,478.63	-3,628.79	3,797.65	3,418.93	378.72	10.028		
12,500.00	7,109.46	7,110.46	7,109.46	160.17	246.50	89.83	2,478.63	-3,628.79	3,852.42	3,473.24	379.18	10.160		
12,600.00	7,109.02	7,110.02	7,109.02	162.98	246.49	89.83	2,478.63	-3,628.79	3,908.98	3,529.41	379.57	10.298		
12,700.00	7,108.59	7,109.59	7,108.59	165.78	246.47	89.82	2,478.63	-3,628.79	3,967.25	3,587.36	379.89	10.443		
12,800.00	7,108.16	7,109.16	7,108.16	168.59	246.46	89.81	2,478.63	-3,628.79	4,027.17	3,647.01	380.15	10.594		
12,900.00	7,107.72	7,108.72	7,107.72	171.39	246.44	89.80	2,478.63	-3,628.79	4,088.65	3,708.29	380.36	10.749		
13,000.00	7,107.29	7,108.29	7,107.29	174.20	246.43	89.79	2,478.63	-3,628.79	4,151.63	3,771.11	380.52	10.910		
13,100.00	7,106.85	7,107.85	7,106.85	177.01	246.41	89.79	2,478.63	-3,628.79	4,216.04	3,835.41	380.63	11.077		
13,200.00	7,106.42	7,107.42	7,106.42	179.83	246.40	89.78	2,478.63	-3,628.79	4,281.82	3,901.12	380.69	11.247		
13,300.00	7,105.99	7,106.99	7,105.99	182.64	246.38	89.77	2,478.63	-3,628.79	4,348.90	3,968.18	380.72	11.423		
13,400.00	7,105.55	7,106.55	7,105.55	185.45	246.37	89.76	2,478.63	-3,628.79	4,417.23	4,036.52	380.71	11.603		
13,500.00	7,105.12	7,106.12	7,105.12	188.27	246.35	89.76	2,478.63	-3,628.79	4,486.75	4,106.07	380.67	11.786		
13,600.00	7,104.68	7,105.68	7,104.68	191.09	246.34	89.75	2,478.63	-3,628.79	4,557.40	4,176.80	380.60	11.974		
13,700.00	7,104.25	7,105.25	7,104.25	193.91	246.32	89.74	2,478.63	-3,628.79	4,629.13	4,248.63	380.50	12.166		
13,800.00	7,103.82	7,104.82	7,103.82	196.73	246.31	89.73	2,478.63	-3,628.79	4,701.89	4,321.51	380.38	12.361		
13,900.00	7,103.38	7,104.38	7,103.38	199.55	246.29	89.72	2,478.63	-3,628.79	4,775.64	4,395.41	380.24	12.560		
14,000.00	7,102.95	7,103.95	7,102.95	202.37	246.28	89.72	2,478.63	-3,628.79	4,850.33	4,470.26	380.07	12.762		
14,100.00	7,102.51	7,103.51	7,102.51	205.19	246.26	89.71	2,478.63	-3,628.79	4,925.92	4,546.03	379.89	12.967		
14,200.00	7,102.08	7,103.08	7,102.08	208.02	246.25	89.70	2,478.63	-3,628.79	5,002.37	4,622.67	379.70	13.175		
14,300.00	7,101.65	7,102.65	7,101.65	210.84	246.23	89.69	2,478.63	-3,628.79	5,079.63	4,700.14	379.49	13.385		
14,400.00	7,101.21	7,102.21	7,101.21	213.67	246.22	89.69	2,478.63	-3,628.79	5,157.67	4,778.41	379.27	13.599		
14,500.00	7,100.78	7,101.78	7,100.78	216.50	246.20	89.68	2,478.63	-3,628.79	5,236.47	4,857.43	379.03	13.815		
14,600.00	7,100.35	7,101.35	7,100.35	219.32	246.18	89.67	2,478.63	-3,628.79	5,315.97	4,937.18	378.79	14.034		
14,700.00	7,099.91	7,100.91	7,099.91	222.15	246.17	89.66	2,478.63	-3,628.79	5,396.16	5,017.61	378.54	14.255		
14,800.00	7,099.48	7,100.48	7,099.48	224.98	246.15	89.65	2,478.63	-3,628.79	5,477.00	5,098.71	378.29	14.478		
14,900.00	7,099.04	7,100.04	7,099.04	227.81	246.14	89.65	2,478.63	-3,628.79	5,558.46	5,180.43	378.03	14.704		
14,909.96	7,099.00	7,100.00	7,099.00	228.09	246.14	89.65	2,478.63	-3,628.79	5,566.61	5,188.61	378.00	14.726		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	39.00	3.28	3.28	-63.17	2,449.70	-4,844.14	5,428.46					
100.00	100.00	61.00	100.00	3.28	3.45	-63.17	2,449.70	-4,844.14	5,428.32	5,421.59	6.73	806.201		
200.00	200.00	161.00	200.00	3.34	5.08	-63.17	2,449.70	-4,844.14	5,428.32	5,419.91	8.41	645.165		
300.00	300.00	261.00	300.00	3.44	8.06	-63.17	2,449.70	-4,844.14	5,428.32	5,416.81	11.51	471.692		
400.00	400.00	361.00	400.00	3.60	11.34	-63.17	2,449.70	-4,844.14	5,428.32	5,413.38	14.94	363.220		
500.00	500.00	461.00	500.00	3.81	14.72	-63.17	2,449.70	-4,844.14	5,428.32	5,409.80	18.52	293.040		
502.78	502.78	463.78	502.78	3.81	14.81	103.67	2,449.70	-4,844.14	5,428.32	5,409.70	18.62	291.456		
600.00	600.00	561.00	600.00	4.04	18.14	103.67	2,449.70	-4,844.14	5,428.34	5,406.16	22.18	244.721		
700.00	699.96	660.96	699.96	4.29	21.58	103.69	2,449.70	-4,844.14	5,428.92	5,403.05	25.87	209.851		
800.00	799.78	760.78	799.78	4.57	25.03	103.72	2,449.70	-4,844.14	5,430.32	5,400.73	29.60	183.477		
900.00	899.34	860.34	899.34	4.88	28.48	103.77	2,449.70	-4,844.14	5,432.57	5,399.22	33.35	162.901		
1,000.00	998.72	959.72	998.72	5.20	31.93	103.89	2,449.70	-4,844.14	5,435.24	5,398.11	37.12	146.409		
1,100.00	1,098.10	1,059.10	1,098.10	5.54	35.38	104.00	2,449.70	-4,844.14	5,437.92	5,397.00	40.92	132.886		
1,200.00	1,197.49	1,158.49	1,197.49	5.90	38.84	104.11	2,449.70	-4,844.14	5,440.63	5,395.89	44.74	121.609		
1,300.00	1,296.87	1,257.87	1,296.87	6.28	42.29	104.22	2,449.70	-4,844.14	5,443.36	5,394.79	48.57	112.070		
1,400.00	1,396.25	1,357.25	1,396.25	6.66	45.75	104.34	2,449.70	-4,844.14	5,446.11	5,393.70	52.42	103.902		
1,500.00	1,495.64	1,456.64	1,495.64	7.06	49.22	104.45	2,449.70	-4,844.14	5,448.88	5,392.61	56.27	96.832		
1,600.00	1,595.02	1,556.02	1,595.02	7.46	52.68	104.56	2,449.70	-4,844.14	5,451.68	5,391.54	60.14	90.656		
1,700.00	1,694.40	1,655.40	1,694.40	7.87	56.14	104.67	2,449.70	-4,844.14	5,454.49	5,390.48	64.01	85.217		
1,800.00	1,793.79	1,754.79	1,793.79	8.29	59.60	104.79	2,449.70	-4,844.14	5,457.33	5,389.44	67.88	80.391		
1,900.00	1,893.17	1,854.17	1,893.17	8.71	63.07	104.90	2,449.70	-4,844.14	5,460.18	5,388.41	71.77	76.081		
2,000.00	1,992.55	1,953.55	1,992.55	9.13	66.53	105.01	2,449.70	-4,844.14	5,463.06	5,387.40	75.66	72.209		
2,100.00	2,091.94	2,052.94	2,091.94	9.56	70.00	105.12	2,449.70	-4,844.14	5,465.96	5,386.41	79.55	68.713		
2,200.00	2,191.32	2,152.32	2,191.32	9.99	73.47	105.23	2,449.70	-4,844.14	5,468.88	5,385.43	83.44	65.540		
2,300.00	2,290.70	2,251.70	2,290.70	10.42	76.93	105.34	2,449.70	-4,844.14	5,471.82	5,384.48	87.34	62.649		
2,400.00	2,390.09	2,351.09	2,390.09	10.86	80.40	105.45	2,449.70	-4,844.14	5,474.78	5,383.54	91.24	60.003		
2,500.00	2,489.47	2,450.47	2,489.47	11.29	83.86	105.57	2,449.70	-4,844.14	5,477.76	5,382.61	95.14	57.573		
2,600.00	2,588.86	2,549.86	2,588.86	11.73	87.33	105.68	2,449.70	-4,844.14	5,480.76	5,381.71	99.05	55.333		
2,700.00	2,688.24	2,649.24	2,688.24	12.18	90.80	105.79	2,449.70	-4,844.14	5,483.79	5,380.83	102.96	53.263		
2,800.00	2,787.62	2,748.62	2,787.62	12.62	94.27	105.90	2,449.70	-4,844.14	5,486.83	5,379.96	106.87	51.343		
2,900.00	2,887.01	2,848.01	2,887.01	13.06	97.73	106.01	2,449.70	-4,844.14	5,489.89	5,379.12	110.78	49.558		
3,000.00	2,986.39	2,947.39	2,986.39	13.51	101.20	106.12	2,449.70	-4,844.14	5,492.98	5,378.29	114.69	47.895		
3,100.00	3,085.77	3,046.77	3,085.77	13.95	104.67	106.23	2,449.70	-4,844.14	5,496.09	5,377.49	118.60	46.341		
3,200.00	3,185.16	3,146.16	3,185.16	14.40	108.14	106.34	2,449.70	-4,844.14	5,499.21	5,376.70	122.51	44.886		
3,300.00	3,284.54	3,245.54	3,284.54	14.85	111.60	106.45	2,449.70	-4,844.14	5,502.36	5,375.93	126.43	43.521		
3,400.00	3,383.92	3,344.92	3,383.92	15.30	115.07	106.56	2,449.70	-4,844.14	5,505.53	5,375.18	130.34	42.238		
3,500.00	3,483.31	3,444.31	3,483.31	15.75	118.54	106.67	2,449.70	-4,844.14	5,508.72	5,374.45	134.26	41.030		
3,600.00	3,582.69	3,543.69	3,582.69	16.20	122.01	106.78	2,449.70	-4,844.14	5,511.92	5,373.75	138.18	39.890		
3,700.00	3,682.07	3,643.07	3,682.07	16.65	125.48	106.89	2,449.70	-4,844.14	5,515.15	5,373.06	142.10	38.813		
3,800.00	3,781.46	3,742.46	3,781.46	17.10	128.95	107.00	2,449.70	-4,844.14	5,518.40	5,372.39	146.01	37.794		
3,900.00	3,880.84	3,841.84	3,880.84	17.56	132.41	107.11	2,449.70	-4,844.14	5,521.67	5,371.74	149.93	36.827		
4,000.00	3,980.22	3,941.22	3,980.22	18.01	135.88	107.22	2,449.70	-4,844.14	5,524.96	5,371.11	153.85	35.911		
4,100.00	4,079.61	4,040.61	4,079.61	18.46	139.35	107.33	2,449.70	-4,844.14	5,528.27	5,370.50	157.77	35.039		
4,200.00	4,178.99	4,139.99	4,178.99	18.92	142.82	107.44	2,449.70	-4,844.14	5,531.60	5,369.91	161.69	34.210		
4,300.00	4,278.38	4,239.38	4,278.38	19.37	146.29	107.55	2,449.70	-4,844.14	5,534.96	5,369.34	165.61	33.421		
4,400.00	4,377.76	4,338.76	4,377.76	19.83	149.76	107.65	2,449.70	-4,844.14	5,538.33	5,368.79	169.54	32.668		
4,500.00	4,477.14	4,438.14	4,477.14	20.28	153.23	107.76	2,449.70	-4,844.14	5,541.72	5,368.26	173.46	31.949		
4,600.00	4,576.53	4,537.53	4,576.53	20.74	156.69	107.87	2,449.70	-4,844.14	5,545.13	5,367.75	177.38	31.261		
4,700.00	4,675.91	4,636.91	4,675.91	21.19	160.16	107.98	2,449.70	-4,844.14	5,548.56	5,367.26	181.30	30.604		
4,800.00	4,775.29	4,736.29	4,775.29	21.65	163.63	108.09	2,449.70	-4,844.14	5,552.01	5,366.79	185.22	29.975		
4,900.00	4,874.68	4,835.68	4,874.68	22.10	167.10	108.20	2,449.70	-4,844.14	5,555.48	5,366.34	189.15	29.371		
5,000.00	4,974.06	4,935.06	4,974.06	22.56	170.57	108.30	2,449.70	-4,844.14	5,558.97	5,365.90	193.07	28.793		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,100.00	5,073.44	5,034.44	5,073.44	23.02	174.04	108.41	2,449.70	-4,844.14	5,562.49	5,365.49	196.99	28.237		
5,200.00	5,172.83	5,133.83	5,172.83	23.47	177.51	108.52	2,449.70	-4,844.14	5,566.02	5,365.10	200.92	27.703		
5,300.00	5,272.21	5,233.21	5,272.21	23.93	180.98	108.63	2,449.70	-4,844.14	5,569.57	5,364.73	204.84	27.190		
5,400.00	5,371.59	5,332.59	5,371.59	24.39	184.44	108.73	2,449.70	-4,844.14	5,573.14	5,364.37	208.76	26.696		
5,500.00	5,470.98	5,431.98	5,470.98	24.85	187.91	108.84	2,449.70	-4,844.14	5,576.73	5,364.04	212.69	26.220		
5,600.00	5,570.36	5,531.36	5,570.36	25.30	191.38	108.95	2,449.70	-4,844.14	5,580.34	5,363.73	216.61	25.762		
5,700.00	5,669.75	5,630.75	5,669.75	25.76	194.85	109.06	2,449.70	-4,844.14	5,583.97	5,363.43	220.54	25.320		
5,800.00	5,769.13	5,730.13	5,769.13	26.22	198.32	109.16	2,449.70	-4,844.14	5,587.62	5,363.16	224.46	24.894		
5,900.00	5,868.51	5,829.51	5,868.51	26.68	201.79	109.27	2,449.70	-4,844.14	5,591.29	5,362.90	228.38	24.482		
6,000.00	5,967.90	5,928.90	5,967.90	27.14	205.26	109.38	2,449.70	-4,844.14	5,594.98	5,362.67	232.31	24.084		
6,100.00	6,067.28	6,028.28	6,067.28	27.60	208.73	109.48	2,449.70	-4,844.14	5,598.68	5,362.45	236.23	23.700		
6,200.00	6,166.66	6,127.66	6,166.66	28.05	212.20	109.59	2,449.70	-4,844.14	5,602.41	5,362.25	240.16	23.328		
6,300.00	6,266.05	6,227.05	6,266.05	28.51	215.67	109.69	2,449.70	-4,844.14	5,606.16	5,362.07	244.08	22.968		
6,400.00	6,365.43	6,326.43	6,365.43	28.97	219.14	109.80	2,449.70	-4,844.14	5,609.92	5,361.92	248.01	22.620		
6,500.00	6,464.81	6,425.81	6,464.81	29.43	222.60	109.91	2,449.70	-4,844.14	5,613.71	5,361.78	251.93	22.282		
6,600.00	6,564.10	6,525.10	6,564.10	29.89	226.07	79.67	2,449.70	-4,844.14	5,615.89	5,360.03	255.86	21.949		
6,700.00	6,661.75	6,622.75	6,661.75	30.34	229.48	56.96	2,449.70	-4,844.14	5,606.69	5,346.97	259.72	21.588		
6,800.00	6,755.38	6,716.38	6,755.38	30.77	232.75	50.57	2,449.70	-4,844.14	5,584.78	5,321.36	263.42	21.201		
6,900.00	6,842.67	6,803.67	6,842.67	31.17	235.79	49.21	2,449.70	-4,844.14	5,550.82	5,283.94	266.88	20.799		
7,000.00	6,921.48	6,882.48	6,921.48	31.54	238.54	50.48	2,449.70	-4,844.14	5,505.78	5,235.74	270.04	20.389		
7,100.00	6,989.86	6,950.86	6,989.86	31.91	240.93	53.78	2,449.70	-4,844.14	5,450.92	5,178.08	272.84	19.979		
7,200.00	7,046.13	7,007.13	7,046.13	32.35	242.90	59.03	2,449.70	-4,844.14	5,387.73	5,112.49	275.23	19.575		
7,300.00	7,088.91	7,049.91	7,088.91	32.98	244.39	66.29	2,449.70	-4,844.14	5,317.90	5,040.71	277.20	19.185		
7,400.00	7,117.14	7,078.14	7,117.14	33.84	245.37	75.50	2,449.70	-4,844.14	5,243.28	4,964.57	278.71	18.813		
7,500.00	7,130.13	7,108.87	7,130.13	34.90	246.45	86.22	2,449.70	-4,844.14	5,165.77	4,885.39	280.38	18.424		
7,600.00	7,130.72	7,108.28	7,130.72	36.13	246.43	90.31	2,449.70	-4,844.14	5,087.42	4,806.39	281.03	18.103		
7,700.00	7,130.29	7,108.71	7,130.29	37.54	246.44	90.30	2,449.70	-4,844.14	5,009.76	4,727.94	281.82	17.776		
7,800.00	7,129.85	7,109.15	7,129.85	39.12	246.46	90.29	2,449.70	-4,844.14	4,932.91	4,650.18	282.73	17.447		
7,900.00	7,129.42	7,109.58	7,129.42	40.83	246.47	90.29	2,449.70	-4,844.14	4,856.90	4,573.14	283.76	17.116		
8,000.00	7,128.98	7,089.98	7,128.98	42.67	245.79	90.28	2,449.70	-4,844.14	4,781.78	4,497.57	284.21	16.825		
8,100.00	7,128.55	7,089.55	7,128.55	44.62	245.77	90.27	2,449.70	-4,844.14	4,707.58	4,422.13	285.45	16.492		
8,200.00	7,128.12	7,089.12	7,128.12	46.66	245.76	90.26	2,449.70	-4,844.14	4,634.35	4,347.54	286.81	16.158		
8,300.00	7,127.68	7,088.68	7,127.68	48.79	245.74	90.26	2,449.70	-4,844.14	4,562.13	4,273.84	288.29	15.825		
8,400.00	7,127.25	7,088.25	7,127.25	50.98	245.73	90.25	2,449.70	-4,844.14	4,490.98	4,201.10	289.89	15.492		
8,500.00	7,126.81	7,087.81	7,126.81	53.24	245.71	90.24	2,449.70	-4,844.14	4,420.95	4,129.35	291.60	15.161		
8,600.00	7,126.38	7,087.38	7,126.38	55.56	245.70	90.23	2,449.70	-4,844.14	4,352.09	4,058.66	293.43	14.832		
8,700.00	7,125.95	7,086.95	7,125.95	57.92	245.68	90.22	2,449.70	-4,844.14	4,284.46	3,989.08	295.38	14.505		
8,800.00	7,125.51	7,086.51	7,125.51	60.33	245.67	90.22	2,449.70	-4,844.14	4,218.11	3,920.67	297.44	14.181		
8,900.00	7,125.08	7,086.08	7,125.08	62.77	245.65	90.21	2,449.70	-4,844.14	4,153.12	3,853.51	299.61	13.862		
9,000.00	7,124.64	7,085.64	7,124.64	65.25	245.64	90.20	2,449.70	-4,844.14	4,089.53	3,787.64	301.89	13.547		
9,100.00	7,124.21	7,085.21	7,124.21	67.76	245.62	90.19	2,449.70	-4,844.14	4,027.42	3,723.15	304.27	13.236		
9,200.00	7,123.78	7,084.78	7,123.78	70.29	245.61	90.19	2,449.70	-4,844.14	3,966.86	3,660.11	306.76	12.932		
9,300.00	7,123.34	7,084.34	7,123.34	72.85	245.59	90.18	2,449.70	-4,844.14	3,907.93	3,598.59	309.34	12.633		
9,400.00	7,122.91	7,083.91	7,122.91	75.43	245.58	90.17	2,449.70	-4,844.14	3,850.69	3,538.67	312.02	12.341		
9,500.00	7,122.48	7,083.48	7,122.48	78.03	245.56	90.16	2,449.70	-4,844.14	3,795.22	3,480.43	314.79	12.056		
9,600.00	7,122.04	7,083.04	7,122.04	80.65	245.55	90.15	2,449.70	-4,844.14	3,741.60	3,423.95	317.65	11.779		
9,700.00	7,121.61	7,082.61	7,121.61	83.28	245.53	90.15	2,449.70	-4,844.14	3,689.91	3,369.33	320.58	11.510		
9,800.00	7,121.17	7,082.17	7,121.17	85.93	245.52	90.14	2,449.70	-4,844.14	3,640.23	3,316.64	323.60	11.249		
9,900.00	7,120.74	7,081.74	7,120.74	88.59	245.50	90.13	2,449.70	-4,844.14	3,592.66	3,265.98	326.68	10.998		
10,000.00	7,120.31	7,081.31	7,120.31	91.26	245.49	90.12	2,449.70	-4,844.14	3,547.26	3,217.44	329.82	10.755		
10,100.00	7,119.87	7,080.87	7,119.87	93.95	245.47	90.11	2,449.70	-4,844.14	3,504.13	3,171.11	333.02	10.522		
10,200.00	7,119.44	7,080.44	7,119.44	96.64	245.45	90.11	2,449.70	-4,844.14	3,463.35	3,127.09	336.26	10.300		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	7,080.00	7,119.00	99.34	245.44	90.10	2,449.70	-4,844.14	3,425.01	3,085.47	339.54	10.087		
10,400.00	7,118.57	7,079.57	7,118.57	102.05	245.42	90.09	2,449.70	-4,844.14	3,389.19	3,046.34	342.84	9.886		
10,500.00	7,118.14	7,079.14	7,118.14	104.77	245.41	90.08	2,449.70	-4,844.14	3,355.96	3,009.80	346.16	9.695		
10,600.00	7,117.70	7,078.70	7,117.70	107.50	245.39	90.08	2,449.70	-4,844.14	3,325.41	2,975.92	349.48	9.515		
10,700.00	7,117.27	7,078.27	7,117.27	110.23	245.38	90.07	2,449.70	-4,844.14	3,297.61	2,944.81	352.80	9.347		
10,800.00	7,116.83	7,077.83	7,116.83	112.97	245.36	90.06	2,449.70	-4,844.14	3,272.63	2,916.53	356.09	9.190		
10,900.00	7,116.40	7,077.40	7,116.40	115.72	245.35	90.05	2,449.70	-4,844.14	3,250.53	2,891.18	359.36	9.045		
11,000.00	7,115.97	7,076.97	7,115.97	118.47	245.33	90.04	2,449.70	-4,844.14	3,231.38	2,868.81	362.57	8.912		
11,100.00	7,115.53	7,076.53	7,115.53	121.22	245.32	90.04	2,449.70	-4,844.14	3,215.23	2,849.50	365.73	8.791		
11,200.00	7,115.10	7,076.10	7,115.10	123.98	245.30	90.03	2,449.70	-4,844.14	3,202.12	2,833.30	368.82	8.682		
11,300.00	7,114.66	7,075.66	7,114.66	126.74	245.29	90.02	2,449.70	-4,844.14	3,192.09	2,820.27	371.83	8.585		
11,400.00	7,114.23	7,075.23	7,114.23	129.51	245.27	90.01	2,449.70	-4,844.14	3,185.18	2,810.44	374.74	8.500		
11,500.00	7,113.80	7,074.80	7,113.80	132.29	245.26	90.01	2,449.70	-4,844.14	3,181.39	2,803.84	377.54	8.427		
11,570.63	7,113.49	7,074.49	7,113.49	134.25	245.25	90.00	2,449.70	-4,844.14	3,180.60	2,801.14	379.46	8.382 CC		
11,600.00	7,113.36	7,074.36	7,113.36	135.06	245.24	90.00	2,449.70	-4,844.14	3,180.74	2,800.50	380.23	8.365		
11,700.00	7,112.93	7,073.93	7,112.93	137.84	245.23	89.99	2,449.70	-4,844.14	3,183.23	2,800.43	382.80	8.316 ES		
11,800.00	7,112.49	7,073.49	7,112.49	140.62	245.21	89.98	2,449.70	-4,844.14	3,188.86	2,803.62	385.24	8.278		
11,900.00	7,112.06	7,073.06	7,112.06	143.41	245.20	89.97	2,449.70	-4,844.14	3,197.61	2,810.07	387.54	8.251		
12,000.00	7,111.63	7,072.63	7,111.63	146.20	245.18	89.97	2,449.70	-4,844.14	3,209.45	2,819.76	389.70	8.236		
12,100.00	7,111.19	7,072.19	7,111.19	148.99	245.17	89.96	2,449.70	-4,844.14	3,224.35	2,832.65	391.71	8.232 SF		
12,200.00	7,110.76	7,071.76	7,110.76	151.78	245.15	89.95	2,449.70	-4,844.14	3,242.27	2,848.70	393.57	8.238		
12,300.00	7,110.33	7,071.33	7,110.33	154.58	245.14	89.94	2,449.70	-4,844.14	3,263.16	2,867.88	395.28	8.255		
12,400.00	7,109.89	7,070.89	7,109.89	157.37	245.12	89.94	2,449.70	-4,844.14	3,286.95	2,890.11	396.85	8.283		
12,500.00	7,109.46	7,070.46	7,109.46	160.17	245.11	89.93	2,449.70	-4,844.14	3,313.60	2,915.33	398.26	8.320		
12,600.00	7,109.02	7,070.02	7,109.02	162.98	245.09	89.92	2,449.70	-4,844.14	3,343.02	2,943.49	399.54	8.367		
12,700.00	7,108.59	7,069.59	7,108.59	165.78	245.08	89.91	2,449.70	-4,844.14	3,375.16	2,974.49	400.67	8.424		
12,800.00	7,108.16	7,069.16	7,108.16	168.59	245.06	89.90	2,449.70	-4,844.14	3,409.92	3,008.25	401.67	8.489		
12,900.00	7,107.72	7,068.72	7,107.72	171.39	245.05	89.90	2,449.70	-4,844.14	3,447.23	3,044.70	402.53	8.564		
13,000.00	7,107.29	7,068.29	7,107.29	174.20	245.03	89.89	2,449.70	-4,844.14	3,487.02	3,083.74	403.27	8.647		
13,100.00	7,106.85	7,067.85	7,106.85	177.01	245.02	89.88	2,449.70	-4,844.14	3,529.19	3,125.29	403.89	8.738		
13,200.00	7,106.42	7,067.42	7,106.42	179.83	245.00	89.87	2,449.70	-4,844.14	3,573.66	3,169.25	404.40	8.837		
13,300.00	7,105.99	7,066.99	7,105.99	182.64	244.99	89.86	2,449.70	-4,844.14	3,620.34	3,215.54	404.81	8.943		
13,400.00	7,105.55	7,066.55	7,105.55	185.45	244.97	89.86	2,449.70	-4,844.14	3,669.16	3,264.05	405.11	9.057		
13,500.00	7,105.12	7,066.12	7,105.12	188.27	244.96	89.85	2,449.70	-4,844.14	3,720.03	3,314.71	405.32	9.178		
13,600.00	7,104.68	7,065.68	7,104.68	191.09	244.94	89.84	2,449.70	-4,844.14	3,772.86	3,367.41	405.45	9.305		
13,700.00	7,104.25	7,065.25	7,104.25	193.91	244.92	89.83	2,449.70	-4,844.14	3,827.58	3,422.08	405.50	9.439		
13,800.00	7,103.82	7,064.82	7,103.82	196.73	244.91	89.83	2,449.70	-4,844.14	3,884.10	3,478.62	405.47	9.579		
13,900.00	7,103.38	7,064.38	7,103.38	199.55	244.89	89.82	2,449.70	-4,844.14	3,942.34	3,536.96	405.38	9.725		
14,000.00	7,102.95	7,063.95	7,102.95	202.37	244.88	89.81	2,449.70	-4,844.14	4,002.24	3,597.01	405.23	9.876		
14,100.00	7,102.51	7,063.51	7,102.51	205.19	244.86	89.80	2,449.70	-4,844.14	4,063.72	3,658.69	405.03	10.033		
14,200.00	7,102.08	7,063.08	7,102.08	208.02	244.85	89.79	2,449.70	-4,844.14	4,126.70	3,721.93	404.78	10.195		
14,300.00	7,101.65	7,062.65	7,101.65	210.84	244.83	89.79	2,449.70	-4,844.14	4,191.13	3,786.65	404.48	10.362		
14,400.00	7,101.21	7,062.21	7,101.21	213.67	244.82	89.78	2,449.70	-4,844.14	4,256.92	3,852.78	404.14	10.533		
14,500.00	7,100.78	7,061.78	7,100.78	216.50	244.80	89.77	2,449.70	-4,844.14	4,324.03	3,920.27	403.77	10.709		
14,600.00	7,100.35	7,061.35	7,100.35	219.32	244.79	89.76	2,449.70	-4,844.14	4,392.39	3,989.03	403.36	10.889		
14,700.00	7,099.91	7,060.91	7,099.91	222.15	244.77	89.76	2,449.70	-4,844.14	4,461.95	4,059.02	402.93	11.074		
14,800.00	7,099.48	7,060.48	7,099.48	224.98	244.76	89.75	2,449.70	-4,844.14	4,532.64	4,130.17	402.48	11.262		
14,900.00	7,099.04	7,060.04	7,099.04	227.81	244.74	89.74	2,449.70	-4,844.14	4,604.42	4,202.42	402.00	11.454		
14,909.96	7,099.00	7,060.00	7,099.00	228.09	244.74	89.74	2,449.70	-4,844.14	4,611.63	4,209.68	401.95	11.473		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	66.00	3.28	3.28	-123.30	-4,171.93	-6,351.26	7,599.20					
100.00	100.00	34.00	100.00	3.28	3.33	-123.30	-4,171.93	-6,351.26	7,598.91	7,592.30	6.62	1,148.223		
200.00	200.00	134.00	200.00	3.34	4.40	-123.30	-4,171.93	-6,351.26	7,598.91	7,591.18	7.74	982.183		
300.00	300.00	234.00	300.00	3.44	7.21	-123.30	-4,171.93	-6,351.26	7,598.91	7,588.26	10.66	713.023		
400.00	400.00	334.00	400.00	3.60	10.44	-123.30	-4,171.93	-6,351.26	7,598.91	7,584.87	14.05	540.992		
500.00	500.00	434.00	500.00	3.81	13.80	-123.30	-4,171.93	-6,351.26	7,598.91	7,581.31	17.61	431.587		
600.00	600.00	534.00	600.00	4.04	17.21	43.55	-4,171.93	-6,351.26	7,598.86	7,577.61	21.26	357.500		
700.00	699.96	633.96	699.96	4.29	20.65	43.59	-4,171.93	-6,351.26	7,597.09	7,572.15	24.94	304.618		
800.00	799.78	733.78	799.78	4.57	24.10	43.68	-4,171.93	-6,351.26	7,592.80	7,564.13	28.66	264.887		
900.00	899.34	833.34	899.34	4.88	27.54	43.82	-4,171.93	-6,351.26	7,585.98	7,553.57	32.42	234.017		
1,000.00	998.72	932.72	998.72	5.20	30.99	43.88	-4,171.93	-6,351.26	7,577.96	7,541.78	36.19	209.415		
1,100.00	1,098.10	1,032.10	1,098.10	5.54	34.44	43.93	-4,171.93	-6,351.26	7,569.95	7,529.97	39.98	189.347		
1,200.00	1,197.49	1,131.49	1,197.49	5.90	37.90	43.99	-4,171.93	-6,351.26	7,561.95	7,518.16	43.79	172.683		
1,300.00	1,296.87	1,230.87	1,296.87	6.28	41.35	44.05	-4,171.93	-6,351.26	7,553.95	7,506.34	47.62	158.638		
1,400.00	1,396.25	1,330.25	1,396.25	6.66	44.81	44.11	-4,171.93	-6,351.26	7,545.97	7,494.51	51.46	146.647		
1,500.00	1,495.64	1,429.64	1,495.64	7.06	48.27	44.17	-4,171.93	-6,351.26	7,537.98	7,482.68	55.31	136.295		
1,600.00	1,595.02	1,529.02	1,595.02	7.46	51.74	44.23	-4,171.93	-6,351.26	7,530.01	7,470.85	59.16	127.272		
1,700.00	1,694.40	1,628.40	1,694.40	7.87	55.20	44.28	-4,171.93	-6,351.26	7,522.05	7,459.02	63.03	119.341		
1,800.00	1,793.79	1,727.79	1,793.79	8.29	58.66	44.34	-4,171.93	-6,351.26	7,514.09	7,447.19	66.90	112.315		
1,900.00	1,893.17	1,827.17	1,893.17	8.71	62.13	44.40	-4,171.93	-6,351.26	7,506.14	7,435.36	70.78	106.051		
2,000.00	1,992.55	1,926.55	1,992.55	9.13	65.59	44.46	-4,171.93	-6,351.26	7,498.20	7,423.54	74.66	100.431		
2,100.00	2,091.94	2,025.94	2,091.94	9.56	69.06	44.52	-4,171.93	-6,351.26	7,490.27	7,411.72	78.55	95.361		
2,200.00	2,191.32	2,125.32	2,191.32	9.99	72.52	44.58	-4,171.93	-6,351.26	7,482.34	7,399.91	82.44	90.766		
2,300.00	2,290.70	2,224.70	2,290.70	10.42	75.99	44.64	-4,171.93	-6,351.26	7,474.43	7,388.10	86.33	86.582		
2,400.00	2,390.09	2,324.09	2,390.09	10.86	79.46	44.70	-4,171.93	-6,351.26	7,466.52	7,376.30	90.22	82.757		
2,500.00	2,489.47	2,423.47	2,489.47	11.29	82.92	44.76	-4,171.93	-6,351.26	7,458.62	7,364.50	94.12	79.246		
2,600.00	2,588.86	2,522.86	2,588.86	11.73	86.39	44.82	-4,171.93	-6,351.26	7,450.73	7,352.71	98.02	76.013		
2,700.00	2,688.24	2,622.24	2,688.24	12.18	89.86	44.88	-4,171.93	-6,351.26	7,442.84	7,340.92	101.92	73.026		
2,800.00	2,787.62	2,721.62	2,787.62	12.62	93.32	44.94	-4,171.93	-6,351.26	7,434.97	7,329.14	105.82	70.258		
2,900.00	2,887.01	2,821.01	2,887.01	13.06	96.79	45.00	-4,171.93	-6,351.26	7,427.10	7,317.37	109.73	67.687		
3,000.00	2,986.39	2,920.39	2,986.39	13.51	100.26	45.06	-4,171.93	-6,351.26	7,419.24	7,305.60	113.63	65.291		
3,100.00	3,085.77	3,019.77	3,085.77	13.95	103.73	45.12	-4,171.93	-6,351.26	7,411.39	7,293.85	117.54	63.054		
3,200.00	3,185.16	3,119.16	3,185.16	14.40	107.19	45.18	-4,171.93	-6,351.26	7,403.54	7,282.09	121.45	60.960		
3,300.00	3,284.54	3,218.54	3,284.54	14.85	110.66	45.24	-4,171.93	-6,351.26	7,395.71	7,270.35	125.36	58.997		
3,400.00	3,383.92	3,317.92	3,383.92	15.30	114.13	45.30	-4,171.93	-6,351.26	7,387.88	7,258.61	129.27	57.152		
3,500.00	3,483.31	3,417.31	3,483.31	15.75	117.60	45.36	-4,171.93	-6,351.26	7,380.06	7,246.88	133.18	55.414		
3,600.00	3,582.69	3,516.69	3,582.69	16.20	121.07	45.42	-4,171.93	-6,351.26	7,372.25	7,235.16	137.09	53.776		
3,700.00	3,682.07	3,616.07	3,682.07	16.65	124.54	45.48	-4,171.93	-6,351.26	7,364.45	7,223.45	141.00	52.229		
3,800.00	3,781.46	3,715.46	3,781.46	17.10	128.00	45.55	-4,171.93	-6,351.26	7,356.66	7,211.74	144.92	50.765		
3,900.00	3,880.84	3,814.84	3,880.84	17.56	131.47	45.61	-4,171.93	-6,351.26	7,348.88	7,200.04	148.83	49.377		
4,000.00	3,980.22	3,914.22	3,980.22	18.01	134.94	45.67	-4,171.93	-6,351.26	7,341.10	7,188.35	152.75	48.061		
4,100.00	4,079.61	4,013.61	4,079.61	18.46	138.41	45.73	-4,171.93	-6,351.26	7,333.33	7,176.67	156.66	46.810		
4,200.00	4,178.99	4,112.99	4,178.99	18.92	141.88	45.79	-4,171.93	-6,351.26	7,325.57	7,165.00	160.58	45.620		
4,300.00	4,278.38	4,212.38	4,278.38	19.37	145.35	45.86	-4,171.93	-6,351.26	7,317.82	7,153.33	164.49	44.487		
4,400.00	4,377.76	4,311.76	4,377.76	19.83	148.81	45.92	-4,171.93	-6,351.26	7,310.08	7,141.67	168.41	43.407		
4,500.00	4,477.14	4,411.14	4,477.14	20.28	152.28	45.98	-4,171.93	-6,351.26	7,302.35	7,130.02	172.33	42.375		
4,600.00	4,576.53	4,452.00	4,518.00	20.74	153.71	46.01	-4,171.93	-6,351.26	7,294.86	7,120.65	174.21	41.875		
4,700.00	4,675.91	4,452.00	4,518.00	21.19	153.71	46.01	-4,171.93	-6,351.26	7,288.62	7,113.98	174.64	41.736		
4,800.00	4,775.29	4,452.00	4,518.00	21.65	153.71	46.01	-4,171.93	-6,351.26	7,283.75	7,108.71	175.04	41.613		
4,900.00	4,874.68	4,452.00	4,518.00	22.10	153.71	46.01	-4,171.93	-6,351.26	7,280.24	7,104.84	175.41	41.505		
5,000.00	4,974.06	4,452.00	4,518.00	22.56	153.71	46.01	-4,171.93	-6,351.26	7,278.12	7,102.37	175.74	41.414		
5,100.00	5,073.44	4,452.00	4,518.00	23.02	153.71	46.01	-4,171.93	-6,351.26	7,277.36	7,101.32	176.04	41.338		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,104.99	5,078.40	4,452.00	4,518.00	23.04	153.71	46.01	-4,171.93	-6,351.26	7,277.36	7,101.30	176.06	41.335		
5,200.00	5,172.83	4,452.00	4,518.00	23.47	153.71	46.01	-4,171.93	-6,351.26	7,277.98	7,101.66	176.32	41.278		
5,300.00	5,272.21	4,452.00	4,518.00	23.93	153.71	46.01	-4,171.93	-6,351.26	7,279.97	7,103.42	176.55	41.234		
5,400.00	5,371.59	4,452.00	4,518.00	24.39	153.71	46.01	-4,171.93	-6,351.26	7,283.34	7,106.58	176.76	41.205		
5,500.00	5,470.98	4,452.00	4,518.00	24.85	153.71	46.01	-4,171.93	-6,351.26	7,288.07	7,111.14	176.93	41.192		
5,600.00	5,570.36	4,452.00	4,518.00	25.30	153.71	46.01	-4,171.93	-6,351.26	7,294.17	7,117.11	177.07	41.194		
5,700.00	5,669.75	4,452.00	4,518.00	25.76	153.71	46.01	-4,171.93	-6,351.26	7,301.64	7,124.47	177.17	41.212		
5,800.00	5,769.13	4,452.00	4,518.00	26.22	153.71	46.01	-4,171.93	-6,351.26	7,310.47	7,133.22	177.25	41.245		
5,900.00	5,868.51	4,452.00	4,518.00	26.68	153.71	46.01	-4,171.93	-6,351.26	7,320.65	7,143.37	177.29	41.293		
6,000.00	5,967.90	4,452.00	4,518.00	27.14	153.71	46.01	-4,171.93	-6,351.26	7,332.19	7,154.89	177.29	41.356		
6,100.00	6,067.28	4,452.00	4,518.00	27.60	153.71	46.01	-4,171.93	-6,351.26	7,345.07	7,167.80	177.27	41.434		
6,200.00	6,166.66	4,452.00	4,518.00	28.05	153.71	46.01	-4,171.93	-6,351.26	7,359.28	7,182.06	177.21	41.528		
6,300.00	6,266.05	4,452.00	4,518.00	28.51	153.71	46.01	-4,171.93	-6,351.26	7,374.82	7,197.69	177.13	41.636		
6,400.00	6,365.43	4,452.00	4,518.00	28.97	153.71	46.01	-4,171.93	-6,351.26	7,391.68	7,214.67	177.01	41.759		
6,500.00	6,464.81	4,452.00	4,518.00	29.43	153.71	46.01	-4,171.93	-6,351.26	7,409.86	7,233.00	176.86	41.896		
6,600.00	6,564.10	4,452.00	4,518.00	29.89	153.71	16.04	-4,171.93	-6,351.26	7,427.67	7,250.99	176.68	42.040		
6,700.00	6,661.75	4,452.00	4,518.00	30.34	153.71	-7.00	-4,171.93	-6,351.26	7,435.02	7,258.57	176.45	42.137		
6,800.00	6,755.38	4,452.00	4,518.00	30.77	153.71	-15.03	-4,171.93	-6,351.26	7,430.10	7,253.92	176.18	42.174		
6,900.00	6,842.67	4,452.00	4,518.00	31.17	153.71	-19.49	-4,171.93	-6,351.26	7,412.99	7,237.13	175.87	42.151		
7,000.00	6,921.48	4,452.00	4,518.00	31.54	153.71	-22.97	-4,171.93	-6,351.26	7,384.06	7,208.52	175.54	42.064		
7,100.00	6,989.86	4,452.00	4,518.00	31.91	153.71	-26.40	-4,171.93	-6,351.26	7,343.86	7,168.65	175.21	41.914		
7,200.00	7,046.13	4,452.00	4,518.00	32.35	153.71	-30.32	-4,171.93	-6,351.26	7,293.22	7,118.31	174.90	41.699		
7,300.00	7,088.91	4,452.00	4,518.00	32.98	153.71	-35.14	-4,171.93	-6,351.26	7,233.17	7,058.53	174.64	41.417		
7,400.00	7,117.14	4,452.00	4,518.00	33.84	153.71	-41.35	-4,171.93	-6,351.26	7,164.98	6,990.51	174.47	41.067		
7,500.00	7,130.13	4,452.00	4,518.00	34.90	153.71	-49.45	-4,171.93	-6,351.26	7,090.12	6,915.72	174.41	40.653		
7,600.00	7,130.72	4,452.00	4,518.00	36.13	153.71	-52.95	-4,171.93	-6,351.26	7,011.17	6,836.71	174.46	40.187		
7,700.00	7,130.29	4,452.00	4,518.00	37.54	153.71	-52.95	-4,171.93	-6,351.26	6,932.42	6,757.83	174.59	39.707		
7,800.00	7,129.85	4,452.00	4,518.00	39.12	153.71	-52.95	-4,171.93	-6,351.26	6,854.22	6,679.43	174.79	39.213		
7,900.00	7,129.42	4,452.00	4,518.00	40.83	153.71	-52.95	-4,171.93	-6,351.26	6,776.60	6,601.53	175.07	38.707		
8,000.00	7,128.98	4,452.00	4,518.00	42.67	153.71	-52.95	-4,171.93	-6,351.26	6,699.57	6,524.14	175.43	38.189		
8,100.00	7,128.55	4,452.00	4,518.00	44.62	153.71	-52.95	-4,171.93	-6,351.26	6,623.15	6,447.29	175.87	37.660		
8,200.00	7,128.12	4,452.00	4,518.00	46.66	153.71	-52.95	-4,171.93	-6,351.26	6,547.37	6,370.99	176.38	37.121		
8,300.00	7,127.68	4,452.00	4,518.00	48.79	153.71	-52.95	-4,171.93	-6,351.26	6,472.25	6,295.27	176.97	36.572		
8,400.00	7,127.25	4,452.00	4,518.00	50.98	153.71	-52.95	-4,171.93	-6,351.26	6,397.80	6,220.16	177.64	36.015		
8,500.00	7,126.81	4,452.00	4,518.00	53.24	153.71	-52.95	-4,171.93	-6,351.26	6,324.06	6,145.67	178.39	35.450		
8,600.00	7,126.38	4,452.00	4,518.00	55.56	153.71	-52.95	-4,171.93	-6,351.26	6,251.06	6,071.84	179.22	34.880		
8,700.00	7,125.95	4,452.00	4,518.00	57.92	153.71	-52.95	-4,171.93	-6,351.26	6,178.80	5,998.69	180.12	34.304		
8,800.00	7,125.51	4,452.00	4,518.00	60.33	153.71	-52.95	-4,171.93	-6,351.26	6,107.33	5,926.24	181.09	33.725		
8,900.00	7,125.08	4,452.00	4,518.00	62.77	153.71	-52.95	-4,171.93	-6,351.26	6,036.67	5,854.53	182.14	33.143		
9,000.00	7,124.64	4,452.00	4,518.00	65.25	153.71	-52.95	-4,171.93	-6,351.26	5,966.85	5,783.60	183.26	32.560		
9,100.00	7,124.21	4,452.00	4,518.00	67.76	153.71	-52.95	-4,171.93	-6,351.26	5,897.90	5,713.46	184.45	31.976		
9,200.00	7,123.78	4,452.00	4,518.00	70.29	153.71	-52.95	-4,171.93	-6,351.26	5,829.85	5,644.15	185.70	31.393		
9,300.00	7,123.34	4,452.00	4,518.00	72.85	153.71	-52.95	-4,171.93	-6,351.26	5,762.73	5,575.71	187.03	30.813		
9,400.00	7,122.91	4,452.00	4,518.00	75.43	153.71	-52.95	-4,171.93	-6,351.26	5,696.58	5,508.17	188.41	30.234		
9,500.00	7,122.48	4,452.00	4,518.00	78.03	153.71	-52.95	-4,171.93	-6,351.26	5,631.42	5,441.56	189.86	29.660		
9,600.00	7,122.04	4,452.00	4,518.00	80.65	153.71	-52.95	-4,171.93	-6,351.26	5,567.30	5,375.92	191.38	29.091		
9,700.00	7,121.61	4,452.00	4,518.00	83.28	153.71	-52.95	-4,171.93	-6,351.26	5,504.25	5,311.30	192.95	28.527		
9,800.00	7,121.17	4,452.00	4,518.00	85.93	153.71	-52.95	-4,171.93	-6,351.26	5,442.30	5,247.72	194.59	27.969		
9,900.00	7,120.74	4,452.00	4,518.00	88.59	153.71	-52.95	-4,171.93	-6,351.26	5,381.50	5,185.23	196.28	27.418		
10,000.00	7,120.31	4,452.00	4,518.00	91.26	153.71	-52.95	-4,171.93	-6,351.26	5,321.89	5,123.86	198.02	26.875		
10,100.00	7,119.87	4,452.00	4,518.00	93.95	153.71	-52.95	-4,171.93	-6,351.26	5,263.50	5,063.67	199.83	26.340		
10,200.00	7,119.44	4,452.00	4,518.00	96.64	153.71	-52.95	-4,171.93	-6,351.26	5,206.37	5,004.69	201.68	25.814		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,119.00	4,452.00	4,518.00	99.34	153.71	-52.95	-4,171.93	-6,351.26	5,150.56	4,946.96	203.59	25.298		
10,400.00	7,118.57	4,452.00	4,518.00	102.05	153.71	-52.95	-4,171.93	-6,351.26	5,096.09	4,890.54	205.55	24.792		
10,500.00	7,118.14	4,452.00	4,518.00	104.77	153.71	-52.95	-4,171.93	-6,351.26	5,043.02	4,835.46	207.56	24.296		
10,600.00	7,117.70	4,452.00	4,518.00	107.50	153.71	-52.95	-4,171.93	-6,351.26	4,991.39	4,781.77	209.62	23.812		
10,700.00	7,117.27	4,452.00	4,518.00	110.23	153.71	-52.95	-4,171.93	-6,351.26	4,941.24	4,729.52	211.72	23.338		
10,800.00	7,116.83	4,452.00	4,518.00	112.97	153.71	-52.95	-4,171.93	-6,351.26	4,892.63	4,678.76	213.87	22.877		
10,900.00	7,116.40	4,452.00	4,518.00	115.72	153.71	-52.95	-4,171.93	-6,351.26	4,845.59	4,629.53	216.06	22.427		
11,000.00	7,115.97	4,452.00	4,518.00	118.47	153.71	-52.95	-4,171.93	-6,351.26	4,800.17	4,581.88	218.29	21.990		
11,100.00	7,115.53	4,452.00	4,518.00	121.22	153.71	-52.95	-4,171.93	-6,351.26	4,756.42	4,535.86	220.56	21.565		
11,200.00	7,115.10	4,452.00	4,518.00	123.98	153.71	-52.95	-4,171.93	-6,351.26	4,714.39	4,491.52	222.87	21.154		
11,300.00	7,114.66	4,452.00	4,518.00	126.74	153.71	-52.95	-4,171.93	-6,351.26	4,674.12	4,448.91	225.21	20.755		
11,400.00	7,114.23	4,452.00	4,518.00	129.51	153.71	-52.95	-4,171.93	-6,351.26	4,635.66	4,408.08	227.58	20.370		
11,500.00	7,113.80	4,452.00	4,518.00	132.29	153.71	-52.95	-4,171.93	-6,351.26	4,599.04	4,369.07	229.98	19.998		
11,600.00	7,113.36	4,452.00	4,518.00	135.06	153.71	-52.95	-4,171.93	-6,351.26	4,564.33	4,331.93	232.40	19.640		
11,700.00	7,112.93	4,452.00	4,518.00	137.84	153.71	-52.95	-4,171.93	-6,351.26	4,531.56	4,296.71	234.85	19.295		
11,800.00	7,112.49	4,452.00	4,518.00	140.62	153.71	-52.95	-4,171.93	-6,351.26	4,500.77	4,263.45	237.32	18.965		
11,900.00	7,112.06	4,452.00	4,518.00	143.41	153.71	-52.95	-4,171.93	-6,351.26	4,472.01	4,232.20	239.81	18.648		
12,000.00	7,111.63	4,452.00	4,518.00	146.20	153.71	-52.95	-4,171.93	-6,351.26	4,445.31	4,203.00	242.31	18.345		
12,100.00	7,111.19	4,452.00	4,518.00	148.99	153.71	-52.95	-4,171.93	-6,351.26	4,420.71	4,175.89	244.82	18.057		
12,200.00	7,110.76	4,452.00	4,518.00	151.78	153.71	-52.95	-4,171.93	-6,351.26	4,398.25	4,150.91	247.34	17.782		
12,300.00	7,110.33	4,452.00	4,518.00	154.58	153.71	-52.95	-4,171.93	-6,351.26	4,377.96	4,128.10	249.86	17.522		
12,400.00	7,109.89	4,452.00	4,518.00	157.37	153.71	-52.95	-4,171.93	-6,351.26	4,359.87	4,107.49	252.38	17.275		
12,500.00	7,109.46	4,452.00	4,518.00	160.17	153.71	-52.95	-4,171.93	-6,351.26	4,344.00	4,089.11	254.89	17.042		
12,600.00	7,109.02	4,452.00	4,518.00	162.98	153.71	-52.95	-4,171.93	-6,351.26	4,330.39	4,072.99	257.40	16.824		
12,700.00	7,108.59	4,452.00	4,518.00	165.78	153.71	-52.95	-4,171.93	-6,351.26	4,319.05	4,059.16	259.89	16.619		
12,800.00	7,108.16	4,452.00	4,518.00	168.59	153.71	-52.95	-4,171.93	-6,351.26	4,310.00	4,047.64	262.36	16.428		
12,900.00	7,107.72	4,452.00	4,518.00	171.39	153.71	-52.95	-4,171.93	-6,351.26	4,303.26	4,038.44	264.81	16.250		
13,000.00	7,107.29	4,452.00	4,518.00	174.20	153.71	-52.95	-4,171.93	-6,351.26	4,298.83	4,031.59	267.24	16.086		
13,100.00	7,106.85	4,452.00	4,518.00	177.01	153.71	-52.95	-4,171.93	-6,351.26	4,296.72	4,027.09	269.63	15.936		
13,140.43	7,106.68	4,452.00	4,518.00	178.15	153.71	-52.95	-4,171.93	-6,351.26	4,296.53	4,025.95	270.59	15.878 CC		
13,200.00	7,106.42	4,452.00	4,518.00	179.83	153.71	-52.95	-4,171.93	-6,351.26	4,296.95	4,024.96	271.99	15.798 ES		
13,300.00	7,105.99	4,452.00	4,518.00	182.64	153.71	-52.95	-4,171.93	-6,351.26	4,299.50	4,025.19	274.31	15.674		
13,400.00	7,105.55	4,452.00	4,518.00	185.45	153.71	-52.95	-4,171.93	-6,351.26	4,304.37	4,027.78	276.59	15.562		
13,500.00	7,105.12	4,452.00	4,518.00	188.27	153.71	-52.95	-4,171.93	-6,351.26	4,311.55	4,032.74	278.82	15.464		
13,600.00	7,104.68	4,452.00	4,518.00	191.09	153.71	-52.95	-4,171.93	-6,351.26	4,321.04	4,040.05	281.00	15.378		
13,700.00	7,104.25	4,452.00	4,518.00	193.91	153.71	-52.95	-4,171.93	-6,351.26	4,332.82	4,049.70	283.12	15.304		
13,800.00	7,103.82	4,452.00	4,518.00	196.73	153.71	-52.95	-4,171.93	-6,351.26	4,346.87	4,061.67	285.19	15.242		
13,900.00	7,103.38	4,452.00	4,518.00	199.55	153.71	-52.95	-4,171.93	-6,351.26	4,363.16	4,075.96	287.20	15.192		
14,000.00	7,102.95	4,452.00	4,518.00	202.37	153.71	-52.95	-4,171.93	-6,351.26	4,381.67	4,092.52	289.15	15.154		
14,100.00	7,102.51	4,452.00	4,518.00	205.19	153.71	-52.95	-4,171.93	-6,351.26	4,402.38	4,111.35	291.03	15.127		
14,200.00	7,102.08	4,452.00	4,518.00	208.02	153.71	-52.95	-4,171.93	-6,351.26	4,425.26	4,132.41	292.85	15.111		
14,300.00	7,101.65	4,452.00	4,518.00	210.84	153.71	-52.95	-4,171.93	-6,351.26	4,450.26	4,155.66	294.60	15.106 SF		
14,400.00	7,101.21	4,452.00	4,518.00	213.67	153.71	-52.95	-4,171.93	-6,351.26	4,477.36	4,181.08	296.28	15.112		
14,500.00	7,100.78	4,452.00	4,518.00	216.50	153.71	-52.95	-4,171.93	-6,351.26	4,506.51	4,208.62	297.89	15.128		
14,600.00	7,100.35	4,452.00	4,518.00	219.32	153.71	-52.95	-4,171.93	-6,351.26	4,537.68	4,238.26	299.42	15.155		
14,700.00	7,099.91	4,452.00	4,518.00	222.15	153.71	-52.95	-4,171.93	-6,351.26	4,570.83	4,269.94	300.89	15.191		
14,800.00	7,099.48	4,452.00	4,518.00	224.98	153.71	-52.95	-4,171.93	-6,351.26	4,605.91	4,303.62	302.28	15.237		
14,900.00	7,099.04	4,452.00	4,518.00	227.81	153.71	-52.95	-4,171.93	-6,351.26	4,642.88	4,339.27	303.61	15.292		
14,909.96	7,099.00	4,452.00	4,518.00	228.09	153.71	-52.95	-4,171.93	-6,351.26	4,646.66	4,342.93	303.73	15.298		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	1,377.00	1,307.28	3.28	7.39	-107.32	-2,749.28	-8,814.89	9,325.76					
100.00	100.00	1,406.79	1,336.71	3.28	7.53	-107.31	-2,745.86	-8,811.75	9,312.15	9,301.89	10.26	907.525		
200.00	200.00	1,445.97	1,375.42	3.34	7.72	-107.29	-2,741.15	-8,807.92	9,299.19	9,288.72	10.46	888.826		
300.00	300.00	1,504.83	1,433.58	3.44	8.01	-107.25	-2,733.75	-8,802.66	9,286.83	9,276.02	10.81	859.239		
400.00	400.00	1,660.00	1,586.91	3.60	8.77	-107.17	-2,715.46	-8,787.55	9,273.81	9,262.17	11.64	796.876		
500.00	500.00	1,704.73	1,631.13	3.81	8.99	-107.15	-2,710.64	-8,782.85	9,260.96	9,248.95	12.02	770.707		
600.00	600.00	1,755.00	1,680.96	4.04	9.23	59.76	-2,705.55	-8,778.63	9,249.44	9,236.99	12.46	742.488		
700.00	699.96	1,922.75	1,846.96	4.29	10.06	60.10	-2,686.50	-8,763.84	9,236.59	9,223.14	13.45	686.868		
800.00	799.78	2,265.28	2,184.70	4.57	11.85	60.72	-2,640.66	-8,730.02	9,221.03	9,205.71	15.32	601.909		
900.00	899.34	2,321.00	2,239.53	4.88	12.15	61.12	-2,632.94	-8,723.79	9,201.68	9,185.80	15.88	579.581		
1,000.00	998.72	2,510.00	2,425.38	5.20	13.19	61.36	-2,606.80	-8,701.53	9,180.78	9,163.69	17.09	537.333		
1,100.00	1,098.10	2,560.84	2,475.37	5.54	13.47	61.42	-2,600.13	-8,695.18	9,159.93	9,142.27	17.65	518.857		
1,200.00	1,197.49	2,738.00	2,649.83	5.90	14.44	61.63	-2,577.84	-8,673.90	9,139.77	9,120.94	18.83	485.326		
1,300.00	1,296.87	2,792.00	2,702.94	6.28	14.74	61.70	-2,570.76	-8,667.19	9,118.83	9,099.38	19.45	468.806		
1,400.00	1,396.25	2,792.00	2,702.94	6.66	14.74	61.70	-2,570.76	-8,667.19	9,098.67	9,078.84	19.83	458.852		
1,500.00	1,495.64	2,792.00	2,702.94	7.06	14.74	61.70	-2,570.76	-8,667.19	9,079.56	9,059.34	20.22	449.072		
1,600.00	1,595.02	2,843.37	2,753.61	7.46	15.01	61.76	-2,564.52	-8,661.46	9,060.69	9,039.84	20.85	434.510		
1,700.00	1,694.40	2,887.00	2,796.81	7.87	15.23	61.80	-2,559.94	-8,657.49	9,043.30	9,021.84	21.46	421.415		
1,800.00	1,793.79	3,024.45	2,932.76	8.29	15.94	61.97	-2,544.20	-8,644.79	9,026.12	9,003.62	22.50	401.091		
1,900.00	1,893.17	3,183.44	3,089.74	8.71	16.78	62.17	-2,524.15	-8,629.59	9,008.40	8,984.73	23.67	380.646		
2,000.00	1,992.55	3,227.79	3,133.53	9.13	17.02	62.22	-2,518.61	-8,625.26	8,990.29	8,965.99	24.30	369.985		
2,100.00	2,091.94	2,100.00	3,239.12	9.56	11.13	62.35	-2,505.81	-8,614.75	8,972.39	8,952.93	19.46	461.062		
2,200.00	2,191.32	3,418.05	3,321.47	9.99	18.02	62.45	-2,495.67	-8,606.46	8,954.40	8,928.35	26.05	343.771		
2,300.00	2,290.70	3,533.14	3,435.16	10.42	18.63	62.60	-2,481.74	-8,595.32	8,936.71	8,909.69	27.02	330.742		
2,400.00	2,390.09	4,109.00	4,000.00	10.86	21.92	63.40	-2,395.83	-8,528.38	8,917.68	8,887.47	30.21	295.214		
2,500.00	2,489.47	4,488.00	4,368.51	11.29	24.30	63.96	-2,332.15	-8,467.84	8,892.30	8,859.81	32.49	273.725		
2,600.00	2,588.86	4,544.81	4,423.63	11.73	24.66	64.04	-2,322.89	-8,457.66	8,866.19	8,832.96	33.22	266.870		
2,700.00	2,688.24	4,583.00	4,460.81	12.18	24.90	64.10	-2,316.93	-8,451.28	8,841.06	8,807.18	33.88	260.989		
2,800.00	2,787.62	4,583.00	4,460.81	12.62	24.90	64.10	-2,316.93	-8,451.28	8,816.69	8,782.34	34.35	256.669		
2,900.00	2,887.01	4,583.00	4,460.81	13.06	24.90	64.10	-2,316.93	-8,451.28	8,793.40	8,758.58	34.83	252.492		
3,000.00	2,986.39	4,625.31	4,502.16	13.51	25.15	64.15	-2,310.76	-8,444.82	8,770.60	8,735.11	35.50	247.086		
3,100.00	3,085.77	4,678.00	4,553.95	13.95	25.46	64.22	-2,303.97	-8,437.91	8,749.35	8,713.13	36.22	241.595		
3,200.00	3,185.16	4,678.00	4,553.95	14.40	25.46	64.22	-2,303.97	-8,437.91	8,728.27	8,691.58	36.69	237.868		
3,300.00	3,284.54	4,678.00	4,553.95	14.85	25.46	64.22	-2,303.97	-8,437.91	8,708.29	8,671.12	37.17	234.272		
3,400.00	3,383.92	4,711.47	4,586.97	15.30	25.64	64.26	-2,300.08	-8,434.00	8,689.26	8,651.46	37.80	229.890		
3,500.00	3,483.31	4,772.00	4,646.77	15.75	25.96	64.34	-2,293.57	-8,427.30	8,670.98	8,632.43	38.54	224.963		
3,600.00	3,582.69	4,795.09	4,669.61	16.20	26.08	64.36	-2,291.24	-8,424.85	8,653.23	8,614.11	39.12	221.186		
3,700.00	3,682.07	4,846.83	4,720.83	16.65	26.35	64.42	-2,286.21	-8,419.52	8,636.11	8,596.28	39.82	216.852		
3,800.00	3,781.46	4,867.00	4,740.81	17.10	26.45	64.45	-2,284.33	-8,417.50	8,619.64	8,579.25	40.39	213.412		
3,900.00	3,880.84	4,924.43	4,797.75	17.56	26.74	64.51	-2,279.20	-8,412.08	8,603.73	8,562.62	41.11	209.268		
4,000.00	3,980.22	4,961.00	4,834.06	18.01	26.92	64.55	-2,276.11	-8,408.94	8,588.63	8,546.88	41.75	205.731		
4,100.00	4,079.61	5,020.11	4,892.78	18.46	27.20	64.61	-2,271.37	-8,404.16	8,574.13	8,531.65	42.47	201.866		
4,200.00	4,178.99	5,056.00	4,928.46	18.92	27.37	64.65	-2,268.61	-8,401.36	8,560.14	8,517.03	43.10	198.603		
4,300.00	4,278.38	5,093.77	4,966.02	19.37	27.55	64.69	-2,265.86	-8,398.64	8,546.87	8,503.13	43.73	195.432		
4,400.00	4,377.76	5,150.00	5,022.04	19.83	27.80	64.75	-2,262.13	-8,395.35	8,534.64	8,490.20	44.44	192.036		
4,500.00	4,477.14	5,150.00	5,022.04	20.28	27.80	64.75	-2,262.13	-8,395.35	8,522.90	8,477.99	44.91	189.778		
4,600.00	4,576.53	5,213.09	5,084.94	20.74	28.07	64.81	-2,258.46	-8,392.21	8,511.99	8,466.35	45.64	186.498		
4,700.00	4,675.91	5,243.00	5,114.77	21.19	28.20	64.84	-2,256.90	-8,390.75	8,501.57	8,455.34	46.23	183.895		
4,800.00	4,775.29	5,293.32	5,164.99	21.65	28.41	64.89	-2,254.54	-8,388.59	8,491.78	8,444.88	46.90	181.058		
4,900.00	4,874.68	5,336.00	5,207.61	22.10	28.59	64.93	-2,252.81	-8,387.19	8,482.87	8,435.33	47.54	178.444		
5,000.00	4,974.06	5,372.67	5,244.25	22.56	28.73	64.96	-2,251.55	-8,386.20	8,474.65	8,426.51	48.14	176.029		
5,100.00	5,073.44	5,430.00	5,301.54	23.02	28.95	65.00	-2,250.14	-8,384.80	8,467.00	8,418.17	48.83	173.388		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,492.28	5,363.80	23.47	29.19	65.05	-2,248.85	-8,383.52	8,459.83	8,410.29	49.54	170.766		
5,300.00	5,272.21	5,557.95	5,429.44	23.93	29.43	65.11	-2,247.26	-8,382.48	8,453.07	8,402.81	50.26	168.180		
5,400.00	5,371.59	5,623.58	5,495.04	24.39	29.68	65.16	-2,245.42	-8,381.75	8,446.72	8,395.74	50.98	165.676		
5,500.00	5,470.98	5,711.00	5,582.41	24.85	30.01	65.24	-2,242.59	-8,381.28	8,440.82	8,389.03	51.80	162.964		
5,600.00	5,570.36	5,757.64	5,629.03	25.30	30.19	65.28	-2,240.99	-8,381.23	8,435.24	8,382.80	52.44	160.864		
5,700.00	5,669.75	5,827.61	5,698.96	25.76	30.45	65.35	-2,238.66	-8,381.34	8,430.06	8,376.88	53.18	158.531		
5,800.00	5,769.13	5,897.62	5,768.93	26.22	30.71	65.41	-2,236.42	-8,381.67	8,425.25	8,371.33	53.92	156.268		
5,900.00	5,868.51	5,967.65	5,838.93	26.68	30.97	65.47	-2,234.27	-8,382.24	8,420.79	8,366.14	54.65	154.075		
6,000.00	5,967.90	6,062.29	5,933.52	27.14	31.31	65.56	-2,231.51	-8,383.22	8,416.61	8,361.12	55.50	151.661		
6,100.00	6,067.28	6,172.70	6,043.88	27.60	31.72	65.66	-2,228.46	-8,384.22	8,412.35	8,355.95	56.41	149.142		
6,200.00	6,166.66	6,283.15	6,154.29	28.05	32.13	65.75	-2,225.58	-8,385.03	8,407.98	8,350.67	57.31	146.701		
6,300.00	6,266.05	6,377.41	6,248.50	28.51	32.49	65.84	-2,222.78	-8,385.76	8,403.60	8,345.43	58.16	144.479		
6,400.00	6,365.43	6,472.17	6,343.20	28.97	32.85	65.93	-2,219.23	-8,386.69	8,399.28	8,340.26	59.02	142.317		
6,500.00	6,464.81	6,569.30	6,440.22	29.43	33.22	66.02	-2,214.81	-8,387.83	8,395.04	8,335.15	59.88	140.190		
6,600.00	6,564.10	6,728.73	6,599.37	29.89	33.86	35.78	-2,205.67	-8,389.49	8,388.54	8,327.49	61.05	137.397		
6,700.00	6,661.75	6,884.72	6,754.95	30.34	34.50	12.23	-2,194.32	-8,390.42	8,368.01	8,305.82	62.19	134.556		
6,800.00	6,755.38	6,930.17	6,800.26	30.77	34.69	3.82	-2,190.81	-8,390.85	8,332.80	8,269.99	62.81	132.667		
6,900.00	6,842.67	6,992.73	6,862.62	31.17	34.95	-0.82	-2,185.81	-8,391.54	8,283.89	8,220.43	63.46	130.529		
7,000.00	6,921.48	7,049.56	6,919.25	31.54	35.19	-4.42	-2,181.17	-8,392.35	8,222.46	8,158.42	64.04	128.394		
7,100.00	6,989.86	7,099.31	6,968.82	31.91	35.40	-8.11	-2,177.03	-8,393.19	8,149.93	8,085.41	64.53	126.306		
7,200.00	7,046.13	7,142.94	7,012.29	32.35	35.58	-12.96	-2,173.35	-8,394.04	8,068.02	8,003.11	64.92	124.283		
7,300.00	7,088.91	7,180.90	7,050.12	32.98	35.73	-20.84	-2,170.29	-8,394.79	7,978.66	7,913.44	65.21	122.344		
7,400.00	7,117.14	7,206.58	7,075.71	33.84	35.84	-36.65	-2,168.32	-8,395.29	7,884.01	7,818.61	65.40	120.552		
7,500.00	7,130.13	7,219.29	7,088.39	34.90	35.89	-72.00	-2,167.38	-8,395.54	7,786.39	7,720.92	65.48	118.916		
7,600.00	7,130.72	7,221.43	7,090.52	36.13	35.90	-89.70	-2,167.22	-8,395.58	7,688.07	7,622.58	65.49	117.401		
7,700.00	7,130.29	7,222.70	7,091.78	37.54	35.90	-89.75	-2,167.13	-8,395.61	7,589.78	7,524.28	65.50	115.879		
7,800.00	7,129.85	7,223.96	7,093.04	39.12	35.91	-89.80	-2,167.04	-8,395.63	7,491.54	7,426.02	65.52	114.339		
7,900.00	7,129.42	7,225.22	7,094.30	40.83	35.91	-89.85	-2,166.94	-8,395.66	7,393.35	7,327.79	65.56	112.779		
8,000.00	7,128.98	7,226.48	7,095.56	42.67	35.92	-89.90	-2,166.85	-8,395.68	7,295.20	7,229.60	65.60	111.200		
8,100.00	7,128.55	7,227.74	7,096.81	44.62	35.92	-89.95	-2,166.76	-8,395.70	7,197.11	7,131.44	65.67	109.600		
8,200.00	7,128.12	7,229.00	7,098.07	46.66	35.93	-90.01	-2,166.67	-8,395.73	7,099.07	7,033.32	65.74	107.979		
8,300.00	7,127.68	7,230.26	7,099.32	48.79	35.93	-90.06	-2,166.58	-8,395.75	7,001.08	6,935.25	65.84	106.337		
8,400.00	7,127.25	7,231.51	7,100.58	50.98	35.94	-90.11	-2,166.49	-8,395.78	6,903.16	6,837.21	65.95	104.674		
8,500.00	7,126.81	7,232.77	7,101.83	53.24	35.95	-90.16	-2,166.40	-8,395.80	6,805.29	6,739.21	66.08	102.988		
8,600.00	7,126.38	7,234.03	7,103.08	55.56	35.95	-90.21	-2,166.31	-8,395.83	6,707.48	6,641.26	66.23	101.281		
8,700.00	7,125.95	7,235.28	7,104.34	57.92	35.96	-90.26	-2,166.22	-8,395.85	6,609.74	6,543.35	66.40	99.550		
8,800.00	7,125.51	7,236.54	7,105.59	60.33	35.96	-90.31	-2,166.13	-8,395.88	6,512.07	6,445.48	66.59	97.798		
8,900.00	7,125.08	7,237.79	7,106.84	62.77	35.97	-90.36	-2,166.04	-8,395.90	6,414.47	6,347.67	66.80	96.023		
9,000.00	7,124.64	7,239.05	7,108.09	65.25	35.97	-90.41	-2,165.95	-8,395.92	6,316.95	6,249.91	67.04	94.225		
9,100.00	7,124.21	7,240.30	7,109.34	67.76	35.98	-90.46	-2,165.86	-8,395.95	6,219.50	6,152.19	67.31	92.405		
9,200.00	7,123.78	7,241.55	7,110.59	70.29	35.98	-90.52	-2,165.78	-8,395.97	6,122.13	6,054.53	67.60	90.563		
9,300.00	7,123.34	7,242.81	7,111.84	72.85	35.99	-90.57	-2,165.69	-8,396.00	6,024.86	5,956.93	67.92	88.699		
9,400.00	7,122.91	7,244.06	7,113.09	75.43	35.99	-90.62	-2,165.60	-8,396.02	5,927.67	5,859.39	68.28	86.815		
9,500.00	7,122.48	7,245.31	7,114.33	78.03	36.00	-90.67	-2,165.51	-8,396.05	5,830.57	5,761.91	68.67	84.910		
9,600.00	7,122.04	7,246.56	7,115.58	80.65	36.00	-90.72	-2,165.42	-8,396.07	5,733.58	5,664.49	69.09	82.985		
9,700.00	7,121.61	7,247.81	7,116.83	83.28	36.01	-90.77	-2,165.34	-8,396.10	5,636.69	5,567.14	69.55	81.042		
9,800.00	7,121.17	7,249.06	7,118.07	85.93	36.01	-90.82	-2,165.25	-8,396.12	5,539.91	5,469.86	70.05	79.082		
9,900.00	7,120.74	7,250.31	7,119.32	88.59	36.02	-90.87	-2,165.16	-8,396.14	5,443.25	5,372.65	70.59	77.105		
10,000.00	7,120.31	7,251.55	7,120.56	91.26	36.02	-90.92	-2,165.08	-8,396.17	5,346.71	5,275.53	71.18	75.114		
10,100.00	7,119.87	7,252.80	7,121.81	93.95	36.03	-90.97	-2,164.99	-8,396.19	5,250.29	5,178.48	71.81	73.110		
10,200.00	7,119.44	7,254.05	7,123.05	96.64	36.03	-91.02	-2,164.90	-8,396.22	5,154.02	5,081.52	72.49	71.095		
10,300.00	7,119.00	7,255.29	7,124.29	99.34	36.04	-91.07	-2,164.82	-8,396.24	5,057.89	4,984.66	73.23	69.070		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,118.57	7,256.54	7,125.54	102.05	36.04	-91.13	-2,164.73	-8,396.26	4,961.91	4,887.89	74.02	67.039		
10,500.00	7,118.14	7,257.78	7,126.78	104.77	36.05	-91.18	-2,164.65	-8,396.29	4,866.09	4,791.23	74.86	65.002		
10,600.00	7,117.70	7,259.03	7,128.02	107.50	36.05	-91.23	-2,164.56	-8,396.31	4,770.45	4,694.68	75.77	62.962		
10,700.00	7,117.27	7,260.27	7,129.26	110.23	36.06	-91.28	-2,164.48	-8,396.34	4,674.98	4,598.25	76.74	60.922		
10,800.00	7,116.83	7,261.51	7,130.50	112.97	36.06	-91.33	-2,164.39	-8,396.36	4,579.71	4,501.94	77.78	58.884		
10,900.00	7,116.40	7,262.76	7,131.74	115.72	36.07	-91.38	-2,164.31	-8,396.38	4,484.65	4,405.76	78.88	56.851		
11,000.00	7,115.97	7,264.00	7,132.98	118.47	36.07	-91.43	-2,164.23	-8,396.41	4,389.80	4,309.73	80.07	54.825		
11,100.00	7,115.53	7,265.24	7,134.21	121.22	36.08	-91.48	-2,164.14	-8,396.43	4,295.19	4,213.86	81.33	52.810		
11,200.00	7,115.10	7,266.48	7,135.45	123.98	36.08	-91.53	-2,164.06	-8,396.46	4,200.82	4,118.14	82.68	50.807		
11,300.00	7,114.66	7,267.72	7,136.69	126.74	36.09	-91.58	-2,163.98	-8,396.48	4,106.73	4,022.61	84.12	48.821		
11,400.00	7,114.23	7,268.96	7,137.92	129.51	36.09	-91.63	-2,163.89	-8,396.50	4,012.92	3,927.27	85.65	46.852		
11,500.00	7,113.80	7,270.20	7,139.16	132.29	36.10	-91.68	-2,163.81	-8,396.53	3,919.41	3,832.13	87.28	44.906		
11,600.00	7,113.36	7,271.43	7,140.39	135.06	36.10	-91.73	-2,163.73	-8,396.55	3,826.23	3,737.21	89.02	42.983		
11,700.00	7,112.93	7,272.67	7,141.63	137.84	36.11	-91.78	-2,163.64	-8,396.58	3,733.40	3,642.54	90.87	41.086		
11,800.00	7,112.49	7,273.91	7,142.86	140.62	36.11	-91.83	-2,163.56	-8,396.60	3,640.96	3,548.12	92.83	39.220		
11,900.00	7,112.06	7,275.14	7,144.09	143.41	36.12	-91.88	-2,163.48	-8,396.62	3,548.92	3,453.99	94.93	37.385		
12,000.00	7,111.63	7,276.38	7,145.33	146.20	36.12	-91.93	-2,163.40	-8,396.65	3,457.32	3,360.17	97.16	35.585		
12,100.00	7,111.19	7,277.61	7,146.56	148.99	36.13	-91.98	-2,163.32	-8,396.67	3,366.21	3,266.68	99.53	33.821		
12,200.00	7,110.76	7,278.85	7,147.79	151.78	36.13	-92.03	-2,163.24	-8,396.70	3,275.60	3,173.55	102.05	32.097		
12,300.00	7,110.33	7,280.08	7,149.02	154.58	36.14	-92.08	-2,163.15	-8,396.72	3,185.57	3,080.83	104.74	30.414		
12,400.00	7,109.89	7,281.31	7,150.25	157.37	36.14	-92.13	-2,163.07	-8,396.74	3,096.14	2,988.54	107.60	28.775		
12,500.00	7,109.46	7,282.55	7,151.48	160.17	36.15	-92.18	-2,162.99	-8,396.77	3,007.38	2,896.73	110.64	27.181		
12,600.00	7,109.02	7,283.78	7,152.71	162.98	36.15	-92.23	-2,162.91	-8,396.79	2,919.34	2,805.46	113.88	25.635		
12,700.00	7,108.59	7,285.01	7,153.94	165.78	36.16	-92.28	-2,162.83	-8,396.81	2,832.10	2,714.77	117.33	24.137		
12,800.00	7,108.16	7,286.24	7,155.16	168.59	36.16	-92.33	-2,162.75	-8,396.84	2,745.73	2,624.72	121.01	22.691		
12,900.00	7,107.72	7,287.47	7,156.39	171.39	36.17	-92.38	-2,162.67	-8,396.86	2,660.31	2,535.39	124.92	21.296		
13,000.00	7,107.29	7,288.70	7,157.62	174.20	36.17	-92.43	-2,162.59	-8,396.89	2,575.94	2,446.85	129.08	19.956		
13,100.00	7,106.85	7,289.93	7,158.84	177.01	36.18	-92.48	-2,162.52	-8,396.91	2,492.72	2,359.21	133.52	18.670		
13,200.00	7,106.42	7,291.15	7,160.07	179.83	36.18	-92.54	-2,162.44	-8,396.93	2,410.79	2,272.55	138.23	17.440		
13,300.00	7,105.99	7,292.38	7,161.29	182.64	36.19	-92.59	-2,162.36	-8,396.96	2,330.26	2,187.01	143.25	16.267		
13,400.00	7,105.55	7,293.61	7,162.52	185.45	36.19	-92.64	-2,162.28	-8,396.98	2,251.29	2,102.71	148.58	15.152		
13,500.00	7,105.12	7,294.83	7,163.74	188.27	36.20	-92.69	-2,162.20	-8,397.00	2,174.05	2,019.81	154.24	14.095		
13,600.00	7,104.68	7,296.06	7,164.96	191.09	36.20	-92.73	-2,162.12	-8,397.03	2,098.74	1,938.50	160.24	13.098		
13,700.00	7,104.25	7,297.29	7,166.19	193.91	36.21	-92.78	-2,162.05	-8,397.05	2,025.56	1,858.98	166.58	12.160		
13,800.00	7,103.82	7,298.51	7,167.41	196.73	36.21	-92.83	-2,161.97	-8,397.07	1,954.76	1,781.50	173.26	11.282		
13,900.00	7,103.38	7,299.73	7,168.63	199.55	36.22	-92.88	-2,161.89	-8,397.10	1,886.61	1,706.32	180.28	10.465		
14,000.00	7,102.95	7,300.96	7,169.85	202.37	36.22	-92.93	-2,161.81	-8,397.12	1,821.39	1,633.77	187.62	9.708		
14,100.00	7,102.51	7,302.18	7,171.07	205.19	36.23	-92.98	-2,161.74	-8,397.14	1,759.45	1,564.19	195.25	9.011		
14,200.00	7,102.08	7,303.40	7,172.29	208.02	36.23	-93.03	-2,161.66	-8,397.17	1,701.13	1,498.00	203.12	8.375		
14,300.00	7,101.65	7,304.62	7,173.51	210.84	36.24	-93.08	-2,161.58	-8,397.19	1,646.82	1,435.65	211.17	7.799		
14,400.00	7,101.21	7,305.84	7,174.72	213.67	36.24	-93.13	-2,161.51	-8,397.22	1,596.93	1,377.64	219.29	7.282		
14,500.00	7,100.78	7,307.06	7,175.94	216.50	36.25	-93.18	-2,161.43	-8,397.24	1,551.89	1,324.50	227.39	6.825		
14,600.00	7,100.35	7,308.28	7,177.16	219.32	36.25	-93.23	-2,161.36	-8,397.26	1,512.12	1,276.81	235.31	6.426		
14,700.00	7,099.91	7,309.50	7,178.37	222.15	36.26	-93.28	-2,161.28	-8,397.29	1,478.07	1,235.16	242.90	6.085		
14,800.00	7,099.48	7,310.72	7,179.59	224.98	36.26	-93.33	-2,161.21	-8,397.31	1,450.12	1,200.13	249.99	5.801		
14,900.00	7,099.04	7,311.94	7,180.81	227.81	36.27	-93.38	-2,161.13	-8,397.33	1,428.63	1,172.24	256.39	5.572		
14,909.96	7,099.00	7,312.06	7,180.93	228.09	36.27	-93.39	-2,161.12	-8,397.33	1,426.86	1,169.87	256.98	5.552	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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	30.00	3.28	3.28	-82.29	1,237.78	-9,144.18	9,227.63					
100.00	100.00	70.00	100.00	3.28	3.50	-82.29	1,237.78	-9,144.18	9,227.58	9,220.79	6.78	1,360.015		
200.00	200.00	170.00	200.00	3.34	5.32	-82.29	1,237.78	-9,144.18	9,227.58	9,218.92	8.66	1,065.843		
300.00	300.00	270.00	300.00	3.44	8.35	-82.29	1,237.78	-9,144.18	9,227.58	9,215.78	11.80	782.251		
400.00	400.00	370.00	400.00	3.60	11.64	-82.29	1,237.78	-9,144.18	9,227.58	9,212.33	15.25	605.241		
500.00	500.00	470.00	500.00	3.81	15.02	-82.29	1,237.78	-9,144.18	9,227.58	9,208.75	18.83	490.031		
600.00	600.00	570.00	600.00	4.04	18.45	84.56	1,237.78	-9,144.18	9,227.57	9,205.08	22.49	410.281		
700.00	699.96	669.96	699.96	4.29	21.89	84.58	1,237.78	-9,144.18	9,227.34	9,201.16	26.18	352.446		
800.00	799.78	769.78	799.78	4.57	25.34	84.62	1,237.78	-9,144.18	9,226.78	9,196.87	29.91	308.507		
900.00	899.34	869.34	899.34	4.88	28.79	84.70	1,237.78	-9,144.18	9,225.90	9,192.24	33.66	274.090		
1,000.00	998.72	968.72	998.72	5.20	32.24	84.77	1,237.78	-9,144.18	9,224.88	9,187.44	37.44	246.421		
1,100.00	1,098.10	1,068.10	1,098.10	5.54	35.69	84.84	1,237.78	-9,144.18	9,223.87	9,182.63	41.23	223.695		
1,200.00	1,197.49	1,167.49	1,197.49	5.90	39.15	84.90	1,237.78	-9,144.18	9,222.87	9,177.82	45.05	204.717		
1,300.00	1,296.87	1,266.87	1,296.87	6.28	42.61	84.97	1,237.78	-9,144.18	9,221.88	9,173.00	48.88	188.645		
1,400.00	1,396.25	1,366.25	1,396.25	6.66	46.07	85.04	1,237.78	-9,144.18	9,220.91	9,168.18	52.73	174.868		
1,500.00	1,495.64	1,465.64	1,495.64	7.06	49.53	85.11	1,237.78	-9,144.18	9,219.95	9,163.37	56.59	162.935		
1,600.00	1,595.02	1,565.02	1,595.02	7.46	52.99	85.18	1,237.78	-9,144.18	9,219.01	9,158.56	60.45	152.501		
1,700.00	1,694.40	1,664.40	1,694.40	7.87	56.45	85.24	1,237.78	-9,144.18	9,218.08	9,153.75	64.32	143.306		
1,800.00	1,793.79	1,763.79	1,793.79	8.29	59.92	85.31	1,237.78	-9,144.18	9,217.16	9,148.96	68.20	135.142		
1,900.00	1,893.17	1,863.17	1,893.17	8.71	63.38	85.38	1,237.78	-9,144.18	9,216.26	9,144.17	72.09	127.848		
2,000.00	1,992.55	1,962.55	1,992.55	9.13	66.85	85.45	1,237.78	-9,144.18	9,215.36	9,139.39	75.98	121.292		
2,100.00	2,091.94	2,061.94	2,091.94	9.56	70.31	85.52	1,237.78	-9,144.18	9,214.49	9,134.62	79.87	115.369		
2,200.00	2,191.32	2,161.32	2,191.32	9.99	73.78	85.59	1,237.78	-9,144.18	9,213.62	9,129.86	83.77	109.993		
2,300.00	2,290.70	2,260.70	2,290.70	10.42	77.25	85.65	1,237.78	-9,144.18	9,212.77	9,125.10	87.67	105.090		
2,400.00	2,390.09	2,360.09	2,390.09	10.86	80.71	85.72	1,237.78	-9,144.18	9,211.93	9,120.36	91.57	100.603		
2,500.00	2,489.47	2,459.47	2,489.47	11.29	84.18	85.79	1,237.78	-9,144.18	9,211.11	9,115.63	95.47	96.480		
2,600.00	2,588.86	2,558.86	2,588.86	11.73	87.65	85.86	1,237.78	-9,144.18	9,210.29	9,110.91	99.38	92.679		
2,700.00	2,688.24	2,658.24	2,688.24	12.18	91.11	85.93	1,237.78	-9,144.18	9,209.49	9,106.21	103.29	89.164		
2,800.00	2,787.62	2,757.62	2,787.62	12.62	94.58	86.00	1,237.78	-9,144.18	9,208.71	9,101.51	107.20	85.904		
2,900.00	2,887.01	2,857.01	2,887.01	13.06	98.05	86.06	1,237.78	-9,144.18	9,207.94	9,096.83	111.11	82.873		
3,000.00	2,986.39	2,956.39	2,986.39	13.51	101.52	86.13	1,237.78	-9,144.18	9,207.18	9,092.16	115.02	80.047		
3,100.00	3,085.77	3,055.77	3,085.77	13.95	104.98	86.20	1,237.78	-9,144.18	9,206.43	9,087.50	118.94	77.406		
3,200.00	3,185.16	3,155.16	3,185.16	14.40	108.45	86.27	1,237.78	-9,144.18	9,205.70	9,082.85	122.85	74.933		
3,300.00	3,284.54	3,254.54	3,284.54	14.85	111.92	86.34	1,237.78	-9,144.18	9,204.98	9,078.21	126.77	72.613		
3,400.00	3,383.92	3,353.92	3,383.92	15.30	115.39	86.41	1,237.78	-9,144.18	9,204.28	9,073.59	130.69	70.431		
3,500.00	3,483.31	3,453.31	3,483.31	15.75	118.85	86.48	1,237.78	-9,144.18	9,203.58	9,068.98	134.60	68.375		
3,600.00	3,582.69	3,552.69	3,582.69	16.20	122.32	86.54	1,237.78	-9,144.18	9,202.90	9,064.38	138.52	66.436		
3,700.00	3,682.07	3,652.07	3,682.07	16.65	125.79	86.61	1,237.78	-9,144.18	9,202.24	9,059.80	142.44	64.603		
3,800.00	3,781.46	3,751.46	3,781.46	17.10	129.26	86.68	1,237.78	-9,144.18	9,201.59	9,055.22	146.36	62.868		
3,900.00	3,880.84	3,850.84	3,880.84	17.56	132.73	86.75	1,237.78	-9,144.18	9,200.95	9,050.66	150.28	61.224		
4,000.00	3,980.22	3,950.22	3,980.22	18.01	136.20	86.82	1,237.78	-9,144.18	9,200.32	9,046.12	154.21	59.663		
4,100.00	4,079.61	4,049.61	4,079.61	18.46	139.67	86.89	1,237.78	-9,144.18	9,199.71	9,041.58	158.13	58.179		
4,200.00	4,178.99	4,148.99	4,178.99	18.92	143.13	86.95	1,237.78	-9,144.18	9,199.11	9,037.06	162.05	56.767		
4,300.00	4,278.38	4,248.38	4,278.38	19.37	146.60	87.02	1,237.78	-9,144.18	9,198.52	9,032.55	165.97	55.422		
4,400.00	4,377.76	4,347.76	4,377.76	19.83	150.07	87.09	1,237.78	-9,144.18	9,197.95	9,028.05	169.90	54.139		
4,500.00	4,477.14	4,447.14	4,477.14	20.28	153.54	87.16	1,237.78	-9,144.18	9,197.39	9,023.57	173.82	52.913		
4,600.00	4,576.53	4,546.53	4,576.53	20.74	157.01	87.23	1,237.78	-9,144.18	9,196.84	9,019.10	177.74	51.742		
4,700.00	4,675.91	4,645.91	4,675.91	21.19	160.48	87.30	1,237.78	-9,144.18	9,196.31	9,014.64	181.67	50.621		
4,800.00	4,775.29	4,745.29	4,775.29	21.65	163.95	87.37	1,237.78	-9,144.18	9,195.79	9,010.20	185.59	49.548		
4,900.00	4,874.68	4,844.68	4,874.68	22.10	167.41	87.43	1,237.78	-9,144.18	9,195.29	9,005.77	189.52	48.519		
5,000.00	4,974.06	4,944.06	4,974.06	22.56	170.88	87.50	1,237.78	-9,144.18	9,194.79	9,001.35	193.44	47.532		
5,100.00	5,073.44	5,043.44	5,073.44	23.02	174.35	87.57	1,237.78	-9,144.18	9,194.32	8,996.95	197.37	46.584		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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	5,172.83	5,142.83	5,172.83	23.47	177.82	87.64	1,237.78	-9,144.18	9,193.85	8,992.55	201.30	45.674		
5,300.00	5,272.21	5,242.21	5,272.21	23.93	181.29	87.71	1,237.78	-9,144.18	9,193.40	8,988.18	205.22	44.798		
5,400.00	5,371.59	5,341.59	5,371.59	24.39	184.76	87.78	1,237.78	-9,144.18	9,192.96	8,983.81	209.15	43.954		
5,500.00	5,470.98	5,440.98	5,470.98	24.85	188.23	87.85	1,237.78	-9,144.18	9,192.53	8,979.46	213.07	43.142		
5,600.00	5,570.36	5,540.36	5,570.36	25.30	191.70	87.92	1,237.78	-9,144.18	9,192.12	8,975.12	217.00	42.360		
5,700.00	5,669.75	5,639.75	5,669.75	25.76	195.17	87.98	1,237.78	-9,144.18	9,191.72	8,970.79	220.93	41.605		
5,800.00	5,769.13	5,739.13	5,769.13	26.22	198.63	88.05	1,237.78	-9,144.18	9,191.33	8,966.48	224.85	40.877		
5,900.00	5,868.51	5,838.51	5,868.51	26.68	202.10	88.12	1,237.78	-9,144.18	9,190.96	8,962.18	228.78	40.173		
6,000.00	5,967.90	5,937.90	5,967.90	27.14	205.57	88.19	1,237.78	-9,144.18	9,190.60	8,957.89	232.71	39.494		
6,100.00	6,067.28	6,037.28	6,067.28	27.60	209.04	88.26	1,237.78	-9,144.18	9,190.26	8,953.62	236.64	38.837		
6,200.00	6,166.66	6,136.66	6,166.66	28.05	212.51	88.33	1,237.78	-9,144.18	9,189.92	8,949.36	240.56	38.201		
6,300.00	6,266.05	6,236.05	6,266.05	28.51	215.98	88.40	1,237.78	-9,144.18	9,189.61	8,945.11	244.49	37.586		
6,400.00	6,365.43	6,335.43	6,365.43	28.97	219.45	88.46	1,237.78	-9,144.18	9,189.30	8,940.88	248.42	36.991		
6,500.00	6,464.81	6,434.81	6,464.81	29.43	222.92	88.53	1,237.78	-9,144.18	9,189.01	8,936.66	252.35	36.414		
6,600.00	6,564.10	6,534.10	6,564.10	29.89	226.38	58.30	1,237.78	-9,144.18	9,188.82	8,930.55	256.27	35.848		
6,700.00	6,661.75	6,631.75	6,661.75	30.34	229.79	35.33	1,237.78	-9,144.18	9,171.30	8,911.17	260.13	35.256		
6,800.00	6,755.38	6,725.38	6,755.38	30.77	233.06	28.27	1,237.78	-9,144.18	9,140.92	8,877.10	263.83	34.647		
6,900.00	6,842.67	6,812.67	6,842.67	31.17	236.11	25.81	1,237.78	-9,144.18	9,096.45	8,829.18	267.27	34.034		
7,000.00	6,921.48	6,908.52	6,921.48	31.54	239.45	25.61	1,237.78	-9,144.18	9,038.98	8,768.01	270.98	33.357		
7,100.00	6,989.86	6,959.86	6,989.86	31.91	241.25	27.18	1,237.78	-9,144.18	8,969.96	8,696.87	273.09	32.846		
7,200.00	7,046.13	7,016.13	7,046.13	32.35	243.21	30.85	1,237.78	-9,144.18	8,891.09	8,615.75	275.33	32.292		
7,300.00	7,088.91	7,058.91	7,088.91	32.98	244.70	37.90	1,237.78	-9,144.18	8,804.31	8,527.25	277.06	31.778		
7,400.00	7,117.14	7,087.14	7,117.14	33.84	245.69	51.57	1,237.78	-9,144.18	8,711.77	8,433.53	278.24	31.310		
7,500.00	7,130.13	7,100.13	7,130.13	34.90	246.14	77.98	1,237.78	-9,144.18	8,615.75	8,336.88	278.87	30.896		
7,600.00	7,130.72	7,100.72	7,130.72	36.13	246.16	91.03	1,237.78	-9,144.18	8,518.56	8,239.52	279.04	30.528		
7,700.00	7,130.29	7,100.29	7,130.29	37.54	246.15	91.02	1,237.78	-9,144.18	8,421.39	8,142.20	279.20	30.163		
7,800.00	7,129.85	7,100.15	7,129.85	39.12	246.14	91.00	1,237.78	-9,144.18	8,324.30	8,044.92	279.38	29.796		
7,900.00	7,129.42	7,100.58	7,129.42	40.83	246.16	90.99	1,237.78	-9,144.18	8,227.27	7,947.66	279.61	29.425		
8,000.00	7,128.98	7,101.02	7,128.98	42.67	246.17	90.98	1,237.78	-9,144.18	8,130.31	7,850.46	279.85	29.052		
8,100.00	7,128.55	7,101.45	7,128.55	44.62	246.19	90.97	1,237.78	-9,144.18	8,033.43	7,753.31	280.12	28.678		
8,200.00	7,128.12	7,101.88	7,128.12	46.66	246.20	90.95	1,237.78	-9,144.18	7,936.63	7,656.21	280.42	28.303		
8,300.00	7,127.68	7,102.32	7,127.68	48.79	246.22	90.94	1,237.78	-9,144.18	7,839.90	7,559.16	280.74	27.926		
8,400.00	7,127.25	7,102.75	7,127.25	50.98	246.23	90.93	1,237.78	-9,144.18	7,743.26	7,462.18	281.08	27.548		
8,500.00	7,126.81	7,103.19	7,126.81	53.24	246.25	90.92	1,237.78	-9,144.18	7,646.71	7,365.25	281.46	27.168		
8,600.00	7,126.38	7,103.62	7,126.38	55.56	246.26	90.90	1,237.78	-9,144.18	7,550.24	7,268.38	281.86	26.788		
8,700.00	7,125.95	7,104.05	7,125.95	57.92	246.28	90.89	1,237.78	-9,144.18	7,453.87	7,171.58	282.29	26.405		
8,800.00	7,125.51	7,104.49	7,125.51	60.33	246.29	90.88	1,237.78	-9,144.18	7,357.59	7,074.85	282.75	26.022		
8,900.00	7,125.08	7,104.92	7,125.08	62.77	246.31	90.87	1,237.78	-9,144.18	7,261.42	6,978.18	283.24	25.637		
9,000.00	7,124.64	7,105.36	7,124.64	65.25	246.32	90.85	1,237.78	-9,144.18	7,165.35	6,881.58	283.76	25.251		
9,100.00	7,124.21	7,105.79	7,124.21	67.76	246.34	90.84	1,237.78	-9,144.18	7,069.39	6,785.06	284.32	24.864		
9,200.00	7,123.78	7,106.22	7,123.78	70.29	246.36	90.83	1,237.78	-9,144.18	6,973.54	6,688.62	284.92	24.476		
9,300.00	7,123.34	7,106.66	7,123.34	72.85	246.37	90.82	1,237.78	-9,144.18	6,877.81	6,592.26	285.55	24.086		
9,400.00	7,122.91	7,107.09	7,122.91	75.43	246.39	90.80	1,237.78	-9,144.18	6,782.21	6,495.99	286.22	23.696		
9,500.00	7,122.48	7,107.53	7,122.48	78.03	246.40	90.79	1,237.78	-9,144.18	6,686.73	6,399.80	286.93	23.305		
9,600.00	7,122.04	7,107.96	7,122.04	80.65	246.42	90.78	1,237.78	-9,144.18	6,591.39	6,303.71	287.67	22.913		
9,700.00	7,121.61	7,108.39	7,121.61	83.28	246.43	90.77	1,237.78	-9,144.18	6,496.18	6,207.72	288.46	22.520		
9,800.00	7,121.17	7,108.83	7,121.17	85.93	246.45	90.75	1,237.78	-9,144.18	6,401.13	6,111.83	289.30	22.126		
9,900.00	7,120.74	7,109.26	7,120.74	88.59	246.46	90.74	1,237.78	-9,144.18	6,306.22	6,016.05	290.18	21.732		
10,000.00	7,120.31	7,109.69	7,120.31	91.26	246.48	90.73	1,237.78	-9,144.18	6,211.48	5,920.38	291.10	21.338		
10,100.00	7,119.87	7,089.87	7,119.87	93.95	245.78	90.72	1,237.78	-9,144.18	6,116.90	5,825.53	291.37	20.994		
10,200.00	7,119.44	7,089.44	7,119.44	96.64	245.77	90.71	1,237.78	-9,144.18	6,022.50	5,730.14	292.36	20.600		
10,300.00	7,119.00	7,089.00	7,119.00	99.34	245.75	90.69	1,237.78	-9,144.18	5,928.28	5,634.88	293.40	20.205		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,118.57	7,088.57	7,118.57	102.05	245.74	90.68	1,237.78	-9,144.18	5,834.25	5,539.75	294.50	19.811		
10,500.00	7,118.14	7,088.14	7,118.14	104.77	245.72	90.67	1,237.78	-9,144.18	5,740.43	5,444.77	295.66	19.416		
10,600.00	7,117.70	7,087.70	7,117.70	107.50	245.71	90.66	1,237.78	-9,144.18	5,646.82	5,349.95	296.87	19.021		
10,700.00	7,117.27	7,087.27	7,117.27	110.23	245.69	90.64	1,237.78	-9,144.18	5,553.43	5,255.29	298.14	18.627		
10,800.00	7,116.83	7,086.83	7,116.83	112.97	245.68	90.63	1,237.78	-9,144.18	5,460.27	5,160.80	299.47	18.233		
10,900.00	7,116.40	7,086.40	7,116.40	115.72	245.66	90.62	1,237.78	-9,144.18	5,367.37	5,066.50	300.87	17.839		
11,000.00	7,115.97	7,085.97	7,115.97	118.47	245.65	90.61	1,237.78	-9,144.18	5,274.72	4,972.38	302.33	17.447		
11,100.00	7,115.53	7,085.53	7,115.53	121.22	245.63	90.59	1,237.78	-9,144.18	5,182.34	4,878.47	303.87	17.055		
11,200.00	7,115.10	7,085.10	7,115.10	123.98	245.62	90.58	1,237.78	-9,144.18	5,090.25	4,784.78	305.48	16.663		
11,300.00	7,114.66	7,084.66	7,114.66	126.74	245.60	90.57	1,237.78	-9,144.18	4,998.47	4,691.31	307.16	16.273		
11,400.00	7,114.23	7,084.23	7,114.23	129.51	245.59	90.56	1,237.78	-9,144.18	4,907.00	4,598.09	308.92	15.884		
11,500.00	7,113.80	7,083.80	7,113.80	132.29	245.57	90.54	1,237.78	-9,144.18	4,815.88	4,505.12	310.76	15.497		
11,600.00	7,113.36	7,083.36	7,113.36	135.06	245.56	90.53	1,237.78	-9,144.18	4,725.12	4,412.43	312.69	15.111		
11,700.00	7,112.93	7,082.93	7,112.93	137.84	245.54	90.52	1,237.78	-9,144.18	4,634.73	4,320.03	314.70	14.727		
11,800.00	7,112.49	7,082.49	7,112.49	140.62	245.53	90.51	1,237.78	-9,144.18	4,544.75	4,227.94	316.81	14.345		
11,900.00	7,112.06	7,082.06	7,112.06	143.41	245.51	90.49	1,237.78	-9,144.18	4,455.20	4,136.18	319.02	13.965		
12,000.00	7,111.63	7,081.63	7,111.63	146.20	245.50	90.48	1,237.78	-9,144.18	4,366.09	4,044.77	321.33	13.588		
12,100.00	7,111.19	7,081.19	7,111.19	148.99	245.48	90.47	1,237.78	-9,144.18	4,277.47	3,953.73	323.74	13.213		
12,200.00	7,110.76	7,080.76	7,110.76	151.78	245.47	90.46	1,237.78	-9,144.18	4,189.37	3,863.10	326.26	12.840		
12,300.00	7,110.33	7,080.33	7,110.33	154.58	245.45	90.44	1,237.78	-9,144.18	4,101.81	3,772.90	328.90	12.471		
12,400.00	7,109.89	7,079.89	7,109.89	157.37	245.44	90.43	1,237.78	-9,144.18	4,014.83	3,683.16	331.66	12.105		
12,500.00	7,109.46	7,079.46	7,109.46	160.17	245.42	90.42	1,237.78	-9,144.18	3,928.46	3,593.92	334.55	11.743		
12,600.00	7,109.02	7,079.02	7,109.02	162.98	245.41	90.41	1,237.78	-9,144.18	3,842.77	3,505.20	337.56	11.384		
12,700.00	7,108.59	7,078.59	7,108.59	165.78	245.39	90.39	1,237.78	-9,144.18	3,757.77	3,417.06	340.72	11.029		
12,800.00	7,108.16	7,078.16	7,108.16	168.59	245.38	90.38	1,237.78	-9,144.18	3,673.54	3,329.52	344.01	10.678		
12,900.00	7,107.72	7,077.72	7,107.72	171.39	245.36	90.37	1,237.78	-9,144.18	3,590.11	3,242.65	347.46	10.333		
13,000.00	7,107.29	7,077.29	7,107.29	174.20	245.35	90.36	1,237.78	-9,144.18	3,507.55	3,156.49	351.06	9.991		
13,100.00	7,106.85	7,076.85	7,106.85	177.01	245.33	90.35	1,237.78	-9,144.18	3,425.92	3,071.10	354.82	9.655		
13,200.00	7,106.42	7,076.42	7,106.42	179.83	245.31	90.33	1,237.78	-9,144.18	3,345.28	2,986.54	358.74	9.325		
13,300.00	7,105.99	7,075.99	7,105.99	182.64	245.30	90.32	1,237.78	-9,144.18	3,265.72	2,902.88	362.84	9.000		
13,400.00	7,105.55	7,075.55	7,105.55	185.45	245.28	90.31	1,237.78	-9,144.18	3,187.31	2,820.19	367.12	8.682		
13,500.00	7,105.12	7,075.12	7,105.12	188.27	245.27	90.30	1,237.78	-9,144.18	3,110.13	2,738.56	371.58	8.370		
13,600.00	7,104.68	7,074.68	7,104.68	191.09	245.25	90.28	1,237.78	-9,144.18	3,034.29	2,658.07	376.22	8.065		
13,700.00	7,104.25	7,074.25	7,104.25	193.91	245.24	90.27	1,237.78	-9,144.18	2,959.89	2,578.84	381.05	7.768		
13,800.00	7,103.82	7,073.82	7,103.82	196.73	245.22	90.26	1,237.78	-9,144.18	2,887.03	2,500.96	386.07	7.478		
13,900.00	7,103.38	7,073.38	7,103.38	199.55	245.21	90.25	1,237.78	-9,144.18	2,815.84	2,424.55	391.29	7.196		
14,000.00	7,102.95	7,072.95	7,102.95	202.37	245.19	90.23	1,237.78	-9,144.18	2,746.44	2,349.76	396.68	6.923		
14,100.00	7,102.51	7,072.51	7,102.51	205.19	245.18	90.22	1,237.78	-9,144.18	2,678.99	2,276.72	402.27	6.660		
14,200.00	7,102.08	7,072.08	7,102.08	208.02	245.16	90.21	1,237.78	-9,144.18	2,613.61	2,205.59	408.02	6.406		
14,300.00	7,101.65	7,071.65	7,101.65	210.84	245.15	90.20	1,237.78	-9,144.18	2,550.48	2,136.54	413.94	6.161		
14,400.00	7,101.21	7,071.21	7,101.21	213.67	245.13	90.18	1,237.78	-9,144.18	2,489.77	2,069.77	420.01	5.928		
14,500.00	7,100.78	7,070.78	7,100.78	216.50	245.12	90.17	1,237.78	-9,144.18	2,431.66	2,005.47	426.20	5.706		
14,600.00	7,100.35	7,070.35	7,100.35	219.32	245.10	90.16	1,237.78	-9,144.18	2,376.34	1,943.85	432.49	5.495		
14,700.00	7,099.91	7,069.91	7,099.91	222.15	245.09	90.15	1,237.78	-9,144.18	2,324.00	1,885.16	438.84	5.296		
14,800.00	7,099.48	7,069.48	7,099.48	224.98	245.07	90.13	1,237.78	-9,144.18	2,274.86	1,829.64	445.22	5.109		
14,900.00	7,099.04	7,069.04	7,099.04	227.81	245.06	90.12	1,237.78	-9,144.18	2,229.12	1,777.54	451.59	4.936		
14,909.96	7,099.00	7,069.00	7,099.00	228.09	245.06	90.12	1,237.78	-9,144.18	2,224.76	1,772.54	452.22	4.920 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	14.22	1.22	3.28	3.28	2.96	2,284.18	117.91	2,287.22					
100.00	100.00	124.36	111.36	3.28	3.30	2.95	2,283.91	117.54	2,286.96	2,280.38	6.58	347.541		
200.00	200.00	233.21	220.20	3.34	3.37	2.94	2,283.10	117.40	2,286.21	2,279.50	6.71	340.695		
300.00	300.00	330.61	317.61	3.44	3.49	2.94	2,282.25	117.38	2,285.34	2,278.40	6.94	329.343		
400.00	400.00	421.34	408.33	3.60	3.65	2.93	2,281.76	116.84	2,284.76	2,277.51	7.25	315.166		
478.72	478.72	491.73	478.72	3.76	3.79	2.92	2,281.66	116.23	2,284.62	2,277.07	7.55	302.725 CC		
500.00	500.00	511.07	498.06	3.81	3.83	2.91	2,281.68	116.05	2,284.63	2,276.99	7.64	299.216		
600.00	600.00	603.05	590.03	4.04	4.05	169.74	2,281.96	115.17	2,284.96	2,276.87	8.09	282.439 ES		
700.00	699.96	693.44	680.42	4.29	4.29	169.72	2,282.57	114.74	2,288.01	2,279.43	8.58	266.808		
800.00	799.78	813.93	800.90	4.57	4.63	169.73	2,283.10	114.78	2,294.29	2,285.09	9.20	249.360		
900.00	899.34	895.76	882.74	4.88	4.88	169.74	2,283.47	114.95	2,303.99	2,294.23	9.76	236.016		
1,000.00	998.72	1,016.08	1,003.05	5.20	5.28	169.81	2,283.81	115.28	2,315.20	2,304.73	10.47	221.067		
1,100.00	1,098.10	1,110.82	1,097.79	5.54	5.60	169.86	2,283.77	115.75	2,326.10	2,314.96	11.13	208.936		
1,200.00	1,197.49	1,205.05	1,192.02	5.90	5.93	169.93	2,283.86	116.49	2,337.16	2,325.34	11.82	197.793		
1,300.00	1,296.87	1,315.92	1,302.88	6.28	6.33	170.00	2,283.74	117.16	2,347.99	2,335.41	12.58	186.629		
1,400.00	1,396.25	1,409.46	1,396.43	6.66	6.67	170.04	2,283.65	117.25	2,358.82	2,345.52	13.30	177.354		
1,500.00	1,495.64	1,521.42	1,508.39	7.06	7.09	170.10	2,283.31	117.48	2,369.45	2,355.35	14.10	167.990		
1,600.00	1,595.02	1,626.74	1,613.71	7.46	7.49	170.15	2,282.57	117.63	2,379.68	2,364.78	14.90	159.734		
1,700.00	1,694.40	1,727.29	1,714.25	7.87	7.88	170.19	2,281.81	117.23	2,389.83	2,374.15	15.68	152.380		
1,800.00	1,793.79	1,827.01	1,813.96	8.29	8.27	170.22	2,280.93	116.43	2,399.84	2,383.37	16.48	145.664		
1,900.00	1,893.17	1,918.25	1,905.20	8.71	8.63	170.24	2,280.45	115.66	2,410.18	2,392.94	17.24	139.802		
2,000.00	1,992.55	2,025.80	2,012.74	9.13	9.06	170.27	2,279.66	114.85	2,420.33	2,402.25	18.08	133.875		
2,100.00	2,091.94	2,114.30	2,101.23	9.56	9.41	170.29	2,279.20	113.80	2,430.67	2,411.82	18.84	128.987		
2,200.00	2,191.32	2,205.87	2,192.80	9.99	9.78	170.30	2,279.04	112.73	2,441.36	2,421.73	19.63	124.389		
2,300.00	2,290.70	2,286.51	2,273.43	10.42	10.11	170.32	2,279.35	112.05	2,452.61	2,432.25	20.36	120.434		
2,400.00	2,390.09	2,373.86	2,360.78	10.86	10.46	170.34	2,280.25	111.22	2,464.50	2,443.37	21.13	116.611		
2,500.00	2,489.47	2,459.36	2,446.25	11.29	10.81	170.34	2,281.56	109.96	2,476.87	2,454.98	21.90	113.108		
2,600.00	2,588.86	2,545.05	2,531.92	11.73	11.16	170.35	2,283.39	108.69	2,489.82	2,467.16	22.66	109.853		
2,700.00	2,688.24	2,646.58	2,633.40	12.18	11.58	170.35	2,285.95	107.08	2,503.16	2,479.65	23.51	106.484		
2,800.00	2,787.62	2,752.50	2,739.29	12.62	12.02	170.36	2,288.06	105.45	2,515.96	2,491.59	24.37	103.227		
2,900.00	2,887.01	2,854.81	2,841.55	13.06	12.44	170.35	2,290.21	103.49	2,528.86	2,503.63	25.23	100.251		
3,000.00	2,986.39	2,962.64	2,949.34	13.51	12.89	170.34	2,292.07	101.00	2,541.35	2,515.24	26.11	97.348		
3,100.00	3,085.77	3,054.43	3,041.09	13.95	13.27	170.33	2,293.58	99.13	2,553.79	2,526.88	26.91	94.890		
3,200.00	3,185.16	3,152.12	3,138.75	14.40	13.67	170.33	2,295.56	97.28	2,566.62	2,538.87	27.75	92.493		
3,300.00	3,284.54	3,244.87	3,231.47	14.85	14.06	170.33	2,297.29	95.79	2,579.31	2,550.75	28.56	90.301		
3,400.00	3,383.92	3,323.67	3,310.24	15.30	14.39	170.34	2,299.31	94.55	2,592.68	2,563.37	29.31	88.458		
3,500.00	3,483.31	3,406.99	3,393.51	15.75	14.74	170.34	2,302.06	93.50	2,606.79	2,576.71	30.08	86.669		
3,600.00	3,582.69	3,530.97	3,517.43	16.20	15.26	170.38	2,305.53	92.96	2,620.42	2,589.37	31.05	84.397		
3,700.00	3,682.07	3,636.97	3,623.40	16.65	15.70	170.40	2,308.35	92.42	2,633.98	2,602.05	31.93	82.487		
3,800.00	3,781.46	3,759.36	3,745.77	17.10	16.21	170.43	2,310.23	91.31	2,646.31	2,613.41	32.90	80.443		
3,900.00	3,880.84	3,864.07	3,850.45	17.56	16.65	170.44	2,311.73	90.09	2,658.59	2,624.82	33.78	78.712		
4,000.00	3,980.22	3,988.63	3,974.97	18.01	17.17	170.43	2,312.80	87.23	2,670.24	2,635.49	34.75	76.836		
4,100.00	4,079.61	4,093.07	4,079.38	18.46	17.61	170.41	2,313.05	84.40	2,681.24	2,645.60	35.63	75.246		
4,200.00	4,178.99	4,179.41	4,165.69	18.92	17.98	170.39	2,313.39	82.17	2,692.40	2,655.97	36.43	73.915		
4,300.00	4,278.38	4,273.08	4,259.34	19.37	18.37	170.39	2,314.10	80.38	2,703.97	2,666.71	37.26	72.576		
4,400.00	4,377.76	4,359.30	4,345.54	19.83	18.73	170.40	2,314.95	79.05	2,715.79	2,677.74	38.05	71.375		
4,500.00	4,477.14	4,447.70	4,433.93	20.28	19.11	170.41	2,316.28	78.26	2,728.15	2,689.30	38.85	70.218		
4,600.00	4,576.53	4,536.15	4,522.36	20.74	19.48	170.42	2,317.86	77.22	2,740.80	2,701.14	39.66	69.115		
4,700.00	4,675.91	4,627.46	4,613.63	21.19	19.86	170.42	2,320.05	75.75	2,753.98	2,713.51	40.47	68.045		
4,800.00	4,775.29	4,749.76	4,735.89	21.65	20.38	170.42	2,322.36	73.52	2,766.66	2,725.21	41.45	66.746		
4,900.00	4,874.68	4,870.48	4,856.57	22.10	20.89	170.41	2,323.86	70.74	2,778.70	2,736.28	42.42	65.506		
5,000.00	4,974.06	4,964.26	4,950.31	22.56	21.29	170.39	2,324.59	68.25	2,790.24	2,746.98	43.25	64.511		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,073.44	5,066.65	5,052.66	23.02	21.72	170.37	2,325.73	65.35	2,802.10	2,757.97	44.13	63.497		
5,200.00	5,172.83	5,162.25	5,148.23	23.47	22.13	170.37	2,326.52	63.41	2,813.73	2,768.76	44.97	62.566		
5,300.00	5,272.21	5,252.63	5,238.60	23.93	22.51	170.38	2,327.55	62.29	2,825.72	2,779.93	45.79	61.712		
5,400.00	5,371.59	5,348.89	5,334.84	24.39	22.92	170.39	2,328.85	61.08	2,837.91	2,791.28	46.63	60.854		
5,500.00	5,470.98	5,447.10	5,433.04	24.85	23.33	170.41	2,330.16	60.61	2,850.14	2,802.64	47.49	60.014		
5,600.00	5,570.36	5,537.39	5,523.33	25.30	23.72	170.44	2,331.46	60.39	2,862.49	2,814.18	48.31	59.256		
5,700.00	5,669.75	5,628.81	5,614.72	25.76	24.10	170.48	2,333.19	60.64	2,875.30	2,826.18	49.13	58.527		
5,800.00	5,769.13	5,752.57	5,738.47	26.22	24.63	170.54	2,335.01	61.71	2,887.77	2,837.65	50.12	57.618		
5,900.00	5,868.51	5,872.32	5,858.22	26.68	25.13	170.59	2,335.77	62.09	2,899.34	2,848.25	51.09	56.752		
6,000.00	5,967.90	6,002.65	5,988.54	27.14	25.69	170.63	2,335.63	61.80	2,910.17	2,858.07	52.11	55.852		
6,100.00	6,067.28	6,111.57	6,097.45	27.60	26.15	170.66	2,334.72	61.27	2,920.26	2,867.24	53.01	55.084		
6,200.00	6,166.66	6,212.17	6,198.05	28.05	26.57	170.69	2,333.69	60.75	2,930.15	2,876.26	53.88	54.379		
6,300.00	6,266.05	6,305.32	6,291.19	28.51	26.97	170.71	2,332.84	60.09	2,940.13	2,885.42	54.72	53.733		
6,400.00	6,365.43	6,396.83	6,382.70	28.97	27.36	170.72	2,332.25	59.05	2,950.36	2,894.82	55.54	53.119		
6,500.00	6,464.81	6,474.42	6,460.28	29.43	27.69	170.73	2,332.15	57.96	2,961.08	2,904.78	56.30	52.597		
6,600.00	6,564.10	6,581.26	6,567.11	29.89	28.14	139.93	2,332.44	56.55	2,972.36	2,915.16	57.20	51.963		
6,700.00	6,661.75	6,688.12	6,673.95	30.34	28.60	115.83	2,332.23	55.15	2,984.09	2,925.99	58.10	51.365		
6,800.00	6,755.38	6,788.01	6,773.83	30.77	29.02	107.48	2,331.85	53.49	2,996.65	2,937.71	58.94	50.840		
6,900.00	6,842.67	6,876.18	6,861.99	31.17	29.40	103.34	2,331.41	52.10	3,010.31	2,950.58	59.73	50.401		
7,000.00	6,921.48	6,953.45	6,939.25	31.54	29.73	100.77	2,331.05	50.99	3,025.45	2,964.98	60.47	50.031		
7,100.00	6,989.86	7,022.03	7,007.83	31.91	30.02	98.89	2,330.74	50.41	3,042.47	2,981.24	61.22	49.694		
7,200.00	7,046.13	7,083.26	7,069.06	32.35	30.28	97.29	2,330.36	50.16	3,061.54	2,999.51	62.03	49.353		
7,300.00	7,088.91	7,141.60	7,127.40	32.98	30.52	95.82	2,329.81	50.09	3,082.84	3,019.88	62.96	48.966		
7,400.00	7,117.14	7,184.68	7,170.47	33.84	30.71	94.12	2,329.16	50.06	3,106.36	3,042.40	63.95	48.573		
7,500.00	7,130.13	7,204.57	7,190.36	34.90	30.79	91.98	2,328.79	50.05	3,132.07	3,067.11	64.96	48.212		
7,600.00	7,130.72	7,205.59	7,191.38	36.13	30.80	91.07	2,328.77	50.04	3,159.90	3,093.91	65.99	47.883		
7,700.00	7,130.29	7,205.05	7,190.84	37.54	30.79	91.06	2,328.78	50.05	3,190.53	3,123.40	67.13	47.526		
7,800.00	7,129.85	7,204.51	7,190.30	39.12	30.79	91.05	2,328.80	50.05	3,223.98	3,155.62	68.37	47.158		
7,900.00	7,129.42	7,203.97	7,189.76	40.83	30.79	91.04	2,328.81	50.05	3,260.16	3,190.49	69.67	46.795		
8,000.00	7,128.98	7,203.43	7,189.22	42.67	30.79	91.03	2,328.82	50.05	3,298.96	3,227.94	71.02	46.450		
8,100.00	7,128.55	7,202.89	7,188.68	44.62	30.78	91.02	2,328.83	50.05	3,340.32	3,267.91	72.41	46.132		
8,200.00	7,128.12	7,202.35	7,188.14	46.66	30.78	91.01	2,328.84	50.05	3,384.12	3,310.31	73.81	45.848		
8,300.00	7,127.68	7,201.82	7,187.61	48.79	30.78	91.00	2,328.85	50.05	3,430.28	3,355.06	75.22	45.604		
8,400.00	7,127.25	7,201.28	7,187.07	50.98	30.78	90.99	2,328.86	50.05	3,478.70	3,402.08	76.62	45.402		
8,500.00	7,126.81	7,200.75	7,186.53	53.24	30.78	90.98	2,328.87	50.05	3,529.29	3,451.29	78.01	45.244		
8,600.00	7,126.38	7,200.21	7,186.00	55.56	30.77	90.97	2,328.88	50.05	3,581.96	3,502.59	79.37	45.130		
8,700.00	7,125.95	7,199.68	7,185.46	57.92	30.77	90.96	2,328.89	50.05	3,636.62	3,555.91	80.71	45.060		
8,800.00	7,125.51	7,199.14	7,184.93	60.33	30.77	90.95	2,328.90	50.05	3,693.18	3,611.16	82.01	45.033 SF		
8,900.00	7,125.08	7,198.61	7,184.40	62.77	30.77	90.94	2,328.91	50.05	3,751.54	3,668.26	83.28	45.047		
9,000.00	7,124.64	7,198.07	7,183.86	65.25	30.76	90.93	2,328.92	50.05	3,811.64	3,727.13	84.51	45.101		
9,100.00	7,124.21	7,197.54	7,183.33	67.76	30.76	90.92	2,328.93	50.05	3,873.39	3,787.69	85.71	45.193		
9,200.00	7,123.78	7,197.01	7,182.80	70.29	30.76	90.91	2,328.94	50.05	3,936.72	3,849.85	86.86	45.322		
9,300.00	7,123.34	7,196.48	7,182.27	72.85	30.76	90.90	2,328.95	50.05	4,001.53	3,913.56	87.98	45.484		
9,400.00	7,122.91	7,195.95	7,181.74	75.43	30.75	90.89	2,328.96	50.05	4,067.78	3,978.73	89.05	45.679		
9,500.00	7,122.48	7,195.42	7,181.21	78.03	30.75	90.88	2,328.97	50.05	4,135.38	4,045.29	90.09	45.905		
9,600.00	7,122.04	7,194.89	7,180.68	80.65	30.75	90.87	2,328.98	50.05	4,204.27	4,113.19	91.08	46.159		
9,700.00	7,121.61	7,194.36	7,180.15	83.28	30.75	90.86	2,328.99	50.05	4,274.39	4,182.35	92.04	46.441		
9,800.00	7,121.17	7,193.83	7,179.62	85.93	30.75	90.85	2,329.00	50.05	4,345.69	4,252.73	92.96	46.748		
9,900.00	7,120.74	7,193.30	7,179.09	88.59	30.74	90.84	2,329.01	50.05	4,418.09	4,324.25	93.84	47.079		
10,000.00	7,120.31	7,192.77	7,178.56	91.26	30.74	90.83	2,329.02	50.05	4,491.56	4,396.86	94.69	47.433		
10,100.00	7,119.87	7,192.25	7,178.04	93.95	30.74	90.82	2,329.03	50.05	4,566.03	4,470.52	95.51	47.808		
10,200.00	7,119.44	7,191.72	7,177.51	96.64	30.74	90.81	2,329.04	50.05	4,641.46	4,545.17	96.29	48.203		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,119.00	7,191.20	7,176.99	99.34	30.73	90.80	2,329.05	50.05	4,717.81	4,620.77	97.04	48.617		
10,400.00	7,118.57	7,190.67	7,176.46	102.05	30.73	90.79	2,329.06	50.05	4,795.02	4,697.26	97.76	49.048		
10,500.00	7,118.14	7,190.15	7,175.94	104.77	30.73	90.78	2,329.07	50.06	4,873.07	4,774.61	98.45	49.496		
10,600.00	7,117.70	7,189.62	7,175.41	107.50	30.73	90.77	2,329.08	50.06	4,951.90	4,852.78	99.12	49.960		
10,700.00	7,117.27	7,189.10	7,174.89	110.23	30.73	90.76	2,329.09	50.06	5,031.49	4,931.73	99.76	50.438		
10,800.00	7,116.83	7,188.58	7,174.37	112.97	30.72	90.75	2,329.10	50.06	5,111.79	5,011.42	100.37	50.930		
10,900.00	7,116.40	7,188.05	7,173.84	115.72	30.72	90.74	2,329.10	50.06	5,192.78	5,091.82	100.96	51.435		
11,000.00	7,115.97	7,187.53	7,173.32	118.47	30.72	90.73	2,329.11	50.06	5,274.42	5,172.89	101.52	51.953		
11,100.00	7,115.53	7,187.01	7,172.80	121.22	30.72	90.72	2,329.12	50.06	5,356.68	5,254.61	102.07	52.482		
11,200.00	7,115.10	7,186.49	7,172.28	123.98	30.71	90.71	2,329.13	50.06	5,439.54	5,336.95	102.59	53.022		
11,300.00	7,114.66	7,185.97	7,171.76	126.74	30.71	90.70	2,329.14	50.06	5,522.96	5,419.87	103.09	53.573		
11,400.00	7,114.23	7,185.45	7,171.24	129.51	30.71	90.69	2,329.15	50.06	5,606.93	5,503.35	103.58	54.133		
11,500.00	7,113.80	7,184.93	7,170.72	132.29	30.71	90.68	2,329.16	50.06	5,691.41	5,587.37	104.04	54.703		
11,600.00	7,113.36	7,184.41	7,170.20	135.06	30.71	90.67	2,329.17	50.06	5,776.39	5,671.90	104.49	55.281		
11,700.00	7,112.93	7,183.89	7,169.68	137.84	30.70	90.66	2,329.18	50.06	5,861.85	5,756.92	104.92	55.868		
11,800.00	7,112.49	7,183.38	7,169.17	140.62	30.70	90.65	2,329.19	50.06	5,947.75	5,842.41	105.34	56.463		
11,900.00	7,112.06	7,182.86	7,168.65	143.41	30.70	90.64	2,329.20	50.06	6,034.09	5,928.35	105.74	57.065		
12,000.00	7,111.63	7,182.34	7,168.13	146.20	30.70	90.63	2,329.20	50.06	6,120.85	6,014.72	106.13	57.674		
12,100.00	7,111.19	7,181.83	7,167.62	148.99	30.69	90.62	2,329.21	50.06	6,208.01	6,101.51	106.50	58.290		
12,200.00	7,110.76	7,181.31	7,167.10	151.78	30.69	90.61	2,329.22	50.06	6,295.55	6,188.68	106.86	58.912		
12,300.00	7,110.33	7,180.80	7,166.59	154.58	30.69	90.60	2,329.23	50.06	6,383.45	6,276.24	107.21	59.540		
12,400.00	7,109.89	7,180.28	7,166.07	157.37	30.69	90.59	2,329.24	50.06	6,471.71	6,364.15	107.55	60.174		
12,500.00	7,109.46	7,179.77	7,165.56	160.17	30.69	90.58	2,329.25	50.06	6,560.30	6,452.42	107.88	60.813		
12,600.00	7,109.02	7,179.26	7,165.05	162.98	30.68	90.57	2,329.26	50.06	6,649.21	6,541.02	108.19	61.457		
12,700.00	7,108.59	7,178.74	7,164.53	165.78	30.68	90.57	2,329.27	50.06	6,738.44	6,629.94	108.50	62.107		
12,800.00	7,108.16	7,178.23	7,164.02	168.59	30.68	90.56	2,329.27	50.06	6,827.96	6,719.17	108.79	62.761		
12,900.00	7,107.72	7,177.72	7,163.51	171.39	30.68	90.55	2,329.28	50.06	6,917.78	6,808.70	109.08	63.419		
13,000.00	7,107.29	7,177.21	7,163.00	174.20	30.68	90.54	2,329.29	50.06	7,007.86	6,898.51	109.36	64.081		
13,100.00	7,106.85	7,176.70	7,162.49	177.01	30.67	90.53	2,329.30	50.06	7,098.22	6,988.59	109.63	64.748		
13,200.00	7,106.42	7,176.19	7,161.98	179.83	30.67	90.52	2,329.31	50.07	7,188.83	7,078.94	109.89	65.418		
13,300.00	7,105.99	7,175.68	7,161.47	182.64	30.67	90.51	2,329.32	50.07	7,279.68	7,169.54	110.14	66.092		
13,400.00	7,105.55	7,175.17	7,160.96	185.45	30.67	90.50	2,329.32	50.07	7,370.77	7,260.38	110.39	66.770		
13,500.00	7,105.12	7,174.66	7,160.45	188.27	30.66	90.49	2,329.33	50.07	7,462.09	7,351.46	110.63	67.450		
13,600.00	7,104.68	7,174.15	7,159.95	191.09	30.66	90.48	2,329.34	50.07	7,553.63	7,442.77	110.86	68.134		
13,700.00	7,104.25	7,173.65	7,159.44	193.91	30.66	90.47	2,329.35	50.07	7,645.38	7,534.29	111.09	68.821		
13,800.00	7,103.82	7,173.14	7,158.93	196.73	30.66	90.46	2,329.36	50.07	7,737.34	7,626.03	111.31	69.510		
13,900.00	7,103.38	7,172.63	7,158.43	199.55	30.66	90.45	2,329.37	50.07	7,829.49	7,717.96	111.53	70.202		
14,000.00	7,102.95	7,172.13	7,157.92	202.37	30.65	90.44	2,329.37	50.07	7,921.83	7,810.10	111.74	70.897		
14,100.00	7,102.51	7,171.62	7,157.42	205.19	30.65	90.43	2,329.38	50.07	8,014.36	7,902.42	111.94	71.594		
14,200.00	7,102.08	7,171.12	7,156.91	208.02	30.65	90.42	2,329.39	50.07	8,107.07	7,994.92	112.14	72.294		
14,300.00	7,101.65	7,170.61	7,156.41	210.84	30.65	90.41	2,329.40	50.07	8,199.94	8,087.61	112.33	72.996		
14,400.00	7,101.21	7,170.11	7,155.90	213.67	30.65	90.40	2,329.41	50.07	8,292.98	8,180.46	112.52	73.699		
14,500.00	7,100.78	7,169.61	7,155.40	216.50	30.64	90.39	2,329.41	50.07	8,386.18	8,273.47	112.71	74.405		
14,600.00	7,100.35	7,169.10	7,154.90	219.32	30.64	90.38	2,329.42	50.07	8,479.54	8,366.65	112.89	75.113		
14,700.00	7,099.91	7,168.60	7,154.40	222.15	30.64	90.37	2,329.43	50.07	8,573.05	8,459.98	113.07	75.822		
14,800.00	7,099.48	7,168.10	7,153.89	224.98	30.64	90.36	2,329.44	50.07	8,666.70	8,553.46	113.24	76.533		
14,900.00	7,099.04	7,167.60	7,153.39	227.81	30.63	90.35	2,329.45	50.07	8,760.49	8,647.08	113.41	77.246		
14,909.96	7,099.00	7,167.55	7,153.34	228.09	30.63	90.35	2,329.45	50.07	8,769.84	8,656.42	113.43	77.317		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
0.00	0.00	0.00	60.00	3.28	3.28	-165.82	-4,139.94	-1,045.98	4,270.45					
100.00	100.00	40.00	100.00	3.28	3.35	-165.82	-4,139.94	-1,045.98	4,270.03	4,263.39	6.64	643.251		
200.00	200.00	140.00	200.00	3.34	4.54	-165.82	-4,139.94	-1,045.98	4,270.03	4,262.15	7.88	541.948		
300.00	300.00	240.00	300.00	3.44	7.40	-165.82	-4,139.94	-1,045.98	4,270.03	4,259.19	10.84	393.752		
400.00	400.00	340.00	400.00	3.60	10.64	-165.82	-4,139.94	-1,045.98	4,270.03	4,255.79	14.25	299.750		
500.00	500.00	440.00	500.00	3.81	14.00	-165.82	-4,139.94	-1,045.98	4,270.03	4,252.22	17.81	239.749		
600.00	600.00	540.00	600.00	4.04	17.42	1.03	-4,139.94	-1,045.98	4,269.96	4,248.50	21.46	198.961		
700.00	699.96	639.96	699.96	4.29	20.86	1.03	-4,139.94	-1,045.98	4,267.52	4,242.37	25.15	169.701		
800.00	799.78	739.78	799.78	4.57	24.30	1.03	-4,139.94	-1,045.98	4,261.59	4,232.72	28.87	147.592		
900.00	899.34	839.34	899.34	4.88	27.75	1.04	-4,139.94	-1,045.98	4,252.18	4,219.55	32.63	130.317		
1,000.00	998.72	938.72	998.72	5.20	31.20	1.04	-4,139.94	-1,045.98	4,241.10	4,204.70	36.40	116.524		
1,100.00	1,098.10	1,038.10	1,098.10	5.54	34.65	1.04	-4,139.94	-1,045.98	4,230.01	4,189.83	40.19	105.260		
1,200.00	1,197.49	1,137.49	1,197.49	5.90	38.11	1.05	-4,139.94	-1,045.98	4,218.93	4,174.94	43.99	95.899		
1,300.00	1,296.87	1,236.87	1,296.87	6.28	41.56	1.05	-4,139.94	-1,045.98	4,207.84	4,160.03	47.82	88.002		
1,400.00	1,396.25	1,336.25	1,396.25	6.66	45.02	1.05	-4,139.94	-1,045.98	4,196.76	4,145.11	51.65	81.256		
1,500.00	1,495.64	1,435.64	1,495.64	7.06	48.48	1.05	-4,139.94	-1,045.98	4,185.67	4,130.18	55.49	75.428		
1,600.00	1,595.02	1,535.02	1,595.02	7.46	51.95	1.06	-4,139.94	-1,045.98	4,174.59	4,115.25	59.34	70.345		
1,700.00	1,694.40	1,634.40	1,694.40	7.87	55.41	1.06	-4,139.94	-1,045.98	4,163.51	4,100.30	63.20	65.875		
1,800.00	1,793.79	1,733.79	1,793.79	8.29	58.87	1.06	-4,139.94	-1,045.98	4,152.42	4,085.35	67.07	61.914		
1,900.00	1,893.17	1,833.17	1,893.17	8.71	62.34	1.07	-4,139.94	-1,045.98	4,141.34	4,070.40	70.94	58.380		
2,000.00	1,992.55	1,932.55	1,992.55	9.13	65.80	1.07	-4,139.94	-1,045.98	4,130.25	4,055.44	74.81	55.208		
2,100.00	2,091.94	2,031.94	2,091.94	9.56	69.27	1.07	-4,139.94	-1,045.98	4,119.17	4,040.48	78.69	52.346		
2,200.00	2,191.32	2,131.32	2,191.32	9.99	72.73	1.07	-4,139.94	-1,045.98	4,108.08	4,025.51	82.57	49.751		
2,300.00	2,290.70	2,230.70	2,290.70	10.42	76.20	1.08	-4,139.94	-1,045.98	4,097.00	4,010.54	86.46	47.388		
2,400.00	2,390.09	2,330.09	2,390.09	10.86	79.67	1.08	-4,139.94	-1,045.98	4,085.91	3,995.57	90.34	45.226		
2,500.00	2,489.47	2,429.47	2,489.47	11.29	83.13	1.08	-4,139.94	-1,045.98	4,074.83	3,980.59	94.23	43.242		
2,600.00	2,588.86	2,528.86	2,588.86	11.73	86.60	1.09	-4,139.94	-1,045.98	4,063.74	3,965.62	98.13	41.414		
2,700.00	2,688.24	2,628.24	2,688.24	12.18	90.07	1.09	-4,139.94	-1,045.98	4,052.66	3,950.64	102.02	39.725		
2,800.00	2,787.62	2,727.62	2,787.62	12.62	93.53	1.09	-4,139.94	-1,045.98	4,041.57	3,935.66	105.91	38.159		
2,900.00	2,887.01	2,827.01	2,887.01	13.06	97.00	1.09	-4,139.94	-1,045.98	4,030.49	3,920.68	109.81	36.704		
3,000.00	2,986.39	2,926.39	2,986.39	13.51	100.47	1.10	-4,139.94	-1,045.98	4,019.41	3,905.70	113.71	35.349		
3,100.00	3,085.77	3,025.77	3,085.77	13.95	103.94	1.10	-4,139.94	-1,045.98	4,008.32	3,890.72	117.61	34.083		
3,200.00	3,185.16	3,125.16	3,185.16	14.40	107.40	1.10	-4,139.94	-1,045.98	3,997.24	3,875.73	121.51	32.897		
3,300.00	3,284.54	3,224.54	3,284.54	14.85	110.87	1.11	-4,139.94	-1,045.98	3,986.15	3,860.75	125.41	31.786		
3,400.00	3,383.92	3,323.92	3,383.92	15.30	114.34	1.11	-4,139.94	-1,045.98	3,975.07	3,845.76	129.31	30.741		
3,500.00	3,483.31	3,423.31	3,483.31	15.75	117.81	1.11	-4,139.94	-1,045.98	3,963.98	3,830.77	133.21	29.757		
3,600.00	3,582.69	3,522.69	3,582.69	16.20	121.28	1.12	-4,139.94	-1,045.98	3,952.90	3,815.78	137.12	28.829		
3,700.00	3,682.07	3,622.07	3,682.07	16.65	124.74	1.12	-4,139.94	-1,045.98	3,941.81	3,800.80	141.02	27.952		
3,800.00	3,781.46	3,721.46	3,781.46	17.10	128.21	1.12	-4,139.94	-1,045.98	3,930.73	3,785.81	144.92	27.123		
3,900.00	3,880.84	3,820.84	3,880.84	17.56	131.68	1.13	-4,139.94	-1,045.98	3,919.65	3,770.82	148.83	26.337		
4,000.00	3,980.22	3,920.22	3,980.22	18.01	135.15	1.13	-4,139.94	-1,045.98	3,908.56	3,755.83	152.74	25.590		
4,100.00	4,079.61	4,019.61	4,079.61	18.46	138.62	1.13	-4,139.94	-1,045.98	3,897.48	3,740.84	156.64	24.881		
4,200.00	4,178.99	4,118.99	4,178.99	18.92	142.09	1.14	-4,139.94	-1,045.98	3,886.39	3,725.84	160.55	24.207		
4,300.00	4,278.38	4,218.38	4,278.38	19.37	145.56	1.14	-4,139.94	-1,045.98	3,875.31	3,710.85	164.46	23.564		
4,400.00	4,377.76	4,317.76	4,377.76	19.83	149.02	1.14	-4,139.94	-1,045.98	3,864.22	3,695.86	168.36	22.952		
4,500.00	4,477.14	4,417.14	4,477.14	20.28	152.49	1.14	-4,139.94	-1,045.98	3,853.14	3,680.87	172.27	22.367		
4,600.00	4,576.53	4,516.53	4,576.53	20.74	155.96	1.15	-4,139.94	-1,045.98	3,842.05	3,665.87	176.18	21.808		
4,700.00	4,675.91	4,615.91	4,675.91	21.19	159.43	1.15	-4,139.94	-1,045.98	3,830.97	3,650.88	180.09	21.273		
4,800.00	4,775.29	4,715.29	4,775.29	21.65	162.90	1.15	-4,139.94	-1,045.98	3,819.89	3,635.89	184.00	20.760		
4,900.00	4,874.68	4,814.68	4,874.68	22.10	166.37	1.16	-4,139.94	-1,045.98	3,808.80	3,620.89	187.91	20.270		
5,000.00	4,974.06	4,914.06	4,974.06	22.56	169.84	1.16	-4,139.94	-1,045.98	3,797.72	3,605.90	191.82	19.799		
5,100.00	5,073.44	5,013.44	5,073.44	23.02	173.31	1.16	-4,139.94	-1,045.98	3,786.63	3,590.91	195.73	19.346		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,112.83	5,172.83	23.47	176.77	1.17	-4,139.94	-1,045.98	3,775.55	3,575.91	199.64	18.912	
5,300.00	5,272.21	5,212.21	5,272.21	23.93	180.24	1.17	-4,139.94	-1,045.98	3,764.46	3,560.92	203.55	18.494	
5,400.00	5,371.59	5,311.59	5,371.59	24.39	183.71	1.18	-4,139.94	-1,045.98	3,753.38	3,545.92	207.46	18.092	
5,500.00	5,470.98	5,410.98	5,470.98	24.85	187.18	1.18	-4,139.94	-1,045.98	3,742.30	3,530.93	211.37	17.705	
5,600.00	5,570.36	5,510.36	5,570.36	25.30	190.65	1.18	-4,139.94	-1,045.98	3,731.21	3,515.93	215.28	17.332	
5,700.00	5,669.75	5,609.75	5,669.75	25.76	194.12	1.19	-4,139.94	-1,045.98	3,720.13	3,500.94	219.19	16.972	
5,800.00	5,769.13	5,709.13	5,769.13	26.22	197.59	1.19	-4,139.94	-1,045.98	3,709.04	3,485.94	223.10	16.625	
5,900.00	5,868.51	5,808.51	5,868.51	26.68	201.06	1.19	-4,139.94	-1,045.98	3,697.96	3,470.94	227.02	16.289	
6,000.00	5,967.90	5,907.90	5,967.90	27.14	204.53	1.20	-4,139.94	-1,045.98	3,686.88	3,455.95	230.93	15.966	
6,100.00	6,067.28	6,007.28	6,067.28	27.60	207.99	1.20	-4,139.94	-1,045.98	3,675.79	3,440.95	234.84	15.652	
6,200.00	6,166.66	6,106.66	6,166.66	28.05	211.46	1.20	-4,139.94	-1,045.98	3,664.71	3,425.96	238.75	15.349	
6,300.00	6,266.05	6,206.05	6,266.05	28.51	214.93	1.21	-4,139.94	-1,045.98	3,653.62	3,410.96	242.66	15.056	
6,400.00	6,365.43	6,305.43	6,365.43	28.97	218.40	1.21	-4,139.94	-1,045.98	3,642.54	3,395.96	246.58	14.772	
6,500.00	6,464.81	6,404.81	6,464.81	29.43	221.87	1.21	-4,139.94	-1,045.98	3,631.45	3,380.97	250.49	14.497	
6,600.00	6,564.10	6,504.10	6,564.10	29.89	225.34	-29.68	-4,139.94	-1,045.98	3,619.88	3,365.49	254.40	14.229	
6,700.00	6,661.75	6,601.75	6,661.75	30.34	228.75	-54.60	-4,139.94	-1,045.98	3,605.03	3,346.79	258.24	13.960	
6,800.00	6,755.38	6,704.62	6,755.38	30.77	232.34	-64.49	-4,139.94	-1,045.98	3,586.95	3,324.70	262.24	13.678	
6,900.00	6,842.67	6,782.67	6,842.67	31.17	235.06	-70.67	-4,139.94	-1,045.98	3,566.44	3,301.06	265.37	13.439	
7,000.00	6,921.48	6,861.48	6,921.48	31.54	237.81	-75.49	-4,139.94	-1,045.98	3,544.51	3,275.97	268.54	13.199	
7,100.00	6,989.86	6,929.86	6,989.86	31.91	240.20	-79.61	-4,139.94	-1,045.98	3,522.31	3,250.92	271.39	12.979	
7,200.00	7,046.13	6,986.13	7,046.13	32.35	242.16	-83.14	-4,139.94	-1,045.98	3,501.04	3,227.11	273.93	12.781	
7,300.00	7,088.91	7,028.91	7,088.91	32.98	243.66	-86.05	-4,139.94	-1,045.98	3,481.87	3,205.72	276.15	12.609	
7,400.00	7,117.14	7,057.14	7,117.14	33.84	244.64	-88.26	-4,139.94	-1,045.98	3,465.82	3,187.76	278.05	12.465	
7,500.00	7,130.13	7,070.13	7,130.13	34.90	245.10	-89.70	-4,139.94	-1,045.98	3,453.68	3,174.06	279.62	12.351	
7,600.00	7,130.72	7,070.72	7,130.72	36.13	245.12	-90.02	-4,139.94	-1,045.98	3,445.64	3,164.71	280.93	12.265	
7,700.00	7,130.29	7,070.29	7,130.29	37.54	245.10	-90.01	-4,139.94	-1,045.98	3,440.59	3,158.19	282.40	12.183	
7,800.00	7,129.85	7,069.85	7,129.85	39.12	245.09	-90.00	-4,139.94	-1,045.98	3,438.45	3,154.42	284.03	12.106	
7,823.78	7,129.75	7,069.75	7,129.75	39.53	245.08	-90.00	-4,139.94	-1,045.98	3,438.37	3,153.91	284.45	12.088 CC	
7,900.00	7,129.42	7,069.42	7,129.42	40.83	245.07	-89.99	-4,139.94	-1,045.98	3,439.21	3,153.41	285.80	12.034 ES	
8,000.00	7,128.98	7,068.98	7,128.98	42.67	245.06	-89.99	-4,139.94	-1,045.98	3,442.88	3,155.20	287.68	11.968	
8,100.00	7,128.55	7,068.55	7,128.55	44.62	245.04	-89.98	-4,139.94	-1,045.98	3,449.44	3,159.79	289.65	11.909	
8,200.00	7,128.12	7,068.12	7,128.12	46.66	245.02	-89.97	-4,139.94	-1,045.98	3,458.89	3,167.20	291.69	11.858	
8,300.00	7,127.68	7,067.68	7,127.68	48.79	245.01	-89.97	-4,139.94	-1,045.98	3,471.19	3,177.42	293.77	11.816	
8,400.00	7,127.25	7,067.25	7,127.25	50.98	244.99	-89.96	-4,139.94	-1,045.98	3,486.31	3,190.44	295.87	11.783	
8,500.00	7,126.81	7,066.81	7,126.81	53.24	244.98	-89.95	-4,139.94	-1,045.98	3,504.23	3,206.24	297.99	11.759	
8,600.00	7,126.38	7,066.38	7,126.38	55.56	244.96	-89.94	-4,139.94	-1,045.98	3,524.89	3,224.78	300.11	11.745	
8,700.00	7,125.95	7,065.95	7,125.95	57.92	244.95	-89.94	-4,139.94	-1,045.98	3,548.25	3,246.04	302.21	11.741 SF	
8,800.00	7,125.51	7,065.51	7,125.51	60.33	244.93	-89.93	-4,139.94	-1,045.98	3,574.26	3,269.97	304.29	11.746	
8,900.00	7,125.08	7,065.08	7,125.08	62.77	244.92	-89.92	-4,139.94	-1,045.98	3,602.86	3,296.52	306.34	11.761	
9,000.00	7,124.64	7,064.64	7,124.64	65.25	244.90	-89.91	-4,139.94	-1,045.98	3,633.98	3,325.64	308.34	11.786	
9,100.00	7,124.21	7,064.21	7,124.21	67.76	244.89	-89.91	-4,139.94	-1,045.98	3,667.57	3,357.27	310.30	11.819	
9,200.00	7,123.78	7,063.78	7,123.78	70.29	244.87	-89.90	-4,139.94	-1,045.98	3,703.55	3,391.35	312.21	11.862	
9,300.00	7,123.34	7,063.34	7,123.34	72.85	244.86	-89.89	-4,139.94	-1,045.98	3,741.86	3,427.81	314.06	11.915	
9,400.00	7,122.91	7,062.91	7,122.91	75.43	244.84	-89.89	-4,139.94	-1,045.98	3,782.43	3,466.58	315.85	11.975	
9,500.00	7,122.48	7,062.48	7,122.48	78.03	244.83	-89.88	-4,139.94	-1,045.98	3,825.18	3,507.60	317.59	12.045	
9,600.00	7,122.04	7,062.04	7,122.04	80.65	244.81	-89.87	-4,139.94	-1,045.98	3,870.05	3,550.79	319.26	12.122	
9,700.00	7,121.61	7,061.61	7,121.61	83.28	244.80	-89.86	-4,139.94	-1,045.98	3,916.95	3,596.08	320.87	12.207	
9,800.00	7,121.17	7,061.17	7,121.17	85.93	244.78	-89.86	-4,139.94	-1,045.98	3,965.82	3,643.41	322.41	12.301	
9,900.00	7,120.74	7,060.74	7,120.74	88.59	244.77	-89.85	-4,139.94	-1,045.98	4,016.59	3,692.69	323.89	12.401	
10,000.00	7,120.31	7,060.31	7,120.31	91.26	244.75	-89.84	-4,139.94	-1,045.98	4,069.18	3,743.86	325.31	12.508	
10,100.00	7,119.87	7,059.87	7,119.87	93.95	244.74	-89.84	-4,139.94	-1,045.98	4,123.52	3,796.85	326.67	12.623	
10,200.00	7,119.44	7,059.44	7,119.44	96.64	244.72	-89.83	-4,139.94	-1,045.98	4,179.56	3,851.58	327.97	12.744	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,119.00	7,059.00	7,119.00	99.34	244.71	-89.82	-4,139.94	-1,045.98	4,237.21	3,907.99	329.22	12.871		
10,400.00	7,118.57	7,058.57	7,118.57	102.05	244.69	-89.81	-4,139.94	-1,045.98	4,296.41	3,966.01	330.40	13.004		
10,500.00	7,118.14	7,058.14	7,118.14	104.77	244.68	-89.81	-4,139.94	-1,045.98	4,357.11	4,025.58	331.53	13.142		
10,600.00	7,117.70	7,057.70	7,117.70	107.50	244.66	-89.80	-4,139.94	-1,045.98	4,419.23	4,086.63	332.60	13.287		
10,700.00	7,117.27	7,057.27	7,117.27	110.23	244.65	-89.79	-4,139.94	-1,045.98	4,482.73	4,149.10	333.63	13.436		
10,800.00	7,116.83	7,056.83	7,116.83	112.97	244.63	-89.78	-4,139.94	-1,045.98	4,547.54	4,212.93	334.60	13.591		
10,900.00	7,116.40	7,056.40	7,116.40	115.72	244.62	-89.78	-4,139.94	-1,045.98	4,613.60	4,278.07	335.53	13.750		
11,000.00	7,115.97	7,055.97	7,115.97	118.47	244.60	-89.77	-4,139.94	-1,045.98	4,680.87	4,344.46	336.41	13.914		
11,100.00	7,115.53	7,055.53	7,115.53	121.22	244.59	-89.76	-4,139.94	-1,045.98	4,749.29	4,412.04	337.25	14.082		
11,200.00	7,115.10	7,055.10	7,115.10	123.98	244.57	-89.76	-4,139.94	-1,045.98	4,818.82	4,480.77	338.05	14.255		
11,300.00	7,114.66	7,054.66	7,114.66	126.74	244.56	-89.75	-4,139.94	-1,045.98	4,889.40	4,550.59	338.81	14.431		
11,400.00	7,114.23	7,054.23	7,114.23	129.51	244.54	-89.74	-4,139.94	-1,045.98	4,961.00	4,621.47	339.53	14.611		
11,500.00	7,113.80	7,053.80	7,113.80	132.29	244.53	-89.73	-4,139.94	-1,045.98	5,033.56	4,693.35	340.21	14.795		
11,600.00	7,113.36	7,053.36	7,113.36	135.06	244.51	-89.73	-4,139.94	-1,045.98	5,107.05	4,766.19	340.86	14.983		
11,700.00	7,112.93	7,052.93	7,112.93	137.84	244.49	-89.72	-4,139.94	-1,045.98	5,181.43	4,839.95	341.48	15.173		
11,800.00	7,112.49	7,052.49	7,112.49	140.62	244.48	-89.71	-4,139.94	-1,045.98	5,256.65	4,914.59	342.07	15.367		
11,900.00	7,112.06	7,052.06	7,112.06	143.41	244.46	-89.71	-4,139.94	-1,045.98	5,332.69	4,990.07	342.63	15.564		
12,000.00	7,111.63	7,051.63	7,111.63	146.20	244.45	-89.70	-4,139.94	-1,045.98	5,409.52	5,066.36	343.16	15.764		
12,100.00	7,111.19	7,051.19	7,111.19	148.99	244.43	-89.69	-4,139.94	-1,045.98	5,487.08	5,143.42	343.66	15.967		
12,200.00	7,110.76	7,050.76	7,110.76	151.78	244.42	-89.68	-4,139.94	-1,045.98	5,565.37	5,221.23	344.14	16.172		
12,300.00	7,110.33	7,050.33	7,110.33	154.58	244.40	-89.68	-4,139.94	-1,045.98	5,644.34	5,299.74	344.59	16.380		
12,400.00	7,109.89	7,049.89	7,109.89	157.37	244.39	-89.67	-4,139.94	-1,045.98	5,723.97	5,378.94	345.03	16.590		
12,500.00	7,109.46	7,049.46	7,109.46	160.17	244.37	-89.66	-4,139.94	-1,045.98	5,804.22	5,458.78	345.44	16.802		
12,600.00	7,109.02	7,049.02	7,109.02	162.98	244.36	-89.65	-4,139.94	-1,045.98	5,885.09	5,539.25	345.83	17.017		
12,700.00	7,108.59	7,048.59	7,108.59	165.78	244.34	-89.65	-4,139.94	-1,045.98	5,966.53	5,620.32	346.21	17.234		
12,800.00	7,108.16	7,048.16	7,108.16	168.59	244.33	-89.64	-4,139.94	-1,045.98	6,048.53	5,701.97	346.56	17.453		
12,900.00	7,107.72	7,047.72	7,107.72	171.39	244.31	-89.63	-4,139.94	-1,045.98	6,131.06	5,784.16	346.90	17.674		
13,000.00	7,107.29	7,047.29	7,107.29	174.20	244.30	-89.63	-4,139.94	-1,045.98	6,214.11	5,866.89	347.22	17.897		
13,100.00	7,106.85	7,046.85	7,106.85	177.01	244.28	-89.62	-4,139.94	-1,045.98	6,297.65	5,950.12	347.53	18.121		
13,200.00	7,106.42	7,046.42	7,106.42	179.83	244.27	-89.61	-4,139.94	-1,045.98	6,381.66	6,033.84	347.82	18.348		
13,300.00	7,105.99	7,045.99	7,105.99	182.64	244.25	-89.60	-4,139.94	-1,045.98	6,466.13	6,118.03	348.10	18.575		
13,400.00	7,105.55	7,045.55	7,105.55	185.45	244.24	-89.60	-4,139.94	-1,045.98	6,551.03	6,202.67	348.37	18.805		
13,500.00	7,105.12	7,045.12	7,105.12	188.27	244.22	-89.59	-4,139.94	-1,045.98	6,636.36	6,287.74	348.62	19.036		
13,600.00	7,104.68	7,044.68	7,104.68	191.09	244.21	-89.58	-4,139.94	-1,045.98	6,722.09	6,373.23	348.86	19.269		
13,700.00	7,104.25	7,044.25	7,104.25	193.91	244.19	-89.58	-4,139.94	-1,045.98	6,808.21	6,459.11	349.09	19.503		
13,800.00	7,103.82	7,043.82	7,103.82	196.73	244.18	-89.57	-4,139.94	-1,045.98	6,894.70	6,545.39	349.31	19.738		
13,900.00	7,103.38	7,043.38	7,103.38	199.55	244.16	-89.56	-4,139.94	-1,045.98	6,981.56	6,632.03	349.53	19.974		
14,000.00	7,102.95	7,042.95	7,102.95	202.37	244.15	-89.55	-4,139.94	-1,045.98	7,068.76	6,719.03	349.73	20.212		
14,100.00	7,102.51	7,042.51	7,102.51	205.19	244.13	-89.55	-4,139.94	-1,045.98	7,156.30	6,806.38	349.92	20.451		
14,200.00	7,102.08	7,042.08	7,102.08	208.02	244.12	-89.54	-4,139.94	-1,045.98	7,244.16	6,894.05	350.11	20.691		
14,300.00	7,101.65	7,041.65	7,101.65	210.84	244.10	-89.53	-4,139.94	-1,045.98	7,332.33	6,982.05	350.28	20.933		
14,400.00	7,101.21	7,041.21	7,101.21	213.67	244.09	-89.52	-4,139.94	-1,045.98	7,420.80	7,070.35	350.45	21.175		
14,500.00	7,100.78	7,040.78	7,100.78	216.50	244.07	-89.52	-4,139.94	-1,045.98	7,509.56	7,158.95	350.61	21.418		
14,600.00	7,100.35	7,040.35	7,100.35	219.32	244.06	-89.51	-4,139.94	-1,045.98	7,598.60	7,247.83	350.77	21.663		
14,700.00	7,099.91	7,039.91	7,099.91	222.15	244.04	-89.50	-4,139.94	-1,045.98	7,687.91	7,336.99	350.92	21.908		
14,800.00	7,099.48	7,039.48	7,099.48	224.98	244.03	-89.50	-4,139.94	-1,045.98	7,777.48	7,426.42	351.06	22.154		
14,900.00	7,099.04	7,039.04	7,099.04	227.81	244.01	-89.49	-4,139.94	-1,045.98	7,867.30	7,516.10	351.20	22.401		
14,909.96	7,099.00	7,039.00	7,099.00	228.09	244.01	-89.49	-4,139.94	-1,045.98	7,876.26	7,525.05	351.21	22.426		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5.00	0.00	3.28	3.28	-42.90	1,250.68	-1,162.00	1,707.18					
100.00	100.00	105.00	100.00	3.28	3.80	-42.90	1,250.68	-1,162.00	1,707.18	1,700.09	7.09	240.945		
200.00	200.00	205.00	200.00	3.34	6.33	-42.90	1,250.68	-1,162.00	1,707.18	1,697.52	9.66	176.643		
300.00	300.00	305.00	300.00	3.44	9.49	-42.90	1,250.68	-1,162.00	1,707.18	1,694.25	12.93	132.012		
400.00	400.00	405.00	400.00	3.60	12.82	-42.90	1,250.68	-1,162.00	1,707.18	1,690.76	16.42	103.950		
500.00	500.00	505.00	500.00	3.81	16.22	-42.90	1,250.68	-1,162.00	1,707.18	1,687.15	20.03	85.252 CC		
502.78	502.78	502.22	502.78	3.81	16.12	123.95	1,250.68	-1,162.00	1,707.18	1,687.24	19.94	85.631		
600.00	600.00	605.00	600.00	4.04	19.65	123.95	1,250.68	-1,162.00	1,707.22	1,683.52	23.69	72.051		
700.00	699.96	705.04	699.96	4.29	23.10	124.00	1,250.68	-1,162.00	1,708.58	1,681.19	27.39	62.374		
800.00	799.78	805.22	799.78	4.57	26.57	124.11	1,250.68	-1,162.00	1,711.91	1,680.77	31.14	54.981		
900.00	899.34	905.66	899.34	4.88	30.05	124.28	1,250.68	-1,162.00	1,717.21	1,682.29	34.92	49.170		
1,000.00	998.72	1,006.28	998.72	5.20	33.54	124.58	1,250.68	-1,162.00	1,723.51	1,684.77	38.74	44.487		
1,100.00	1,098.10	1,106.90	1,098.10	5.54	37.04	124.89	1,250.68	-1,162.00	1,729.85	1,687.27	42.58	40.624		
1,200.00	1,197.49	1,207.51	1,197.49	5.90	40.54	125.18	1,250.68	-1,162.00	1,736.24	1,689.80	46.44	37.386		
1,300.00	1,296.87	1,308.13	1,296.87	6.28	44.04	125.48	1,250.68	-1,162.00	1,742.68	1,692.37	50.31	34.636		
1,400.00	1,396.25	1,408.75	1,396.25	6.66	47.55	125.78	1,250.68	-1,162.00	1,749.17	1,694.97	54.20	32.273		
1,500.00	1,495.64	1,509.36	1,495.64	7.06	51.05	126.07	1,250.68	-1,162.00	1,755.70	1,697.60	58.09	30.221		
1,600.00	1,595.02	1,609.98	1,595.02	7.46	54.56	126.36	1,250.68	-1,162.00	1,762.27	1,700.28	62.00	28.425		
1,700.00	1,694.40	1,689.60	1,694.40	7.87	57.33	126.65	1,250.68	-1,162.00	1,768.90	1,703.73	65.17	27.143		
1,800.00	1,793.79	1,788.21	1,793.79	8.29	60.79	126.93	1,250.68	-1,162.00	1,775.56	1,706.52	69.04	25.716		
1,900.00	1,893.17	1,888.83	1,893.17	8.71	64.25	127.22	1,250.68	-1,162.00	1,782.27	1,709.35	72.92	24.441		
2,000.00	1,992.55	1,987.45	1,992.55	9.13	67.72	127.50	1,250.68	-1,162.00	1,789.02	1,712.22	76.81	23.293		
2,100.00	2,091.94	2,086.06	2,091.94	9.56	71.19	127.78	1,250.68	-1,162.00	1,795.82	1,715.13	80.69	22.255		
2,200.00	2,191.32	2,186.68	2,191.32	9.99	74.65	128.05	1,250.68	-1,162.00	1,802.66	1,718.08	84.58	21.312		
2,300.00	2,290.70	2,285.30	2,290.70	10.42	78.12	128.33	1,250.68	-1,162.00	1,809.54	1,721.07	88.48	20.452		
2,400.00	2,390.09	2,385.91	2,390.09	10.86	81.58	128.60	1,250.68	-1,162.00	1,816.46	1,724.09	92.37	19.665		
2,500.00	2,489.47	2,484.53	2,489.47	11.29	85.05	128.87	1,250.68	-1,162.00	1,823.43	1,727.16	96.27	18.941		
2,600.00	2,588.86	2,583.14	2,588.86	11.73	88.52	129.14	1,250.68	-1,162.00	1,830.43	1,730.26	100.17	18.274		
2,700.00	2,688.24	2,683.76	2,688.24	12.18	91.99	129.41	1,250.68	-1,162.00	1,837.48	1,733.41	104.07	17.656		
2,800.00	2,787.62	2,782.38	2,787.62	12.62	95.45	129.68	1,250.68	-1,162.00	1,844.56	1,736.59	107.97	17.084		
2,900.00	2,887.01	2,882.01	2,887.01	13.06	98.92	129.94	1,250.68	-1,162.00	1,851.68	1,739.81	111.88	16.551		
3,000.00	2,986.39	2,981.61	2,986.39	13.51	102.39	130.20	1,250.68	-1,162.00	1,858.85	1,743.06	115.78	16.055		
3,100.00	3,085.77	3,080.23	3,085.77	13.95	105.86	130.46	1,250.68	-1,162.00	1,866.05	1,746.36	119.69	15.591		
3,200.00	3,185.16	3,180.84	3,185.16	14.40	109.32	130.72	1,250.68	-1,162.00	1,873.29	1,749.69	123.60	15.157		
3,300.00	3,284.54	3,279.46	3,284.54	14.85	112.79	130.97	1,250.68	-1,162.00	1,880.56	1,753.06	127.50	14.749		
3,400.00	3,383.92	3,378.08	3,383.92	15.30	116.26	131.22	1,250.68	-1,162.00	1,887.88	1,756.46	131.41	14.366		
3,500.00	3,483.31	3,478.69	3,483.31	15.75	119.73	131.48	1,250.68	-1,162.00	1,895.23	1,759.90	135.32	14.005		
3,600.00	3,582.69	3,577.31	3,582.69	16.20	123.20	131.73	1,250.68	-1,162.00	1,902.61	1,763.38	139.23	13.665		
3,700.00	3,682.07	3,677.93	3,682.07	16.65	126.66	131.97	1,250.68	-1,162.00	1,910.03	1,766.89	143.14	13.343		
3,800.00	3,781.46	3,776.54	3,781.46	17.10	130.13	132.22	1,250.68	-1,162.00	1,917.49	1,770.44	147.06	13.039		
3,900.00	3,880.84	3,875.16	3,880.84	17.56	133.60	132.46	1,250.68	-1,162.00	1,924.98	1,774.02	150.97	12.751		
4,000.00	3,980.22	3,975.78	3,980.22	18.01	137.07	132.70	1,250.68	-1,162.00	1,932.51	1,777.63	154.88	12.477		
4,100.00	4,079.61	4,074.39	4,079.61	18.46	140.54	132.94	1,250.68	-1,162.00	1,940.07	1,781.28	158.79	12.218		
4,200.00	4,178.99	4,173.01	4,178.99	18.92	144.01	133.18	1,250.68	-1,162.00	1,947.67	1,784.96	162.71	11.970		
4,300.00	4,278.38	4,273.62	4,278.38	19.37	147.47	133.42	1,250.68	-1,162.00	1,955.29	1,788.67	166.62	11.735		
4,400.00	4,377.76	4,372.24	4,377.76	19.83	150.94	133.65	1,250.68	-1,162.00	1,962.96	1,792.42	170.53	11.511		
4,500.00	4,477.14	4,472.86	4,477.14	20.28	154.41	133.88	1,250.68	-1,162.00	1,970.65	1,796.20	174.45	11.297		
4,600.00	4,576.53	4,571.47	4,576.53	20.74	157.88	134.11	1,250.68	-1,162.00	1,978.37	1,800.01	178.36	11.092		
4,700.00	4,675.91	4,670.09	4,675.91	21.19	161.35	134.34	1,250.68	-1,162.00	1,986.13	1,803.86	182.28	10.896		
4,800.00	4,775.29	4,770.71	4,775.29	21.65	164.82	134.57	1,250.68	-1,162.00	1,993.92	1,807.73	186.19	10.709		
4,900.00	4,874.68	4,869.32	4,874.68	22.10	168.29	134.80	1,250.68	-1,162.00	2,001.74	1,811.64	190.11	10.530		
5,000.00	4,974.06	4,969.94	4,974.06	22.56	171.76	135.02	1,250.68	-1,162.00	2,009.59	1,815.57	194.02	10.358		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	
5,100.00	5,073.44	5,068.44	5,073.44	23.02	175.22	135.24	1,250.68	-1,162.00	2,017.47	1,819.54	197.94	10.193	
5,200.00	5,172.83	5,167.83	5,172.83	23.47	178.69	135.46	1,250.68	-1,162.00	2,025.39	1,823.53	201.85	10.034	
5,300.00	5,272.21	5,267.21	5,272.21	23.93	182.16	135.68	1,250.68	-1,162.00	2,033.33	1,827.56	205.77	9.882	
5,400.00	5,371.59	5,366.59	5,371.59	24.39	185.63	135.90	1,250.68	-1,162.00	2,041.30	1,831.61	209.68	9.735	
5,500.00	5,470.98	5,465.98	5,470.98	24.85	189.10	136.11	1,250.68	-1,162.00	2,049.30	1,835.70	213.60	9.594	
5,600.00	5,570.36	5,565.36	5,570.36	25.30	192.57	136.33	1,250.68	-1,162.00	2,057.32	1,839.81	217.51	9.458	
5,700.00	5,669.75	5,664.75	5,669.75	25.76	196.04	136.54	1,250.68	-1,162.00	2,065.38	1,843.95	221.43	9.327	
5,800.00	5,769.13	5,764.13	5,769.13	26.22	199.51	136.75	1,250.68	-1,162.00	2,073.46	1,848.12	225.35	9.201	
5,900.00	5,868.51	5,863.51	5,868.51	26.68	202.98	136.96	1,250.68	-1,162.00	2,081.58	1,852.31	229.26	9.079	
6,000.00	5,967.90	5,962.90	5,967.90	27.14	206.45	137.16	1,250.68	-1,162.00	2,089.72	1,856.54	233.18	8.962	
6,100.00	6,067.28	6,062.28	6,067.28	27.60	209.91	137.37	1,250.68	-1,162.00	2,097.88	1,860.79	237.10	8.848	
6,200.00	6,166.66	6,161.66	6,166.66	28.05	213.38	137.57	1,250.68	-1,162.00	2,106.08	1,865.06	241.01	8.738	
6,300.00	6,266.05	6,261.05	6,266.05	28.51	216.85	137.77	1,250.68	-1,162.00	2,114.29	1,869.37	244.93	8.632	
6,400.00	6,365.43	6,360.43	6,365.43	28.97	220.32	137.97	1,250.68	-1,162.00	2,122.54	1,873.70	248.84	8.530	
6,500.00	6,464.81	6,459.81	6,464.81	29.43	223.79	138.17	1,250.68	-1,162.00	2,130.81	1,878.05	252.76	8.430	
6,600.00	6,564.10	6,559.10	6,564.10	29.89	227.26	107.82	1,250.68	-1,162.00	2,138.19	1,881.51	256.67	8.330	
6,700.00	6,661.75	6,656.75	6,661.75	30.34	230.67	84.92	1,250.68	-1,162.00	2,139.18	1,878.66	260.52	8.211	
6,800.00	6,755.38	6,750.38	6,755.38	30.77	233.93	78.45	1,250.68	-1,162.00	2,133.24	1,869.03	264.21	8.074	
6,900.00	6,842.67	6,837.67	6,842.67	31.17	236.98	76.89	1,250.68	-1,162.00	2,121.14	1,853.46	267.68	7.924	
7,000.00	6,921.48	6,916.48	6,921.48	31.54	239.73	77.57	1,250.68	-1,162.00	2,103.97	1,833.12	270.86	7.768	
7,100.00	6,989.86	6,984.86	6,989.86	31.91	242.12	79.48	1,250.68	-1,162.00	2,083.12	1,809.40	273.72	7.610	
7,200.00	7,046.13	7,041.13	7,046.13	32.35	244.08	82.01	1,250.68	-1,162.00	2,060.11	1,783.84	276.27	7.457	
7,300.00	7,088.91	7,083.91	7,088.91	32.98	245.58	84.72	1,250.68	-1,162.00	2,036.48	1,758.00	278.49	7.313	
7,400.00	7,117.14	7,112.14	7,117.14	33.84	246.56	87.28	1,250.68	-1,162.00	2,013.71	1,733.34	280.37	7.182	
7,500.00	7,130.13	7,125.13	7,130.13	34.90	247.01	89.41	1,250.68	-1,162.00	1,993.01	1,711.11	281.90	7.070	
7,600.00	7,130.72	7,125.72	7,130.72	36.13	247.04	90.04	1,250.68	-1,162.00	1,975.59	1,692.44	283.15	6.977	
7,700.00	7,130.29	7,125.29	7,130.29	37.54	247.02	90.03	1,250.68	-1,162.00	1,963.00	1,678.47	284.53	6.899	
7,800.00	7,129.85	7,124.85	7,129.85	39.12	247.01	90.01	1,250.68	-1,162.00	1,955.45	1,669.40	286.05	6.836	
7,897.90	7,129.43	7,124.43	7,129.43	40.80	246.99	90.00	1,250.68	-1,162.00	1,953.00	1,665.36	287.64	6.790	
7,900.00	7,129.42	7,124.42	7,129.42	40.83	246.99	90.00	1,250.68	-1,162.00	1,953.00	1,665.33	287.67	6.789 ES	
8,000.00	7,128.98	7,123.98	7,128.98	42.67	246.98	89.99	1,250.68	-1,162.00	1,955.67	1,666.30	289.37	6.758	
8,100.00	7,128.55	7,123.55	7,128.55	44.62	246.96	89.97	1,250.68	-1,162.00	1,963.43	1,672.33	291.10	6.745 SF	
8,200.00	7,128.12	7,123.12	7,128.12	46.66	246.94	89.96	1,250.68	-1,162.00	1,976.23	1,683.39	292.83	6.749	
8,300.00	7,127.68	7,122.68	7,127.68	48.79	246.93	89.95	1,250.68	-1,162.00	1,993.96	1,699.42	294.54	6.770	
8,400.00	7,127.25	7,122.25	7,127.25	50.98	246.91	89.94	1,250.68	-1,162.00	2,016.51	1,720.30	296.21	6.808	
8,500.00	7,126.81	7,121.81	7,126.81	53.24	246.90	89.92	1,250.68	-1,162.00	2,043.70	1,745.90	297.81	6.863	
8,600.00	7,126.38	7,121.38	7,126.38	55.56	246.88	89.91	1,250.68	-1,162.00	2,075.37	1,776.04	299.32	6.934	
8,700.00	7,125.95	7,120.95	7,125.95	57.92	246.87	89.90	1,250.68	-1,162.00	2,111.29	1,810.55	300.75	7.020	
8,800.00	7,125.51	7,120.51	7,125.51	60.33	246.85	89.89	1,250.68	-1,162.00	2,151.27	1,849.20	302.08	7.122	
8,900.00	7,125.08	7,120.08	7,125.08	62.77	246.84	89.87	1,250.68	-1,162.00	2,195.09	1,891.78	303.31	7.237	
9,000.00	7,124.64	7,119.64	7,124.64	65.25	246.82	89.86	1,250.68	-1,162.00	2,242.50	1,938.06	304.44	7.366	
9,100.00	7,124.21	7,119.21	7,124.21	67.76	246.81	89.85	1,250.68	-1,162.00	2,293.30	1,987.83	305.47	7.507	
9,200.00	7,123.78	7,118.78	7,123.78	70.29	246.79	89.83	1,250.68	-1,162.00	2,347.26	2,040.85	306.41	7.661	
9,300.00	7,123.34	7,118.34	7,123.34	72.85	246.78	89.82	1,250.68	-1,162.00	2,404.18	2,096.92	307.26	7.825	
9,400.00	7,122.91	7,117.91	7,122.91	75.43	246.76	89.81	1,250.68	-1,162.00	2,463.83	2,155.81	308.03	7.999	
9,500.00	7,122.48	7,117.48	7,122.48	78.03	246.75	89.80	1,250.68	-1,162.00	2,526.04	2,217.33	308.71	8.183	
9,600.00	7,122.04	7,117.04	7,122.04	80.65	246.73	89.78	1,250.68	-1,162.00	2,590.62	2,281.29	309.33	8.375	
9,700.00	7,121.61	7,116.61	7,121.61	83.28	246.72	89.77	1,250.68	-1,162.00	2,657.39	2,347.52	309.88	8.576	
9,800.00	7,121.17	7,116.17	7,121.17	85.93	246.70	89.76	1,250.68	-1,162.00	2,726.19	2,415.83	310.36	8.784	
9,900.00	7,120.74	7,115.74	7,120.74	88.59	246.69	89.75	1,250.68	-1,162.00	2,796.88	2,486.08	310.80	8.999	
10,000.00	7,120.31	7,115.31	7,120.31	91.26	246.67	89.73	1,250.68	-1,162.00	2,869.31	2,558.13	311.18	9.221	
10,100.00	7,119.87	7,114.87	7,119.87	93.95	246.66	89.72	1,250.68	-1,162.00	2,943.36	2,631.84	311.52	9.448	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,200.00	7,119.44	7,114.44	7,119.44	96.64	246.64	89.71	1,250.68	-1,162.00	3,018.90	2,707.08	311.82	9.682		
10,300.00	7,119.00	7,114.00	7,119.00	99.34	246.63	89.69	1,250.68	-1,162.00	3,095.84	2,783.75	312.09	9.920		
10,400.00	7,118.57	7,113.57	7,118.57	102.05	246.61	89.68	1,250.68	-1,162.00	3,174.05	2,861.73	312.32	10.163		
10,500.00	7,118.14	7,113.14	7,118.14	104.77	246.60	89.67	1,250.68	-1,162.00	3,253.46	2,940.94	312.52	10.410		
10,600.00	7,117.70	7,112.70	7,117.70	107.50	246.58	89.66	1,250.68	-1,162.00	3,333.98	3,021.28	312.70	10.662		
10,700.00	7,117.27	7,112.27	7,117.27	110.23	246.57	89.64	1,250.68	-1,162.00	3,415.53	3,102.67	312.86	10.917		
10,800.00	7,116.83	7,111.83	7,116.83	112.97	246.55	89.63	1,250.68	-1,162.00	3,498.04	3,185.04	312.99	11.176		
10,900.00	7,116.40	7,111.40	7,116.40	115.72	246.54	89.62	1,250.68	-1,162.00	3,581.43	3,268.32	313.11	11.438		
11,000.00	7,115.97	7,110.97	7,115.97	118.47	246.52	89.61	1,250.68	-1,162.00	3,665.66	3,352.45	313.21	11.703		
11,100.00	7,115.53	7,110.53	7,115.53	121.22	246.51	89.59	1,250.68	-1,162.00	3,750.66	3,437.37	313.30	11.972		
11,200.00	7,115.10	7,110.10	7,115.10	123.98	246.49	89.58	1,250.68	-1,162.00	3,836.39	3,523.02	313.37	12.242		
11,300.00	7,114.66	7,109.66	7,114.66	126.74	246.48	89.57	1,250.68	-1,162.00	3,922.79	3,609.35	313.44	12.515		
11,400.00	7,114.23	7,109.23	7,114.23	129.51	246.46	89.55	1,250.68	-1,162.00	4,009.83	3,696.34	313.49	12.791		
11,500.00	7,113.80	7,108.80	7,113.80	132.29	246.44	89.54	1,250.68	-1,162.00	4,097.45	3,783.92	313.54	13.069		
11,600.00	7,113.36	7,108.36	7,113.36	135.06	246.43	89.53	1,250.68	-1,162.00	4,185.63	3,872.06	313.57	13.348		
11,700.00	7,112.93	7,107.93	7,112.93	137.84	246.41	89.52	1,250.68	-1,162.00	4,274.33	3,960.73	313.60	13.630		
11,800.00	7,112.49	7,107.49	7,112.49	140.62	246.40	89.50	1,250.68	-1,162.00	4,363.52	4,049.89	313.63	13.913		
11,900.00	7,112.06	7,107.06	7,112.06	143.41	246.38	89.49	1,250.68	-1,162.00	4,453.17	4,139.52	313.65	14.198		
12,000.00	7,111.63	7,106.63	7,111.63	146.20	246.37	89.48	1,250.68	-1,162.00	4,543.25	4,229.59	313.66	14.484		
12,100.00	7,111.19	7,106.19	7,111.19	148.99	246.35	89.47	1,250.68	-1,162.00	4,633.74	4,320.07	313.67	14.772		
12,200.00	7,110.76	7,105.76	7,110.76	151.78	246.34	89.45	1,250.68	-1,162.00	4,724.61	4,410.93	313.68	15.062		
12,300.00	7,110.33	7,105.33	7,110.33	154.58	246.32	89.44	1,250.68	-1,162.00	4,815.84	4,502.16	313.69	15.352		
12,400.00	7,109.89	7,104.89	7,109.89	157.37	246.31	89.43	1,250.68	-1,162.00	4,907.42	4,593.73	313.69	15.644		
12,500.00	7,109.46	7,104.46	7,109.46	160.17	246.29	89.41	1,250.68	-1,162.00	4,999.32	4,685.63	313.69	15.937		
12,600.00	7,109.02	7,104.02	7,109.02	162.98	246.28	89.40	1,250.68	-1,162.00	5,091.52	4,777.84	313.68	16.231		
12,700.00	7,108.59	7,103.59	7,108.59	165.78	246.26	89.39	1,250.68	-1,162.00	5,184.01	4,870.33	313.68	16.526		
12,800.00	7,108.16	7,103.16	7,108.16	168.59	246.25	89.38	1,250.68	-1,162.00	5,276.78	4,963.10	313.67	16.822		
12,900.00	7,107.72	7,102.72	7,107.72	171.39	246.23	89.36	1,250.68	-1,162.00	5,369.80	5,056.13	313.67	17.119		
13,000.00	7,107.29	7,102.29	7,107.29	174.20	246.22	89.35	1,250.68	-1,162.00	5,463.07	5,149.41	313.66	17.417		
13,100.00	7,106.85	7,101.85	7,106.85	177.01	246.20	89.34	1,250.68	-1,162.00	5,556.58	5,242.93	313.65	17.716		
13,200.00	7,106.42	7,101.42	7,106.42	179.83	246.19	89.33	1,250.68	-1,162.00	5,650.31	5,336.66	313.64	18.015		
13,300.00	7,105.99	7,100.99	7,105.99	182.64	246.17	89.31	1,250.68	-1,162.00	5,744.25	5,430.61	313.63	18.315		
13,400.00	7,105.55	7,100.55	7,105.55	185.45	246.16	89.30	1,250.68	-1,162.00	5,838.39	5,524.76	313.62	18.616		
13,500.00	7,105.12	7,100.12	7,105.12	188.27	246.14	89.29	1,250.68	-1,162.00	5,932.72	5,619.11	313.61	18.917		
13,600.00	7,104.68	7,100.32	7,104.68	191.09	246.15	89.27	1,250.68	-1,162.00	6,027.24	5,713.61	313.63	19.218		
13,700.00	7,104.25	7,100.75	7,104.25	193.91	246.16	89.26	1,250.68	-1,162.00	6,121.93	5,808.28	313.65	19.518		
13,800.00	7,103.82	7,101.18	7,103.82	196.73	246.18	89.25	1,250.68	-1,162.00	6,216.78	5,903.11	313.67	19.820		
13,900.00	7,103.38	7,101.62	7,103.38	199.55	246.19	89.24	1,250.68	-1,162.00	6,311.80	5,998.11	313.69	20.121		
14,000.00	7,102.95	7,102.05	7,102.95	202.37	246.21	89.22	1,250.68	-1,162.00	6,406.96	6,093.25	313.71	20.423		
14,100.00	7,102.51	7,102.49	7,102.51	205.19	246.22	89.21	1,250.68	-1,162.00	6,502.27	6,188.54	313.73	20.725		
14,200.00	7,102.08	7,102.92	7,102.08	208.02	246.24	89.20	1,250.68	-1,162.00	6,597.72	6,283.97	313.76	21.028		
14,300.00	7,101.65	7,103.35	7,101.65	210.84	246.25	89.19	1,250.68	-1,162.00	6,693.31	6,379.53	313.78	21.331		
14,400.00	7,101.21	7,103.79	7,101.21	213.67	246.27	89.17	1,250.68	-1,162.00	6,789.02	6,475.22	313.80	21.635		
14,500.00	7,100.78	7,104.22	7,100.78	216.50	246.29	89.16	1,250.68	-1,162.00	6,884.85	6,571.02	313.83	21.938		
14,600.00	7,100.35	7,104.66	7,100.35	219.32	246.30	89.15	1,250.68	-1,162.00	6,980.80	6,666.95	313.85	22.242		
14,700.00	7,099.91	7,105.09	7,099.91	222.15	246.32	89.13	1,250.68	-1,162.00	7,076.86	6,762.98	313.88	22.547		
14,800.00	7,099.48	7,105.52	7,099.48	224.98	246.33	89.12	1,250.68	-1,162.00	7,173.03	6,859.13	313.90	22.851		
14,900.00	7,099.04	7,105.96	7,099.04	227.81	246.35	89.11	1,250.68	-1,162.00	7,269.30	6,955.37	313.93	23.156		
14,909.96	7,099.00	7,106.00	7,099.00	228.09	246.35	89.11	1,250.68	-1,162.00	7,278.90	6,964.97	313.93	23.186		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	19.00	3.28	3.28	-92.78	-53.53	-1,103.66	1,105.12					
100.00	100.00	81.00	100.00	3.28	3.57	-92.78	-53.53	-1,103.66	1,104.95	1,098.10	6.86	161.155		
200.00	200.00	181.00	200.00	3.34	5.63	-92.78	-53.53	-1,103.66	1,104.95	1,095.99	8.96	123.254		
300.00	300.00	281.00	300.00	3.44	8.71	-92.78	-53.53	-1,103.66	1,104.95	1,092.80	12.15	90.938		
400.00	400.00	381.00	400.00	3.60	12.01	-92.78	-53.53	-1,103.66	1,104.95	1,089.34	15.62	70.762		
500.00	500.00	481.00	500.00	3.81	15.40	-92.78	-53.53	-1,103.66	1,104.95	1,085.75	19.21	57.533		
600.00	600.00	581.00	600.00	4.04	18.83	74.07	-53.53	-1,103.66	1,104.93	1,082.07	22.87	48.316		
700.00	699.96	680.96	699.96	4.29	22.27	74.21	-53.53	-1,103.66	1,104.27	1,077.71	26.56	41.575		
800.00	799.78	780.78	799.78	4.57	25.72	74.54	-53.53	-1,103.66	1,102.67	1,072.38	30.29	36.405		
900.00	899.34	880.34	899.34	4.88	29.17	75.05	-53.53	-1,103.66	1,100.19	1,066.15	34.04	32.319		
1,000.00	998.72	979.72	998.72	5.20	32.62	75.61	-53.53	-1,103.66	1,097.36	1,059.55	37.82	29.017		
1,100.00	1,098.10	1,079.10	1,098.10	5.54	36.08	76.17	-53.53	-1,103.66	1,094.65	1,053.03	41.62	26.303		
1,200.00	1,197.49	1,178.49	1,197.49	5.90	39.53	76.73	-53.53	-1,103.66	1,092.03	1,046.60	45.43	24.036		
1,300.00	1,296.87	1,277.87	1,296.87	6.28	42.99	77.29	-53.53	-1,103.66	1,089.53	1,040.26	49.27	22.115		
1,400.00	1,396.25	1,377.25	1,396.25	6.66	46.45	77.86	-53.53	-1,103.66	1,087.13	1,034.01	53.11	20.469		
1,500.00	1,495.64	1,476.64	1,495.64	7.06	49.91	78.43	-53.53	-1,103.66	1,084.84	1,027.87	56.97	19.043		
1,600.00	1,595.02	1,576.02	1,595.02	7.46	53.37	79.00	-53.53	-1,103.66	1,082.65	1,021.82	60.83	17.797		
1,700.00	1,694.40	1,675.40	1,694.40	7.87	56.84	79.57	-53.53	-1,103.66	1,080.58	1,015.87	64.71	16.700		
1,800.00	1,793.79	1,774.79	1,793.79	8.29	60.30	80.15	-53.53	-1,103.66	1,078.62	1,010.03	68.58	15.727		
1,900.00	1,893.17	1,874.17	1,893.17	8.71	63.77	80.73	-53.53	-1,103.66	1,076.76	1,004.30	72.47	14.858		
2,000.00	1,992.55	1,973.55	1,992.55	9.13	67.23	81.31	-53.53	-1,103.66	1,075.02	998.66	76.36	14.079		
2,100.00	2,091.94	2,072.94	2,091.94	9.56	70.70	81.89	-53.53	-1,103.66	1,073.39	993.14	80.25	13.375		
2,200.00	2,191.32	2,172.32	2,191.32	9.99	74.16	82.47	-53.53	-1,103.66	1,071.88	987.73	84.15	12.738		
2,300.00	2,290.70	2,271.70	2,290.70	10.42	77.63	83.06	-53.53	-1,103.66	1,070.47	982.42	88.05	12.158		
2,400.00	2,390.09	2,371.09	2,390.09	10.86	81.10	83.64	-53.53	-1,103.66	1,069.18	977.23	91.95	11.628		
2,500.00	2,489.47	2,470.47	2,489.47	11.29	84.56	84.23	-53.53	-1,103.66	1,068.00	972.15	95.85	11.142		
2,600.00	2,588.86	2,569.86	2,588.86	11.73	88.03	84.82	-53.53	-1,103.66	1,066.94	967.17	99.76	10.695		
2,700.00	2,688.24	2,669.24	2,688.24	12.18	91.50	85.41	-53.53	-1,103.66	1,065.99	962.32	103.67	10.282		
2,800.00	2,787.62	2,768.62	2,787.62	12.62	94.96	86.00	-53.53	-1,103.66	1,065.15	957.57	107.58	9.901		
2,900.00	2,887.01	2,868.01	2,887.01	13.06	98.43	86.59	-53.53	-1,103.66	1,064.43	952.94	111.49	9.547		
3,000.00	2,986.39	2,967.39	2,986.39	13.51	101.90	87.18	-53.53	-1,103.66	1,063.82	948.42	115.41	9.218		
3,100.00	3,085.77	3,066.77	3,085.77	13.95	105.37	87.78	-53.53	-1,103.66	1,063.33	944.01	119.32	8.912		
3,200.00	3,185.16	3,166.16	3,185.16	14.40	108.83	88.37	-53.53	-1,103.66	1,062.96	939.72	123.24	8.625		
3,300.00	3,284.54	3,265.54	3,284.54	14.85	112.30	88.96	-53.53	-1,103.66	1,062.70	935.55	127.15	8.358		
3,400.00	3,383.92	3,364.92	3,383.92	15.30	115.77	89.56	-53.53	-1,103.66	1,062.56	931.49	131.07	8.107		
3,474.36	3,457.82	3,438.82	3,457.82	15.63	118.35	90.00	-53.53	-1,103.66	1,062.52	928.54	133.98	7.930		
3,500.00	3,483.31	3,464.31	3,483.31	15.75	119.24	90.15	-53.53	-1,103.66	1,062.53	927.54	134.99	7.871		
3,600.00	3,582.69	3,563.69	3,582.69	16.20	122.71	90.75	-53.53	-1,103.66	1,062.61	923.71	138.91	7.650		
3,700.00	3,682.07	3,663.07	3,682.07	16.65	126.18	91.34	-53.53	-1,103.66	1,062.82	919.99	142.83	7.441		
3,800.00	3,781.46	3,762.46	3,781.46	17.10	129.64	91.93	-53.53	-1,103.66	1,063.14	916.39	146.75	7.245		
3,900.00	3,880.84	3,861.84	3,880.84	17.56	133.11	92.53	-53.53	-1,103.66	1,063.57	912.90	150.67	7.059		
4,000.00	3,980.22	3,961.22	3,980.22	18.01	136.58	93.12	-53.53	-1,103.66	1,064.12	909.53	154.59	6.884		
4,100.00	4,079.61	4,060.61	4,079.61	18.46	140.05	93.71	-53.53	-1,103.66	1,064.79	906.28	158.51	6.717		
4,200.00	4,178.99	4,159.99	4,178.99	18.92	143.52	94.30	-53.53	-1,103.66	1,065.56	903.13	162.43	6.560		
4,300.00	4,278.38	4,259.38	4,278.38	19.37	146.99	94.89	-53.53	-1,103.66	1,066.46	900.11	166.35	6.411		
4,400.00	4,377.76	4,358.76	4,377.76	19.83	150.45	95.48	-53.53	-1,103.66	1,067.47	897.19	170.28	6.269		
4,500.00	4,477.14	4,458.14	4,477.14	20.28	153.92	96.07	-53.53	-1,103.66	1,068.59	894.39	174.20	6.134		
4,600.00	4,576.53	4,557.53	4,576.53	20.74	157.39	96.66	-53.53	-1,103.66	1,069.83	891.71	178.12	6.006		
4,700.00	4,675.91	4,656.91	4,675.91	21.19	160.86	97.24	-53.53	-1,103.66	1,071.18	889.13	182.04	5.884		
4,800.00	4,775.29	4,756.29	4,775.29	21.65	164.33	97.83	-53.53	-1,103.66	1,072.64	886.67	185.97	5.768		
4,900.00	4,874.68	4,855.68	4,874.68	22.10	167.80	98.41	-53.53	-1,103.66	1,074.21	884.33	189.89	5.657		
5,000.00	4,974.06	4,955.06	4,974.06	22.56	171.27	98.99	-53.53	-1,103.66	1,075.90	882.09	193.81	5.551		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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				
5,100.00	5,073.44	5,054.44	5,073.44	23.02	174.74	99.57	-53.53	-1,103.66	1,077.70	879.97	197.74	5.450				
5,200.00	5,172.83	5,153.83	5,172.83	23.47	178.21	100.15	-53.53	-1,103.66	1,079.61	877.95	201.66	5.354				
5,300.00	5,272.21	5,253.21	5,272.21	23.93	181.67	100.72	-53.53	-1,103.66	1,081.63	876.05	205.58	5.261				
5,400.00	5,371.59	5,352.59	5,371.59	24.39	185.14	101.29	-53.53	-1,103.66	1,083.76	874.25	209.50	5.173				
5,500.00	5,470.98	5,451.98	5,470.98	24.85	188.61	101.86	-53.53	-1,103.66	1,086.00	872.57	213.43	5.088				
5,600.00	5,570.36	5,551.36	5,570.36	25.30	192.08	102.43	-53.53	-1,103.66	1,088.34	870.99	217.35	5.007				
5,700.00	5,669.75	5,650.75	5,669.75	25.76	195.55	103.00	-53.53	-1,103.66	1,090.80	869.52	221.27	4.930				
5,800.00	5,769.13	5,750.13	5,769.13	26.22	199.02	103.56	-53.53	-1,103.66	1,093.36	868.16	225.20	4.855				
5,900.00	5,868.51	5,849.51	5,868.51	26.68	202.49	104.12	-53.53	-1,103.66	1,096.03	866.91	229.12	4.784				
6,000.00	5,967.90	5,948.90	5,967.90	27.14	205.96	104.68	-53.53	-1,103.66	1,098.80	865.76	233.04	4.715				
6,100.00	6,067.28	6,048.28	6,067.28	27.60	209.43	105.23	-53.53	-1,103.66	1,101.68	864.71	236.97	4.649				
6,200.00	6,166.66	6,147.66	6,166.66	28.05	212.90	105.78	-53.53	-1,103.66	1,104.66	863.77	240.89	4.586				
6,300.00	6,266.05	6,247.05	6,266.05	28.51	216.36	106.33	-53.53	-1,103.66	1,107.74	862.93	244.81	4.525				
6,400.00	6,365.43	6,346.43	6,365.43	28.97	219.83	106.88	-53.53	-1,103.66	1,110.93	862.20	248.73	4.466				
6,500.00	6,464.81	6,445.81	6,464.81	29.43	223.30	107.42	-53.53	-1,103.66	1,114.22	861.56	252.65	4.410				
6,600.00	6,564.10	6,545.10	6,564.10	29.89	226.77	77.66	-53.53	-1,103.66	1,115.94	859.36	256.57	4.349				
6,700.00	6,661.75	6,642.75	6,661.75	30.34	230.18	55.72	-53.53	-1,103.66	1,106.20	845.77	260.43	4.248				
6,800.00	6,755.38	6,736.38	6,755.38	30.77	233.44	50.45	-53.53	-1,103.66	1,083.97	819.85	264.12	4.104				
6,900.00	6,842.67	6,823.67	6,842.67	31.17	236.49	50.59	-53.53	-1,103.66	1,050.39	782.82	267.57	3.926				
7,000.00	6,921.48	6,902.48	6,921.48	31.54	239.24	53.77	-53.53	-1,103.66	1,007.13	736.41	270.72	3.720				
7,100.00	6,989.86	6,970.86	6,989.86	31.91	241.63	59.25	-53.53	-1,103.66	956.32	682.81	273.51	3.496				
7,200.00	7,046.13	7,027.13	7,046.13	32.35	243.59	66.46	-53.53	-1,103.66	900.62	624.67	275.95	3.264				
7,300.00	7,088.91	7,069.91	7,088.91	32.98	245.09	74.53	-53.53	-1,103.66	843.10	565.06	278.04	3.032				
7,400.00	7,117.14	7,101.86	7,117.14	33.84	246.20	82.23	-53.53	-1,103.66	787.21	507.26	279.94	2.812				
7,500.00	7,130.13	7,111.13	7,130.13	34.90	246.53	88.41	-53.53	-1,103.66	736.55	455.25	281.30	2.618				
7,600.00	7,130.72	7,111.72	7,130.72	36.13	246.55	90.10	-53.53	-1,103.66	694.78	412.19	282.60	2.459				
7,700.00	7,130.29	7,111.29	7,130.29	37.54	246.53	90.06	-53.53	-1,103.66	665.42	381.36	284.07	2.342				
7,800.00	7,129.85	7,110.85	7,129.85	39.12	246.52	90.02	-53.53	-1,103.66	650.27	364.68	285.59	2.277				
7,849.69	7,129.64	7,110.64	7,129.64	39.97	246.51	90.00	-53.53	-1,103.66	648.37	362.04	286.33	2.264	CC, ES, SF			
7,900.00	7,129.42	7,110.42	7,129.42	40.83	246.50	89.98	-53.53	-1,103.66	650.32	363.34	286.98	2.266				
8,000.00	7,128.98	7,109.98	7,128.98	42.67	246.49	89.94	-53.53	-1,103.66	665.56	377.51	288.06	2.311				
8,100.00	7,128.55	7,109.55	7,128.55	44.62	246.47	89.90	-53.53	-1,103.66	695.01	406.25	288.76	2.407				
8,200.00	7,128.12	7,109.12	7,128.12	46.66	246.46	89.87	-53.53	-1,103.66	736.95	447.86	289.10	2.549				
8,300.00	7,127.68	7,108.68	7,127.68	48.79	246.44	89.83	-53.53	-1,103.66	789.40	500.25	289.15	2.730				
8,400.00	7,127.25	7,108.25	7,127.25	50.98	246.43	89.79	-53.53	-1,103.66	850.42	561.41	289.02	2.942				
8,500.00	7,126.81	7,107.81	7,126.81	53.24	246.41	89.75	-53.53	-1,103.66	918.30	629.54	288.77	3.180				
8,600.00	7,126.38	7,107.38	7,126.38	55.56	246.40	89.71	-53.53	-1,103.66	991.63	703.18	288.46	3.438				
8,700.00	7,125.95	7,106.95	7,125.95	57.92	246.38	89.67	-53.53	-1,103.66	1,069.30	781.17	288.13	3.711				
8,800.00	7,125.51	7,106.51	7,125.51	60.33	246.37	89.64	-53.53	-1,103.66	1,150.42	862.62	287.79	3.997				
8,900.00	7,125.08	7,106.08	7,125.08	62.77	246.35	89.60	-53.53	-1,103.66	1,234.31	946.83	287.48	4.294				
9,000.00	7,124.64	7,105.64	7,124.64	65.25	246.33	89.56	-53.53	-1,103.66	1,320.44	1,033.27	287.18	4.598				
9,100.00	7,124.21	7,105.21	7,124.21	67.76	246.32	89.52	-53.53	-1,103.66	1,408.41	1,121.51	286.90	4.909				
9,200.00	7,123.78	7,104.78	7,123.78	70.29	246.30	89.48	-53.53	-1,103.66	1,497.89	1,211.25	286.65	5.226				
9,300.00	7,123.34	7,104.34	7,123.34	72.85	246.29	89.44	-53.53	-1,103.66	1,588.63	1,302.22	286.41	5.547				
9,400.00	7,122.91	7,103.91	7,122.91	75.43	246.27	89.41	-53.53	-1,103.66	1,680.42	1,394.22	286.20	5.871				
9,500.00	7,122.48	7,103.48	7,122.48	78.03	246.26	89.37	-53.53	-1,103.66	1,773.09	1,487.08	286.01	6.199				
9,600.00	7,122.04	7,103.04	7,122.04	80.65	246.24	89.33	-53.53	-1,103.66	1,866.52	1,580.69	285.84	6.530				
9,700.00	7,121.61	7,102.61	7,121.61	83.28	246.23	89.29	-53.53	-1,103.66	1,960.60	1,674.93	285.68	6.863				
9,800.00	7,121.17	7,102.17	7,121.17	85.93	246.21	89.25	-53.53	-1,103.66	2,055.24	1,769.71	285.53	7.198				
9,900.00	7,120.74	7,101.74	7,120.74	88.59	246.20	89.21	-53.53	-1,103.66	2,150.37	1,864.97	285.40	7.535				
10,000.00	7,120.31	7,101.31	7,120.31	91.26	246.18	89.18	-53.53	-1,103.66	2,245.91	1,960.63	285.28	7.873				
10,100.00	7,119.87	7,100.87	7,119.87	93.95	246.17	89.14	-53.53	-1,103.66	2,341.83	2,056.66	285.18	8.212				

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,200.00	7,119.44	7,100.44	7,119.44	96.64	246.15	89.10	-53.53	-1,103.66	2,438.08	2,153.00	285.08	8.552		
10,300.00	7,119.00	7,100.00	7,119.00	99.34	246.14	89.06	-53.53	-1,103.66	2,534.62	2,249.63	284.99	8.894		
10,400.00	7,118.57	7,100.43	7,118.57	102.05	246.15	89.02	-53.53	-1,103.66	2,631.42	2,346.48	284.94	9.235		
10,500.00	7,118.14	7,100.86	7,118.14	104.77	246.17	88.98	-53.53	-1,103.66	2,728.44	2,443.55	284.90	9.577		
10,600.00	7,117.70	7,101.30	7,117.70	107.50	246.18	88.95	-53.53	-1,103.66	2,825.68	2,540.81	284.86	9.919		
10,700.00	7,117.27	7,101.73	7,117.27	110.23	246.20	88.91	-53.53	-1,103.66	2,923.10	2,638.26	284.83	10.262		
10,800.00	7,116.83	7,102.17	7,116.83	112.97	246.21	88.87	-53.53	-1,103.66	3,020.69	2,735.88	284.81	10.606		
10,900.00	7,116.40	7,102.60	7,116.40	115.72	246.23	88.83	-53.53	-1,103.66	3,118.43	2,833.64	284.79	10.950		
11,000.00	7,115.97	7,103.03	7,115.97	118.47	246.24	88.79	-53.53	-1,103.66	3,216.31	2,931.53	284.78	11.294		
11,100.00	7,115.53	7,103.47	7,115.53	121.22	246.26	88.75	-53.53	-1,103.66	3,314.32	3,029.54	284.78	11.638		
11,200.00	7,115.10	7,103.90	7,115.10	123.98	246.27	88.72	-53.53	-1,103.66	3,412.44	3,127.67	284.77	11.983		
11,300.00	7,114.66	7,104.34	7,114.66	126.74	246.29	88.68	-53.53	-1,103.66	3,510.67	3,225.90	284.77	12.328		
11,400.00	7,114.23	7,104.77	7,114.23	129.51	246.30	88.64	-53.53	-1,103.66	3,609.00	3,324.22	284.78	12.673		
11,500.00	7,113.80	7,105.20	7,113.80	132.29	246.32	88.60	-53.53	-1,103.66	3,707.41	3,422.62	284.79	13.018		
11,600.00	7,113.36	7,105.64	7,113.36	135.06	246.33	88.56	-53.53	-1,103.66	3,805.91	3,521.11	284.80	13.363		
11,700.00	7,112.93	7,106.07	7,112.93	137.84	246.35	88.52	-53.53	-1,103.66	3,904.48	3,619.67	284.82	13.709		
11,800.00	7,112.49	7,106.51	7,112.49	140.62	246.36	88.49	-53.53	-1,103.66	4,003.13	3,718.29	284.84	14.054		
11,900.00	7,112.06	7,106.94	7,112.06	143.41	246.38	88.45	-53.53	-1,103.66	4,101.84	3,816.98	284.86	14.399		
12,000.00	7,111.63	7,107.37	7,111.63	146.20	246.40	88.41	-53.53	-1,103.66	4,200.61	3,915.73	284.89	14.745		
12,100.00	7,111.19	7,107.81	7,111.19	148.99	246.41	88.37	-53.53	-1,103.66	4,299.44	4,014.53	284.91	15.090		
12,200.00	7,110.76	7,108.24	7,110.76	151.78	246.43	88.33	-53.53	-1,103.66	4,398.32	4,113.38	284.94	15.436		
12,300.00	7,110.33	7,108.67	7,110.33	154.58	246.44	88.29	-53.53	-1,103.66	4,497.25	4,212.28	284.98	15.781		
12,400.00	7,109.89	7,109.11	7,109.89	157.37	246.46	88.26	-53.53	-1,103.66	4,596.23	4,311.22	285.01	16.126		
12,500.00	7,109.46	7,109.54	7,109.46	160.17	246.47	88.22	-53.53	-1,103.66	4,695.25	4,410.20	285.05	16.472		
12,600.00	7,109.02	7,109.98	7,109.02	162.98	246.49	88.18	-53.53	-1,103.66	4,794.31	4,509.22	285.09	16.817		
12,700.00	7,108.59	7,089.59	7,108.59	165.78	245.77	88.14	-53.53	-1,103.66	4,893.41	4,609.00	284.41	17.206		
12,800.00	7,108.16	7,089.16	7,108.16	168.59	245.76	88.10	-53.53	-1,103.66	4,992.54	4,708.13	284.42	17.553		
12,900.00	7,107.72	7,088.72	7,107.72	171.39	245.74	88.06	-53.53	-1,103.66	5,091.71	4,807.28	284.44	17.901		
13,000.00	7,107.29	7,088.29	7,107.29	174.20	245.73	88.03	-53.53	-1,103.66	5,190.91	4,906.46	284.45	18.249		
13,100.00	7,106.85	7,087.85	7,106.85	177.01	245.71	87.99	-53.53	-1,103.66	5,290.14	5,005.67	284.47	18.596		
13,200.00	7,106.42	7,087.42	7,106.42	179.83	245.70	87.95	-53.53	-1,103.66	5,389.40	5,104.91	284.49	18.944		
13,300.00	7,105.99	7,086.99	7,105.99	182.64	245.68	87.91	-53.53	-1,103.66	5,488.69	5,204.17	284.52	19.291		
13,400.00	7,105.55	7,086.55	7,105.55	185.45	245.67	87.87	-53.53	-1,103.66	5,588.00	5,303.46	284.54	19.639		
13,500.00	7,105.12	7,086.12	7,105.12	188.27	245.65	87.83	-53.53	-1,103.66	5,687.34	5,402.77	284.57	19.986		
13,600.00	7,104.68	7,085.68	7,104.68	191.09	245.64	87.80	-53.53	-1,103.66	5,786.70	5,502.10	284.60	20.333		
13,700.00	7,104.25	7,085.25	7,104.25	193.91	245.62	87.76	-53.53	-1,103.66	5,886.08	5,601.45	284.63	20.680		
13,800.00	7,103.82	7,084.82	7,103.82	196.73	245.61	87.72	-53.53	-1,103.66	5,985.48	5,700.82	284.66	21.027		
13,900.00	7,103.38	7,084.38	7,103.38	199.55	245.59	87.68	-53.53	-1,103.66	6,084.90	5,800.21	284.69	21.374		
14,000.00	7,102.95	7,083.95	7,102.95	202.37	245.58	87.64	-53.53	-1,103.66	6,184.33	5,899.61	284.72	21.721		
14,100.00	7,102.51	7,083.51	7,102.51	205.19	245.56	87.60	-53.53	-1,103.66	6,283.79	5,999.03	284.76	22.067		
14,200.00	7,102.08	7,083.08	7,102.08	208.02	245.55	87.57	-53.53	-1,103.66	6,383.27	6,098.47	284.79	22.414		
14,300.00	7,101.65	7,082.65	7,101.65	210.84	245.53	87.53	-53.53	-1,103.66	6,482.76	6,197.92	284.83	22.760		
14,400.00	7,101.21	7,082.21	7,101.21	213.67	245.52	87.49	-53.53	-1,103.66	6,582.26	6,297.39	284.87	23.106		
14,500.00	7,100.78	7,081.78	7,100.78	216.50	245.50	87.45	-53.53	-1,103.66	6,681.78	6,396.87	284.91	23.452		
14,600.00	7,100.35	7,081.35	7,100.35	219.32	245.49	87.41	-53.53	-1,103.66	6,781.31	6,496.36	284.95	23.798		
14,700.00	7,099.91	7,080.91	7,099.91	222.15	245.47	87.38	-53.53	-1,103.66	6,880.86	6,595.86	285.00	24.144		
14,800.00	7,099.48	7,080.48	7,099.48	224.98	245.46	87.34	-53.53	-1,103.66	6,980.42	6,695.38	285.04	24.489		
14,900.00	7,099.04	7,080.04	7,099.04	227.81	245.44	87.30	-53.53	-1,103.66	7,080.00	6,794.91	285.09	24.834		
14,909.96	7,099.00	7,080.00	7,099.00	228.09	245.44	87.29	-53.53	-1,103.66	7,089.92	6,804.83	285.09	24.869		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	0.00	12.00	3.28	3.28	-67.04	627.74	-1,481.88	1,609.40					
100.00	100.00	88.00	100.00	3.28	3.62	-67.04	627.74	-1,481.88	1,609.36	1,602.45	6.91	233.019		
200.00	200.00	188.00	200.00	3.34	5.83	-67.04	627.74	-1,481.88	1,609.36	1,600.19	9.17	175.595		
300.00	300.00	288.00	300.00	3.44	8.93	-67.04	627.74	-1,481.88	1,609.36	1,596.98	12.38	130.023		
400.00	400.00	388.00	400.00	3.60	12.25	-67.04	627.74	-1,481.88	1,609.36	1,593.51	15.85	101.535		
500.00	500.00	488.00	500.00	3.81	15.64	-67.04	627.74	-1,481.88	1,609.36	1,589.92	19.44	82.767		
502.78	502.78	509.22	502.78	3.81	16.36	99.81	627.74	-1,481.88	1,609.36	1,589.18	20.18	79.767		
600.00	600.00	588.00	600.00	4.04	19.07	99.81	627.74	-1,481.88	1,609.37	1,586.26	23.11	69.641		
700.00	699.96	687.96	699.96	4.29	22.51	99.88	627.74	-1,481.88	1,609.79	1,582.99	26.80	60.061		
800.00	799.78	787.78	799.78	4.57	25.96	100.07	627.74	-1,481.88	1,610.82	1,580.29	30.53	52.759		
900.00	899.34	887.34	899.34	4.88	29.41	100.37	627.74	-1,481.88	1,612.50	1,578.21	34.29	47.032		
1,000.00	998.72	986.72	998.72	5.20	32.86	100.75	627.74	-1,481.88	1,614.54	1,576.48	38.06	42.420		
1,100.00	1,098.10	1,086.10	1,098.10	5.54	36.32	101.14	627.74	-1,481.88	1,616.66	1,574.80	41.86	38.620		
1,200.00	1,197.49	1,185.49	1,197.49	5.90	39.78	101.52	627.74	-1,481.88	1,618.85	1,573.17	45.68	35.440		
1,300.00	1,296.87	1,284.87	1,296.87	6.28	43.23	101.90	627.74	-1,481.88	1,621.11	1,571.60	49.51	32.742		
1,400.00	1,396.25	1,384.25	1,396.25	6.66	46.69	102.28	627.74	-1,481.88	1,623.45	1,570.09	53.36	30.426		
1,500.00	1,495.64	1,483.64	1,495.64	7.06	50.16	102.66	627.74	-1,481.88	1,625.86	1,568.64	57.21	28.418		
1,600.00	1,595.02	1,583.02	1,595.02	7.46	53.62	103.04	627.74	-1,481.88	1,628.34	1,567.26	61.08	26.660		
1,700.00	1,694.40	1,682.40	1,694.40	7.87	57.08	103.42	627.74	-1,481.88	1,630.89	1,565.94	64.95	25.110		
1,800.00	1,793.79	1,781.79	1,793.79	8.29	60.55	103.79	627.74	-1,481.88	1,633.51	1,564.68	68.83	23.734		
1,900.00	1,893.17	1,881.17	1,893.17	8.71	64.01	104.17	627.74	-1,481.88	1,636.20	1,563.49	72.71	22.503		
2,000.00	1,992.55	1,980.55	1,992.55	9.13	67.48	104.54	627.74	-1,481.88	1,638.97	1,562.37	76.60	21.397		
2,100.00	2,091.94	2,079.94	2,091.94	9.56	70.94	104.91	627.74	-1,481.88	1,641.80	1,561.31	80.49	20.398		
2,200.00	2,191.32	2,179.32	2,191.32	9.99	74.41	105.28	627.74	-1,481.88	1,644.71	1,560.32	84.38	19.491		
2,300.00	2,290.70	2,278.70	2,290.70	10.42	77.87	105.65	627.74	-1,481.88	1,647.68	1,559.40	88.28	18.664		
2,400.00	2,390.09	2,378.09	2,390.09	10.86	81.34	106.02	627.74	-1,481.88	1,650.72	1,558.54	92.18	17.907		
2,500.00	2,489.47	2,477.47	2,489.47	11.29	84.81	106.39	627.74	-1,481.88	1,653.84	1,557.75	96.09	17.212		
2,600.00	2,588.86	2,576.86	2,588.86	11.73	88.27	106.76	627.74	-1,481.88	1,657.02	1,557.03	99.99	16.572		
2,700.00	2,688.24	2,676.24	2,688.24	12.18	91.74	107.12	627.74	-1,481.88	1,660.26	1,556.37	103.90	15.980		
2,800.00	2,787.62	2,775.62	2,787.62	12.62	95.21	107.48	627.74	-1,481.88	1,663.58	1,555.78	107.80	15.431		
2,900.00	2,887.01	2,875.01	2,887.01	13.06	98.68	107.84	627.74	-1,481.88	1,666.96	1,555.25	111.71	14.922		
3,000.00	2,986.39	2,974.39	2,986.39	13.51	102.14	108.20	627.74	-1,481.88	1,670.41	1,554.79	115.62	14.447		
3,100.00	3,085.77	3,073.77	3,085.77	13.95	105.61	108.56	627.74	-1,481.88	1,673.93	1,554.39	119.54	14.004		
3,200.00	3,185.16	3,173.16	3,185.16	14.40	109.08	108.92	627.74	-1,481.88	1,677.51	1,554.06	123.45	13.589		
3,300.00	3,284.54	3,272.54	3,284.54	14.85	112.55	109.27	627.74	-1,481.88	1,681.16	1,553.80	127.36	13.200		
3,400.00	3,383.92	3,371.92	3,383.92	15.30	116.01	109.63	627.74	-1,481.88	1,684.87	1,553.59	131.28	12.835		
3,500.00	3,483.31	3,471.31	3,483.31	15.75	119.48	109.98	627.74	-1,481.88	1,688.65	1,553.46	135.19	12.491		
3,600.00	3,582.69	3,570.69	3,582.69	16.20	122.95	110.33	627.74	-1,481.88	1,692.49	1,553.38	139.11	12.167		
3,700.00	3,682.07	3,670.07	3,682.07	16.65	126.42	110.68	627.74	-1,481.88	1,696.39	1,553.37	143.02	11.861		
3,800.00	3,781.46	3,769.46	3,781.46	17.10	129.89	111.03	627.74	-1,481.88	1,700.36	1,553.42	146.94	11.572		
3,900.00	3,880.84	3,868.84	3,880.84	17.56	133.36	111.37	627.74	-1,481.88	1,704.39	1,553.54	150.86	11.298		
4,000.00	3,980.22	3,968.22	3,980.22	18.01	136.82	111.72	627.74	-1,481.88	1,708.49	1,553.71	154.77	11.039		
4,100.00	4,079.61	4,067.61	4,079.61	18.46	140.29	112.06	627.74	-1,481.88	1,712.64	1,553.95	158.69	10.792		
4,200.00	4,178.99	4,166.99	4,178.99	18.92	143.76	112.40	627.74	-1,481.88	1,716.86	1,554.25	162.61	10.558		
4,300.00	4,278.38	4,266.38	4,278.38	19.37	147.23	112.74	627.74	-1,481.88	1,721.14	1,554.61	166.53	10.335		
4,400.00	4,377.76	4,365.76	4,377.76	19.83	150.70	113.08	627.74	-1,481.88	1,725.47	1,555.03	170.45	10.123		
4,500.00	4,477.14	4,465.14	4,477.14	20.28	154.17	113.42	627.74	-1,481.88	1,729.87	1,555.51	174.37	9.921		
4,600.00	4,576.53	4,564.53	4,576.53	20.74	157.64	113.75	627.74	-1,481.88	1,734.33	1,556.05	178.29	9.728		
4,700.00	4,675.91	4,663.91	4,675.91	21.19	161.11	114.08	627.74	-1,481.88	1,738.85	1,556.64	182.20	9.543		
4,800.00	4,775.29	4,763.29	4,775.29	21.65	164.57	114.41	627.74	-1,481.88	1,743.43	1,557.30	186.12	9.367		
4,900.00	4,874.68	4,862.68	4,874.68	22.10	168.04	114.74	627.74	-1,481.88	1,748.06	1,558.02	190.04	9.198		
5,000.00	4,974.06	4,962.06	4,974.06	22.56	171.51	115.07	627.74	-1,481.88	1,752.75	1,558.79	193.96	9.036		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	
5,100.00	5,073.44	5,061.44	5,073.44	23.02	174.98	115.40	627.74	-1,481.88	1,757.50	1,559.62	197.88	8.881	
5,200.00	5,172.83	5,160.83	5,172.83	23.47	178.45	115.72	627.74	-1,481.88	1,762.31	1,560.51	201.80	8.733	
5,300.00	5,272.21	5,260.21	5,272.21	23.93	181.92	116.04	627.74	-1,481.88	1,767.18	1,561.45	205.72	8.590	
5,400.00	5,371.59	5,359.59	5,371.59	24.39	185.39	116.36	627.74	-1,481.88	1,772.10	1,562.45	209.64	8.453	
5,500.00	5,470.98	5,458.98	5,470.98	24.85	188.86	116.68	627.74	-1,481.88	1,777.07	1,563.51	213.56	8.321	
5,600.00	5,570.36	5,558.36	5,570.36	25.30	192.33	117.00	627.74	-1,481.88	1,782.10	1,564.62	217.49	8.194	
5,700.00	5,669.75	5,657.75	5,669.75	25.76	195.79	117.31	627.74	-1,481.88	1,787.19	1,565.78	221.41	8.072	
5,800.00	5,769.13	5,757.13	5,769.13	26.22	199.26	117.63	627.74	-1,481.88	1,792.32	1,567.00	225.33	7.954	
5,900.00	5,868.51	5,856.51	5,868.51	26.68	202.73	117.94	627.74	-1,481.88	1,797.52	1,568.27	229.25	7.841	
6,000.00	5,967.90	5,955.90	5,967.90	27.14	206.20	118.25	627.74	-1,481.88	1,802.76	1,569.60	233.17	7.732	
6,100.00	6,067.28	6,055.28	6,067.28	27.60	209.67	118.56	627.74	-1,481.88	1,808.06	1,570.98	237.09	7.626	
6,200.00	6,166.66	6,154.66	6,166.66	28.05	213.14	118.86	627.74	-1,481.88	1,813.41	1,572.41	241.01	7.524	
6,300.00	6,266.05	6,254.05	6,266.05	28.51	216.61	119.17	627.74	-1,481.88	1,818.82	1,573.89	244.93	7.426	
6,400.00	6,365.43	6,353.43	6,365.43	28.97	220.08	119.47	627.74	-1,481.88	1,824.27	1,575.42	248.85	7.331	
6,500.00	6,464.81	6,452.81	6,464.81	29.43	223.55	119.77	627.74	-1,481.88	1,829.78	1,577.01	252.77	7.239	
6,600.00	6,564.10	6,552.10	6,564.10	29.89	227.01	119.86	627.74	-1,481.88	1,833.92	1,577.23	256.69	7.145	
6,700.00	6,661.75	6,649.75	6,661.75	30.34	230.42	119.86	627.74	-1,481.88	1,828.27	1,567.73	260.54	7.017	
6,800.00	6,755.38	6,743.38	6,755.38	30.77	233.69	119.86	627.74	-1,481.88	1,811.88	1,547.65	264.23	6.857	
6,900.00	6,842.67	6,830.67	6,842.67	31.17	236.74	119.86	627.74	-1,481.88	1,785.70	1,518.00	267.69	6.671	
7,000.00	6,921.48	6,909.48	6,921.48	31.54	239.49	119.86	627.74	-1,481.88	1,751.02	1,480.16	270.86	6.465	
7,100.00	6,989.86	6,977.86	6,989.86	31.91	241.87	119.86	627.74	-1,481.88	1,709.53	1,435.84	273.69	6.246	
7,200.00	7,046.13	7,034.13	7,046.13	32.35	243.84	119.86	627.74	-1,481.88	1,663.15	1,386.97	276.17	6.022	
7,300.00	7,088.91	7,076.91	7,088.91	32.98	245.33	119.86	627.74	-1,481.88	1,613.98	1,335.67	278.31	5.799	
7,400.00	7,117.14	7,105.14	7,117.14	33.84	246.32	119.86	627.74	-1,481.88	1,564.17	1,284.07	280.10	5.584	
7,500.00	7,130.13	7,118.13	7,130.13	34.90	246.77	119.86	627.74	-1,481.88	1,515.77	1,234.23	281.54	5.384	
7,600.00	7,130.72	7,118.72	7,130.72	36.13	246.79	119.86	627.74	-1,481.88	1,470.83	1,188.09	282.75	5.202	
7,700.00	7,130.29	7,118.29	7,130.29	37.54	246.78	119.86	627.74	-1,481.88	1,431.38	1,147.23	284.14	5.038	
7,800.00	7,129.85	7,117.85	7,129.85	39.12	246.76	119.86	627.74	-1,481.88	1,397.97	1,112.23	285.74	4.892	
7,900.00	7,129.42	7,117.42	7,129.42	40.83	246.75	119.86	627.74	-1,481.88	1,371.06	1,083.55	287.50	4.769	
8,000.00	7,128.98	7,116.98	7,128.98	42.67	246.73	119.86	627.74	-1,481.88	1,351.03	1,061.64	289.39	4.669	
8,100.00	7,128.55	7,116.55	7,128.55	44.62	246.72	119.86	627.74	-1,481.88	1,338.19	1,046.86	291.33	4.593	
8,200.00	7,128.12	7,116.12	7,128.12	46.66	246.70	119.86	627.74	-1,481.88	1,332.75	1,039.47	293.28	4.544	
8,222.61	7,128.02	7,116.02	7,128.02	47.14	246.70	119.86	627.74	-1,481.88	1,332.56	1,038.84	293.72	4.537 CC, ES	
8,300.00	7,127.68	7,115.68	7,127.68	48.79	246.69	119.86	627.74	-1,481.88	1,334.80	1,039.64	295.17	4.522 SF	
8,400.00	7,127.25	7,115.25	7,127.25	50.98	246.67	119.86	627.74	-1,481.88	1,344.31	1,047.37	296.94	4.527	
8,500.00	7,126.81	7,114.81	7,126.81	53.24	246.65	119.86	627.74	-1,481.88	1,361.12	1,062.56	298.57	4.559	
8,600.00	7,126.38	7,114.38	7,126.38	55.56	246.64	119.86	627.74	-1,481.88	1,384.97	1,084.96	300.01	4.616	
8,700.00	7,125.95	7,113.95	7,125.95	57.92	246.62	119.86	627.74	-1,481.88	1,415.49	1,114.24	301.25	4.699	
8,800.00	7,125.51	7,113.51	7,125.51	60.33	246.61	119.86	627.74	-1,481.88	1,452.27	1,149.97	302.30	4.804	
8,900.00	7,125.08	7,113.08	7,125.08	62.77	246.59	119.86	627.74	-1,481.88	1,494.84	1,191.69	303.15	4.931	
9,000.00	7,124.64	7,112.64	7,124.64	65.25	246.58	119.86	627.74	-1,481.88	1,542.74	1,238.91	303.83	5.078	
9,100.00	7,124.21	7,112.21	7,124.21	67.76	246.56	119.86	627.74	-1,481.88	1,595.46	1,291.12	304.35	5.242	
9,200.00	7,123.78	7,111.78	7,123.78	70.29	246.55	119.86	627.74	-1,481.88	1,652.57	1,347.84	304.73	5.423	
9,300.00	7,123.34	7,111.34	7,123.34	72.85	246.53	119.86	627.74	-1,481.88	1,713.61	1,408.61	305.00	5.618	
9,400.00	7,122.91	7,110.91	7,122.91	75.43	246.52	119.86	627.74	-1,481.88	1,778.18	1,473.02	305.16	5.827	
9,500.00	7,122.48	7,110.48	7,122.48	78.03	246.50	119.86	627.74	-1,481.88	1,845.91	1,540.67	305.25	6.047	
9,600.00	7,122.04	7,110.04	7,122.04	80.65	246.49	119.86	627.74	-1,481.88	1,916.47	1,611.20	305.27	6.278	
9,700.00	7,121.61	7,109.61	7,121.61	83.28	246.47	119.86	627.74	-1,481.88	1,989.56	1,684.32	305.24	6.518	
9,800.00	7,121.17	7,109.17	7,121.17	85.93	246.46	119.86	627.74	-1,481.88	2,064.90	1,759.74	305.16	6.767	
9,900.00	7,120.74	7,108.74	7,120.74	88.59	246.44	119.86	627.74	-1,481.88	2,142.26	1,837.21	305.06	7.022	
10,000.00	7,120.31	7,108.31	7,120.31	91.26	246.43	119.86	627.74	-1,481.88	2,221.43	1,916.50	304.93	7.285	
10,100.00	7,119.87	7,107.87	7,119.87	93.95	246.41	119.86	627.74	-1,481.88	2,302.22	1,997.44	304.78	7.554	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,200.00	7,119.44	7,107.44	7,119.44	96.64	246.40	89.63	627.74	-1,481.88	2,384.47	2,079.85	304.62	7.828		
10,300.00	7,119.00	7,107.00	7,119.00	99.34	246.38	89.61	627.74	-1,481.88	2,468.03	2,163.58	304.45	8.107		
10,400.00	7,118.57	7,106.57	7,118.57	102.05	246.37	89.59	627.74	-1,481.88	2,552.77	2,248.50	304.27	8.390		
10,500.00	7,118.14	7,106.14	7,118.14	104.77	246.35	89.58	627.74	-1,481.88	2,638.58	2,334.49	304.09	8.677		
10,600.00	7,117.70	7,105.70	7,117.70	107.50	246.34	89.56	627.74	-1,481.88	2,725.36	2,421.45	303.91	8.968		
10,700.00	7,117.27	7,105.27	7,117.27	110.23	246.32	89.54	627.74	-1,481.88	2,813.01	2,509.28	303.73	9.262		
10,800.00	7,116.83	7,104.83	7,116.83	112.97	246.31	89.52	627.74	-1,481.88	2,901.47	2,597.92	303.55	9.558		
10,900.00	7,116.40	7,104.40	7,116.40	115.72	246.29	89.50	627.74	-1,481.88	2,990.65	2,687.27	303.38	9.858		
11,000.00	7,115.97	7,103.97	7,115.97	118.47	246.28	89.48	627.74	-1,481.88	3,080.49	2,777.29	303.21	10.160		
11,100.00	7,115.53	7,103.53	7,115.53	121.22	246.26	89.46	627.74	-1,481.88	3,170.95	2,867.91	303.04	10.464		
11,200.00	7,115.10	7,103.10	7,115.10	123.98	246.25	89.44	627.74	-1,481.88	3,261.96	2,959.08	302.88	10.770		
11,300.00	7,114.66	7,102.66	7,114.66	126.74	246.23	89.43	627.74	-1,481.88	3,353.48	3,050.76	302.72	11.078		
11,400.00	7,114.23	7,102.23	7,114.23	129.51	246.22	89.41	627.74	-1,481.88	3,445.48	3,142.91	302.57	11.388		
11,500.00	7,113.80	7,101.80	7,113.80	132.29	246.20	89.39	627.74	-1,481.88	3,537.91	3,235.49	302.42	11.699		
11,600.00	7,113.36	7,101.36	7,113.36	135.06	246.19	89.37	627.74	-1,481.88	3,630.74	3,328.46	302.28	12.011		
11,700.00	7,112.93	7,100.93	7,112.93	137.84	246.17	89.35	627.74	-1,481.88	3,723.94	3,421.80	302.14	12.325		
11,800.00	7,112.49	7,100.49	7,112.49	140.62	246.16	89.33	627.74	-1,481.88	3,817.48	3,515.47	302.01	12.640		
11,900.00	7,112.06	7,100.06	7,112.06	143.41	246.14	89.31	627.74	-1,481.88	3,911.35	3,609.46	301.88	12.957		
12,000.00	7,111.63	7,100.37	7,111.63	146.20	246.15	89.30	627.74	-1,481.88	4,005.51	3,703.72	301.79	13.273		
12,100.00	7,111.19	7,100.81	7,111.19	148.99	246.17	89.28	627.74	-1,481.88	4,099.95	3,798.25	301.70	13.589		
12,200.00	7,110.76	7,101.24	7,110.76	151.78	246.18	89.26	627.74	-1,481.88	4,194.64	3,893.02	301.62	13.907		
12,300.00	7,110.33	7,101.67	7,110.33	154.58	246.20	89.24	627.74	-1,481.88	4,289.58	3,988.04	301.54	14.225		
12,400.00	7,109.89	7,102.11	7,109.89	157.37	246.21	89.22	627.74	-1,481.88	4,384.74	4,083.27	301.47	14.544		
12,500.00	7,109.46	7,102.54	7,109.46	160.17	246.23	89.20	627.74	-1,481.88	4,480.11	4,178.71	301.41	14.864		
12,600.00	7,109.02	7,102.98	7,109.02	162.98	246.24	89.18	627.74	-1,481.88	4,575.68	4,274.34	301.34	15.184		
12,700.00	7,108.59	7,103.41	7,108.59	165.78	246.26	89.16	627.74	-1,481.88	4,671.44	4,370.15	301.28	15.505		
12,800.00	7,108.16	7,103.84	7,108.16	168.59	246.27	89.15	627.74	-1,481.88	4,767.37	4,466.14	301.23	15.826		
12,900.00	7,107.72	7,104.28	7,107.72	171.39	246.29	89.13	627.74	-1,481.88	4,863.46	4,562.28	301.18	16.148		
13,000.00	7,107.29	7,104.71	7,107.29	174.20	246.30	89.11	627.74	-1,481.88	4,959.71	4,658.57	301.13	16.470		
13,100.00	7,106.85	7,105.15	7,106.85	177.01	246.32	89.09	627.74	-1,481.88	5,056.10	4,755.01	301.09	16.793		
13,200.00	7,106.42	7,105.58	7,106.42	179.83	246.33	89.07	627.74	-1,481.88	5,152.63	4,851.58	301.05	17.115		
13,300.00	7,105.99	7,106.01	7,105.99	182.64	246.35	89.05	627.74	-1,481.88	5,249.29	4,948.28	301.02	17.438		
13,400.00	7,105.55	7,106.45	7,105.55	185.45	246.36	89.03	627.74	-1,481.88	5,346.08	5,045.09	300.99	17.762		
13,500.00	7,105.12	7,106.88	7,105.12	188.27	246.38	89.02	627.74	-1,481.88	5,442.98	5,142.02	300.96	18.086		
13,600.00	7,104.68	7,107.32	7,104.68	191.09	246.39	89.00	627.74	-1,481.88	5,539.99	5,239.05	300.93	18.409		
13,700.00	7,104.25	7,107.75	7,104.25	193.91	246.41	88.98	627.74	-1,481.88	5,637.10	5,336.19	300.91	18.733		
13,800.00	7,103.82	7,108.18	7,103.82	196.73	246.42	88.96	627.74	-1,481.88	5,734.32	5,433.42	300.89	19.058		
13,900.00	7,103.38	7,108.62	7,103.38	199.55	246.44	88.94	627.74	-1,481.88	5,831.62	5,530.75	300.88	19.382		
14,000.00	7,102.95	7,109.05	7,102.95	202.37	246.45	88.92	627.74	-1,481.88	5,929.02	5,628.16	300.86	19.707		
14,100.00	7,102.51	7,109.49	7,102.51	205.19	246.47	88.90	627.74	-1,481.88	6,026.50	5,725.65	300.85	20.031		
14,200.00	7,102.08	7,109.92	7,102.08	208.02	246.48	88.88	627.74	-1,481.88	6,124.07	5,823.22	300.85	20.356		
14,300.00	7,101.65	7,089.65	7,101.65	210.84	245.78	88.87	627.74	-1,481.88	6,221.71	5,921.59	300.12	20.731		
14,400.00	7,101.21	7,089.21	7,101.21	213.67	245.76	88.85	627.74	-1,481.88	6,319.42	6,019.34	300.09	21.059		
14,500.00	7,100.78	7,088.78	7,100.78	216.50	245.75	88.83	627.74	-1,481.88	6,417.21	6,117.15	300.06	21.387		
14,600.00	7,100.35	7,088.35	7,100.35	219.32	245.73	88.81	627.74	-1,481.88	6,515.06	6,215.03	300.03	21.715		
14,700.00	7,099.91	7,087.91	7,099.91	222.15	245.72	88.79	627.74	-1,481.88	6,612.98	6,312.97	300.00	22.043		
14,800.00	7,099.48	7,087.48	7,099.48	224.98	245.70	88.77	627.74	-1,481.88	6,710.96	6,410.97	299.98	22.371		
14,900.00	7,099.04	7,087.04	7,099.04	227.81	245.69	88.75	627.74	-1,481.88	6,808.99	6,509.03	299.96	22.700		
14,909.96	7,099.00	7,087.00	7,099.00	228.09	245.68	88.75	627.74	-1,481.88	6,818.76	6,518.81	299.96	22.732		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	49.00	3.28	3.28	-77.18	1,135.68	-4,989.85	5,117.70					
100.00	100.00	51.00	100.00	3.28	3.40	-77.18	1,135.68	-4,989.85	5,117.46	5,110.78	6.68	765.700		
200.00	200.00	151.00	200.00	3.34	4.82	-77.18	1,135.68	-4,989.85	5,117.46	5,109.31	8.15	627.703		
300.00	300.00	251.00	300.00	3.44	7.75	-77.18	1,135.68	-4,989.85	5,117.46	5,106.27	11.19	457.301		
400.00	400.00	351.00	400.00	3.60	11.01	-77.18	1,135.68	-4,989.85	5,117.46	5,102.85	14.61	350.241		
500.00	500.00	451.00	500.00	3.81	14.38	-77.18	1,135.68	-4,989.85	5,117.46	5,099.28	18.18	281.426		
600.00	600.00	551.00	600.00	4.04	17.79	89.67	1,135.68	-4,989.85	5,117.46	5,095.62	21.84	234.332		
700.00	699.96	650.96	699.96	4.29	21.23	89.70	1,135.68	-4,989.85	5,117.45	5,091.92	25.53	200.485		
800.00	799.78	750.78	799.78	4.57	24.68	89.76	1,135.68	-4,989.85	5,117.42	5,088.17	29.25	174.952		
900.00	899.34	850.34	899.34	4.88	28.13	89.87	1,135.68	-4,989.85	5,117.39	5,084.39	33.00	155.066		
1,000.00	998.72	949.72	998.72	5.20	31.58	89.99	1,135.68	-4,989.85	5,117.38	5,080.60	36.78	139.150		
1,005.36	1,004.04	955.04	1,004.04	5.22	31.76	90.00	1,135.68	-4,989.85	5,117.38	5,080.40	36.98	138.387		
1,100.00	1,098.10	1,049.10	1,098.10	5.54	35.03	90.12	1,135.68	-4,989.85	5,117.39	5,076.81	40.57	126.125		
1,200.00	1,197.49	1,148.49	1,197.49	5.90	38.49	90.24	1,135.68	-4,989.85	5,117.42	5,073.03	44.39	115.280		
1,300.00	1,296.87	1,247.87	1,296.87	6.28	41.95	90.36	1,135.68	-4,989.85	5,117.48	5,069.26	48.22	106.119		
1,400.00	1,396.25	1,347.25	1,396.25	6.66	45.41	90.49	1,135.68	-4,989.85	5,117.56	5,065.49	52.07	98.283		
1,500.00	1,495.64	1,446.64	1,495.64	7.06	48.87	90.61	1,135.68	-4,989.85	5,117.67	5,061.74	55.93	91.509		
1,600.00	1,595.02	1,546.02	1,595.02	7.46	52.33	90.73	1,135.68	-4,989.85	5,117.80	5,058.01	59.79	85.595		
1,700.00	1,694.40	1,645.40	1,694.40	7.87	55.79	90.86	1,135.68	-4,989.85	5,117.96	5,054.29	63.66	80.391		
1,800.00	1,793.79	1,744.79	1,793.79	8.29	59.26	90.98	1,135.68	-4,989.85	5,118.13	5,050.59	67.54	75.777		
1,900.00	1,893.17	1,844.17	1,893.17	8.71	62.72	91.10	1,135.68	-4,989.85	5,118.34	5,046.91	71.43	71.659		
2,000.00	1,992.55	1,943.55	1,992.55	9.13	66.19	91.23	1,135.68	-4,989.85	5,118.56	5,043.25	75.31	67.962		
2,100.00	2,091.94	2,042.94	2,091.94	9.56	69.65	91.35	1,135.68	-4,989.85	5,118.82	5,039.61	79.21	64.625		
2,200.00	2,191.32	2,142.32	2,191.32	9.99	73.12	91.47	1,135.68	-4,989.85	5,119.09	5,035.99	83.10	61.599		
2,300.00	2,290.70	2,241.70	2,290.70	10.42	76.58	91.60	1,135.68	-4,989.85	5,119.39	5,032.39	87.00	58.841		
2,400.00	2,390.09	2,341.09	2,390.09	10.86	80.05	91.72	1,135.68	-4,989.85	5,119.71	5,028.81	90.91	56.319		
2,500.00	2,489.47	2,440.47	2,489.47	11.29	83.52	91.84	1,135.68	-4,989.85	5,120.06	5,025.25	94.81	54.003		
2,600.00	2,588.86	2,539.86	2,588.86	11.73	86.98	91.97	1,135.68	-4,989.85	5,120.43	5,021.71	98.72	51.870		
2,700.00	2,688.24	2,639.24	2,688.24	12.18	90.45	92.09	1,135.68	-4,989.85	5,120.82	5,018.20	102.62	49.898		
2,800.00	2,787.62	2,738.62	2,787.62	12.62	93.92	92.21	1,135.68	-4,989.85	5,121.24	5,014.71	106.53	48.071		
2,900.00	2,887.01	2,838.01	2,887.01	13.06	97.38	92.34	1,135.68	-4,989.85	5,121.69	5,011.24	110.45	46.373		
3,000.00	2,986.39	2,937.39	2,986.39	13.51	100.85	92.46	1,135.68	-4,989.85	5,122.15	5,007.79	114.36	44.790		
3,100.00	3,085.77	3,036.77	3,085.77	13.95	104.32	92.58	1,135.68	-4,989.85	5,122.64	5,004.37	118.27	43.312		
3,200.00	3,185.16	3,136.16	3,185.16	14.40	107.79	92.71	1,135.68	-4,989.85	5,123.16	5,000.97	122.19	41.928		
3,300.00	3,284.54	3,235.54	3,284.54	14.85	111.26	92.83	1,135.68	-4,989.85	5,123.70	4,997.59	126.11	40.630		
3,400.00	3,383.92	3,334.92	3,383.92	15.30	114.72	92.95	1,135.68	-4,989.85	5,124.26	4,994.24	130.02	39.411		
3,500.00	3,483.31	3,434.31	3,483.31	15.75	118.19	93.07	1,135.68	-4,989.85	5,124.84	4,990.90	133.94	38.262		
3,600.00	3,582.69	3,533.69	3,582.69	16.20	121.66	93.20	1,135.68	-4,989.85	5,125.45	4,987.60	137.86	37.179		
3,700.00	3,682.07	3,633.07	3,682.07	16.65	125.13	93.32	1,135.68	-4,989.85	5,126.09	4,984.31	141.78	36.156		
3,800.00	3,781.46	3,732.46	3,781.46	17.10	128.60	93.44	1,135.68	-4,989.85	5,126.75	4,981.05	145.70	35.187		
3,900.00	3,880.84	3,831.84	3,880.84	17.56	132.07	93.57	1,135.68	-4,989.85	5,127.43	4,977.81	149.62	34.270		
4,000.00	3,980.22	3,931.22	3,980.22	18.01	135.53	93.69	1,135.68	-4,989.85	5,128.13	4,974.59	153.54	33.399		
4,100.00	4,079.61	4,030.61	4,079.61	18.46	139.00	93.81	1,135.68	-4,989.85	5,128.86	4,971.40	157.46	32.572		
4,200.00	4,178.99	4,129.99	4,178.99	18.92	142.47	93.93	1,135.68	-4,989.85	5,129.62	4,968.23	161.38	31.785		
4,300.00	4,278.38	4,229.38	4,278.38	19.37	145.94	94.06	1,135.68	-4,989.85	5,130.40	4,965.09	165.31	31.035		
4,400.00	4,377.76	4,328.76	4,377.76	19.83	149.41	94.18	1,135.68	-4,989.85	5,131.20	4,961.97	169.23	30.321		
4,500.00	4,477.14	4,428.14	4,477.14	20.28	152.88	94.30	1,135.68	-4,989.85	5,132.02	4,958.87	173.15	29.638		
4,600.00	4,576.53	4,527.53	4,576.53	20.74	156.35	94.43	1,135.68	-4,989.85	5,132.87	4,955.79	177.08	28.987		
4,700.00	4,675.91	4,626.91	4,675.91	21.19	159.81	94.55	1,135.68	-4,989.85	5,133.74	4,952.74	181.00	28.363		
4,800.00	4,775.29	4,726.29	4,775.29	21.65	163.28	94.67	1,135.68	-4,989.85	5,134.64	4,949.71	184.93	27.766		
4,900.00	4,874.68	4,825.68	4,874.68	22.10	166.75	94.79	1,135.68	-4,989.85	5,135.56	4,946.71	188.85	27.194		
5,000.00	4,974.06	4,925.06	4,974.06	22.56	170.22	94.92	1,135.68	-4,989.85	5,136.50	4,943.73	192.78	26.645		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,100.00	5,073.44	5,024.44	5,073.44	23.02	173.69	95.04	1,135.68	-4,989.85	5,137.47	4,940.77	196.70	26.118		
5,200.00	5,172.83	5,123.83	5,172.83	23.47	177.16	95.16	1,135.68	-4,989.85	5,138.46	4,937.84	200.63	25.612		
5,300.00	5,272.21	5,223.21	5,272.21	23.93	180.63	95.28	1,135.68	-4,989.85	5,139.48	4,934.93	204.55	25.126		
5,400.00	5,371.59	5,322.59	5,371.59	24.39	184.10	95.41	1,135.68	-4,989.85	5,140.52	4,932.04	208.48	24.657		
5,500.00	5,470.98	5,421.98	5,470.98	24.85	187.56	95.53	1,135.68	-4,989.85	5,141.58	4,929.18	212.40	24.207		
5,600.00	5,570.36	5,521.36	5,570.36	25.30	191.03	95.65	1,135.68	-4,989.85	5,142.67	4,926.34	216.33	23.772		
5,700.00	5,669.75	5,620.75	5,669.75	25.76	194.50	95.77	1,135.68	-4,989.85	5,143.78	4,923.52	220.26	23.354		
5,800.00	5,769.13	5,720.13	5,769.13	26.22	197.97	95.89	1,135.68	-4,989.85	5,144.91	4,920.73	224.18	22.950		
5,900.00	5,868.51	5,819.51	5,868.51	26.68	201.44	96.02	1,135.68	-4,989.85	5,146.07	4,917.96	228.11	22.560		
6,000.00	5,967.90	5,918.90	5,967.90	27.14	204.91	96.14	1,135.68	-4,989.85	5,147.25	4,915.21	232.04	22.183		
6,100.00	6,067.28	6,018.28	6,067.28	27.60	208.38	96.26	1,135.68	-4,989.85	5,148.45	4,912.49	235.96	21.819		
6,200.00	6,166.66	6,117.66	6,166.66	28.05	211.85	96.38	1,135.68	-4,989.85	5,149.68	4,909.79	239.89	21.467		
6,300.00	6,266.05	6,217.05	6,266.05	28.51	215.32	96.50	1,135.68	-4,989.85	5,150.93	4,907.11	243.82	21.126		
6,400.00	6,365.43	6,316.43	6,365.43	28.97	218.79	96.63	1,135.68	-4,989.85	5,152.21	4,904.46	247.74	20.796		
6,500.00	6,464.81	6,415.81	6,464.81	29.43	222.26	96.75	1,135.68	-4,989.85	5,153.51	4,901.83	251.67	20.477		
6,600.00	6,564.10	6,515.10	6,564.10	29.89	225.72	96.87	1,135.68	-4,989.85	5,153.00	4,897.40	255.60	20.161		
6,700.00	6,661.75	6,612.75	6,661.75	30.34	229.13	96.99	1,135.68	-4,989.85	5,153.71	4,890.26	259.46	19.810		
6,800.00	6,755.38	6,706.38	6,755.38	30.77	232.40	97.11	1,135.68	-4,989.85	5,152.18	4,884.03	263.16	19.426		
6,900.00	6,842.67	6,806.33	6,842.67	31.17	235.89	97.23	1,135.68	-4,989.85	5,151.14	4,874.04	267.05	19.089		
7,000.00	6,921.48	6,872.48	6,921.48	31.54	238.20	97.35	1,135.68	-4,989.85	5,150.17	4,864.93	270.74	18.602		
7,100.00	6,989.86	6,940.86	6,989.86	31.91	240.58	97.47	1,135.68	-4,989.85	5,149.35	4,856.67	274.28	18.178		
7,200.00	7,046.13	7,002.87	7,046.13	32.35	242.75	97.59	1,135.68	-4,989.85	5,148.67	4,848.26	277.74	17.744		
7,300.00	7,088.91	7,039.91	7,088.91	32.78	244.04	97.71	1,135.68	-4,989.85	5,148.11	4,840.03	281.11	17.346		
7,400.00	7,117.14	7,068.14	7,117.14	33.19	245.03	97.83	1,135.68	-4,989.85	5,147.67	4,832.06	284.46	16.951		
7,500.00	7,130.13	7,081.13	7,130.13	33.59	245.48	97.95	1,135.68	-4,989.85	5,147.34	4,824.46	287.74	16.580		
7,600.00	7,130.72	7,081.72	7,130.72	33.98	245.50	98.07	1,135.68	-4,989.85	5,147.11	4,817.11	290.96	16.230		
7,700.00	7,130.29	7,081.29	7,130.29	34.36	245.48	98.19	1,135.68	-4,989.85	5,146.97	4,810.03	294.11	15.881		
7,800.00	7,129.85	7,080.85	7,129.85	34.74	245.47	98.31	1,135.68	-4,989.85	5,146.91	4,803.16	297.21	15.532		
7,900.00	7,129.42	7,080.42	7,129.42	35.12	245.45	98.43	1,135.68	-4,989.85	5,146.93	4,796.43	300.26	15.180		
8,000.00	7,128.98	7,079.98	7,128.98	35.49	245.44	98.55	1,135.68	-4,989.85	5,147.01	4,789.84	303.26	14.828		
8,100.00	7,128.55	7,079.55	7,128.55	35.87	245.42	98.67	1,135.68	-4,989.85	5,147.14	4,783.41	306.21	14.475		
8,200.00	7,128.12	7,079.12	7,128.12	36.25	245.41	98.79	1,135.68	-4,989.85	5,147.31	4,777.14	309.11	14.121		
8,300.00	7,127.68	7,078.68	7,127.68	36.63	245.39	98.91	1,135.68	-4,989.85	5,147.52	4,771.01	311.96	13.766		
8,400.00	7,127.25	7,078.25	7,127.25	37.01	245.38	99.03	1,135.68	-4,989.85	5,147.76	4,765.01	314.76	13.412		
8,500.00	7,126.81	7,077.81	7,126.81	37.39	245.36	99.15	1,135.68	-4,989.85	5,148.03	4,759.14	317.51	13.057		
8,600.00	7,126.38	7,077.38	7,126.38	37.77	245.35	99.27	1,135.68	-4,989.85	5,148.34	4,753.41	320.21	12.702		
8,700.00	7,125.95	7,076.95	7,125.95	38.15	245.33	99.39	1,135.68	-4,989.85	5,148.69	4,747.84	322.86	12.348		
8,800.00	7,125.51	7,076.51	7,125.51	38.53	245.32	99.51	1,135.68	-4,989.85	5,149.07	4,742.41	325.46	11.995		
8,900.00	7,125.08	7,076.08	7,125.08	38.91	245.30	99.63	1,135.68	-4,989.85	5,149.48	4,737.11	328.01	11.643		
9,000.00	7,124.64	7,075.64	7,124.64	39.29	245.29	99.75	1,135.68	-4,989.85	5,149.91	4,731.96	330.51	11.293		
9,100.00	7,124.21	7,075.21	7,124.21	39.67	245.27	99.87	1,135.68	-4,989.85	5,150.37	4,726.96	332.96	10.945		
9,200.00	7,123.78	7,074.78	7,123.78	40.05	245.26	99.99	1,135.68	-4,989.85	5,150.85	4,722.11	335.36	10.600		
9,300.00	7,123.34	7,074.34	7,123.34	40.43	245.24	100.11	1,135.68	-4,989.85	5,151.35	4,717.41	337.71	10.258		
9,400.00	7,122.91	7,073.91	7,122.91	40.81	245.23	100.23	1,135.68	-4,989.85	5,151.87	4,712.86	340.01	9.920		
9,500.00	7,122.48	7,073.48	7,122.48	41.19	245.21	100.35	1,135.68	-4,989.85	5,152.41	4,708.46	342.26	9.586		
9,600.00	7,122.04	7,073.04	7,122.04	41.57	245.20	100.47	1,135.68	-4,989.85	5,152.97	4,704.11	344.46	9.258		
9,700.00	7,121.61	7,072.61	7,121.61	41.95	245.18	100.59	1,135.68	-4,989.85	5,153.55	4,700.01	346.61	8.935		
9,800.00	7,121.17	7,072.17	7,121.17	42.33	245.17	100.71	1,135.68	-4,989.85	5,154.15	4,696.06	348.71	8.619		
9,900.00	7,120.74	7,071.74	7,120.74	42.71	245.15	100.83	1,135.68	-4,989.85	5,154.77	4,692.26	350.76	8.310		
10,000.00	7,120.31	7,071.31	7,120.31	43.09	245.14	100.95	1,135.68	-4,989.85	5,155.41	4,688.51	352.76	8.009		
10,100.00	7,119.87	7,070.87	7,119.87	43.47	245.12	101.07	1,135.68	-4,989.85	5,156.07	4,684.91	354.71	7.716		
10,200.00	7,119.44	7,070.44	7,119.44	43.85	245.11	101.19	1,135.68	-4,989.85	5,156.75	4,681.46	356.61	7.433		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	7,070.00	7,119.00	99.34	245.09	90.19	1,135.68	-4,989.85	2,350.22	2,022.00	328.22	7.161		
10,400.00	7,118.57	7,069.57	7,118.57	102.05	245.08	90.18	1,135.68	-4,989.85	2,290.90	1,958.84	332.06	6.899		
10,500.00	7,118.14	7,069.14	7,118.14	104.77	245.06	90.16	1,135.68	-4,989.85	2,234.49	1,898.44	336.04	6.649		
10,600.00	7,117.70	7,068.70	7,117.70	107.50	245.05	90.15	1,135.68	-4,989.85	2,181.20	1,841.06	340.13	6.413		
10,700.00	7,117.27	7,068.27	7,117.27	110.23	245.03	90.14	1,135.68	-4,989.85	2,131.27	1,786.96	344.31	6.190		
10,800.00	7,116.83	7,067.83	7,116.83	112.97	245.02	90.12	1,135.68	-4,989.85	2,084.95	1,736.39	348.55	5.982		
10,900.00	7,116.40	7,067.40	7,116.40	115.72	245.00	90.11	1,135.68	-4,989.85	2,042.47	1,689.65	352.82	5.789		
11,000.00	7,115.97	7,066.97	7,115.97	118.47	244.98	90.10	1,135.68	-4,989.85	2,004.09	1,647.00	357.09	5.612		
11,100.00	7,115.53	7,066.53	7,115.53	121.22	244.97	90.08	1,135.68	-4,989.85	1,970.04	1,608.75	361.29	5.453		
11,200.00	7,115.10	7,066.10	7,115.10	123.98	244.95	90.07	1,135.68	-4,989.85	1,940.56	1,575.16	365.40	5.311		
11,300.00	7,114.66	7,065.66	7,114.66	126.74	244.94	90.06	1,135.68	-4,989.85	1,915.84	1,546.48	369.36	5.187		
11,400.00	7,114.23	7,065.23	7,114.23	129.51	244.92	90.04	1,135.68	-4,989.85	1,896.09	1,522.97	373.11	5.082		
11,500.00	7,113.80	7,064.80	7,113.80	132.29	244.91	90.03	1,135.68	-4,989.85	1,881.44	1,504.82	376.62	4.996		
11,600.00	7,113.36	7,064.36	7,113.36	135.06	244.89	90.02	1,135.68	-4,989.85	1,872.04	1,492.20	379.83	4.929		
11,700.00	7,112.93	7,063.93	7,112.93	137.84	244.88	90.00	1,135.68	-4,989.85	1,867.94	1,485.23	382.71	4.881		
11,726.56	7,112.81	7,063.81	7,112.81	138.58	244.87	90.00	1,135.68	-4,989.85	1,867.75	1,484.33	383.42	4.871	CC	
11,800.00	7,112.49	7,063.49	7,112.49	140.62	244.86	89.99	1,135.68	-4,989.85	1,869.20	1,483.97	385.23	4.852	ES	
11,900.00	7,112.06	7,063.06	7,112.06	143.41	244.85	89.98	1,135.68	-4,989.85	1,875.79	1,488.43	387.36	4.842	SF	
12,000.00	7,111.63	7,062.63	7,111.63	146.20	244.83	89.96	1,135.68	-4,989.85	1,887.66	1,498.56	389.10	4.851		
12,100.00	7,111.19	7,062.19	7,111.19	148.99	244.82	89.95	1,135.68	-4,989.85	1,904.72	1,514.28	390.44	4.878		
12,200.00	7,110.76	7,061.76	7,110.76	151.78	244.80	89.94	1,135.68	-4,989.85	1,926.82	1,535.43	391.39	4.923		
12,300.00	7,110.33	7,061.33	7,110.33	154.58	244.79	89.92	1,135.68	-4,989.85	1,953.80	1,561.83	391.97	4.985		
12,400.00	7,109.89	7,060.89	7,109.89	157.37	244.77	89.91	1,135.68	-4,989.85	1,985.45	1,593.25	392.20	5.062		
12,500.00	7,109.46	7,060.46	7,109.46	160.17	244.76	89.90	1,135.68	-4,989.85	2,021.56	1,629.43	392.12	5.155		
12,600.00	7,109.02	7,060.02	7,109.02	162.98	244.74	89.88	1,135.68	-4,989.85	2,061.89	1,670.13	391.76	5.263		
12,700.00	7,108.59	7,059.59	7,108.59	165.78	244.73	89.87	1,135.68	-4,989.85	2,106.20	1,715.05	391.15	5.385		
12,800.00	7,108.16	7,059.16	7,108.16	168.59	244.71	89.86	1,135.68	-4,989.85	2,154.24	1,763.91	390.33	5.519		
12,900.00	7,107.72	7,058.72	7,107.72	171.39	244.70	89.84	1,135.68	-4,989.85	2,205.77	1,816.45	389.32	5.666		
13,000.00	7,107.29	7,058.29	7,107.29	174.20	244.68	89.83	1,135.68	-4,989.85	2,260.56	1,872.38	388.17	5.824		
13,100.00	7,106.85	7,057.85	7,106.85	177.01	244.67	89.82	1,135.68	-4,989.85	2,318.36	1,931.46	386.90	5.992		
13,200.00	7,106.42	7,057.42	7,106.42	179.83	244.65	89.80	1,135.68	-4,989.85	2,378.97	1,993.43	385.54	6.171		
13,300.00	7,105.99	7,056.99	7,105.99	182.64	244.64	89.79	1,135.68	-4,989.85	2,442.16	2,058.06	384.10	6.358		
13,400.00	7,105.55	7,056.55	7,105.55	185.45	244.62	89.78	1,135.68	-4,989.85	2,507.76	2,125.14	382.62	6.554		
13,500.00	7,105.12	7,056.12	7,105.12	188.27	244.61	89.76	1,135.68	-4,989.85	2,575.56	2,194.46	381.10	6.758		
13,600.00	7,104.68	7,055.68	7,104.68	191.09	244.59	89.75	1,135.68	-4,989.85	2,645.41	2,265.85	379.57	6.970		
13,700.00	7,104.25	7,055.25	7,104.25	193.91	244.58	89.74	1,135.68	-4,989.85	2,717.15	2,339.12	378.03	7.188		
13,800.00	7,103.82	7,054.82	7,103.82	196.73	244.56	89.72	1,135.68	-4,989.85	2,790.62	2,414.13	376.49	7.412		
13,900.00	7,103.38	7,054.38	7,103.38	199.55	244.55	89.71	1,135.68	-4,989.85	2,865.70	2,490.73	374.97	7.643		
14,000.00	7,102.95	7,053.95	7,102.95	202.37	244.53	89.70	1,135.68	-4,989.85	2,942.26	2,568.80	373.47	7.878		
14,100.00	7,102.51	7,053.51	7,102.51	205.19	244.52	89.68	1,135.68	-4,989.85	3,020.20	2,648.21	371.99	8.119		
14,200.00	7,102.08	7,053.08	7,102.08	208.02	244.50	89.67	1,135.68	-4,989.85	3,099.40	2,728.86	370.54	8.365		
14,300.00	7,101.65	7,052.65	7,101.65	210.84	244.48	89.66	1,135.68	-4,989.85	3,179.77	2,810.65	369.12	8.614		
14,400.00	7,101.21	7,052.21	7,101.21	213.67	244.47	89.64	1,135.68	-4,989.85	3,261.23	2,893.49	367.74	8.868		
14,500.00	7,100.78	7,051.78	7,100.78	216.50	244.45	89.63	1,135.68	-4,989.85	3,343.70	2,977.30	366.40	9.126		
14,600.00	7,100.35	7,051.35	7,100.35	219.32	244.44	89.62	1,135.68	-4,989.85	3,427.10	3,062.01	365.09	9.387		
14,700.00	7,099.91	7,050.91	7,099.91	222.15	244.42	89.60	1,135.68	-4,989.85	3,511.36	3,147.55	363.82	9.651		
14,800.00	7,099.48	7,050.48	7,099.48	224.98	244.41	89.59	1,135.68	-4,989.85	3,596.43	3,233.85	362.58	9.919		
14,900.00	7,099.04	7,050.04	7,099.04	227.81	244.39	89.58	1,135.68	-4,989.85	3,682.26	3,320.87	361.39	10.189		
14,909.96	7,099.00	7,050.00	7,099.00	228.09	244.39	89.58	1,135.68	-4,989.85	3,690.85	3,329.58	361.27	10.216		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	47.00	3.28	3.28	-77.27	1,156.46	-5,119.74	5,248.93				
100.00	100.00	53.00	100.00	3.28	3.41	-77.27	1,156.46	-5,119.74	5,248.72	5,242.03	6.69	784.247	
200.00	200.00	153.00	200.00	3.34	4.87	-77.27	1,156.46	-5,119.74	5,248.72	5,240.52	8.20	639.774	
300.00	300.00	253.00	300.00	3.44	7.81	-77.27	1,156.46	-5,119.74	5,248.72	5,237.47	11.25	466.392	
400.00	400.00	353.00	400.00	3.60	11.07	-77.27	1,156.46	-5,119.74	5,248.72	5,234.05	14.68	357.593	
500.00	500.00	453.00	500.00	3.81	14.45	-77.27	1,156.46	-5,119.74	5,248.72	5,230.47	18.25	287.569	
600.00	600.00	553.00	600.00	4.04	17.86	89.58	1,156.46	-5,119.74	5,248.72	5,226.82	21.91	239.590	
700.00	699.96	652.96	699.96	4.29	21.30	89.60	1,156.46	-5,119.74	5,248.71	5,223.11	25.59	205.073	
800.00	799.78	752.78	799.78	4.57	24.75	89.67	1,156.46	-5,119.74	5,248.67	5,219.35	29.32	179.016	
900.00	899.34	852.34	899.34	4.88	28.20	89.77	1,156.46	-5,119.74	5,248.62	5,215.55	33.07	158.710	
1,000.00	998.72	951.72	998.72	5.20	31.65	89.89	1,156.46	-5,119.74	5,248.59	5,211.74	36.85	142.449	
1,089.34	1,087.51	1,040.51	1,087.51	5.50	34.73	90.00	1,156.46	-5,119.74	5,248.58	5,208.34	40.24	130.439	
1,100.00	1,098.10	1,051.10	1,098.10	5.54	35.10	90.01	1,156.46	-5,119.74	5,248.58	5,207.94	40.64	129.137	
1,200.00	1,197.49	1,150.49	1,197.49	5.90	38.56	90.13	1,156.46	-5,119.74	5,248.59	5,204.13	44.46	118.050	
1,300.00	1,296.87	1,249.87	1,296.87	6.28	42.02	90.25	1,156.46	-5,119.74	5,248.63	5,200.34	48.29	108.682	
1,400.00	1,396.25	1,349.25	1,396.25	6.66	45.48	90.37	1,156.46	-5,119.74	5,248.69	5,196.55	52.14	100.667	
1,500.00	1,495.64	1,448.64	1,495.64	7.06	48.94	90.49	1,156.46	-5,119.74	5,248.78	5,192.78	56.00	93.736	
1,600.00	1,595.02	1,548.02	1,595.02	7.46	52.40	90.61	1,156.46	-5,119.74	5,248.89	5,189.02	59.86	87.686	
1,700.00	1,694.40	1,647.40	1,694.40	7.87	55.86	90.73	1,156.46	-5,119.74	5,249.02	5,185.28	63.73	82.360	
1,800.00	1,793.79	1,746.79	1,793.79	8.29	59.33	90.85	1,156.46	-5,119.74	5,249.17	5,181.56	67.61	77.637	
1,900.00	1,893.17	1,846.17	1,893.17	8.71	62.79	90.97	1,156.46	-5,119.74	5,249.35	5,177.85	71.50	73.422	
2,000.00	1,992.55	1,945.55	1,992.55	9.13	66.26	91.10	1,156.46	-5,119.74	5,249.55	5,174.17	75.38	69.637	
2,100.00	2,091.94	2,044.94	2,091.94	9.56	69.72	91.22	1,156.46	-5,119.74	5,249.78	5,170.50	79.28	66.220	
2,200.00	2,191.32	2,144.32	2,191.32	9.99	73.19	91.34	1,156.46	-5,119.74	5,250.02	5,166.85	83.17	63.121	
2,300.00	2,290.70	2,243.70	2,290.70	10.42	76.65	91.46	1,156.46	-5,119.74	5,250.30	5,163.22	87.07	60.298	
2,400.00	2,390.09	2,343.09	2,390.09	10.86	80.12	91.58	1,156.46	-5,119.74	5,250.59	5,159.62	90.98	57.714	
2,500.00	2,489.47	2,442.47	2,489.47	11.29	83.59	91.70	1,156.46	-5,119.74	5,250.91	5,156.03	94.88	55.343	
2,600.00	2,588.86	2,541.86	2,588.86	11.73	87.05	91.82	1,156.46	-5,119.74	5,251.25	5,152.47	98.79	53.158	
2,700.00	2,688.24	2,641.24	2,688.24	12.18	90.52	91.94	1,156.46	-5,119.74	5,251.62	5,148.92	102.69	51.138	
2,800.00	2,787.62	2,740.62	2,787.62	12.62	93.99	92.06	1,156.46	-5,119.74	5,252.01	5,145.40	106.60	49.266	
2,900.00	2,887.01	2,840.01	2,887.01	13.06	97.45	92.18	1,156.46	-5,119.74	5,252.42	5,141.90	110.52	47.526	
3,000.00	2,986.39	2,939.39	2,986.39	13.51	100.92	92.30	1,156.46	-5,119.74	5,252.85	5,138.42	114.43	45.905	
3,100.00	3,085.77	3,038.77	3,085.77	13.95	104.39	92.42	1,156.46	-5,119.74	5,253.31	5,134.97	118.34	44.390	
3,200.00	3,185.16	3,138.16	3,185.16	14.40	107.86	92.54	1,156.46	-5,119.74	5,253.79	5,131.53	122.26	42.973	
3,300.00	3,284.54	3,237.54	3,284.54	14.85	111.33	92.66	1,156.46	-5,119.74	5,254.30	5,128.12	126.18	41.643	
3,400.00	3,383.92	3,336.92	3,383.92	15.30	114.79	92.78	1,156.46	-5,119.74	5,254.83	5,124.74	130.09	40.393	
3,500.00	3,483.31	3,436.31	3,483.31	15.75	118.26	92.90	1,156.46	-5,119.74	5,255.38	5,121.37	134.01	39.216	
3,600.00	3,582.69	3,535.69	3,582.69	16.20	121.73	93.02	1,156.46	-5,119.74	5,255.96	5,118.03	137.93	38.106	
3,700.00	3,682.07	3,635.07	3,682.07	16.65	125.20	93.14	1,156.46	-5,119.74	5,256.55	5,114.71	141.85	37.057	
3,800.00	3,781.46	3,734.46	3,781.46	17.10	128.67	93.26	1,156.46	-5,119.74	5,257.18	5,111.41	145.77	36.065	
3,900.00	3,880.84	3,833.84	3,880.84	17.56	132.13	93.38	1,156.46	-5,119.74	5,257.82	5,108.13	149.69	35.125	
4,000.00	3,980.22	3,933.22	3,980.22	18.01	135.60	93.50	1,156.46	-5,119.74	5,258.49	5,104.88	153.61	34.233	
4,100.00	4,079.61	4,032.61	4,079.61	18.46	139.07	93.62	1,156.46	-5,119.74	5,259.18	5,101.65	157.53	33.385	
4,200.00	4,178.99	4,131.99	4,178.99	18.92	142.54	93.74	1,156.46	-5,119.74	5,259.90	5,098.44	161.45	32.578	
4,300.00	4,278.38	4,231.38	4,278.38	19.37	146.01	93.86	1,156.46	-5,119.74	5,260.64	5,095.26	165.38	31.810	
4,400.00	4,377.76	4,330.76	4,377.76	19.83	149.48	93.98	1,156.46	-5,119.74	5,261.40	5,092.10	169.30	31.077	
4,500.00	4,477.14	4,430.14	4,477.14	20.28	152.95	94.10	1,156.46	-5,119.74	5,262.18	5,088.96	173.22	30.378	
4,600.00	4,576.53	4,529.53	4,576.53	20.74	156.41	94.21	1,156.46	-5,119.74	5,262.99	5,085.84	177.15	29.710	
4,700.00	4,675.91	4,628.91	4,675.91	21.19	159.88	94.33	1,156.46	-5,119.74	5,263.82	5,082.75	181.07	29.070	
4,800.00	4,775.29	4,728.29	4,775.29	21.65	163.35	94.45	1,156.46	-5,119.74	5,264.68	5,079.68	185.00	28.458	
4,900.00	4,874.68	4,827.68	4,874.68	22.10	166.82	94.57	1,156.46	-5,119.74	5,265.56	5,076.63	188.92	27.872	
5,000.00	4,974.06	4,927.06	4,974.06	22.56	170.29	94.69	1,156.46	-5,119.74	5,266.46	5,073.61	192.85	27.309	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 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	5,073.44	5,026.44	5,073.44	23.02	173.76	94.81	1,156.46	-5,119.74	5,267.38	5,070.61	196.77	26.769		
5,200.00	5,172.83	5,125.83	5,172.83	23.47	177.23	94.93	1,156.46	-5,119.74	5,268.33	5,067.63	200.70	26.250		
5,300.00	5,272.21	5,225.21	5,272.21	23.93	180.70	95.05	1,156.46	-5,119.74	5,269.30	5,064.68	204.62	25.751		
5,400.00	5,371.59	5,324.59	5,371.59	24.39	184.17	95.17	1,156.46	-5,119.74	5,270.29	5,061.74	208.55	25.271		
5,500.00	5,470.98	5,423.98	5,470.98	24.85	187.63	95.29	1,156.46	-5,119.74	5,271.31	5,058.84	212.47	24.809		
5,600.00	5,570.36	5,523.36	5,570.36	25.30	191.10	95.41	1,156.46	-5,119.74	5,272.35	5,055.95	216.40	24.364		
5,700.00	5,669.75	5,622.75	5,669.75	25.76	194.57	95.53	1,156.46	-5,119.74	5,273.41	5,053.09	220.33	23.935		
5,800.00	5,769.13	5,722.13	5,769.13	26.22	198.04	95.65	1,156.46	-5,119.74	5,274.50	5,050.25	224.25	23.520		
5,900.00	5,868.51	5,821.51	5,868.51	26.68	201.51	95.77	1,156.46	-5,119.74	5,275.61	5,047.43	228.18	23.120		
6,000.00	5,967.90	5,920.90	5,967.90	27.14	204.98	95.89	1,156.46	-5,119.74	5,276.74	5,044.63	232.11	22.734		
6,100.00	6,067.28	6,020.28	6,067.28	27.60	208.45	96.00	1,156.46	-5,119.74	5,277.90	5,041.86	236.03	22.361		
6,200.00	6,166.66	6,119.66	6,166.66	28.05	211.92	96.12	1,156.46	-5,119.74	5,279.07	5,039.11	239.96	22.000		
6,300.00	6,266.05	6,219.05	6,266.05	28.51	215.39	96.24	1,156.46	-5,119.74	5,280.28	5,036.39	243.89	21.650		
6,400.00	6,365.43	6,318.43	6,365.43	28.97	218.86	96.36	1,156.46	-5,119.74	5,281.50	5,033.68	247.82	21.312		
6,500.00	6,464.81	6,417.81	6,464.81	29.43	222.33	96.48	1,156.46	-5,119.74	5,282.75	5,031.00	251.74	20.985		
6,600.00	6,564.10	6,517.10	6,564.10	29.89	225.79	96.30	1,156.46	-5,119.74	5,282.18	5,026.52	255.67	20.660		
6,700.00	6,661.75	6,614.75	6,661.75	30.34	229.20	43.54	1,156.46	-5,119.74	5,268.82	5,009.30	259.53	20.302		
6,800.00	6,755.38	6,708.38	6,755.38	30.77	232.47	36.90	1,156.46	-5,119.74	5,241.19	4,977.96	263.23	19.911		
6,900.00	6,842.67	6,804.33	6,842.67	31.17	235.82	35.12	1,156.46	-5,119.74	5,200.02	4,933.03	266.98	19.477		
7,000.00	6,921.48	6,874.48	6,921.48	31.54	238.27	35.88	1,156.46	-5,119.74	5,146.39	4,876.58	269.81	19.074		
7,100.00	6,989.86	6,942.86	6,989.86	31.91	240.65	38.74	1,156.46	-5,119.74	5,081.69	4,809.14	272.55	18.645		
7,200.00	7,046.13	7,000.87	7,046.13	32.35	242.68	43.99	1,156.46	-5,119.74	5,007.57	4,732.66	274.91	18.215		
7,300.00	7,088.91	7,041.91	7,088.91	32.98	244.11	52.47	1,156.46	-5,119.74	4,925.92	4,649.26	276.66	17.805		
7,400.00	7,117.14	7,070.14	7,117.14	33.84	245.10	65.38	1,156.46	-5,119.74	4,838.78	4,560.81	277.97	17.408		
7,500.00	7,130.13	7,083.13	7,130.13	34.90	245.55	83.24	1,156.46	-5,119.74	4,748.33	4,469.58	278.75	17.034		
7,600.00	7,130.72	7,083.72	7,130.72	36.13	245.57	90.56	1,156.46	-5,119.74	4,656.82	4,377.70	279.12	16.684		
7,700.00	7,130.29	7,083.29	7,130.29	37.54	245.55	90.55	1,156.46	-5,119.74	4,565.60	4,286.09	279.51	16.334		
7,800.00	7,129.85	7,082.85	7,129.85	39.12	245.54	90.53	1,156.46	-5,119.74	4,474.76	4,194.79	279.97	15.983		
7,900.00	7,129.42	7,082.42	7,129.42	40.83	245.52	90.52	1,156.46	-5,119.74	4,384.32	4,103.82	280.49	15.631		
8,000.00	7,128.98	7,081.98	7,128.98	42.67	245.51	90.51	1,156.46	-5,119.74	4,294.30	4,013.21	281.09	15.277		
8,100.00	7,128.55	7,081.55	7,128.55	44.62	245.49	90.49	1,156.46	-5,119.74	4,204.73	3,922.96	281.77	14.923		
8,200.00	7,128.12	7,081.12	7,128.12	46.66	245.48	90.48	1,156.46	-5,119.74	4,115.64	3,833.11	282.53	14.567		
8,300.00	7,127.68	7,080.68	7,127.68	48.79	245.46	90.47	1,156.46	-5,119.74	4,027.07	3,743.69	283.38	14.211		
8,400.00	7,127.25	7,080.25	7,127.25	50.98	245.45	90.45	1,156.46	-5,119.74	3,939.04	3,654.72	284.32	13.854		
8,500.00	7,126.81	7,079.81	7,126.81	53.24	245.43	90.44	1,156.46	-5,119.74	3,851.60	3,566.24	285.36	13.497		
8,600.00	7,126.38	7,079.38	7,126.38	55.56	245.42	90.43	1,156.46	-5,119.74	3,764.78	3,478.28	286.50	13.141		
8,700.00	7,125.95	7,078.95	7,125.95	57.92	245.40	90.42	1,156.46	-5,119.74	3,678.63	3,390.88	287.75	12.784		
8,800.00	7,125.51	7,078.51	7,125.51	60.33	245.39	90.40	1,156.46	-5,119.74	3,593.20	3,304.08	289.11	12.428		
8,900.00	7,125.08	7,078.08	7,125.08	62.77	245.37	90.39	1,156.46	-5,119.74	3,508.53	3,217.94	290.60	12.074		
9,000.00	7,124.64	7,077.64	7,124.64	65.25	245.36	90.38	1,156.46	-5,119.74	3,424.70	3,132.50	292.20	11.720		
9,100.00	7,124.21	7,077.21	7,124.21	67.76	245.34	90.36	1,156.46	-5,119.74	3,341.75	3,047.82	293.94	11.369		
9,200.00	7,123.78	7,076.78	7,123.78	70.29	245.33	90.35	1,156.46	-5,119.74	3,259.77	2,963.96	295.81	11.020		
9,300.00	7,123.34	7,076.34	7,123.34	72.85	245.31	90.34	1,156.46	-5,119.74	3,178.81	2,881.00	297.81	10.674		
9,400.00	7,122.91	7,075.91	7,122.91	75.43	245.30	90.32	1,156.46	-5,119.74	3,098.96	2,799.00	299.96	10.331		
9,500.00	7,122.48	7,075.48	7,122.48	78.03	245.28	90.31	1,156.46	-5,119.74	3,020.32	2,718.06	302.26	9.992		
9,600.00	7,122.04	7,075.04	7,122.04	80.65	245.27	90.30	1,156.46	-5,119.74	2,942.97	2,638.26	304.72	9.658		
9,700.00	7,121.61	7,074.61	7,121.61	83.28	245.25	90.28	1,156.46	-5,119.74	2,867.03	2,559.70	307.33	9.329		
9,800.00	7,121.17	7,074.17	7,121.17	85.93	245.24	90.27	1,156.46	-5,119.74	2,792.60	2,482.50	310.10	9.006		
9,900.00	7,120.74	7,073.74	7,120.74	88.59	245.22	90.26	1,156.46	-5,119.74	2,719.81	2,406.77	313.03	8.689		
10,000.00	7,120.31	7,073.31	7,120.31	91.26	245.21	90.24	1,156.46	-5,119.74	2,648.79	2,332.66	316.13	8.379		
10,100.00	7,119.87	7,072.87	7,119.87	93.95	245.19	90.23	1,156.46	-5,119.74	2,579.70	2,260.30	319.39	8.077		
10,200.00	7,119.44	7,072.44	7,119.44	96.64	245.18	90.22	1,156.46	-5,119.74	2,512.69	2,189.87	322.82	7.783		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,300.00	7,119.00	7,072.00	7,119.00	99.34	245.16	90.20	1,156.46	-5,119.74	2,447.93	2,121.52	326.41	7.500		
10,400.00	7,118.57	7,071.57	7,118.57	102.05	245.15	90.19	1,156.46	-5,119.74	2,385.60	2,055.45	330.15	7.226		
10,500.00	7,118.14	7,071.14	7,118.14	104.77	245.13	90.18	1,156.46	-5,119.74	2,325.91	1,991.87	334.04	6.963		
10,600.00	7,117.70	7,070.70	7,117.70	107.50	245.12	90.17	1,156.46	-5,119.74	2,269.05	1,931.00	338.05	6.712		
10,700.00	7,117.27	7,070.27	7,117.27	110.23	245.10	90.15	1,156.46	-5,119.74	2,215.25	1,873.07	342.18	6.474		
10,800.00	7,116.83	7,069.83	7,116.83	112.97	245.08	90.14	1,156.46	-5,119.74	2,164.74	1,818.33	346.41	6.249		
10,900.00	7,116.40	7,069.40	7,116.40	115.72	245.07	90.13	1,156.46	-5,119.74	2,117.75	1,767.05	350.69	6.039		
11,000.00	7,115.97	7,068.97	7,115.97	118.47	245.05	90.11	1,156.46	-5,119.74	2,074.51	1,719.50	355.01	5.843		
11,100.00	7,115.53	7,068.53	7,115.53	121.22	245.04	90.10	1,156.46	-5,119.74	2,035.27	1,675.95	359.33	5.664		
11,200.00	7,115.10	7,068.10	7,115.10	123.98	245.02	90.09	1,156.46	-5,119.74	2,000.27	1,636.68	363.59	5.501		
11,300.00	7,114.66	7,067.66	7,114.66	126.74	245.01	90.07	1,156.46	-5,119.74	1,969.73	1,601.96	367.77	5.356		
11,400.00	7,114.23	7,067.23	7,114.23	129.51	244.99	90.06	1,156.46	-5,119.74	1,943.86	1,572.06	371.80	5.228		
11,500.00	7,113.80	7,066.80	7,113.80	132.29	244.98	90.05	1,156.46	-5,119.74	1,922.84	1,547.20	375.64	5.119		
11,600.00	7,113.36	7,066.36	7,113.36	135.06	244.96	90.03	1,156.46	-5,119.74	1,906.85	1,527.60	379.25	5.028		
11,700.00	7,112.93	7,065.93	7,112.93	137.84	244.95	90.02	1,156.46	-5,119.74	1,896.00	1,513.44	382.56	4.956		
11,800.00	7,112.49	7,065.49	7,112.49	140.62	244.93	90.01	1,156.46	-5,119.74	1,890.39	1,504.83	385.55	4.903		
11,856.28	7,112.25	7,065.25	7,112.25	142.19	244.92	90.00	1,156.46	-5,119.74	1,889.55	1,502.47	387.08	4.882 CC		
11,900.00	7,112.06	7,065.06	7,112.06	143.41	244.92	89.99	1,156.46	-5,119.74	1,890.05	1,501.87	388.19	4.869 ES		
12,000.00	7,111.63	7,064.63	7,111.63	146.20	244.90	89.98	1,156.46	-5,119.74	1,895.01	1,504.57	390.44	4.854 SF		
12,100.00	7,111.19	7,064.19	7,111.19	148.99	244.89	89.97	1,156.46	-5,119.74	1,905.20	1,512.91	392.29	4.857		
12,200.00	7,110.76	7,063.76	7,110.76	151.78	244.87	89.95	1,156.46	-5,119.74	1,920.56	1,526.81	393.75	4.878		
12,300.00	7,110.33	7,063.33	7,110.33	154.58	244.86	89.94	1,156.46	-5,119.74	1,940.95	1,546.14	394.81	4.916		
12,400.00	7,109.89	7,062.89	7,109.89	157.37	244.84	89.93	1,156.46	-5,119.74	1,966.22	1,570.72	395.50	4.971		
12,500.00	7,109.46	7,062.46	7,109.46	160.17	244.83	89.92	1,156.46	-5,119.74	1,996.19	1,600.36	395.83	5.043		
12,600.00	7,109.02	7,062.02	7,109.02	162.98	244.81	89.90	1,156.46	-5,119.74	2,030.64	1,634.81	395.83	5.130		
12,700.00	7,108.59	7,061.59	7,108.59	165.78	244.80	89.89	1,156.46	-5,119.74	2,069.36	1,673.82	395.54	5.232		
12,800.00	7,108.16	7,061.16	7,108.16	168.59	244.78	89.88	1,156.46	-5,119.74	2,112.11	1,717.12	394.99	5.347		
12,900.00	7,107.72	7,060.72	7,107.72	171.39	244.77	89.86	1,156.46	-5,119.74	2,158.64	1,764.43	394.21	5.476		
13,000.00	7,107.29	7,060.29	7,107.29	174.20	244.75	89.85	1,156.46	-5,119.74	2,208.73	1,815.49	393.24	5.617		
13,100.00	7,106.85	7,059.85	7,106.85	177.01	244.74	89.84	1,156.46	-5,119.74	2,262.13	1,870.02	392.10	5.769		
13,200.00	7,106.42	7,059.42	7,106.42	179.83	244.72	89.82	1,156.46	-5,119.74	2,318.61	1,927.77	390.84	5.932		
13,300.00	7,105.99	7,058.99	7,105.99	182.64	244.71	89.81	1,156.46	-5,119.74	2,377.96	1,988.49	389.47	6.106		
13,400.00	7,105.55	7,058.55	7,105.55	185.45	244.69	89.80	1,156.46	-5,119.74	2,439.96	2,051.94	388.03	6.288		
13,500.00	7,105.12	7,058.12	7,105.12	188.27	244.68	89.78	1,156.46	-5,119.74	2,504.43	2,117.91	386.52	6.479		
13,600.00	7,104.68	7,057.68	7,104.68	191.09	244.66	89.77	1,156.46	-5,119.74	2,571.17	2,186.19	384.98	6.679		
13,700.00	7,104.25	7,057.25	7,104.25	193.91	244.65	89.76	1,156.46	-5,119.74	2,640.01	2,256.60	383.41	6.886		
13,800.00	7,103.82	7,056.82	7,103.82	196.73	244.63	89.74	1,156.46	-5,119.74	2,710.79	2,328.96	381.83	7.099		
13,900.00	7,103.38	7,056.38	7,103.38	199.55	244.62	89.73	1,156.46	-5,119.74	2,783.36	2,403.11	380.25	7.320		
14,000.00	7,102.95	7,055.95	7,102.95	202.37	244.60	89.72	1,156.46	-5,119.74	2,857.60	2,478.91	378.68	7.546		
14,100.00	7,102.51	7,055.51	7,102.51	205.19	244.58	89.70	1,156.46	-5,119.74	2,933.36	2,556.22	377.13	7.778		
14,200.00	7,102.08	7,055.08	7,102.08	208.02	244.57	89.69	1,156.46	-5,119.74	3,010.54	2,634.93	375.61	8.015		
14,300.00	7,101.65	7,054.65	7,101.65	210.84	244.55	89.68	1,156.46	-5,119.74	3,089.02	2,714.92	374.11	8.257		
14,400.00	7,101.21	7,054.21	7,101.21	213.67	244.54	89.67	1,156.46	-5,119.74	3,168.72	2,796.08	372.64	8.504		
14,500.00	7,100.78	7,053.78	7,100.78	216.50	244.52	89.65	1,156.46	-5,119.74	3,249.54	2,878.34	371.20	8.754		
14,600.00	7,100.35	7,053.35	7,100.35	219.32	244.51	89.64	1,156.46	-5,119.74	3,331.41	2,961.60	369.80	9.009		
14,700.00	7,099.91	7,052.91	7,099.91	222.15	244.49	89.63	1,156.46	-5,119.74	3,414.23	3,045.79	368.44	9.267		
14,800.00	7,099.48	7,052.48	7,099.48	224.98	244.48	89.61	1,156.46	-5,119.74	3,497.96	3,130.84	367.12	9.528		
14,900.00	7,099.04	7,052.04	7,099.04	227.81	244.46	89.60	1,156.46	-5,119.74	3,582.52	3,216.69	365.83	9.793		
14,909.96	7,099.00	7,052.00	7,099.00	228.09	244.46	89.60	1,156.46	-5,119.74	3,590.99	3,225.28	365.71	9.819		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	54.00	3.28	3.28	-93.67	-315.37	-4,917.00	4,927.40					
100.00	100.00	46.00	100.00	3.28	3.38	-93.67	-315.37	-4,917.00	4,927.10	4,920.44	6.66	739.630		
200.00	200.00	146.00	200.00	3.34	4.69	-93.67	-315.37	-4,917.00	4,927.10	4,919.07	8.03	613.863		
300.00	300.00	246.00	300.00	3.44	7.59	-93.67	-315.37	-4,917.00	4,927.10	4,916.07	11.03	446.586		
400.00	400.00	346.00	400.00	3.60	10.84	-93.67	-315.37	-4,917.00	4,927.10	4,912.66	14.44	341.099		
500.00	500.00	446.00	500.00	3.81	14.21	-93.67	-315.37	-4,917.00	4,927.10	4,909.09	18.01	273.513		
600.00	600.00	546.00	600.00	4.04	17.62	73.18	-315.37	-4,917.00	4,927.08	4,905.41	21.67	227.400		
700.00	699.96	645.96	699.96	4.29	21.06	73.22	-315.37	-4,917.00	4,926.37	4,901.02	25.35	194.312		
800.00	799.78	745.78	799.78	4.57	24.51	73.32	-315.37	-4,917.00	4,924.66	4,895.59	29.08	169.363		
900.00	899.34	845.34	899.34	4.88	27.96	73.47	-315.37	-4,917.00	4,921.96	4,889.13	32.83	149.930		
1,000.00	998.72	944.72	998.72	5.20	31.41	73.60	-315.37	-4,917.00	4,918.80	4,882.20	36.60	134.386		
1,100.00	1,098.10	1,044.10	1,098.10	5.54	34.86	73.72	-315.37	-4,917.00	4,915.67	4,875.27	40.40	121.677		
1,200.00	1,197.49	1,143.49	1,197.49	5.90	38.31	73.84	-315.37	-4,917.00	4,912.55	4,868.34	44.22	111.105		
1,300.00	1,296.87	1,242.87	1,296.87	6.28	41.77	73.97	-315.37	-4,917.00	4,909.46	4,861.41	48.05	102.180		
1,400.00	1,396.25	1,342.25	1,396.25	6.66	45.23	74.09	-315.37	-4,917.00	4,906.39	4,854.50	51.89	94.550		
1,500.00	1,495.64	1,441.64	1,495.64	7.06	48.69	74.21	-315.37	-4,917.00	4,903.35	4,847.60	55.75	87.957		
1,600.00	1,595.02	1,541.02	1,595.02	7.46	52.15	74.34	-315.37	-4,917.00	4,900.33	4,840.71	59.61	82.205		
1,700.00	1,694.40	1,640.40	1,694.40	7.87	55.62	74.46	-315.37	-4,917.00	4,897.33	4,833.84	63.48	77.144		
1,800.00	1,793.79	1,739.79	1,793.79	8.29	59.08	74.59	-315.37	-4,917.00	4,894.35	4,826.99	67.36	72.659		
1,900.00	1,893.17	1,839.17	1,893.17	8.71	62.55	74.71	-315.37	-4,917.00	4,891.40	4,820.16	71.24	68.657		
2,000.00	1,992.55	1,938.55	1,992.55	9.13	66.01	74.84	-315.37	-4,917.00	4,888.47	4,813.34	75.13	65.065		
2,100.00	2,091.94	2,037.94	2,091.94	9.56	69.48	74.96	-315.37	-4,917.00	4,885.57	4,806.54	79.02	61.824		
2,200.00	2,191.32	2,137.32	2,191.32	9.99	72.94	75.09	-315.37	-4,917.00	4,882.69	4,799.77	82.92	58.885		
2,300.00	2,290.70	2,236.70	2,290.70	10.42	76.41	75.21	-315.37	-4,917.00	4,879.83	4,793.01	86.82	56.207		
2,400.00	2,390.09	2,336.09	2,390.09	10.86	79.87	75.34	-315.37	-4,917.00	4,876.99	4,786.27	90.72	53.759		
2,500.00	2,489.47	2,435.47	2,489.47	11.29	83.34	75.46	-315.37	-4,917.00	4,874.18	4,779.56	94.62	51.511		
2,600.00	2,588.86	2,534.86	2,588.86	11.73	86.81	75.59	-315.37	-4,917.00	4,871.39	4,772.86	98.53	49.441		
2,700.00	2,688.24	2,634.24	2,688.24	12.18	90.28	75.71	-315.37	-4,917.00	4,868.63	4,766.19	102.44	47.528		
2,800.00	2,787.62	2,733.62	2,787.62	12.62	93.74	75.84	-315.37	-4,917.00	4,865.89	4,759.54	106.35	45.755		
2,900.00	2,887.01	2,833.01	2,887.01	13.06	97.21	75.96	-315.37	-4,917.00	4,863.17	4,752.92	110.26	44.107		
3,000.00	2,986.39	2,932.39	2,986.39	13.51	100.68	76.09	-315.37	-4,917.00	4,860.48	4,746.31	114.17	42.572		
3,100.00	3,085.77	3,031.77	3,085.77	13.95	104.15	76.22	-315.37	-4,917.00	4,857.81	4,739.73	118.08	41.139		
3,200.00	3,185.16	3,131.16	3,185.16	14.40	107.61	76.34	-315.37	-4,917.00	4,855.17	4,733.17	122.00	39.797		
3,300.00	3,284.54	3,230.54	3,284.54	14.85	111.08	76.47	-315.37	-4,917.00	4,852.55	4,726.63	125.92	38.538		
3,400.00	3,383.92	3,329.92	3,383.92	15.30	114.55	76.60	-315.37	-4,917.00	4,849.95	4,720.12	129.83	37.356		
3,500.00	3,483.31	3,429.31	3,483.31	15.75	118.02	76.72	-315.37	-4,917.00	4,847.38	4,713.63	133.75	36.242		
3,600.00	3,582.69	3,528.69	3,582.69	16.20	121.49	76.85	-315.37	-4,917.00	4,844.83	4,707.16	137.67	35.192		
3,700.00	3,682.07	3,628.07	3,682.07	16.65	124.95	76.98	-315.37	-4,917.00	4,842.30	4,700.71	141.59	34.200		
3,800.00	3,781.46	3,727.46	3,781.46	17.10	128.42	77.10	-315.37	-4,917.00	4,839.80	4,694.29	145.51	33.261		
3,900.00	3,880.84	3,826.84	3,880.84	17.56	131.89	77.23	-315.37	-4,917.00	4,837.32	4,687.89	149.43	32.372		
4,000.00	3,980.22	3,926.22	3,980.22	18.01	135.36	77.36	-315.37	-4,917.00	4,834.87	4,681.52	153.35	31.528		
4,100.00	4,079.61	4,025.61	4,079.61	18.46	138.83	77.49	-315.37	-4,917.00	4,832.44	4,675.17	157.27	30.727		
4,200.00	4,178.99	4,124.99	4,178.99	18.92	142.30	77.61	-315.37	-4,917.00	4,830.04	4,668.84	161.19	29.964		
4,300.00	4,278.38	4,224.38	4,278.38	19.37	145.76	77.74	-315.37	-4,917.00	4,827.66	4,662.54	165.12	29.238		
4,400.00	4,377.76	4,323.76	4,377.76	19.83	149.23	77.87	-315.37	-4,917.00	4,825.30	4,656.26	169.04	28.545		
4,500.00	4,477.14	4,423.14	4,477.14	20.28	152.70	78.00	-315.37	-4,917.00	4,822.97	4,650.01	172.96	27.884		
4,600.00	4,576.53	4,522.53	4,576.53	20.74	156.17	78.12	-315.37	-4,917.00	4,820.66	4,643.78	176.89	27.253		
4,700.00	4,675.91	4,621.91	4,675.91	21.19	159.64	78.25	-315.37	-4,917.00	4,818.38	4,637.57	180.81	26.649		
4,800.00	4,775.29	4,721.29	4,775.29	21.65	163.11	78.38	-315.37	-4,917.00	4,816.12	4,631.39	184.74	26.070		
4,900.00	4,874.68	4,820.68	4,874.68	22.10	166.58	78.51	-315.37	-4,917.00	4,813.89	4,625.23	188.66	25.516		
5,000.00	4,974.06	4,920.06	4,974.06	22.56	170.05	78.64	-315.37	-4,917.00	4,811.68	4,619.09	192.59	24.985		
5,100.00	5,073.44	5,019.44	5,073.44	23.02	173.51	78.77	-315.37	-4,917.00	4,809.49	4,612.98	196.51	24.474		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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	5,172.83	5,118.83	5,172.83	23.47	176.98	78.90	-315.37	-4,917.00	4,807.33	4,606.90	200.44	23.984		
5,300.00	5,272.21	5,218.21	5,272.21	23.93	180.45	79.03	-315.37	-4,917.00	4,805.20	4,600.83	204.36	23.513		
5,400.00	5,371.59	5,317.59	5,371.59	24.39	183.92	79.15	-315.37	-4,917.00	4,803.09	4,594.80	208.29	23.060		
5,500.00	5,470.98	5,416.98	5,470.98	24.85	187.39	79.28	-315.37	-4,917.00	4,801.00	4,588.78	212.22	22.623		
5,600.00	5,570.36	5,516.36	5,570.36	25.30	190.86	79.41	-315.37	-4,917.00	4,798.94	4,582.80	216.14	22.203		
5,700.00	5,669.75	5,615.75	5,669.75	25.76	194.33	79.54	-315.37	-4,917.00	4,796.90	4,576.83	220.07	21.797		
5,800.00	5,769.13	5,715.13	5,769.13	26.22	197.80	79.67	-315.37	-4,917.00	4,794.89	4,570.89	224.00	21.406		
5,900.00	5,868.51	5,814.51	5,868.51	26.68	201.27	79.80	-315.37	-4,917.00	4,792.90	4,564.98	227.92	21.028		
6,000.00	5,967.90	5,913.90	5,967.90	27.14	204.74	79.93	-315.37	-4,917.00	4,790.94	4,559.09	231.85	20.664		
6,100.00	6,067.28	6,013.28	6,067.28	27.60	208.20	80.06	-315.37	-4,917.00	4,789.00	4,553.22	235.78	20.311		
6,200.00	6,166.66	6,112.66	6,166.66	28.05	211.67	80.19	-315.37	-4,917.00	4,787.09	4,547.38	239.71	19.971		
6,300.00	6,266.05	6,212.05	6,266.05	28.51	215.14	80.32	-315.37	-4,917.00	4,785.20	4,541.57	243.64	19.641		
6,400.00	6,365.43	6,311.43	6,365.43	28.97	218.61	80.45	-315.37	-4,917.00	4,783.34	4,535.78	247.56	19.322		
6,500.00	6,464.81	6,410.81	6,464.81	29.43	222.08	80.58	-315.37	-4,917.00	4,781.50	4,530.01	251.49	19.013		
6,600.00	6,564.10	6,510.10	6,564.10	29.89	225.55	50.39	-315.37	-4,917.00	4,777.74	4,522.33	255.42	18.706		
6,700.00	6,661.75	6,607.75	6,661.75	30.34	228.96	27.29	-315.37	-4,917.00	4,760.42	4,501.15	259.27	18.361		
6,800.00	6,755.38	6,701.38	6,755.38	30.77	232.22	19.89	-315.37	-4,917.00	4,727.99	4,465.03	262.96	17.980		
6,900.00	6,842.67	6,788.67	6,842.67	31.17	235.27	16.84	-315.37	-4,917.00	4,681.27	4,414.87	266.40	17.572		
7,000.00	6,921.48	6,867.48	6,921.48	31.54	238.02	15.70	-315.37	-4,917.00	4,621.41	4,351.92	269.50	17.148		
7,100.00	6,989.86	6,935.86	6,989.86	31.91	240.41	15.84	-315.37	-4,917.00	4,549.89	4,277.71	272.18	16.716		
7,200.00	7,046.13	7,007.87	7,046.13	32.35	242.92	17.32	-315.37	-4,917.00	4,468.46	4,193.52	274.93	16.253		
7,300.00	7,088.91	7,034.91	7,088.91	32.98	243.87	20.99	-315.37	-4,917.00	4,379.12	4,103.06	276.06	15.863		
7,400.00	7,117.14	7,063.14	7,117.14	33.84	244.85	30.30	-315.37	-4,917.00	4,284.08	4,006.90	277.18	15.456		
7,500.00	7,130.13	7,076.13	7,130.13	34.90	245.30	63.77	-315.37	-4,917.00	4,185.66	3,907.95	277.72	15.072		
7,600.00	7,130.72	7,076.72	7,130.72	36.13	245.33	92.43	-315.37	-4,917.00	4,086.20	3,808.40	277.79	14.709		
7,700.00	7,130.29	7,076.29	7,130.29	37.54	245.31	92.37	-315.37	-4,917.00	3,986.73	3,708.89	277.84	14.349		
7,800.00	7,129.85	7,075.85	7,129.85	39.12	245.29	92.31	-315.37	-4,917.00	3,887.29	3,609.40	277.89	13.988		
7,900.00	7,129.42	7,075.42	7,129.42	40.83	245.28	92.25	-315.37	-4,917.00	3,787.88	3,509.93	277.96	13.628		
8,000.00	7,128.98	7,074.98	7,128.98	42.67	245.26	92.19	-315.37	-4,917.00	3,688.51	3,410.48	278.03	13.267		
8,100.00	7,128.55	7,074.55	7,128.55	44.62	245.25	92.13	-315.37	-4,917.00	3,589.16	3,311.06	278.11	12.906		
8,200.00	7,128.12	7,074.12	7,128.12	46.66	245.23	92.07	-315.37	-4,917.00	3,489.86	3,211.66	278.20	12.544		
8,300.00	7,127.68	7,073.68	7,127.68	48.79	245.22	92.01	-315.37	-4,917.00	3,390.59	3,112.29	278.31	12.183		
8,400.00	7,127.25	7,073.25	7,127.25	50.98	245.20	91.95	-315.37	-4,917.00	3,291.37	3,012.95	278.42	11.821		
8,500.00	7,126.81	7,072.81	7,126.81	53.24	245.19	91.89	-315.37	-4,917.00	3,192.20	2,913.64	278.56	11.460		
8,600.00	7,126.38	7,072.38	7,126.38	55.56	245.17	91.83	-315.37	-4,917.00	3,093.08	2,814.37	278.71	11.098		
8,700.00	7,125.95	7,071.95	7,125.95	57.92	245.16	91.77	-315.37	-4,917.00	2,994.03	2,715.14	278.89	10.736		
8,800.00	7,125.51	7,071.51	7,125.51	60.33	245.14	91.71	-315.37	-4,917.00	2,895.03	2,615.95	279.08	10.373		
8,900.00	7,125.08	7,071.08	7,125.08	62.77	245.13	91.65	-315.37	-4,917.00	2,796.11	2,516.80	279.30	10.011		
9,000.00	7,124.64	7,070.64	7,124.64	65.25	245.11	91.59	-315.37	-4,917.00	2,697.26	2,417.71	279.55	9.648		
9,100.00	7,124.21	7,070.21	7,124.21	67.76	245.10	91.53	-315.37	-4,917.00	2,598.51	2,318.67	279.84	9.286		
9,200.00	7,123.78	7,069.78	7,123.78	70.29	245.08	91.47	-315.37	-4,917.00	2,499.85	2,219.68	280.17	8.923		
9,300.00	7,123.34	7,069.34	7,123.34	72.85	245.07	91.41	-315.37	-4,917.00	2,401.30	2,120.77	280.54	8.560		
9,400.00	7,122.91	7,068.91	7,122.91	75.43	245.05	91.35	-315.37	-4,917.00	2,302.88	2,021.92	280.96	8.196		
9,500.00	7,122.48	7,068.48	7,122.48	78.03	245.04	91.29	-315.37	-4,917.00	2,204.61	1,923.15	281.45	7.833		
9,600.00	7,122.04	7,068.04	7,122.04	80.65	245.02	91.23	-315.37	-4,917.00	2,106.49	1,824.48	282.01	7.469		
9,700.00	7,121.61	7,067.61	7,121.61	83.28	245.01	91.17	-315.37	-4,917.00	2,008.56	1,725.90	282.66	7.106		
9,800.00	7,121.17	7,067.17	7,121.17	85.93	244.99	91.11	-315.37	-4,917.00	1,910.84	1,627.43	283.41	6.742		
9,900.00	7,120.74	7,066.74	7,120.74	88.59	244.98	91.05	-315.37	-4,917.00	1,813.37	1,529.09	284.28	6.379		
10,000.00	7,120.31	7,066.31	7,120.31	91.26	244.96	90.99	-315.37	-4,917.00	1,716.20	1,430.90	285.30	6.015		
10,100.00	7,119.87	7,065.87	7,119.87	93.95	244.95	90.93	-315.37	-4,917.00	1,619.37	1,332.87	286.49	5.652		
10,200.00	7,119.44	7,065.44	7,119.44	96.64	244.93	90.88	-315.37	-4,917.00	1,522.94	1,235.05	287.90	5.290		
10,300.00	7,119.00	7,065.00	7,119.00	99.34	244.92	90.82	-315.37	-4,917.00	1,427.01	1,137.45	289.56	4.928		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	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	7,118.57	7,064.57	7,118.57	102.05	244.90	90.76	-315.37	-4,917.00	1,331.68	1,040.14	291.54	4.568		
10,500.00	7,118.14	7,064.14	7,118.14	104.77	244.89	90.70	-315.37	-4,917.00	1,237.08	943.17	293.91	4.209		
10,600.00	7,117.70	7,063.70	7,117.70	107.50	244.87	90.64	-315.37	-4,917.00	1,143.41	846.64	296.76	3.853		
10,700.00	7,117.27	7,063.27	7,117.27	110.23	244.86	90.58	-315.37	-4,917.00	1,050.90	750.68	300.22	3.500		
10,800.00	7,116.83	7,062.83	7,116.83	112.97	244.84	90.52	-315.37	-4,917.00	959.89	655.46	304.44	3.153		
10,900.00	7,116.40	7,062.40	7,116.40	115.72	244.83	90.46	-315.37	-4,917.00	870.86	561.27	309.60	2.813		
11,000.00	7,115.97	7,061.97	7,115.97	118.47	244.81	90.40	-315.37	-4,917.00	784.48	468.54	315.94	2.483		
11,100.00	7,115.53	7,061.53	7,115.53	121.22	244.80	90.34	-315.37	-4,917.00	701.72	378.00	323.73	2.168		
11,200.00	7,115.10	7,061.10	7,115.10	123.98	244.78	90.28	-315.37	-4,917.00	624.03	290.83	333.21	1.873		
11,300.00	7,114.66	7,060.66	7,114.66	126.74	244.76	90.22	-315.37	-4,917.00	553.56	209.10	344.45	1.607		
11,400.00	7,114.23	7,060.23	7,114.23	129.51	244.75	90.16	-315.37	-4,917.00	493.38	136.36	357.02	1.382	Level 3	
11,500.00	7,113.80	7,059.80	7,113.80	132.29	244.73	90.10	-315.37	-4,917.00	447.70	78.30	369.40	1.212	Level 2	
11,600.00	7,113.36	7,059.36	7,113.36	135.06	244.72	90.04	-315.37	-4,917.00	421.23	42.54	378.69	1.112	Level 2	
11,664.99	7,113.08	7,059.08	7,113.08	136.87	244.71	90.00	-315.37	-4,917.00	416.19	34.65	381.54	1.091	Level 2, CC, ES, SF	
11,700.00	7,112.93	7,058.93	7,112.93	137.84	244.70	89.98	-315.37	-4,917.00	417.66	35.86	381.80	1.094	Level 2	
11,800.00	7,112.49	7,058.49	7,112.49	140.62	244.69	89.92	-315.37	-4,917.00	437.54	59.66	377.88	1.158	Level 2	
11,900.00	7,112.06	7,058.06	7,112.06	143.41	244.67	89.86	-315.37	-4,917.00	477.96	108.83	369.12	1.295	Level 3	
12,000.00	7,111.63	7,057.63	7,111.63	146.20	244.66	89.80	-315.37	-4,917.00	534.27	175.70	358.57	1.490	Level 3	
12,100.00	7,111.19	7,057.19	7,111.19	148.99	244.64	89.74	-315.37	-4,917.00	602.03	253.73	348.31	1.728		
12,200.00	7,110.76	7,056.76	7,110.76	151.78	244.63	89.68	-315.37	-4,917.00	677.82	338.61	339.21	1.998		
12,300.00	7,110.33	7,056.33	7,110.33	154.58	244.61	89.62	-315.37	-4,917.00	759.24	427.75	331.49	2.290		
12,400.00	7,109.89	7,055.89	7,109.89	157.37	244.60	89.56	-315.37	-4,917.00	844.66	519.62	325.04	2.599		
12,500.00	7,109.46	7,055.46	7,109.46	160.17	244.58	89.50	-315.37	-4,917.00	932.98	613.30	319.68	2.918		
12,600.00	7,109.02	7,055.02	7,109.02	162.98	244.57	89.44	-315.37	-4,917.00	1,023.45	708.25	315.20	3.247		
12,700.00	7,108.59	7,054.59	7,108.59	165.78	244.55	89.38	-315.37	-4,917.00	1,115.55	804.09	311.45	3.582		
12,800.00	7,108.16	7,054.16	7,108.16	168.59	244.54	89.32	-315.37	-4,917.00	1,208.90	900.61	308.29	3.921		
12,900.00	7,107.72	7,053.72	7,107.72	171.39	244.52	89.26	-315.37	-4,917.00	1,303.24	997.64	305.60	4.264		
13,000.00	7,107.29	7,053.29	7,107.29	174.20	244.51	89.20	-315.37	-4,917.00	1,398.37	1,095.06	303.31	4.610		
13,100.00	7,106.85	7,052.85	7,106.85	177.01	244.49	89.14	-315.37	-4,917.00	1,494.13	1,192.80	301.33	4.958		
13,200.00	7,106.42	7,052.42	7,106.42	179.83	244.48	89.08	-315.37	-4,917.00	1,590.42	1,290.80	299.62	5.308		
13,300.00	7,105.99	7,051.99	7,105.99	182.64	244.46	89.02	-315.37	-4,917.00	1,687.14	1,389.01	298.13	5.659		
13,400.00	7,105.55	7,051.55	7,105.55	185.45	244.45	88.96	-315.37	-4,917.00	1,784.22	1,487.39	296.83	6.011		
13,500.00	7,105.12	7,051.12	7,105.12	188.27	244.43	88.90	-315.37	-4,917.00	1,881.60	1,585.92	295.68	6.364		
13,600.00	7,104.68	7,050.68	7,104.68	191.09	244.42	88.84	-315.37	-4,917.00	1,979.25	1,684.58	294.67	6.717		
13,700.00	7,104.25	7,050.25	7,104.25	193.91	244.40	88.78	-315.37	-4,917.00	2,077.12	1,783.34	293.77	7.070		
13,800.00	7,103.82	7,049.82	7,103.82	196.73	244.39	88.72	-315.37	-4,917.00	2,175.18	1,882.21	292.97	7.424		
13,900.00	7,103.38	7,049.38	7,103.38	199.55	244.37	88.67	-315.37	-4,917.00	2,273.41	1,981.15	292.26	7.779		
14,000.00	7,102.95	7,048.95	7,102.95	202.37	244.36	88.61	-315.37	-4,917.00	2,371.79	2,080.17	291.62	8.133		
14,100.00	7,102.51	7,048.51	7,102.51	205.19	244.34	88.55	-315.37	-4,917.00	2,470.30	2,179.25	291.05	8.488		
14,200.00	7,102.08	7,048.08	7,102.08	208.02	244.33	88.49	-315.37	-4,917.00	2,568.93	2,278.39	290.53	8.842		
14,300.00	7,101.65	7,047.65	7,101.65	210.84	244.31	88.43	-315.37	-4,917.00	2,667.65	2,377.59	290.07	9.197		
14,400.00	7,101.21	7,047.21	7,101.21	213.67	244.30	88.37	-315.37	-4,917.00	2,766.47	2,476.83	289.65	9.551		
14,500.00	7,100.78	7,046.78	7,100.78	216.50	244.28	88.31	-315.37	-4,917.00	2,865.37	2,576.11	289.26	9.906		
14,600.00	7,100.35	7,046.35	7,100.35	219.32	244.26	88.25	-315.37	-4,917.00	2,964.35	2,675.43	288.92	10.260		
14,700.00	7,099.91	7,045.91	7,099.91	222.15	244.25	88.19	-315.37	-4,917.00	3,063.39	2,774.78	288.61	10.614		
14,800.00	7,099.48	7,045.48	7,099.48	224.98	244.23	88.13	-315.37	-4,917.00	3,162.49	2,874.17	288.32	10.969		
14,900.00	7,099.04	7,045.04	7,099.04	227.81	244.22	88.07	-315.37	-4,917.00	3,261.65	2,973.58	288.06	11.323		
14,909.96	7,099.00	7,045.00	7,099.00	228.09	244.22	88.06	-315.37	-4,917.00	3,271.53	2,983.49	288.04	11.358		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	57.00	3.28	3.28	-111.55	-3,022.91	-7,654.76	8,230.22					
100.00	100.00	43.00	100.00	3.28	3.36	-111.55	-3,022.91	-7,654.76	8,230.02	8,223.37	6.65	1,237.690		
200.00	200.00	143.00	200.00	3.34	4.62	-111.55	-3,022.91	-7,654.76	8,230.02	8,222.07	7.95	1,034.948		
300.00	300.00	243.00	300.00	3.44	7.49	-111.55	-3,022.91	-7,654.76	8,230.02	8,219.09	10.94	752.390		
400.00	400.00	343.00	400.00	3.60	10.74	-111.55	-3,022.91	-7,654.76	8,230.02	8,215.68	14.34	573.721		
500.00	500.00	443.00	500.00	3.81	14.11	-111.55	-3,022.91	-7,654.76	8,230.02	8,212.11	17.91	459.463		
600.00	600.00	543.00	600.00	4.04	17.52	55.30	-3,022.91	-7,654.76	8,229.98	8,208.42	21.56	381.652		
700.00	699.96	642.96	699.96	4.29	20.96	55.34	-3,022.91	-7,654.76	8,228.59	8,203.34	25.25	325.888		
800.00	799.78	742.78	799.78	4.57	24.41	55.43	-3,022.91	-7,654.76	8,225.22	8,196.24	28.97	283.876		
900.00	899.34	842.34	899.34	4.88	27.85	55.57	-3,022.91	-7,654.76	8,219.87	8,187.15	32.73	251.169		
1,000.00	998.72	941.72	998.72	5.20	31.30	55.63	-3,022.91	-7,654.76	8,213.58	8,177.08	36.50	225.040		
1,100.00	1,098.10	1,041.10	1,098.10	5.54	34.75	55.69	-3,022.91	-7,654.76	8,207.30	8,167.01	40.29	203.689		
1,200.00	1,197.49	1,140.49	1,197.49	5.90	38.21	55.76	-3,022.91	-7,654.76	8,201.03	8,156.93	44.11	185.935		
1,300.00	1,296.87	1,239.87	1,296.87	6.28	41.67	55.82	-3,022.91	-7,654.76	8,194.77	8,146.84	47.94	170.952		
1,400.00	1,396.25	1,339.25	1,396.25	6.66	45.13	55.88	-3,022.91	-7,654.76	8,188.52	8,136.75	51.78	158.147		
1,500.00	1,495.64	1,438.64	1,495.64	7.06	48.59	55.95	-3,022.91	-7,654.76	8,182.28	8,126.65	55.63	147.084		
1,600.00	1,595.02	1,538.02	1,595.02	7.46	52.05	56.01	-3,022.91	-7,654.76	8,176.05	8,116.56	59.49	137.434		
1,700.00	1,694.40	1,637.40	1,694.40	7.87	55.51	56.08	-3,022.91	-7,654.76	8,169.84	8,106.48	63.36	128.945		
1,800.00	1,793.79	1,736.79	1,793.79	8.29	58.98	56.14	-3,022.91	-7,654.76	8,163.63	8,096.39	67.23	121.421		
1,900.00	1,893.17	1,836.17	1,893.17	8.71	62.44	56.21	-3,022.91	-7,654.76	8,157.43	8,086.32	71.11	114.710		
2,000.00	1,992.55	1,935.55	1,992.55	9.13	65.91	56.27	-3,022.91	-7,654.76	8,151.24	8,076.24	75.00	108.686		
2,100.00	2,091.94	2,034.94	2,091.94	9.56	69.37	56.33	-3,022.91	-7,654.76	8,145.06	8,066.18	78.89	103.250		
2,200.00	2,191.32	2,134.32	2,191.32	9.99	72.84	56.40	-3,022.91	-7,654.76	8,138.90	8,056.12	82.78	98.321		
2,300.00	2,290.70	2,233.70	2,290.70	10.42	76.30	56.46	-3,022.91	-7,654.76	8,132.74	8,046.07	86.67	93.831		
2,400.00	2,390.09	2,333.09	2,390.09	10.86	79.77	56.53	-3,022.91	-7,654.76	8,126.60	8,036.02	90.57	89.725		
2,500.00	2,489.47	2,432.47	2,489.47	11.29	83.24	56.59	-3,022.91	-7,654.76	8,120.46	8,025.99	94.47	85.956		
2,600.00	2,588.86	2,531.86	2,588.86	11.73	86.70	56.66	-3,022.91	-7,654.76	8,114.33	8,015.96	98.37	82.484		
2,700.00	2,688.24	2,631.24	2,688.24	12.18	90.17	56.72	-3,022.91	-7,654.76	8,108.22	8,005.94	102.28	79.275		
2,800.00	2,787.62	2,730.62	2,787.62	12.62	93.64	56.79	-3,022.91	-7,654.76	8,102.12	7,995.93	106.19	76.302		
2,900.00	2,887.01	2,830.01	2,887.01	13.06	97.11	56.85	-3,022.91	-7,654.76	8,096.02	7,985.93	110.09	73.538		
3,000.00	2,986.39	2,929.39	2,986.39	13.51	100.57	56.92	-3,022.91	-7,654.76	8,089.94	7,975.94	114.00	70.963		
3,100.00	3,085.77	3,028.77	3,085.77	13.95	104.04	56.99	-3,022.91	-7,654.76	8,083.87	7,965.96	117.91	68.559		
3,200.00	3,185.16	3,128.16	3,185.16	14.40	107.51	57.05	-3,022.91	-7,654.76	8,077.81	7,955.98	121.82	66.308		
3,300.00	3,284.54	3,227.54	3,284.54	14.85	110.98	57.12	-3,022.91	-7,654.76	8,071.76	7,946.02	125.74	64.196		
3,400.00	3,383.92	3,326.92	3,383.92	15.30	114.44	57.18	-3,022.91	-7,654.76	8,065.72	7,936.07	129.65	62.212		
3,500.00	3,483.31	3,426.31	3,483.31	15.75	117.91	57.25	-3,022.91	-7,654.76	8,059.69	7,926.12	133.56	60.344		
3,600.00	3,582.69	3,525.69	3,582.69	16.20	121.38	57.31	-3,022.91	-7,654.76	8,053.67	7,916.19	137.48	58.582		
3,700.00	3,682.07	3,625.07	3,682.07	16.65	124.85	57.38	-3,022.91	-7,654.76	8,047.66	7,906.27	141.39	56.917		
3,800.00	3,781.46	3,724.46	3,781.46	17.10	128.32	57.45	-3,022.91	-7,654.76	8,041.66	7,896.35	145.31	55.341		
3,900.00	3,880.84	3,823.84	3,880.84	17.56	131.79	57.51	-3,022.91	-7,654.76	8,035.68	7,886.45	149.23	53.849		
4,000.00	3,980.22	3,923.22	3,980.22	18.01	135.25	57.58	-3,022.91	-7,654.76	8,029.70	7,876.56	153.14	52.432		
4,100.00	4,079.61	4,022.61	4,079.61	18.46	138.72	57.65	-3,022.91	-7,654.76	8,023.74	7,866.67	157.06	51.086		
4,200.00	4,178.99	4,121.99	4,178.99	18.92	142.19	57.71	-3,022.91	-7,654.76	8,017.78	7,856.80	160.98	49.806		
4,300.00	4,278.38	4,221.38	4,278.38	19.37	145.66	57.78	-3,022.91	-7,654.76	8,011.84	7,846.94	164.90	48.586		
4,400.00	4,377.76	4,320.76	4,377.76	19.83	149.13	57.85	-3,022.91	-7,654.76	8,005.91	7,837.09	168.82	47.423		
4,500.00	4,477.14	4,420.14	4,477.14	20.28	152.60	57.91	-3,022.91	-7,654.76	7,999.99	7,827.25	172.74	46.312		
4,600.00	4,576.53	4,519.53	4,576.53	20.74	156.07	57.98	-3,022.91	-7,654.76	7,994.08	7,817.42	176.66	45.251		
4,700.00	4,675.91	4,618.91	4,675.91	21.19	159.53	58.05	-3,022.91	-7,654.76	7,988.18	7,807.60	180.58	44.236		
4,800.00	4,775.29	4,718.29	4,775.29	21.65	163.00	58.11	-3,022.91	-7,654.76	7,982.29	7,797.79	184.50	43.264		
4,900.00	4,874.68	4,817.68	4,874.68	22.10	166.47	58.18	-3,022.91	-7,654.76	7,976.42	7,787.99	188.42	42.332		
5,000.00	4,974.06	4,917.06	4,974.06	22.56	169.94	58.25	-3,022.91	-7,654.76	7,970.55	7,778.20	192.35	41.439		
5,100.00	5,073.44	5,016.44	5,073.44	23.02	173.41	58.32	-3,022.91	-7,654.76	7,964.70	7,768.43	196.27	40.581		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,115.83	5,172.83	23.47	176.88	58.38	-3,022.91	-7,654.76	7,958.85	7,758.66	200.19	39.756		
5,300.00	5,272.21	5,215.21	5,272.21	23.93	180.35	58.45	-3,022.91	-7,654.76	7,953.02	7,748.91	204.11	38.964		
5,400.00	5,371.59	5,314.59	5,371.59	24.39	183.82	58.52	-3,022.91	-7,654.76	7,947.20	7,739.16	208.04	38.201		
5,500.00	5,470.98	5,413.98	5,470.98	24.85	187.29	58.59	-3,022.91	-7,654.76	7,941.39	7,729.43	211.96	37.467		
5,600.00	5,570.36	5,513.36	5,570.36	25.30	190.75	58.66	-3,022.91	-7,654.76	7,935.59	7,719.71	215.88	36.759		
5,700.00	5,669.75	5,612.75	5,669.75	25.76	194.22	58.72	-3,022.91	-7,654.76	7,929.80	7,710.00	219.81	36.076		
5,800.00	5,769.13	5,712.13	5,769.13	26.22	197.69	58.79	-3,022.91	-7,654.76	7,924.03	7,700.30	223.73	35.418		
5,900.00	5,868.51	5,811.51	5,868.51	26.68	201.16	58.86	-3,022.91	-7,654.76	7,918.26	7,690.61	227.65	34.782		
6,000.00	5,967.90	5,910.90	5,967.90	27.14	204.63	58.93	-3,022.91	-7,654.76	7,912.51	7,680.93	231.58	34.168		
6,100.00	6,067.28	6,010.28	6,067.28	27.60	208.10	59.00	-3,022.91	-7,654.76	7,906.77	7,671.26	235.50	33.574		
6,200.00	6,166.66	6,109.66	6,166.66	28.05	211.57	59.07	-3,022.91	-7,654.76	7,901.04	7,661.61	239.43	33.000		
6,300.00	6,266.05	6,209.05	6,266.05	28.51	215.04	59.14	-3,022.91	-7,654.76	7,895.32	7,651.97	243.35	32.444		
6,400.00	6,365.43	6,308.43	6,365.43	28.97	218.51	59.20	-3,022.91	-7,654.76	7,889.61	7,642.33	247.28	31.906		
6,500.00	6,464.81	6,407.81	6,464.81	29.43	221.98	59.27	-3,022.91	-7,654.76	7,883.91	7,632.71	251.20	31.385		
6,600.00	6,564.10	6,507.10	6,564.10	29.89	225.44	28.87	-3,022.91	-7,654.76	7,878.37	7,621.25	255.12	30.873		
6,700.00	6,661.75	6,604.75	6,661.75	30.34	228.85	4.97	-3,022.91	-7,654.76	7,855.87	7,596.90	258.97	30.335		
6,800.00	6,755.38	6,701.62	6,755.38	30.77	232.23	-3.90	-3,022.91	-7,654.76	7,821.04	7,558.27	262.76	29.765		
6,900.00	6,842.67	6,785.67	6,842.67	31.17	235.17	-9.29	-3,022.91	-7,654.76	7,772.72	7,506.65	266.07	29.214		
7,000.00	6,921.48	6,864.48	6,921.48	31.54	237.92	-14.00	-3,022.91	-7,654.76	7,712.12	7,442.99	269.14	28.655		
7,100.00	6,989.86	6,932.86	6,989.86	31.91	240.30	-19.34	-3,022.91	-7,654.76	7,640.76	7,368.97	271.78	28.113		
7,200.00	7,046.13	6,989.13	7,046.13	32.35	242.27	-26.55	-3,022.91	-7,654.76	7,560.40	7,286.45	273.95	27.598		
7,300.00	7,088.91	7,031.91	7,088.91	32.98	243.76	-37.55	-3,022.91	-7,654.76	7,473.07	7,197.48	275.59	27.117		
7,400.00	7,117.14	7,060.14	7,117.14	33.84	244.75	-55.20	-3,022.91	-7,654.76	7,380.94	7,104.26	276.67	26.677		
7,500.00	7,130.13	7,073.13	7,130.13	34.90	245.20	-80.75	-3,022.91	-7,654.76	7,286.31	7,009.12	277.20	26.286		
7,600.00	7,130.72	7,073.72	7,130.72	36.13	245.22	-90.75	-3,022.91	-7,654.76	7,191.34	6,914.05	277.29	25.935		
7,700.00	7,130.29	7,073.29	7,130.29	37.54	245.21	-90.74	-3,022.91	-7,654.76	7,096.52	6,819.16	277.37	25.585		
7,800.00	7,129.85	7,072.85	7,129.85	39.12	245.19	-90.73	-3,022.91	-7,654.76	7,001.85	6,724.37	277.48	25.233		
7,900.00	7,129.42	7,072.42	7,129.42	40.83	245.18	-90.71	-3,022.91	-7,654.76	6,907.33	6,629.69	277.64	24.879		
8,000.00	7,128.98	7,071.98	7,128.98	42.67	245.16	-90.70	-3,022.91	-7,654.76	6,812.96	6,535.13	277.83	24.522		
8,100.00	7,128.55	7,071.55	7,128.55	44.62	245.14	-90.69	-3,022.91	-7,654.76	6,718.76	6,440.70	278.07	24.163		
8,200.00	7,128.12	7,071.12	7,128.12	46.66	245.13	-90.68	-3,022.91	-7,654.76	6,624.73	6,346.39	278.34	23.801		
8,300.00	7,127.68	7,070.68	7,127.68	48.79	245.11	-90.67	-3,022.91	-7,654.76	6,530.87	6,252.21	278.67	23.436		
8,400.00	7,127.25	7,070.25	7,127.25	50.98	245.10	-90.66	-3,022.91	-7,654.76	6,437.20	6,158.16	279.04	23.069		
8,500.00	7,126.81	7,069.81	7,126.81	53.24	245.08	-90.65	-3,022.91	-7,654.76	6,343.73	6,064.26	279.47	22.700		
8,600.00	7,126.38	7,069.38	7,126.38	55.56	245.07	-90.64	-3,022.91	-7,654.76	6,250.45	5,970.51	279.94	22.328		
8,700.00	7,125.95	7,068.95	7,125.95	57.92	245.05	-90.63	-3,022.91	-7,654.76	6,157.39	5,876.91	280.48	21.953		
8,800.00	7,125.51	7,068.51	7,125.51	60.33	245.04	-90.62	-3,022.91	-7,654.76	6,064.54	5,783.48	281.07	21.577		
8,900.00	7,125.08	7,068.08	7,125.08	62.77	245.02	-90.60	-3,022.91	-7,654.76	5,971.93	5,690.21	281.72	21.198		
9,000.00	7,124.64	7,067.64	7,124.64	65.25	245.01	-90.59	-3,022.91	-7,654.76	5,879.56	5,597.13	282.43	20.818		
9,100.00	7,124.21	7,067.21	7,124.21	67.76	244.99	-90.58	-3,022.91	-7,654.76	5,787.44	5,504.24	283.21	20.435		
9,200.00	7,123.78	7,066.78	7,123.78	70.29	244.98	-90.57	-3,022.91	-7,654.76	5,695.59	5,411.54	284.05	20.051		
9,300.00	7,123.34	7,066.34	7,123.34	72.85	244.96	-90.56	-3,022.91	-7,654.76	5,604.02	5,319.05	284.97	19.665		
9,400.00	7,122.91	7,065.91	7,122.91	75.43	244.95	-90.55	-3,022.91	-7,654.76	5,512.74	5,226.79	285.95	19.279		
9,500.00	7,122.48	7,065.48	7,122.48	78.03	244.93	-90.54	-3,022.91	-7,654.76	5,421.77	5,134.76	287.01	18.890		
9,600.00	7,122.04	7,065.04	7,122.04	80.65	244.92	-90.53	-3,022.91	-7,654.76	5,331.12	5,042.98	288.15	18.501		
9,700.00	7,121.61	7,064.61	7,121.61	83.28	244.90	-90.52	-3,022.91	-7,654.76	5,240.81	4,951.46	289.36	18.112		
9,800.00	7,121.17	7,064.17	7,121.17	85.93	244.89	-90.51	-3,022.91	-7,654.76	5,150.86	4,860.21	290.65	17.722		
9,900.00	7,120.74	7,063.74	7,120.74	88.59	244.87	-90.50	-3,022.91	-7,654.76	5,061.29	4,769.26	292.03	17.332		
10,000.00	7,120.31	7,063.31	7,120.31	91.26	244.86	-90.48	-3,022.91	-7,654.76	4,972.12	4,678.63	293.49	16.941		
10,100.00	7,119.87	7,062.87	7,119.87	93.95	244.84	-90.47	-3,022.91	-7,654.76	4,883.36	4,588.32	295.04	16.552		
10,200.00	7,119.44	7,062.44	7,119.44	96.64	244.83	-90.46	-3,022.91	-7,654.76	4,795.05	4,498.37	296.68	16.163		
10,300.00	7,119.00	7,062.00	7,119.00	99.34	244.81	-90.45	-3,022.91	-7,654.76	4,707.20	4,408.79	298.41	15.774		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	7,118.57	7,061.57	7,118.57	102.05	244.80	-90.44	-3,022.91	-7,654.76	4,619.85	4,319.61	300.24	15.387		
10,500.00	7,118.14	7,061.14	7,118.14	104.77	244.78	-90.43	-3,022.91	-7,654.76	4,533.02	4,230.86	302.16	15.002		
10,600.00	7,117.70	7,060.70	7,117.70	107.50	244.77	-90.42	-3,022.91	-7,654.76	4,446.75	4,142.55	304.19	14.618		
10,700.00	7,117.27	7,060.27	7,117.27	110.23	244.75	-90.41	-3,022.91	-7,654.76	4,361.06	4,054.73	306.33	14.237		
10,800.00	7,116.83	7,059.83	7,116.83	112.97	244.74	-90.40	-3,022.91	-7,654.76	4,275.99	3,967.42	308.57	13.857		
10,900.00	7,116.40	7,059.40	7,116.40	115.72	244.72	-90.39	-3,022.91	-7,654.76	4,191.58	3,880.65	310.93	13.481		
11,000.00	7,115.97	7,058.97	7,115.97	118.47	244.71	-90.37	-3,022.91	-7,654.76	4,107.87	3,794.48	313.40	13.108		
11,100.00	7,115.53	7,058.53	7,115.53	121.22	244.69	-90.36	-3,022.91	-7,654.76	4,024.91	3,708.92	315.99	12.738		
11,200.00	7,115.10	7,058.10	7,115.10	123.98	244.68	-90.35	-3,022.91	-7,654.76	3,942.73	3,624.03	318.70	12.371		
11,300.00	7,114.66	7,057.66	7,114.66	126.74	244.66	-90.34	-3,022.91	-7,654.76	3,861.40	3,539.86	321.54	12.009		
11,400.00	7,114.23	7,057.23	7,114.23	129.51	244.64	-90.33	-3,022.91	-7,654.76	3,780.96	3,456.45	324.51	11.651		
11,500.00	7,113.80	7,056.80	7,113.80	132.29	244.63	-90.32	-3,022.91	-7,654.76	3,701.48	3,373.86	327.62	11.298		
11,600.00	7,113.36	7,056.36	7,113.36	135.06	244.61	-90.31	-3,022.91	-7,654.76	3,623.01	3,292.15	330.86	10.950		
11,700.00	7,112.93	7,055.93	7,112.93	137.84	244.60	-90.30	-3,022.91	-7,654.76	3,545.63	3,211.38	334.24	10.608		
11,800.00	7,112.49	7,055.49	7,112.49	140.62	244.58	-90.29	-3,022.91	-7,654.76	3,469.40	3,131.63	337.77	10.271		
11,900.00	7,112.06	7,055.06	7,112.06	143.41	244.57	-90.28	-3,022.91	-7,654.76	3,394.41	3,052.96	341.45	9.941		
12,000.00	7,111.63	7,054.63	7,111.63	146.20	244.55	-90.27	-3,022.91	-7,654.76	3,320.73	2,975.46	345.27	9.618		
12,100.00	7,111.19	7,054.19	7,111.19	148.99	244.54	-90.25	-3,022.91	-7,654.76	3,248.46	2,899.21	349.25	9.301		
12,200.00	7,110.76	7,053.76	7,110.76	151.78	244.52	-90.24	-3,022.91	-7,654.76	3,177.70	2,824.32	353.38	8.992		
12,300.00	7,110.33	7,053.33	7,110.33	154.58	244.51	-90.23	-3,022.91	-7,654.76	3,108.54	2,750.89	357.66	8.691		
12,400.00	7,109.89	7,052.89	7,109.89	157.37	244.49	-90.22	-3,022.91	-7,654.76	3,041.10	2,679.02	362.09	8.399		
12,500.00	7,109.46	7,052.46	7,109.46	160.17	244.48	-90.21	-3,022.91	-7,654.76	2,975.49	2,608.83	366.66	8.115		
12,600.00	7,109.02	7,052.02	7,109.02	162.98	244.46	-90.20	-3,022.91	-7,654.76	2,911.84	2,540.47	371.37	7.841		
12,700.00	7,108.59	7,051.59	7,108.59	165.78	244.45	-90.19	-3,022.91	-7,654.76	2,850.28	2,474.05	376.22	7.576		
12,800.00	7,108.16	7,051.16	7,108.16	168.59	244.43	-90.18	-3,022.91	-7,654.76	2,790.94	2,409.74	381.20	7.322		
12,900.00	7,107.72	7,050.72	7,107.72	171.39	244.42	-90.17	-3,022.91	-7,654.76	2,733.97	2,347.69	386.28	7.078		
13,000.00	7,107.29	7,050.29	7,107.29	174.20	244.40	-90.16	-3,022.91	-7,654.76	2,679.53	2,288.06	391.46	6.845		
13,100.00	7,106.85	7,049.85	7,106.85	177.01	244.39	-90.14	-3,022.91	-7,654.76	2,627.76	2,231.04	396.72	6.624		
13,200.00	7,106.42	7,049.42	7,106.42	179.83	244.37	-90.13	-3,022.91	-7,654.76	2,578.83	2,176.80	402.03	6.414		
13,300.00	7,105.99	7,048.99	7,105.99	182.64	244.36	-90.12	-3,022.91	-7,654.76	2,532.91	2,125.53	407.38	6.218		
13,400.00	7,105.55	7,048.55	7,105.55	185.45	244.34	-90.11	-3,022.91	-7,654.76	2,490.16	2,077.44	412.72	6.034		
13,500.00	7,105.12	7,048.12	7,105.12	188.27	244.33	-90.10	-3,022.91	-7,654.76	2,450.74	2,032.72	418.03	5.863		
13,600.00	7,104.68	7,047.68	7,104.68	191.09	244.31	-90.09	-3,022.91	-7,654.76	2,414.83	1,991.57	423.26	5.705		
13,700.00	7,104.25	7,047.25	7,104.25	193.91	244.30	-90.08	-3,022.91	-7,654.76	2,382.57	1,954.18	428.39	5.562		
13,800.00	7,103.82	7,046.82	7,103.82	196.73	244.28	-90.07	-3,022.91	-7,654.76	2,354.13	1,920.76	433.37	5.432		
13,900.00	7,103.38	7,046.38	7,103.38	199.55	244.27	-90.06	-3,022.91	-7,654.76	2,329.63	1,891.47	438.15	5.317		
14,000.00	7,102.95	7,045.95	7,102.95	202.37	244.25	-90.05	-3,022.91	-7,654.76	2,309.20	1,866.50	442.70	5.216		
14,100.00	7,102.51	7,045.51	7,102.51	205.19	244.24	-90.04	-3,022.91	-7,654.76	2,292.96	1,845.98	446.98	5.130		
14,200.00	7,102.08	7,045.08	7,102.08	208.02	244.22	-90.02	-3,022.91	-7,654.76	2,280.99	1,830.05	450.94	5.058		
14,300.00	7,101.65	7,044.65	7,101.65	210.84	244.21	-90.01	-3,022.91	-7,654.76	2,273.36	1,818.81	454.56	5.001		
14,400.00	7,101.21	7,044.21	7,101.21	213.67	244.19	-90.00	-3,022.91	-7,654.76	2,270.12	1,812.33	457.79	4.959		
14,423.74	7,101.11	7,044.11	7,101.11	214.34	244.19	-90.00	-3,022.91	-7,654.76	2,269.99	1,811.49	458.50	4.951	CC	
14,500.00	7,100.78	7,043.78	7,100.78	216.50	244.18	-89.99	-3,022.91	-7,654.76	2,271.27	1,810.64	460.63	4.931	ES	
14,600.00	7,100.35	7,043.35	7,100.35	219.32	244.16	-89.98	-3,022.91	-7,654.76	2,276.83	1,813.77	463.06	4.917	SF	
14,700.00	7,099.91	7,042.91	7,099.91	222.15	244.15	-89.97	-3,022.91	-7,654.76	2,286.74	1,821.69	465.06	4.917		
14,800.00	7,099.48	7,042.48	7,099.48	224.98	244.13	-89.96	-3,022.91	-7,654.76	2,300.97	1,834.33	466.64	4.931		
14,900.00	7,099.04	7,042.04	7,099.04	227.81	244.11	-89.95	-3,022.91	-7,654.76	2,319.42	1,851.62	467.80	4.958		
14,909.96	7,099.00	7,042.00	7,099.00	228.09	244.11	-89.95	-3,022.91	-7,654.76	2,321.48	1,853.59	467.89	4.962		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	44.00	3.28	3.28	-103.22	-1,531.05	-6,519.14	6,696.66					
100.00	100.00	56.00	100.00	3.28	3.42	-103.22	-1,531.05	-6,519.14	6,696.51	6,689.80	6.71	998.395		
200.00	200.00	156.00	200.00	3.34	4.94	-103.22	-1,531.05	-6,519.14	6,696.51	6,688.23	8.28	808.571		
300.00	300.00	256.00	300.00	3.44	7.90	-103.22	-1,531.05	-6,519.14	6,696.51	6,685.16	11.35	590.050		
400.00	400.00	356.00	400.00	3.60	11.17	-103.22	-1,531.05	-6,519.14	6,696.51	6,681.73	14.78	453.140		
500.00	500.00	456.00	500.00	3.81	14.55	-103.22	-1,531.05	-6,519.14	6,696.51	6,678.16	18.35	364.852		
600.00	600.00	556.00	600.00	4.04	17.97	63.63	-1,531.05	-6,519.14	6,696.48	6,674.47	22.01	304.246		
700.00	699.96	655.96	699.96	4.29	21.41	63.67	-1,531.05	-6,519.14	6,695.40	6,669.70	25.70	260.542		
800.00	799.78	755.78	799.78	4.57	24.86	63.76	-1,531.05	-6,519.14	6,692.77	6,663.34	29.42	227.460		
900.00	899.34	855.34	899.34	4.88	28.30	63.91	-1,531.05	-6,519.14	6,688.60	6,655.43	33.18	201.609		
1,000.00	998.72	954.72	998.72	5.20	31.75	63.99	-1,531.05	-6,519.14	6,683.71	6,646.76	36.95	180.888		
1,100.00	1,098.10	1,054.10	1,098.10	5.54	35.21	64.08	-1,531.05	-6,519.14	6,678.83	6,638.08	40.75	163.914		
1,200.00	1,197.49	1,153.49	1,197.49	5.90	38.66	64.16	-1,531.05	-6,519.14	6,673.97	6,629.41	44.56	149.770		
1,300.00	1,296.87	1,252.87	1,296.87	6.28	42.12	64.25	-1,531.05	-6,519.14	6,669.12	6,620.73	48.39	137.814		
1,400.00	1,396.25	1,352.25	1,396.25	6.66	45.58	64.33	-1,531.05	-6,519.14	6,664.29	6,612.05	52.24	127.582		
1,500.00	1,495.64	1,451.64	1,495.64	7.06	49.04	64.42	-1,531.05	-6,519.14	6,659.47	6,603.38	56.09	118.730		
1,600.00	1,595.02	1,551.02	1,595.02	7.46	52.50	64.51	-1,531.05	-6,519.14	6,654.66	6,594.71	59.95	111.000		
1,700.00	1,694.40	1,650.40	1,694.40	7.87	55.97	64.59	-1,531.05	-6,519.14	6,649.87	6,586.05	63.82	104.194		
1,800.00	1,793.79	1,749.79	1,793.79	8.29	59.43	64.68	-1,531.05	-6,519.14	6,645.10	6,577.40	67.70	98.157		
1,900.00	1,893.17	1,849.17	1,893.17	8.71	62.89	64.76	-1,531.05	-6,519.14	6,640.34	6,568.76	71.58	92.767		
2,000.00	1,992.55	1,948.55	1,992.55	9.13	66.36	64.85	-1,531.05	-6,519.14	6,635.60	6,560.13	75.47	87.927		
2,100.00	2,091.94	2,047.94	2,091.94	9.56	69.83	64.94	-1,531.05	-6,519.14	6,630.87	6,551.51	79.36	83.557		
2,200.00	2,191.32	2,147.32	2,191.32	9.99	73.29	65.02	-1,531.05	-6,519.14	6,626.16	6,542.91	83.25	79.592		
2,300.00	2,290.70	2,246.70	2,290.70	10.42	76.76	65.11	-1,531.05	-6,519.14	6,621.46	6,534.31	87.15	75.979		
2,400.00	2,390.09	2,346.09	2,390.09	10.86	80.22	65.19	-1,531.05	-6,519.14	6,616.78	6,525.73	91.05	72.673		
2,500.00	2,489.47	2,445.47	2,489.47	11.29	83.69	65.28	-1,531.05	-6,519.14	6,612.11	6,517.16	94.95	69.637		
2,600.00	2,588.86	2,544.86	2,588.86	11.73	87.16	65.37	-1,531.05	-6,519.14	6,607.46	6,508.60	98.86	66.840		
2,700.00	2,688.24	2,644.24	2,688.24	12.18	90.62	65.46	-1,531.05	-6,519.14	6,602.82	6,500.06	102.76	64.254		
2,800.00	2,787.62	2,743.62	2,787.62	12.62	94.09	65.54	-1,531.05	-6,519.14	6,598.20	6,491.53	106.67	61.857		
2,900.00	2,887.01	2,843.01	2,887.01	13.06	97.56	65.63	-1,531.05	-6,519.14	6,593.60	6,483.02	110.58	59.628		
3,000.00	2,986.39	2,942.39	2,986.39	13.51	101.03	65.72	-1,531.05	-6,519.14	6,589.00	6,474.51	114.49	57.551		
3,100.00	3,085.77	3,041.77	3,085.77	13.95	104.49	65.80	-1,531.05	-6,519.14	6,584.43	6,466.03	118.40	55.611		
3,200.00	3,185.16	3,141.16	3,185.16	14.40	107.96	65.89	-1,531.05	-6,519.14	6,579.87	6,457.56	122.32	53.794		
3,300.00	3,284.54	3,240.54	3,284.54	14.85	111.43	65.98	-1,531.05	-6,519.14	6,575.33	6,449.10	126.23	52.090		
3,400.00	3,383.92	3,339.92	3,383.92	15.30	114.90	66.07	-1,531.05	-6,519.14	6,570.80	6,440.65	130.14	50.488		
3,500.00	3,483.31	3,439.31	3,483.31	15.75	118.37	66.16	-1,531.05	-6,519.14	6,566.29	6,432.22	134.06	48.980		
3,600.00	3,582.69	3,538.69	3,582.69	16.20	121.83	66.24	-1,531.05	-6,519.14	6,561.79	6,423.81	137.98	47.557		
3,700.00	3,682.07	3,638.07	3,682.07	16.65	125.30	66.33	-1,531.05	-6,519.14	6,557.31	6,415.41	141.90	46.212		
3,800.00	3,781.46	3,737.46	3,781.46	17.10	128.77	66.42	-1,531.05	-6,519.14	6,552.84	6,407.03	145.81	44.940		
3,900.00	3,880.84	3,836.84	3,880.84	17.56	132.24	66.51	-1,531.05	-6,519.14	6,548.39	6,398.66	149.73	43.734		
4,000.00	3,980.22	3,936.22	3,980.22	18.01	135.71	66.60	-1,531.05	-6,519.14	6,543.96	6,390.30	153.65	42.589		
4,100.00	4,079.61	4,035.61	4,079.61	18.46	139.18	66.69	-1,531.05	-6,519.14	6,539.54	6,381.96	157.57	41.502		
4,200.00	4,178.99	4,134.99	4,178.99	18.92	142.65	66.77	-1,531.05	-6,519.14	6,535.14	6,373.64	161.49	40.467		
4,300.00	4,278.38	4,234.38	4,278.38	19.37	146.11	66.86	-1,531.05	-6,519.14	6,530.75	6,365.33	165.41	39.481		
4,400.00	4,377.76	4,333.76	4,377.76	19.83	149.58	66.95	-1,531.05	-6,519.14	6,526.38	6,357.04	169.34	38.541		
4,500.00	4,477.14	4,433.14	4,477.14	20.28	153.05	67.04	-1,531.05	-6,519.14	6,522.02	6,348.76	173.26	37.643		
4,600.00	4,576.53	4,532.53	4,576.53	20.74	156.52	67.13	-1,531.05	-6,519.14	6,517.68	6,340.50	177.18	36.785		
4,700.00	4,675.91	4,631.91	4,675.91	21.19	159.99	67.22	-1,531.05	-6,519.14	6,513.36	6,332.26	181.10	35.965		
4,800.00	4,775.29	4,731.29	4,775.29	21.65	163.46	67.31	-1,531.05	-6,519.14	6,509.05	6,324.03	185.03	35.179		
4,900.00	4,874.68	4,830.68	4,874.68	22.10	166.93	67.40	-1,531.05	-6,519.14	6,504.76	6,315.81	188.95	34.426		
5,000.00	4,974.06	4,930.06	4,974.06	22.56	170.39	67.49	-1,531.05	-6,519.14	6,500.49	6,307.61	192.87	33.703		
5,100.00	5,073.44	5,029.44	5,073.44	23.02	173.86	67.58	-1,531.05	-6,519.14	6,496.23	6,299.43	196.80	33.010		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,200.00	5,172.83	5,128.83	5,172.83	23.47	177.33	67.67	-1,531.05	-6,519.14	6,491.99	6,291.26	200.72	32.343		
5,300.00	5,272.21	5,228.21	5,272.21	23.93	180.80	67.76	-1,531.05	-6,519.14	6,487.76	6,283.11	204.65	31.702		
5,400.00	5,371.59	5,327.59	5,371.59	24.39	184.27	67.85	-1,531.05	-6,519.14	6,483.55	6,274.98	208.57	31.085		
5,500.00	5,470.98	5,426.98	5,470.98	24.85	187.74	67.94	-1,531.05	-6,519.14	6,479.35	6,266.86	212.50	30.491		
5,600.00	5,570.36	5,526.36	5,570.36	25.30	191.21	68.03	-1,531.05	-6,519.14	6,475.18	6,258.75	216.42	29.919		
5,700.00	5,669.75	5,625.75	5,669.75	25.76	194.68	68.12	-1,531.05	-6,519.14	6,471.01	6,250.67	220.35	29.367		
5,800.00	5,769.13	5,725.13	5,769.13	26.22	198.15	68.21	-1,531.05	-6,519.14	6,466.87	6,242.60	224.27	28.835		
5,900.00	5,868.51	5,824.51	5,868.51	26.68	201.62	68.30	-1,531.05	-6,519.14	6,462.74	6,234.54	228.20	28.320		
6,000.00	5,967.90	5,923.90	5,967.90	27.14	205.08	68.39	-1,531.05	-6,519.14	6,458.63	6,226.50	232.13	27.824		
6,100.00	6,067.28	6,023.28	6,067.28	27.60	208.55	68.48	-1,531.05	-6,519.14	6,454.53	6,218.48	236.05	27.344		
6,200.00	6,166.66	6,122.66	6,166.66	28.05	212.02	68.58	-1,531.05	-6,519.14	6,450.45	6,210.47	239.98	26.879		
6,300.00	6,266.05	6,222.05	6,266.05	28.51	215.49	68.67	-1,531.05	-6,519.14	6,446.39	6,202.48	243.91	26.430		
6,400.00	6,365.43	6,321.43	6,365.43	28.97	218.96	68.76	-1,531.05	-6,519.14	6,442.34	6,194.51	247.83	25.995		
6,500.00	6,464.81	6,420.81	6,464.81	29.43	222.43	68.85	-1,531.05	-6,519.14	6,438.31	6,186.55	251.76	25.573		
6,600.00	6,564.10	6,520.10	6,564.10	29.89	225.90	38.55	-1,531.05	-6,519.14	6,432.37	6,176.68	255.68	25.158		
6,700.00	6,661.75	6,617.75	6,661.75	30.34	229.30	15.02	-1,531.05	-6,519.14	6,412.96	6,153.42	259.53	24.709		
6,800.00	6,755.38	6,711.38	6,755.38	30.77	232.57	6.80	-1,531.05	-6,519.14	6,378.60	6,115.38	263.22	24.233		
6,900.00	6,842.67	6,801.33	6,842.67	31.17	235.71	2.43	-1,531.05	-6,519.14	6,330.13	6,063.39	266.74	23.732		
7,000.00	6,921.48	6,877.48	6,921.48	31.54	238.37	-0.77	-1,531.05	-6,519.14	6,268.74	5,999.02	269.72	23.242		
7,100.00	6,989.86	6,945.86	6,989.86	31.91	240.76	-3.87	-1,531.05	-6,519.14	6,195.94	5,923.57	272.38	22.748		
7,200.00	7,046.13	7,002.13	7,046.13	32.35	242.72	-7.80	-1,531.05	-6,519.14	6,113.53	5,838.99	274.54	22.268		
7,300.00	7,088.91	7,044.91	7,088.91	32.98	244.21	-14.20	-1,531.05	-6,519.14	6,023.54	5,747.37	276.17	21.811		
7,400.00	7,117.14	7,073.14	7,117.14	33.84	245.20	-28.09	-1,531.05	-6,519.14	5,928.20	5,650.96	277.23	21.383		
7,500.00	7,130.13	7,086.13	7,130.13	34.90	245.65	-68.10	-1,531.05	-6,519.14	5,829.86	5,552.14	277.71	20.992		
7,600.00	7,130.72	7,086.72	7,130.72	36.13	245.67	-91.79	-1,531.05	-6,519.14	5,730.79	5,453.06	277.73	20.634		
7,700.00	7,130.29	7,086.29	7,130.29	37.54	245.66	-91.76	-1,531.05	-6,519.14	5,631.75	5,354.04	277.72	20.279		
7,800.00	7,129.85	7,085.85	7,129.85	39.12	245.64	-91.73	-1,531.05	-6,519.14	5,532.75	5,255.04	277.71	19.923		
7,900.00	7,129.42	7,085.42	7,129.42	40.83	245.63	-91.70	-1,531.05	-6,519.14	5,433.79	5,156.08	277.71	19.566		
8,000.00	7,128.98	7,084.98	7,128.98	42.67	245.61	-91.67	-1,531.05	-6,519.14	5,334.86	5,057.14	277.72	19.209		
8,100.00	7,128.55	7,084.55	7,128.55	44.62	245.60	-91.63	-1,531.05	-6,519.14	5,235.98	4,958.24	277.74	18.852		
8,200.00	7,128.12	7,084.12	7,128.12	46.66	245.58	-91.60	-1,531.05	-6,519.14	5,137.14	4,859.36	277.77	18.494		
8,300.00	7,127.68	7,083.68	7,127.68	48.79	245.57	-91.57	-1,531.05	-6,519.14	5,038.34	4,760.53	277.82	18.136		
8,400.00	7,127.25	7,083.25	7,127.25	50.98	245.55	-91.54	-1,531.05	-6,519.14	4,939.60	4,661.73	277.87	17.777		
8,500.00	7,126.81	7,082.81	7,126.81	53.24	245.54	-91.51	-1,531.05	-6,519.14	4,840.90	4,562.96	277.94	17.417		
8,600.00	7,126.38	7,082.38	7,126.38	55.56	245.52	-91.48	-1,531.05	-6,519.14	4,742.26	4,464.24	278.02	17.057		
8,700.00	7,125.95	7,081.95	7,125.95	57.92	245.51	-91.45	-1,531.05	-6,519.14	4,643.68	4,365.55	278.12	16.697		
8,800.00	7,125.51	7,081.51	7,125.51	60.33	245.49	-91.41	-1,531.05	-6,519.14	4,545.16	4,266.92	278.24	16.335		
8,900.00	7,125.08	7,081.08	7,125.08	62.77	245.48	-91.38	-1,531.05	-6,519.14	4,446.70	4,168.32	278.38	15.974		
9,000.00	7,124.64	7,080.64	7,124.64	65.25	245.46	-91.35	-1,531.05	-6,519.14	4,348.32	4,069.78	278.54	15.611		
9,100.00	7,124.21	7,080.21	7,124.21	67.76	245.45	-91.32	-1,531.05	-6,519.14	4,250.01	3,971.28	278.72	15.248		
9,200.00	7,123.78	7,079.78	7,123.78	70.29	245.43	-91.29	-1,531.05	-6,519.14	4,151.78	3,872.84	278.94	14.884		
9,300.00	7,123.34	7,079.34	7,123.34	72.85	245.42	-91.26	-1,531.05	-6,519.14	4,053.64	3,774.46	279.18	14.520		
9,400.00	7,122.91	7,078.91	7,122.91	75.43	245.40	-91.22	-1,531.05	-6,519.14	3,955.59	3,676.14	279.45	14.155		
9,500.00	7,122.48	7,078.48	7,122.48	78.03	245.39	-91.19	-1,531.05	-6,519.14	3,857.64	3,577.88	279.76	13.789		
9,600.00	7,122.04	7,078.04	7,122.04	80.65	245.37	-91.16	-1,531.05	-6,519.14	3,759.80	3,479.68	280.12	13.422		
9,700.00	7,121.61	7,077.61	7,121.61	83.28	245.36	-91.13	-1,531.05	-6,519.14	3,662.08	3,381.57	280.51	13.055		
9,800.00	7,121.17	7,077.17	7,121.17	85.93	245.34	-91.10	-1,531.05	-6,519.14	3,564.48	3,283.52	280.95	12.687		
9,900.00	7,120.74	7,076.74	7,120.74	88.59	245.33	-91.07	-1,531.05	-6,519.14	3,467.02	3,185.57	281.45	12.318		
10,000.00	7,120.31	7,076.31	7,120.31	91.26	245.31	-91.03	-1,531.05	-6,519.14	3,369.71	3,087.70	282.01	11.949		
10,100.00	7,119.87	7,075.87	7,119.87	93.95	245.30	-91.00	-1,531.05	-6,519.14	3,272.56	2,989.92	282.63	11.579		
10,200.00	7,119.44	7,075.44	7,119.44	96.64	245.28	-90.97	-1,531.05	-6,519.14	3,175.58	2,892.25	283.33	11.208		
10,300.00	7,119.00	7,075.00	7,119.00	99.34	245.27	-90.94	-1,531.05	-6,519.14	3,078.80	2,794.69	284.11	10.837		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,400.00	7,118.57	7,074.57	7,118.57	102.05	245.25	-90.91	-1,531.05	-6,519.14	2,982.23	2,697.26	284.98	10.465		
10,500.00	7,118.14	7,074.14	7,118.14	104.77	245.24	-90.88	-1,531.05	-6,519.14	2,885.90	2,599.96	285.94	10.093		
10,600.00	7,117.70	7,073.70	7,117.70	107.50	245.22	-90.85	-1,531.05	-6,519.14	2,789.83	2,502.81	287.02	9.720		
10,700.00	7,117.27	7,073.27	7,117.27	110.23	245.20	-90.81	-1,531.05	-6,519.14	2,694.04	2,405.82	288.22	9.347		
10,800.00	7,116.83	7,072.83	7,116.83	112.97	245.19	-90.78	-1,531.05	-6,519.14	2,598.56	2,309.01	289.56	8.974		
10,900.00	7,116.40	7,072.40	7,116.40	115.72	245.17	-90.75	-1,531.05	-6,519.14	2,503.44	2,212.40	291.04	8.602		
11,000.00	7,115.97	7,071.97	7,115.97	118.47	245.16	-90.72	-1,531.05	-6,519.14	2,408.72	2,116.02	292.70	8.229		
11,100.00	7,115.53	7,071.53	7,115.53	121.22	245.14	-90.69	-1,531.05	-6,519.14	2,314.44	2,019.89	294.55	7.858		
11,200.00	7,115.10	7,071.10	7,115.10	123.98	245.13	-90.66	-1,531.05	-6,519.14	2,220.66	1,924.06	296.60	7.487		
11,300.00	7,114.66	7,070.66	7,114.66	126.74	245.11	-90.62	-1,531.05	-6,519.14	2,127.45	1,828.55	298.89	7.118		
11,400.00	7,114.23	7,070.23	7,114.23	129.51	245.10	-90.59	-1,531.05	-6,519.14	2,034.88	1,733.43	301.45	6.750		
11,500.00	7,113.80	7,069.80	7,113.80	132.29	245.08	-90.56	-1,531.05	-6,519.14	1,943.04	1,638.74	304.30	6.385		
11,600.00	7,113.36	7,069.36	7,113.36	135.06	245.07	-90.53	-1,531.05	-6,519.14	1,852.06	1,544.58	307.48	6.023		
11,700.00	7,112.93	7,068.93	7,112.93	137.84	245.05	-90.50	-1,531.05	-6,519.14	1,762.05	1,451.01	311.04	5.665		
11,800.00	7,112.49	7,068.49	7,112.49	140.62	245.04	-90.47	-1,531.05	-6,519.14	1,673.17	1,358.16	315.02	5.311		
11,900.00	7,112.06	7,068.06	7,112.06	143.41	245.02	-90.43	-1,531.05	-6,519.14	1,585.63	1,266.16	319.46	4.963		
12,000.00	7,111.63	7,067.63	7,111.63	146.20	245.01	-90.40	-1,531.05	-6,519.14	1,499.64	1,175.19	324.44	4.622		
12,100.00	7,111.19	7,067.19	7,111.19	148.99	244.99	-90.37	-1,531.05	-6,519.14	1,415.49	1,085.48	330.01	4.289		
12,200.00	7,110.76	7,066.76	7,110.76	151.78	244.98	-90.34	-1,531.05	-6,519.14	1,333.53	997.31	336.22	3.966		
12,300.00	7,110.33	7,066.33	7,110.33	154.58	244.96	-90.31	-1,531.05	-6,519.14	1,254.19	911.04	343.15	3.655		
12,400.00	7,109.89	7,065.89	7,109.89	157.37	244.95	-90.28	-1,531.05	-6,519.14	1,178.00	827.17	350.83	3.358		
12,500.00	7,109.46	7,065.46	7,109.46	160.17	244.93	-90.25	-1,531.05	-6,519.14	1,105.61	746.33	359.29	3.077		
12,600.00	7,109.02	7,065.02	7,109.02	162.98	244.92	-90.21	-1,531.05	-6,519.14	1,037.82	669.33	368.49	2.816		
12,700.00	7,108.59	7,064.59	7,108.59	165.78	244.90	-90.18	-1,531.05	-6,519.14	975.59	597.25	378.33	2.579		
12,800.00	7,108.16	7,064.16	7,108.16	168.59	244.89	-90.15	-1,531.05	-6,519.14	920.03	531.45	388.58	2.368		
12,900.00	7,107.72	7,063.72	7,107.72	171.39	244.87	-90.12	-1,531.05	-6,519.14	872.44	473.60	398.84	2.187		
13,000.00	7,107.29	7,063.29	7,107.29	174.20	244.86	-90.09	-1,531.05	-6,519.14	834.17	425.61	408.56	2.042		
13,100.00	7,106.85	7,062.85	7,106.85	177.01	244.84	-90.06	-1,531.05	-6,519.14	806.56	389.53	417.03	1.934		
13,200.00	7,106.42	7,062.42	7,106.42	179.83	244.83	-90.02	-1,531.05	-6,519.14	790.71	367.20	423.52	1.867		
13,276.55	7,106.09	7,062.09	7,106.09	181.98	244.81	-90.00	-1,531.05	-6,519.14	787.00	360.23	426.77	1.844 CC		
13,300.00	7,105.99	7,061.99	7,105.99	182.64	244.81	-89.99	-1,531.05	-6,519.14	787.35	359.91	427.44	1.842 ES, SF		
13,400.00	7,105.55	7,061.55	7,105.55	185.45	244.80	-89.96	-1,531.05	-6,519.14	796.63	368.09	428.53	1.859		
13,500.00	7,105.12	7,061.12	7,105.12	188.27	244.78	-89.93	-1,531.05	-6,519.14	818.11	391.16	426.95	1.916		
13,600.00	7,104.68	7,060.68	7,104.68	191.09	244.77	-89.90	-1,531.05	-6,519.14	850.88	427.75	423.13	2.011		
13,700.00	7,104.25	7,060.25	7,104.25	193.91	244.75	-89.87	-1,531.05	-6,519.14	893.69	475.98	417.71	2.139		
13,800.00	7,103.82	7,059.82	7,103.82	196.73	244.74	-89.83	-1,531.05	-6,519.14	945.18	533.86	411.32	2.298		
13,900.00	7,103.38	7,059.38	7,103.38	199.55	244.72	-89.80	-1,531.05	-6,519.14	1,004.02	599.54	404.48	2.482		
14,000.00	7,102.95	7,058.95	7,102.95	202.37	244.70	-89.77	-1,531.05	-6,519.14	1,068.99	671.42	397.57	2.689		
14,100.00	7,102.51	7,058.51	7,102.51	205.19	244.69	-89.74	-1,531.05	-6,519.14	1,139.05	748.20	390.85	2.914		
14,200.00	7,102.08	7,058.08	7,102.08	208.02	244.67	-89.71	-1,531.05	-6,519.14	1,213.31	828.84	384.48	3.156		
14,300.00	7,101.65	7,057.65	7,101.65	210.84	244.66	-89.68	-1,531.05	-6,519.14	1,291.05	912.54	378.51	3.411		
14,400.00	7,101.21	7,057.21	7,101.21	213.67	244.64	-89.65	-1,531.05	-6,519.14	1,371.68	998.68	373.00	3.677		
14,500.00	7,100.78	7,056.78	7,100.78	216.50	244.63	-89.61	-1,531.05	-6,519.14	1,454.71	1,086.79	367.93	3.954		
14,600.00	7,100.35	7,056.35	7,100.35	219.32	244.61	-89.58	-1,531.05	-6,519.14	1,539.76	1,176.49	363.28	4.239		
14,700.00	7,099.91	7,055.91	7,099.91	222.15	244.60	-89.55	-1,531.05	-6,519.14	1,626.52	1,267.49	359.03	4.530		
14,800.00	7,099.48	7,055.48	7,099.48	224.98	244.58	-89.52	-1,531.05	-6,519.14	1,714.71	1,359.58	355.14	4.828		
14,900.00	7,099.04	7,055.04	7,099.04	227.81	244.57	-89.49	-1,531.05	-6,519.14	1,804.14	1,452.56	351.58	5.131		
14,909.96	7,099.00	7,055.00	7,099.00	228.09	244.57	-89.48	-1,531.05	-6,519.14	1,813.11	1,461.87	351.24	5.162		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	39.00	3.28	3.28	-92.95	-394.45	-7,657.83	7,668.09					
100.00	100.00	100.00	126.25	3.28	3.29	-92.95	-394.17	-7,657.55	7,667.73	7,661.16	6.57	1,166.754		
200.00	200.00	181.52	220.51	3.34	3.33	-92.94	-393.57	-7,657.15	7,667.28	7,660.62	6.67	1,150.284		
276.44	276.44	237.45	276.44	3.41	3.38	-92.94	-393.20	-7,657.09	7,667.18	7,660.39	6.79	1,128.832		
300.00	300.00	254.85	293.84	3.44	3.40	-92.94	-393.11	-7,657.11	7,667.19	7,660.35	6.84	1,120.807		
400.00	400.00	330.11	369.10	3.60	3.49	-92.94	-392.91	-7,657.30	7,667.44	7,660.34	7.10	1,080.495		
500.00	500.00	411.19	450.18	3.81	3.63	-92.94	-392.98	-7,657.75	7,667.99	7,660.56	7.43	1,031.690		
600.00	600.00	520.07	559.06	4.04	3.85	73.91	-393.25	-7,658.35	7,668.53	7,660.64	7.89	971.747		
700.00	699.96	610.37	649.36	4.29	4.06	73.92	-393.91	-7,658.86	7,668.45	7,660.10	8.35	917.920		
800.00	799.78	698.81	737.79	4.57	4.30	73.97	-394.79	-7,659.46	7,667.54	7,658.68	8.87	864.883		
900.00	899.34	800.58	839.55	4.88	4.59	74.06	-395.83	-7,660.22	7,665.74	7,656.28	9.46	810.146		
1,000.00	998.72	904.95	943.92	5.20	4.92	74.14	-396.85	-7,660.95	7,663.44	7,653.33	10.11	757.922		
1,100.00	1,098.10	1,009.52	1,048.48	5.54	5.26	74.22	-397.73	-7,661.62	7,661.08	7,650.28	10.80	709.491		
1,200.00	1,197.49	1,110.25	1,149.20	5.90	5.60	74.29	-398.27	-7,662.25	7,658.70	7,647.20	11.50	665.840		
1,300.00	1,296.87	1,207.14	1,246.09	6.28	5.94	74.37	-398.63	-7,662.87	7,656.35	7,644.13	12.22	626.658		
1,400.00	1,396.25	1,316.90	1,355.85	6.66	6.34	74.45	-398.90	-7,663.49	7,653.93	7,640.93	13.00	588.759		
1,500.00	1,495.64	1,408.72	1,447.67	7.06	6.68	74.53	-399.18	-7,664.01	7,651.53	7,637.80	13.73	557.116		
1,600.00	1,595.02	1,509.00	1,547.95	7.46	7.06	74.60	-399.58	-7,664.62	7,649.19	7,634.68	14.51	527.037		
1,700.00	1,694.40	1,600.42	1,639.36	7.87	7.41	74.67	-399.89	-7,665.22	7,646.91	7,631.64	15.27	500.737		
1,800.00	1,793.79	1,708.04	1,746.98	8.29	7.82	74.76	-400.08	-7,665.93	7,644.64	7,628.54	16.10	474.774		
1,900.00	1,893.17	1,804.29	1,843.23	8.71	8.20	74.84	-400.19	-7,666.55	7,642.36	7,625.47	16.90	452.288		
2,000.00	1,992.55	1,907.81	1,946.75	9.13	8.61	74.92	-400.41	-7,667.19	7,640.08	7,622.36	17.73	430.943		
2,100.00	2,091.94	1,997.12	2,036.05	9.56	8.96	74.99	-400.61	-7,667.78	7,637.87	7,619.35	18.51	412.617		
2,200.00	2,191.32	2,135.63	2,174.56	9.99	9.52	75.10	-400.68	-7,668.37	7,635.40	7,615.90	19.49	391.667		
2,300.00	2,290.70	2,246.27	2,285.20	10.42	9.96	75.18	-401.15	-7,668.55	7,632.71	7,612.34	20.37	374.666		
2,400.00	2,390.09	2,352.71	2,391.63	10.86	10.39	75.27	-401.81	-7,668.51	7,629.85	7,608.61	21.24	359.281		
2,500.00	2,489.47	2,450.26	2,489.18	11.29	10.79	75.34	-402.29	-7,668.50	7,627.02	7,604.95	22.07	345.599		
2,600.00	2,588.86	2,570.76	2,609.69	11.73	11.28	75.43	-402.72	-7,668.38	7,624.13	7,601.14	23.00	331.526		
2,700.00	2,688.24	2,695.14	2,734.06	12.18	11.79	75.53	-402.88	-7,667.82	7,620.88	7,596.94	23.94	318.294		
2,800.00	2,787.62	2,789.88	2,828.80	12.62	12.18	75.61	-402.66	-7,667.27	7,617.52	7,592.75	24.77	307.500		
2,900.00	2,887.01	2,847.97	2,886.89	13.06	12.41	75.66	-402.36	-7,667.10	7,614.46	7,589.00	25.46	299.116		
3,000.00	2,986.39	2,900.01	2,938.93	13.51	12.63	75.71	-401.91	-7,667.26	7,612.00	7,585.89	26.12	291.457		
3,100.00	3,085.77	2,961.53	3,000.45	13.95	12.88	75.76	-401.25	-7,667.80	7,610.12	7,583.30	26.82	283.767		
3,200.00	3,185.16	3,031.57	3,070.47	14.40	13.17	75.82	-400.41	-7,668.78	7,608.75	7,581.19	27.56	276.123		
3,300.00	3,284.54	3,100.01	3,138.89	14.85	13.46	75.89	-399.46	-7,669.86	7,607.64	7,579.35	28.29	268.940		
3,400.00	3,383.92	3,168.42	3,207.28	15.30	13.74	75.95	-398.39	-7,671.22	7,606.96	7,577.94	29.02	262.126		
3,467.17	3,450.68	3,207.62	3,246.47	15.60	13.90	75.99	-397.73	-7,672.22	7,606.84	7,577.35	29.48	257.996		
3,500.00	3,483.31	3,231.82	3,270.66	15.75	14.01	76.01	-397.30	-7,672.89	7,606.86	7,577.13	29.73	255.843		
3,600.00	3,582.69	3,307.57	3,346.35	16.20	14.32	76.08	-395.86	-7,675.15	7,607.15	7,576.65	30.50	249.433		
3,700.00	3,682.07	3,411.27	3,449.97	16.65	14.76	76.18	-393.46	-7,678.39	7,607.59	7,576.21	31.38	242.410		
3,800.00	3,781.46	3,542.00	3,580.61	17.10	15.31	76.32	-389.89	-7,682.13	7,607.79	7,575.41	32.39	234.916		
3,900.00	3,880.84	3,654.67	3,693.20	17.56	15.78	76.43	-387.04	-7,684.98	7,607.69	7,574.38	33.31	228.383		
4,000.00	3,980.22	3,757.50	3,795.98	18.01	16.21	76.53	-384.81	-7,687.51	7,607.55	7,573.35	34.20	222.469		
4,100.00	4,079.61	3,860.34	3,898.77	18.46	16.65	76.63	-382.83	-7,689.98	7,607.37	7,572.29	35.08	216.847		
4,200.00	4,178.99	3,964.95	4,003.33	18.92	17.09	76.73	-381.10	-7,692.44	7,607.17	7,571.19	35.98	211.453		
4,300.00	4,278.38	4,061.43	4,119.77	19.37	17.58	76.83	-379.49	-7,695.02	7,606.85	7,569.93	36.92	206.033		
4,400.00	4,377.76	4,179.08	4,217.40	19.83	17.99	76.92	-378.06	-7,697.05	7,606.40	7,568.61	37.79	201.300		
4,500.00	4,477.14	4,284.08	4,322.37	20.28	18.43	77.02	-376.86	-7,699.23	7,605.99	7,567.30	38.68	196.618		
4,600.00	4,576.53	4,390.79	4,429.05	20.74	18.88	77.11	-375.97	-7,701.35	7,605.49	7,565.90	39.59	192.108		
4,700.00	4,675.91	4,509.56	4,547.80	21.19	19.38	77.21	-375.36	-7,703.52	7,604.86	7,564.31	40.55	187.557		
4,800.00	4,775.29	4,646.64	4,684.86	21.65	19.96	77.33	-374.91	-7,705.36	7,603.72	7,562.14	41.58	182.861		
4,900.00	4,874.68	4,742.51	4,780.72	22.10	20.36	77.41	-374.61	-7,706.52	7,602.50	7,560.05	42.44	179.121		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,000.00	4,974.06	4,844.16	4,882.37	22.56	20.79	77.49	-374.31	-7,707.79	7,601.33	7,558.00	43.33	175.430		
5,100.00	5,073.44	4,950.04	4,988.24	23.02	21.24	77.58	-373.93	-7,708.99	7,600.07	7,555.84	44.23	171.814		
5,200.00	5,172.83	5,055.46	5,093.65	23.47	21.69	77.67	-373.47	-7,710.15	7,598.79	7,553.65	45.14	168.348		
5,300.00	5,272.21	5,157.83	5,196.02	23.93	22.12	77.76	-373.03	-7,711.16	7,597.42	7,551.39	46.03	165.060		
5,400.00	5,371.59	5,259.36	5,297.54	24.39	22.55	77.84	-372.71	-7,712.18	7,596.07	7,549.16	46.92	161.909		
5,500.00	5,470.98	5,422.90	5,461.07	24.85	23.24	77.98	-371.95	-7,713.15	7,594.38	7,546.31	48.06	158.012		
5,600.00	5,570.36	5,525.11	5,563.29	25.30	23.67	78.07	-371.22	-7,713.18	7,592.11	7,543.16	48.95	155.096		
5,700.00	5,669.75	5,600.01	5,638.18	25.76	23.99	78.14	-370.88	-7,713.38	7,590.08	7,540.35	49.73	152.633		
5,800.00	5,769.13	5,700.23	5,738.40	26.22	24.42	78.22	-370.58	-7,713.80	7,588.23	7,537.62	50.61	149.933		
5,900.00	5,868.51	5,788.61	5,826.78	26.68	24.79	78.30	-370.26	-7,714.22	7,586.44	7,534.99	51.44	147.468		
6,000.00	5,967.90	5,884.97	5,923.14	27.14	25.20	78.38	-369.86	-7,714.76	7,584.76	7,532.45	52.31	144.990		
6,100.00	6,067.28	5,964.67	6,002.84	27.60	25.54	78.44	-369.55	-7,715.31	7,583.23	7,530.12	53.11	142.783		
6,200.00	6,166.66	6,064.24	6,102.40	28.05	25.96	78.53	-369.34	-7,716.22	7,581.93	7,527.94	53.99	140.426		
6,300.00	6,266.05	6,148.72	6,186.88	28.51	26.32	78.60	-369.23	-7,716.95	7,580.60	7,525.79	54.81	138.305		
6,400.00	6,365.43	6,226.23	6,264.38	28.97	26.65	78.66	-369.18	-7,717.91	7,579.63	7,524.04	55.60	136.325		
6,500.00	6,464.81	6,325.69	6,363.84	29.43	27.07	78.74	-369.34	-7,719.24	7,578.79	7,522.31	56.48	134.181		
6,600.00	6,564.10	6,433.43	6,471.57	29.89	27.53	48.49	-369.59	-7,720.67	7,576.00	7,518.60	57.40	131.989		
6,700.00	6,661.75	6,554.76	6,592.89	30.34	28.05	25.30	-370.15	-7,721.94	7,559.30	7,500.93	58.36	129.525		
6,800.00	6,755.38	6,648.27	6,686.39	30.77	28.45	17.71	-370.70	-7,722.79	7,527.29	7,468.11	59.18	127.188		
6,900.00	6,842.67	6,724.46	6,762.57	31.17	28.77	14.36	-371.55	-7,723.56	7,481.00	7,421.10	59.90	124.900		
7,000.00	6,921.48	6,786.80	6,824.90	31.54	29.04	12.77	-372.39	-7,724.34	7,421.62	7,361.11	60.51	122.658		
7,100.00	6,989.86	6,847.02	6,885.11	31.91	29.29	12.23	-373.22	-7,725.20	7,350.57	7,289.52	61.06	120.392		
7,200.00	7,046.13	6,898.48	6,936.56	32.35	29.51	12.60	-373.82	-7,725.98	7,269.51	7,208.00	61.51	118.187		
7,300.00	7,088.91	6,928.42	6,966.49	32.98	29.64	14.21	-374.13	-7,726.47	7,180.42	7,118.60	61.81	116.166		
7,400.00	7,117.14	6,948.51	6,986.57	33.84	29.72	18.86	-374.33	-7,726.84	7,085.45	7,023.44	62.02	114.254		
7,500.00	7,130.13	6,958.53	6,996.60	34.90	29.77	40.27	-374.42	-7,727.03	6,986.90	6,924.77	62.13	112.465		
7,600.00	7,130.72	6,960.26	6,998.33	36.13	29.77	74.86	-374.43	-7,727.06	6,887.10	6,824.93	62.17	110.784		
7,700.00	7,130.29	6,961.31	6,999.37	37.54	29.78	75.00	-374.44	-7,727.08	6,787.26	6,725.06	62.20	109.111		
7,800.00	7,129.85	6,962.36	7,000.43	39.12	29.78	75.15	-374.45	-7,727.11	6,687.43	6,625.19	62.25	107.437		
7,900.00	7,129.42	6,963.43	7,001.49	40.83	29.79	75.30	-374.46	-7,727.13	6,587.61	6,525.32	62.29	105.759		
8,000.00	7,128.98	6,964.51	7,002.57	42.67	29.79	75.46	-374.47	-7,727.15	6,487.79	6,425.45	62.34	104.079		
8,100.00	7,128.55	6,965.59	7,003.66	44.62	29.80	75.61	-374.48	-7,727.17	6,387.97	6,325.59	62.38	102.397		
8,200.00	7,128.12	6,966.69	7,004.75	46.66	29.80	75.76	-374.49	-7,727.19	6,288.16	6,225.72	62.44	100.712		
8,300.00	7,127.68	6,967.80	7,005.86	48.79	29.81	75.92	-374.50	-7,727.21	6,188.36	6,125.86	62.49	99.024		
8,400.00	7,127.25	6,968.91	7,006.98	50.98	29.81	76.08	-374.51	-7,727.24	6,088.56	6,026.01	62.55	97.335		
8,500.00	7,126.81	6,970.04	7,008.11	53.24	29.82	76.24	-374.52	-7,727.26	5,988.77	5,926.15	62.62	95.642		
8,600.00	7,126.38	6,971.18	7,009.24	55.56	29.82	76.40	-374.53	-7,727.28	5,888.99	5,826.30	62.68	93.948		
8,700.00	7,125.95	6,972.33	7,010.39	57.92	29.83	76.57	-374.54	-7,727.31	5,789.21	5,726.45	62.75	92.251		
8,800.00	7,125.51	6,973.49	7,011.56	60.33	29.83	76.73	-374.55	-7,727.33	5,689.44	5,626.61	62.83	90.552		
8,900.00	7,125.08	6,974.67	7,012.73	62.77	29.84	76.90	-374.56	-7,727.35	5,589.68	5,526.77	62.91	88.851		
9,000.00	7,124.64	6,975.85	7,013.91	65.25	29.84	77.07	-374.57	-7,727.38	5,489.92	5,426.93	63.00	87.147		
9,100.00	7,124.21	6,977.04	7,015.11	67.76	29.85	77.24	-374.58	-7,727.40	5,390.18	5,327.09	63.09	85.441		
9,200.00	7,123.78	6,978.25	7,016.31	70.29	29.85	77.42	-374.59	-7,727.43	5,290.44	5,227.26	63.18	83.733		
9,300.00	7,123.34	6,979.47	7,017.53	72.85	29.86	77.59	-374.60	-7,727.45	5,190.72	5,127.43	63.28	82.023		
9,400.00	7,122.91	6,980.70	7,018.77	75.43	29.86	77.77	-374.61	-7,727.48	5,091.00	5,027.61	63.39	80.310		
9,500.00	7,122.48	6,981.95	7,020.01	78.03	29.87	77.95	-374.62	-7,727.51	4,991.30	4,927.79	63.51	78.596		
9,600.00	7,122.04	6,983.20	7,021.27	80.65	29.87	78.13	-374.63	-7,727.53	4,891.61	4,827.98	63.63	76.878		
9,700.00	7,121.61	6,984.47	7,022.53	83.28	29.88	78.31	-374.64	-7,727.56	4,791.93	4,728.17	63.76	75.159		
9,800.00	7,121.17	6,985.76	7,023.82	85.93	29.88	78.50	-374.65	-7,727.59	4,692.26	4,628.36	63.89	73.438		
9,900.00	7,120.74	6,987.05	7,025.11	88.59	29.89	78.69	-374.66	-7,727.62	4,592.61	4,528.57	64.04	71.714		
10,000.00	7,120.31	6,988.36	7,026.42	91.26	29.89	78.88	-374.67	-7,727.64	4,492.97	4,428.77	64.20	69.988		
10,100.00	7,119.87	6,989.68	7,027.74	93.95	29.90	79.07	-374.68	-7,727.67	4,393.35	4,328.98	64.36	68.259		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,200.00	7,119.44	6,991.02	7,029.08	96.64	29.91	79.26	-374.69	-7,727.70	4,293.74	4,229.20	64.54	66.528		
10,300.00	7,119.00	6,992.37	7,030.43	99.34	29.91	79.46	-374.70	-7,727.73	4,194.15	4,129.42	64.73	64.795		
10,400.00	7,118.57	6,993.73	7,031.79	102.05	29.92	79.66	-374.71	-7,727.76	4,094.59	4,029.65	64.93	63.059		
10,500.00	7,118.14	6,995.11	7,033.17	104.77	29.92	79.86	-374.72	-7,727.79	3,995.04	3,929.89	65.15	61.321		
10,600.00	7,117.70	6,996.50	7,034.56	107.50	29.93	80.07	-374.73	-7,727.82	3,895.52	3,830.13	65.38	59.580		
10,700.00	7,117.27	7,000.01	7,038.07	110.23	29.94	80.58	-374.76	-7,727.90	3,796.02	3,730.38	65.64	57.831		
10,800.00	7,116.83	7,000.01	7,038.07	112.97	29.94	80.58	-374.76	-7,727.90	3,696.54	3,630.64	65.91	56.088		
10,900.00	7,116.40	7,000.93	7,038.99	115.72	29.95	80.72	-374.77	-7,727.92	3,597.10	3,530.91	66.19	54.341		
11,000.00	7,115.97	7,002.67	7,040.73	118.47	29.96	80.97	-374.78	-7,727.96	3,497.69	3,431.18	66.51	52.589		
11,100.00	7,115.53	7,004.42	7,042.47	121.22	29.96	81.23	-374.79	-7,728.00	3,398.31	3,331.46	66.85	50.835		
11,200.00	7,115.10	7,006.16	7,044.22	123.98	29.97	81.49	-374.81	-7,728.04	3,298.96	3,231.74	67.22	49.078		
11,300.00	7,114.66	7,007.91	7,045.96	126.74	29.98	81.75	-374.82	-7,728.08	3,199.66	3,132.04	67.62	47.319		
11,400.00	7,114.23	7,009.66	7,047.71	129.51	29.99	82.01	-374.83	-7,728.12	3,100.40	3,032.34	68.06	45.557		
11,500.00	7,113.80	7,011.41	7,049.47	132.29	29.99	82.27	-374.84	-7,728.15	3,001.19	2,932.65	68.53	43.793		
11,600.00	7,113.36	7,013.17	7,051.22	135.06	30.00	82.53	-374.86	-7,728.19	2,902.03	2,832.98	69.05	42.027		
11,700.00	7,112.93	7,014.92	7,052.98	137.84	30.01	82.79	-374.87	-7,728.23	2,802.93	2,733.30	69.62	40.260		
11,800.00	7,112.49	7,016.68	7,054.74	140.62	30.02	83.05	-374.88	-7,728.27	2,703.89	2,633.64	70.25	38.491		
11,900.00	7,112.06	7,018.44	7,056.50	143.41	30.02	83.31	-374.89	-7,728.31	2,604.93	2,533.99	70.94	36.721		
12,000.00	7,111.63	7,020.21	7,058.26	146.20	30.03	83.58	-374.91	-7,728.35	2,506.05	2,434.34	71.70	34.950		
12,100.00	7,111.19	7,021.97	7,060.02	148.99	30.04	83.84	-374.92	-7,728.39	2,407.25	2,334.70	72.55	33.180		
12,200.00	7,110.76	7,023.74	7,061.79	151.78	30.05	84.10	-374.93	-7,728.43	2,308.57	2,235.07	73.49	31.412		
12,300.00	7,110.33	7,025.51	7,063.56	154.58	30.05	84.37	-374.94	-7,728.47	2,210.00	2,135.45	74.55	29.646		
12,400.00	7,109.89	7,027.28	7,065.33	157.37	30.06	84.63	-374.95	-7,728.51	2,111.56	2,035.83	75.73	27.884		
12,500.00	7,109.46	7,029.06	7,067.10	160.17	30.07	84.90	-374.96	-7,728.55	2,013.27	1,936.22	77.05	26.128		
12,600.00	7,109.02	7,030.83	7,068.88	162.98	30.08	85.17	-374.97	-7,728.59	1,915.16	1,836.61	78.55	24.381		
12,700.00	7,108.59	7,032.61	7,070.66	165.78	30.08	85.43	-374.99	-7,728.63	1,817.25	1,737.00	80.25	22.644		
12,800.00	7,108.16	7,034.39	7,072.44	168.59	30.09	85.70	-375.00	-7,728.67	1,719.58	1,637.39	82.19	20.922		
12,900.00	7,107.72	7,036.17	7,074.22	171.39	30.10	85.97	-375.01	-7,728.71	1,622.20	1,537.79	84.41	19.218		
13,000.00	7,107.29	7,037.96	7,076.00	174.20	30.11	86.24	-375.02	-7,728.75	1,525.15	1,438.18	86.97	17.537		
13,100.00	7,106.85	7,039.74	7,077.79	177.01	30.11	86.51	-375.03	-7,728.79	1,428.51	1,338.58	89.93	15.885		
13,200.00	7,106.42	7,041.53	7,079.58	179.83	30.12	86.78	-375.04	-7,728.83	1,332.35	1,238.98	93.38	14.268		
13,300.00	7,105.99	7,043.32	7,081.37	182.64	30.13	87.05	-375.05	-7,728.87	1,236.81	1,139.38	97.43	12.694		
13,400.00	7,105.55	7,045.12	7,083.16	185.45	30.14	87.32	-375.06	-7,728.91	1,142.03	1,039.81	102.22	11.172		
13,500.00	7,105.12	7,046.91	7,084.96	188.27	30.14	87.59	-375.07	-7,728.96	1,048.21	940.28	107.93	9.712		
13,600.00	7,104.68	7,048.71	7,086.75	191.09	30.15	87.86	-375.08	-7,729.00	955.65	840.85	114.79	8.325		
13,700.00	7,104.25	7,050.51	7,088.55	193.91	30.16	88.13	-375.09	-7,729.04	864.73	741.62	123.11	7.024		
13,800.00	7,103.82	7,052.31	7,090.35	196.73	30.17	88.41	-375.10	-7,729.08	776.06	642.78	133.28	5.823		
13,900.00	7,103.38	7,054.12	7,092.16	199.55	30.18	88.68	-375.11	-7,729.12	690.48	544.72	145.76	4.737		
14,000.00	7,102.95	7,055.92	7,093.96	202.37	30.18	88.95	-375.12	-7,729.16	609.30	448.23	161.07	3.783		
14,100.00	7,102.51	7,057.73	7,095.77	205.19	30.19	89.23	-375.13	-7,729.20	534.53	354.97	179.56	2.977		
14,200.00	7,102.08	7,059.54	7,097.58	208.02	30.20	89.50	-375.14	-7,729.24	469.25	268.36	200.89	2.336		
14,300.00	7,101.65	7,061.36	7,099.39	210.84	30.21	89.78	-375.15	-7,729.28	417.93	195.08	222.84	1.875		
14,400.00	7,101.21	7,063.17	7,101.21	213.67	30.21	90.05	-375.15	-7,729.32	386.16	146.00	240.17	1.608		
14,477.74	7,100.88	7,064.58	7,102.62	215.87	30.22	90.26	-375.16	-7,729.36	378.26	132.25	246.01	1.538 CC, ES, SF		
14,500.00	7,100.78	7,064.99	7,103.03	216.50	30.22	90.33	-375.16	-7,729.37	378.91	132.81	246.10	1.540		
14,600.00	7,100.35	7,066.81	7,104.85	219.32	30.23	90.60	-375.17	-7,729.41	397.52	159.30	238.22	1.669		
14,700.00	7,099.91	7,068.63	7,106.67	222.15	30.24	90.88	-375.18	-7,729.45	438.70	217.65	221.05	1.985		
14,800.00	7,099.48	7,070.45	7,108.49	224.98	30.24	91.15	-375.19	-7,729.49	496.88	295.80	201.09	2.471		
14,900.00	7,099.04	7,072.28	7,110.32	227.81	30.25	91.43	-375.20	-7,729.53	566.85	384.51	182.34	3.109		
14,909.96	7,099.00	7,072.46	7,110.50	228.09	30.25	91.46	-375.20	-7,729.54	574.31	393.70	180.61	3.180		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	62.00	3.28	3.28	-112.60	-1,485.38	-3,567.62	3,864.99				
100.00	100.00	38.00	100.00	3.28	3.35	-112.60	-1,485.38	-3,567.62	3,864.49	3,857.86	6.63	582.781	
200.00	200.00	138.00	200.00	3.34	4.49	-112.60	-1,485.38	-3,567.62	3,864.49	3,856.66	7.83	493.484	
300.00	300.00	238.00	300.00	3.44	7.34	-112.60	-1,485.38	-3,567.62	3,864.49	3,853.71	10.78	358.422	
400.00	400.00	338.00	400.00	3.60	10.58	-112.60	-1,485.38	-3,567.62	3,864.49	3,850.31	14.18	272.552	
500.00	500.00	438.00	500.00	3.81	13.94	-112.60	-1,485.38	-3,567.62	3,864.49	3,846.75	17.74	217.809	
600.00	600.00	538.00	600.00	4.04	17.35	54.24	-1,485.38	-3,567.62	3,864.45	3,843.06	21.39	180.644	
700.00	699.96	637.96	699.96	4.29	20.79	54.30	-1,485.38	-3,567.62	3,863.02	3,837.94	25.08	154.044	
800.00	799.78	737.78	799.78	4.57	24.23	54.42	-1,485.38	-3,567.62	3,859.56	3,830.76	28.80	134.004	
900.00	899.34	837.34	899.34	4.88	27.68	54.63	-1,485.38	-3,567.62	3,854.08	3,821.53	32.55	118.393	
1,000.00	998.72	936.72	998.72	5.20	31.13	54.76	-1,485.38	-3,567.62	3,847.65	3,811.33	36.32	105.924	
1,100.00	1,098.10	1,036.10	1,098.10	5.54	34.58	54.89	-1,485.38	-3,567.62	3,841.24	3,801.12	40.12	95.745	
1,200.00	1,197.49	1,135.49	1,197.49	5.90	38.04	55.03	-1,485.38	-3,567.62	3,834.85	3,790.91	43.93	87.289	
1,300.00	1,296.87	1,234.87	1,296.87	6.28	41.49	55.16	-1,485.38	-3,567.62	3,828.48	3,780.71	47.76	80.158	
1,400.00	1,396.25	1,334.25	1,396.25	6.66	44.95	55.30	-1,485.38	-3,567.62	3,822.13	3,770.52	51.60	74.067	
1,500.00	1,495.64	1,433.64	1,495.64	7.06	48.41	55.44	-1,485.38	-3,567.62	3,815.80	3,760.35	55.46	68.808	
1,600.00	1,595.02	1,533.02	1,595.02	7.46	51.88	55.57	-1,485.38	-3,567.62	3,809.50	3,750.18	59.32	64.223	
1,700.00	1,694.40	1,632.40	1,694.40	7.87	55.34	55.71	-1,485.38	-3,567.62	3,803.21	3,740.03	63.18	60.192	
1,800.00	1,793.79	1,731.79	1,793.79	8.29	58.80	55.85	-1,485.38	-3,567.62	3,796.95	3,729.89	67.06	56.621	
1,900.00	1,893.17	1,831.17	1,893.17	8.71	62.27	55.99	-1,485.38	-3,567.62	3,790.71	3,719.77	70.94	53.436	
2,000.00	1,992.55	1,930.55	1,992.55	9.13	65.73	56.12	-1,485.38	-3,567.62	3,784.50	3,709.67	74.82	50.579	
2,100.00	2,091.94	2,029.94	2,091.94	9.56	69.20	56.26	-1,485.38	-3,567.62	3,778.30	3,699.59	78.71	48.001	
2,200.00	2,191.32	2,129.32	2,191.32	9.99	72.66	56.40	-1,485.38	-3,567.62	3,772.13	3,689.52	82.60	45.665	
2,300.00	2,290.70	2,228.70	2,290.70	10.42	76.13	56.54	-1,485.38	-3,567.62	3,765.98	3,679.48	86.50	43.537	
2,400.00	2,390.09	2,328.09	2,390.09	10.86	79.60	56.68	-1,485.38	-3,567.62	3,759.85	3,669.45	90.40	41.592	
2,500.00	2,489.47	2,427.47	2,489.47	11.29	83.06	56.82	-1,485.38	-3,567.62	3,753.75	3,659.45	94.30	39.807	
2,600.00	2,588.86	2,526.86	2,588.86	11.73	86.53	56.97	-1,485.38	-3,567.62	3,747.67	3,649.46	98.20	38.163	
2,700.00	2,688.24	2,626.24	2,688.24	12.18	90.00	57.11	-1,485.38	-3,567.62	3,741.61	3,639.50	102.11	36.644	
2,800.00	2,787.62	2,725.62	2,787.62	12.62	93.46	57.25	-1,485.38	-3,567.62	3,735.57	3,629.56	106.01	35.237	
2,900.00	2,887.01	2,825.01	2,887.01	13.06	96.93	57.39	-1,485.38	-3,567.62	3,729.56	3,619.64	109.92	33.930	
3,000.00	2,986.39	2,924.39	2,986.39	13.51	100.40	57.54	-1,485.38	-3,567.62	3,723.57	3,609.74	113.83	32.712	
3,100.00	3,085.77	3,023.77	3,085.77	13.95	103.87	57.68	-1,485.38	-3,567.62	3,717.61	3,599.86	117.74	31.575	
3,200.00	3,185.16	3,123.16	3,185.16	14.40	107.33	57.82	-1,485.38	-3,567.62	3,711.66	3,590.01	121.65	30.510	
3,300.00	3,284.54	3,222.54	3,284.54	14.85	110.80	57.97	-1,485.38	-3,567.62	3,705.74	3,580.18	125.57	29.513	
3,400.00	3,383.92	3,321.92	3,383.92	15.30	114.27	58.11	-1,485.38	-3,567.62	3,699.85	3,570.37	129.48	28.575	
3,500.00	3,483.31	3,421.31	3,483.31	15.75	117.74	58.26	-1,485.38	-3,567.62	3,693.98	3,560.59	133.39	27.692	
3,600.00	3,582.69	3,520.69	3,582.69	16.20	121.21	58.40	-1,485.38	-3,567.62	3,688.13	3,550.82	137.31	26.860	
3,700.00	3,682.07	3,620.07	3,682.07	16.65	124.67	58.55	-1,485.38	-3,567.62	3,682.31	3,541.08	141.23	26.074	
3,800.00	3,781.46	3,719.46	3,781.46	17.10	128.14	58.70	-1,485.38	-3,567.62	3,676.51	3,531.37	145.14	25.330	
3,900.00	3,880.84	3,818.84	3,880.84	17.56	131.61	58.84	-1,485.38	-3,567.62	3,670.74	3,521.68	149.06	24.626	
4,000.00	3,980.22	3,918.22	3,980.22	18.01	135.08	58.99	-1,485.38	-3,567.62	3,664.99	3,512.01	152.98	23.957	
4,100.00	4,079.61	4,017.61	4,079.61	18.46	138.55	59.14	-1,485.38	-3,567.62	3,659.26	3,502.36	156.90	23.322	
4,200.00	4,178.99	4,116.99	4,178.99	18.92	142.02	59.29	-1,485.38	-3,567.62	3,653.56	3,492.74	160.82	22.719	
4,300.00	4,278.38	4,216.38	4,278.38	19.37	145.49	59.44	-1,485.38	-3,567.62	3,647.89	3,483.15	164.74	22.144	
4,400.00	4,377.76	4,315.76	4,377.76	19.83	148.95	59.59	-1,485.38	-3,567.62	3,642.24	3,473.58	168.66	21.595	
4,500.00	4,477.14	4,415.14	4,477.14	20.28	152.42	59.74	-1,485.38	-3,567.62	3,636.61	3,464.03	172.58	21.072	
4,600.00	4,576.53	4,514.53	4,576.53	20.74	155.89	59.89	-1,485.38	-3,567.62	3,631.01	3,454.51	176.50	20.572	
4,700.00	4,675.91	4,613.91	4,675.91	21.19	159.36	60.04	-1,485.38	-3,567.62	3,625.43	3,445.01	180.42	20.094	
4,800.00	4,775.29	4,713.29	4,775.29	21.65	162.83	60.19	-1,485.38	-3,567.62	3,619.88	3,435.54	184.35	19.636	
4,900.00	4,874.68	4,812.68	4,874.68	22.10	166.30	60.34	-1,485.38	-3,567.62	3,614.36	3,426.09	188.27	19.198	
5,000.00	4,974.06	4,912.06	4,974.06	22.56	169.77	60.49	-1,485.38	-3,567.62	3,608.86	3,416.67	192.19	18.777	
5,100.00	5,073.44	5,011.44	5,073.44	23.02	173.24	60.65	-1,485.38	-3,567.62	3,603.39	3,407.27	196.11	18.374	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	5,172.83	5,110.83	5,172.83	23.47	176.70	60.80	-1,485.38	-3,567.62	3,597.94	3,397.90	200.04	17.986		
5,300.00	5,272.21	5,210.21	5,272.21	23.93	180.17	60.95	-1,485.38	-3,567.62	3,592.52	3,388.56	203.96	17.614		
5,400.00	5,371.59	5,309.59	5,371.59	24.39	183.64	61.11	-1,485.38	-3,567.62	3,587.12	3,379.24	207.89	17.255		
5,500.00	5,470.98	5,408.98	5,470.98	24.85	187.11	61.26	-1,485.38	-3,567.62	3,581.75	3,369.94	211.81	16.910		
5,600.00	5,570.36	5,508.36	5,570.36	25.30	190.58	61.42	-1,485.38	-3,567.62	3,576.41	3,360.68	215.74	16.578		
5,700.00	5,669.75	5,607.75	5,669.75	25.76	194.05	61.57	-1,485.38	-3,567.62	3,571.10	3,351.43	219.66	16.257		
5,800.00	5,769.13	5,707.13	5,769.13	26.22	197.52	61.73	-1,485.38	-3,567.62	3,565.81	3,342.22	223.59	15.948		
5,900.00	5,868.51	5,806.51	5,868.51	26.68	200.99	61.88	-1,485.38	-3,567.62	3,560.54	3,333.03	227.51	15.650		
6,000.00	5,967.90	5,905.90	5,967.90	27.14	204.46	62.04	-1,485.38	-3,567.62	3,555.31	3,323.87	231.44	15.362		
6,100.00	6,067.28	6,005.28	6,067.28	27.60	207.93	62.20	-1,485.38	-3,567.62	3,550.10	3,314.73	235.36	15.083		
6,200.00	6,166.66	6,104.66	6,166.66	28.05	211.39	62.36	-1,485.38	-3,567.62	3,544.91	3,305.62	239.29	14.814		
6,300.00	6,266.05	6,204.05	6,266.05	28.51	214.86	62.51	-1,485.38	-3,567.62	3,539.76	3,296.54	243.22	14.554		
6,400.00	6,365.43	6,303.43	6,365.43	28.97	218.33	62.67	-1,485.38	-3,567.62	3,534.63	3,287.49	247.14	14.302		
6,500.00	6,464.81	6,402.81	6,464.81	29.43	221.80	62.83	-1,485.38	-3,567.62	3,529.53	3,278.46	251.07	14.058		
6,600.00	6,564.10	6,502.10	6,564.10	29.89	225.27	32.55	-1,485.38	-3,567.62	3,522.56	3,267.57	254.99	13.814		
6,700.00	6,661.75	6,600.25	6,661.75	30.34	228.69	8.84	-1,485.38	-3,567.62	3,502.41	3,243.55	258.86	13.530		
6,800.00	6,755.38	6,706.62	6,755.38	30.77	232.41	0.24	-1,485.38	-3,567.62	3,467.64	3,204.66	262.98	13.186		
6,900.00	6,842.67	6,780.67	6,842.67	31.17	234.99	-4.80	-1,485.38	-3,567.62	3,419.10	3,153.16	265.94	12.857		
7,000.00	6,921.48	6,859.48	6,921.48	31.54	237.74	-9.04	-1,485.38	-3,567.62	3,357.99	3,088.98	269.01	12.483		
7,100.00	6,989.86	6,927.86	6,989.86	31.91	240.13	-13.76	-1,485.38	-3,567.62	3,285.84	3,014.18	271.66	12.095		
7,200.00	7,046.13	6,984.13	7,046.13	32.35	242.09	-20.22	-1,485.38	-3,567.62	3,204.45	2,930.63	273.82	11.703		
7,300.00	7,088.91	7,026.91	7,088.91	32.98	243.59	-30.56	-1,485.38	-3,567.62	3,115.88	2,840.43	275.45	11.312		
7,400.00	7,117.14	7,055.14	7,117.14	33.84	244.57	-48.88	-1,485.38	-3,567.62	3,022.37	2,745.85	276.52	10.930		
7,500.00	7,130.13	7,068.13	7,130.13	34.90	245.03	-78.80	-1,485.38	-3,567.62	2,926.29	2,649.27	277.02	10.563		
7,600.00	7,130.72	7,068.72	7,130.72	36.13	245.05	-90.89	-1,485.38	-3,567.62	2,829.87	2,552.79	277.08	10.213		
7,700.00	7,130.29	7,068.29	7,130.29	37.54	245.03	-90.85	-1,485.38	-3,567.62	2,733.72	2,456.59	277.13	9.864		
7,800.00	7,129.85	7,067.85	7,129.85	39.12	245.02	-90.82	-1,485.38	-3,567.62	2,637.86	2,360.63	277.22	9.515		
7,900.00	7,129.42	7,067.42	7,129.42	40.83	245.00	-90.79	-1,485.38	-3,567.62	2,542.31	2,264.95	277.36	9.166		
8,000.00	7,128.98	7,066.98	7,128.98	42.67	244.99	-90.76	-1,485.38	-3,567.62	2,447.12	2,169.57	277.55	8.817		
8,100.00	7,128.55	7,066.55	7,128.55	44.62	244.97	-90.72	-1,485.38	-3,567.62	2,352.33	2,074.53	277.80	8.468		
8,200.00	7,128.12	7,066.12	7,128.12	46.66	244.96	-90.69	-1,485.38	-3,567.62	2,257.99	1,979.86	278.13	8.118		
8,300.00	7,127.68	7,065.68	7,127.68	48.79	244.94	-90.66	-1,485.38	-3,567.62	2,164.16	1,885.61	278.55	7.769		
8,400.00	7,127.25	7,065.25	7,127.25	50.98	244.92	-90.63	-1,485.38	-3,567.62	2,070.91	1,791.82	279.09	7.420		
8,500.00	7,126.81	7,064.81	7,126.81	53.24	244.91	-90.59	-1,485.38	-3,567.62	1,978.31	1,698.57	279.75	7.072		
8,600.00	7,126.38	7,064.38	7,126.38	55.56	244.89	-90.56	-1,485.38	-3,567.62	1,886.47	1,605.91	280.56	6.724		
8,700.00	7,125.95	7,063.95	7,125.95	57.92	244.88	-90.53	-1,485.38	-3,567.62	1,795.50	1,513.95	281.56	6.377		
8,800.00	7,125.51	7,063.51	7,125.51	60.33	244.86	-90.50	-1,485.38	-3,567.62	1,705.55	1,422.78	282.77	6.032		
8,900.00	7,125.08	7,063.08	7,125.08	62.77	244.85	-90.46	-1,485.38	-3,567.62	1,616.77	1,332.54	284.23	5.688		
9,000.00	7,124.64	7,062.64	7,124.64	65.25	244.83	-90.43	-1,485.38	-3,567.62	1,529.38	1,243.39	285.99	5.348		
9,100.00	7,124.21	7,062.21	7,124.21	67.76	244.82	-90.40	-1,485.38	-3,567.62	1,443.63	1,155.54	288.09	5.011		
9,200.00	7,123.78	7,061.78	7,123.78	70.29	244.80	-90.37	-1,485.38	-3,567.62	1,359.83	1,069.25	290.58	4.680		
9,300.00	7,123.34	7,061.34	7,123.34	72.85	244.79	-90.33	-1,485.38	-3,567.62	1,278.35	984.84	293.51	4.355		
9,400.00	7,122.91	7,060.91	7,122.91	75.43	244.77	-90.30	-1,485.38	-3,567.62	1,199.68	902.74	296.95	4.040		
9,500.00	7,122.48	7,060.48	7,122.48	78.03	244.76	-90.27	-1,485.38	-3,567.62	1,124.41	823.48	300.93	3.736		
9,600.00	7,122.04	7,060.04	7,122.04	80.65	244.74	-90.24	-1,485.38	-3,567.62	1,053.26	747.78	305.48	3.448		
9,700.00	7,121.61	7,059.61	7,121.61	83.28	244.73	-90.20	-1,485.38	-3,567.62	987.12	676.51	310.61	3.178		
9,800.00	7,121.17	7,059.17	7,121.17	85.93	244.71	-90.17	-1,485.38	-3,567.62	927.08	610.82	316.26	2.931		
9,900.00	7,120.74	7,058.74	7,120.74	88.59	244.70	-90.14	-1,485.38	-3,567.62	874.37	552.09	322.29	2.713		
10,000.00	7,120.31	7,058.31	7,120.31	91.26	244.68	-90.11	-1,485.38	-3,567.62	830.41	501.96	328.45	2.528		
10,100.00	7,119.87	7,057.87	7,119.87	93.95	244.67	-90.07	-1,485.38	-3,567.62	796.64	462.25	334.38	2.382		
10,200.00	7,119.44	7,057.44	7,119.44	96.64	244.65	-90.04	-1,485.38	-3,567.62	774.39	434.75	339.65	2.280		
10,300.00	7,119.00	7,057.00	7,119.00	99.34	244.64	-90.01	-1,485.38	-3,567.62	764.68	420.90	343.79	2.224		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,324.73	7,118.90	7,056.90	7,118.90	100.01	244.63	-90.00	-1,485.38	-3,567.62	764.28	419.69	344.60	2.218	CC, ES	
10,400.00	7,118.57	7,056.57	7,118.57	102.05	244.62	-89.98	-1,485.38	-3,567.62	767.98	421.50	346.48	2.217	SF	
10,500.00	7,118.14	7,056.14	7,118.14	104.77	244.61	-89.94	-1,485.38	-3,567.62	784.12	436.51	347.61	2.256		
10,600.00	7,117.70	7,055.70	7,117.70	107.50	244.59	-89.91	-1,485.38	-3,567.62	812.34	465.04	347.31	2.339		
10,700.00	7,117.27	7,055.27	7,117.27	110.23	244.58	-89.88	-1,485.38	-3,567.62	851.44	505.59	345.85	2.462		
10,800.00	7,116.83	7,054.83	7,116.83	112.97	244.56	-89.85	-1,485.38	-3,567.62	900.00	556.42	343.59	2.619		
10,900.00	7,116.40	7,054.40	7,116.40	115.72	244.55	-89.81	-1,485.38	-3,567.62	956.59	615.74	340.84	2.807		
11,000.00	7,115.97	7,053.97	7,115.97	118.47	244.53	-89.78	-1,485.38	-3,567.62	1,019.86	681.98	337.87	3.018		
11,100.00	7,115.53	7,053.53	7,115.53	121.22	244.52	-89.75	-1,485.38	-3,567.62	1,088.65	753.79	334.86	3.251		
11,200.00	7,115.10	7,053.10	7,115.10	123.98	244.50	-89.72	-1,485.38	-3,567.62	1,161.98	830.05	331.93	3.501		
11,300.00	7,114.66	7,052.66	7,114.66	126.74	244.49	-89.68	-1,485.38	-3,567.62	1,239.06	909.91	329.15	3.764		
11,400.00	7,114.23	7,052.23	7,114.23	129.51	244.47	-89.65	-1,485.38	-3,567.62	1,319.21	992.66	326.55	4.040		
11,500.00	7,113.80	7,051.80	7,113.80	132.29	244.46	-89.62	-1,485.38	-3,567.62	1,401.91	1,077.78	324.14	4.325		
11,600.00	7,113.36	7,051.36	7,113.36	135.06	244.44	-89.59	-1,485.38	-3,567.62	1,486.74	1,164.82	321.92	4.618		
11,700.00	7,112.93	7,050.93	7,112.93	137.84	244.42	-89.55	-1,485.38	-3,567.62	1,573.36	1,253.47	319.89	4.918		
11,800.00	7,112.49	7,050.49	7,112.49	140.62	244.41	-89.52	-1,485.38	-3,567.62	1,661.48	1,343.45	318.03	5.224		
11,900.00	7,112.06	7,050.06	7,112.06	143.41	244.39	-89.49	-1,485.38	-3,567.62	1,750.87	1,434.54	316.33	5.535		
12,000.00	7,111.63	7,049.63	7,111.63	146.20	244.38	-89.46	-1,485.38	-3,567.62	1,841.36	1,526.59	314.77	5.850		
12,100.00	7,111.19	7,049.19	7,111.19	148.99	244.36	-89.42	-1,485.38	-3,567.62	1,932.78	1,619.43	313.35	6.168		
12,200.00	7,110.76	7,048.76	7,110.76	151.78	244.35	-89.39	-1,485.38	-3,567.62	2,025.02	1,712.97	312.04	6.490		
12,300.00	7,110.33	7,048.33	7,110.33	154.58	244.33	-89.36	-1,485.38	-3,567.62	2,117.96	1,807.11	310.84	6.814		
12,400.00	7,109.89	7,047.89	7,109.89	157.37	244.32	-89.32	-1,485.38	-3,567.62	2,211.51	1,901.77	309.74	7.140		
12,500.00	7,109.46	7,047.46	7,109.46	160.17	244.30	-89.29	-1,485.38	-3,567.62	2,305.61	1,996.88	308.73	7.468		
12,600.00	7,109.02	7,047.02	7,109.02	162.98	244.29	-89.26	-1,485.38	-3,567.62	2,400.18	2,092.39	307.79	7.798		
12,700.00	7,108.59	7,046.59	7,108.59	165.78	244.27	-89.23	-1,485.38	-3,567.62	2,495.18	2,188.25	306.93	8.129		
12,800.00	7,108.16	7,046.16	7,108.16	168.59	244.26	-89.19	-1,485.38	-3,567.62	2,590.55	2,284.42	306.13	8.462		
12,900.00	7,107.72	7,045.72	7,107.72	171.39	244.24	-89.16	-1,485.38	-3,567.62	2,686.26	2,380.87	305.39	8.796		
13,000.00	7,107.29	7,045.29	7,107.29	174.20	244.23	-89.13	-1,485.38	-3,567.62	2,782.27	2,477.57	304.70	9.131		
13,100.00	7,106.85	7,044.85	7,106.85	177.01	244.21	-89.10	-1,485.38	-3,567.62	2,878.56	2,574.50	304.06	9.467		
13,200.00	7,106.42	7,044.42	7,106.42	179.83	244.20	-89.06	-1,485.38	-3,567.62	2,975.09	2,671.62	303.47	9.804		
13,300.00	7,105.99	7,043.99	7,105.99	182.64	244.18	-89.03	-1,485.38	-3,567.62	3,071.84	2,768.93	302.91	10.141		
13,400.00	7,105.55	7,043.55	7,105.55	185.45	244.17	-89.00	-1,485.38	-3,567.62	3,168.79	2,866.40	302.39	10.479		
13,500.00	7,105.12	7,043.12	7,105.12	188.27	244.15	-88.97	-1,485.38	-3,567.62	3,265.92	2,964.02	301.91	10.818		
13,600.00	7,104.68	7,042.68	7,104.68	191.09	244.14	-88.93	-1,485.38	-3,567.62	3,363.23	3,061.77	301.46	11.157		
13,700.00	7,104.25	7,042.25	7,104.25	193.91	244.12	-88.90	-1,485.38	-3,567.62	3,460.69	3,159.65	301.03	11.496		
13,800.00	7,103.82	7,041.82	7,103.82	196.73	244.11	-88.87	-1,485.38	-3,567.62	3,558.28	3,257.65	300.63	11.836		
13,900.00	7,103.38	7,041.38	7,103.38	199.55	244.09	-88.84	-1,485.38	-3,567.62	3,656.01	3,355.75	300.26	12.176		
14,000.00	7,102.95	7,040.95	7,102.95	202.37	244.08	-88.80	-1,485.38	-3,567.62	3,753.86	3,453.95	299.91	12.517		
14,100.00	7,102.51	7,040.51	7,102.51	205.19	244.06	-88.77	-1,485.38	-3,567.62	3,851.82	3,552.24	299.58	12.857		
14,200.00	7,102.08	7,040.08	7,102.08	208.02	244.05	-88.74	-1,485.38	-3,567.62	3,949.88	3,650.61	299.27	13.198		
14,300.00	7,101.65	7,039.65	7,101.65	210.84	244.03	-88.71	-1,485.38	-3,567.62	4,048.03	3,749.05	298.98	13.539		
14,400.00	7,101.21	7,039.21	7,101.21	213.67	244.02	-88.67	-1,485.38	-3,567.62	4,146.28	3,847.57	298.71	13.881		
14,500.00	7,100.78	7,038.78	7,100.78	216.50	244.00	-88.64	-1,485.38	-3,567.62	4,244.60	3,946.16	298.45	14.222		
14,600.00	7,100.35	7,038.35	7,100.35	219.32	243.99	-88.61	-1,485.38	-3,567.62	4,343.01	4,044.80	298.20	14.564		
14,700.00	7,099.91	7,037.91	7,099.91	222.15	243.97	-88.58	-1,485.38	-3,567.62	4,441.48	4,143.50	297.98	14.906		
14,800.00	7,099.48	7,037.48	7,099.48	224.98	243.96	-88.54	-1,485.38	-3,567.62	4,540.02	4,242.26	297.76	15.247		
14,900.00	7,099.04	7,037.04	7,099.04	227.81	243.94	-88.51	-1,485.38	-3,567.62	4,638.62	4,341.07	297.56	15.589		
14,909.96	7,099.00	7,037.00	7,099.00	228.09	243.94	-88.51	-1,485.38	-3,567.62	4,648.45	4,350.91	297.54	15.623		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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: 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	59.49	3.28	3.28	-91.72	-273.85	-9,144.53	9,148.83					
100.00	100.00	185.00	210.98	3.28	3.34	-91.71	-272.40	-9,142.97	9,147.70	9,141.08	6.62	1,381.412		
200.00	200.00	289.12	315.10	3.34	3.45	-91.70	-271.89	-9,141.64	9,146.41	9,139.62	6.79	1,347.619		
300.00	300.00	369.04	395.00	3.44	3.58	-91.70	-271.72	-9,140.73	9,145.26	9,138.25	7.02	1,303.043		
400.00	400.00	464.81	490.77	3.60	3.76	-91.70	-271.48	-9,139.77	9,144.25	9,136.89	7.36	1,241.926		
500.00	500.00	547.69	573.65	3.81	3.95	-91.70	-271.26	-9,139.01	9,143.33	9,135.58	7.75	1,179.082		
600.00	600.00	624.18	650.13	4.04	4.15	75.15	-271.38	-9,138.48	9,142.63	9,134.44	8.19	1,116.788		
700.00	699.96	738.90	764.85	4.29	4.47	75.19	-271.53	-9,137.90	9,141.52	9,132.77	8.76	1,044.055		
800.00	799.78	849.45	875.40	4.57	4.81	75.27	-271.38	-9,137.06	9,139.24	9,129.87	9.37	974.935		
900.00	899.34	930.62	956.57	4.88	5.08	75.38	-271.26	-9,136.46	9,136.11	9,126.17	9.94	918.929		
1,000.00	998.72	984.00	1,009.95	5.20	5.26	75.42	-271.31	-9,136.17	9,132.82	9,122.38	10.45	874.138		
1,100.00	1,098.10	984.00	1,009.95	5.54	5.26	75.42	-271.31	-9,136.17	9,130.44	9,119.65	10.79	845.919		
1,200.00	1,197.49	1,049.40	1,075.34	5.90	5.47	75.46	-271.32	-9,136.45	9,128.32	9,116.95	11.37	802.787		
1,300.00	1,296.87	1,112.00	1,137.93	6.28	5.68	75.50	-271.08	-9,137.84	9,127.49	9,115.54	11.96	763.385		
1,394.93	1,391.21	1,112.00	1,137.93	6.64	5.68	75.50	-271.08	-9,137.84	9,127.00	9,114.68	12.32	740.676		
1,400.00	1,396.25	1,112.00	1,137.93	6.66	5.68	75.50	-271.08	-9,137.84	9,127.00	9,114.66	12.34	739.491		
1,500.00	1,495.64	1,112.00	1,137.93	7.06	5.68	75.50	-271.08	-9,137.84	9,127.61	9,114.87	12.74	716.636		
1,600.00	1,595.02	1,112.00	1,137.93	7.46	5.68	75.50	-271.08	-9,137.84	9,129.30	9,116.17	13.14	694.863		
1,700.00	1,694.40	1,180.84	1,206.71	7.87	5.91	75.55	-270.76	-9,140.74	9,131.06	9,117.28	13.78	662.856		
1,800.00	1,793.79	1,241.00	1,266.74	8.29	6.12	75.60	-270.57	-9,144.55	9,134.34	9,119.94	14.39	634.663		
1,900.00	1,893.17	1,241.00	1,266.74	8.71	6.12	75.60	-270.57	-9,144.55	9,137.92	9,123.11	14.81	617.103		
2,000.00	1,992.55	1,241.00	1,266.74	9.13	6.12	75.60	-270.57	-9,144.55	9,142.59	9,127.36	15.23	600.468		
2,100.00	2,091.94	1,241.00	1,266.74	9.56	6.12	75.60	-270.57	-9,144.55	9,148.35	9,132.70	15.65	584.721		
2,200.00	2,191.32	1,301.23	1,326.76	9.99	6.33	75.64	-270.42	-9,149.60	9,154.36	9,138.08	16.28	562.282		
2,300.00	2,290.70	1,369.00	1,394.14	10.42	6.58	75.68	-270.25	-9,156.81	9,161.97	9,145.03	16.95	540.602		
2,400.00	2,390.09	1,369.00	1,394.14	10.86	6.58	75.68	-270.25	-9,156.81	9,169.61	9,152.24	17.37	527.874		
2,500.00	2,489.47	1,369.00	1,394.14	11.29	6.58	75.68	-270.25	-9,156.81	9,178.33	9,160.54	17.79	515.817		
2,600.00	2,588.86	1,369.00	1,394.14	11.73	6.58	75.68	-270.25	-9,156.81	9,188.13	9,169.92	18.22	504.396		
2,700.00	2,688.24	1,422.89	1,447.60	12.18	6.78	75.72	-270.27	-9,163.64	9,198.41	9,179.57	18.84	488.259		
2,800.00	2,787.62	1,448.60	1,473.06	12.62	6.88	75.74	-270.38	-9,167.21	9,209.64	9,190.28	19.36	475.757		
2,900.00	2,887.01	1,498.00	1,521.90	13.06	7.07	75.77	-270.81	-9,174.63	9,221.79	9,201.82	19.97	461.802		
3,000.00	2,986.39	1,498.00	1,521.90	13.51	7.07	75.77	-270.81	-9,174.63	9,234.49	9,214.11	20.39	452.944		
3,100.00	3,085.77	1,498.00	1,521.90	13.95	7.07	75.77	-270.81	-9,174.63	9,248.26	9,227.46	20.80	444.537		
3,200.00	3,185.16	1,547.37	1,570.58	14.40	7.27	75.80	-271.40	-9,182.82	9,262.55	9,241.13	21.42	432.516		
3,300.00	3,284.54	1,571.08	1,593.91	14.85	7.37	75.81	-271.71	-9,187.05	9,277.78	9,255.86	21.92	423.179		
3,400.00	3,383.92	1,626.00	1,647.80	15.30	7.60	75.85	-272.49	-9,197.56	9,294.04	9,271.48	22.56	411.982		
3,500.00	3,483.31	1,626.00	1,647.80	15.75	7.60	75.85	-272.49	-9,197.56	9,310.66	9,287.69	22.97	405.374		
3,600.00	3,582.69	1,626.00	1,647.80	16.20	7.60	75.85	-272.49	-9,197.56	9,328.33	9,304.96	23.37	399.095		
3,700.00	3,682.07	1,626.00	1,647.80	16.65	7.60	75.85	-272.49	-9,197.56	9,347.04	9,323.26	23.78	393.125		
3,800.00	3,781.46	1,685.45	1,705.91	17.10	7.88	75.88	-273.49	-9,210.11	9,365.94	9,341.51	24.43	383.384		
3,900.00	3,880.84	1,754.00	1,772.54	17.56	8.19	75.92	-274.91	-9,226.14	9,386.48	9,361.35	25.12	373.592		
4,000.00	3,980.22	1,754.00	1,772.54	18.01	8.19	75.92	-274.91	-9,226.14	9,406.93	9,381.41	25.52	368.608		
4,100.00	4,079.61	1,754.00	1,772.54	18.46	8.19	75.92	-274.91	-9,226.14	9,428.39	9,402.48	25.91	363.867		
4,200.00	4,178.99	1,754.00	1,772.54	18.92	8.19	75.92	-274.91	-9,226.14	9,450.87	9,424.57	26.30	359.358		
4,300.00	4,278.38	1,806.61	1,823.43	19.37	8.46	75.95	-276.01	-9,239.43	9,473.84	9,446.92	26.92	351.890		
4,400.00	4,377.76	1,834.31	1,850.15	19.83	8.61	75.96	-276.52	-9,246.71	9,497.64	9,470.21	27.43	346.228		
4,500.00	4,477.14	1,883.00	1,896.99	20.28	8.86	75.99	-277.31	-9,259.98	9,522.23	9,494.19	28.04	339.628		
4,600.00	4,576.53	1,883.00	1,896.99	20.74	8.86	75.99	-277.31	-9,259.98	9,547.37	9,518.95	28.41	336.029		
4,700.00	4,675.91	1,883.00	1,896.99	21.19	8.86	75.99	-277.31	-9,259.98	9,573.48	9,544.70	28.78	332.606		
4,800.00	4,775.29	1,952.69	1,963.76	21.65	9.26	76.03	-278.36	-9,279.90	9,599.79	9,570.30	29.49	325.547		
4,900.00	4,874.68	2,011.00	2,019.39	22.10	9.60	76.06	-279.32	-9,297.35	9,627.11	9,596.97	30.14	319.413		
5,000.00	4,974.06	2,011.00	2,019.39	22.56	9.60	76.06	-279.32	-9,297.35	9,654.85	9,624.35	30.50	316.533		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,100.00	5,073.44	2,059.99	2,065.99	23.02	9.90	76.09	-280.15	-9,312.44	9,683.27	9,652.16	31.11	311.279		
5,200.00	5,172.83	2,103.65	2,107.44	23.47	10.18	76.11	-280.88	-9,326.12	9,712.21	9,680.52	31.69	306.506		
5,300.00	5,272.21	2,137.00	2,140.79	23.93	10.46	76.13	-281.61	-9,339.89	9,742.30	9,693.30	32.27	301.851		
5,400.00	5,371.59	2,170.25	2,174.04	24.39	10.74	76.15	-282.34	-9,353.66	9,767.98	9,703.72	32.85	297.196		
5,500.00	5,470.98	2,203.50	2,207.29	24.85	11.02	76.17	-283.07	-9,367.43	9,793.50	9,729.26	33.43	292.541		
5,600.00	5,570.36	2,236.75	2,240.54	25.30	11.30	76.19	-283.80	-9,381.20	9,819.02	9,754.78	34.01	287.886		
5,700.00	5,669.75	2,270.00	2,273.79	25.76	11.58	76.21	-284.53	-9,394.97	9,844.54	9,780.30	34.59	283.231		
5,800.00	5,769.13	2,303.25	2,307.04	26.22	11.86	76.23	-285.26	-9,408.74	9,870.06	9,805.82	35.17	278.576		
5,900.00	5,868.51	2,336.50	2,340.29	26.68	12.14	76.25	-285.99	-9,422.51	9,895.58	9,831.34	35.75	273.921		
6,000.00	5,967.90	2,369.75	2,373.54	27.14	12.42	76.27	-286.72	-9,436.28	9,921.10	9,856.86	36.33	269.266		
6,100.00	6,067.28	2,403.00	2,406.79	27.60	12.70	76.29	-287.45	-9,450.05	9,946.62	9,882.38	36.91	264.611		
7,000.00	6,921.48	2,812.55	2,816.34	31.54	13.94	76.33	-290.13	-9,493.09	9,999.89	9,938.18	61.71	162.038		
7,100.00	6,989.86	2,845.80	2,849.59	31.91	14.22	76.35	-290.86	-9,506.86	9,925.41	9,863.70	62.29	157.383		
7,200.00	7,046.13	2,879.05	2,882.84	32.35	14.50	76.37	-291.59	-9,520.63	9,850.93	9,789.22	62.87	152.728		
7,300.00	7,088.91	2,912.30	2,916.09	32.79	14.78	76.39	-292.32	-9,534.40	9,776.45	9,714.74	63.45	148.073		
7,400.00	7,117.14	2,945.55	2,949.34	33.23	15.06	76.41	-293.05	-9,548.17	9,701.97	9,640.26	64.03	143.418		
7,500.00	7,130.13	2,978.80	2,982.59	33.67	15.34	76.43	-293.78	-9,561.94	9,627.49	9,565.78	64.61	138.763		
7,600.00	7,130.72	2,979.42	2,983.21	33.63	15.30	76.43	-293.72	-9,562.56	9,467.71	9,404.26	63.45	149.210		
7,700.00	7,130.29	2,979.99	2,983.78	33.59	15.26	76.43	-293.66	-9,563.18	9,367.86	9,304.37	63.49	147.542		
7,800.00	7,129.85	2,980.56	2,984.35	33.55	15.22	76.43	-293.60	-9,563.80	9,268.01	9,204.48	63.54	145.870		
7,900.00	7,129.42	2,981.13	2,984.92	33.51	15.18	76.43	-293.54	-9,564.42	9,168.17	9,104.59	63.58	144.196		
8,000.00	7,128.98	2,981.70	2,985.49	33.47	15.14	76.43	-293.48	-9,565.04	9,068.33	9,004.70	63.63	142.519		
8,100.00	7,128.55	2,982.27	2,986.06	33.43	15.10	76.43	-293.42	-9,565.66	8,968.49	8,904.81	63.68	140.839		
8,200.00	7,128.12	2,982.84	2,986.63	33.39	15.06	76.43	-293.36	-9,566.28	8,868.65	8,804.92	63.73	139.156		
8,300.00	7,127.68	2,983.41	2,987.20	33.35	15.02	76.43	-293.30	-9,566.90	8,768.82	8,705.03	63.79	137.470		
8,400.00	7,127.25	2,983.98	2,987.77	33.31	14.98	76.43	-293.24	-9,567.52	8,668.99	8,605.14	63.85	135.778		
8,500.00	7,126.81	2,984.55	2,988.34	33.27	14.94	76.43	-293.18	-9,568.14	8,569.16	8,505.25	63.91	134.083		
8,600.00	7,126.38	2,985.12	2,988.91	33.23	14.90	76.43	-293.12	-9,568.76	8,469.34	8,405.37	63.98	132.385		
8,700.00	7,125.95	2,985.69	2,989.48	33.19	14.86	76.43	-293.06	-9,569.38	8,369.52	8,305.48	64.04	130.685		
8,800.00	7,125.51	2,986.26	2,990.05	33.15	14.82	76.43	-293.00	-9,570.00	8,269.70	8,205.59	64.11	128.983		
8,900.00	7,125.08	2,986.83	2,990.62	33.11	14.78	76.43	-292.94	-9,570.62	8,169.89	8,105.70	64.19	127.279		
9,000.00	7,124.64	2,987.40	2,991.19	33.07	14.74	76.43	-292.88	-9,571.24	8,070.08	8,005.82	64.27	125.573		
9,100.00	7,124.21	2,987.97	2,991.76	33.03	14.70	76.43	-292.82	-9,571.86	7,970.28	7,905.93	64.35	123.866		
9,200.00	7,123.78	2,988.54	2,992.33	32.99	14.66	76.43	-292.76	-9,572.48	7,870.48	7,806.05	64.43	122.156		
9,300.00	7,123.34	2,989.11	2,992.90	32.95	14.62	76.43	-292.70	-9,573.10	7,770.68	7,706.16	64.52	120.445		
9,400.00	7,122.91	2,989.68	2,993.47	32.91	14.58	76.43	-292.64	-9,573.72	7,670.89	7,606.28	64.61	118.732		
9,500.00	7,122.48	2,990.25	2,994.04	32.87	14.54	76.43	-292.58	-9,574.34	7,571.10	7,506.40	64.70	117.017		
9,600.00	7,122.04	2,990.82	2,994.61	32.83	14.50	76.43	-292.52	-9,574.96	7,471.31	7,406.51	64.80	115.300		
9,700.00	7,121.61	2,991.39	2,995.18	32.79	14.46	76.43	-292.46	-9,575.58	7,371.53	7,306.63	64.90	113.582		
9,800.00	7,121.17	2,991.96	2,995.75	32.75	14.42	76.43	-292.40	-9,576.20	7,271.76	7,206.75	65.01	111.862		
9,900.00	7,120.74	2,992.53	2,996.32	32.71	14.38	76.43	-292.34	-9,576.82	7,171.99	7,106.88	65.12	110.141		
10,000.00	7,120.31	2,993.10	2,996.89	32.67	14.34	76.43	-292.28	-9,577.44	7,072.23	7,007.00	65.23	108.418		
10,100.00	7,119.87	2,993.67	2,997.46	32.63	14.30	76.43	-292.22	-9,578.06	6,972.47	6,907.12	65.35	106.694		
10,200.00	7,119.44	2,994.24	2,998.03	32.59	14.26	76.43	-292.16	-9,578.68	6,872.72	6,807.25	65.47	104.968		
10,300.00	7,119.00	2,994.81	2,998.60	32.55	14.22	76.43	-292.10	-9,579.30	6,772.98	6,707.37	65.60	103.240		
10,400.00	7,118.57	2,995.38	2,999.17	32.51	14.18	76.43	-292.04	-9,579.92	6,673.24	6,607.50	65.74	101.512		
10,500.00	7,118.14	2,995.95	2,999.74	32.47	14.14	76.43	-291.98	-9,580.54	6,573.51	6,507.63	65.88	99.782		
10,600.00	7,117.70	2,996.52	2,999.31	32.43	14.10	76.43	-291.92	-9,581.16	6,473.78	6,407.76	66.03	98.050		
10,700.00	7,117.27	2,997.09	2,999.88	32.39	14.06	76.43	-291.86	-9,581.78	6,374.07	6,307.89	66.18	96.317		
10,800.00	7,116.83	2,997.66	2,999.45	32.35	14.02	76.43	-291.80	-9,582.40	6,274.36	6,208.02	66.34	94.583		
10,900.00	7,116.40	2,998.23	2,999.02	32.31	13.98	76.43	-291.74	-9,583.02	6,174.66	6,108.16	66.50	92.848		
11,000.00	7,115.97	2,998.80	2,998.59	32.27	13.94	76.43	-291.68	-9,583.64	6,074.97	6,008.29	66.68	91.111		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
11,100.00	7,115.53	7,096.41	6,948.29	121.22	39.95	72.85	-315.18	-10,307.52	5,975.29	5,908.43	66.86	89.373		
11,200.00	7,115.10	7,099.06	6,950.93	123.98	39.96	73.15	-315.23	-10,307.60	5,875.61	5,808.57	67.05	87.634		
11,300.00	7,114.66	7,101.69	6,953.57	126.74	39.97	73.45	-315.28	-10,307.67	5,775.95	5,708.71	67.25	85.894		
11,400.00	7,114.23	7,104.32	6,956.19	129.51	39.98	73.75	-315.33	-10,307.75	5,676.30	5,608.85	67.45	84.153		
11,500.00	7,113.80	7,106.94	6,958.81	132.29	39.99	74.06	-315.37	-10,307.83	5,576.66	5,508.99	67.67	82.410		
11,600.00	7,113.36	7,109.55	6,961.42	135.06	40.00	74.36	-315.42	-10,307.90	5,477.03	5,409.13	67.90	80.666		
11,700.00	7,112.93	7,112.15	6,964.02	137.84	40.01	74.66	-315.46	-10,307.98	5,377.41	5,309.28	68.14	78.922		
11,800.00	7,112.49	7,114.74	6,966.61	140.62	40.02	74.96	-315.50	-10,308.05	5,277.81	5,209.43	68.39	77.176		
11,900.00	7,112.06	7,117.32	6,969.19	143.41	40.03	75.26	-315.54	-10,308.13	5,178.22	5,109.57	68.65	75.429		
12,000.00	7,111.63	7,119.90	6,971.76	146.20	40.04	75.56	-315.58	-10,308.20	5,078.65	5,009.72	68.93	73.681		
12,100.00	7,111.19	7,122.46	6,974.33	148.99	40.05	75.86	-315.63	-10,308.28	4,979.09	4,909.87	69.22	71.933		
12,200.00	7,110.76	7,125.02	6,976.88	151.78	40.06	76.16	-315.67	-10,308.35	4,879.55	4,810.03	69.53	70.183		
12,300.00	7,110.33	7,127.57	6,979.43	154.58	40.06	76.46	-315.70	-10,308.42	4,780.03	4,710.18	69.85	68.433		
12,400.00	7,109.89	7,130.10	6,981.96	157.37	40.07	76.76	-315.74	-10,308.50	4,680.53	4,610.33	70.19	66.682		
12,500.00	7,109.46	7,132.63	6,984.49	160.17	40.08	77.06	-315.78	-10,308.57	4,581.04	4,510.49	70.55	64.931		
12,600.00	7,109.02	7,135.16	6,987.01	162.98	40.09	77.36	-315.82	-10,308.64	4,481.58	4,410.64	70.94	63.178		
12,700.00	7,108.59	7,137.67	6,989.52	165.78	40.10	77.65	-315.85	-10,308.72	4,382.14	4,310.80	71.34	61.426		
12,800.00	7,108.16	7,140.17	6,992.03	168.59	40.11	77.95	-315.89	-10,308.79	4,282.73	4,210.96	71.77	59.673		
12,900.00	7,107.72	7,142.67	6,994.52	171.39	40.12	78.25	-315.92	-10,308.86	4,183.34	4,111.11	72.23	57.921		
13,000.00	7,107.29	7,145.16	6,997.01	174.20	40.13	78.55	-315.95	-10,308.93	4,083.98	4,011.27	72.71	56.168		
13,100.00	7,106.85	7,147.80	6,999.65	177.01	40.14	78.87	-315.99	-10,309.00	3,984.65	3,911.42	73.23	54.416		
13,200.00	7,106.42	7,150.86	7,002.71	179.83	40.15	79.23	-316.03	-10,309.09	3,885.35	3,811.58	73.78	52.664		
13,300.00	7,105.99	7,153.88	7,005.72	182.64	40.16	79.60	-316.07	-10,309.18	3,786.09	3,711.73	74.36	50.913		
13,400.00	7,105.55	7,156.85	7,008.70	185.45	40.17	79.96	-316.11	-10,309.26	3,686.87	3,611.88	74.99	49.164		
13,500.00	7,105.12	7,159.78	7,011.63	188.27	40.18	80.31	-316.14	-10,309.34	3,587.69	3,512.02	75.66	47.417		
13,600.00	7,104.68	7,162.67	7,014.51	191.09	40.19	80.67	-316.18	-10,309.42	3,488.55	3,412.17	76.38	45.672		
13,700.00	7,104.25	7,165.52	7,017.36	193.91	40.20	81.01	-316.22	-10,309.50	3,389.46	3,312.30	77.16	43.930		
13,800.00	7,103.82	7,168.33	7,020.17	196.73	40.21	81.36	-316.25	-10,309.58	3,290.43	3,212.44	77.99	42.191		
13,900.00	7,103.38	7,171.09	7,022.93	199.55	40.22	81.69	-316.29	-10,309.65	3,191.45	3,112.56	78.89	40.457		
14,000.00	7,102.95	7,173.82	7,025.66	202.37	40.23	82.03	-316.32	-10,309.73	3,092.53	3,012.68	79.85	38.727		
14,100.00	7,102.51	7,176.52	7,028.35	205.19	40.24	82.36	-316.35	-10,309.80	2,993.69	2,912.79	80.90	37.004		
14,200.00	7,102.08	7,179.17	7,031.01	208.02	40.25	82.69	-316.38	-10,309.87	2,894.92	2,812.89	82.04	35.288		
14,300.00	7,101.65	7,181.79	7,033.63	210.84	40.26	83.01	-316.41	-10,309.94	2,796.24	2,712.97	83.27	33.580		
14,400.00	7,101.21	7,184.37	7,036.21	213.67	40.27	83.33	-316.45	-10,310.01	2,697.66	2,613.04	84.62	31.881		
14,500.00	7,100.78	7,186.92	7,038.76	216.50	40.28	83.64	-316.48	-10,310.07	2,599.18	2,513.10	86.08	30.194		
14,600.00	7,100.35	7,189.44	7,041.27	219.32	40.29	83.95	-316.50	-10,310.14	2,500.82	2,413.13	87.69	28.520		
14,700.00	7,099.91	7,191.92	7,043.75	222.15	40.30	84.26	-316.53	-10,310.20	2,402.59	2,313.14	89.45	26.860		
14,800.00	7,099.48	7,194.37	7,046.20	224.98	40.30	84.56	-316.56	-10,310.27	2,304.51	2,213.13	91.39	25.218		
14,900.00	7,099.04	7,196.79	7,048.62	227.81	40.31	84.86	-316.59	-10,310.33	2,206.60	2,113.08	93.52	23.594		
14,909.96	7,099.00	7,197.03	7,048.85	228.09	40.31	84.89	-316.59	-10,310.34	2,196.86	2,103.11	93.75	23.434	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	39.00	3.28	3.28	-91.37	-219.44	-9,147.50	9,150.22				
100.00	100.00	61.00	100.00	3.28	3.45	-91.37	-219.44	-9,147.50	9,150.14	9,143.40	6.73	1,358.955	
200.00	200.00	161.00	200.00	3.34	5.08	-91.37	-219.44	-9,147.50	9,150.14	9,141.72	8.41	1,087.509	
300.00	300.00	261.00	300.00	3.44	8.06	-91.37	-219.44	-9,147.50	9,150.14	9,138.63	11.51	795.098	
400.00	400.00	361.00	400.00	3.60	11.34	-91.37	-219.44	-9,147.50	9,150.14	9,135.19	14.94	612.254	
500.00	500.00	461.00	500.00	3.81	14.72	-91.37	-219.44	-9,147.50	9,150.14	9,131.61	18.52	493.957	
600.00	600.00	561.00	600.00	4.04	18.14	75.47	-219.44	-9,147.50	9,150.12	9,127.94	22.18	412.507	
700.00	699.96	660.96	699.96	4.29	21.58	75.50	-219.44	-9,147.50	9,149.51	9,123.64	25.87	353.668	
800.00	799.78	760.78	799.78	4.57	25.03	75.57	-219.44	-9,147.50	9,148.02	9,118.43	29.60	309.091	
900.00	899.34	860.34	899.34	4.88	28.48	75.67	-219.44	-9,147.50	9,145.67	9,112.33	33.35	274.247	
1,000.00	998.72	959.72	998.72	5.20	31.93	75.73	-219.44	-9,147.50	9,142.92	9,105.80	37.12	246.288	
1,100.00	1,098.10	1,059.10	1,098.10	5.54	35.38	75.80	-219.44	-9,147.50	9,140.18	9,099.26	40.92	223.363	
1,200.00	1,197.49	1,158.49	1,197.49	5.90	38.84	75.87	-219.44	-9,147.50	9,137.45	9,092.71	44.74	204.245	
1,300.00	1,296.87	1,257.87	1,296.87	6.28	42.29	75.93	-219.44	-9,147.50	9,134.73	9,086.16	48.57	188.074	
1,400.00	1,396.25	1,357.25	1,396.25	6.66	45.75	76.00	-219.44	-9,147.50	9,132.03	9,079.61	52.41	174.226	
1,500.00	1,495.64	1,456.64	1,495.64	7.06	49.22	76.07	-219.44	-9,147.50	9,129.34	9,073.07	56.27	162.240	
1,600.00	1,595.02	1,556.02	1,595.02	7.46	52.68	76.14	-219.44	-9,147.50	9,126.66	9,066.52	60.13	151.770	
1,700.00	1,694.40	1,655.40	1,694.40	7.87	56.14	76.20	-219.44	-9,147.50	9,123.99	9,059.99	64.01	142.548	
1,800.00	1,793.79	1,754.79	1,793.79	8.29	59.60	76.27	-219.44	-9,147.50	9,121.34	9,053.46	67.88	134.365	
1,900.00	1,893.17	1,854.17	1,893.17	8.71	63.07	76.34	-219.44	-9,147.50	9,118.70	9,046.93	71.77	127.057	
2,000.00	1,992.55	1,953.55	1,992.55	9.13	66.53	76.40	-219.44	-9,147.50	9,116.07	9,040.42	75.66	120.493	
2,100.00	2,091.94	2,052.94	2,091.94	9.56	70.00	76.47	-219.44	-9,147.50	9,113.46	9,033.91	79.55	114.564	
2,200.00	2,191.32	2,152.32	2,191.32	9.99	73.47	76.54	-219.44	-9,147.50	9,110.86	9,027.41	83.44	109.185	
2,300.00	2,290.70	2,251.70	2,290.70	10.42	76.93	76.61	-219.44	-9,147.50	9,108.27	9,020.92	87.34	104.281	
2,400.00	2,390.09	2,351.09	2,390.09	10.86	80.40	76.67	-219.44	-9,147.50	9,105.69	9,014.44	91.24	99.794	
2,500.00	2,489.47	2,450.47	2,489.47	11.29	83.86	76.74	-219.44	-9,147.50	9,103.13	9,007.98	95.15	95.673	
2,600.00	2,588.86	2,549.86	2,588.86	11.73	87.33	76.81	-219.44	-9,147.50	9,100.57	9,001.52	99.05	91.874	
2,700.00	2,688.24	2,649.24	2,688.24	12.18	90.80	76.88	-219.44	-9,147.50	9,098.04	8,995.07	102.96	88.362	
2,800.00	2,787.62	2,748.62	2,787.62	12.62	94.27	76.94	-219.44	-9,147.50	9,095.51	8,988.64	106.87	85.106	
2,900.00	2,887.01	2,848.01	2,887.01	13.06	97.73	77.01	-219.44	-9,147.50	9,093.00	8,982.21	110.78	82.079	
3,000.00	2,986.39	2,947.39	2,986.39	13.51	101.20	77.08	-219.44	-9,147.50	9,090.50	8,975.80	114.70	79.257	
3,100.00	3,085.77	3,046.77	3,085.77	13.95	104.67	77.15	-219.44	-9,147.50	9,088.01	8,969.40	118.61	76.621	
3,200.00	3,185.16	3,146.16	3,185.16	14.40	108.14	77.22	-219.44	-9,147.50	9,085.54	8,963.01	122.52	74.153	
3,300.00	3,284.54	3,245.54	3,284.54	14.85	111.60	77.28	-219.44	-9,147.50	9,083.08	8,956.64	126.44	71.837	
3,400.00	3,383.92	3,344.92	3,383.92	15.30	115.07	77.35	-219.44	-9,147.50	9,080.63	8,950.27	130.36	69.659	
3,500.00	3,483.31	3,444.31	3,483.31	15.75	118.54	77.42	-219.44	-9,147.50	9,078.19	8,943.92	134.28	67.609	
3,600.00	3,582.69	3,543.69	3,582.69	16.20	122.01	77.49	-219.44	-9,147.50	9,075.77	8,937.58	138.19	65.674	
3,700.00	3,682.07	3,643.07	3,682.07	16.65	125.48	77.56	-219.44	-9,147.50	9,073.36	8,931.25	142.11	63.846	
3,800.00	3,781.46	3,742.46	3,781.46	17.10	128.95	77.62	-219.44	-9,147.50	9,070.96	8,924.93	146.03	62.116	
3,900.00	3,880.84	3,841.84	3,880.84	17.56	132.41	77.69	-219.44	-9,147.50	9,068.58	8,918.63	149.95	60.476	
4,000.00	3,980.22	3,941.22	3,980.22	18.01	135.88	77.76	-219.44	-9,147.50	9,066.21	8,912.33	153.87	58.920	
4,100.00	4,079.61	4,040.61	4,079.61	18.46	139.35	77.83	-219.44	-9,147.50	9,063.85	8,906.05	157.80	57.440	
4,200.00	4,178.99	4,139.99	4,178.99	18.92	142.82	77.90	-219.44	-9,147.50	9,061.51	8,899.79	161.72	56.033	
4,300.00	4,278.38	4,239.38	4,278.38	19.37	146.29	77.96	-219.44	-9,147.50	9,059.17	8,893.53	165.64	54.692	
4,400.00	4,377.76	4,338.76	4,377.76	19.83	149.76	78.03	-219.44	-9,147.50	9,056.85	8,887.29	169.56	53.413	
4,500.00	4,477.14	4,438.14	4,477.14	20.28	153.23	78.10	-219.44	-9,147.50	9,054.55	8,881.06	173.49	52.192	
4,600.00	4,576.53	4,537.53	4,576.53	20.74	156.69	78.17	-219.44	-9,147.50	9,052.25	8,874.84	177.41	51.024	
4,700.00	4,675.91	4,636.91	4,675.91	21.19	160.16	78.24	-219.44	-9,147.50	9,049.97	8,868.64	181.33	49.908	
4,800.00	4,775.29	4,736.29	4,775.29	21.65	163.63	78.30	-219.44	-9,147.50	9,047.71	8,862.45	185.26	48.838	
4,900.00	4,874.68	4,835.68	4,874.68	22.10	167.10	78.37	-219.44	-9,147.50	9,045.45	8,856.27	189.18	47.813	
5,000.00	4,974.06	4,935.06	4,974.06	22.56	170.57	78.44	-219.44	-9,147.50	9,043.21	8,850.10	193.11	46.830	
5,100.00	5,073.44	5,034.44	5,073.44	23.02	174.04	78.51	-219.44	-9,147.50	9,040.98	8,843.95	197.03	45.885	

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,200.00	5,172.83	5,133.83	5,172.83	23.47	177.51	78.58	-219.44	-9,147.50	9,038.77	8,837.81	200.96	44.978		
5,300.00	5,272.21	5,233.21	5,272.21	23.93	180.98	78.65	-219.44	-9,147.50	9,036.57	8,831.68	204.89	44.105		
5,400.00	5,371.59	5,332.59	5,371.59	24.39	184.44	78.72	-219.44	-9,147.50	9,034.38	8,825.57	208.81	43.266		
5,500.00	5,470.98	5,431.98	5,470.98	24.85	187.91	78.78	-219.44	-9,147.50	9,032.20	8,819.46	212.74	42.457		
5,600.00	5,570.36	5,531.36	5,570.36	25.30	191.38	78.85	-219.44	-9,147.50	9,030.04	8,813.37	216.66	41.678		
5,700.00	5,669.75	5,630.75	5,669.75	25.76	194.85	78.92	-219.44	-9,147.50	9,027.89	8,807.30	220.59	40.926		
5,800.00	5,769.13	5,730.13	5,769.13	26.22	198.32	78.99	-219.44	-9,147.50	9,025.75	8,801.23	224.52	40.201		
5,900.00	5,868.51	5,829.51	5,868.51	26.68	201.79	79.06	-219.44	-9,147.50	9,023.63	8,795.18	228.44	39.500		
6,000.00	5,967.90	5,928.90	5,967.90	27.14	205.26	79.13	-219.44	-9,147.50	9,021.52	8,789.15	232.37	38.824		
6,100.00	6,067.28	6,028.28	6,067.28	27.60	208.73	79.20	-219.44	-9,147.50	9,019.42	8,783.12	236.30	38.169		
6,200.00	6,166.66	6,127.66	6,166.66	28.05	212.20	79.26	-219.44	-9,147.50	9,017.34	8,777.11	240.23	37.537		
6,300.00	6,266.05	6,227.05	6,266.05	28.51	215.67	79.33	-219.44	-9,147.50	9,015.27	8,771.11	244.15	36.924		
6,400.00	6,365.43	6,326.43	6,365.43	28.97	219.14	79.40	-219.44	-9,147.50	9,013.21	8,765.13	248.08	36.331		
6,500.00	6,464.81	6,425.81	6,464.81	29.43	222.60	79.47	-219.44	-9,147.50	9,011.16	8,759.15	252.01	35.757		
6,600.00	6,564.10	6,525.10	6,564.10	29.89	226.07	49.21	-219.44	-9,147.50	9,009.18	8,751.25	255.93	35.193		
6,700.00	6,661.75	6,622.75	6,661.75	30.34	229.48	26.01	-219.44	-9,147.50	8,989.61	8,729.82	259.79	34.603		
6,800.00	6,755.38	6,716.38	6,755.38	30.77	232.75	18.46	-219.44	-9,147.50	8,956.91	8,693.43	263.48	33.995		
6,900.00	6,842.67	6,803.67	6,842.67	31.17	235.79	15.19	-219.44	-9,147.50	8,909.88	8,642.97	266.92	33.381		
7,000.00	6,921.48	6,882.48	6,921.48	31.54	238.54	13.73	-219.44	-9,147.50	8,849.70	8,579.69	270.01	32.776		
7,100.00	6,989.86	6,950.86	6,989.86	31.91	240.93	13.39	-219.44	-9,147.50	8,777.83	8,505.14	272.69	32.190		
7,200.00	7,046.13	7,007.13	7,046.13	32.35	242.90	14.10	-219.44	-9,147.50	8,696.04	8,421.16	274.88	31.635		
7,300.00	7,088.91	7,049.91	7,088.91	32.98	244.39	16.42	-219.44	-9,147.50	8,606.36	8,329.81	276.55	31.121		
7,400.00	7,117.14	7,078.14	7,117.14	33.84	245.37	22.93	-219.44	-9,147.50	8,510.97	8,233.32	277.65	30.654		
7,500.00	7,130.13	7,108.87	7,130.13	34.90	246.45	53.67	-219.44	-9,147.50	8,412.23	8,133.44	278.79	30.174		
7,600.00	7,130.72	7,108.28	7,130.72	36.13	246.43	93.78	-219.44	-9,147.50	8,312.47	8,033.66	278.81	29.815		
7,700.00	7,130.29	7,108.71	7,130.29	37.54	246.44	93.73	-219.44	-9,147.50	8,212.68	7,933.83	278.86	29.451		
7,800.00	7,129.85	7,109.15	7,129.85	39.12	246.46	93.69	-219.44	-9,147.50	8,112.91	7,834.00	278.91	29.088		
7,900.00	7,129.42	7,109.58	7,129.42	40.83	246.47	93.64	-219.44	-9,147.50	8,013.14	7,734.17	278.97	28.724		
8,000.00	7,128.98	7,089.98	7,128.98	42.67	245.79	93.60	-219.44	-9,147.50	7,913.37	7,635.04	278.33	28.432		
8,100.00	7,128.55	7,089.55	7,128.55	44.62	245.77	93.55	-219.44	-9,147.50	7,813.62	7,535.25	278.36	28.070		
8,200.00	7,128.12	7,089.12	7,128.12	46.66	245.76	93.51	-219.44	-9,147.50	7,713.86	7,435.46	278.40	27.708		
8,300.00	7,127.68	7,088.68	7,127.68	48.79	245.74	93.46	-219.44	-9,147.50	7,614.12	7,335.67	278.44	27.345		
8,400.00	7,127.25	7,088.25	7,127.25	50.98	245.73	93.41	-219.44	-9,147.50	7,514.38	7,235.89	278.49	26.983		
8,500.00	7,126.81	7,087.81	7,126.81	53.24	245.71	93.37	-219.44	-9,147.50	7,414.65	7,136.11	278.54	26.620		
8,600.00	7,126.38	7,087.38	7,126.38	55.56	245.70	93.32	-219.44	-9,147.50	7,314.92	7,036.33	278.59	26.257		
8,700.00	7,125.95	7,086.95	7,125.95	57.92	245.68	93.28	-219.44	-9,147.50	7,215.20	6,936.56	278.65	25.894		
8,800.00	7,125.51	7,086.51	7,125.51	60.33	245.67	93.23	-219.44	-9,147.50	7,115.49	6,836.78	278.71	25.530		
8,900.00	7,125.08	7,086.08	7,125.08	62.77	245.65	93.19	-219.44	-9,147.50	7,015.79	6,737.02	278.78	25.166		
9,000.00	7,124.64	7,085.64	7,124.64	65.25	245.64	93.14	-219.44	-9,147.50	6,916.10	6,637.25	278.85	24.802		
9,100.00	7,124.21	7,085.21	7,124.21	67.76	245.62	93.10	-219.44	-9,147.50	6,816.42	6,537.49	278.93	24.438		
9,200.00	7,123.78	7,084.78	7,123.78	70.29	245.61	93.05	-219.44	-9,147.50	6,716.74	6,437.73	279.01	24.074		
9,300.00	7,123.34	7,084.34	7,123.34	72.85	245.59	93.01	-219.44	-9,147.50	6,617.08	6,337.98	279.10	23.709		
9,400.00	7,122.91	7,083.91	7,122.91	75.43	245.58	92.96	-219.44	-9,147.50	6,517.42	6,238.23	279.19	23.344		
9,500.00	7,122.48	7,083.48	7,122.48	78.03	245.56	92.91	-219.44	-9,147.50	6,417.78	6,138.49	279.29	22.979		
9,600.00	7,122.04	7,083.04	7,122.04	80.65	245.55	92.87	-219.44	-9,147.50	6,318.15	6,038.75	279.40	22.613		
9,700.00	7,121.61	7,082.61	7,121.61	83.28	245.53	92.82	-219.44	-9,147.50	6,218.53	5,939.01	279.52	22.247		
9,800.00	7,121.17	7,082.17	7,121.17	85.93	245.52	92.78	-219.44	-9,147.50	6,118.92	5,839.28	279.64	21.882		
9,900.00	7,120.74	7,081.74	7,120.74	88.59	245.50	92.73	-219.44	-9,147.50	6,019.33	5,739.56	279.77	21.515		
10,000.00	7,120.31	7,081.31	7,120.31	91.26	245.49	92.69	-219.44	-9,147.50	5,919.74	5,639.84	279.91	21.149		
10,100.00	7,119.87	7,080.87	7,119.87	93.95	245.47	92.64	-219.44	-9,147.50	5,820.18	5,540.12	280.06	20.782		
10,200.00	7,119.44	7,080.44	7,119.44	96.64	245.45	92.60	-219.44	-9,147.50	5,720.62	5,440.41	280.21	20.415		
10,300.00	7,119.00	7,080.00	7,119.00	99.34	245.44	92.55	-219.44	-9,147.50	5,621.09	5,340.71	280.38	20.048		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
10,400.00	7,118.57	7,079.57	7,118.57	102.05	245.42	92.50	-219.44	-9,147.50	5,521.57	5,241.01	280.56	19.680		
10,500.00	7,118.14	7,079.14	7,118.14	104.77	245.41	92.46	-219.44	-9,147.50	5,422.07	5,141.32	280.75	19.313		
10,600.00	7,117.70	7,078.70	7,117.70	107.50	245.39	92.41	-219.44	-9,147.50	5,322.58	5,041.63	280.95	18.945		
10,700.00	7,117.27	7,078.27	7,117.27	110.23	245.38	92.37	-219.44	-9,147.50	5,223.12	4,941.95	281.17	18.576		
10,800.00	7,116.83	7,077.83	7,116.83	112.97	245.36	92.32	-219.44	-9,147.50	5,123.68	4,842.28	281.40	18.208		
10,900.00	7,116.40	7,077.40	7,116.40	115.72	245.35	92.28	-219.44	-9,147.50	5,024.26	4,742.61	281.65	17.839		
11,000.00	7,115.97	7,076.97	7,115.97	118.47	245.33	92.23	-219.44	-9,147.50	4,924.86	4,642.95	281.91	17.470		
11,100.00	7,115.53	7,076.53	7,115.53	121.22	245.32	92.19	-219.44	-9,147.50	4,825.49	4,543.30	282.19	17.100		
11,200.00	7,115.10	7,076.10	7,115.10	123.98	245.30	92.14	-219.44	-9,147.50	4,726.14	4,443.66	282.48	16.731		
11,300.00	7,114.66	7,075.66	7,114.66	126.74	245.29	92.10	-219.44	-9,147.50	4,626.83	4,344.02	282.80	16.361		
11,400.00	7,114.23	7,075.23	7,114.23	129.51	245.27	92.05	-219.44	-9,147.50	4,527.54	4,244.40	283.14	15.990		
11,500.00	7,113.80	7,074.80	7,113.80	132.29	245.26	92.00	-219.44	-9,147.50	4,428.28	4,144.78	283.50	15.620		
11,600.00	7,113.36	7,074.36	7,113.36	135.06	245.24	91.96	-219.44	-9,147.50	4,329.06	4,045.17	283.89	15.249		
11,700.00	7,112.93	7,073.93	7,112.93	137.84	245.23	91.91	-219.44	-9,147.50	4,229.88	3,945.57	284.31	14.878		
11,800.00	7,112.49	7,073.49	7,112.49	140.62	245.21	91.87	-219.44	-9,147.50	4,130.73	3,845.98	284.75	14.506		
11,900.00	7,112.06	7,073.06	7,112.06	143.41	245.20	91.82	-219.44	-9,147.50	4,031.63	3,746.40	285.23	14.135		
12,000.00	7,111.63	7,072.63	7,111.63	146.20	245.18	91.78	-219.44	-9,147.50	3,932.57	3,646.83	285.74	13.763		
12,100.00	7,111.19	7,072.19	7,111.19	148.99	245.17	91.73	-219.44	-9,147.50	3,833.56	3,547.27	286.29	13.390		
12,200.00	7,110.76	7,071.76	7,110.76	151.78	245.15	91.68	-219.44	-9,147.50	3,734.60	3,447.72	286.89	13.018		
12,300.00	7,110.33	7,071.33	7,110.33	154.58	245.14	91.64	-219.44	-9,147.50	3,635.70	3,348.18	287.52	12.645		
12,400.00	7,109.89	7,070.89	7,109.89	157.37	245.12	91.59	-219.44	-9,147.50	3,536.87	3,248.66	288.21	12.272		
12,500.00	7,109.46	7,070.46	7,109.46	160.17	245.11	91.55	-219.44	-9,147.50	3,438.10	3,149.14	288.95	11.898		
12,600.00	7,109.02	7,070.02	7,109.02	162.98	245.09	91.50	-219.44	-9,147.50	3,339.40	3,049.64	289.76	11.525		
12,700.00	7,108.59	7,069.59	7,108.59	165.78	245.08	91.46	-219.44	-9,147.50	3,240.78	2,950.16	290.62	11.151		
12,800.00	7,108.16	7,069.16	7,108.16	168.59	245.06	91.41	-219.44	-9,147.50	3,142.25	2,850.69	291.56	10.777		
12,900.00	7,107.72	7,068.72	7,107.72	171.39	245.05	91.37	-219.44	-9,147.50	3,043.82	2,751.24	292.58	10.403		
13,000.00	7,107.29	7,068.29	7,107.29	174.20	245.03	91.32	-219.44	-9,147.50	2,945.49	2,651.80	293.69	10.029		
13,100.00	7,106.85	7,067.85	7,106.85	177.01	245.02	91.27	-219.44	-9,147.50	2,847.28	2,552.38	294.89	9.655		
13,200.00	7,106.42	7,067.42	7,106.42	179.83	245.00	91.23	-219.44	-9,147.50	2,749.19	2,452.99	296.21	9.281		
13,300.00	7,105.99	7,066.99	7,105.99	182.64	244.99	91.18	-219.44	-9,147.50	2,651.25	2,353.61	297.64	8.907		
13,400.00	7,105.55	7,066.55	7,105.55	185.45	244.97	91.14	-219.44	-9,147.50	2,553.47	2,254.26	299.21	8.534		
13,500.00	7,105.12	7,066.12	7,105.12	188.27	244.96	91.09	-219.44	-9,147.50	2,455.87	2,154.93	300.94	8.161		
13,600.00	7,104.68	7,065.68	7,104.68	191.09	244.94	91.05	-219.44	-9,147.50	2,358.47	2,055.64	302.83	7.788		
13,700.00	7,104.25	7,065.25	7,104.25	193.91	244.92	91.00	-219.44	-9,147.50	2,261.30	1,956.38	304.92	7.416		
13,800.00	7,103.82	7,064.82	7,103.82	196.73	244.91	90.96	-219.44	-9,147.50	2,164.38	1,857.15	307.22	7.045		
13,900.00	7,103.38	7,064.38	7,103.38	199.55	244.89	90.91	-219.44	-9,147.50	2,067.75	1,757.98	309.78	6.675		
14,000.00	7,102.95	7,063.95	7,102.95	202.37	244.88	90.86	-219.44	-9,147.50	1,971.47	1,658.85	312.62	6.306		
14,100.00	7,102.51	7,063.51	7,102.51	205.19	244.86	90.82	-219.44	-9,147.50	1,875.57	1,559.79	315.78	5.940		
14,200.00	7,102.08	7,063.08	7,102.08	208.02	244.85	90.77	-219.44	-9,147.50	1,780.12	1,460.81	319.31	5.575		
14,300.00	7,101.65	7,062.65	7,101.65	210.84	244.83	90.73	-219.44	-9,147.50	1,685.20	1,361.93	323.28	5.213		
14,400.00	7,101.21	7,062.21	7,101.21	213.67	244.82	90.68	-219.44	-9,147.50	1,590.91	1,263.16	327.74	4.854		
14,500.00	7,100.78	7,061.78	7,100.78	216.50	244.80	90.64	-219.44	-9,147.50	1,497.35	1,164.56	332.79	4.499		
14,600.00	7,100.35	7,061.35	7,100.35	219.32	244.79	90.59	-219.44	-9,147.50	1,404.68	1,066.16	338.53	4.149		
14,700.00	7,099.91	7,060.91	7,099.91	222.15	244.77	90.54	-219.44	-9,147.50	1,313.09	968.03	345.06	3.805		
14,800.00	7,099.48	7,060.48	7,099.48	224.98	244.76	90.50	-219.44	-9,147.50	1,222.81	870.27	352.54	3.469		
14,900.00	7,099.04	7,060.04	7,099.04	227.81	244.74	90.45	-219.44	-9,147.50	1,134.17	773.04	361.14	3.141		
14,909.96	7,099.00	7,060.00	7,099.00	228.09	244.74	90.45	-219.44	-9,147.50	1,125.44	763.38	362.06	3.108 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	26.00	3.28	3.28	-91.56	-248.59	-9,144.73	9,148.15					
100.00	100.00	110.52	136.52	3.28	3.29	-91.56	-248.87	-9,144.37	9,147.83	9,141.26	6.58	1,390.876		
200.00	200.00	185.22	211.22	3.34	3.34	-91.56	-248.79	-9,144.18	9,147.57	9,140.90	6.67	1,371.022		
243.17	243.17	217.17	243.17	3.38	3.36	-91.56	-248.74	-9,144.16	9,147.54	9,140.81	6.74	1,357.367		
300.00	300.00	259.45	285.45	3.44	3.41	-91.56	-248.74	-9,144.20	9,147.59	9,140.74	6.85	1,335.251		
400.00	400.00	346.44	372.44	3.60	3.52	-91.56	-248.83	-9,144.39	9,147.82	9,140.69	7.13	1,283.513		
500.00	500.00	434.86	460.86	3.81	3.68	-91.56	-248.95	-9,144.72	9,148.19	9,140.70	7.49	1,221.971		
600.00	600.00	609.96	635.95	4.04	4.08	75.29	-249.43	-9,145.02	9,148.47	9,140.35	8.12	1,126.523		
700.00	699.96	678.95	704.94	4.29	4.26	75.31	-249.78	-9,144.83	9,147.60	9,139.05	8.55	1,069.730		
800.00	799.78	727.00	752.99	4.57	4.40	75.35	-250.01	-9,144.87	9,146.26	9,137.30	8.96	1,020.444		
900.00	899.34	767.34	793.33	4.88	4.51	75.40	-250.06	-9,145.15	9,144.66	9,135.28	9.38	974.517		
1,000.00	998.72	799.74	825.72	5.20	4.61	75.43	-249.90	-9,145.65	9,143.39	9,133.58	9.81	932.311		
1,100.00	1,098.10	856.00	881.96	5.54	4.78	75.47	-249.17	-9,147.09	9,142.95	9,132.63	10.33	885.424		
1,138.41	1,136.28	856.00	881.96	5.68	4.78	75.47	-249.17	-9,147.09	9,142.87	9,132.41	10.46	873.754		
1,200.00	1,197.49	856.00	881.96	5.90	4.78	75.47	-249.17	-9,147.09	9,143.08	9,132.39	10.69	855.414		
1,300.00	1,296.87	856.00	881.96	6.28	4.78	75.47	-249.17	-9,147.09	9,144.30	9,133.24	11.06	826.485		
1,400.00	1,396.25	911.42	937.32	6.66	4.96	75.51	-247.96	-9,149.38	9,145.93	9,134.31	11.62	786.778		
1,500.00	1,495.64	935.88	961.74	7.06	5.04	75.54	-247.27	-9,150.72	9,148.61	9,136.51	12.10	756.211		
1,600.00	1,595.02	984.00	1,009.72	7.46	5.20	75.58	-245.66	-9,153.94	9,152.23	9,139.58	12.66	723.069		
1,700.00	1,694.40	984.00	1,009.72	7.87	5.20	75.58	-245.66	-9,153.94	9,156.44	9,143.37	13.06	700.869		
1,800.00	1,793.79	984.00	1,009.72	8.29	5.20	75.58	-245.66	-9,153.94	9,161.73	9,148.25	13.48	679.867		
1,900.00	1,893.17	1,039.82	1,065.29	8.71	5.39	75.63	-243.14	-9,158.57	9,167.50	9,153.42	14.08	651.035		
2,000.00	1,992.55	1,067.19	1,092.49	9.13	5.49	75.66	-241.56	-9,161.17	9,174.22	9,159.63	14.59	628.626		
2,100.00	2,091.94	1,112.00	1,136.95	9.56	5.65	75.71	-238.51	-9,165.87	9,181.79	9,166.62	15.17	605.188		
2,200.00	2,191.32	1,112.00	1,136.95	9.99	5.65	75.71	-238.51	-9,165.87	9,190.05	9,174.46	15.59	589.389		
2,300.00	2,290.70	1,165.67	1,190.08	10.42	5.86	75.77	-234.14	-9,172.07	9,199.01	9,182.80	16.21	567.423		
2,400.00	2,390.09	1,205.05	1,228.98	10.86	6.01	75.82	-230.46	-9,176.91	9,208.65	9,191.86	16.78	548.706		
2,500.00	2,489.47	1,241.00	1,264.44	11.29	6.15	75.87	-226.75	-9,181.54	9,218.95	9,201.60	17.34	531.576		
2,600.00	2,588.86	1,314.90	1,337.12	11.73	6.46	75.98	-217.68	-9,191.38	9,229.72	9,211.66	18.06	510.978		
2,700.00	2,688.24	1,369.00	1,390.11	12.18	6.70	76.06	-209.67	-9,198.72	9,240.88	9,222.17	18.71	493.960		
2,800.00	2,787.62	1,418.37	1,438.31	12.62	6.93	76.15	-201.51	-9,205.63	9,252.57	9,233.23	19.35	478.251		
2,900.00	2,887.01	1,459.28	1,478.13	13.06	7.12	76.22	-194.30	-9,211.60	9,264.92	9,244.97	19.95	464.411		
3,000.00	2,986.39	1,498.00	1,515.73	13.51	7.31	76.29	-187.09	-9,217.47	9,277.91	9,257.36	20.54	451.613		
3,100.00	3,085.77	1,537.65	1,554.11	13.95	7.51	76.36	-179.39	-9,223.69	9,291.55	9,270.40	21.15	439.249		
3,200.00	3,185.16	1,575.31	1,590.50	14.40	7.71	76.43	-171.83	-9,229.83	9,305.87	9,284.12	21.75	427.794		
3,300.00	3,284.54	1,626.00	1,639.33	14.85	7.98	76.53	-161.30	-9,238.42	9,320.88	9,298.47	22.42	415.792		
3,400.00	3,383.92	1,626.00	1,639.33	15.30	7.98	76.53	-161.30	-9,238.42	9,336.60	9,313.77	22.83	408.967		
3,500.00	3,483.31	1,694.73	1,705.23	15.75	8.37	76.67	-146.03	-9,250.61	9,352.79	9,329.19	23.61	396.208		
3,600.00	3,582.69	1,754.00	1,761.70	16.20	8.72	76.80	-131.75	-9,261.55	9,369.74	9,345.41	24.33	385.063		
3,700.00	3,682.07	1,754.00	1,761.70	16.65	8.72	76.80	-131.75	-9,261.55	9,387.30	9,362.56	24.74	379.457		
3,800.00	3,781.46	1,754.00	1,761.70	17.10	8.72	76.80	-131.75	-9,261.55	9,405.89	9,380.75	25.14	374.124		
3,900.00	3,880.84	1,821.46	1,825.55	17.56	9.16	76.95	-114.50	-9,274.78	9,424.67	9,398.73	25.94	363.371		
4,000.00	3,980.22	1,883.00	1,883.40	18.01	9.56	77.09	-98.04	-9,287.82	9,444.75	9,418.06	26.70	353.757		
4,100.00	4,079.61	1,883.00	1,883.40	18.46	9.56	77.09	-98.04	-9,287.82	9,465.16	9,438.07	27.09	349.365		
4,200.00	4,178.99	2,042.63	2,033.00	18.92	10.69	77.46	-53.93	-9,321.81	9,485.96	9,457.46	28.50	332.853		
4,300.00	4,278.38	2,151.43	2,135.29	19.37	11.48	77.70	-24.55	-9,344.46	9,506.34	9,476.74	29.60	321.159		
4,400.00	4,377.76	2,217.05	2,197.12	19.83	11.97	77.85	-7.43	-9,358.23	9,526.91	9,496.49	30.42	313.165		
4,500.00	4,477.14	2,309.76	2,284.62	20.28	12.65	78.05	16.03	-9,377.92	9,547.78	9,516.36	31.42	303.867		
4,600.00	4,576.53	2,420.29	2,389.25	20.74	13.48	78.28	43.04	-9,401.17	9,568.48	9,535.94	32.54	294.040		
4,700.00	4,675.91	2,475.16	2,441.10	21.19	13.90	78.39	56.69	-9,412.79	9,589.50	9,556.20	33.30	288.011		
4,800.00	4,775.29	2,534.92	2,497.40	21.65	14.35	78.52	72.10	-9,425.63	9,610.99	9,576.91	34.08	281.989		
4,900.00	4,874.68	2,652.30	2,607.84	22.10	15.27	78.78	102.91	-9,450.76	9,632.61	9,597.33	35.28	273.031		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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		
5,000.00	4,974.06	2,691.31	2,644.49	22.56	15.59	78.86	113.31	-9,459.14	9,654.47	9,618.54	35.94	268.657		
5,100.00	5,073.44	2,729.58	2,680.35	23.02	15.90	78.95	123.73	-9,467.54	9,676.96	9,640.38	36.58	264.514		
5,200.00	5,172.83	2,782.00	2,729.29	23.47	16.32	79.07	138.35	-9,479.33	9,700.10	9,662.77	37.33	259.840		
5,300.00	5,272.21	3,038.00	2,969.22	23.93	18.42	79.63	207.47	-9,535.76	9,723.33	9,683.77	39.56	245.787		
5,400.00	5,371.59	3,081.73	3,010.39	24.39	18.78	79.72	218.90	-9,545.06	9,745.47	9,705.22	40.25	242.143		
5,500.00	5,470.98	3,122.05	3,048.25	24.85	19.11	79.81	229.63	-9,553.84	9,768.20	9,727.30	40.91	238.799		
5,600.00	5,570.36	3,167.00	3,090.36	25.30	19.48	79.90	241.78	-9,563.83	9,791.54	9,749.94	41.60	235.399		
5,700.00	5,669.75	3,471.47	3,377.41	25.76	21.94	80.53	319.42	-9,629.16	9,813.87	9,769.72	44.15	222.272		
5,800.00	5,769.13	5,948.05	5,794.13	26.22	34.87	83.59	596.65	-9,878.33	9,817.45	9,760.75	56.70	173.154		
5,900.00	5,868.51	6,105.07	5,951.11	26.68	35.31	83.67	593.69	-9,877.90	9,815.75	9,758.12	57.63	170.324		
6,000.00	5,967.90	6,221.05	6,067.07	27.14	35.64	83.73	591.35	-9,877.07	9,813.57	9,755.12	58.45	167.900		
6,100.00	6,067.28	6,316.32	6,162.32	27.60	35.91	83.79	589.72	-9,876.29	9,811.34	9,752.13	59.21	165.694		
6,200.00	6,166.66	6,430.75	6,276.73	28.05	36.24	83.85	587.92	-9,875.39	9,809.17	9,749.14	60.04	163.386		
6,300.00	6,266.05	6,550.04	6,396.01	28.51	36.60	83.92	586.48	-9,873.99	9,806.65	9,745.77	60.88	161.086		
6,400.00	6,365.43	6,632.77	6,478.72	28.97	36.85	83.97	585.85	-9,873.03	9,804.23	9,742.61	61.62	159.117		
6,500.00	6,464.81	6,710.43	6,556.38	29.43	37.08	84.02	585.38	-9,872.27	9,802.01	9,739.67	62.34	157.226		
6,600.00	6,564.10	6,792.11	6,638.06	29.89	37.33	84.06	584.78	-9,871.67	9,798.08	9,735.00	63.08	155.321		
6,700.00	6,661.75	6,880.46	6,726.41	30.34	37.61	84.09	584.32	-9,871.09	9,780.78	9,716.95	63.83	153.226		
6,800.00	6,755.38	6,950.77	6,796.71	30.77	37.83	84.11	584.14	-9,870.73	9,748.61	9,684.11	64.50	151.134		
6,900.00	6,842.67	6,900.00	6,935.49	31.17	37.67	84.12	584.00	-9,869.86	9,702.17	9,637.49	64.68	150.008		
7,000.00	6,921.48	7,246.39	7,092.30	31.54	38.77	84.13	583.14	-9,867.65	9,641.90	9,575.71	66.20	145.654		
7,100.00	6,989.86	7,303.45	7,149.36	31.91	38.95	84.14	582.26	-9,866.76	9,570.01	9,503.32	66.69	143.499		
7,200.00	7,046.13	7,342.88	7,188.77	32.35	39.08	84.15	581.62	-9,866.22	9,488.50	9,421.43	67.07	141.466		
7,300.00	7,088.91	7,372.75	7,218.64	32.98	39.17	84.16	581.13	-9,865.85	9,399.32	9,331.96	67.37	139.522		
7,400.00	7,117.14	7,392.27	7,238.16	33.84	39.23	84.17	580.82	-9,865.63	9,304.63	9,237.05	67.58	137.691		
7,500.00	7,130.13	7,404.00	7,249.88	34.90	39.27	84.18	580.63	-9,865.50	9,206.70	9,138.99	67.71	135.968		
7,600.00	7,130.72	7,404.00	7,249.88	36.13	39.27	84.19	580.63	-9,865.50	9,107.83	9,040.05	67.78	134.368		
7,700.00	7,130.29	7,404.00	7,249.88	37.54	39.27	84.20	580.63	-9,865.50	9,008.96	8,941.10	67.86	132.761		
7,800.00	7,129.85	7,404.00	7,249.88	39.12	39.27	84.21	580.63	-9,865.50	8,910.12	8,842.18	67.94	131.142		
7,900.00	7,129.42	7,404.00	7,249.88	40.83	39.27	84.22	580.63	-9,865.50	8,811.31	8,743.27	68.04	129.509		
8,000.00	7,128.98	7,404.00	7,249.88	42.67	39.27	84.23	580.63	-9,865.50	8,712.52	8,644.38	68.14	127.863		
8,100.00	7,128.55	7,395.14	7,241.03	44.62	39.24	84.24	580.77	-9,865.60	8,613.75	8,545.52	68.23	126.249		
8,200.00	7,128.12	7,394.04	7,239.92	46.66	39.24	84.25	580.79	-9,865.61	8,515.02	8,446.67	68.35	124.581		
8,300.00	7,127.68	7,392.93	7,238.81	48.79	39.23	84.26	580.81	-9,865.62	8,416.31	8,347.83	68.48	122.899		
8,400.00	7,127.25	7,391.81	7,237.70	50.98	39.23	84.27	580.83	-9,865.63	8,317.64	8,249.02	68.63	121.204		
8,500.00	7,126.81	7,390.69	7,236.57	53.24	39.23	84.28	580.84	-9,865.65	8,219.00	8,150.22	68.78	119.495		
8,600.00	7,126.38	7,389.56	7,235.44	55.56	39.22	84.29	580.86	-9,865.66	8,120.39	8,051.44	68.95	117.773		
8,700.00	7,125.95	7,388.42	7,234.30	57.92	39.22	84.30	580.88	-9,865.67	8,021.82	7,952.69	69.13	116.038		
8,800.00	7,125.51	7,387.27	7,233.16	60.33	39.21	84.31	580.90	-9,865.68	7,923.28	7,853.96	69.33	114.289		
8,900.00	7,125.08	7,386.12	7,232.00	62.77	39.21	84.32	580.92	-9,865.70	7,824.78	7,755.24	69.54	112.527		
9,000.00	7,124.64	7,384.96	7,230.84	65.25	39.21	84.33	580.94	-9,865.71	7,726.32	7,656.56	69.76	110.753		
9,100.00	7,124.21	7,383.79	7,229.68	67.76	39.20	84.34	580.96	-9,865.72	7,627.90	7,557.89	70.00	108.965		
9,200.00	7,123.78	7,382.61	7,228.50	70.29	39.20	84.35	580.97	-9,865.74	7,529.51	7,459.25	70.26	107.166		
9,300.00	7,123.34	7,381.43	7,227.32	72.85	39.20	84.36	580.99	-9,865.75	7,431.18	7,360.64	70.54	105.354		
9,400.00	7,122.91	7,380.24	7,226.13	75.43	39.19	84.37	581.01	-9,865.76	7,332.88	7,262.05	70.83	103.530		
9,500.00	7,122.48	7,379.04	7,224.93	78.03	39.19	84.38	581.03	-9,865.78	7,234.63	7,163.49	71.14	101.696		
9,600.00	7,122.04	7,377.84	7,223.72	80.65	39.18	84.39	581.05	-9,865.79	7,136.44	7,064.96	71.47	99.850		
9,700.00	7,121.61	7,376.62	7,222.51	83.28	39.18	84.40	581.07	-9,865.81	7,038.29	6,966.46	71.82	97.994		
9,800.00	7,121.17	7,375.40	7,221.29	85.93	39.18	84.41	581.09	-9,865.82	6,940.19	6,867.99	72.20	96.128		
9,900.00	7,120.74	7,374.17	7,220.06	88.59	39.17	84.42	581.11	-9,865.83	6,842.15	6,769.56	72.59	94.252		
10,000.00	7,120.31	7,372.93	7,218.82	91.26	39.17	84.43	581.13	-9,865.85	6,744.17	6,671.15	73.01	92.368		
10,100.00	7,119.87	7,371.68	7,217.57	93.95	39.17	84.44	581.15	-9,865.86	6,646.24	6,572.78	73.46	90.476		

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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

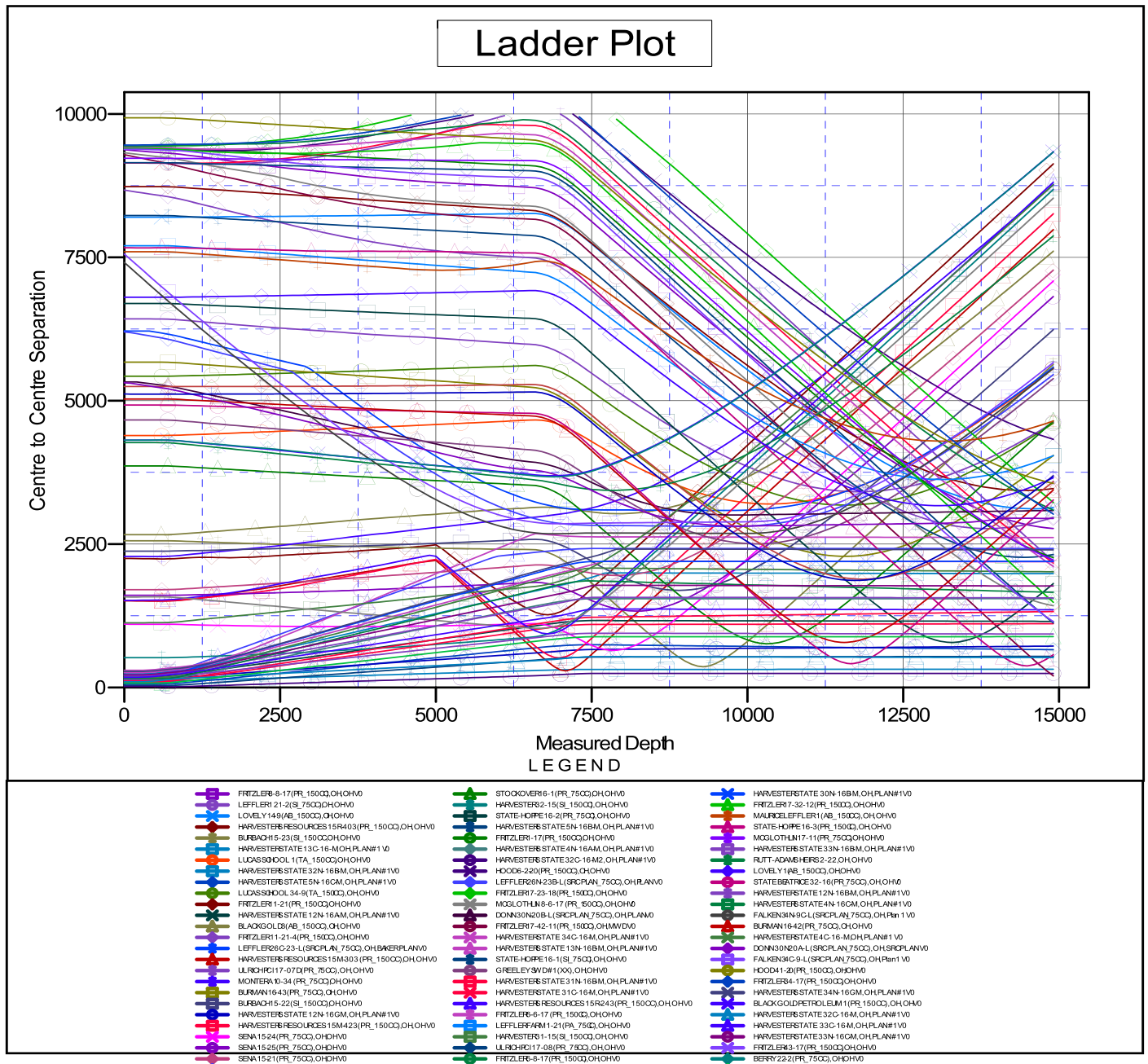
Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I17-17D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical 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		
10,200.00	7,119.44	7,370.43	7,216.32	96.64	39.16	95.27	581.17	-9,865.88	6,548.38	6,474.45	73.93	88.577		
10,300.00	7,119.00	7,369.17	7,215.06	99.34	39.16	95.22	581.19	-9,865.89	6,450.58	6,376.16	74.43	86.671		
10,400.00	7,118.57	7,367.90	7,213.78	102.05	39.15	95.17	581.21	-9,865.91	6,352.86	6,277.90	74.95	84.759		
10,500.00	7,118.14	7,366.61	7,212.50	104.77	39.15	95.11	581.23	-9,865.92	6,255.20	6,179.69	75.51	82.843		
10,600.00	7,117.70	7,365.33	7,211.22	107.50	39.15	95.06	581.25	-9,865.94	6,157.62	6,081.52	76.09	80.923		
10,700.00	7,117.27	7,364.03	7,209.92	110.23	39.14	95.00	581.28	-9,865.95	6,060.11	5,983.40	76.71	78.999		
10,800.00	7,116.83	7,362.72	7,208.61	112.97	39.14	94.95	581.30	-9,865.97	5,962.69	5,885.33	77.36	77.074		
10,900.00	7,116.40	7,361.41	7,207.30	115.72	39.13	94.89	581.32	-9,865.99	5,865.36	5,787.31	78.05	75.148		
11,000.00	7,115.97	7,360.08	7,205.97	118.47	39.13	94.84	581.34	-9,866.00	5,768.11	5,689.34	78.78	73.222		
11,100.00	7,115.53	7,358.75	7,204.64	121.22	39.13	94.78	581.36	-9,866.02	5,670.97	5,591.43	79.54	71.297		
11,200.00	7,115.10	7,357.41	7,203.30	123.98	39.12	94.72	581.38	-9,866.04	5,573.92	5,493.57	80.34	69.375		
11,300.00	7,114.66	7,356.06	7,201.95	126.74	39.12	94.67	581.40	-9,866.05	5,476.98	5,395.78	81.19	67.457		
11,400.00	7,114.23	7,354.69	7,200.59	129.51	39.11	94.61	581.43	-9,866.07	5,380.15	5,298.06	82.08	65.544		
11,500.00	7,113.80	7,353.32	7,199.22	132.29	39.11	94.55	581.45	-9,866.09	5,283.43	5,200.41	83.02	63.637		
11,600.00	7,113.36	7,351.94	7,197.84	135.06	39.10	94.49	581.47	-9,866.10	5,186.84	5,102.83	84.01	61.737		
11,700.00	7,112.93	7,350.55	7,196.45	137.84	39.10	94.43	581.49	-9,866.12	5,090.39	5,005.33	85.06	59.847		
11,800.00	7,112.49	7,349.15	7,195.05	140.62	39.09	94.38	581.52	-9,866.14	4,994.07	4,907.91	86.15	57.967		
11,900.00	7,112.06	7,347.75	7,193.64	143.41	39.09	94.32	581.54	-9,866.16	4,897.90	4,810.59	87.31	56.098		
12,000.00	7,111.63	7,346.33	7,192.22	146.20	39.09	94.26	581.56	-9,866.17	4,801.88	4,713.36	88.53	54.243		
12,100.00	7,111.19	7,344.90	7,190.79	148.99	39.08	94.20	581.59	-9,866.19	4,706.03	4,616.23	89.81	52.402		
12,200.00	7,110.76	7,343.46	7,189.35	151.78	39.08	94.14	581.61	-9,866.21	4,610.36	4,519.20	91.16	50.577		
12,300.00	7,110.33	7,342.01	7,187.90	154.58	39.07	94.07	581.63	-9,866.23	4,514.87	4,422.29	92.58	48.769		
12,400.00	7,109.89	7,340.55	7,186.44	157.37	39.07	94.01	581.66	-9,866.25	4,419.58	4,325.51	94.07	46.980		
12,500.00	7,109.46	7,339.08	7,184.97	160.17	39.06	93.95	581.68	-9,866.27	4,324.51	4,228.86	95.65	45.211		
12,600.00	7,109.02	7,337.60	7,183.49	162.98	39.06	93.89	581.70	-9,866.29	4,229.66	4,132.34	97.31	43.464		
12,700.00	7,108.59	7,336.10	7,182.00	165.78	39.05	93.82	581.73	-9,866.31	4,135.05	4,035.98	99.07	41.740		
12,800.00	7,108.16	7,334.60	7,180.50	168.59	39.05	93.76	581.75	-9,866.33	4,040.70	3,939.79	100.92	40.040		
12,900.00	7,107.72	7,333.09	7,178.98	171.39	39.04	93.70	581.78	-9,866.35	3,946.63	3,843.76	102.87	38.366		
13,000.00	7,107.29	7,331.56	7,177.46	174.20	39.04	93.63	581.80	-9,866.37	3,852.86	3,747.93	104.93	36.720		
13,100.00	7,106.85	7,330.02	7,175.92	177.01	39.04	93.57	581.83	-9,866.39	3,759.41	3,652.30	107.10	35.101		
13,200.00	7,106.42	7,328.48	7,174.37	179.83	39.03	93.50	581.85	-9,866.41	3,666.30	3,556.90	109.40	33.513		
13,300.00	7,105.99	7,326.92	7,172.82	182.64	39.03	93.44	581.88	-9,866.43	3,573.56	3,461.73	111.83	31.956		
13,400.00	7,105.55	7,325.35	7,171.25	185.45	39.02	93.37	581.90	-9,866.45	3,481.23	3,366.83	114.40	30.431		
13,500.00	7,105.12	7,323.77	7,169.66	188.27	39.02	93.30	581.93	-9,866.47	3,389.33	3,272.21	117.11	28.941		
13,600.00	7,104.68	7,322.17	7,168.07	191.09	39.01	93.24	581.95	-9,866.50	3,297.90	3,177.91	119.99	27.485		
13,700.00	7,104.25	7,320.56	7,166.46	193.91	39.01	93.17	581.98	-9,866.52	3,206.98	3,083.94	123.04	26.065		
13,800.00	7,103.82	7,318.95	7,164.85	196.73	39.00	93.10	582.01	-9,866.54	3,116.61	2,990.35	126.27	24.682		
13,900.00	7,103.38	7,317.32	7,163.22	199.55	39.00	93.03	582.03	-9,866.56	3,026.86	2,897.16	129.70	23.338		
14,000.00	7,102.95	7,315.67	7,161.57	202.37	38.99	92.96	582.06	-9,866.59	2,937.76	2,804.43	133.33	22.034		
14,100.00	7,102.51	7,314.02	7,159.92	205.19	38.98	92.89	582.09	-9,866.61	2,849.38	2,712.19	137.19	20.770		
14,200.00	7,102.08	7,312.35	7,158.25	208.02	38.98	92.82	582.11	-9,866.64	2,761.80	2,620.51	141.29	19.547		
14,300.00	7,101.65	7,310.67	7,156.57	210.84	38.97	92.75	582.14	-9,866.66	2,675.08	2,529.44	145.64	18.367		
14,400.00	7,101.21	7,308.97	7,154.88	213.67	38.97	92.68	582.17	-9,866.68	2,589.33	2,439.06	150.27	17.231		
14,500.00	7,100.78	7,307.27	7,153.17	216.50	38.96	92.61	582.20	-9,866.71	2,504.63	2,349.43	155.19	16.139		
14,600.00	7,100.35	7,305.55	7,151.45	219.32	38.96	92.53	582.22	-9,866.73	2,421.09	2,260.66	160.43	15.092		
14,700.00	7,099.91	7,303.81	7,149.71	222.15	38.95	92.46	582.25	-9,866.76	2,338.85	2,172.86	165.99	14.090		
14,800.00	7,099.48	7,302.06	7,147.97	224.98	38.95	92.39	582.28	-9,866.78	2,258.03	2,086.13	171.90	13.136		
14,900.00	7,099.04	7,300.30	7,146.21	227.81	38.94	92.31	582.31	-9,866.81	2,178.81	2,000.63	178.18	12.228		
14,909.96	7,099.00	7,300.13	7,146.03	228.09	38.94	92.30	582.31	-9,866.81	2,171.01	1,992.19	178.82	12.141 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 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 @ 4821.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 32N-16C-M
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.48°



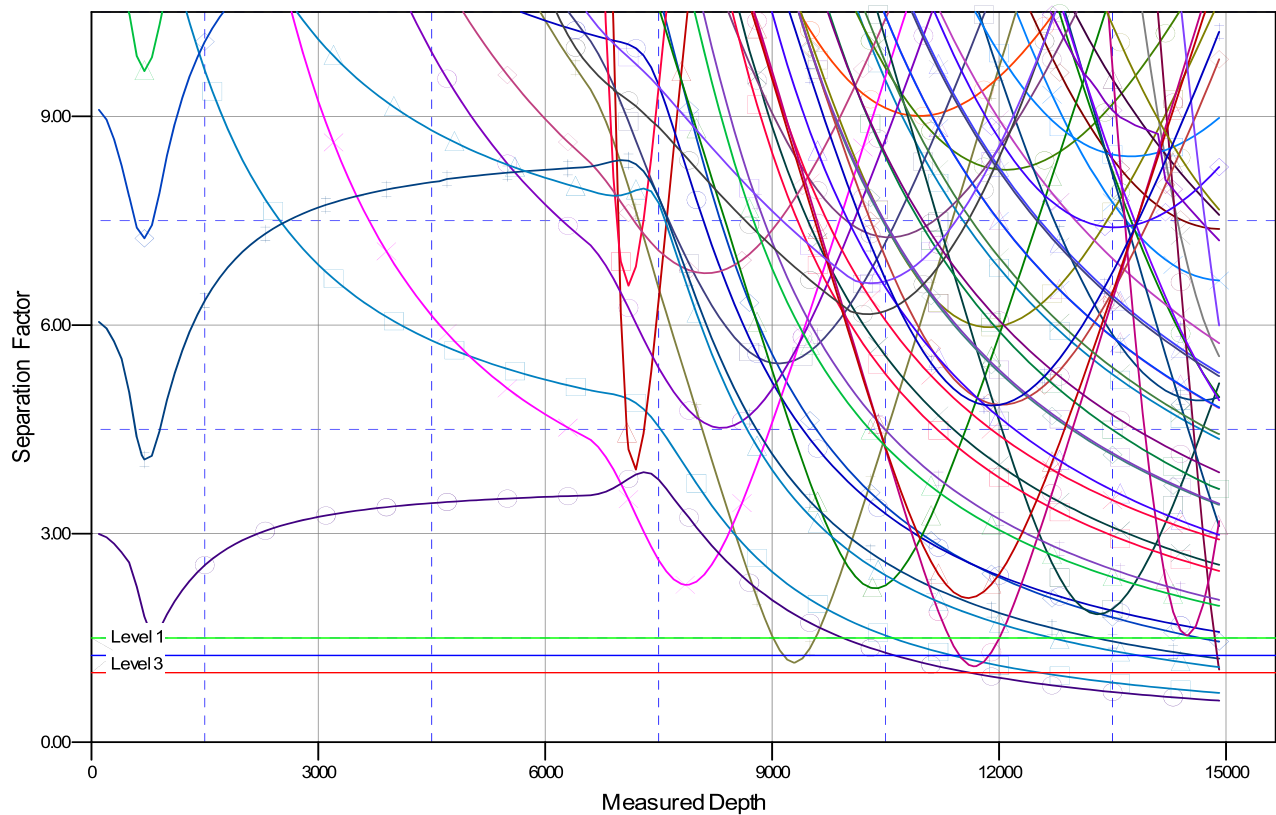
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 32N-16C-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4821.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4821.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 32N-16C-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 @ 4821.00ft
Offset Depths are relative to Offset Datum
Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 32N-16C-M
Coordinate System is US State Plane 1983, Colorado Northern Zone
Grid Convergence at Surface is: 0.48°

Separation Factor Plot



LEGEND

FRITZLER-8-17(PR_1500Q,OH,OHV0)	STOCKOVER-6-1(PR_750Q,OH,OHV0)	HARVESTERSTATE 30N-16BM,OH,PLAN#1V0
LEIFLER-21-2(SL_750Q,OH,OHV0)	HARVESTER-2-15(SL_150Q,OH,OHV0)	FRITZLER-32-12(PR_150Q,OH,OHV0)
LOVELY-149(AE_1500Q,OH,OHV0)	STATE-HOPE-16-2(PR_750Q,OH,OHV0)	MURZELLEFLER-1(AE_1500Q,OH,OHV0)
HARVESTER-RESOURCES15R403(PR_150Q,OH,OHV0)	HARVESTERSTATE5N-16BM,OH,PLAN#1V0	STATE-HOPE-16-3(PR_150Q,OH,OHV0)
BURBACH-15-23(SL_150Q,OH,OHV0)	FRITZLER-17(PR_150Q,OH,OHV0)	MOGLOTHLN-17-11(PR_750Q,OH,OHV0)
HARVESTERSTATE13C-16-M,OH,PLAN#1V0	HARVESTERSTATE4N-16AM,OH,PLAN#1V0	HARVESTERSTATE33N-16BM,OH,PLAN#1V0
LUCAS-SCHOOL-1(TA_150Q,OH,OHV0)	HARVESTERSTATE32C-16M2,OH,PLAN#1V0	RUTT-ADAMS-HERS-2-22,OH,OHV0
HARVESTERSTATE32N-16BM,OH,PLAN#1V0	HOOD-220(PR_150Q,OH,OHV0)	LOVELY-1(AE_1500Q,OH,OHV0)
HARVESTERSTATE5N-16GM,OH,PLAN#1V0	LEIFLER-20N-23B-L(SRCP,PLAN_750Q,OH,PLAN#1V0)	STATE-HOPE-32-16(PR_750Q,OH,OHV0)
LUCAS-SCHOOL-34-9(TA_150Q,OH,OHV0)	FRITZLER-23-18(PR_150Q,OH,OHV0)	HARVESTERSTATE12N-16BM,OH,PLAN#1V0
FRITZLER-1-21(PR_150Q,OH,OHV0)	MOGLOTHLN-6-17(PR_150Q,OH,OHV0)	HARVESTERSTATE4N-16GM,OH,PLAN#1V0
HARVESTERSTATE12N-16AM,OH,PLAN#1V0	DONN3ON20B-L(SRCP,PLAN_750Q,OH,PLAN#1V0)	FALKENBERG-9C-L(SRCP,PLAN_750Q,OH,PLAN#1V0)
BLACKGOLD-AB-150Q,OH,OHV0	FRITZLER-42-11(PR_150Q,OH,OHV0)	BURMAN-16-42(PR_750Q,OH,OHV0)
FRITZLER-1-21-4(PR_150Q,OH,OHV0)	HARVESTERSTATE34C-16M,OH,PLAN#1V0	HARVESTERSTATE4C-16-M,OH,PLAN#1V0
LEIFLER-23C-23-L(SRCP,PLAN_750Q,OH,PLAN#1V0)	HARVESTERSTATE13N-16BM,OH,PLAN#1V0	DONN3ON20A-L(SRCP,PLAN_750Q,OH,PLAN#1V0)
HARVESTER-RESOURCES15M423(PR_150Q,OH,OHV0)	STATE-HOPE-16-1(CS_750Q,OH,OHV0)	FALKENBERG-9-L(SRCP,PLAN_750Q,OH,PLAN#1V0)
ULRICH-17-07(PR_750Q,OH,OHV0)	GRIELEY-SW-100X,OH,OHV0	HOOD-41-2(PR_150Q,OH,OHV0)
MONTERA-10-34(PR_750Q,OH,OHV0)	HARVESTERSTATE31N-16BM,OH,PLAN#1V0	FRITZLER-84-17(PR_150Q,OH,OHV0)
BURMAN-16-43(PR_750Q,OH,OHV0)	HARVESTERSTATE31C-16M,OH,PLAN#1V0	HARVESTERSTATE34N-16GM,OH,PLAN#1V0
BURBACH-15-22(SL_150Q,OH,OHV0)	HARVESTER-RESOURCES15R423(PR_150Q,OH,OHV0)	BLACKGOLD-PETROLEUM-1(PR_150Q,OH,OHV0)
HARVESTERSTATE12N-16GM,OH,PLAN#1V0	FRITZLER-6-17(PR_150Q,OH,OHV0)	HARVESTERSTATE32C-16M,OH,PLAN#1V0
HARVESTER-RESOURCES15M423(PR_150Q,OH,OHV0)	LEIFLER-17M-1-2(PA_750Q,OH,OHV0)	HARVESTERSTATE33C-16M,OH,PLAN#1V0
SENA-15-24(PR_750Q,OH,OHV0)	HARVESTER-1-15(SL_150Q,OH,OHV0)	HARVESTERSTATE33N-16GM,OH,PLAN#1V0
SENA-15-25(PR_750Q,OH,OHV0)	ULRICH-17-08(PR_750Q,OH,OHV0)	FRITZLER-3-17(PR_150Q,OH,OHV0)
SENA-15-21(PR_750Q,OH,OHV0)	FRITZLER-8-17(PR_150Q,OH,OHV0)	BERRY-23-2(PR_750Q,OH,OHV0)