



SRC ENERGY

**SECTION 15, T6N, R66W
HARVESTERS STATE 7-15 PAD
HARVESTERS STATE 30N-16B-M**

**OH
PLAN #1**

Anticollision Report

04 October, 2017





Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

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

Survey Tool Program	Date	10/4/2017		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	14,942.02	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	100.00	57.51	1,774.90	1,768.34	270.275	CC, ES
BERG 33-15 (AB_150CC) - OH - OH	8,600.00	6,989.84	3,730.22	3,653.23	48.450	SF
BERRY 22-2(PR_75CC) - OH - OH	100.00	28.32	4,512.42	4,505.85	687.318	CC
BERRY 22-2(PR_75CC) - OH - OH	200.00	123.70	4,512.47	4,505.84	680.390	ES
BERRY 22-2(PR_75CC) - OH - OH	11,800.00	7,000.01	7,953.85	7,823.17	60.864	SF
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	0.00	19.25	4,512.42			
BLACK GOLD PETROLEUM 1(PR_150CC) - OH - OH	11,800.00	7,364.18	7,964.29	7,831.71	60.074	SF
BLACKGOLD 3(AB_150CC) - OH - OH	7,974.86	7,088.57	832.43	759.08	11.348	CC
BLACKGOLD 3(AB_150CC) - OH - OH	8,000.00	7,088.82	832.81	758.90	11.268	ES
BLACKGOLD 3(AB_150CC) - OH - OH	8,200.00	7,090.76	862.34	784.35	11.057	SF
BURBACH 15-22(SI_150CC) - OH - OH	8,948.02	7,046.07	503.58	195.03	1.632	CC, ES, SF
BURBACH 15-23(SI_150CC) - OH - OH	9,328.09	7,029.99	1,834.08	1,516.59	5.777	CC
BURBACH 15-23(SI_150CC) - OH - OH	9,400.00	7,029.78	1,835.49	1,516.43	5.753	ES
BURBACH 15-23(SI_150CC) - OH - OH	9,500.00	7,029.50	1,842.12	1,521.02	5.737	SF
BURMAN 16-42(PR_75CC) - OH - OH	11,598.36	7,012.52	2,986.12	2,608.11	7.900	CC
BURMAN 16-42(PR_75CC) - OH - OH	11,700.00	7,012.23	2,987.85	2,607.31	7.852	ES
BURMAN 16-42(PR_75CC) - OH - OH	12,000.00	7,011.38	3,013.01	2,625.90	7.783	SF
BURMAN 16-43(PR_75CC) - OH - OH	11,615.50	7,009.47	4,486.96	4,108.59	11.859	CC
BURMAN 16-43(PR_75CC) - OH - OH	11,700.00	7,009.23	4,487.76	4,107.18	11.792	ES
BURMAN 16-43(PR_75CC) - OH - OH	12,600.00	7,006.67	4,593.70	4,192.86	11.460	SF
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	9,905.29	7,266.44	5,009.66	4,886.04	40.526	CC
DONN 30N 20A-L(SRC PLAN_75CC) - OH - SRC PLAN	14,942.37	12,349.21	5,144.58	4,734.73	12.552	ES, SF
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	9,850.82	7,325.01	5,206.58	5,084.51	42.650	CC
DONN 30N-20B-L(SRC PLAN_75CC) - OH - PLAN	14,942.37	12,333.34	5,286.56	4,880.35	13.015	ES, SF
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	7,577.71	16,609.35	688.05	389.58	2.305	CC
FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1	10,100.00	19,118.26	714.97	292.67	1.693	ES, SF
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	10,080.13	19,019.63	495.93	66.13	1.154	Level 2, CC
FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1	10,100.00	19,018.34	496.35	66.09	1.154	Level 2, ES, SF
FRITZLER 11-21-4(PR_150CC) - OH - OH	13,885.17	7,163.15	4,971.94	4,739.28	21.370	CC
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,000.00	7,169.70	4,973.26	4,737.43	21.088	ES
FRITZLER 11-21-4(PR_150CC) - OH - OH	14,942.37	7,226.66	5,082.89	4,825.38	19.739	SF
FRITZLER 11-21(PR_150CC) - OH - OH	14,483.40	6,983.31	5,637.76	5,179.90	12.313	CC
FRITZLER 11-21(PR_150CC) - OH - OH	14,600.00	6,982.98	5,638.97	5,177.99	12.233	ES
FRITZLER 11-21(PR_150CC) - OH - OH	14,942.37	6,982.00	5,656.41	5,186.84	12.046	SF
FRITZLER 1-17(PR_150CC) - OH - OH	14,942.37	7,003.00	4,390.06	3,921.45	9.368	CC, ES, SF
FRITZLER 17-23-18(PR_150CC) - OH - OH	14,942.37	7,274.99	4,676.54	4,436.32	19.468	CC, ES, SF
FRITZLER 17-32-12(PR_150CC) - OH - OH	14,942.37	7,426.74	2,779.06	2,535.03	11.388	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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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	14,942.37	7,415.07	2,344.99	2,080.12	8.853	CC, ES, SF
FRITZLER 34-17(PR_150CC) - OH - OH	14,942.37	7,026.11	4,851.99	4,604.39	19.596	CC, ES, SF
FRITZLER 43-17(PR_150CC) - OH - OH	14,942.37	7,236.34	3,098.18	2,842.99	12.141	CC, ES, SF
FRITZLER 6-6-17 (PR_150CC) - OH - OH	14,942.37	7,078.71	3,973.90	3,724.30	15.921	CC, ES, SF
FRITZLER 6-8-17(PR_150CC) - OH - OH	14,942.37	7,159.98	5,138.08	4,884.45	20.258	CC, ES, SF
FRITZLER 8-8-17(PR_150CC) - OH - OH	14,942.37	7,001.78	4,967.92	4,706.44	18.999	CC, ES, SF
GREELEY SWD #1(XX) - OH - OH	10,184.54	7,001.45	4,705.64	4,366.66	13.882	CC
GREELEY SWD #1(XX) - OH - OH	10,300.00	7,001.78	4,707.05	4,365.13	13.766	ES
GREELEY SWD #1(XX) - OH - OH	11,400.00	7,004.91	4,860.07	4,493.09	13.243	SF
HARVESTER 31-15(SI_150CC) - OH - OH	4,400.17	4,316.85	588.91	549.60	14.982	CC
HARVESTER 31-15(SI_150CC) - OH - OH	4,500.00	4,414.77	589.21	549.02	14.660	ES
HARVESTER 31-15(SI_150CC) - OH - OH	6,600.00	6,491.25	718.83	660.22	12.264	SF
HARVESTER 32-15(SI_150CC) - OH - OH	344.42	327.03	567.80	560.80	81.095	CC, ES
HARVESTER 32-15(SI_150CC) - OH - OH	6,700.00	6,558.94	1,574.63	1,515.93	26.824	SF
HARVESTERS RESOURCES 15M-303 (PR_150CC) - O	7,012.19	7,011.94	139.67	84.30	2.523	CC, ES, SF
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	6,853.96	6,880.55	429.70	370.97	7.317	CC, ES
HARVESTERS RESOURCES 15M-423(PR_150CC) - O	6,900.00	6,917.37	432.27	372.62	7.247	SF
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,689.32	6,697.62	831.55	771.80	13.918	CC, ES
HARVESTERS RESOURCES 15R-243(PR_150CC) - OH	6,700.00	6,711.30	831.63	771.80	13.900	SF
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,731.81	6,965.57	1,167.52	1,105.34	18.776	CC, ES
HARVESTERS RESOURCES 15R-403(PR_150CC) - OH	6,800.00	7,015.25	1,172.27	1,109.48	18.670	SF
HARVESTERS STATE 30C-16-M - OH - PLAN #1	200.00	200.00	19.67	12.99	2.947	CC
HARVESTERS STATE 30C-16-M - OH - PLAN #1	14,942.37	15,216.01	284.71	-74.21	0.793	Level 1, ES, SF
HARVESTERS STATE 31C-16-M - OH - PLAN #1	300.00	301.00	80.16	73.26	11.632	CC, ES
HARVESTERS STATE 31C-16-M - OH - PLAN #1	14,942.37	15,012.83	898.27	446.92	1.990	SF
HARVESTERS STATE 33C-16-M - OH - PLAN #1	200.00	198.00	379.99	373.32	56.950	CC, ES
HARVESTERS STATE 33C-16-M - OH - PLAN #1	14,942.37	15,234.82	3,554.24	3,097.90	7.789	SF
HARVESTERS STATE 34C-16-M - OH - PLAN #1	200.00	197.00	500.21	493.54	74.975	CC, ES
HARVESTERS STATE 34C-16-M - OH - PLAN #1	14,942.37	15,753.30	4,815.77	4,359.06	10.545	SF
HARVESTERS STATE 5C-16-M - OH - PLAN #1	300.00	301.00	120.23	113.34	17.447	CC, ES
HARVESTERS STATE 5C-16-M - OH - PLAN #1	14,942.37	14,980.22	1,332.25	877.98	2.933	SF
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	200.00	198.00	360.31	353.64	54.000	CC, ES
HARVESTERS STATE 12N-16A-M - OH - PLAN #1	14,942.37	14,893.68	3,343.38	2,887.21	7.329	SF
HARVESTERS STATE 12N-16B-M - OH - PLAN #1	200.00	198.00	340.28	333.61	50.998	CC, ES
HARVESTERS STATE 12N-16B-M - OH - PLAN #1	14,942.37	14,960.50	3,131.88	2,675.37	6.860	SF
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	200.00	198.00	320.23	313.56	47.993	CC, ES
HARVESTERS STATE 12N-16C-M - OH - PLAN #1	14,942.37	14,955.79	2,922.94	2,467.40	6.417	SF
HARVESTERS STATE 13C-16-M - OH - PLAN #1	200.00	197.00	440.11	433.43	65.967	CC, ES
HARVESTERS STATE 13C-16-M - OH - PLAN #1	14,942.37	15,405.34	4,185.17	3,728.77	9.170	SF
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	200.00	197.00	460.13	453.46	68.968	CC, ES
HARVESTERS STATE 13N-16B-M - OH - PLAN #1	14,942.37	15,308.17	4,391.93	3,935.27	9.618	SF
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	300.00	301.00	100.18	93.29	14.537	CC, ES
HARVESTERS STATE 31N-16B-M - OH - PLAN #1	14,942.37	14,810.11	1,105.40	651.52	2.435	SF
HARVESTERS STATE 32C-16-M - OH - PLAN #1	200.00	198.00	300.19	293.52	44.990	CC, ES
HARVESTERS STATE 32C-16-M - OH - PLAN #1	14,942.37	15,070.15	2,716.47	2,220.89	5.481	SF
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	300.00	301.00	180.33	173.44	26.169	CC, ES
HARVESTERS STATE 32C-16-M2 - OH - PLAN #1	14,942.37	14,992.48	1,988.94	1,533.33	4.365	SF
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	300.00	298.00	280.16	273.27	40.679	CC, ES
HARVESTERS STATE 32N-16B-M - OH - PLAN #1	14,942.37	14,856.17	2,512.60	2,056.25	5.506	SF
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	300.00	301.00	200.00	193.11	29.023	CC, ES
HARVESTERS STATE 32N-16C-M - OH - PLAN #1	14,942.37	14,898.47	2,200.56	1,744.07	4.821	SF
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	200.00	198.00	400.01	393.34	59.950	CC, ES
HARVESTERS STATE 33N-16B-M - OH - PLAN #1	14,942.37	15,115.43	3,763.89	3,307.41	8.246	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 30N-16B-M
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Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
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Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
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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 33N-16C-M - OH - PLAN #1	200.00	197.00	420.07	413.40	62.963	CC, ES
HARVESTERS STATE 33N-16C-M - OH - PLAN #1	14,942.37	15,244.49	3,971.19	3,514.57	8.697	SF
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	200.00	197.00	480.17	473.50	71.971	CC, ES
HARVESTERS STATE 34N-16C-M - OH - PLAN #1	14,942.37	15,454.10	4,602.46	4,145.73	10.077	SF
HARVESTERS STATE 4C-16-M - OH - PLAN #1	300.00	300.00	20.04	15.54	4.456	CC
HARVESTERS STATE 4C-16-M - OH - PLAN #1	14,942.37	15,114.38	258.34	-94.25	0.733	Level 1, ES, SF
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	300.00	301.00	60.11	53.22	8.723	CC, ES
HARVESTERS STATE 4N-16A-M - OH - PLAN #1	14,942.37	14,727.51	670.04	221.28	1.493	Level 3, SF
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	300.00	301.00	40.07	33.18	5.815	CC, ES
HARVESTERS STATE 4N-16C-M - OH - PLAN #1	14,942.37	14,950.74	541.93	87.30	1.192	Level 2, SF
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	300.00	301.00	160.29	153.40	23.261	CC, ES
HARVESTERS STATE 5N-16B-M - OH - PLAN #1	14,942.37	14,799.05	1,660.09	1,203.41	3.635	SF
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	300.00	301.00	140.26	133.37	20.354	CC, ES
HARVESTERS STATE 5N-16C-M - OH - PLAN #1	14,942.37	14,846.43	1,540.65	1,084.82	3.380	SF
HOOD 41-20(PR_150CC) - OH - OH	14,942.37	6,989.00	5,719.83	5,250.51	12.187	CC, ES, SF
HOOD 6-2-20(PR_150CC) - OH - OH	14,942.37	7,353.42	6,447.47	6,189.11	24.955	CC, ES, SF
LEFFLER 1 21-2(SI_75CC) - OH - OH	11,827.51	6,959.19	5,613.62	5,442.65	32.835	CC
LEFFLER 1 21-2(SI_75CC) - OH - OH	12,000.00	6,965.89	5,616.26	5,440.70	31.991	ES
LEFFLER 1 21-2(SI_75CC) - OH - OH	14,200.00	7,064.77	6,093.20	5,873.22	27.699	SF
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	6,330.74	10,572.64	5,226.92	5,083.13	36.350	CC, ES
LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER P	13,000.00	7,034.01	5,991.29	5,804.50	32.075	SF
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	6,217.18	10,394.31	4,934.92	4,792.96	34.762	CC, ES
LEFFLER 26N-23B-L(SRC PLAN_75CC) - OH - PLAN	12,700.00	6,973.79	5,624.84	5,443.69	31.050	SF
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,166.79	6,989.06	5,827.65	5,406.67	13.843	CC
LEFFLER FARM 1-21(PA_75CC) - OH - OH	13,300.00	6,988.68	5,829.17	5,404.65	13.731	ES
LEFFLER FARM 1-21(PA_75CC) - OH - OH	14,600.00	6,984.98	6,001.29	5,547.65	13.229	SF
LOVELY 1(AB_150CC) - OH - OH	13,128.07	7,036.17	971.28	549.75	2.304	CC, ES
LOVELY 1(AB_150CC) - OH - OH	13,200.00	7,035.96	973.94	550.44	2.300	SF
LOVELY 14-9(AB_150CC) - OH - OH	14,624.78	7,034.90	917.40	453.74	1.979	CC, ES
LOVELY 14-9(AB_150CC) - OH - OH	14,700.00	7,034.69	920.48	454.94	1.977	SF
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,399.48	7,063.94	1,001.21	654.26	2.886	CC
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,400.00	7,063.94	1,001.21	654.25	2.886	ES
LUCAS SCHOOL 1(TA_150CC) - OH - OH	10,500.00	7,063.65	1,006.24	656.48	2.877	SF
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,615.02	7,020.48	981.42	602.67	2.591	CC, ES
LUCAS SCHOOL 34-9(TA_150CC) - OH - OH	11,700.00	7,020.23	985.09	603.97	2.585	SF
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,179.14	4,452.00	6,174.03	5,870.97	20.372	CC
MAURICE LEFFLER 1(AB_150CC) - OH - OH	13,300.00	4,452.00	6,175.21	5,869.17	20.177	ES
MAURICE LEFFLER 1(AB_150CC) - OH - OH	14,942.37	4,452.00	6,420.88	6,080.39	18.858	SF
MCGLOTHLIN 8-6-17 (PR_150CC) - OH - OH	14,942.37	7,382.00	3,613.63	3,351.03	13.761	CC, ES, SF
MCGLOTHLIN 17-11(PR_75CC) - OH - OH	14,942.37	7,020.00	1,001.49	695.60	3.274	CC, ES, SF
MONTERA 10-34 (PR_75CC) - OH - OH	6,913.00	6,794.51	937.54	876.60	15.385	CC, ES
MONTERA 10-34 (PR_75CC) - OH - OH	7,100.00	6,935.31	955.42	892.69	15.232	SF
RUTT-ADAMS HEIRS 2-22 - OH - OH	300.00	239.00	4,464.60	4,453.78	412.883	CC
RUTT-ADAMS HEIRS 2-22 - OH - OH	400.00	338.98	4,466.23	4,452.01	314.259	ES
RUTT-ADAMS HEIRS 2-22 - OH - OH	10,000.00	7,004.07	6,026.86	5,699.76	18.425	SF
SENA 15-21(PR_75CC) - OH - OH	7,941.99	7,064.93	245.27	-42.06	0.854	Level 1, CC, ES, SF
SENA 15-24(PR_75CC) - OH - OH	300.00	280.00	1,134.03	1,121.91	93.580	CC
SENA 15-24(PR_75CC) - OH - OH	1,100.00	1,071.67	1,148.54	1,107.03	27.668	ES
SENA 15-24(PR_75CC) - OH - OH	8,000.00	7,050.77	1,553.54	1,265.99	5.403	SF
SENA 15-25(PR_75CC) - OH - OH	8,266.55	7,057.01	865.79	572.46	2.952	CC, ES
SENA 15-25(PR_75CC) - OH - OH	8,300.00	7,056.92	866.43	572.61	2.949	SF
STATE 1(AB_150CC) - OH - OH	11,770.62	7,010.03	331.47	-51.22	0.866	Level 1, CC, ES, SF
STATE BEATRICE 16-1(AB_150CC) - OH - OH	11,900.34	7,011.66	309.71	-76.65	0.802	Level 1, 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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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						
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,708.68	7,005.21	1,783.02	1,402.21	4.682	CC, ES
STATE BEATRICE 32-16(PR_75CC) - OH - OH	11,900.00	7,004.66	1,793.26	1,408.55	4.661	SF
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,466.74	7,005.65	4,469.89	4,011.72	9.756	CC
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,600.00	7,006.03	4,471.88	4,010.20	9.686	ES
STATE-HOPPE 16-1(SI_75CC) - OH - OH	14,942.37	7,007.00	4,495.13	4,025.35	9.569	SF
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,319.93	7,010.62	2,986.61	2,560.58	7.010	CC
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,400.00	7,010.39	2,987.69	2,559.64	6.980	ES
STATE-HOPPE 16-2(PR_75CC) - OH - OH	13,700.00	7,009.54	3,010.70	2,576.26	6.930	SF
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,519.99	6,999.52	1,821.31	1,574.64	7.384	CC
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,600.00	7,001.21	1,823.07	1,574.59	7.337	ES
STATE-HOPPE 16-3(PR_150CC) - OH - OH	14,700.00	7,003.34	1,830.18	1,580.03	7.316	SF
STOCKOVER 16-1(PR_75CC) - OH - OH	10,368.14	7,001.03	2,963.16	2,619.25	8.616	CC
STOCKOVER 16-1(PR_75CC) - OH - OH	10,400.00	7,000.94	2,963.33	2,618.63	8.597	ES
STOCKOVER 16-1(PR_75CC) - OH - OH	10,900.00	7,000.49	3,010.51	2,654.84	8.464	SF
ULRICH PC I 17-07D(PR_75CC) - OH - OH	14,942.37	7,104.92	2,774.37	2,588.82	14.952	CC, ES, SF
ULRICH PC I 17-08(PR_75CC) - OH - OH	14,942.37	7,011.00	1,931.81	1,488.81	4.361	CC, ES, SF
ULRICH PC I17-17D(PR_75CC) - OH - OH	14,942.37	7,222.84	1,908.78	1,758.67	12.716	CC, ES, SF

Offset Design

HARVESTERS STATE 7-15 PAD - BERG 33-15 (AB_150CC) - OH - OH

Offset Site Error: 0.00 ft

Survey Program: 100-GYRO-NS

Offset Well Error: 3.28 ft

Reference		Offset		Semi Major Axis		Reference	Offset	Highside Toolface (°)	Distance		Minimum Separation (ft)	Separation Factor	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)				Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)			
0.00	0.00	0.00	39.00	3.28	3.28	168.68	-1,740.29	348.53	1,775.27				
100.00	100.00	57.51	96.51	3.28	3.28	168.68	-1,740.34	348.53	1,774.90	1,768.34	6.57	270.275	CC, ES
200.00	200.00	155.36	194.36	3.34	3.31	168.68	-1,740.65	348.52	1,775.21	1,768.56	6.65	267.025	
300.00	300.00	258.11	297.11	3.44	3.40	168.69	-1,740.97	348.31	1,775.47	1,768.63	6.84	259.417	
400.00	399.98	359.27	398.27	3.60	3.54	175.99	-1,741.08	348.23	1,777.31	1,770.17	7.14	248.869	
500.00	499.84	458.80	497.80	3.81	3.72	176.00	-1,741.19	348.25	1,782.64	1,775.11	7.53	236.782	
600.00	599.45	554.20	593.20	4.06	3.93	176.00	-1,741.34	348.38	1,791.51	1,783.53	7.98	224.387	
700.00	698.70	649.45	688.44	4.34	4.17	176.01	-1,741.81	348.49	1,804.17	1,795.67	8.50	212.193	
800.00	797.47	750.25	789.24	4.64	4.45	176.03	-1,742.40	348.35	1,820.32	1,811.23	9.09	200.261	
900.00	895.65	852.16	891.15	4.98	4.75	176.07	-1,742.85	347.81	1,839.55	1,829.82	9.73	189.071	
1,000.00	993.66	952.28	991.27	5.32	5.07	176.13	-1,743.14	347.30	1,859.54	1,849.15	10.39	178.987	
1,100.00	1,091.67	1,048.48	1,087.47	5.69	5.39	176.19	-1,743.40	346.63	1,879.48	1,868.42	11.07	169.813	
1,200.00	1,189.68	1,143.86	1,182.85	6.09	5.72	176.25	-1,743.82	346.07	1,899.62	1,887.85	11.77	161.403	
1,300.00	1,287.69	1,241.90	1,280.89	6.49	6.07	176.31	-1,744.30	345.43	1,919.78	1,907.28	12.50	153.555	
1,400.00	1,385.69	1,341.21	1,380.19	6.90	6.43	176.38	-1,744.80	344.63	1,939.94	1,926.68	13.26	146.320	
1,500.00	1,483.70	1,443.87	1,482.84	7.33	6.82	176.44	-1,745.14	343.82	1,959.92	1,945.88	14.04	139.565	
1,600.00	1,581.71	1,545.43	1,584.40	7.76	7.20	176.50	-1,745.20	343.09	1,979.67	1,964.84	14.84	133.431	
1,700.00	1,679.72	1,642.42	1,681.38	8.19	7.57	176.56	-1,745.26	342.05	1,999.35	1,983.73	15.62	127.980	
1,800.00	1,777.73	1,736.73	1,775.69	8.63	7.94	176.62	-1,745.44	341.15	2,019.19	2,002.78	16.41	123.078	
1,900.00	1,875.74	1,832.95	1,871.91	9.08	8.32	176.68	-1,745.78	340.23	2,039.18	2,021.97	17.21	118.521	
2,000.00	1,973.75	1,930.32	1,969.27	9.53	8.70	176.74	-1,746.13	339.27	2,059.17	2,041.15	18.02	114.292	
2,100.00	2,071.76	2,025.28	2,064.22	9.98	9.08	176.81	-1,746.64	338.15	2,079.31	2,060.48	18.82	110.465	
2,200.00	2,169.77	2,123.66	2,162.60	10.44	9.47	176.87	-1,747.18	337.08	2,099.47	2,079.82	19.65	106.839	
2,300.00	2,267.77	2,219.86	2,258.79	10.90	9.86	176.92	-1,747.67	336.37	2,119.67	2,099.19	20.47	103.538	
2,400.00	2,365.78	2,317.38	2,356.31	11.36	10.26	176.97	-1,748.28	335.63	2,139.96	2,118.65	21.30	100.446	
2,500.00	2,463.79	2,423.60	2,462.53	11.82	10.69	177.03	-1,748.70	334.59	2,160.00	2,137.82	22.18	97.375	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
2,600.00	2,561.80	2,523.77	2,562.68	12.28	11.10	177.08	-1,748.85	333.81	2,179.84	2,156.81	23.03	94.637		
2,700.00	2,659.81	2,622.22	2,661.13	12.75	11.50	177.12	-1,748.87	333.25	2,199.59	2,175.71	23.88	92.111		
2,800.00	2,757.82	2,715.00	2,753.91	13.21	11.89	177.16	-1,749.02	332.77	2,219.49	2,194.79	24.70	89.857		
2,900.00	2,855.83	2,812.67	2,851.58	13.68	12.29	177.20	-1,749.31	332.25	2,239.51	2,213.97	25.55	87.660		
3,000.00	2,953.84	2,912.45	2,951.36	14.15	12.70	177.24	-1,749.52	331.79	2,259.47	2,233.07	26.41	85.561		
3,100.00	3,051.85	3,005.88	3,044.79	14.62	13.09	177.27	-1,749.79	331.37	2,279.51	2,252.28	27.24	83.690		
3,200.00	3,149.85	3,099.87	3,138.78	15.09	13.48	177.31	-1,750.26	330.89	2,299.74	2,271.67	28.07	81.924		
3,300.00	3,247.86	3,205.19	3,244.10	15.56	13.92	177.34	-1,750.66	330.59	2,319.89	2,290.93	28.97	80.088		
3,400.00	3,345.87	3,314.79	3,353.70	16.04	14.37	177.38	-1,750.64	330.14	2,339.64	2,309.76	29.89	78.288		
3,500.00	3,443.88	3,419.43	3,458.33	16.51	14.81	177.42	-1,750.19	329.48	2,358.95	2,328.18	30.78	76.644		
3,600.00	3,541.89	3,509.88	3,548.77	16.98	15.19	177.45	-1,749.89	328.81	2,378.35	2,346.75	31.60	75.268		
3,700.00	3,639.90	3,600.90	3,639.80	17.46	15.57	177.49	-1,749.88	328.12	2,398.05	2,365.62	32.42	73.961		
3,800.00	3,737.91	3,684.14	3,723.04	17.93	15.92	177.52	-1,750.25	327.48	2,418.19	2,384.98	33.21	72.824		
3,900.00	3,835.92	3,777.75	3,816.64	18.41	16.31	177.56	-1,751.09	326.71	2,438.76	2,404.71	34.05	71.632		
4,000.00	3,933.93	3,883.16	3,922.04	18.88	16.75	177.61	-1,751.95	325.92	2,459.26	2,424.31	34.95	70.363		
4,100.00	4,031.93	3,983.58	4,022.46	19.36	17.18	177.64	-1,752.49	325.22	2,479.50	2,443.67	35.83	69.202		
4,200.00	4,129.94	4,081.71	4,120.58	19.84	17.59	177.68	-1,752.99	324.45	2,499.71	2,463.01	36.70	68.117		
4,300.00	4,227.95	4,184.51	4,223.38	20.31	18.02	177.72	-1,753.43	323.69	2,519.84	2,482.25	37.59	67.034		
4,400.00	4,325.96	4,315.22	4,354.08	20.79	18.58	177.77	-1,753.06	322.70	2,539.31	2,500.67	38.64	65.722		
4,500.00	4,423.97	4,401.81	4,440.67	21.27	18.94	177.79	-1,752.52	321.98	2,558.39	2,518.95	39.44	64.864		
4,600.00	4,521.98	4,503.19	4,542.04	21.75	19.37	177.83	-1,751.95	321.06	2,577.55	2,537.22	40.33	63.912		
4,700.00	4,619.99	4,621.94	4,660.78	22.23	19.87	177.87	-1,750.60	319.74	2,596.08	2,554.77	41.31	62.841		
4,800.00	4,718.00	4,710.57	4,749.40	22.70	20.24	177.89	-1,749.39	319.66	2,614.59	2,572.46	42.13	62.059		
4,900.00	4,816.01	4,808.59	4,847.41	23.18	20.65	177.91	-1,748.22	319.15	2,633.19	2,590.19	43.00	61.236		
5,000.00	4,914.01	4,877.56	4,916.37	23.66	20.94	177.94	-1,747.92	318.26	2,652.41	2,608.70	43.71	60.683		
5,100.00	5,012.02	4,960.63	4,999.44	24.14	21.29	177.97	-1,748.31	317.41	2,672.53	2,628.03	44.49	60.064		
5,200.00	5,110.03	5,089.86	5,128.67	24.62	21.84	177.99	-1,748.45	317.60	2,692.58	2,647.03	45.55	59.118		
5,300.00	5,208.04	5,208.61	5,247.41	25.10	22.34	177.99	-1,747.02	318.16	2,711.32	2,664.79	46.53	58.266		
5,400.00	5,306.05	5,304.41	5,343.18	25.58	22.74	177.98	-1,745.54	318.99	2,729.81	2,682.42	47.39	57.598		
5,500.00	5,404.06	5,381.52	5,420.29	26.06	23.06	177.97	-1,744.64	319.95	2,748.72	2,700.57	48.15	57.087		
5,600.00	5,502.07	5,460.89	5,499.65	26.54	23.39	177.96	-1,744.27	321.01	2,768.32	2,719.41	48.91	56.595		
5,700.00	5,600.08	5,565.07	5,603.82	27.02	23.83	177.96	-1,744.33	321.80	2,788.35	2,738.53	49.82	55.964		
5,800.00	5,698.09	5,668.03	5,706.78	27.50	24.26	177.95	-1,743.81	322.83	2,807.86	2,757.13	50.73	55.352		
5,900.00	5,796.09	5,767.98	5,806.72	27.98	24.69	177.94	-1,743.32	323.94	2,827.40	2,775.79	51.61	54.782		
6,000.00	5,894.10	5,863.21	5,901.95	28.46	25.09	177.95	-1,742.95	324.02	2,846.88	2,794.41	52.47	54.257		
6,100.00	5,992.11	5,954.97	5,993.70	28.94	25.47	177.95	-1,742.68	324.76	2,866.57	2,813.26	53.31	53.774		
6,200.00	6,090.12	6,040.22	6,078.94	29.42	25.83	177.93	-1,742.49	326.40	2,886.52	2,832.41	54.11	53.349		
6,300.00	6,188.13	6,130.22	6,168.92	29.90	26.21	177.90	-1,742.82	328.22	2,907.02	2,852.09	54.93	52.920		
6,400.00	6,286.14	6,245.23	6,283.92	30.38	26.70	177.89	-1,742.88	329.83	2,927.13	2,871.21	55.91	52.353		
6,500.00	6,384.15	6,337.39	6,376.06	30.87	27.09	177.87	-1,742.66	331.64	2,947.05	2,890.30	56.75	51.929		
6,600.00	6,482.15	6,414.83	6,453.49	31.35	27.41	-173.28	-1,742.87	333.06	2,967.51	2,910.01	57.50	51.608		
6,700.00	6,579.21	6,480.13	6,518.77	31.83	27.69	-140.31	-1,743.65	334.30	2,990.34	2,932.17	58.17	51.405		
6,800.00	6,673.04	6,581.69	6,620.30	32.30	28.12	-123.97	-1,745.51	335.91	3,015.62	2,956.55	59.07	51.049		
6,900.00	6,761.33	6,710.32	6,748.92	32.74	28.67	-115.26	-1,746.77	336.00	3,041.51	2,981.36	60.15	50.566		
7,000.00	6,841.90	6,768.03	6,806.63	33.17	28.91	-109.16	-1,747.29	336.05	3,068.91	3,008.12	60.80	50.480		
7,100.00	6,912.77	6,838.52	6,877.11	33.60	29.21	-104.78	-1,748.07	336.28	3,098.07	3,036.51	61.56	50.324		
7,200.00	6,972.19	6,897.55	6,936.14	34.09	29.46	-101.13	-1,748.72	336.47	3,128.71	3,066.38	62.33	50.196		
7,300.00	7,018.70	6,943.67	6,982.26	34.73	29.66	-97.81	-1,749.23	336.62	3,160.73	3,097.61	63.12	50.077		
7,400.00	7,051.15	6,975.76	7,014.34	35.55	29.80	-94.59	-1,749.58	336.72	3,193.88	3,129.94	63.93	49.956		
7,500.00	7,068.75	6,993.01	7,031.59	36.56	29.87	-91.38	-1,749.77	336.78	3,227.75	3,162.98	64.77	49.834		
7,600.00	7,071.91	6,995.84	7,034.42	37.71	29.88	-89.24	-1,749.81	336.79	3,261.91	3,196.30	65.61	49.718		
7,700.00	7,071.62	6,995.24	7,033.82	39.03	29.88	-89.23	-1,749.80	336.79	3,298.11	3,231.57	66.53	49.571		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
7,800.00	7,071.34	6,994.64	7,033.22	40.51	29.88	-89.21	-1,749.79	336.78	3,336.91	3,269.36	67.55	49.400		
7,900.00	7,071.05	6,994.04	7,032.62	42.14	29.87	-89.20	-1,749.79	336.78	3,378.22	3,309.59	68.63	49.220		
8,000.00	7,070.77	6,993.44	7,032.02	43.89	29.87	-89.19	-1,749.78	336.78	3,421.97	3,352.19	69.77	49.043		
8,100.00	7,070.48	6,992.84	7,031.42	45.76	29.87	-89.18	-1,749.77	336.78	3,468.04	3,397.09	70.95	48.878		
8,200.00	7,070.20	6,992.24	7,030.82	47.72	29.87	-89.17	-1,749.77	336.78	3,516.35	3,444.20	72.15	48.734		
8,300.00	7,069.92	6,991.64	7,030.22	49.78	29.86	-89.16	-1,749.76	336.77	3,566.82	3,493.45	73.37	48.616		
8,400.00	7,069.63	6,991.04	7,029.62	51.90	29.86	-89.15	-1,749.75	336.77	3,619.34	3,544.76	74.58	48.528		
8,500.00	7,069.35	6,990.44	7,029.02	54.10	29.86	-89.14	-1,749.75	336.77	3,673.84	3,598.04	75.79	48.472		
8,600.00	7,069.06	6,989.84	7,028.42	56.36	29.86	-89.12	-1,749.74	336.77	3,730.22	3,653.23	76.99	48.450 SF		
8,700.00	7,068.78	6,989.24	7,027.82	58.66	29.85	-89.11	-1,749.73	336.77	3,788.40	3,710.23	78.17	48.463		
8,800.00	7,068.49	6,988.64	7,027.22	61.02	29.85	-89.10	-1,749.73	336.76	3,848.30	3,768.97	79.33	48.511		
8,900.00	7,068.21	6,988.04	7,026.62	63.42	29.85	-89.09	-1,749.72	336.76	3,909.84	3,829.38	80.46	48.594		
9,000.00	7,067.92	6,987.43	7,026.02	65.85	29.85	-89.08	-1,749.71	336.76	3,972.94	3,891.38	81.56	48.710		
9,100.00	7,067.64	6,986.83	7,025.42	68.32	29.84	-89.07	-1,749.71	336.76	4,037.54	3,954.90	82.64	48.858		
9,200.00	7,067.35	6,986.23	7,024.82	70.81	29.84	-89.06	-1,749.70	336.76	4,103.55	4,019.87	83.68	49.038		
9,300.00	7,067.07	6,985.63	7,024.22	73.34	29.84	-89.05	-1,749.69	336.75	4,170.92	4,086.23	84.69	49.247		
9,400.00	7,066.78	6,985.03	7,023.62	75.88	29.84	-89.03	-1,749.69	336.75	4,239.58	4,153.91	85.67	49.485		
9,500.00	7,066.50	6,984.43	7,023.02	78.45	29.83	-89.02	-1,749.68	336.75	4,309.46	4,222.84	86.62	49.751		
9,600.00	7,066.21	6,983.83	7,022.42	81.04	29.83	-89.01	-1,749.67	336.75	4,380.51	4,292.98	87.54	50.042		
9,700.00	7,065.93	6,983.23	7,021.82	83.64	29.83	-89.00	-1,749.67	336.75	4,452.68	4,364.26	88.42	50.358		
9,800.00	7,065.64	6,982.63	7,021.22	86.26	29.83	-88.99	-1,749.66	336.75	4,525.90	4,436.63	89.27	50.697		
9,900.00	7,065.36	6,982.03	7,020.62	88.90	29.82	-88.98	-1,749.65	336.74	4,600.13	4,510.03	90.10	51.058		
10,000.00	7,065.07	6,981.43	7,020.02	91.55	29.82	-88.97	-1,749.65	336.74	4,675.32	4,584.43	90.89	51.440		
10,100.00	7,064.79	6,980.83	7,019.42	94.21	29.82	-88.96	-1,749.64	336.74	4,751.43	4,659.77	91.65	51.841		
10,200.00	7,064.50	6,980.23	7,018.82	96.88	29.82	-88.94	-1,749.63	336.74	4,828.41	4,736.01	92.39	52.261		
10,300.00	7,064.22	6,979.63	7,018.21	99.57	29.81	-88.93	-1,749.63	336.74	4,906.21	4,813.11	93.10	52.698		
10,400.00	7,063.94	6,979.03	7,017.61	102.26	29.81	-88.92	-1,749.62	336.73	4,984.81	4,891.03	93.78	53.152		
10,500.00	7,063.65	6,978.43	7,017.01	104.96	29.81	-88.91	-1,749.61	336.73	5,064.17	4,969.72	94.44	53.621		
10,600.00	7,063.37	6,977.83	7,016.41	107.67	29.81	-88.90	-1,749.61	336.73	5,144.24	5,049.16	95.08	54.106		
10,700.00	7,063.08	6,977.23	7,015.81	110.39	29.80	-88.89	-1,749.60	336.73	5,225.00	5,129.31	95.69	54.604		
10,800.00	7,062.80	6,976.63	7,015.21	113.11	29.80	-88.88	-1,749.59	336.73	5,306.42	5,210.14	96.28	55.115		
10,900.00	7,062.51	6,976.03	7,014.61	115.84	29.80	-88.87	-1,749.59	336.72	5,388.46	5,291.61	96.85	55.638		
11,000.00	7,062.23	6,975.43	7,014.01	118.58	29.80	-88.85	-1,749.58	336.72	5,471.10	5,373.70	97.40	56.173		
11,100.00	7,061.94	6,974.83	7,013.41	121.32	29.79	-88.84	-1,749.57	336.72	5,554.31	5,456.38	97.93	56.720		
11,200.00	7,061.66	6,974.23	7,012.81	124.07	29.79	-88.83	-1,749.57	336.72	5,638.06	5,539.63	98.44	57.277		
11,300.00	7,061.37	6,973.63	7,012.21	126.82	29.79	-88.82	-1,749.56	336.72	5,722.34	5,623.41	98.93	57.844		
11,400.00	7,061.09	6,973.03	7,011.61	129.58	29.79	-88.81	-1,749.55	336.71	5,807.12	5,707.71	99.40	58.420		
11,500.00	7,060.80	6,972.43	7,011.01	132.34	29.78	-88.80	-1,749.55	336.71	5,892.37	5,792.51	99.86	59.005		
11,600.00	7,060.52	6,971.83	7,010.41	135.10	29.78	-88.79	-1,749.54	336.71	5,978.08	5,877.78	100.31	59.599		
11,700.00	7,060.23	6,971.23	7,009.81	137.87	29.78	-88.78	-1,749.53	336.71	6,064.23	5,963.49	100.73	60.200		
11,800.00	7,059.95	6,970.63	7,009.21	140.64	29.78	-88.76	-1,749.53	336.71	6,150.80	6,049.65	101.15	60.809		
11,900.00	7,059.66	6,970.02	7,008.61	143.42	29.77	-88.75	-1,749.52	336.70	6,237.76	6,136.22	101.55	61.426		
12,000.00	7,059.38	6,969.42	7,008.01	146.20	29.77	-88.74	-1,749.51	336.70	6,325.12	6,223.18	101.94	62.049		
12,100.00	7,059.09	6,968.82	7,007.41	148.98	29.77	-88.73	-1,749.51	336.70	6,412.84	6,310.53	102.31	62.679		
12,200.00	7,058.81	6,968.22	7,006.81	151.77	29.77	-88.72	-1,749.50	336.70	6,500.92	6,398.24	102.68	63.315		
12,300.00	7,058.52	6,967.62	7,006.21	154.55	29.76	-88.71	-1,749.49	336.70	6,589.34	6,486.31	103.03	63.956		
12,400.00	7,058.24	6,967.02	7,005.61	157.34	29.76	-88.70	-1,749.49	336.69	6,678.08	6,574.71	103.37	64.604		
12,500.00	7,057.96	6,966.42	7,005.01	160.14	29.76	-88.69	-1,749.48	336.69	6,767.14	6,663.44	103.70	65.256		
12,600.00	7,057.67	6,965.82	7,004.41	162.93	29.75	-88.67	-1,749.47	336.69	6,856.50	6,752.48	104.02	65.914		
12,700.00	7,057.39	6,965.22	7,003.81	165.73	29.75	-88.66	-1,749.47	336.69	6,946.15	6,841.82	104.33	66.576		
12,800.00	7,057.10	6,964.62	7,003.21	168.53	29.75	-88.65	-1,749.46	336.69	7,036.08	6,931.45	104.64	67.243		
12,900.00	7,056.82	6,964.02	7,002.61	171.33	29.75	-88.64	-1,749.45	336.68	7,126.28	7,021.35	104.93	67.914		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
13,000.00	7,056.53	6,963.42	7,002.01	174.13	29.74	-88.63	-1,749.45	336.68	7,216.74	7,111.52	105.22	68.590	
13,100.00	7,056.25	6,962.82	7,001.41	176.94	29.74	-88.62	-1,749.44	336.68	7,307.44	7,201.95	105.49	69.269	
13,200.00	7,055.96	6,962.22	7,000.81	179.74	29.74	-88.61	-1,749.43	336.68	7,398.38	7,292.62	105.76	69.952	
13,300.00	7,055.68	6,961.62	7,000.21	182.55	29.74	-88.60	-1,749.43	336.68	7,489.56	7,383.53	106.03	70.638	
13,400.00	7,055.39	6,961.02	6,999.61	185.36	29.73	-88.58	-1,749.42	336.67	7,580.96	7,474.67	106.28	71.328	
13,500.00	7,055.11	6,960.42	6,999.01	188.17	29.73	-88.57	-1,749.41	336.67	7,672.57	7,566.04	106.53	72.021	
13,600.00	7,054.82	6,959.82	6,998.40	190.98	29.73	-88.56	-1,749.41	336.67	7,764.39	7,657.61	106.77	72.717	
13,700.00	7,054.54	6,959.22	6,997.80	193.80	29.73	-88.55	-1,749.40	336.67	7,856.41	7,749.40	107.01	73.416	
13,800.00	7,054.25	6,958.62	6,997.20	196.61	29.72	-88.54	-1,749.39	336.67	7,948.62	7,841.38	107.24	74.118	
13,900.00	7,053.97	6,958.02	6,996.60	199.43	29.72	-88.53	-1,749.39	336.67	8,041.02	7,933.55	107.47	74.823	
14,000.00	7,053.68	6,957.42	6,996.00	202.25	29.72	-88.52	-1,749.38	336.66	8,133.59	8,025.91	107.69	75.530	
14,100.00	7,053.40	6,956.82	6,995.40	205.06	29.72	-88.51	-1,749.37	336.66	8,226.34	8,118.44	107.90	76.239	
14,200.00	7,053.11	6,956.22	6,994.80	207.88	29.71	-88.49	-1,749.37	336.66	8,319.26	8,211.15	108.11	76.951	
14,300.00	7,052.83	6,955.62	6,994.20	210.70	29.71	-88.48	-1,749.36	336.66	8,412.34	8,304.03	108.32	77.664	
14,400.00	7,052.54	6,955.02	6,993.60	213.53	29.71	-88.47	-1,749.35	336.66	8,505.58	8,397.07	108.52	78.380	
14,500.00	7,052.26	6,954.42	6,993.00	216.35	29.71	-88.46	-1,749.35	336.65	8,598.97	8,490.26	108.71	79.098	
14,600.00	7,051.98	6,953.82	6,992.40	219.17	29.70	-88.45	-1,749.34	336.65	8,692.51	8,583.61	108.90	79.817	
14,700.00	7,051.69	6,953.22	6,991.80	222.00	29.70	-88.44	-1,749.33	336.65	8,786.19	8,677.10	109.09	80.539	
14,800.00	7,051.41	6,952.61	6,991.20	224.82	29.70	-88.43	-1,749.33	336.65	8,880.01	8,770.73	109.28	81.262	
14,900.00	7,051.12	6,952.01	6,990.60	227.65	29.70	-88.42	-1,749.32	336.65	8,973.96	8,864.50	109.46	81.986	
14,942.37	7,051.00	6,951.76	6,990.35	228.85	29.69	-88.41	-1,749.32	336.64	9,013.81	8,904.28	109.53	82.294	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BERRY 22-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	71.00	3.28	3.28	173.07	-4,479.49	544.13	4,512.98					
100.00	100.00	28.32	99.32	3.28	3.28	173.07	-4,479.49	544.12	4,512.42	4,505.85	6.57	687.318 CC		
200.00	200.00	123.70	194.70	3.34	3.30	173.08	-4,479.56	543.91	4,512.47	4,505.84	6.63	680.390 ES		
300.00	300.00	213.50	284.50	3.44	3.35	173.08	-4,479.81	543.65	4,512.70	4,505.91	6.80	663.747		
400.00	399.98	307.94	378.94	3.60	3.46	-179.62	-4,480.22	543.55	4,514.86	4,507.80	7.07	639.037		
500.00	499.84	411.23	482.23	3.81	3.63	-179.61	-4,480.66	543.59	4,520.52	4,513.09	7.44	607.834		
600.00	599.45	508.59	579.59	4.06	3.82	-179.61	-4,481.07	543.60	4,529.66	4,521.78	7.88	574.820		
700.00	698.70	611.14	682.14	4.34	4.07	-179.61	-4,481.52	543.36	4,542.25	4,533.85	8.40	540.547		
800.00	797.47	714.41	785.40	4.64	4.34	-179.60	-4,481.88	542.87	4,558.18	4,549.19	8.99	507.196		
900.00	895.65	804.50	875.49	4.98	4.61	-179.59	-4,482.29	542.20	4,577.48	4,567.90	9.58	477.628		
1,000.00	993.66	905.80	976.79	5.32	4.92	-179.58	-4,482.83	541.14	4,597.73	4,587.49	10.24	449.012		
1,100.00	1,091.67	983.14	1,054.11	5.69	5.17	-179.57	-4,483.43	540.08	4,618.18	4,607.33	10.85	425.651		
1,200.00	1,189.68	1,068.53	1,139.48	6.09	5.46	-179.55	-4,484.43	538.67	4,638.98	4,627.47	11.51	403.037		
1,300.00	1,287.69	1,160.77	1,231.71	6.49	5.78	-179.53	-4,485.71	537.03	4,659.97	4,647.76	12.22	381.482		
1,400.00	1,385.69	1,265.30	1,336.21	6.90	6.16	-179.50	-4,487.17	535.08	4,680.97	4,667.99	12.99	360.483		
1,500.00	1,483.70	1,371.73	1,442.60	7.33	6.55	-179.48	-4,488.46	532.84	4,701.76	4,687.98	13.78	341.197		
1,600.00	1,581.71	1,470.40	1,541.25	7.76	6.92	-179.45	-4,489.55	530.80	4,722.45	4,707.89	14.56	324.362		
1,700.00	1,679.72	1,561.67	1,632.49	8.19	7.27	-179.43	-4,490.59	528.99	4,743.19	4,727.87	15.32	309.615		
1,800.00	1,777.73	1,673.21	1,744.00	8.63	7.70	-179.41	-4,491.90	526.91	4,763.98	4,747.81	16.17	294.586		
1,900.00	1,875.74	1,765.86	1,836.63	9.08	8.06	-179.39	-4,492.73	525.20	4,784.51	4,767.55	16.96	282.187		
2,000.00	1,973.75	1,854.68	1,925.44	9.53	8.41	-179.37	-4,493.74	523.76	4,805.28	4,787.55	17.73	271.042		
2,100.00	2,071.76	1,945.72	2,016.45	9.98	8.77	-179.35	-4,494.90	522.23	4,826.18	4,807.66	18.52	260.625		
2,200.00	2,169.77	2,033.83	2,104.55	10.44	9.12	-179.33	-4,496.18	520.61	4,847.24	4,827.94	19.30	251.166		
2,300.00	2,267.77	2,123.31	2,193.99	10.90	9.48	-179.31	-4,497.70	518.91	4,868.52	4,848.43	20.09	242.331		
2,400.00	2,365.78	2,240.48	2,311.13	11.36	9.96	-179.29	-4,499.64	516.64	4,889.80	4,868.79	21.01	232.766		
2,500.00	2,463.79	2,415.92	2,486.54	11.82	10.67	-179.26	-4,500.58	513.77	4,910.00	4,887.82	22.18	221.331		
2,600.00	2,561.80	2,562.78	2,633.37	12.28	11.27	-179.24	-4,499.12	511.61	4,928.62	4,905.38	23.24	212.096		
2,700.00	2,659.81	2,662.30	2,732.88	12.75	11.68	-179.22	-4,497.83	510.06	4,947.04	4,922.95	24.09	205.367		
2,800.00	2,757.82	2,756.71	2,827.26	13.21	12.06	-179.21	-4,496.63	508.46	4,965.46	4,940.54	24.92	199.255		
2,900.00	2,855.83	2,851.27	2,921.80	13.68	12.45	-179.20	-4,495.54	506.75	4,983.99	4,958.24	25.75	193.518		
3,000.00	2,953.84	2,944.73	3,015.24	14.15	12.84	-179.18	-4,494.52	505.03	5,002.58	4,975.99	26.59	188.163		
3,100.00	3,051.85	3,041.02	3,111.51	14.62	13.24	-179.16	-4,493.60	503.16	5,021.29	4,993.85	27.43	183.040		
3,200.00	3,149.85	3,149.03	3,219.49	15.09	13.69	-179.14	-4,492.46	500.97	5,039.88	5,011.55	28.33	177.874		
3,300.00	3,247.86	3,243.41	3,313.85	15.56	14.08	-179.13	-4,491.32	499.14	5,058.35	5,029.18	29.18	173.379		
3,400.00	3,345.87	3,325.70	3,396.12	16.04	14.43	-179.11	-4,490.56	497.52	5,077.08	5,047.12	29.96	169.450		
3,500.00	3,443.88	3,410.14	3,480.53	16.51	14.78	-179.09	-4,490.05	495.62	5,096.11	5,065.35	30.76	165.674		
3,600.00	3,541.89	3,499.96	3,570.32	16.98	15.16	-179.07	-4,489.74	493.31	5,115.33	5,083.75	31.58	161.961		
3,700.00	3,639.90	3,589.17	3,659.50	17.46	15.53	-179.05	-4,489.58	490.96	5,134.73	5,102.32	32.41	158.452		
3,800.00	3,737.91	3,687.46	3,757.77	17.93	15.94	-179.03	-4,489.46	488.75	5,154.22	5,120.94	33.27	154.919		
3,900.00	3,835.92	3,776.23	3,846.52	18.41	16.31	-179.01	-4,489.38	486.99	5,173.77	5,139.68	34.09	151.764		
4,000.00	3,933.93	3,875.58	3,945.85	18.88	16.73	-178.99	-4,489.42	484.95	5,193.44	5,158.48	34.96	148.544		
4,100.00	4,031.93	3,977.28	4,047.53	19.36	17.16	-178.98	-4,489.33	483.20	5,213.03	5,177.18	35.85	145.430		
4,200.00	4,129.94	4,077.16	4,147.40	19.84	17.58	-178.96	-4,489.18	481.69	5,232.57	5,195.85	36.72	142.496		
4,300.00	4,227.95	4,189.16	4,259.39	20.31	18.05	-178.96	-4,488.75	481.08	5,251.99	5,214.33	37.65	139.479		
4,400.00	4,325.96	4,323.34	4,393.57	20.79	18.61	-178.98	-4,487.45	481.99	5,270.99	5,232.29	38.69	136.220		
4,500.00	4,423.97	4,454.53	4,524.73	21.27	19.16	-179.00	-4,485.04	482.92	5,289.07	5,249.35	39.72	133.155		
4,600.00	4,521.98	4,534.86	4,605.04	21.75	19.49	-179.01	-4,483.49	483.62	5,307.16	5,266.65	40.51	131.019		
4,700.00	4,619.99	4,600.01	4,670.18	22.23	19.77	-179.02	-4,482.61	484.03	5,325.76	5,284.54	41.22	129.207		
4,800.00	4,718.00	4,663.59	4,733.76	22.70	20.03	-179.02	-4,482.15	484.33	5,344.99	5,303.07	41.92	127.502		
4,900.00	4,816.01	4,740.32	4,810.49	23.18	20.35	-179.03	-4,482.12	484.71	5,364.83	5,322.14	42.69	125.681		
5,000.00	4,914.01	4,838.53	4,908.70	23.66	20.76	-179.04	-4,482.16	485.22	5,384.77	5,341.22	43.56	123.625		
5,100.00	5,012.02	4,935.20	5,005.37	24.14	21.17	-179.05	-4,482.24	485.46	5,404.74	5,360.32	44.42	121.670		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,035.20	5,105.37	24.62	21.59	-179.05	-4,482.32	485.85	5,424.71	5,379.41	45.30	119.744		
5,300.00	5,208.04	5,144.97	5,215.14	25.10	22.05	-179.06	-4,482.25	486.52	5,444.57	5,398.33	46.23	117.763		
5,400.00	5,306.05	5,298.97	5,369.12	25.58	22.70	-179.08	-4,481.28	487.66	5,463.95	5,416.56	47.38	115.314		
5,500.00	5,404.06	5,524.90	5,594.91	26.06	23.65	-179.15	-4,475.55	492.65	5,481.62	5,432.75	48.88	112.151		
5,600.00	5,502.07	5,582.31	5,652.26	26.54	23.89	-179.17	-4,473.56	494.39	5,498.42	5,448.86	49.56	110.946		
5,700.00	5,600.08	5,640.44	5,710.35	27.02	24.14	-179.19	-4,472.01	495.82	5,515.96	5,465.72	50.24	109.789		
5,800.00	5,698.09	5,700.01	5,769.90	27.50	24.39	-179.21	-4,470.91	496.92	5,534.20	5,483.28	50.93	108.669		
5,900.00	5,796.09	5,767.27	5,837.15	27.98	24.68	-179.22	-4,470.15	497.70	5,553.07	5,501.42	51.65	107.518		
6,000.00	5,894.10	5,846.41	5,916.29	28.46	25.01	-179.22	-4,469.69	498.08	5,572.41	5,519.98	52.43	106.289		
6,100.00	5,992.11	5,951.03	6,020.91	28.94	25.46	-179.23	-4,469.27	498.34	5,591.90	5,538.57	53.34	104.844		
6,200.00	6,090.12	6,054.79	6,124.66	29.42	25.90	-179.23	-4,468.60	498.28	5,611.12	5,556.88	54.24	103.450		
6,300.00	6,188.13	6,160.00	6,229.87	29.90	26.34	-179.23	-4,467.98	498.10	5,630.38	5,575.23	55.15	102.088		
6,400.00	6,286.14	6,277.44	6,347.31	30.38	26.84	-179.24	-4,466.92	497.82	5,649.33	5,593.20	56.13	100.653		
6,500.00	6,384.15	6,367.72	6,437.58	30.87	27.22	-179.24	-4,465.98	497.58	5,668.14	5,611.18	56.96	99.504		
6,600.00	6,482.15	6,456.85	6,526.71	31.35	27.60	-170.39	-4,465.25	497.34	5,687.20	5,629.40	57.80	98.402		
6,700.00	6,579.21	6,553.12	6,622.97	31.83	28.01	-137.63	-4,464.59	496.76	5,707.31	5,648.65	58.67	97.286		
6,800.00	6,673.04	6,664.54	6,734.40	32.30	28.48	-121.44	-4,463.64	496.54	5,728.45	5,668.83	59.61	96.094		
6,900.00	6,761.33	6,765.30	6,835.15	32.74	28.91	-112.56	-4,462.37	496.78	5,750.07	5,689.57	60.51	95.031		
7,000.00	6,841.90	6,846.33	6,916.17	33.17	29.26	-106.82	-4,461.34	496.56	5,772.23	5,710.91	61.32	94.139		
7,100.00	6,912.77	6,916.38	6,986.21	33.60	29.55	-102.66	-4,460.47	496.39	5,794.82	5,732.71	62.11	93.298		
7,200.00	6,972.19	6,979.39	7,049.21	34.09	29.82	-99.41	-4,459.59	496.72	5,817.62	5,754.68	62.95	92.422		
7,300.00	7,018.70	7,015.89	7,085.71	34.73	29.98	-96.56	-4,459.03	497.18	5,840.50	5,776.74	63.76	91.607		
7,400.00	7,051.15	7,034.94	7,104.76	35.55	30.06	-94.01	-4,458.78	497.45	5,863.27	5,798.66	64.61	90.752		
7,500.00	7,068.75	7,044.81	7,114.62	36.56	30.10	-91.75	-4,458.67	497.59	5,885.53	5,819.98	65.54	89.794		
7,600.00	7,071.91	7,045.83	7,115.64	37.71	30.10	-90.40	-4,458.66	497.61	5,906.98	5,840.43	66.55	88.760		
7,700.00	7,071.62	7,044.75	7,114.56	39.03	30.10	-90.39	-4,458.67	497.59	5,929.42	5,861.73	67.69	87.601		
7,800.00	7,071.34	7,043.68	7,113.49	40.51	30.10	-90.38	-4,458.68	497.58	5,953.45	5,884.50	68.95	86.339		
7,900.00	7,071.05	7,042.60	7,112.42	42.14	30.09	-90.37	-4,458.69	497.56	5,979.06	5,908.72	70.34	85.008		
8,000.00	7,070.77	7,041.54	7,111.35	43.89	30.09	-90.36	-4,458.70	497.54	6,006.22	5,934.41	71.81	83.639		
8,100.00	7,070.48	7,040.47	7,110.29	45.76	30.08	-90.35	-4,458.72	497.53	6,034.92	5,961.55	73.37	82.256		
8,200.00	7,070.20	7,039.42	7,109.23	47.72	30.08	-90.33	-4,458.73	497.51	6,065.13	5,990.14	74.99	80.879		
8,300.00	7,069.92	7,038.36	7,108.17	49.78	30.07	-90.32	-4,458.74	497.50	6,096.84	6,020.17	76.67	79.525		
8,400.00	7,069.63	7,037.31	7,107.12	51.90	30.07	-90.31	-4,458.75	497.48	6,130.00	6,051.62	78.38	78.207		
8,500.00	7,069.35	7,036.26	7,106.07	54.10	30.06	-90.30	-4,458.77	497.47	6,164.62	6,084.49	80.13	76.932		
8,600.00	7,069.06	7,035.22	7,105.03	56.36	30.06	-90.29	-4,458.78	497.45	6,200.65	6,118.75	81.90	75.707		
8,700.00	7,068.78	7,034.18	7,103.99	58.66	30.05	-90.28	-4,458.79	497.44	6,238.08	6,154.39	83.69	74.538		
8,800.00	7,068.49	7,033.14	7,102.96	61.02	30.05	-90.27	-4,458.80	497.42	6,276.87	6,191.39	85.49	73.425		
8,900.00	7,068.21	7,032.11	7,101.92	63.42	30.05	-90.26	-4,458.82	497.41	6,317.01	6,229.73	87.29	72.371		
9,000.00	7,067.92	7,031.08	7,100.90	65.85	30.04	-90.25	-4,458.83	497.39	6,358.47	6,269.39	89.08	71.376		
9,100.00	7,067.64	7,030.06	7,099.87	68.32	30.04	-90.24	-4,458.84	497.38	6,401.23	6,310.35	90.88	70.439		
9,200.00	7,067.35	7,029.04	7,098.85	70.81	30.03	-90.23	-4,458.86	497.36	6,445.25	6,352.59	92.66	69.560		
9,300.00	7,067.07	7,028.02	7,097.84	73.34	30.03	-90.22	-4,458.87	497.35	6,490.51	6,396.09	94.43	68.736		
9,400.00	7,066.78	7,027.01	7,096.82	75.88	30.02	-90.21	-4,458.88	497.33	6,536.99	6,440.82	96.18	67.967		
9,500.00	7,066.50	7,026.00	7,095.82	78.45	30.02	-90.20	-4,458.89	497.32	6,584.67	6,486.75	97.91	67.249		
9,600.00	7,066.21	7,025.00	7,094.81	81.04	30.02	-90.19	-4,458.91	497.31	6,633.50	6,533.87	99.63	66.582		
9,700.00	7,065.93	7,023.99	7,093.81	83.64	30.01	-90.18	-4,458.92	497.29	6,683.47	6,582.15	101.32	65.963		
9,800.00	7,065.64	7,023.00	7,092.81	86.26	30.01	-90.17	-4,458.93	497.28	6,734.56	6,631.57	102.99	65.390		
9,900.00	7,065.36	7,022.00	7,091.82	88.90	30.00	-90.16	-4,458.95	497.26	6,786.74	6,682.10	104.64	64.860		
10,000.00	7,065.07	7,021.01	7,090.83	91.55	30.00	-90.15	-4,458.96	497.25	6,839.98	6,733.73	106.26	64.373		
10,100.00	7,064.79	7,020.02	7,089.84	94.21	29.99	-90.14	-4,458.97	497.23	6,894.26	6,786.41	107.85	63.925		
10,200.00	7,064.50	7,019.04	7,088.86	96.88	29.99	-90.13	-4,458.99	497.22	6,949.56	6,840.14	109.41	63.516		
10,300.00	7,064.22	7,018.06	7,087.88	99.57	29.99	-90.12	-4,459.00	497.21	7,005.84	6,894.89	110.95	63.142		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
10,400.00	7,063.94	7,017.08	7,086.90	102.26	29.98	-90.11	-4,459.02	497.19	7,063.09	6,950.63	112.46	62.803	
10,500.00	7,063.65	7,016.11	7,085.93	104.96	29.98	-90.10	-4,459.03	497.18	7,121.29	7,007.34	113.95	62.496	
10,600.00	7,063.37	7,000.01	7,069.83	107.67	29.91	-89.94	-4,459.27	496.96	7,180.44	7,065.11	115.33	62.262	
10,700.00	7,063.08	7,000.01	7,069.83	110.39	29.91	-89.94	-4,459.27	496.96	7,240.45	7,123.69	116.76	62.013	
10,800.00	7,062.80	7,000.01	7,069.83	113.11	29.91	-89.94	-4,459.27	496.96	7,301.34	7,183.18	118.16	61.792	
10,900.00	7,062.51	7,000.01	7,069.83	115.84	29.91	-89.94	-4,459.27	496.96	7,363.08	7,243.54	119.54	61.598	
11,000.00	7,062.23	7,000.01	7,069.83	118.58	29.91	-89.94	-4,459.27	496.96	7,425.66	7,304.77	120.88	61.429	
11,100.00	7,061.94	7,000.01	7,069.83	121.32	29.91	-89.94	-4,459.27	496.96	7,489.04	7,366.84	122.20	61.284	
11,200.00	7,061.66	7,000.01	7,069.83	124.07	29.91	-89.94	-4,459.27	496.96	7,553.23	7,429.73	123.49	61.163	
11,300.00	7,061.37	7,000.01	7,069.83	126.82	29.91	-89.94	-4,459.27	496.96	7,618.18	7,493.42	124.76	61.064	
11,400.00	7,061.09	7,000.01	7,069.83	129.58	29.91	-89.94	-4,459.27	496.96	7,683.88	7,557.89	125.99	60.986	
11,500.00	7,060.80	7,000.01	7,069.83	132.34	29.91	-89.94	-4,459.27	496.96	7,750.32	7,623.12	127.21	60.928	
11,600.00	7,060.52	7,000.01	7,069.83	135.10	29.91	-89.94	-4,459.27	496.96	7,817.48	7,689.09	128.39	60.889	
11,700.00	7,060.23	7,000.01	7,069.83	137.87	29.91	-89.94	-4,459.27	496.96	7,885.32	7,755.78	129.55	60.868	
11,800.00	7,059.95	7,000.01	7,069.83	140.64	29.91	-89.94	-4,459.27	496.96	7,953.85	7,823.17	130.68	60.864 SF	
11,900.00	7,059.66	7,000.01	7,069.83	143.42	29.91	-89.94	-4,459.27	496.96	8,023.04	7,891.25	131.79	60.877	
12,000.00	7,059.38	7,000.01	7,069.83	146.20	29.91	-89.94	-4,459.27	496.96	8,092.87	7,960.00	132.87	60.906	
12,100.00	7,059.09	7,000.01	7,069.83	148.98	29.91	-89.94	-4,459.27	496.96	8,163.34	8,029.40	133.93	60.950	
12,200.00	7,058.81	7,000.01	7,069.83	151.77	29.91	-89.94	-4,459.27	496.96	8,234.41	8,099.44	134.97	61.009	
12,300.00	7,058.52	7,000.01	7,069.83	154.55	29.91	-89.94	-4,459.27	496.96	8,306.08	8,170.09	135.98	61.081	
12,400.00	7,058.24	7,000.01	7,069.83	157.34	29.91	-89.94	-4,459.27	496.96	8,378.32	8,241.35	136.98	61.167	
12,500.00	7,057.96	7,000.01	7,069.83	160.14	29.91	-89.94	-4,459.27	496.96	8,451.14	8,313.19	137.94	61.265	
12,600.00	7,057.67	7,000.01	7,069.83	162.93	29.91	-89.94	-4,459.27	496.96	8,524.50	8,385.61	138.89	61.375	
12,700.00	7,057.39	7,000.01	7,069.83	165.73	29.91	-89.94	-4,459.27	496.96	8,598.41	8,458.59	139.82	61.497	
12,800.00	7,057.10	7,000.01	7,069.83	168.53	29.91	-89.94	-4,459.27	496.96	8,672.83	8,532.11	140.72	61.630	
12,900.00	7,056.82	7,000.01	7,069.83	171.33	29.91	-89.94	-4,459.27	496.96	8,747.77	8,606.16	141.61	61.774	
13,000.00	7,056.53	7,000.01	7,069.83	174.13	29.91	-89.94	-4,459.27	496.96	8,823.20	8,680.73	142.47	61.928	
13,100.00	7,056.25	7,000.01	7,069.83	176.94	29.91	-89.94	-4,459.27	496.96	8,899.12	8,755.80	143.32	62.092	
13,200.00	7,055.96	7,000.01	7,069.83	179.74	29.91	-89.94	-4,459.27	496.96	8,975.51	8,831.36	144.15	62.266	
13,300.00	7,055.68	7,000.01	7,069.83	182.55	29.91	-89.94	-4,459.27	496.96	9,052.36	8,907.40	144.96	62.448	
13,400.00	7,055.39	7,000.01	7,069.83	185.36	29.91	-89.94	-4,459.27	496.96	9,129.65	8,983.91	145.75	62.639	
13,500.00	7,055.11	7,000.01	7,069.83	188.17	29.91	-89.94	-4,459.27	496.96	9,207.39	9,060.87	146.52	62.839	
13,600.00	7,054.82	7,000.01	7,069.83	190.98	29.91	-89.94	-4,459.27	496.96	9,285.55	9,138.27	147.28	63.047	
13,700.00	7,054.54	7,000.01	7,069.83	193.80	29.91	-89.94	-4,459.27	496.96	9,364.13	9,216.11	148.02	63.262	
13,800.00	7,054.25	7,000.01	7,069.83	196.61	29.91	-89.94	-4,459.27	496.96	9,443.11	9,294.36	148.75	63.485	
13,900.00	7,053.97	7,000.01	7,069.83	199.43	29.91	-89.94	-4,459.27	496.96	9,522.48	9,373.03	149.45	63.715	
14,000.00	7,053.68	7,000.01	7,069.83	202.25	29.91	-89.94	-4,459.27	496.96	9,602.25	9,452.10	150.15	63.952	
14,100.00	7,053.40	7,000.01	7,069.83	205.06	29.91	-89.94	-4,459.27	496.96	9,682.38	9,531.56	150.83	64.196	
14,200.00	7,053.11	7,000.01	7,069.83	207.88	29.91	-89.94	-4,459.27	496.96	9,762.89	9,611.40	151.49	64.446	
14,300.00	7,052.83	7,000.01	7,069.83	210.70	29.91	-89.94	-4,459.27	496.96	9,843.75	9,691.61	152.14	64.702	
14,400.00	7,052.54	7,000.01	7,069.83	213.53	29.91	-89.94	-4,459.27	496.96	9,924.96	9,772.19	152.78	64.964	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	19.25	-1.75	3.28	3.28	173.07	-4,479.49	544.13	4,512.42					
100.00	100.00	111.63	90.63	3.28	3.29	173.08	-4,479.63	544.03	4,512.55	4,505.98	6.58	686.284		
200.00	200.00	210.30	189.30	3.34	3.35	173.08	-4,479.87	543.91	4,512.78	4,506.10	6.69	674.736		
300.00	300.00	317.03	296.03	3.44	3.47	173.08	-4,480.06	543.71	4,512.93	4,506.01	6.92	652.293		
400.00	399.98	417.16	396.15	3.60	3.64	-179.61	-4,480.19	543.37	4,514.77	4,507.53	7.24	623.504		
500.00	499.84	519.61	498.61	3.81	3.85	-179.61	-4,480.28	543.05	4,520.05	4,512.39	7.66	590.348		
600.00	599.45	617.25	596.25	4.06	4.08	-179.60	-4,480.38	542.69	4,528.82	4,520.69	8.14	556.634		
700.00	698.70	718.57	697.57	4.34	4.36	-179.60	-4,480.45	542.39	4,541.04	4,532.35	8.69	522.733		
800.00	797.47	813.49	792.49	4.64	4.64	-179.60	-4,480.55	542.19	4,556.76	4,547.49	9.27	491.453		
900.00	895.65	913.14	892.14	4.98	4.95	-179.59	-4,480.67	541.88	4,575.80	4,565.88	9.92	461.431		
1,000.00	993.66	1,009.31	988.31	5.32	5.26	-179.59	-4,480.81	541.60	4,595.75	4,585.18	10.57	434.680		
1,100.00	1,091.67	1,111.76	1,090.75	5.69	5.61	-179.59	-4,480.91	541.32	4,615.67	4,604.39	11.28	409.170		
1,200.00	1,189.68	1,203.85	1,182.84	6.09	5.94	-179.58	-4,481.04	540.98	4,635.62	4,623.65	11.98	387.049		
1,300.00	1,287.69	1,292.51	1,271.50	6.49	6.26	-179.58	-4,481.31	540.60	4,655.72	4,643.04	12.68	367.170		
1,400.00	1,385.69	1,391.87	1,370.86	6.90	6.63	-179.58	-4,481.71	540.13	4,675.91	4,662.47	13.44	347.912		
1,500.00	1,483.70	1,498.11	1,477.10	7.33	7.03	-179.57	-4,482.04	539.49	4,696.00	4,681.76	14.24	329.738		
1,600.00	1,581.71	1,594.29	1,573.27	7.76	7.39	-179.56	-4,482.27	538.85	4,716.01	4,700.99	15.02	314.054		
1,700.00	1,679.72	1,691.62	1,670.60	8.19	7.77	-179.56	-4,482.53	538.22	4,736.05	4,720.24	15.81	299.628		
1,800.00	1,777.73	1,784.82	1,763.80	8.63	8.13	-179.55	-4,482.82	537.60	4,756.14	4,739.55	16.59	286.716		
1,900.00	1,875.74	1,876.54	1,855.52	9.08	8.50	-179.54	-4,483.24	536.87	4,776.34	4,758.97	17.37	274.955		
2,000.00	1,973.75	1,971.78	1,950.75	9.53	8.87	-179.53	-4,483.80	535.94	4,796.65	4,778.47	18.18	263.906		
2,100.00	2,071.76	2,078.18	2,057.14	9.98	9.30	-179.52	-4,484.40	534.66	4,816.92	4,797.88	19.03	253.079		
2,200.00	2,169.77	2,183.04	2,161.99	10.44	9.72	-179.50	-4,484.79	533.34	4,836.99	4,817.10	19.89	243.186		
2,300.00	2,267.77	2,296.49	2,275.43	10.90	10.18	-179.49	-4,484.99	531.80	4,856.86	4,836.07	20.79	233.626		
2,400.00	2,365.78	2,405.92	2,384.85	11.36	10.63	-179.47	-4,484.85	530.42	4,876.44	4,854.77	21.67	224.981		
2,500.00	2,463.79	2,502.12	2,481.05	11.82	11.02	-179.46	-4,484.62	529.37	4,895.94	4,873.44	22.51	217.534		
2,600.00	2,561.80	2,604.78	2,583.70	12.28	11.44	-179.46	-4,484.32	528.46	4,915.41	4,892.04	23.37	210.334		
2,700.00	2,659.81	2,702.40	2,681.32	12.75	11.84	-179.45	-4,483.99	527.63	4,934.83	4,910.62	24.21	203.808		
2,800.00	2,757.82	2,791.28	2,770.20	13.21	12.21	-179.44	-4,483.77	526.88	4,954.35	4,929.33	25.02	198.016		
2,900.00	2,855.83	2,894.86	2,873.78	13.68	12.64	-179.44	-4,483.56	526.09	4,973.92	4,948.03	25.90	192.079		
3,000.00	2,953.84	2,976.09	2,955.00	14.15	12.97	-179.43	-4,483.45	525.60	4,993.58	4,966.91	26.67	187.230		
3,100.00	3,051.85	3,062.40	3,041.31	14.62	13.33	-179.43	-4,483.60	525.19	5,013.54	4,986.07	27.47	182.503		
3,200.00	3,149.85	3,159.98	3,138.89	15.09	13.74	-179.43	-4,483.90	524.70	5,033.64	5,005.32	28.32	177.714		
3,300.00	3,247.86	3,251.58	3,230.48	15.56	14.12	-179.42	-4,484.18	524.18	5,053.73	5,024.58	29.15	173.361		
3,400.00	3,345.87	3,336.97	3,315.87	16.04	14.48	-179.42	-4,484.65	523.68	5,074.05	5,044.10	29.95	169.414		
3,500.00	3,443.88	3,458.59	3,437.49	16.51	14.98	-179.41	-4,485.42	522.91	5,094.49	5,063.57	30.92	164.758		
3,600.00	3,541.89	3,611.74	3,590.63	16.98	15.62	-179.41	-4,484.71	522.52	5,113.83	5,081.79	32.04	159.611		
3,700.00	3,639.90	3,722.79	3,701.67	17.46	16.09	-179.41	-4,483.56	522.31	5,132.65	5,099.69	32.96	155.713		
3,800.00	3,737.91	3,826.85	3,805.73	17.93	16.52	-179.41	-4,482.20	522.10	5,151.21	5,117.35	33.85	152.158		
3,900.00	3,835.92	3,910.25	3,889.12	18.41	16.87	-179.41	-4,481.25	521.85	5,169.92	5,135.27	34.65	149.201		
4,000.00	3,933.93	3,998.18	3,977.05	18.88	17.24	-179.41	-4,480.46	521.50	5,188.86	5,153.39	35.47	146.294		
4,100.00	4,031.93	4,088.73	4,067.59	19.36	17.62	-179.41	-4,479.83	521.03	5,207.97	5,171.67	36.30	143.472		
4,200.00	4,129.94	4,166.56	4,145.42	19.84	17.94	-179.41	-4,479.49	520.55	5,227.33	5,190.26	37.07	141.012		
4,300.00	4,227.95	4,257.42	4,236.28	20.31	18.33	-179.40	-4,479.40	520.01	5,247.02	5,209.12	37.90	138.433		
4,400.00	4,325.96	4,353.12	4,331.98	20.79	18.73	-179.40	-4,479.31	519.48	5,266.72	5,227.96	38.76	135.881		
4,500.00	4,423.97	4,448.55	4,427.41	21.27	19.13	-179.40	-4,479.30	519.02	5,286.51	5,246.89	39.62	133.445		
4,600.00	4,521.98	4,549.74	4,528.60	21.75	19.56	-179.39	-4,479.26	518.57	5,306.27	5,265.77	40.50	131.018		
4,700.00	4,619.99	4,644.16	4,623.02	22.23	19.96	-179.39	-4,479.19	518.11	5,326.00	5,284.65	41.35	128.795		
4,800.00	4,718.00	4,730.63	4,709.49	22.70	20.33	-179.39	-4,479.28	517.67	5,345.91	5,303.74	42.17	126.783		
4,900.00	4,816.01	4,818.63	4,797.48	23.18	20.70	-179.39	-4,479.54	517.57	5,366.03	5,323.04	42.99	124.831		
5,000.00	4,914.01	4,917.33	4,896.18	23.66	21.11	-179.39	-4,479.87	517.60	5,386.21	5,342.35	43.86	122.803		
5,100.00	5,012.02	5,014.43	4,993.29	24.14	21.52	-179.39	-4,480.19	517.63	5,406.39	5,361.66	44.73	120.874		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,107.33	5,086.18	24.62	21.91	-179.40	-4,480.56	517.66	5,426.63	5,381.06	45.57	119.075		
5,300.00	5,208.04	5,203.15	5,182.00	25.10	22.32	-179.40	-4,480.99	517.75	5,446.94	5,400.51	46.43	117.304		
5,400.00	5,306.05	5,308.35	5,287.20	25.58	22.76	-179.40	-4,481.43	517.73	5,467.20	5,419.85	47.34	115.480		
5,500.00	5,404.06	5,407.59	5,386.44	26.06	23.18	-179.40	-4,481.78	517.65	5,487.38	5,439.16	48.22	113.793		
5,600.00	5,502.07	5,497.57	5,476.42	26.54	23.56	-179.40	-4,482.15	517.60	5,507.63	5,458.57	49.06	112.274		
5,700.00	5,600.08	5,662.22	5,641.06	27.02	24.26	-179.41	-4,481.55	517.91	5,527.02	5,476.76	50.26	109.958		
5,800.00	5,698.09	5,745.17	5,724.02	27.50	24.61	-179.41	-4,480.97	518.06	5,546.22	5,495.16	51.06	108.614		
5,900.00	5,796.09	5,820.53	5,799.38	27.98	24.93	-179.42	-4,480.79	518.04	5,565.85	5,514.02	51.82	107.401		
6,000.00	5,894.10	5,909.26	5,888.10	28.46	25.30	-179.42	-4,480.84	517.95	5,585.74	5,533.09	52.65	106.092		
6,100.00	5,992.11	6,013.51	5,992.35	28.94	25.75	-179.41	-4,480.93	517.63	5,605.64	5,552.09	53.56	104.667		
6,200.00	6,090.12	6,103.11	6,081.95	29.42	26.13	-179.41	-4,481.06	517.22	5,625.58	5,571.20	54.39	103.433		
6,300.00	6,188.13	6,203.11	6,181.95	29.90	26.55	-179.41	-4,481.26	516.67	5,645.57	5,590.30	55.27	102.137		
6,400.00	6,286.14	6,333.68	6,312.51	30.38	27.11	-179.40	-4,481.10	515.69	5,665.21	5,608.89	56.32	100.595		
6,500.00	6,384.15	6,440.05	6,418.88	30.87	27.56	-179.39	-4,480.61	514.60	5,684.50	5,627.26	57.24	99.317		
6,600.00	6,482.15	6,544.22	6,523.04	31.35	28.00	-170.54	-4,480.09	513.54	5,703.78	5,645.64	58.14	98.097		
6,700.00	6,579.21	6,649.74	6,628.55	31.83	28.45	-137.78	-4,479.36	512.16	5,723.84	5,664.77	59.06	96.913		
6,800.00	6,673.04	6,740.42	6,719.22	32.30	28.84	-121.50	-4,478.76	510.87	5,745.05	5,685.15	59.90	95.907		
6,900.00	6,761.33	6,833.50	6,812.28	32.74	29.24	-112.54	-4,478.23	509.16	5,767.14	5,706.38	60.76	94.922		
7,000.00	6,841.90	6,934.35	6,913.09	33.17	29.67	-106.86	-4,477.50	506.51	5,789.56	5,727.90	61.67	93.884		
7,100.00	6,912.77	7,019.98	6,998.68	33.60	30.03	-102.78	-4,476.70	503.96	5,812.16	5,749.62	62.54	92.932		
7,200.00	6,972.19	7,092.84	7,071.49	34.09	30.34	-99.61	-4,475.94	501.35	5,834.85	5,771.42	63.43	91.988		
7,300.00	7,018.70	7,143.99	7,122.60	34.73	30.56	-96.90	-4,475.38	499.31	5,857.51	5,793.19	64.32	91.068		
7,400.00	7,051.15	7,180.24	7,158.82	35.55	30.71	-94.52	-4,474.99	497.86	5,880.00	5,814.73	65.27	90.092		
7,500.00	7,068.75	7,201.78	7,180.34	36.56	30.81	-92.39	-4,474.76	497.01	5,902.02	5,835.75	66.27	89.060		
7,600.00	7,071.91	7,208.92	7,187.47	37.71	30.84	-91.11	-4,474.68	496.72	5,923.37	5,856.06	67.31	88.001		
7,700.00	7,071.62	7,212.61	7,191.16	39.03	30.85	-91.15	-4,474.64	496.57	5,945.73	5,877.25	68.47	86.832		
7,800.00	7,071.34	7,216.31	7,194.86	40.51	30.87	-91.18	-4,474.60	496.43	5,969.68	5,899.91	69.77	85.564		
7,900.00	7,071.05	7,220.01	7,198.55	42.14	30.88	-91.22	-4,474.56	496.28	5,995.20	5,924.02	71.18	84.230		
8,000.00	7,070.77	7,223.70	7,202.25	43.89	30.90	-91.26	-4,474.52	496.13	6,022.27	5,949.59	72.68	82.861		
8,100.00	7,070.48	7,227.40	7,205.94	45.76	30.92	-91.29	-4,474.48	495.98	6,050.87	5,976.61	74.26	81.480		
8,200.00	7,070.20	7,231.10	7,209.63	47.72	30.93	-91.33	-4,474.44	495.84	6,080.98	6,005.07	75.91	80.107		
8,300.00	7,069.92	7,234.80	7,213.33	49.78	30.95	-91.36	-4,474.40	495.69	6,112.57	6,034.96	77.61	78.758		
8,400.00	7,069.63	7,238.49	7,217.02	51.90	30.96	-91.40	-4,474.36	495.54	6,145.63	6,066.27	79.36	77.445		
8,500.00	7,069.35	7,242.19	7,220.71	54.10	30.98	-91.44	-4,474.32	495.39	6,180.13	6,099.00	81.13	76.175		
8,600.00	7,069.06	7,245.89	7,224.41	56.36	31.00	-91.47	-4,474.28	495.25	6,216.04	6,133.11	82.93	74.957		
8,700.00	7,068.78	7,249.58	7,228.10	58.66	31.01	-91.51	-4,474.24	495.10	6,253.34	6,168.60	84.74	73.793		
8,800.00	7,068.49	7,253.28	7,231.80	61.02	31.03	-91.55	-4,474.20	494.95	6,292.01	6,205.44	86.56	72.686		
8,900.00	7,068.21	7,256.98	7,235.49	63.42	31.04	-91.58	-4,474.16	494.80	6,332.02	6,243.63	88.39	71.637		
9,000.00	7,067.92	7,260.67	7,239.18	65.85	31.06	-91.62	-4,474.12	494.66	6,373.34	6,283.13	90.21	70.647		
9,100.00	7,067.64	7,264.37	7,242.88	68.32	31.07	-91.66	-4,474.07	494.51	6,415.96	6,323.93	92.03	69.714		
9,200.00	7,067.35	7,268.07	7,246.57	70.81	31.09	-91.69	-4,474.03	494.36	6,459.84	6,366.00	93.84	68.839		
9,300.00	7,067.07	7,271.76	7,250.26	73.34	31.11	-91.73	-4,473.99	494.21	6,504.96	6,409.32	95.64	68.018		
9,400.00	7,066.78	7,275.46	7,253.96	75.88	31.12	-91.77	-4,473.95	494.07	6,551.29	6,453.88	97.41	67.251		
9,500.00	7,066.50	7,279.16	7,257.65	78.45	31.14	-91.80	-4,473.91	493.92	6,598.81	6,499.64	99.18	66.536		
9,600.00	7,066.21	7,282.85	7,261.34	81.04	31.15	-91.84	-4,473.87	493.77	6,647.50	6,546.58	100.92	65.871		
9,700.00	7,065.93	7,286.55	7,265.04	83.64	31.17	-91.88	-4,473.83	493.62	6,697.32	6,594.68	102.64	65.253		
9,800.00	7,065.64	7,290.25	7,268.73	86.26	31.18	-91.91	-4,473.79	493.48	6,748.25	6,643.92	104.33	64.680		
9,900.00	7,065.36	7,293.94	7,272.43	88.90	31.20	-91.95	-4,473.75	493.33	6,800.27	6,694.27	106.00	64.151		
10,000.00	7,065.07	7,297.64	7,276.12	91.55	31.22	-91.99	-4,473.71	493.18	6,853.36	6,745.71	107.65	63.663		
10,100.00	7,064.79	7,301.34	7,279.81	94.21	31.23	-92.02	-4,473.67	493.03	6,907.48	6,798.21	109.27	63.215		
10,200.00	7,064.50	7,305.03	7,283.51	96.88	31.25	-92.06	-4,473.63	492.89	6,962.61	6,851.75	110.86	62.804		
10,300.00	7,064.22	7,308.73	7,287.20	99.57	31.26	-92.10	-4,473.59	492.74	7,018.74	6,906.31	112.43	62.428		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
10,400.00	7,063.94	7,312.43	7,290.89	102.26	31.28	-92.13	-4,473.55	492.59	7,075.83	6,961.86	113.97	62.087	
10,500.00	7,063.65	7,316.13	7,294.59	104.96	31.30	-92.17	-4,473.51	492.44	7,133.86	7,018.39	115.48	61.778	
10,600.00	7,063.37	7,319.82	7,298.28	107.67	31.31	-92.21	-4,473.47	492.30	7,192.82	7,075.86	116.96	61.500	
10,700.00	7,063.08	7,323.52	7,301.97	110.39	31.33	-92.24	-4,473.43	492.15	7,252.67	7,134.26	118.41	61.250	
10,800.00	7,062.80	7,327.22	7,305.67	113.11	31.34	-92.28	-4,473.39	492.00	7,313.40	7,193.56	119.84	61.029	
10,900.00	7,062.51	7,330.91	7,309.36	115.84	31.36	-92.32	-4,473.35	491.85	7,374.98	7,253.75	121.23	60.834	
11,000.00	7,062.23	7,334.61	7,313.06	118.58	31.37	-92.35	-4,473.31	491.71	7,437.39	7,314.79	122.60	60.664	
11,100.00	7,061.94	7,338.31	7,316.75	121.32	31.39	-92.39	-4,473.27	491.56	7,500.62	7,376.68	123.94	60.518	
11,200.00	7,061.66	7,342.00	7,320.44	124.07	31.41	-92.43	-4,473.23	491.41	7,564.64	7,439.38	125.25	60.394	
11,300.00	7,061.37	7,345.70	7,324.14	126.82	31.42	-92.46	-4,473.19	491.26	7,629.43	7,502.89	126.54	60.292	
11,400.00	7,061.09	7,349.40	7,327.83	129.58	31.44	-92.50	-4,473.15	491.12	7,694.97	7,567.17	127.80	60.211	
11,500.00	7,060.80	7,353.09	7,331.52	132.34	31.45	-92.54	-4,473.11	490.97	7,761.25	7,632.21	129.03	60.150	
11,600.00	7,060.52	7,356.79	7,335.22	135.10	31.47	-92.57	-4,473.07	490.82	7,828.24	7,698.00	130.24	60.107	
11,700.00	7,060.23	7,360.49	7,338.91	137.87	31.49	-92.61	-4,473.03	490.67	7,895.92	7,764.50	131.42	60.082	
11,800.00	7,059.95	7,364.18	7,342.61	140.64	31.50	-92.65	-4,472.99	490.53	7,964.29	7,831.71	132.57	60.074 SF	
11,900.00	7,059.66	7,367.88	7,346.30	143.42	31.52	-92.68	-4,472.95	490.38	8,033.31	7,899.61	133.70	60.083	
12,000.00	7,059.38	7,371.58	7,349.99	146.20	31.53	-92.72	-4,472.91	490.23	8,102.99	7,968.18	134.81	60.107	
12,100.00	7,059.09	7,375.27	7,353.69	148.98	31.55	-92.75	-4,472.87	490.08	8,173.28	8,037.39	135.89	60.146	
12,200.00	7,058.81	7,378.97	7,357.38	151.77	31.56	-92.79	-4,472.83	489.94	8,244.19	8,107.25	136.95	60.199	
12,300.00	7,058.52	7,382.67	7,361.07	154.55	31.58	-92.83	-4,472.79	489.79	8,315.70	8,177.72	137.98	60.266	
12,400.00	7,058.24	7,386.37	7,364.77	157.34	31.60	-92.86	-4,472.75	489.64	8,387.79	8,248.79	139.00	60.345	
12,500.00	7,057.96	7,390.06	7,368.46	160.14	31.61	-92.90	-4,472.71	489.49	8,460.44	8,320.46	139.99	60.437	
12,600.00	7,057.67	7,393.76	7,372.15	162.93	31.63	-92.94	-4,472.67	489.35	8,533.65	8,392.69	140.96	60.541	
12,700.00	7,057.39	7,397.46	7,375.85	165.73	31.64	-92.97	-4,472.63	489.20	8,607.39	8,465.49	141.90	60.657	
12,800.00	7,057.10	7,401.15	7,379.54	168.53	31.66	-93.01	-4,472.59	489.05	8,681.66	8,538.83	142.83	60.783	
12,900.00	7,056.82	7,404.85	7,383.24	171.33	31.68	-93.05	-4,472.55	488.90	8,756.44	8,612.70	143.74	60.920	
13,000.00	7,056.53	7,408.55	7,386.93	174.13	31.69	-93.08	-4,472.51	488.76	8,831.72	8,687.09	144.62	61.067	
13,100.00	7,056.25	7,412.24	7,390.62	176.94	31.71	-93.12	-4,472.47	488.61	8,907.48	8,761.98	145.49	61.224	
13,200.00	7,055.96	7,415.94	7,394.32	179.74	31.72	-93.16	-4,472.43	488.46	8,983.71	8,837.37	146.34	61.389	
13,300.00	7,055.68	7,419.64	7,398.01	182.55	31.74	-93.19	-4,472.39	488.31	9,060.40	8,913.23	147.17	61.564	
13,400.00	7,055.39	7,423.33	7,401.70	185.36	31.75	-93.23	-4,472.35	488.17	9,137.55	8,989.56	147.98	61.747	
13,500.00	7,055.11	7,427.03	7,405.40	188.17	31.77	-93.27	-4,472.31	488.02	9,215.13	9,066.35	148.78	61.939	
13,600.00	7,054.82	7,430.73	7,409.10	190.98	31.79	-93.30	-4,472.27	487.87	9,293.19	9,143.78	149.57	62.137	
13,700.00	7,054.54	7,434.43	7,412.80	193.80	31.81	-93.33	-4,472.23	487.72	9,371.62	9,221.47	150.35	62.345	
13,800.00	7,054.25	7,438.13	7,416.50	196.61	31.83	-93.36	-4,472.19	487.57	9,450.47	9,299.59	151.12	62.563	
13,900.00	7,053.97	7,441.83	7,420.20	199.43	31.85	-93.39	-4,472.15	487.42	9,529.71	9,378.12	151.89	62.791	
14,000.00	7,053.68	7,445.53	7,423.90	202.25	31.87	-93.42	-4,472.11	487.27	9,609.34	9,457.05	152.66	63.029	
14,100.00	7,053.40	7,449.23	7,427.60	205.06	31.89	-93.45	-4,472.07	487.12	9,689.34	9,536.38	153.43	63.277	
14,200.00	7,053.11	7,452.93	7,431.30	207.88	31.91	-93.48	-4,472.03	486.97	9,769.72	9,616.09	154.19	63.535	
14,300.00	7,052.83	7,456.63	7,435.00	210.70	31.93	-93.51	-4,471.99	486.82	9,850.45	9,696.17	154.95	63.803	
14,400.00	7,052.54	7,460.33	7,438.70	213.53	31.95	-93.54	-4,471.95	486.67	9,931.54	9,776.61	155.71	64.081	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	21.79	-0.21	3.28	3.28	-27.72	2,202.62	-1,157.23	2,488.11					
100.00	100.00	119.88	97.88	3.28	3.29	-27.72	2,202.54	-1,157.43	2,488.14	2,481.56	6.58	378.234		
200.00	200.00	218.06	196.06	3.34	3.36	-27.72	2,202.71	-1,157.52	2,488.33	2,481.63	6.69	371.677		
300.00	300.00	327.34	305.33	3.44	3.49	-27.71	2,202.70	-1,157.17	2,488.17	2,481.23	6.93	358.906		
400.00	399.98	419.09	397.09	3.60	3.64	-20.43	2,202.79	-1,157.05	2,486.55	2,479.30	7.24	343.285		
500.00	499.84	526.76	504.75	3.81	3.86	-20.51	2,202.73	-1,156.99	2,481.56	2,473.89	7.67	323.511		
600.00	599.45	632.49	610.49	4.06	4.12	-20.64	2,202.57	-1,156.72	2,473.16	2,464.99	8.17	302.624		
700.00	698.70	738.03	716.03	4.34	4.41	-20.83	2,202.02	-1,156.13	2,461.02	2,452.28	8.74	281.617		
800.00	797.47	833.78	811.77	4.64	4.69	-21.06	2,201.72	-1,155.65	2,445.88	2,436.55	9.33	262.178		
900.00	895.65	940.09	918.08	4.98	5.02	-21.32	2,201.09	-1,154.84	2,427.29	2,417.29	10.00	242.775		
1,000.00	993.66	1,031.28	1,009.27	5.32	5.33	-21.47	2,200.59	-1,154.26	2,407.98	2,397.34	10.64	226.267		
1,100.00	1,091.67	1,125.47	1,103.46	5.69	5.65	-21.63	2,200.29	-1,153.77	2,388.94	2,377.62	11.33	210.935		
1,200.00	1,189.68	1,226.12	1,204.10	6.09	6.01	-21.81	2,199.93	-1,153.25	2,369.89	2,357.83	12.06	196.580		
1,300.00	1,287.69	1,323.17	1,301.15	6.49	6.36	-21.98	2,199.50	-1,152.81	2,350.82	2,338.02	12.79	183.743		
1,400.00	1,385.69	1,417.96	1,395.94	6.90	6.71	-22.15	2,199.30	-1,152.20	2,331.88	2,318.34	13.54	172.201		
1,500.00	1,483.70	1,517.53	1,495.50	7.33	7.09	-22.32	2,199.12	-1,151.59	2,313.00	2,298.68	14.32	161.517		
1,600.00	1,581.71	1,619.53	1,597.50	7.76	7.48	-22.52	2,198.61	-1,151.17	2,293.96	2,278.84	15.12	151.714		
1,700.00	1,679.72	1,712.28	1,690.25	8.19	7.84	-22.71	2,197.93	-1,151.29	2,275.01	2,259.11	15.90	143.100		
1,800.00	1,777.73	1,804.63	1,782.60	8.63	8.20	-22.90	2,197.44	-1,151.55	2,256.33	2,239.65	16.68	135.249		
1,900.00	1,875.74	1,915.77	1,893.73	9.08	8.63	-23.14	2,196.59	-1,151.70	2,237.41	2,219.86	17.54	127.549		
2,000.00	1,973.75	2,003.24	1,981.20	9.53	8.98	-23.34	2,195.81	-1,152.07	2,218.55	2,200.23	18.32	121.071		
2,100.00	2,071.76	2,103.97	2,081.93	9.98	9.38	-23.57	2,195.04	-1,152.59	2,199.89	2,180.73	19.16	114.823		
2,200.00	2,169.77	2,210.40	2,188.35	10.44	9.81	-23.82	2,194.06	-1,152.88	2,181.00	2,160.99	20.02	108.949		
2,300.00	2,267.77	2,301.22	2,279.16	10.90	10.18	-24.03	2,193.20	-1,153.18	2,162.15	2,141.32	20.83	103.804		
2,400.00	2,365.78	2,399.82	2,377.76	11.36	10.58	-24.28	2,192.22	-1,153.77	2,143.44	2,121.77	21.67	98.911		
2,500.00	2,463.79	2,494.94	2,472.87	11.82	10.97	-24.53	2,191.18	-1,154.58	2,124.81	2,102.31	22.50	94.421		
2,600.00	2,561.80	2,590.42	2,568.34	12.28	11.36	-24.78	2,190.19	-1,155.51	2,106.34	2,083.00	23.34	90.241		
2,700.00	2,659.81	2,683.16	2,661.08	12.75	11.74	-25.03	2,189.46	-1,156.36	2,088.07	2,063.90	24.17	86.383		
2,800.00	2,757.82	2,772.83	2,750.74	13.21	12.11	-25.26	2,189.10	-1,157.15	2,070.16	2,045.17	25.00	82.821		
2,900.00	2,855.83	2,870.39	2,848.30	13.68	12.51	-25.52	2,188.93	-1,158.17	2,052.57	2,026.72	25.85	79.411		
3,000.00	2,953.84	2,966.96	2,944.86	14.15	12.91	-25.79	2,188.66	-1,159.27	2,034.97	2,008.27	26.70	76.221		
3,100.00	3,051.85	3,064.10	3,041.98	14.62	13.31	-26.08	2,188.22	-1,160.82	2,017.53	1,989.97	27.55	73.222		
3,200.00	3,149.85	3,158.13	3,136.00	15.09	13.70	-26.36	2,187.86	-1,162.32	2,000.19	1,971.79	28.40	70.427		
3,300.00	3,247.86	3,250.19	3,228.04	15.56	14.08	-26.64	2,187.58	-1,164.17	1,983.19	1,953.95	29.24	67.815		
3,400.00	3,345.87	3,344.77	3,322.59	16.04	14.47	-26.95	2,187.33	-1,166.45	1,966.50	1,936.41	30.10	65.338		
3,500.00	3,443.88	3,444.48	3,422.28	16.51	14.89	-27.28	2,187.10	-1,168.90	1,949.93	1,918.96	30.97	62.964		
3,600.00	3,541.89	3,543.91	3,521.68	16.98	15.31	-27.62	2,186.78	-1,171.17	1,933.25	1,901.41	31.84	60.716		
3,700.00	3,639.90	3,650.44	3,628.18	17.46	15.75	-27.98	2,186.43	-1,173.53	1,916.60	1,883.87	32.74	58.548		
3,800.00	3,737.91	3,763.36	3,741.06	17.93	16.23	-28.39	2,184.86	-1,176.03	1,899.14	1,865.49	33.65	56.439		
3,900.00	3,835.92	3,864.91	3,842.58	18.41	16.65	-28.77	2,183.03	-1,178.09	1,881.33	1,846.80	34.53	54.482		
4,000.00	3,933.93	3,962.02	3,939.65	18.88	17.06	-29.15	2,181.20	-1,180.05	1,863.53	1,828.13	35.40	52.640		
4,100.00	4,031.93	4,059.67	4,037.26	19.36	17.47	-29.53	2,179.33	-1,182.15	1,845.86	1,809.58	36.27	50.886		
4,200.00	4,129.94	4,158.50	4,136.05	19.84	17.89	-29.93	2,177.37	-1,184.28	1,828.23	1,791.07	37.15	49.210		
4,300.00	4,227.95	4,257.54	4,235.04	20.31	18.31	-30.34	2,175.36	-1,186.36	1,810.61	1,772.58	38.03	47.610		
4,400.00	4,325.96	4,355.35	4,332.81	20.79	18.72	-30.75	2,173.33	-1,188.38	1,793.02	1,754.12	38.91	46.085		
4,500.00	4,423.97	4,452.50	4,429.92	21.27	19.13	-31.16	2,171.32	-1,190.40	1,775.56	1,735.77	39.78	44.631		
4,600.00	4,521.98	4,550.48	4,527.85	21.75	19.54	-31.59	2,169.22	-1,192.57	1,758.19	1,717.53	40.66	43.239		
4,700.00	4,619.99	4,647.81	4,625.13	22.23	19.96	-32.03	2,167.09	-1,194.71	1,740.89	1,699.35	41.54	41.909		
4,800.00	4,718.00	4,749.10	4,726.38	22.70	20.38	-32.50	2,164.87	-1,196.96	1,723.70	1,681.27	42.43	40.626		
4,900.00	4,816.01	4,852.20	4,829.42	23.18	20.82	-32.99	2,162.19	-1,199.09	1,706.21	1,662.89	43.32	39.385		
5,000.00	4,914.01	4,949.20	4,926.37	23.66	21.23	-33.46	2,159.56	-1,201.03	1,688.72	1,644.52	44.20	38.204		
5,100.00	5,012.02	5,045.03	5,022.14	24.14	21.64	-33.92	2,157.14	-1,202.90	1,671.45	1,626.37	45.08	37.077		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BLACKGOLD 3(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-GYRO-NS													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,140.53	5,117.60	24.62	22.04	-34.39	2,154.93	-1,204.64	1,654.37	1,608.41	45.96	35.996		
5,300.00	5,208.04	5,235.11	5,212.15	25.10	22.44	-34.86	2,152.99	-1,206.37	1,637.59	1,590.75	46.84	34.963		
5,400.00	5,306.05	5,331.74	5,308.75	25.58	22.85	-35.34	2,151.26	-1,208.02	1,621.04	1,573.32	47.72	33.970		
5,500.00	5,404.06	5,429.47	5,406.46	26.06	23.27	-35.81	2,149.97	-1,209.20	1,604.62	1,556.01	48.60	33.014		
5,600.00	5,502.07	5,525.65	5,502.63	26.54	23.68	-36.27	2,148.82	-1,210.27	1,588.34	1,538.85	49.49	32.096		
5,700.00	5,600.08	5,619.48	5,596.45	27.02	24.07	-36.73	2,147.84	-1,211.46	1,572.37	1,522.00	50.37	31.219		
5,800.00	5,698.09	5,718.65	5,695.61	27.50	24.50	-37.21	2,147.35	-1,212.40	1,556.69	1,505.43	51.26	30.371		
5,900.00	5,796.09	5,831.42	5,808.37	27.98	24.97	-37.74	2,146.61	-1,212.41	1,540.33	1,488.16	52.17	29.526		
6,000.00	5,894.10	5,931.26	5,908.21	28.46	25.40	-38.22	2,145.71	-1,212.21	1,523.78	1,470.72	53.06	28.719		
6,100.00	5,992.11	6,049.72	6,026.66	28.94	25.90	-38.79	2,144.50	-1,211.03	1,506.74	1,452.77	53.97	27.918		
6,200.00	6,090.12	6,163.15	6,140.04	29.42	26.38	-39.34	2,141.99	-1,208.62	1,488.13	1,433.26	54.87	27.122		
6,300.00	6,188.13	6,289.24	6,266.02	29.90	26.92	-39.98	2,138.25	-1,205.08	1,468.73	1,412.98	55.75	26.343		
6,400.00	6,286.14	6,380.88	6,357.53	30.38	27.31	-40.49	2,134.35	-1,202.15	1,448.25	1,391.60	56.64	25.568		
6,500.00	6,384.15	6,454.89	6,431.46	30.87	27.63	-40.93	2,131.33	-1,200.66	1,428.87	1,371.34	57.53	24.836		
6,600.00	6,482.15	6,529.09	6,505.63	31.35	27.94	-32.64	2,129.33	-1,200.08	1,411.17	1,352.75	58.41	24.158		
6,700.00	6,579.21	6,610.56	6,587.09	31.83	28.29	-0.33	2,128.14	-1,199.98	1,387.15	1,327.88	59.27	23.403		
6,800.00	6,673.04	6,699.58	6,676.11	32.30	28.67	16.73	2,127.37	-1,200.20	1,352.91	1,292.82	60.09	22.514		
6,900.00	6,761.33	6,781.58	6,758.11	32.74	29.02	27.98	2,126.85	-1,200.69	1,309.10	1,248.26	60.84	21.516		
7,000.00	6,841.90	6,852.69	6,829.21	33.17	29.32	37.62	2,126.68	-1,201.41	1,257.28	1,195.78	61.51	20.441		
7,100.00	6,912.77	6,917.70	6,894.21	33.60	29.60	47.39	2,127.01	-1,202.34	1,199.51	1,137.40	62.11	19.314		
7,200.00	6,972.19	6,980.37	6,958.88	34.09	29.86	58.01	2,127.42	-1,203.24	1,137.68	1,075.02	62.66	18.157		
7,300.00	7,018.70	7,028.44	7,004.94	34.73	30.06	68.67	2,127.70	-1,203.86	1,074.64	1,011.42	63.21	17.000		
7,400.00	7,051.15	7,061.84	7,038.33	35.55	30.21	78.27	2,127.91	-1,204.29	1,013.84	949.96	63.87	15.873		
7,500.00	7,068.75	7,080.54	7,057.03	36.56	30.29	85.77	2,128.04	-1,204.53	958.84	894.10	64.74	14.810		
7,600.00	7,071.91	7,084.93	7,061.42	37.71	30.30	89.35	2,128.07	-1,204.59	912.94	847.03	65.90	13.853		
7,700.00	7,071.62	7,085.90	7,062.39	39.03	30.31	89.42	2,128.07	-1,204.60	876.63	809.16	67.48	12.992		
7,800.00	7,071.34	7,086.87	7,063.37	40.51	30.31	89.49	2,128.08	-1,204.61	850.60	781.17	69.43	12.252		
7,900.00	7,071.05	7,087.85	7,064.34	42.14	30.32	89.55	2,128.08	-1,204.62	835.79	764.16	71.63	11.668		
7,974.86	7,070.84	7,088.57	7,065.07	43.45	30.32	89.60	2,128.09	-1,204.63	832.43	759.08	73.35	11.348 CC		
8,000.00	7,070.77	7,088.82	7,065.31	43.89	30.32	89.62	2,128.09	-1,204.63	832.81	758.90	73.91	11.268 ES		
8,100.00	7,070.48	7,089.79	7,066.28	45.76	30.32	89.69	2,128.10	-1,204.65	841.79	765.70	76.08	11.064		
8,200.00	7,070.20	7,090.76	7,067.26	47.72	30.33	89.75	2,128.10	-1,204.66	862.34	784.35	77.99	11.057 SF		
8,300.00	7,069.92	7,091.73	7,068.23	49.78	30.33	89.82	2,128.11	-1,204.67	893.67	814.11	79.56	11.232		
8,400.00	7,069.63	7,092.70	7,069.20	51.90	30.34	89.89	2,128.12	-1,204.68	934.70	853.93	80.77	11.573		
8,500.00	7,069.35	7,093.67	7,070.17	54.10	30.34	89.95	2,128.12	-1,204.70	984.22	902.58	81.64	12.056		
8,600.00	7,069.06	7,094.64	7,071.14	56.36	30.35	90.02	2,128.13	-1,204.71	1,041.01	958.79	82.22	12.661		
8,700.00	7,068.78	7,095.61	7,072.10	58.66	30.35	90.09	2,128.14	-1,204.72	1,103.96	1,021.38	82.58	13.369		
8,800.00	7,068.49	7,096.58	7,073.07	61.02	30.35	90.15	2,128.15	-1,204.73	1,172.06	1,089.30	82.76	14.162		
8,900.00	7,068.21	7,097.55	7,074.04	63.42	30.36	90.22	2,128.15	-1,204.75	1,244.49	1,161.67	82.82	15.026		
9,000.00	7,067.92	7,098.52	7,075.01	65.85	30.36	90.29	2,128.16	-1,204.76	1,320.51	1,237.72	82.79	15.950		
9,100.00	7,067.64	7,099.48	7,075.98	68.32	30.37	90.35	2,128.17	-1,204.77	1,399.56	1,316.86	82.70	16.923		
9,200.00	7,067.35	7,100.45	7,076.94	70.81	30.37	90.42	2,128.17	-1,204.78	1,481.14	1,398.57	82.57	17.938		
9,300.00	7,067.07	7,101.42	7,077.91	73.34	30.37	90.49	2,128.18	-1,204.80	1,564.85	1,482.44	82.42	18.987		
9,400.00	7,066.78	7,102.38	7,078.88	75.88	30.38	90.55	2,128.19	-1,204.81	1,650.39	1,568.14	82.25	20.066		
9,500.00	7,066.50	7,103.35	7,079.84	78.45	30.38	90.62	2,128.19	-1,204.82	1,737.46	1,655.39	82.07	21.170		
9,600.00	7,066.21	7,104.31	7,080.81	81.04	30.39	90.69	2,128.20	-1,204.83	1,825.86	1,743.96	81.90	22.295		
9,700.00	7,065.93	7,105.28	7,081.77	83.64	30.39	90.75	2,128.21	-1,204.84	1,915.40	1,833.68	81.72	23.438		
9,800.00	7,065.64	7,106.24	7,082.73	86.26	30.39	90.82	2,128.21	-1,204.86	2,005.93	1,924.38	81.55	24.596		
9,900.00	7,065.36	7,107.21	7,083.70	88.90	30.40	90.88	2,128.22	-1,204.87	2,097.32	2,015.93	81.39	25.768		
10,000.00	7,065.07	7,108.17	7,084.66	91.55	30.40	90.95	2,128.23	-1,204.88	2,189.46	2,108.22	81.24	26.951		
10,100.00	7,064.79	7,108.28	7,084.77	94.21	30.40	90.96	2,128.23	-1,204.88	2,282.27	2,201.18	81.09	28.146		
10,200.00	7,064.50	7,109.12	7,085.61	96.88	30.41	91.02	2,128.23	-1,204.89	2,375.65	2,294.71	80.95	29.348		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,300.00	7,064.22	7,109.94	7,086.43	99.57	30.41	91.07	2,128.24	-1,204.90	2,469.56	2,388.74	80.82	30.558		
10,400.00	7,063.94	7,110.76	7,087.25	102.26	30.41	91.13	2,128.24	-1,204.91	2,563.92	2,483.23	80.69	31.774		
10,500.00	7,063.65	7,111.58	7,088.07	104.96	30.42	91.19	2,128.25	-1,204.92	2,658.70	2,578.12	80.58	32.995		
10,600.00	7,063.37	7,112.38	7,088.87	107.67	30.42	91.24	2,128.26	-1,204.93	2,753.85	2,673.38	80.47	34.222		
10,700.00	7,063.08	7,113.18	7,089.67	110.39	30.42	91.30	2,128.26	-1,204.94	2,849.32	2,768.96	80.37	35.453		
10,800.00	7,062.80	7,113.97	7,090.46	113.11	30.43	91.35	2,128.27	-1,204.95	2,945.10	2,864.83	80.28	36.687		
10,900.00	7,062.51	7,114.76	7,091.25	115.84	30.43	91.40	2,128.27	-1,204.96	3,041.15	2,960.96	80.19	37.925		
11,000.00	7,062.23	7,115.54	7,092.03	118.58	30.43	91.46	2,128.28	-1,204.97	3,137.45	3,057.34	80.11	39.165		
11,100.00	7,061.94	7,116.31	7,092.80	121.32	30.44	91.51	2,128.29	-1,204.98	3,233.97	3,153.94	80.03	40.408		
11,200.00	7,061.66	7,117.07	7,093.56	124.07	30.44	91.56	2,128.29	-1,204.99	3,330.70	3,250.73	79.97	41.652		
11,300.00	7,061.37	7,117.83	7,094.32	126.82	30.44	91.62	2,128.30	-1,205.00	3,427.61	3,347.71	79.90	42.898		
11,400.00	7,061.09	7,118.58	7,095.07	129.58	30.45	91.67	2,128.30	-1,205.00	3,524.70	3,444.85	79.84	44.145		
11,500.00	7,060.80	7,119.33	7,095.82	132.34	30.45	91.72	2,128.31	-1,205.01	3,621.94	3,542.15	79.79	45.393		
11,600.00	7,060.52	7,120.07	7,096.56	135.10	30.45	91.77	2,128.31	-1,205.02	3,719.33	3,639.59	79.74	46.642		
11,700.00	7,060.23	7,120.81	7,097.30	137.87	30.46	91.82	2,128.32	-1,205.03	3,816.86	3,737.16	79.70	47.891		
11,800.00	7,059.95	7,121.53	7,098.02	140.64	30.46	91.87	2,128.32	-1,205.04	3,914.51	3,834.85	79.66	49.141		
11,900.00	7,059.66	7,122.26	7,098.75	143.42	30.46	91.92	2,128.33	-1,205.05	4,012.27	3,932.65	79.62	50.391		
12,000.00	7,059.38	7,122.97	7,099.46	146.20	30.47	91.97	2,128.33	-1,205.06	4,110.14	4,030.55	79.59	51.640		
12,100.00	7,059.09	7,123.68	7,100.17	148.98	30.47	92.02	2,128.34	-1,205.06	4,208.12	4,128.55	79.56	52.890		
12,200.00	7,058.81	7,124.39	7,100.88	151.77	30.47	92.07	2,128.34	-1,205.07	4,306.18	4,226.64	79.54	54.139		
12,300.00	7,058.52	7,125.09	7,101.58	154.55	30.47	92.11	2,128.35	-1,205.08	4,404.33	4,324.82	79.52	55.388		
12,400.00	7,058.24	7,125.78	7,102.27	157.34	30.48	92.16	2,128.35	-1,205.09	4,502.57	4,423.07	79.50	56.636		
12,500.00	7,057.96	7,126.47	7,102.96	160.14	30.48	92.21	2,128.36	-1,205.10	4,600.88	4,521.39	79.49	57.883		
12,600.00	7,057.67	7,127.15	7,103.64	162.93	30.48	92.26	2,128.36	-1,205.10	4,699.26	4,619.79	79.47	59.130		
12,700.00	7,057.39	7,127.83	7,104.32	165.73	30.49	92.30	2,128.37	-1,205.11	4,797.71	4,718.24	79.46	60.375		
12,800.00	7,057.10	7,128.50	7,104.99	168.53	30.49	92.35	2,128.37	-1,205.12	4,896.22	4,816.76	79.46	61.620		
12,900.00	7,056.82	7,129.16	7,105.65	171.33	30.49	92.39	2,128.38	-1,205.13	4,994.79	4,915.33	79.45	62.863		
13,000.00	7,056.53	7,129.83	7,106.31	174.13	30.49	92.44	2,128.38	-1,205.13	5,093.41	5,013.96	79.45	64.105		
13,100.00	7,056.25	7,130.48	7,106.97	176.94	30.50	92.48	2,128.39	-1,205.14	5,192.09	5,112.63	79.46	65.346		
13,200.00	7,055.96	7,131.13	7,107.62	179.74	30.50	92.53	2,128.39	-1,205.15	5,290.82	5,211.36	79.46	66.585		
13,300.00	7,055.68	7,131.78	7,108.27	182.55	30.50	92.57	2,128.40	-1,205.16	5,389.59	5,310.13	79.47	67.823		
13,400.00	7,055.39	7,132.42	7,108.91	185.36	30.51	92.62	2,128.40	-1,205.16	5,488.41	5,408.94	79.47	69.059		
13,500.00	7,055.11	7,133.05	7,109.54	188.17	30.51	92.66	2,128.41	-1,205.17	5,587.27	5,507.79	79.48	70.294		
13,600.00	7,054.82	7,133.69	7,110.17	190.98	30.51	92.70	2,128.41	-1,205.18	5,686.17	5,606.67	79.50	71.527		
13,700.00	7,054.54	7,134.31	7,110.80	193.80	30.51	92.75	2,128.42	-1,205.18	5,785.11	5,705.60	79.51	72.758		
13,800.00	7,054.25	7,134.93	7,111.42	196.61	30.52	92.79	2,128.42	-1,205.19	5,884.08	5,804.56	79.53	73.988		
13,900.00	7,053.97	7,135.55	7,112.04	199.43	30.52	92.83	2,128.43	-1,205.20	5,983.09	5,903.54	79.55	75.216		
14,000.00	7,053.68	7,136.16	7,112.65	202.25	30.52	92.87	2,128.43	-1,205.20	6,082.13	6,002.56	79.57	76.441		
14,100.00	7,053.40	7,136.77	7,113.26	205.06	30.52	92.92	2,128.44	-1,205.21	6,181.20	6,101.61	79.59	77.665		
14,200.00	7,053.11	7,137.37	7,113.86	207.88	30.53	92.96	2,128.44	-1,205.22	6,280.30	6,200.69	79.61	78.887		
14,300.00	7,052.83	7,137.97	7,114.46	210.70	30.53	93.00	2,128.45	-1,205.22	6,379.43	6,299.79	79.64	80.106		
14,400.00	7,052.54	7,138.57	7,115.05	213.53	30.53	93.04	2,128.45	-1,205.23	6,478.59	6,398.92	79.66	81.324		
14,500.00	7,052.26	7,139.16	7,115.64	216.35	30.53	93.08	2,128.46	-1,205.24	6,577.77	6,498.07	79.69	82.539		
14,600.00	7,051.98	7,139.74	7,116.23	219.17	30.54	93.12	2,128.46	-1,205.24	6,676.97	6,597.25	79.72	83.753		
14,700.00	7,051.69	7,140.32	7,116.81	222.00	30.54	93.16	2,128.46	-1,205.25	6,776.20	6,696.45	79.75	84.964		
14,800.00	7,051.41	7,140.90	7,117.39	224.82	30.54	93.20	2,128.47	-1,205.25	6,875.45	6,795.66	79.79	86.172		
14,900.00	7,051.12	7,141.47	7,117.96	227.65	30.54	93.24	2,128.47	-1,205.26	6,974.72	6,894.90	79.82	87.379		
14,942.37	7,051.00	7,141.71	7,118.20	228.85	30.54	93.25	2,128.48	-1,205.26	7,016.79	6,936.95	79.84	87.889		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	22.00	3.28	3.28	-70.10	784.81	-2,167.73	2,305.53					
100.00	100.00	78.00	100.00	3.28	3.55	-70.10	784.81	-2,167.73	2,305.42	2,298.59	6.84	337.244		
200.00	200.00	178.00	200.00	3.34	5.54	-70.10	784.81	-2,167.73	2,305.42	2,296.54	8.88	259.616		
300.00	300.00	278.00	300.00	3.44	8.61	-70.10	784.81	-2,167.73	2,305.42	2,293.37	12.05	191.262		
400.00	399.98	377.98	399.98	3.60	11.91	-62.85	784.81	-2,167.73	2,304.62	2,289.11	15.51	148.557		
500.00	499.84	477.84	499.84	3.81	15.29	-63.01	784.81	-2,167.73	2,302.24	2,283.14	19.10	120.552		
600.00	599.45	577.45	599.45	4.06	18.70	-63.27	784.81	-2,167.73	2,298.29	2,275.54	22.75	101.023		
700.00	698.70	676.70	698.70	4.34	22.12	-63.64	784.81	-2,167.73	2,292.81	2,266.36	26.44	86.703		
800.00	797.47	775.47	797.47	4.64	25.54	-64.11	784.81	-2,167.73	2,285.85	2,255.69	30.16	75.780		
900.00	895.65	873.65	895.65	4.98	28.94	-64.64	784.81	-2,167.73	2,277.54	2,243.64	33.90	67.186		
1,000.00	993.66	971.66	993.66	5.32	32.34	-65.09	784.81	-2,167.73	2,268.96	2,231.31	37.65	60.258		
1,100.00	1,091.67	1,069.67	1,091.67	5.69	35.75	-65.54	784.81	-2,167.73	2,260.53	2,219.10	41.43	54.560		
1,200.00	1,189.68	1,167.68	1,189.68	6.09	39.16	-65.99	784.81	-2,167.73	2,252.24	2,207.02	45.23	49.798		
1,300.00	1,287.69	1,265.69	1,287.69	6.49	42.57	-66.44	784.81	-2,167.73	2,244.10	2,195.06	49.04	45.762		
1,400.00	1,385.69	1,363.69	1,385.69	6.90	45.98	-66.90	784.81	-2,167.73	2,236.10	2,183.24	52.86	42.301		
1,500.00	1,483.70	1,461.70	1,483.70	7.33	49.39	-67.36	784.81	-2,167.73	2,228.26	2,171.56	56.69	39.303		
1,600.00	1,581.71	1,559.71	1,581.71	7.76	52.81	-67.83	784.81	-2,167.73	2,220.56	2,160.02	60.54	36.682		
1,700.00	1,679.72	1,657.72	1,679.72	8.19	56.22	-68.30	784.81	-2,167.73	2,213.01	2,148.63	64.38	34.372		
1,800.00	1,777.73	1,755.73	1,777.73	8.63	59.64	-68.77	784.81	-2,167.73	2,205.62	2,137.38	68.24	32.322		
1,900.00	1,875.74	1,853.74	1,875.74	9.08	63.05	-69.24	784.81	-2,167.73	2,198.38	2,126.28	72.10	30.492		
2,000.00	1,973.75	1,951.75	1,973.75	9.53	66.47	-69.72	784.81	-2,167.73	2,191.29	2,115.33	75.96	28.847		
2,100.00	2,071.76	2,049.76	2,071.76	9.98	69.89	-70.20	784.81	-2,167.73	2,184.37	2,104.54	79.83	27.363		
2,200.00	2,169.77	2,147.77	2,169.77	10.44	73.31	-70.68	784.81	-2,167.73	2,177.60	2,093.90	83.70	26.016		
2,300.00	2,267.77	2,245.77	2,267.77	10.90	76.72	-71.17	784.81	-2,167.73	2,170.99	2,083.42	87.58	24.790		
2,400.00	2,365.78	2,343.78	2,365.78	11.36	80.14	-71.66	784.81	-2,167.73	2,164.55	2,073.10	91.45	23.668		
2,500.00	2,463.79	2,441.79	2,463.79	11.82	83.56	-72.15	784.81	-2,167.73	2,158.27	2,062.93	95.33	22.639		
2,600.00	2,561.80	2,539.80	2,561.80	12.28	86.98	-72.64	784.81	-2,167.73	2,152.15	2,052.94	99.21	21.692		
2,700.00	2,659.81	2,637.81	2,659.81	12.75	90.40	-73.14	784.81	-2,167.73	2,146.20	2,043.10	103.10	20.817		
2,800.00	2,757.82	2,735.82	2,757.82	13.21	93.82	-73.64	784.81	-2,167.73	2,140.42	2,033.43	106.98	20.007		
2,900.00	2,855.83	2,833.83	2,855.83	13.68	97.24	-74.14	784.81	-2,167.73	2,134.81	2,023.93	110.87	19.255		
3,000.00	2,953.84	2,931.84	2,953.84	14.15	100.66	-74.64	784.81	-2,167.73	2,129.36	2,014.60	114.76	18.555		
3,100.00	3,051.85	3,029.85	3,051.85	14.62	104.08	-75.15	784.81	-2,167.73	2,124.09	2,005.44	118.65	17.902		
3,200.00	3,149.85	3,127.85	3,149.85	15.09	107.50	-75.66	784.81	-2,167.73	2,118.99	1,996.45	122.54	17.292		
3,300.00	3,247.86	3,225.86	3,247.86	15.56	110.92	-76.17	784.81	-2,167.73	2,114.07	1,987.64	126.43	16.721		
3,400.00	3,345.87	3,323.87	3,345.87	16.04	114.34	-76.69	784.81	-2,167.73	2,109.32	1,978.99	130.33	16.185		
3,500.00	3,443.88	3,421.88	3,443.88	16.51	117.76	-77.20	784.81	-2,167.73	2,104.75	1,970.53	134.22	15.681		
3,600.00	3,541.89	3,519.89	3,541.89	16.98	121.18	-77.72	784.81	-2,167.73	2,100.35	1,962.24	138.12	15.207		
3,700.00	3,639.90	3,617.90	3,639.90	17.46	124.60	-78.24	784.81	-2,167.73	2,096.14	1,954.13	142.01	14.760		
3,800.00	3,737.91	3,715.91	3,737.91	17.93	128.02	-78.76	784.81	-2,167.73	2,092.10	1,946.19	145.91	14.339		
3,900.00	3,835.92	3,813.92	3,835.92	18.41	131.44	-79.29	784.81	-2,167.73	2,088.25	1,938.44	149.81	13.940		
4,000.00	3,933.93	3,911.93	3,933.93	18.88	134.86	-79.81	784.81	-2,167.73	2,084.58	1,930.87	153.70	13.562		
4,100.00	4,031.93	4,009.93	4,031.93	19.36	138.28	-80.34	784.81	-2,167.73	2,081.09	1,923.48	157.60	13.205		
4,200.00	4,129.94	4,107.94	4,129.94	19.84	141.70	-80.87	784.81	-2,167.73	2,077.78	1,916.28	161.50	12.865		
4,300.00	4,227.95	4,205.95	4,227.95	20.31	145.12	-81.40	784.81	-2,167.73	2,074.66	1,909.26	165.40	12.543		
4,400.00	4,325.96	4,303.96	4,325.96	20.79	148.54	-81.93	784.81	-2,167.73	2,071.72	1,902.42	169.30	12.237		
4,500.00	4,423.97	4,401.97	4,423.97	21.27	151.96	-82.47	784.81	-2,167.73	2,068.98	1,895.78	173.20	11.946		
4,600.00	4,521.98	4,500.02	4,521.98	21.75	155.39	-83.00	784.81	-2,167.73	2,066.41	1,889.31	177.10	11.668		
4,700.00	4,619.99	4,602.01	4,619.99	22.23	158.94	-83.54	784.81	-2,167.73	2,064.04	1,882.90	181.14	11.395		
4,800.00	4,718.00	4,704.00	4,718.00	22.70	162.50	-84.07	784.81	-2,167.73	2,061.85	1,876.67	185.18	11.134		
4,900.00	4,816.01	4,805.99	4,816.01	23.18	166.06	-84.61	784.81	-2,167.73	2,059.86	1,870.64	189.22	10.886		
5,000.00	4,914.01	4,907.99	4,914.01	23.66	169.62	-85.15	784.81	-2,167.73	2,058.05	1,864.79	193.26	10.649		
5,100.00	5,012.02	5,009.98	5,012.02	24.14	173.18	-85.69	784.81	-2,167.73	2,056.44	1,859.13	197.31	10.423		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - BURBACH 15-22(SI_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,088.03	5,110.03	24.62	175.91	-86.23	784.81	-2,167.73	2,055.01	1,854.50	200.51	10.249		
5,300.00	5,208.04	5,186.04	5,208.04	25.10	179.33	-86.78	784.81	-2,167.73	2,053.77	1,849.36	204.41	10.047		
5,400.00	5,306.05	5,284.05	5,306.05	25.58	182.75	-87.32	784.81	-2,167.73	2,052.73	1,844.41	208.32	9.854		
5,500.00	5,404.06	5,382.06	5,404.06	26.06	186.17	-87.86	784.81	-2,167.73	2,051.88	1,839.66	212.22	9.669		
5,600.00	5,502.07	5,480.07	5,502.07	26.54	189.59	-88.40	784.81	-2,167.73	2,051.22	1,835.10	216.12	9.491		
5,700.00	5,600.08	5,578.08	5,600.08	27.02	193.01	-88.95	784.81	-2,167.73	2,050.75	1,830.73	220.02	9.321		
5,800.00	5,698.09	5,676.09	5,698.09	27.50	196.43	-89.49	784.81	-2,167.73	2,050.47	1,826.55	223.93	9.157		
5,893.49	5,789.71	5,767.71	5,789.71	27.95	199.63	-90.00	784.81	-2,167.73	2,050.39	1,822.82	227.58	9.010		
5,900.00	5,796.09	5,774.09	5,796.09	27.98	199.86	-90.04	784.81	-2,167.73	2,050.39	1,822.56	227.83	9.000		
6,000.00	5,894.10	5,872.10	5,894.10	28.46	203.28	-90.58	784.81	-2,167.73	2,050.50	1,818.77	231.73	8.849		
6,100.00	5,992.11	5,970.11	5,992.11	28.94	206.70	-91.12	784.81	-2,167.73	2,050.80	1,815.17	235.64	8.703		
6,200.00	6,090.12	6,068.12	6,090.12	29.42	210.12	-91.67	784.81	-2,167.73	2,051.29	1,811.76	239.54	8.564		
6,300.00	6,188.13	6,166.13	6,188.13	29.90	213.54	-92.21	784.81	-2,167.73	2,051.98	1,808.54	243.44	8.429		
6,400.00	6,286.14	6,264.14	6,286.14	30.38	216.96	-92.75	784.81	-2,167.73	2,052.86	1,805.51	247.34	8.300		
6,500.00	6,384.15	6,362.15	6,384.15	30.87	220.38	-93.29	784.81	-2,167.73	2,053.92	1,802.68	251.25	8.175		
6,600.00	6,482.15	6,460.15	6,482.15	31.35	223.80	-93.84	784.81	-2,167.73	2,054.88	1,799.73	255.15	8.054		
6,700.00	6,579.21	6,557.21	6,579.21	31.83	227.19	-94.38	784.81	-2,167.73	2,056.00	1,796.59	259.02	7.898		
6,800.00	6,673.04	6,651.04	6,673.04	32.30	230.47	-94.92	784.81	-2,167.73	2,057.14	1,793.68	262.76	7.693		
6,900.00	6,761.33	6,739.33	6,761.33	32.74	233.55	-95.46	784.81	-2,167.73	2,058.30	1,790.96	266.29	7.447		
7,000.00	6,849.90	6,819.90	6,849.90	33.17	236.36	-96.00	784.81	-2,167.73	2,059.50	1,788.32	269.52	7.167		
7,100.00	6,912.77	6,909.23	6,912.77	33.60	239.48	-96.54	784.81	-2,167.73	2,060.75	1,785.76	273.03	6.842		
7,200.00	6,972.19	6,950.19	6,972.19	34.09	240.91	-97.08	784.81	-2,167.73	2,062.00	1,783.20	276.54	6.530		
7,300.00	7,018.70	7,003.30	7,018.70	34.73	242.76	-97.62	784.81	-2,167.73	2,063.25	1,780.73	279.94	6.182		
7,400.00	7,051.15	7,029.15	7,051.15	35.55	243.66	-98.16	784.81	-2,167.73	2,064.50	1,778.34	283.34	5.838		
7,500.00	7,068.75	7,046.75	7,068.75	36.56	244.28	-98.70	784.81	-2,167.73	2,065.75	1,776.00	286.75	5.488		
7,600.00	7,071.91	7,049.91	7,071.91	37.71	244.39	-99.24	784.81	-2,167.73	2,067.00	1,773.71	289.91	5.143		
7,700.00	7,071.62	7,049.62	7,071.62	39.03	244.38	-99.40	784.81	-2,167.73	2,068.25	1,771.42	293.02	4.802		
7,800.00	7,071.34	7,049.34	7,071.34	40.51	244.37	-99.57	784.81	-2,167.73	2,069.50	1,769.13	296.03	4.463		
7,900.00	7,071.05	7,049.05	7,071.05	42.14	244.36	-99.74	784.81	-2,167.73	2,070.75	1,766.84	299.04	4.128		
8,000.00	7,070.77	7,048.77	7,070.77	43.89	244.35	-99.91	784.81	-2,167.73	2,072.00	1,764.55	302.05	3.798		
8,100.00	7,070.48	7,048.48	7,070.48	45.76	244.34	-100.08	784.81	-2,167.73	2,073.25	1,762.26	305.06	3.474		
8,200.00	7,070.20	7,048.20	7,070.20	47.72	244.33	-100.24	784.81	-2,167.73	2,074.50	1,760.00	308.07	3.159		
8,300.00	7,069.92	7,047.92	7,069.92	49.78	244.32	-100.41	784.81	-2,167.73	2,075.75	1,757.71	311.08	2.855		
8,400.00	7,069.63	7,047.63	7,069.63	51.90	244.31	-100.58	784.81	-2,167.73	2,077.00	1,755.42	314.09	2.566		
8,500.00	7,069.35	7,047.35	7,069.35	54.10	244.30	-100.75	784.81	-2,167.73	2,078.25	1,753.13	317.10	2.299		
8,600.00	7,069.06	7,047.06	7,069.06	56.36	244.29	-100.92	784.81	-2,167.73	2,079.50	1,750.84	320.11	2.062		
8,700.00	7,068.78	7,046.78	7,068.78	58.66	244.28	-101.09	784.81	-2,167.73	2,080.75	1,748.55	323.12	1.866		
8,800.00	7,068.49	7,046.49	7,068.49	61.02	244.27	-101.26	784.81	-2,167.73	2,082.00	1,746.26	326.13	1.723		
8,900.00	7,068.21	7,046.21	7,068.21	63.42	244.26	-101.43	784.81	-2,167.73	2,083.25	1,743.97	329.14	1.644		
8,948.02	7,068.07	7,046.07	7,068.07	64.58	244.26	-101.60	784.81	-2,167.73	2,084.50	1,741.68	332.15	1.632 CC, ES, SF		
9,000.00	7,067.92	7,045.92	7,067.92	65.85	244.25	-101.77	784.81	-2,167.73	2,085.75	1,739.39	335.16	1.638		
9,100.00	7,067.64	7,045.64	7,067.64	68.32	244.24	-101.94	784.81	-2,167.73	2,087.00	1,737.10	338.17	1.705		
9,200.00	7,067.35	7,045.35	7,067.35	70.81	244.23	-102.11	784.81	-2,167.73	2,088.25	1,734.81	341.18	1.835		
9,300.00	7,067.07	7,045.07	7,067.07	73.34	244.22	-102.28	784.81	-2,167.73	2,089.50	1,732.52	344.19	2.019		
9,400.00	7,066.78	7,044.78	7,066.78	75.88	244.21	-102.45	784.81	-2,167.73	2,090.75	1,730.23	347.20	2.244		
9,500.00	7,066.50	7,044.50	7,066.50	78.45	244.20	-102.62	784.81	-2,167.73	2,092.00	1,727.94	350.21	2.499		
9,600.00	7,066.21	7,044.21	7,066.21	81.04	244.19	-102.79	784.81	-2,167.73	2,093.25	1,725.65	353.22	2.777		
9,700.00	7,065.93	7,043.93	7,065.93	83.64	244.18	-102.96	784.81	-2,167.73	2,094.50	1,723.36	356.23	3.072		
9,800.00	7,065.64	7,043.64	7,065.64	86.26	244.17	-103.13	784.81	-2,167.73	2,095.75	1,721.07	359.24	3.379		
9,900.00	7,065.36	7,043.36	7,065.36	88.90	244.16	-103.30	784.81	-2,167.73	2,097.00	1,718.78	362.25	3.695		
10,000.00	7,065.07	7,043.07	7,065.07	91.55	244.15	-103.47	784.81	-2,167.73	2,098.25	1,716.49	365.26	4.018		
10,100.00	7,064.79	7,042.79	7,064.79	94.21	244.14	-103.64	784.81	-2,167.73	2,099.50	1,714.20	368.27	4.347		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,064.50	7,042.50	7,064.50	96.88	244.13	-89.59	784.81	-2,167.73	1,349.46	1,061.13	288.32	4.680		
10,300.00	7,064.22	7,042.22	7,064.22	99.57	244.12	-89.56	784.81	-2,167.73	1,442.71	1,155.15	287.56	5.017		
10,400.00	7,063.94	7,041.94	7,063.94	102.26	244.11	-89.53	784.81	-2,167.73	1,536.82	1,249.92	286.90	5.357		
10,500.00	7,063.65	7,041.65	7,063.65	104.96	244.10	-89.50	784.81	-2,167.73	1,631.63	1,345.29	286.34	5.698		
10,600.00	7,063.37	7,041.37	7,063.37	107.67	244.09	-89.46	784.81	-2,167.73	1,727.02	1,441.18	285.85	6.042		
10,700.00	7,063.08	7,041.08	7,063.08	110.39	244.08	-89.43	784.81	-2,167.73	1,822.91	1,537.49	285.42	6.387		
10,800.00	7,062.80	7,040.80	7,062.80	113.11	244.07	-89.40	784.81	-2,167.73	1,919.22	1,634.18	285.04	6.733		
10,900.00	7,062.51	7,040.51	7,062.51	115.84	244.06	-89.37	784.81	-2,167.73	2,015.88	1,731.17	284.71	7.081		
11,000.00	7,062.23	7,040.23	7,062.23	118.58	244.05	-89.34	784.81	-2,167.73	2,112.86	1,828.44	284.42	7.429		
11,100.00	7,061.94	7,039.94	7,061.94	121.32	244.04	-89.30	784.81	-2,167.73	2,210.11	1,925.95	284.16	7.778		
11,200.00	7,061.66	7,039.66	7,061.66	124.07	244.03	-89.27	784.81	-2,167.73	2,307.59	2,023.66	283.93	8.127		
11,300.00	7,061.37	7,039.37	7,061.37	126.82	244.02	-89.24	784.81	-2,167.73	2,405.28	2,121.55	283.73	8.477		
11,400.00	7,061.09	7,039.09	7,061.09	129.58	244.01	-89.21	784.81	-2,167.73	2,503.15	2,219.60	283.55	8.828		
11,500.00	7,060.80	7,038.80	7,060.80	132.34	244.00	-89.17	784.81	-2,167.73	2,601.18	2,317.79	283.39	9.179		
11,600.00	7,060.52	7,038.52	7,060.52	135.10	243.99	-89.14	784.81	-2,167.73	2,699.36	2,416.11	283.24	9.530		
11,700.00	7,060.23	7,038.23	7,060.23	137.87	243.98	-89.11	784.81	-2,167.73	2,797.66	2,514.55	283.12	9.882		
11,800.00	7,059.95	7,037.95	7,059.95	140.64	243.97	-89.08	784.81	-2,167.73	2,896.09	2,613.08	283.00	10.233		
11,900.00	7,059.66	7,037.66	7,059.66	143.42	243.96	-89.04	784.81	-2,167.73	2,994.61	2,711.71	282.90	10.585		
12,000.00	7,059.38	7,037.38	7,059.38	146.20	243.95	-89.01	784.81	-2,167.73	3,093.23	2,810.42	282.81	10.937		
12,100.00	7,059.09	7,037.09	7,059.09	148.98	243.94	-88.98	784.81	-2,167.73	3,191.94	2,909.21	282.73	11.290		
12,200.00	7,058.81	7,036.81	7,058.81	151.77	243.93	-88.95	784.81	-2,167.73	3,290.73	3,008.06	282.66	11.642		
12,300.00	7,058.52	7,036.52	7,058.52	154.55	243.92	-88.91	784.81	-2,167.73	3,389.58	3,106.98	282.60	11.994		
12,400.00	7,058.24	7,036.24	7,058.24	157.34	243.91	-88.88	784.81	-2,167.73	3,488.50	3,205.95	282.55	12.346		
12,500.00	7,057.96	7,035.96	7,057.96	160.14	243.90	-88.85	784.81	-2,167.73	3,587.48	3,304.98	282.50	12.699		
12,600.00	7,057.67	7,035.67	7,057.67	162.93	243.89	-88.82	784.81	-2,167.73	3,686.52	3,404.06	282.47	13.051		
12,700.00	7,057.39	7,035.39	7,057.39	165.73	243.88	-88.78	784.81	-2,167.73	3,785.61	3,503.17	282.43	13.404		
12,800.00	7,057.10	7,035.10	7,057.10	168.53	243.87	-88.75	784.81	-2,167.73	3,884.74	3,602.34	282.41	13.756		
12,900.00	7,056.82	7,034.82	7,056.82	171.33	243.86	-88.72	784.81	-2,167.73	3,983.92	3,701.53	282.38	14.108		
13,000.00	7,056.53	7,034.53	7,056.53	174.13	243.85	-88.69	784.81	-2,167.73	4,083.14	3,800.77	282.37	14.460		
13,100.00	7,056.25	7,034.25	7,056.25	176.94	243.84	-88.66	784.81	-2,167.73	4,182.39	3,900.04	282.35	14.813		
13,200.00	7,055.96	7,033.96	7,055.96	179.74	243.83	-88.62	784.81	-2,167.73	4,281.68	3,999.33	282.35	15.165		
13,300.00	7,055.68	7,033.68	7,055.68	182.55	243.82	-88.59	784.81	-2,167.73	4,381.00	4,098.66	282.34	15.517		
13,400.00	7,055.39	7,033.39	7,055.39	185.36	243.81	-88.56	784.81	-2,167.73	4,480.35	4,198.01	282.34	15.869		
13,500.00	7,055.11	7,033.11	7,055.11	188.17	243.80	-88.53	784.81	-2,167.73	4,579.73	4,297.39	282.34	16.220		
13,600.00	7,054.82	7,032.82	7,054.82	190.98	243.79	-88.49	784.81	-2,167.73	4,679.14	4,396.79	282.35	16.572		
13,700.00	7,054.54	7,032.54	7,054.54	193.80	243.78	-88.46	784.81	-2,167.73	4,778.57	4,496.21	282.36	16.924		
13,800.00	7,054.25	7,032.25	7,054.25	196.61	243.77	-88.43	784.81	-2,167.73	4,878.02	4,595.65	282.37	17.275		
13,900.00	7,053.97	7,031.97	7,053.97	199.43	243.76	-88.40	784.81	-2,167.73	4,977.50	4,695.11	282.39	17.626		
14,000.00	7,053.68	7,031.68	7,053.68	202.25	243.75	-88.36	784.81	-2,167.73	5,077.00	4,794.59	282.41	17.978		
14,100.00	7,053.40	7,031.40	7,053.40	205.06	243.74	-88.33	784.81	-2,167.73	5,176.51	4,894.08	282.43	18.329		
14,200.00	7,053.11	7,031.11	7,053.11	207.88	243.73	-88.30	784.81	-2,167.73	5,276.05	4,993.59	282.45	18.679		
14,300.00	7,052.83	7,030.83	7,052.83	210.70	243.72	-88.27	784.81	-2,167.73	5,375.60	5,093.12	282.48	19.030		
14,400.00	7,052.54	7,030.54	7,052.54	213.53	243.71	-88.23	784.81	-2,167.73	5,475.16	5,192.66	282.51	19.381		
14,500.00	7,052.26	7,030.26	7,052.26	216.35	243.70	-88.20	784.81	-2,167.73	5,574.75	5,292.21	282.54	19.731		
14,600.00	7,051.98	7,029.98	7,051.98	219.17	243.69	-88.17	784.81	-2,167.73	5,674.35	5,391.78	282.57	20.081		
14,700.00	7,051.69	7,029.69	7,051.69	222.00	243.68	-88.14	784.81	-2,167.73	5,773.96	5,491.35	282.60	20.431		
14,800.00	7,051.41	7,029.41	7,051.41	224.82	243.67	-88.10	784.81	-2,167.73	5,873.58	5,590.94	282.64	20.781		
14,900.00	7,051.12	7,029.12	7,051.12	227.65	243.66	-88.07	784.81	-2,167.73	5,973.22	5,690.54	282.68	21.131		
14,942.37	7,051.00	7,029.00	7,051.00	228.85	243.66	-88.06	784.81	-2,167.73	6,015.44	5,732.75	282.70	21.279		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	37.00	3.28	3.28	-102.20	-548.51	-2,537.77	2,596.64				
100.00	100.00	63.00	100.00	3.28	3.46	-102.20	-548.51	-2,537.77	2,596.37	2,589.63	6.74	384.981	
200.00	200.00	163.00	200.00	3.34	5.13	-102.20	-548.51	-2,537.77	2,596.37	2,587.91	8.47	306.634	
300.00	300.00	263.00	300.00	3.44	8.13	-102.20	-548.51	-2,537.77	2,596.37	2,584.80	11.57	224.366	
400.00	399.98	362.98	399.98	3.60	11.41	-94.93	-548.51	-2,537.77	2,596.52	2,581.51	15.01	172.977	
500.00	499.84	462.84	499.84	3.81	14.78	-95.04	-548.51	-2,537.77	2,596.98	2,578.39	18.59	139.730	
600.00	599.45	562.45	599.45	4.06	18.19	-95.21	-548.51	-2,537.77	2,597.76	2,575.53	22.23	116.840	
700.00	698.70	661.70	698.70	4.34	21.60	-95.45	-548.51	-2,537.77	2,598.90	2,572.97	25.93	100.246	
800.00	797.47	760.47	797.47	4.64	25.02	-95.76	-548.51	-2,537.77	2,600.45	2,570.80	29.64	87.723	
900.00	895.65	858.65	895.65	4.98	28.42	-96.14	-548.51	-2,537.77	2,602.45	2,569.07	33.38	77.967	
1,000.00	993.66	956.66	993.66	5.32	31.82	-96.57	-548.51	-2,537.77	2,604.69	2,567.55	37.14	70.136	
1,100.00	1,091.67	1,054.67	1,091.67	5.69	35.23	-96.99	-548.51	-2,537.77	2,607.08	2,566.16	40.92	63.713	
1,200.00	1,189.68	1,152.68	1,189.68	6.09	38.63	-97.42	-548.51	-2,537.77	2,609.62	2,564.90	44.72	58.356	
1,300.00	1,287.69	1,250.69	1,287.69	6.49	42.04	-97.84	-548.51	-2,537.77	2,612.31	2,563.77	48.53	53.825	
1,400.00	1,385.69	1,348.69	1,385.69	6.90	45.46	-98.26	-548.51	-2,537.77	2,615.14	2,562.78	52.36	49.946	
1,500.00	1,483.70	1,446.70	1,483.70	7.33	48.87	-98.68	-548.51	-2,537.77	2,618.13	2,561.93	56.20	46.589	
1,600.00	1,581.71	1,544.71	1,581.71	7.76	52.28	-99.10	-548.51	-2,537.77	2,621.26	2,561.22	60.04	43.658	
1,700.00	1,679.72	1,642.72	1,679.72	8.19	55.70	-99.52	-548.51	-2,537.77	2,624.53	2,560.64	63.89	41.078	
1,800.00	1,777.73	1,740.73	1,777.73	8.63	59.11	-99.94	-548.51	-2,537.77	2,627.96	2,560.21	67.75	38.790	
1,900.00	1,875.74	1,838.74	1,875.74	9.08	62.53	-100.36	-548.51	-2,537.77	2,631.53	2,559.92	71.61	36.748	
2,000.00	1,973.75	1,936.75	1,973.75	9.53	65.95	-100.78	-548.51	-2,537.77	2,635.24	2,559.76	75.48	34.915	
2,100.00	2,071.76	2,034.76	2,071.76	9.98	69.37	-101.19	-548.51	-2,537.77	2,639.10	2,559.75	79.35	33.261	
2,200.00	2,169.77	2,132.77	2,169.77	10.44	72.78	-101.61	-548.51	-2,537.77	2,643.10	2,559.88	83.22	31.761	
2,300.00	2,267.77	2,230.77	2,267.77	10.90	76.20	-102.02	-548.51	-2,537.77	2,647.24	2,560.15	87.09	30.395	
2,400.00	2,365.78	2,328.78	2,365.78	11.36	79.62	-102.43	-548.51	-2,537.77	2,651.53	2,560.55	90.97	29.147	
2,500.00	2,463.79	2,426.79	2,463.79	11.82	83.04	-102.84	-548.51	-2,537.77	2,655.95	2,561.10	94.85	28.001	
2,600.00	2,561.80	2,524.80	2,561.80	12.28	86.46	-103.25	-548.51	-2,537.77	2,660.52	2,561.79	98.73	26.947	
2,700.00	2,659.81	2,622.81	2,659.81	12.75	89.88	-103.66	-548.51	-2,537.77	2,665.23	2,562.61	102.62	25.973	
2,800.00	2,757.82	2,720.82	2,757.82	13.21	93.30	-104.06	-548.51	-2,537.77	2,670.08	2,563.58	106.50	25.071	
2,900.00	2,855.83	2,818.83	2,855.83	13.68	96.72	-104.47	-548.51	-2,537.77	2,675.07	2,564.68	110.39	24.234	
3,000.00	2,953.84	2,916.84	2,953.84	14.15	100.14	-104.87	-548.51	-2,537.77	2,680.19	2,565.92	114.27	23.454	
3,100.00	3,051.85	3,014.85	3,051.85	14.62	103.55	-105.27	-548.51	-2,537.77	2,685.45	2,567.29	118.16	22.727	
3,200.00	3,149.85	3,112.85	3,149.85	15.09	106.97	-105.67	-548.51	-2,537.77	2,690.85	2,568.80	122.05	22.047	
3,300.00	3,247.86	3,210.86	3,247.86	15.56	110.39	-106.07	-548.51	-2,537.77	2,696.38	2,570.44	125.94	21.410	
3,400.00	3,345.87	3,308.87	3,345.87	16.04	113.81	-106.47	-548.51	-2,537.77	2,702.05	2,572.22	129.83	20.812	
3,500.00	3,443.88	3,406.88	3,443.88	16.51	117.23	-106.87	-548.51	-2,537.77	2,707.85	2,574.13	133.72	20.250	
3,600.00	3,541.89	3,504.89	3,541.89	16.98	120.66	-107.26	-548.51	-2,537.77	2,713.78	2,576.17	137.61	19.721	
3,700.00	3,639.90	3,602.90	3,639.90	17.46	124.08	-107.65	-548.51	-2,537.77	2,719.85	2,578.35	141.50	19.221	
3,800.00	3,737.91	3,700.91	3,737.91	17.93	127.50	-108.04	-548.51	-2,537.77	2,726.05	2,580.65	145.40	18.749	
3,900.00	3,835.92	3,801.08	3,835.92	18.41	130.99	-108.43	-548.51	-2,537.77	2,732.37	2,583.01	149.36	18.293	
4,000.00	3,933.93	3,903.07	3,933.93	18.88	134.55	-108.82	-548.51	-2,537.77	2,738.83	2,585.44	153.40	17.855	
4,100.00	4,031.93	4,005.07	4,031.93	19.36	138.11	-109.20	-548.51	-2,537.77	2,745.42	2,587.99	157.43	17.439	
4,200.00	4,129.94	4,107.06	4,129.94	19.84	141.67	-109.59	-548.51	-2,537.77	2,752.13	2,590.67	161.46	17.045	
4,300.00	4,227.95	4,209.05	4,227.95	20.31	145.23	-109.97	-548.51	-2,537.77	2,758.97	2,593.48	165.49	16.671	
4,400.00	4,325.96	4,288.96	4,325.96	20.79	148.02	-110.35	-548.51	-2,537.77	2,765.93	2,597.18	168.75	16.390	
4,500.00	4,423.97	4,386.97	4,423.97	21.27	151.44	-110.73	-548.51	-2,537.77	2,773.02	2,600.38	172.65	16.062	
4,600.00	4,521.98	4,484.98	4,521.98	21.75	154.86	-111.10	-548.51	-2,537.77	2,780.24	2,603.70	176.54	15.748	
4,700.00	4,619.99	4,582.99	4,619.99	22.23	158.28	-111.48	-548.51	-2,537.77	2,787.57	2,607.14	180.44	15.449	
4,800.00	4,718.00	4,681.00	4,718.00	22.70	161.70	-111.85	-548.51	-2,537.77	2,795.03	2,610.70	184.33	15.163	
4,900.00	4,816.01	4,779.01	4,816.01	23.18	165.12	-112.22	-548.51	-2,537.77	2,802.61	2,614.39	188.22	14.890	
5,000.00	4,914.01	4,877.01	4,914.01	23.66	168.54	-112.59	-548.51	-2,537.77	2,810.31	2,618.19	192.12	14.628	
5,100.00	5,012.02	4,975.02	5,012.02	24.14	171.96	-112.95	-548.51	-2,537.77	2,818.13	2,622.11	196.01	14.377	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,073.03	5,110.03	24.62	175.39	-113.32	-548.51	-2,537.77	2,826.06	2,626.15	199.91	14.137		
5,300.00	5,208.04	5,171.04	5,208.04	25.10	178.81	-113.68	-548.51	-2,537.77	2,834.11	2,630.31	203.80	13.906		
5,400.00	5,306.05	5,269.05	5,306.05	25.58	182.23	-114.04	-548.51	-2,537.77	2,842.28	2,634.59	207.70	13.685		
5,500.00	5,404.06	5,367.06	5,404.06	26.06	185.65	-114.40	-548.51	-2,537.77	2,850.57	2,638.97	211.59	13.472		
5,600.00	5,502.07	5,465.07	5,502.07	26.54	189.07	-114.76	-548.51	-2,537.77	2,858.96	2,643.48	215.48	13.268		
5,700.00	5,600.08	5,563.08	5,600.08	27.02	192.49	-115.11	-548.51	-2,537.77	2,867.47	2,648.09	219.38	13.071		
5,800.00	5,698.09	5,661.09	5,698.09	27.50	195.91	-115.46	-548.51	-2,537.77	2,876.09	2,652.82	223.27	12.882		
5,900.00	5,796.09	5,759.09	5,796.09	27.98	199.33	-115.81	-548.51	-2,537.77	2,884.83	2,657.66	227.17	12.699		
6,000.00	5,894.10	5,857.10	5,894.10	28.46	202.75	-116.16	-548.51	-2,537.77	2,893.67	2,662.61	231.06	12.523		
6,100.00	5,992.11	5,955.11	5,992.11	28.94	206.17	-116.51	-548.51	-2,537.77	2,902.62	2,667.67	234.96	12.354		
6,200.00	6,090.12	6,053.12	6,090.12	29.42	209.60	-116.85	-548.51	-2,537.77	2,911.68	2,672.83	238.85	12.190		
6,300.00	6,188.13	6,151.13	6,188.13	29.90	213.02	-117.19	-548.51	-2,537.77	2,920.85	2,678.10	242.74	12.033		
6,400.00	6,286.14	6,249.14	6,286.14	30.38	216.44	-117.53	-548.51	-2,537.77	2,930.12	2,683.48	246.64	11.880		
6,500.00	6,384.15	6,347.15	6,384.15	30.87	219.86	-117.87	-548.51	-2,537.77	2,939.50	2,688.97	250.53	11.733		
6,600.00	6,482.15	6,445.15	6,482.15	31.35	223.28	-109.63	-548.51	-2,537.77	2,948.73	2,694.30	254.42	11.590		
6,700.00	6,579.21	6,542.21	6,579.21	31.83	226.67	-79.01	-548.51	-2,537.77	2,949.38	2,691.09	258.29	11.419		
6,800.00	6,673.04	6,636.04	6,673.04	32.30	229.94	-65.68	-548.51	-2,537.77	2,937.52	2,675.48	262.04	11.210		
6,900.00	6,761.33	6,724.33	6,761.33	32.74	233.02	-60.45	-548.51	-2,537.77	2,913.73	2,648.14	265.59	10.971		
7,000.00	6,841.90	6,804.90	6,841.90	33.17	235.84	-59.32	-548.51	-2,537.77	2,878.90	2,610.03	268.88	10.707		
7,100.00	6,912.77	6,875.77	6,912.77	33.60	238.31	-60.83	-548.51	-2,537.77	2,834.25	2,562.40	271.85	10.426		
7,200.00	6,972.19	6,935.19	6,972.19	34.09	240.38	-64.41	-548.51	-2,537.77	2,781.23	2,506.76	274.47	10.133		
7,300.00	7,018.70	6,981.70	7,018.70	34.73	242.01	-69.76	-548.51	-2,537.77	2,721.48	2,444.77	276.72	9.835		
7,400.00	7,051.15	7,014.15	7,051.15	35.55	243.14	-76.61	-548.51	-2,537.77	2,656.79	2,378.23	278.56	9.537		
7,500.00	7,068.75	7,031.75	7,068.75	36.56	243.76	-84.54	-548.51	-2,537.77	2,588.97	2,308.98	280.00	9.246		
7,600.00	7,071.91	7,034.91	7,071.91	37.71	243.87	-90.15	-548.51	-2,537.77	2,519.94	2,238.92	281.03	8.967		
7,700.00	7,071.62	7,034.62	7,071.62	39.03	243.86	-90.14	-548.51	-2,537.77	2,452.45	2,170.37	282.08	8.694		
7,800.00	7,071.34	7,034.34	7,071.34	40.51	243.85	-90.14	-548.51	-2,537.77	2,387.24	2,103.93	283.31	8.426		
7,900.00	7,071.05	7,034.05	7,071.05	42.14	243.84	-90.13	-548.51	-2,537.77	2,324.49	2,039.79	284.71	8.165		
8,000.00	7,070.77	7,033.77	7,070.77	43.89	243.83	-90.12	-548.51	-2,537.77	2,264.43	1,978.15	286.28	7.910		
8,100.00	7,070.48	7,033.48	7,070.48	45.76	243.82	-90.11	-548.51	-2,537.77	2,207.27	1,919.24	288.03	7.663		
8,200.00	7,070.20	7,033.20	7,070.20	47.72	243.81	-90.10	-548.51	-2,537.77	2,153.24	1,863.29	289.94	7.426		
8,300.00	7,069.92	7,032.92	7,069.92	49.78	243.80	-90.09	-548.51	-2,537.77	2,102.57	1,810.55	292.02	7.200		
8,400.00	7,069.63	7,032.63	7,069.63	51.90	243.79	-90.08	-548.51	-2,537.77	2,055.53	1,761.28	294.25	6.986		
8,500.00	7,069.35	7,032.35	7,069.35	54.10	243.78	-90.07	-548.51	-2,537.77	2,012.36	1,715.75	296.61	6.785		
8,600.00	7,069.06	7,032.06	7,069.06	56.36	243.77	-90.06	-548.51	-2,537.77	1,973.31	1,674.24	299.07	6.598		
8,700.00	7,068.78	7,031.78	7,068.78	58.66	243.76	-90.06	-548.51	-2,537.77	1,938.65	1,637.02	301.62	6.427		
8,800.00	7,068.49	7,031.49	7,068.49	61.02	243.75	-90.05	-548.51	-2,537.77	1,908.59	1,604.37	304.23	6.274		
8,900.00	7,068.21	7,031.21	7,068.21	63.42	243.74	-90.04	-548.51	-2,537.77	1,883.38	1,576.53	306.85	6.138		
9,000.00	7,067.92	7,030.92	7,067.92	65.85	243.73	-90.03	-548.51	-2,537.77	1,863.19	1,553.73	309.46	6.021		
9,100.00	7,067.64	7,030.64	7,067.64	68.32	243.72	-90.02	-548.51	-2,537.77	1,848.21	1,536.19	312.02	5.923		
9,200.00	7,067.35	7,030.35	7,067.35	70.81	243.71	-90.01	-548.51	-2,537.77	1,838.55	1,524.05	314.50	5.846		
9,300.00	7,067.07	7,030.07	7,067.07	73.34	243.70	-90.00	-548.51	-2,537.77	1,834.30	1,517.44	316.85	5.789		
9,328.09	7,066.99	7,029.99	7,066.99	74.05	243.69	-90.00	-548.51	-2,537.77	1,834.08	1,516.59	317.49	5.777 CC		
9,400.00	7,066.78	7,029.78	7,066.78	75.88	243.69	-89.99	-548.51	-2,537.77	1,835.49	1,516.43	319.06	5.753 ES		
9,500.00	7,066.50	7,029.50	7,066.50	78.45	243.68	-89.98	-548.51	-2,537.77	1,842.12	1,521.02	321.10	5.737 SF		
9,600.00	7,066.21	7,029.21	7,066.21	81.04	243.67	-89.98	-548.51	-2,537.77	1,854.13	1,531.18	322.95	5.741		
9,700.00	7,065.93	7,028.93	7,065.93	83.64	243.66	-89.97	-548.51	-2,537.77	1,871.41	1,546.81	324.59	5.765		
9,800.00	7,065.64	7,028.64	7,065.64	86.26	243.65	-89.96	-548.51	-2,537.77	1,893.82	1,567.79	326.03	5.809		
9,900.00	7,065.36	7,028.36	7,065.36	88.90	243.64	-89.95	-548.51	-2,537.77	1,921.18	1,593.92	327.26	5.871		
10,000.00	7,065.07	7,028.07	7,065.07	91.55	243.63	-89.94	-548.51	-2,537.77	1,953.28	1,625.00	328.28	5.950		
10,100.00	7,064.79	7,027.79	7,064.79	94.21	243.62	-89.93	-548.51	-2,537.77	1,989.90	1,660.79	329.11	6.046		
10,200.00	7,064.50	7,027.50	7,064.50	96.88	243.61	-89.92	-548.51	-2,537.77	2,030.78	1,701.02	329.76	6.158		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,064.22	7,027.22	7,064.22	99.57	243.60	-89.91	-548.51	-2,537.77	2,075.68	1,745.44	330.24	6.285		
10,400.00	7,063.94	7,026.94	7,063.94	102.26	243.59	-89.90	-548.51	-2,537.77	2,124.34	1,793.77	330.57	6.426		
10,500.00	7,063.65	7,026.65	7,063.65	104.96	243.58	-89.90	-548.51	-2,537.77	2,176.51	1,845.74	330.77	6.580		
10,600.00	7,063.37	7,026.37	7,063.37	107.67	243.57	-89.89	-548.51	-2,537.77	2,231.95	1,901.10	330.85	6.746		
10,700.00	7,063.08	7,026.08	7,063.08	110.39	243.56	-89.88	-548.51	-2,537.77	2,290.41	1,959.58	330.83	6.923		
10,800.00	7,062.80	7,025.80	7,062.80	113.11	243.55	-89.87	-548.51	-2,537.77	2,351.67	2,020.94	330.73	7.111		
10,900.00	7,062.51	7,025.51	7,062.51	115.84	243.54	-89.86	-548.51	-2,537.77	2,415.52	2,084.97	330.55	7.308		
11,000.00	7,062.23	7,025.23	7,062.23	118.58	243.53	-89.85	-548.51	-2,537.77	2,481.76	2,151.44	330.31	7.513		
11,100.00	7,061.94	7,024.94	7,061.94	121.32	243.52	-89.84	-548.51	-2,537.77	2,550.19	2,220.17	330.02	7.727		
11,200.00	7,061.66	7,024.66	7,061.66	124.07	243.51	-89.83	-548.51	-2,537.77	2,620.66	2,290.97	329.70	7.949		
11,300.00	7,061.37	7,024.37	7,061.37	126.82	243.50	-89.82	-548.51	-2,537.77	2,693.00	2,363.66	329.34	8.177		
11,400.00	7,061.09	7,024.09	7,061.09	129.58	243.49	-89.82	-548.51	-2,537.77	2,767.06	2,438.11	328.95	8.412		
11,500.00	7,060.80	7,023.80	7,060.80	132.34	243.48	-89.81	-548.51	-2,537.77	2,842.71	2,514.16	328.55	8.652		
11,600.00	7,060.52	7,023.52	7,060.52	135.10	243.47	-89.80	-548.51	-2,537.77	2,919.83	2,591.69	328.14	8.898		
11,700.00	7,060.23	7,023.23	7,060.23	137.87	243.46	-89.79	-548.51	-2,537.77	2,998.29	2,670.58	327.71	9.149		
11,800.00	7,059.95	7,022.95	7,059.95	140.64	243.45	-89.78	-548.51	-2,537.77	3,078.01	2,750.73	327.28	9.405		
11,900.00	7,059.66	7,022.66	7,059.66	143.42	243.44	-89.77	-548.51	-2,537.77	3,158.88	2,832.03	326.85	9.665		
12,000.00	7,059.38	7,022.38	7,059.38	146.20	243.43	-89.76	-548.51	-2,537.77	3,240.82	2,914.39	326.42	9.928		
12,100.00	7,059.09	7,022.09	7,059.09	148.98	243.42	-89.75	-548.51	-2,537.77	3,323.74	2,997.75	326.00	10.196		
12,200.00	7,058.81	7,021.81	7,058.81	151.77	243.41	-89.74	-548.51	-2,537.77	3,407.59	3,082.01	325.57	10.466		
12,300.00	7,058.52	7,021.52	7,058.52	154.55	243.40	-89.74	-548.51	-2,537.77	3,492.28	3,167.12	325.16	10.740		
12,400.00	7,058.24	7,021.24	7,058.24	157.34	243.39	-89.73	-548.51	-2,537.77	3,577.77	3,253.02	324.75	11.017		
12,500.00	7,057.96	7,020.96	7,057.96	160.14	243.38	-89.72	-548.51	-2,537.77	3,663.98	3,339.64	324.35	11.297		
12,600.00	7,057.67	7,020.67	7,057.67	162.93	243.37	-89.71	-548.51	-2,537.77	3,750.89	3,426.94	323.95	11.579		
12,700.00	7,057.39	7,020.39	7,057.39	165.73	243.36	-89.70	-548.51	-2,537.77	3,838.43	3,514.86	323.57	11.863		
12,800.00	7,057.10	7,020.10	7,057.10	168.53	243.35	-89.69	-548.51	-2,537.77	3,926.57	3,603.37	323.19	12.149		
12,900.00	7,056.82	7,019.82	7,056.82	171.33	243.34	-89.68	-548.51	-2,537.77	4,015.26	3,692.43	322.83	12.438		
13,000.00	7,056.53	7,019.53	7,056.53	174.13	243.33	-89.67	-548.51	-2,537.77	4,104.47	3,782.00	322.47	12.728		
13,100.00	7,056.25	7,019.25	7,056.25	176.94	243.32	-89.66	-548.51	-2,537.77	4,194.17	3,872.04	322.12	13.020		
13,200.00	7,055.96	7,018.96	7,055.96	179.74	243.31	-89.66	-548.51	-2,537.77	4,284.32	3,962.54	321.79	13.314		
13,300.00	7,055.68	7,018.68	7,055.68	182.55	243.30	-89.65	-548.51	-2,537.77	4,374.91	4,053.45	321.46	13.610		
13,400.00	7,055.39	7,018.39	7,055.39	185.36	243.29	-89.64	-548.51	-2,537.77	4,465.89	4,144.75	321.14	13.906		
13,500.00	7,055.11	7,018.11	7,055.11	188.17	243.28	-89.63	-548.51	-2,537.77	4,557.25	4,236.42	320.83	14.204		
13,600.00	7,054.82	7,017.82	7,054.82	190.98	243.27	-89.62	-548.51	-2,537.77	4,648.97	4,328.43	320.54	14.504		
13,700.00	7,054.54	7,017.54	7,054.54	193.80	243.26	-89.61	-548.51	-2,537.77	4,741.02	4,420.78	320.25	14.804		
13,800.00	7,054.25	7,017.25	7,054.25	196.61	243.25	-89.60	-548.51	-2,537.77	4,833.39	4,513.43	319.97	15.106		
13,900.00	7,053.97	7,016.97	7,053.97	199.43	243.24	-89.59	-548.51	-2,537.77	4,926.06	4,606.36	319.69	15.409		
14,000.00	7,053.68	7,016.68	7,053.68	202.25	243.23	-89.58	-548.51	-2,537.77	5,019.01	4,699.57	319.43	15.712		
14,100.00	7,053.40	7,016.40	7,053.40	205.06	243.22	-89.58	-548.51	-2,537.77	5,112.22	4,793.04	319.18	16.017		
14,200.00	7,053.11	7,016.11	7,053.11	207.88	243.21	-89.57	-548.51	-2,537.77	5,205.69	4,886.76	318.93	16.322		
14,300.00	7,052.83	7,015.83	7,052.83	210.70	243.20	-89.56	-548.51	-2,537.77	5,299.39	4,980.70	318.69	16.629		
14,400.00	7,052.54	7,015.54	7,052.54	213.53	243.19	-89.55	-548.51	-2,537.77	5,393.32	5,074.86	318.46	16.936		
14,500.00	7,052.26	7,015.26	7,052.26	216.35	243.18	-89.54	-548.51	-2,537.77	5,487.47	5,169.23	318.24	17.243		
14,600.00	7,051.98	7,014.98	7,051.98	219.17	243.17	-89.53	-548.51	-2,537.77	5,581.82	5,263.79	318.02	17.552		
14,700.00	7,051.69	7,014.69	7,051.69	222.00	243.16	-89.52	-548.51	-2,537.77	5,676.36	5,358.55	317.81	17.861		
14,800.00	7,051.41	7,014.41	7,051.41	224.82	243.15	-89.51	-548.51	-2,537.77	5,771.08	5,453.47	317.61	18.170		
14,900.00	7,051.12	7,014.12	7,051.12	227.65	243.14	-89.50	-548.51	-2,537.77	5,865.99	5,548.57	317.41	18.481		
14,942.37	7,051.00	7,014.00	7,051.00	228.85	243.14	-89.50	-548.51	-2,537.77	5,906.25	5,588.91	317.33	18.612		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	48.00	3.28	3.28	-109.69	-1,717.59	-4,799.30	5,097.62				
100.00	100.00	52.00	100.00	3.28	3.40	-109.69	-1,717.59	-4,799.30	5,097.39	5,090.70	6.69	762.170	
200.00	200.00	152.00	200.00	3.34	4.84	-109.69	-1,717.59	-4,799.30	5,097.39	5,089.21	8.18	623.283	
300.00	300.00	252.00	300.00	3.44	7.78	-109.69	-1,717.59	-4,799.30	5,097.39	5,086.17	11.22	454.223	
400.00	399.98	351.98	399.98	3.60	11.04	-102.40	-1,717.59	-4,799.30	5,097.77	5,083.12	14.64	348.121	
500.00	499.84	451.84	499.84	3.81	14.41	-102.44	-1,717.59	-4,799.30	5,098.89	5,080.68	18.21	279.977	
600.00	599.45	551.45	599.45	4.06	17.81	-102.49	-1,717.59	-4,799.30	5,100.78	5,078.92	21.86	233.376	
700.00	698.70	650.70	698.70	4.34	21.23	-102.58	-1,717.59	-4,799.30	5,103.44	5,077.90	25.55	199.770	
800.00	797.47	749.47	797.47	4.64	24.64	-102.68	-1,717.59	-4,799.30	5,106.91	5,077.64	29.26	174.507	
900.00	895.65	847.65	895.65	4.98	28.04	-102.82	-1,717.59	-4,799.30	5,111.16	5,078.16	33.00	154.887	
1,000.00	993.66	945.66	993.66	5.32	31.44	-103.03	-1,717.59	-4,799.30	5,115.69	5,078.93	36.76	139.175	
1,100.00	1,091.67	1,043.67	1,091.67	5.69	34.84	-103.25	-1,717.59	-4,799.30	5,120.29	5,079.75	40.54	126.308	
1,200.00	1,189.68	1,141.68	1,189.68	6.09	38.25	-103.46	-1,717.59	-4,799.30	5,124.96	5,080.62	44.34	115.591	
1,300.00	1,287.69	1,239.69	1,287.69	6.49	41.66	-103.67	-1,717.59	-4,799.30	5,129.71	5,081.56	48.15	106.535	
1,400.00	1,385.69	1,337.69	1,385.69	6.90	45.07	-103.88	-1,717.59	-4,799.30	5,134.53	5,082.55	51.98	98.786	
1,500.00	1,483.70	1,435.70	1,483.70	7.33	48.49	-104.09	-1,717.59	-4,799.30	5,139.42	5,083.61	55.81	92.085	
1,600.00	1,581.71	1,533.71	1,581.71	7.76	51.90	-104.30	-1,717.59	-4,799.30	5,144.38	5,084.72	59.66	86.235	
1,700.00	1,679.72	1,631.72	1,679.72	8.19	55.32	-104.51	-1,717.59	-4,799.30	5,149.41	5,085.91	63.51	81.086	
1,800.00	1,777.73	1,729.73	1,777.73	8.63	58.73	-104.72	-1,717.59	-4,799.30	5,154.52	5,087.16	67.36	76.519	
1,900.00	1,875.74	1,827.74	1,875.74	9.08	62.15	-104.93	-1,717.59	-4,799.30	5,159.70	5,088.47	71.22	72.444	
2,000.00	1,973.75	1,925.75	1,973.75	9.53	65.56	-105.14	-1,717.59	-4,799.30	5,164.95	5,089.86	75.09	68.784	
2,100.00	2,071.76	2,023.76	2,071.76	9.98	68.98	-105.35	-1,717.59	-4,799.30	5,170.27	5,091.31	78.96	65.481	
2,200.00	2,169.77	2,121.77	2,169.77	10.44	72.40	-105.56	-1,717.59	-4,799.30	5,175.66	5,092.83	82.83	62.485	
2,300.00	2,267.77	2,219.77	2,267.77	10.90	75.82	-105.77	-1,717.59	-4,799.30	5,181.12	5,094.41	86.71	59.756	
2,400.00	2,365.78	2,317.78	2,365.78	11.36	79.24	-105.97	-1,717.59	-4,799.30	5,186.65	5,096.07	90.58	57.259	
2,500.00	2,463.79	2,415.79	2,463.79	11.82	82.66	-106.18	-1,717.59	-4,799.30	5,192.25	5,097.79	94.46	54.967	
2,600.00	2,561.80	2,513.80	2,561.80	12.28	86.07	-106.39	-1,717.59	-4,799.30	5,197.92	5,099.58	98.34	52.855	
2,700.00	2,659.81	2,611.81	2,659.81	12.75	89.49	-106.59	-1,717.59	-4,799.30	5,203.66	5,101.44	102.23	50.903	
2,800.00	2,757.82	2,709.82	2,757.82	13.21	92.91	-106.80	-1,717.59	-4,799.30	5,209.47	5,103.36	106.11	49.095	
2,900.00	2,855.83	2,807.83	2,855.83	13.68	96.33	-107.00	-1,717.59	-4,799.30	5,215.35	5,105.35	110.00	47.414	
3,000.00	2,953.84	2,905.84	2,953.84	14.15	99.75	-107.21	-1,717.59	-4,799.30	5,221.30	5,107.42	113.88	45.848	
3,100.00	3,051.85	3,003.85	3,051.85	14.62	103.17	-107.41	-1,717.59	-4,799.30	5,227.32	5,109.54	117.77	44.385	
3,200.00	3,149.85	3,101.85	3,149.85	15.09	106.59	-107.61	-1,717.59	-4,799.30	5,233.40	5,111.74	121.66	43.017	
3,300.00	3,247.86	3,200.14	3,247.86	15.56	110.02	-107.82	-1,717.59	-4,799.30	5,239.55	5,113.99	125.56	41.730	
3,400.00	3,345.87	3,302.13	3,345.87	16.04	113.58	-108.02	-1,717.59	-4,799.30	5,245.77	5,116.19	129.59	40.480	
3,500.00	3,443.88	3,404.12	3,443.88	16.51	117.14	-108.22	-1,717.59	-4,799.30	5,252.06	5,118.44	133.62	39.306	
3,600.00	3,541.89	3,506.11	3,541.89	16.98	120.70	-108.42	-1,717.59	-4,799.30	5,258.42	5,120.77	137.65	38.202	
3,700.00	3,639.90	3,608.10	3,639.90	17.46	124.26	-108.63	-1,717.59	-4,799.30	5,264.84	5,123.16	141.68	37.160	
3,800.00	3,737.91	3,689.91	3,737.91	17.93	127.11	-108.83	-1,717.59	-4,799.30	5,271.33	5,126.33	145.01	36.352	
3,900.00	3,835.92	3,787.92	3,835.92	18.41	130.53	-109.03	-1,717.59	-4,799.30	5,277.89	5,128.99	148.90	35.446	
4,000.00	3,933.93	3,885.93	3,933.93	18.88	133.95	-109.23	-1,717.59	-4,799.30	5,284.51	5,131.72	152.79	34.586	
4,100.00	4,031.93	3,983.93	4,031.93	19.36	137.37	-109.43	-1,717.59	-4,799.30	5,291.20	5,134.52	156.69	33.769	
4,200.00	4,129.94	4,081.94	4,129.94	19.84	140.79	-109.63	-1,717.59	-4,799.30	5,297.96	5,137.38	160.58	32.992	
4,300.00	4,227.95	4,179.95	4,227.95	20.31	144.21	-109.82	-1,717.59	-4,799.30	5,304.78	5,140.30	164.48	32.252	
4,400.00	4,325.96	4,277.96	4,325.96	20.79	147.63	-110.02	-1,717.59	-4,799.30	5,311.67	5,143.30	168.37	31.547	
4,500.00	4,423.97	4,375.97	4,423.97	21.27	151.06	-110.22	-1,717.59	-4,799.30	5,318.62	5,146.35	172.27	30.874	
4,600.00	4,521.98	4,473.98	4,521.98	21.75	154.48	-110.42	-1,717.59	-4,799.30	5,325.64	5,149.47	176.16	30.231	
4,700.00	4,619.99	4,571.99	4,619.99	22.23	157.90	-110.61	-1,717.59	-4,799.30	5,332.72	5,152.66	180.06	29.617	
4,800.00	4,718.00	4,670.00	4,718.00	22.70	161.32	-110.81	-1,717.59	-4,799.30	5,339.87	5,155.91	183.95	29.028	
4,900.00	4,816.01	4,768.01	4,816.01	23.18	164.74	-111.00	-1,717.59	-4,799.30	5,347.08	5,159.23	187.85	28.465	
5,000.00	4,914.01	4,866.01	4,914.01	23.66	168.16	-111.20	-1,717.59	-4,799.30	5,354.35	5,162.60	191.75	27.924	
5,100.00	5,012.02	4,964.02	5,012.02	24.14	171.58	-111.39	-1,717.59	-4,799.30	5,361.69	5,166.05	195.64	27.405	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,062.03	5,110.03	24.62	175.00	-111.59	-1,717.59	-4,799.30	5,369.09	5,169.55	199.54	26.907		
5,300.00	5,208.04	5,160.04	5,208.04	25.10	178.42	-111.78	-1,717.59	-4,799.30	5,376.55	5,173.12	203.44	26.429		
5,400.00	5,306.05	5,258.05	5,306.05	25.58	181.84	-111.97	-1,717.59	-4,799.30	5,384.08	5,176.75	207.33	25.968		
5,500.00	5,404.06	5,356.06	5,404.06	26.06	185.26	-112.17	-1,717.59	-4,799.30	5,391.67	5,180.44	211.23	25.525		
5,600.00	5,502.07	5,454.07	5,502.07	26.54	188.68	-112.36	-1,717.59	-4,799.30	5,399.32	5,184.20	215.13	25.098		
5,700.00	5,600.08	5,552.08	5,600.08	27.02	192.11	-112.55	-1,717.59	-4,799.30	5,407.04	5,188.02	219.02	24.687		
5,800.00	5,698.09	5,650.09	5,698.09	27.50	195.53	-112.74	-1,717.59	-4,799.30	5,414.82	5,191.90	222.92	24.290		
5,900.00	5,796.09	5,748.09	5,796.09	27.98	198.95	-112.93	-1,717.59	-4,799.30	5,422.65	5,195.84	226.82	23.908		
6,000.00	5,894.10	5,846.10	5,894.10	28.46	202.37	-113.12	-1,717.59	-4,799.30	5,430.55	5,199.84	230.71	23.538		
6,100.00	5,992.11	5,944.11	5,992.11	28.94	205.79	-113.31	-1,717.59	-4,799.30	5,438.51	5,203.90	234.61	23.181		
6,200.00	6,090.12	6,042.12	6,090.12	29.42	209.21	-113.50	-1,717.59	-4,799.30	5,446.53	5,208.02	238.51	22.836		
6,300.00	6,188.13	6,140.13	6,188.13	29.90	212.63	-113.69	-1,717.59	-4,799.30	5,454.62	5,212.21	242.41	22.502		
6,400.00	6,286.14	6,238.14	6,286.14	30.38	216.05	-113.87	-1,717.59	-4,799.30	5,462.76	5,216.45	246.30	22.179		
6,500.00	6,384.15	6,336.15	6,384.15	30.87	219.47	-114.06	-1,717.59	-4,799.30	5,470.96	5,220.76	250.20	21.866		
6,600.00	6,482.15	6,434.15	6,482.15	31.35	222.90	-105.68	-1,717.59	-4,799.30	5,478.96	5,224.86	254.10	21.562		
6,700.00	6,579.21	6,531.21	6,579.21	31.83	226.28	-74.95	-1,717.59	-4,799.30	5,477.91	5,219.94	257.97	21.235		
6,800.00	6,673.04	6,625.04	6,673.04	32.30	229.56	-61.38	-1,717.59	-4,799.30	5,463.64	5,201.92	261.72	20.876		
6,900.00	6,761.33	6,713.33	6,761.33	32.74	232.64	-55.83	-1,717.59	-4,799.30	5,436.62	5,171.35	265.27	20.494		
7,000.00	6,841.90	6,806.10	6,841.90	33.17	235.88	-54.33	-1,717.59	-4,799.30	5,397.65	5,128.67	268.98	20.067		
7,100.00	6,912.77	6,864.77	6,912.77	33.60	237.93	-55.49	-1,717.59	-4,799.30	5,347.85	5,076.34	271.51	19.697		
7,200.00	6,972.19	6,924.19	6,972.19	34.09	240.00	-58.90	-1,717.59	-4,799.30	5,288.56	5,014.46	274.09	19.295		
7,300.00	7,018.70	6,970.70	7,018.70	34.73	241.62	-64.52	-1,717.59	-4,799.30	5,221.36	4,945.10	276.26	18.900		
7,400.00	7,051.15	7,003.15	7,051.15	35.55	242.76	-72.42	-1,717.59	-4,799.30	5,148.00	4,870.00	277.99	18.518		
7,500.00	7,068.75	7,020.75	7,068.75	36.56	243.37	-82.51	-1,717.59	-4,799.30	5,070.33	4,791.07	279.26	18.156		
7,600.00	7,071.91	7,023.91	7,071.91	37.71	243.48	-90.22	-1,717.59	-4,799.30	4,990.35	4,710.28	280.07	17.818		
7,700.00	7,071.62	7,023.62	7,071.62	39.03	243.47	-90.21	-1,717.59	-4,799.30	4,910.60	4,629.75	280.84	17.485		
7,800.00	7,071.34	7,023.34	7,071.34	40.51	243.46	-90.21	-1,717.59	-4,799.30	4,831.59	4,549.87	281.72	17.150		
7,900.00	7,071.05	7,023.05	7,071.05	42.14	243.45	-90.20	-1,717.59	-4,799.30	4,753.38	4,470.68	282.70	16.814		
8,000.00	7,070.77	7,022.77	7,070.77	43.89	243.44	-90.20	-1,717.59	-4,799.30	4,676.00	4,392.21	283.79	16.477		
8,100.00	7,070.48	7,022.48	7,070.48	45.76	243.43	-90.19	-1,717.59	-4,799.30	4,599.49	4,314.51	284.98	16.140		
8,200.00	7,070.20	7,022.20	7,070.20	47.72	243.42	-90.19	-1,717.59	-4,799.30	4,523.89	4,237.61	286.29	15.802		
8,300.00	7,069.92	7,021.92	7,069.92	49.78	243.41	-90.18	-1,717.59	-4,799.30	4,449.27	4,161.56	287.70	15.465		
8,400.00	7,069.63	7,021.63	7,069.63	51.90	243.40	-90.17	-1,717.59	-4,799.30	4,375.65	4,086.42	289.23	15.129		
8,500.00	7,069.35	7,021.35	7,069.35	54.10	243.39	-90.17	-1,717.59	-4,799.30	4,303.10	4,012.23	290.87	14.794		
8,600.00	7,069.06	7,021.06	7,069.06	56.36	243.38	-90.16	-1,717.59	-4,799.30	4,231.66	3,939.04	292.62	14.461		
8,700.00	7,068.78	7,020.78	7,068.78	58.66	243.37	-90.16	-1,717.59	-4,799.30	4,161.41	3,866.93	294.48	14.131		
8,800.00	7,068.49	7,020.49	7,068.49	61.02	243.36	-90.15	-1,717.59	-4,799.30	4,092.39	3,795.94	296.45	13.805		
8,900.00	7,068.21	7,020.21	7,068.21	63.42	243.35	-90.15	-1,717.59	-4,799.30	4,024.67	3,726.14	298.53	13.482		
9,000.00	7,067.92	7,019.92	7,067.92	65.85	243.34	-90.14	-1,717.59	-4,799.30	3,958.32	3,657.60	300.72	13.163		
9,100.00	7,067.64	7,019.64	7,067.64	68.32	243.33	-90.14	-1,717.59	-4,799.30	3,893.41	3,590.39	303.02	12.849		
9,200.00	7,067.35	7,019.35	7,067.35	70.81	243.32	-90.13	-1,717.59	-4,799.30	3,830.01	3,524.59	305.42	12.540		
9,300.00	7,067.07	7,019.07	7,067.07	73.34	243.31	-90.13	-1,717.59	-4,799.30	3,768.19	3,460.28	307.92	12.238		
9,400.00	7,066.78	7,018.78	7,066.78	75.88	243.30	-90.12	-1,717.59	-4,799.30	3,708.05	3,397.53	310.52	11.941		
9,500.00	7,066.50	7,018.50	7,066.50	78.45	243.29	-90.11	-1,717.59	-4,799.30	3,649.65	3,336.44	313.22	11.652		
9,600.00	7,066.21	7,018.21	7,066.21	81.04	243.28	-90.11	-1,717.59	-4,799.30	3,593.09	3,277.08	316.00	11.370		
9,700.00	7,065.93	7,017.93	7,065.93	83.64	243.27	-90.10	-1,717.59	-4,799.30	3,538.45	3,219.57	318.88	11.096		
9,800.00	7,065.64	7,017.64	7,065.64	86.26	243.26	-90.10	-1,717.59	-4,799.30	3,485.82	3,163.98	321.84	10.831		
9,900.00	7,065.36	7,017.36	7,065.36	88.90	243.25	-90.09	-1,717.59	-4,799.30	3,435.30	3,110.43	324.87	10.574		
10,000.00	7,065.07	7,017.07	7,065.07	91.55	243.24	-90.09	-1,717.59	-4,799.30	3,386.98	3,059.00	327.97	10.327		
10,100.00	7,064.79	7,016.79	7,064.79	94.21	243.23	-90.08	-1,717.59	-4,799.30	3,340.95	3,009.81	331.14	10.089		
10,200.00	7,064.50	7,016.50	7,064.50	96.88	243.22	-90.08	-1,717.59	-4,799.30	3,297.31	2,962.96	334.35	9.862		
10,300.00	7,064.22	7,016.22	7,064.22	99.57	243.21	-90.07	-1,717.59	-4,799.30	3,256.16	2,918.56	337.61	9.645		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	7,015.94	7,063.94	102.26	243.20	-90.07	-1,717.59	-4,799.30	3,217.60	2,876.70	340.90	9.439		
10,500.00	7,063.65	7,015.65	7,063.65	104.96	243.19	-90.06	-1,717.59	-4,799.30	3,181.71	2,837.50	344.20	9.244		
10,600.00	7,063.37	7,015.37	7,063.37	107.67	243.18	-90.05	-1,717.59	-4,799.30	3,148.59	2,801.07	347.52	9.060		
10,700.00	7,063.08	7,015.08	7,063.08	110.39	243.17	-90.05	-1,717.59	-4,799.30	3,118.32	2,767.49	350.83	8.888		
10,800.00	7,062.80	7,014.80	7,062.80	113.11	243.16	-90.04	-1,717.59	-4,799.30	3,091.00	2,736.88	354.12	8.729		
10,900.00	7,062.51	7,014.51	7,062.51	115.84	243.15	-90.04	-1,717.59	-4,799.30	3,066.69	2,709.31	357.38	8.581		
11,000.00	7,062.23	7,014.23	7,062.23	118.58	243.14	-90.03	-1,717.59	-4,799.30	3,045.48	2,684.89	360.59	8.446		
11,100.00	7,061.94	7,013.94	7,061.94	121.32	243.13	-90.03	-1,717.59	-4,799.30	3,027.42	2,663.68	363.74	8.323		
11,200.00	7,061.66	7,013.66	7,061.66	124.07	243.12	-90.02	-1,717.59	-4,799.30	3,012.57	2,645.76	366.81	8.213		
11,300.00	7,061.37	7,013.37	7,061.37	126.82	243.11	-90.02	-1,717.59	-4,799.30	3,000.98	2,631.20	369.79	8.115		
11,400.00	7,061.09	7,013.09	7,061.09	129.58	243.10	-90.01	-1,717.59	-4,799.30	2,992.70	2,620.04	372.66	8.031		
11,500.00	7,060.80	7,012.80	7,060.80	132.34	243.09	-90.01	-1,717.59	-4,799.30	2,987.74	2,612.32	375.42	7.958		
11,598.36	7,060.52	7,012.52	7,060.52	135.06	243.08	-90.00	-1,717.59	-4,799.30	2,986.12	2,608.11	378.01	7.900 CC		
11,600.00	7,060.52	7,012.52	7,060.52	135.10	243.08	-90.00	-1,717.59	-4,799.30	2,986.12	2,608.07	378.05	7.899		
11,700.00	7,060.23	7,012.23	7,060.23	137.87	243.07	-89.99	-1,717.59	-4,799.30	2,987.85	2,607.31	380.54	7.852 ES		
11,800.00	7,059.95	7,011.95	7,059.95	140.64	243.06	-89.99	-1,717.59	-4,799.30	2,992.92	2,610.03	382.89	7.817		
11,900.00	7,059.66	7,011.66	7,059.66	143.42	243.05	-89.98	-1,717.59	-4,799.30	3,001.31	2,616.24	385.08	7.794		
12,000.00	7,059.38	7,011.38	7,059.38	146.20	243.04	-89.98	-1,717.59	-4,799.30	3,013.01	2,625.90	387.11	7.783 SF		
12,100.00	7,059.09	7,011.09	7,059.09	148.98	243.03	-89.97	-1,717.59	-4,799.30	3,027.96	2,638.98	388.98	7.784		
12,200.00	7,058.81	7,010.81	7,058.81	151.77	243.02	-89.97	-1,717.59	-4,799.30	3,046.12	2,655.43	390.69	7.797		
12,300.00	7,058.52	7,010.52	7,058.52	154.55	243.01	-89.96	-1,717.59	-4,799.30	3,067.44	2,675.21	392.23	7.820		
12,400.00	7,058.24	7,010.24	7,058.24	157.34	243.00	-89.96	-1,717.59	-4,799.30	3,091.85	2,698.24	393.61	7.855		
12,500.00	7,057.96	7,009.96	7,057.96	160.14	242.99	-89.95	-1,717.59	-4,799.30	3,119.27	2,724.44	394.83	7.900		
12,600.00	7,057.67	7,009.67	7,057.67	162.93	242.98	-89.95	-1,717.59	-4,799.30	3,149.63	2,753.74	395.90	7.956		
12,700.00	7,057.39	7,009.39	7,057.39	165.73	242.97	-89.94	-1,717.59	-4,799.30	3,182.84	2,786.04	396.81	8.021		
12,800.00	7,057.10	7,009.10	7,057.10	168.53	242.96	-89.93	-1,717.59	-4,799.30	3,218.82	2,821.25	397.58	8.096		
12,900.00	7,056.82	7,008.82	7,056.82	171.33	242.95	-89.93	-1,717.59	-4,799.30	3,257.48	2,859.27	398.21	8.180		
13,000.00	7,056.53	7,008.53	7,056.53	174.13	242.94	-89.92	-1,717.59	-4,799.30	3,298.71	2,900.00	398.71	8.273		
13,100.00	7,056.25	7,008.25	7,056.25	176.94	242.94	-89.92	-1,717.59	-4,799.30	3,342.42	2,943.33	399.09	8.375		
13,200.00	7,055.96	7,007.96	7,055.96	179.74	242.93	-89.91	-1,717.59	-4,799.30	3,388.53	2,989.17	399.36	8.485		
13,300.00	7,055.68	7,007.68	7,055.68	182.55	242.92	-89.91	-1,717.59	-4,799.30	3,436.93	3,037.41	399.52	8.603		
13,400.00	7,055.39	7,007.39	7,055.39	185.36	242.91	-89.90	-1,717.59	-4,799.30	3,487.52	3,087.94	399.58	8.728		
13,500.00	7,055.11	7,007.11	7,055.11	188.17	242.90	-89.90	-1,717.59	-4,799.30	3,540.21	3,140.66	399.55	8.861		
13,600.00	7,054.82	7,006.82	7,054.82	190.98	242.89	-89.89	-1,717.59	-4,799.30	3,594.92	3,195.48	399.44	9.000		
13,700.00	7,054.54	7,006.54	7,054.54	193.80	242.88	-89.89	-1,717.59	-4,799.30	3,651.54	3,252.29	399.26	9.146		
13,800.00	7,054.25	7,006.25	7,054.25	196.61	242.87	-89.88	-1,717.59	-4,799.30	3,710.00	3,310.99	399.01	9.298		
13,900.00	7,053.97	7,005.97	7,053.97	199.43	242.86	-89.87	-1,717.59	-4,799.30	3,770.20	3,371.51	398.69	9.456		
14,000.00	7,053.68	7,005.68	7,053.68	202.25	242.85	-89.87	-1,717.59	-4,799.30	3,832.07	3,433.74	398.33	9.620		
14,100.00	7,053.40	7,005.40	7,053.40	205.06	242.84	-89.86	-1,717.59	-4,799.30	3,895.52	3,497.60	397.92	9.790		
14,200.00	7,053.11	7,005.11	7,053.11	207.88	242.83	-89.86	-1,717.59	-4,799.30	3,960.48	3,563.01	397.46	9.964		
14,300.00	7,052.83	7,004.83	7,052.83	210.70	242.82	-89.85	-1,717.59	-4,799.30	4,026.87	3,629.90	396.97	10.144		
14,400.00	7,052.54	7,004.54	7,052.54	213.53	242.81	-89.85	-1,717.59	-4,799.30	4,094.63	3,698.18	396.45	10.328		
14,500.00	7,052.26	7,004.26	7,052.26	216.35	242.80	-89.84	-1,717.59	-4,799.30	4,163.70	3,767.79	395.90	10.517		
14,600.00	7,051.98	7,003.98	7,051.98	219.17	242.79	-89.84	-1,717.59	-4,799.30	4,233.99	3,838.66	395.33	10.710		
14,700.00	7,051.69	7,003.69	7,051.69	222.00	242.78	-89.83	-1,717.59	-4,799.30	4,305.46	3,910.72	394.74	10.907		
14,800.00	7,051.41	7,003.41	7,051.41	224.82	242.77	-89.83	-1,717.59	-4,799.30	4,378.05	3,983.92	394.13	11.108		
14,900.00	7,051.12	7,003.12	7,051.12	227.65	242.76	-89.82	-1,717.59	-4,799.30	4,451.70	4,058.20	393.51	11.313		
14,942.37	7,051.00	7,003.00	7,051.00	228.85	242.75	-89.82	-1,717.59	-4,799.30	4,483.22	4,089.98	393.24	11.401		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	51.00	3.28	3.28	-123.81	-3,218.53	-4,805.15	5,783.69					
100.00	100.00	49.00	100.00	3.28	3.39	-123.81	-3,218.53	-4,805.15	5,783.46	5,776.79	6.67	866.513		
200.00	200.00	149.00	200.00	3.34	4.76	-123.81	-3,218.53	-4,805.15	5,783.46	5,775.36	8.10	713.850		
300.00	300.00	249.00	300.00	3.44	7.68	-123.81	-3,218.53	-4,805.15	5,783.46	5,772.33	11.13	519.750		
400.00	399.98	348.98	399.98	3.60	10.94	-116.51	-3,218.53	-4,805.15	5,784.24	5,769.70	14.54	397.710		
500.00	499.84	448.84	499.84	3.81	14.30	-116.52	-3,218.53	-4,805.15	5,786.58	5,768.47	18.11	319.510		
600.00	599.45	548.45	599.45	4.06	17.71	-116.53	-3,218.53	-4,805.15	5,790.48	5,768.73	21.76	266.161		
700.00	698.70	647.70	698.70	4.34	21.12	-116.53	-3,218.53	-4,805.15	5,795.96	5,770.51	25.45	227.773		
800.00	797.47	746.47	797.47	4.64	24.53	-116.54	-3,218.53	-4,805.15	5,803.02	5,773.85	29.16	198.973		
900.00	895.65	844.65	895.65	4.98	27.93	-116.60	-3,218.53	-4,805.15	5,811.62	5,778.72	32.90	176.645		
1,000.00	993.66	942.66	993.66	5.32	31.33	-116.77	-3,218.53	-4,805.15	5,820.68	5,784.02	36.66	158.793		
1,100.00	1,091.67	1,040.67	1,091.67	5.69	34.74	-116.94	-3,218.53	-4,805.15	5,829.79	5,789.36	40.43	144.179		
1,200.00	1,189.68	1,138.68	1,189.68	6.09	38.15	-117.11	-3,218.53	-4,805.15	5,838.96	5,794.73	44.23	132.011		
1,300.00	1,287.69	1,236.69	1,287.69	6.49	41.56	-117.28	-3,218.53	-4,805.15	5,848.18	5,800.14	48.04	121.731		
1,400.00	1,385.69	1,334.69	1,385.69	6.90	44.97	-117.45	-3,218.53	-4,805.15	5,857.45	5,805.59	51.86	112.937		
1,500.00	1,483.70	1,432.70	1,483.70	7.33	48.38	-117.62	-3,218.53	-4,805.15	5,866.78	5,811.08	55.70	105.333		
1,600.00	1,581.71	1,530.71	1,581.71	7.76	51.80	-117.79	-3,218.53	-4,805.15	5,876.16	5,816.62	59.54	98.696		
1,700.00	1,679.72	1,628.72	1,679.72	8.19	55.21	-117.96	-3,218.53	-4,805.15	5,885.59	5,822.20	63.39	92.854		
1,800.00	1,777.73	1,726.73	1,777.73	8.63	58.63	-118.13	-3,218.53	-4,805.15	5,895.07	5,827.83	67.24	87.674		
1,900.00	1,875.74	1,824.74	1,875.74	9.08	62.04	-118.30	-3,218.53	-4,805.15	5,904.61	5,833.51	71.10	83.050		
2,000.00	1,973.75	1,922.75	1,973.75	9.53	65.46	-118.46	-3,218.53	-4,805.15	5,914.19	5,839.23	74.96	78.899		
2,100.00	2,071.76	2,020.76	2,071.76	9.98	68.88	-118.63	-3,218.53	-4,805.15	5,923.83	5,845.00	78.83	75.151		
2,200.00	2,169.77	2,118.77	2,169.77	10.44	72.30	-118.79	-3,218.53	-4,805.15	5,933.51	5,850.82	82.69	71.752		
2,300.00	2,267.77	2,216.77	2,267.77	10.90	75.71	-118.96	-3,218.53	-4,805.15	5,943.25	5,856.68	86.57	68.656		
2,400.00	2,365.78	2,314.78	2,365.78	11.36	79.13	-119.12	-3,218.53	-4,805.15	5,953.04	5,862.60	90.44	65.823		
2,500.00	2,463.79	2,412.79	2,463.79	11.82	82.55	-119.29	-3,218.53	-4,805.15	5,962.88	5,868.56	94.32	63.222		
2,600.00	2,561.80	2,510.80	2,561.80	12.28	85.97	-119.45	-3,218.53	-4,805.15	5,972.76	5,874.57	98.19	60.826		
2,700.00	2,659.81	2,608.81	2,659.81	12.75	89.39	-119.62	-3,218.53	-4,805.15	5,982.70	5,880.63	102.07	58.612		
2,800.00	2,757.82	2,706.82	2,757.82	13.21	92.81	-119.78	-3,218.53	-4,805.15	5,992.69	5,886.73	105.95	56.559		
2,900.00	2,855.83	2,804.83	2,855.83	13.68	96.23	-119.94	-3,218.53	-4,805.15	6,002.72	5,892.89	109.84	54.651		
3,000.00	2,953.84	2,902.84	2,953.84	14.15	99.65	-120.10	-3,218.53	-4,805.15	6,012.81	5,899.09	113.72	52.874		
3,100.00	3,051.85	3,000.85	3,051.85	14.62	103.07	-120.26	-3,218.53	-4,805.15	6,022.94	5,905.33	117.60	51.213		
3,200.00	3,149.85	3,101.15	3,149.85	15.09	106.57	-120.42	-3,218.53	-4,805.15	6,033.12	5,911.55	121.57	49.627		
3,300.00	3,247.86	3,203.14	3,247.86	15.56	110.13	-120.58	-3,218.53	-4,805.15	6,043.35	5,917.75	125.60	48.118		
3,400.00	3,345.87	3,305.13	3,345.87	16.04	113.68	-120.74	-3,218.53	-4,805.15	6,053.63	5,924.01	129.62	46.703		
3,500.00	3,443.88	3,407.12	3,443.88	16.51	117.24	-120.90	-3,218.53	-4,805.15	6,063.95	5,930.30	133.65	45.373		
3,600.00	3,541.89	3,509.11	3,541.89	16.98	120.80	-121.06	-3,218.53	-4,805.15	6,074.32	5,936.65	137.67	44.121		
3,700.00	3,639.90	3,588.90	3,639.90	17.46	123.59	-121.22	-3,218.53	-4,805.15	6,084.74	5,943.82	140.93	43.176		
3,800.00	3,737.91	3,686.91	3,737.91	17.93	127.01	-121.37	-3,218.53	-4,805.15	6,095.21	5,950.39	144.82	42.089		
3,900.00	3,835.92	3,784.92	3,835.92	18.41	130.43	-121.53	-3,218.53	-4,805.15	6,105.72	5,957.02	148.71	41.059		
4,000.00	3,933.93	3,882.93	3,933.93	18.88	133.85	-121.69	-3,218.53	-4,805.15	6,116.28	5,963.68	152.60	40.081		
4,100.00	4,031.93	3,980.93	4,031.93	19.36	137.27	-121.84	-3,218.53	-4,805.15	6,126.89	5,970.40	156.49	39.153		
4,200.00	4,129.94	4,078.94	4,129.94	19.84	140.69	-122.00	-3,218.53	-4,805.15	6,137.54	5,977.16	160.38	38.269		
4,300.00	4,227.95	4,176.95	4,227.95	20.31	144.11	-122.15	-3,218.53	-4,805.15	6,148.23	5,983.97	164.27	37.428		
4,400.00	4,325.96	4,274.96	4,325.96	20.79	147.53	-122.31	-3,218.53	-4,805.15	6,158.98	5,990.82	168.16	36.626		
4,500.00	4,423.97	4,372.97	4,423.97	21.27	150.95	-122.46	-3,218.53	-4,805.15	6,169.76	5,997.71	172.05	35.860		
4,600.00	4,521.98	4,470.98	4,521.98	21.75	154.37	-122.61	-3,218.53	-4,805.15	6,180.60	6,004.65	175.94	35.128		
4,700.00	4,619.99	4,568.99	4,619.99	22.23	157.79	-122.77	-3,218.53	-4,805.15	6,191.47	6,011.64	179.84	34.428		
4,800.00	4,718.00	4,667.00	4,718.00	22.70	161.21	-122.92	-3,218.53	-4,805.15	6,202.39	6,018.67	183.73	33.759		
4,900.00	4,816.01	4,765.01	4,816.01	23.18	164.63	-123.07	-3,218.53	-4,805.15	6,213.36	6,025.74	187.62	33.117		
5,000.00	4,914.01	4,863.01	4,914.01	23.66	168.05	-123.22	-3,218.53	-4,805.15	6,224.37	6,032.86	191.51	32.501		
5,100.00	5,012.02	4,961.02	5,012.02	24.14	171.48	-123.37	-3,218.53	-4,805.15	6,235.42	6,040.02	195.41	31.910		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,059.03	5,110.03	24.62	174.90	-123.52	-3,218.53	-4,805.15	6,246.52	6,047.22	199.30	31.342		
5,300.00	5,208.04	5,157.04	5,208.04	25.10	178.32	-123.67	-3,218.53	-4,805.15	6,257.66	6,054.47	203.19	30.797		
5,400.00	5,306.05	5,255.05	5,306.05	25.58	181.74	-123.82	-3,218.53	-4,805.15	6,268.85	6,061.76	207.09	30.272		
5,500.00	5,404.06	5,353.06	5,404.06	26.06	185.16	-123.97	-3,218.53	-4,805.15	6,280.07	6,069.09	210.98	29.766		
5,600.00	5,502.07	5,451.07	5,502.07	26.54	188.58	-124.12	-3,218.53	-4,805.15	6,291.34	6,076.47	214.87	29.280		
5,700.00	5,600.08	5,549.08	5,600.08	27.02	192.00	-124.26	-3,218.53	-4,805.15	6,302.65	6,083.89	218.77	28.810		
5,800.00	5,698.09	5,647.09	5,698.09	27.50	195.42	-124.41	-3,218.53	-4,805.15	6,314.01	6,091.35	222.66	28.357		
5,900.00	5,796.09	5,745.09	5,796.09	27.98	198.84	-124.56	-3,218.53	-4,805.15	6,325.40	6,098.85	226.55	27.920		
6,000.00	5,894.10	5,843.10	5,894.10	28.46	202.26	-124.70	-3,218.53	-4,805.15	6,336.84	6,106.39	230.45	27.498		
6,100.00	5,992.11	5,941.11	5,992.11	28.94	205.69	-124.85	-3,218.53	-4,805.15	6,348.32	6,113.98	234.34	27.090		
6,200.00	6,090.12	6,039.12	6,090.12	29.42	209.11	-124.99	-3,218.53	-4,805.15	6,359.84	6,121.61	238.23	26.696		
6,300.00	6,188.13	6,137.13	6,188.13	29.90	212.53	-125.14	-3,218.53	-4,805.15	6,371.40	6,129.27	242.13	26.314		
6,400.00	6,286.14	6,235.14	6,286.14	30.38	215.95	-125.28	-3,218.53	-4,805.15	6,383.00	6,136.98	246.02	25.945		
6,500.00	6,384.15	6,333.15	6,384.15	30.87	219.37	-125.43	-3,218.53	-4,805.15	6,394.65	6,144.73	249.91	25.587		
6,600.00	6,482.15	6,431.15	6,482.15	31.35	222.79	-116.94	-3,218.53	-4,805.15	6,406.10	6,152.29	253.81	25.240		
6,700.00	6,579.21	6,528.21	6,579.21	31.83	226.18	-85.90	-3,218.53	-4,805.15	6,409.75	6,152.07	257.68	24.875		
6,800.00	6,673.04	6,622.04	6,673.04	32.30	229.45	-72.09	-3,218.53	-4,805.15	6,401.91	6,140.47	261.43	24.488		
6,900.00	6,761.33	6,710.33	6,761.33	32.74	232.54	-66.33	-3,218.53	-4,805.15	6,382.93	6,117.93	265.00	24.087		
7,000.00	6,841.90	6,809.10	6,841.90	33.17	235.98	-64.58	-3,218.53	-4,805.15	6,353.46	6,084.52	268.94	23.624		
7,100.00	6,912.77	6,861.77	6,912.77	33.60	237.82	-65.32	-3,218.53	-4,805.15	6,314.41	6,043.10	271.30	23.274		
7,200.00	6,972.19	6,921.19	6,972.19	34.09	239.90	-67.98	-3,218.53	-4,805.15	6,266.93	5,992.97	273.96	22.875		
7,300.00	7,018.70	6,967.70	7,018.70	34.73	241.52	-72.27	-3,218.53	-4,805.15	6,212.36	5,936.11	276.24	22.489		
7,400.00	7,051.15	7,000.15	7,051.15	35.55	242.65	-78.01	-3,218.53	-4,805.15	6,152.17	5,874.04	278.13	22.120		
7,500.00	7,068.75	7,017.75	7,068.75	36.56	243.27	-84.97	-3,218.53	-4,805.15	6,087.93	5,808.35	279.58	21.775		
7,600.00	7,071.91	7,020.91	7,071.91	37.71	243.38	-90.15	-3,218.53	-4,805.15	6,021.38	5,740.77	280.61	21.458		
7,700.00	7,071.62	7,020.62	7,071.62	39.03	243.37	-90.14	-3,218.53	-4,805.15	5,955.16	5,673.53	281.63	21.146		
7,800.00	7,071.34	7,020.34	7,071.34	40.51	243.36	-90.14	-3,218.53	-4,805.15	5,889.89	5,607.12	282.77	20.829		
7,900.00	7,071.05	7,020.05	7,071.05	42.14	243.35	-90.14	-3,218.53	-4,805.15	5,825.61	5,541.57	284.03	20.510		
8,000.00	7,070.77	7,019.77	7,070.77	43.89	243.34	-90.13	-3,218.53	-4,805.15	5,762.34	5,476.93	285.42	20.189		
8,100.00	7,070.48	7,019.48	7,070.48	45.76	243.33	-90.13	-3,218.53	-4,805.15	5,700.13	5,413.21	286.92	19.867		
8,200.00	7,070.20	7,019.20	7,070.20	47.72	243.32	-90.12	-3,218.53	-4,805.15	5,639.01	5,350.48	288.53	19.544		
8,300.00	7,069.92	7,018.92	7,069.92	49.78	243.31	-90.12	-3,218.53	-4,805.15	5,579.01	5,288.76	290.25	19.222		
8,400.00	7,069.63	7,018.63	7,069.63	51.90	243.30	-90.12	-3,218.53	-4,805.15	5,520.17	5,228.10	292.07	18.900		
8,500.00	7,069.35	7,018.35	7,069.35	54.10	243.29	-90.11	-3,218.53	-4,805.15	5,462.52	5,168.53	293.99	18.581		
8,600.00	7,069.06	7,018.06	7,069.06	56.36	243.28	-90.11	-3,218.53	-4,805.15	5,406.11	5,110.11	296.00	18.264		
8,700.00	7,068.78	7,017.78	7,068.78	58.66	243.27	-90.11	-3,218.53	-4,805.15	5,350.98	5,052.87	298.11	17.950		
8,800.00	7,068.49	7,017.49	7,068.49	61.02	243.26	-90.10	-3,218.53	-4,805.15	5,297.15	4,996.85	300.30	17.640		
8,900.00	7,068.21	7,017.21	7,068.21	63.42	243.25	-90.10	-3,218.53	-4,805.15	5,244.69	4,942.11	302.57	17.334		
9,000.00	7,067.92	7,016.92	7,067.92	65.85	243.24	-90.10	-3,218.53	-4,805.15	5,193.62	4,888.69	304.92	17.033		
9,100.00	7,067.64	7,016.64	7,067.64	68.32	243.23	-90.09	-3,218.53	-4,805.15	5,143.98	4,836.64	307.35	16.737		
9,200.00	7,067.35	7,016.35	7,067.35	70.81	243.22	-90.09	-3,218.53	-4,805.15	5,095.83	4,785.99	309.84	16.447		
9,300.00	7,067.07	7,016.07	7,067.07	73.34	243.21	-90.08	-3,218.53	-4,805.15	5,049.19	4,736.80	312.40	16.163		
9,400.00	7,066.78	7,015.78	7,066.78	75.88	243.20	-90.08	-3,218.53	-4,805.15	5,004.13	4,689.11	315.02	15.885		
9,500.00	7,066.50	7,015.50	7,066.50	78.45	243.19	-90.08	-3,218.53	-4,805.15	4,960.66	4,642.97	317.69	15.615		
9,600.00	7,066.21	7,015.21	7,066.21	81.04	243.18	-90.07	-3,218.53	-4,805.15	4,918.85	4,598.43	320.42	15.351		
9,700.00	7,065.93	7,014.93	7,065.93	83.64	243.17	-90.07	-3,218.53	-4,805.15	4,878.73	4,555.54	323.19	15.096		
9,800.00	7,065.64	7,014.64	7,065.64	86.26	243.16	-90.07	-3,218.53	-4,805.15	4,840.34	4,514.33	326.01	14.847		
9,900.00	7,065.36	7,014.36	7,065.36	88.90	243.15	-90.06	-3,218.53	-4,805.15	4,803.73	4,474.87	328.86	14.607		
10,000.00	7,065.07	7,014.07	7,065.07	91.55	243.14	-90.06	-3,218.53	-4,805.15	4,768.93	4,437.18	331.75	14.375		
10,100.00	7,064.79	7,013.79	7,064.79	94.21	243.13	-90.06	-3,218.53	-4,805.15	4,735.99	4,401.33	334.66	14.152		
10,200.00	7,064.50	7,013.50	7,064.50	96.88	243.12	-90.05	-3,218.53	-4,805.15	4,704.94	4,367.35	337.60	13.937		
10,300.00	7,064.22	7,013.22	7,064.22	99.57	243.11	-90.05	-3,218.53	-4,805.15	4,675.83	4,335.28	340.55	13.730		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	7,012.94	7,063.94	102.26	243.10	-90.04	-3,218.53	-4,805.15	4,648.69	4,305.17	343.52	13.533		
10,500.00	7,063.65	7,012.65	7,063.65	104.96	243.09	-90.04	-3,218.53	-4,805.15	4,623.55	4,277.06	346.49	13.344		
10,600.00	7,063.37	7,012.37	7,063.37	107.67	243.08	-90.04	-3,218.53	-4,805.15	4,600.44	4,250.98	349.46	13.164		
10,700.00	7,063.08	7,012.08	7,063.08	110.39	243.07	-90.03	-3,218.53	-4,805.15	4,579.41	4,226.98	352.43	12.994		
10,800.00	7,062.80	7,011.80	7,062.80	113.11	243.06	-90.03	-3,218.53	-4,805.15	4,560.47	4,205.09	355.38	12.833		
10,900.00	7,062.51	7,011.51	7,062.51	115.84	243.05	-90.03	-3,218.53	-4,805.15	4,543.65	4,185.33	358.32	12.680		
11,000.00	7,062.23	7,011.23	7,062.23	118.58	243.04	-90.02	-3,218.53	-4,805.15	4,528.98	4,167.74	361.24	12.537		
11,100.00	7,061.94	7,010.94	7,061.94	121.32	243.03	-90.02	-3,218.53	-4,805.15	4,516.48	4,152.35	364.13	12.403		
11,200.00	7,061.66	7,010.66	7,061.66	124.07	243.02	-90.02	-3,218.53	-4,805.15	4,506.16	4,139.18	366.99	12.279		
11,300.00	7,061.37	7,010.37	7,061.37	126.82	243.01	-90.01	-3,218.53	-4,805.15	4,498.04	4,128.24	369.80	12.163		
11,400.00	7,061.09	7,010.09	7,061.09	129.58	243.00	-90.01	-3,218.53	-4,805.15	4,492.14	4,119.56	372.57	12.057		
11,500.00	7,060.80	7,009.80	7,060.80	132.34	242.99	-90.00	-3,218.53	-4,805.15	4,488.45	4,113.15	375.30	11.960		
11,600.00	7,060.52	7,009.52	7,060.52	135.10	242.98	-90.00	-3,218.53	-4,805.15	4,486.99	4,109.02	377.97	11.871		
11,615.50	7,060.47	7,009.47	7,060.47	135.53	242.98	-90.00	-3,218.53	-4,805.15	4,486.96	4,108.59	378.38	11.859 CC		
11,700.00	7,060.23	7,009.23	7,060.23	137.87	242.97	-90.00	-3,218.53	-4,805.15	4,487.76	4,107.18	380.58	11.792 ES		
11,800.00	7,059.95	7,008.95	7,059.95	140.64	242.96	-89.99	-3,218.53	-4,805.15	4,490.76	4,107.63	383.12	11.721		
11,900.00	7,059.66	7,008.66	7,059.66	143.42	242.95	-89.99	-3,218.53	-4,805.15	4,495.97	4,110.37	385.60	11.660		
12,000.00	7,059.38	7,008.38	7,059.38	146.20	242.94	-89.99	-3,218.53	-4,805.15	4,503.41	4,115.40	388.01	11.606		
12,100.00	7,059.09	7,008.09	7,059.09	148.98	242.93	-89.98	-3,218.53	-4,805.15	4,513.05	4,122.70	390.35	11.562		
12,200.00	7,058.81	7,007.81	7,058.81	151.77	242.92	-89.98	-3,218.53	-4,805.15	4,524.87	4,132.27	392.61	11.525		
12,300.00	7,058.52	7,007.52	7,058.52	154.55	242.91	-89.98	-3,218.53	-4,805.15	4,538.87	4,144.09	394.79	11.497		
12,400.00	7,058.24	7,007.24	7,058.24	157.34	242.90	-89.97	-3,218.53	-4,805.15	4,555.03	4,158.14	396.89	11.477		
12,500.00	7,057.96	7,006.96	7,057.96	160.14	242.89	-89.97	-3,218.53	-4,805.15	4,573.31	4,174.41	398.90	11.465		
12,600.00	7,057.67	7,006.67	7,057.67	162.93	242.88	-89.96	-3,218.53	-4,805.15	4,593.70	4,192.86	400.84	11.460 SF		
12,700.00	7,057.39	7,006.39	7,057.39	165.73	242.87	-89.96	-3,218.53	-4,805.15	4,616.16	4,213.48	402.69	11.463		
12,800.00	7,057.10	7,006.10	7,057.10	168.53	242.86	-89.96	-3,218.53	-4,805.15	4,640.68	4,236.22	404.45	11.474		
12,900.00	7,056.82	7,005.82	7,056.82	171.33	242.85	-89.95	-3,218.53	-4,805.15	4,667.20	4,261.07	406.13	11.492		
13,000.00	7,056.53	7,005.53	7,056.53	174.13	242.84	-89.95	-3,218.53	-4,805.15	4,695.71	4,287.98	407.73	11.517		
13,100.00	7,056.25	7,005.25	7,056.25	176.94	242.83	-89.95	-3,218.53	-4,805.15	4,726.16	4,316.92	409.24	11.549		
13,200.00	7,055.96	7,004.96	7,055.96	179.74	242.82	-89.94	-3,218.53	-4,805.15	4,758.51	4,347.85	410.67	11.587		
13,300.00	7,055.68	7,004.68	7,055.68	182.55	242.81	-89.94	-3,218.53	-4,805.15	4,792.74	4,380.72	412.01	11.632		
13,400.00	7,055.39	7,004.39	7,055.39	185.36	242.80	-89.94	-3,218.53	-4,805.15	4,828.79	4,415.51	413.28	11.684		
13,500.00	7,055.11	7,004.11	7,055.11	188.17	242.79	-89.93	-3,218.53	-4,805.15	4,866.64	4,452.17	414.47	11.742		
13,600.00	7,054.82	7,003.82	7,054.82	190.98	242.78	-89.93	-3,218.53	-4,805.15	4,906.22	4,490.64	415.58	11.806		
13,700.00	7,054.54	7,003.54	7,054.54	193.80	242.77	-89.92	-3,218.53	-4,805.15	4,947.52	4,530.90	416.62	11.875		
13,800.00	7,054.25	7,003.25	7,054.25	196.61	242.76	-89.92	-3,218.53	-4,805.15	4,990.47	4,572.89	417.58	11.951		
13,900.00	7,053.97	7,002.97	7,053.97	199.43	242.75	-89.92	-3,218.53	-4,805.15	5,035.05	4,616.58	418.47	12.032		
14,000.00	7,053.68	7,002.68	7,053.68	202.25	242.74	-89.91	-3,218.53	-4,805.15	5,081.20	4,661.90	419.30	12.118		
14,100.00	7,053.40	7,002.40	7,053.40	205.06	242.73	-89.91	-3,218.53	-4,805.15	5,128.89	4,708.83	420.06	12.210		
14,200.00	7,053.11	7,002.11	7,053.11	207.88	242.72	-89.91	-3,218.53	-4,805.15	5,178.07	4,757.31	420.76	12.307		
14,300.00	7,052.83	7,001.83	7,052.83	210.70	242.71	-89.90	-3,218.53	-4,805.15	5,228.70	4,807.31	421.39	12.408		
14,400.00	7,052.54	7,001.54	7,052.54	213.53	242.70	-89.90	-3,218.53	-4,805.15	5,280.74	4,858.77	421.97	12.514		
14,500.00	7,052.26	7,001.26	7,052.26	216.35	242.69	-89.90	-3,218.53	-4,805.15	5,334.14	4,911.65	422.50	12.625		
14,600.00	7,051.98	7,000.98	7,051.98	219.17	242.68	-89.89	-3,218.53	-4,805.15	5,388.88	4,965.91	422.97	12.741		
14,700.00	7,051.69	7,000.69	7,051.69	222.00	242.67	-89.89	-3,218.53	-4,805.15	5,444.90	5,021.51	423.39	12.860		
14,800.00	7,051.41	7,000.41	7,051.41	224.82	242.66	-89.88	-3,218.53	-4,805.15	5,502.16	5,078.40	423.76	12.984		
14,900.00	7,051.12	7,000.12	7,051.12	227.65	242.65	-89.88	-3,218.53	-4,805.15	5,560.64	5,136.55	424.09	13.112		
14,942.37	7,051.00	7,000.00	7,051.00	228.85	242.65	-89.88	-3,218.53	-4,805.15	5,585.77	5,161.55	424.22	13.167		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	69.00	3.28	3.28	-143.32	-4,389.65	-3,269.80	5,474.06					
100.00	100.00	927.63	966.06	3.28	5.26	-143.52	-4,338.59	-3,207.50	5,464.56	5,456.01	8.56	638.726		
200.00	200.00	1,026.28	1,063.39	3.34	5.68	-143.57	-4,328.37	-3,195.03	5,448.72	5,439.77	8.95	608.798		
300.00	300.00	1,125.06	1,160.73	3.44	6.12	-143.61	-4,318.16	-3,182.57	5,432.87	5,423.46	9.41	577.166		
400.00	399.98	1,226.28	1,258.19	3.60	6.59	-136.57	-4,307.93	-3,170.09	5,418.28	5,408.34	9.94	544.896		
500.00	499.84	1,327.31	1,355.83	3.81	7.07	-136.81	-4,297.68	-3,157.58	5,406.21	5,395.68	10.53	513.523		
600.00	599.45	1,428.27	1,453.53	4.06	7.56	-137.05	-4,287.43	-3,145.07	5,396.68	5,385.52	11.16	483.457		
700.00	698.70	1,529.30	1,551.17	4.34	8.06	-137.28	-4,277.18	-3,132.57	5,389.72	5,377.88	11.84	455.089		
800.00	797.47	1,630.51	1,648.64	4.64	8.57	-137.49	-4,266.95	-3,120.09	5,385.36	5,372.80	12.56	428.606		
900.00	895.65	1,732.00	1,745.82	4.98	9.08	-137.69	-4,256.76	-3,107.64	5,383.52	5,370.20	13.32	404.071		
1,000.00	993.66	1,816.42	1,842.91	5.32	9.51	-137.88	-4,246.57	-3,095.21	5,382.42	5,368.38	14.04	383.423		
1,100.00	1,091.67	1,914.83	1,940.00	5.69	10.02	-138.06	-4,236.38	-3,082.78	5,381.38	5,366.54	14.83	362.749		
1,200.00	1,189.68	2,013.24	2,037.10	6.09	10.53	-138.25	-4,226.19	-3,070.34	5,380.39	5,364.74	15.65	343.773		
1,300.00	1,287.69	2,111.65	2,134.19	6.49	11.04	-138.43	-4,216.00	-3,057.91	5,379.46	5,362.98	16.48	326.369		
1,400.00	1,385.69	2,210.07	2,231.28	6.90	11.56	-138.62	-4,205.81	-3,045.48	5,378.59	5,361.27	17.33	310.404		
1,500.00	1,483.70	2,308.48	2,328.37	7.33	12.07	-138.81	-4,195.62	-3,033.04	5,377.78	5,359.60	18.18	295.745		
1,600.00	1,581.71	2,406.89	2,425.46	7.76	12.59	-138.99	-4,185.43	-3,020.61	5,377.03	5,357.98	19.05	282.265		
1,700.00	1,679.72	2,505.31	2,522.55	8.19	13.11	-139.18	-4,175.24	-3,008.18	5,376.34	5,356.41	19.92	269.850		
1,800.00	1,777.73	2,603.72	2,619.64	8.63	13.64	-139.36	-4,165.05	-2,995.74	5,375.70	5,354.90	20.80	258.393		
1,900.00	1,875.74	2,702.13	2,716.73	9.08	14.16	-139.55	-4,154.86	-2,983.31	5,375.13	5,353.44	21.69	247.798		
2,000.00	1,973.75	2,800.54	2,813.82	9.53	14.69	-139.74	-4,144.67	-2,970.88	5,374.61	5,352.02	22.58	237.982		
2,100.00	2,071.76	2,898.96	2,910.92	9.98	15.21	-139.92	-4,134.48	-2,958.44	5,374.15	5,350.67	23.48	228.868		
2,200.00	2,169.77	2,997.37	3,008.01	10.44	15.74	-140.11	-4,124.29	-2,946.01	5,373.75	5,349.37	24.38	220.389		
2,300.00	2,267.77	3,095.78	3,105.10	10.90	16.27	-140.29	-4,114.11	-2,933.58	5,373.41	5,348.12	25.29	212.485		
2,400.00	2,365.78	3,194.20	3,202.19	11.36	16.80	-140.48	-4,103.92	-2,921.14	5,373.12	5,346.93	26.20	205.103		
2,500.00	2,463.79	3,292.61	3,299.28	11.82	17.33	-140.67	-4,093.73	-2,908.71	5,372.90	5,345.79	27.11	198.195		
2,600.00	2,561.80	3,391.02	3,396.37	12.28	17.86	-140.85	-4,083.54	-2,896.28	5,372.73	5,344.71	28.02	191.720		
2,700.00	2,659.81	3,489.43	3,493.46	12.75	18.39	-141.04	-4,073.35	-2,883.84	5,372.62	5,343.68	28.94	185.640		
2,800.00	2,757.82	3,587.85	3,590.55	13.21	18.92	-141.23	-4,063.16	-2,871.41	5,372.57	5,342.71	29.86	179.922		
2,834.16	2,791.29	3,621.46	3,623.72	13.37	19.10	-141.29	-4,059.68	-2,867.16	5,372.57	5,342.39	30.18	178.046		
2,900.00	2,855.83	3,686.26	3,687.64	13.68	19.45	-141.41	-4,052.97	-2,858.98	5,372.58	5,341.80	30.78	174.535		
3,000.00	2,953.84	3,784.67	3,784.74	14.15	19.99	-141.60	-4,042.78	-2,846.54	5,372.65	5,340.94	31.71	169.452		
3,100.00	3,051.85	3,883.09	3,881.83	14.62	20.52	-141.78	-4,032.59	-2,834.11	5,372.78	5,340.15	32.63	164.649		
3,200.00	3,149.85	3,981.50	3,978.92	15.09	21.05	-141.97	-4,022.40	-2,821.68	5,372.96	5,339.40	33.56	160.105		
3,300.00	3,247.86	4,079.91	4,076.01	15.56	21.59	-142.16	-4,012.21	-2,809.24	5,373.21	5,338.72	34.49	155.800		
3,400.00	3,345.87	4,178.32	4,173.10	16.04	22.12	-142.34	-4,002.02	-2,796.81	5,373.51	5,338.09	35.42	151.715		
3,500.00	3,443.88	4,276.74	4,270.19	16.51	22.65	-142.53	-3,991.83	-2,784.38	5,373.87	5,337.52	36.35	147.836		
3,600.00	3,541.89	4,375.15	4,367.28	16.98	23.19	-142.72	-3,981.64	-2,771.94	5,374.29	5,337.01	37.28	144.147		
3,700.00	3,639.90	4,473.56	4,464.37	17.46	23.72	-142.90	-3,971.45	-2,759.51	5,374.77	5,336.55	38.22	140.635		
3,800.00	3,737.91	4,571.98	4,561.46	17.93	24.26	-143.09	-3,961.27	-2,747.08	5,375.30	5,336.15	39.15	137.288		
3,900.00	3,835.92	4,670.39	4,658.56	18.41	24.80	-143.27	-3,951.08	-2,734.64	5,375.90	5,335.81	40.09	134.094		
4,000.00	3,933.93	4,768.80	4,755.65	18.88	25.33	-143.46	-3,940.89	-2,722.21	5,376.55	5,335.52	41.03	131.045		
4,100.00	4,031.93	4,867.21	4,852.74	19.36	25.87	-143.65	-3,930.70	-2,709.78	5,377.26	5,335.30	41.97	128.129		
4,200.00	4,129.94	4,965.63	4,949.83	19.84	26.40	-143.83	-3,920.51	-2,697.34	5,378.03	5,335.13	42.91	125.340		
4,300.00	4,227.95	5,064.04	5,046.92	20.31	26.94	-144.02	-3,910.32	-2,684.91	5,378.86	5,335.01	43.85	122.669		
4,400.00	4,325.96	5,162.45	5,144.01	20.79	27.48	-144.20	-3,900.13	-2,672.48	5,379.75	5,334.96	44.79	120.109		
4,500.00	4,423.97	5,260.87	5,241.10	21.27	28.01	-144.39	-3,889.94	-2,660.05	5,380.70	5,334.96	45.73	117.654		
4,600.00	4,521.98	5,359.28	5,338.19	21.75	28.55	-144.57	-3,879.75	-2,647.61	5,381.70	5,335.02	46.68	115.296		
4,700.00	4,619.99	5,457.69	5,435.28	22.23	29.09	-144.76	-3,869.56	-2,635.18	5,382.76	5,335.14	47.62	113.032		
4,800.00	4,718.00	5,556.10	5,532.38	22.70	29.62	-144.95	-3,859.37	-2,622.75	5,383.88	5,335.32	48.57	110.854		
4,900.00	4,816.01	5,654.52	5,629.47	23.18	30.16	-145.13	-3,849.18	-2,610.31	5,385.06	5,335.55	49.51	108.760		
5,000.00	4,914.01	5,752.93	5,726.56	23.66	30.70	-145.32	-3,838.99	-2,597.88	5,386.30	5,335.84	50.46	106.743		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,012.02	5,851.34	5,823.65	24.14	31.24	-145.50	-3,828.80	-2,585.45	5,387.60	5,336.19	51.41	104.800		
5,200.00	5,110.03	5,949.76	5,920.74	24.62	31.77	-145.69	-3,818.61	-2,573.01	5,388.95	5,336.59	52.36	102.927		
5,300.00	5,208.04	6,048.17	6,017.83	25.10	32.31	-145.87	-3,808.43	-2,560.58	5,390.36	5,337.05	53.31	101.121		
5,400.00	5,306.05	6,146.58	6,114.92	25.58	32.85	-146.06	-3,798.24	-2,548.15	5,391.83	5,337.57	54.26	99.377		
5,500.00	5,404.06	6,244.99	6,212.01	26.06	33.39	-146.24	-3,788.05	-2,535.71	5,393.36	5,338.15	55.21	97.694		
5,600.00	5,502.07	6,277.09	6,243.70	26.54	33.56	-146.30	-3,784.73	-2,531.88	5,395.45	5,339.61	55.84	96.620		
5,700.00	5,600.08	6,300.00	6,266.41	27.02	33.68	-146.33	-3,782.37	-2,529.99	5,399.02	5,342.60	56.42	95.691		
5,800.00	5,698.09	6,325.01	6,291.27	27.50	33.79	-146.36	-3,779.81	-2,528.87	5,404.10	5,347.11	56.99	94.824		
5,900.00	5,796.09	6,337.23	6,303.42	27.98	33.84	-146.37	-3,778.56	-2,528.68	5,410.59	5,353.10	57.49	94.119		
6,000.00	5,894.10	6,350.00	6,316.12	28.46	33.90	-146.38	-3,777.27	-2,528.73	5,418.60	5,360.64	57.97	93.474		
6,100.00	5,992.11	6,377.58	6,343.55	28.94	34.00	-146.39	-3,774.49	-2,529.71	5,428.03	5,369.53	58.50	92.793		
6,200.00	6,090.12	6,400.00	6,365.79	29.42	34.08	-146.39	-3,772.26	-2,531.39	5,438.94	5,379.95	58.99	92.204		
6,300.00	6,188.13	6,425.01	6,390.52	29.90	34.16	-146.38	-3,769.80	-2,534.20	5,451.31	5,391.84	59.47	91.663		
6,400.00	6,286.14	6,437.69	6,403.00	30.38	34.19	-146.37	-3,768.57	-2,535.99	5,465.08	5,405.19	59.89	91.259		
6,500.00	6,384.15	6,450.00	6,415.10	30.87	34.23	-146.36	-3,767.38	-2,537.97	5,480.33	5,420.05	60.28	90.912		
6,600.00	6,482.15	6,477.03	6,441.50	31.35	34.29	-137.57	-3,764.80	-2,543.13	5,496.81	5,436.09	60.72	90.524		
6,700.00	6,579.21	6,500.00	6,463.76	31.83	34.34	-105.48	-3,762.65	-2,548.40	5,509.91	5,448.76	61.15	90.107		
6,800.00	6,673.04	6,525.01	6,487.76	32.30	34.39	-90.37	-3,760.36	-2,555.06	5,517.08	5,455.50	61.59	89.584		
6,900.00	6,761.33	6,536.02	6,498.23	32.74	34.41	-83.00	-3,759.36	-2,558.28	5,518.11	5,456.13	61.97	89.038		
7,000.00	6,841.90	6,550.00	6,511.46	33.17	34.44	-79.29	-3,758.11	-2,562.64	5,513.09	5,450.68	62.41	88.335		
7,100.00	6,912.77	6,573.66	6,533.61	33.60	34.47	-77.70	-3,756.04	-2,570.68	5,502.10	5,439.15	62.96	87.395		
7,200.00	6,972.19	6,600.00	6,557.91	34.09	34.51	-77.55	-3,753.78	-2,580.60	5,485.50	5,421.87	63.63	86.212		
7,300.00	7,018.70	6,600.00	6,557.91	34.73	34.51	-78.32	-3,753.78	-2,580.60	5,463.63	5,399.29	64.34	84.919		
7,400.00	7,051.15	6,625.01	6,580.58	35.55	34.53	-80.14	-3,751.71	-2,590.94	5,437.05	5,371.72	65.33	83.222		
7,500.00	7,068.75	6,635.37	6,589.85	36.56	34.54	-82.62	-3,750.87	-2,595.48	5,406.48	5,340.04	66.44	81.373		
7,600.00	7,071.91	6,650.00	6,602.82	37.71	34.55	-84.74	-3,749.69	-2,602.16	5,372.90	5,305.18	67.72	79.340		
7,700.00	7,071.62	6,650.00	6,602.82	39.03	34.55	-84.74	-3,749.69	-2,602.16	5,339.89	5,270.79	69.10	77.276		
7,800.00	7,071.34	6,668.79	6,619.24	40.51	34.56	-84.92	-3,748.22	-2,611.16	5,308.43	5,237.72	70.71	75.072		
7,900.00	7,071.05	6,681.23	6,629.97	42.14	34.57	-85.04	-3,747.27	-2,617.39	5,278.58	5,206.15	72.44	72.870		
8,000.00	7,070.77	6,700.00	6,645.92	43.89	34.58	-85.22	-3,745.87	-2,627.19	5,250.36	5,176.04	74.32	70.649		
8,100.00	7,070.48	6,708.87	6,653.35	45.76	34.58	-85.30	-3,745.22	-2,631.98	5,223.74	5,147.46	76.28	68.485		
8,200.00	7,070.20	6,725.01	6,666.72	47.72	34.59	-85.45	-3,744.06	-2,640.96	5,198.76	5,120.40	78.36	66.341		
8,300.00	7,069.92	6,740.78	6,679.54	49.78	34.59	-85.60	-3,742.96	-2,650.06	5,175.42	5,094.88	80.54	64.255		
8,400.00	7,069.63	6,750.00	6,686.94	51.90	34.59	-85.68	-3,742.33	-2,655.53	5,153.74	5,070.96	82.79	62.254		
8,500.00	7,069.35	6,777.84	6,708.78	54.10	34.59	-85.93	-3,740.50	-2,672.69	5,133.66	5,048.50	85.16	60.283		
8,600.00	7,069.06	6,800.00	6,725.63	56.36	34.59	-86.12	-3,739.10	-2,687.02	5,115.22	5,027.65	87.57	58.411		
8,700.00	7,068.78	6,825.01	6,744.03	58.66	34.59	-86.33	-3,737.61	-2,703.89	5,098.41	5,008.36	90.05	56.616		
8,800.00	7,068.49	6,850.00	6,761.75	61.02	34.59	-86.53	-3,736.21	-2,721.46	5,083.20	4,990.62	92.58	54.906		
8,900.00	7,068.21	6,871.69	6,776.56	63.42	34.58	-86.70	-3,735.06	-2,737.26	5,069.55	4,974.40	95.14	53.284		
9,000.00	7,067.92	6,900.00	6,795.07	65.85	34.58	-86.91	-3,733.65	-2,758.63	5,057.44	4,959.69	97.76	51.736		
9,100.00	7,067.64	6,925.01	6,810.63	68.32	34.57	-87.08	-3,732.51	-2,778.18	5,046.85	4,946.46	100.39	50.271		
9,200.00	7,067.35	6,964.07	6,833.36	70.81	34.58	-87.34	-3,730.92	-2,809.89	5,037.70	4,934.57	103.12	48.852		
9,300.00	7,067.07	7,000.00	6,852.54	73.34	34.58	-87.56	-3,729.66	-2,840.24	5,029.96	4,924.09	105.86	47.514		
9,400.00	7,066.78	7,038.03	6,870.94	75.88	34.61	-87.77	-3,728.54	-2,873.50	5,023.56	4,914.91	108.65	46.234		
9,500.00	7,066.50	7,078.83	6,888.46	78.45	34.65	-87.97	-3,727.59	-2,910.33	5,018.46	4,906.96	111.50	45.008		
9,600.00	7,066.21	7,125.01	6,905.41	81.04	34.74	-88.17	-3,726.84	-2,953.27	5,014.58	4,900.16	114.41	43.828		
9,700.00	7,065.93	7,167.56	6,918.25	83.64	34.87	-88.31	-3,726.46	-2,993.82	5,011.85	4,894.49	117.36	42.707		
9,800.00	7,065.64	7,214.96	6,929.34	86.26	35.07	-88.44	-3,726.38	-3,039.89	5,010.23	4,889.86	120.37	41.624		
9,900.00	7,065.36	7,263.83	6,937.18	88.90	35.37	-88.53	-3,726.68	-3,088.11	5,009.66	4,886.21	123.45	40.580		
9,905.29	7,065.34	7,266.44	6,937.50	89.04	35.39	-88.54	-3,726.71	-3,090.71	5,009.66	4,886.04	123.62	40.526 CC		
10,000.00	7,065.07	7,313.65	6,941.36	91.55	35.75	-88.58	-3,727.39	-3,137.75	5,010.11	4,883.53	126.58	39.582		
10,100.00	7,064.79	7,382.38	6,941.85	94.21	36.43	-88.59	-3,728.90	-3,206.45	5,011.49	4,881.49	130.00	38.550		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,200.00	7,064.50	7,482.37	6,941.44	96.88	37.72	-88.59	-3,731.23	-3,306.41	5,013.07	4,879.04	134.03	37.404		
10,300.00	7,064.22	7,582.36	6,941.02	99.57	39.29	-88.59	-3,733.55	-3,406.37	5,014.64	4,876.35	138.30	36.260		
10,400.00	7,063.94	7,682.34	6,940.60	102.26	41.09	-88.59	-3,735.88	-3,506.33	5,016.22	4,873.43	142.79	35.131		
10,500.00	7,063.65	7,782.33	6,940.18	104.96	43.08	-88.59	-3,738.20	-3,606.29	5,017.79	4,870.33	147.46	34.027		
10,600.00	7,063.37	7,882.32	6,939.77	107.67	45.23	-88.59	-3,740.53	-3,706.25	5,019.37	4,867.06	152.31	32.955		
10,700.00	7,063.08	7,982.31	6,939.35	110.39	47.52	-88.59	-3,742.85	-3,806.21	5,020.95	4,863.64	157.30	31.919		
10,800.00	7,062.80	8,082.29	6,938.93	113.11	49.93	-88.58	-3,745.18	-3,906.16	5,022.52	4,860.10	162.42	30.923		
10,900.00	7,062.51	8,182.28	6,938.52	115.84	52.43	-88.58	-3,747.50	-4,006.12	5,024.10	4,856.45	167.65	29.968		
11,000.00	7,062.23	8,282.27	6,938.10	118.58	55.03	-88.58	-3,749.83	-4,106.08	5,025.67	4,852.71	172.97	29.056		
11,100.00	7,061.94	8,382.26	6,937.68	121.32	57.69	-88.58	-3,752.15	-4,206.04	5,027.25	4,848.88	178.37	28.184		
11,200.00	7,061.66	8,482.24	6,937.26	124.07	60.42	-88.58	-3,754.48	-4,306.00	5,028.83	4,844.98	183.84	27.354		
11,300.00	7,061.37	8,582.23	6,936.85	126.82	63.21	-88.58	-3,756.80	-4,405.96	5,030.40	4,841.02	189.38	26.562		
11,400.00	7,061.09	8,682.22	6,936.43	129.58	66.05	-88.58	-3,759.13	-4,505.92	5,031.98	4,837.01	194.97	25.809		
11,500.00	7,060.80	8,782.21	6,936.01	132.34	68.92	-88.58	-3,761.45	-4,605.88	5,033.55	4,832.94	200.61	25.091		
11,600.00	7,060.52	8,882.19	6,935.60	135.10	71.84	-88.58	-3,763.78	-4,705.84	5,035.13	4,828.83	206.30	24.407		
11,700.00	7,060.23	8,982.18	6,935.18	137.87	74.79	-88.57	-3,766.10	-4,805.80	5,036.71	4,824.69	212.02	23.756		
11,800.00	7,059.95	9,082.17	6,934.76	140.64	77.77	-88.57	-3,768.43	-4,905.76	5,038.28	4,820.51	217.77	23.136		
11,900.00	7,059.66	9,182.16	6,934.35	143.42	80.78	-88.57	-3,770.75	-5,005.72	5,039.86	4,816.30	223.56	22.544		
12,000.00	7,059.38	9,282.14	6,933.93	146.20	83.81	-88.57	-3,773.08	-5,105.68	5,041.43	4,812.06	229.37	21.980		
12,100.00	7,059.09	9,382.13	6,933.51	148.98	86.87	-88.57	-3,775.40	-5,205.64	5,043.01	4,807.80	235.21	21.441		
12,200.00	7,058.81	9,482.12	6,933.09	151.77	89.94	-88.57	-3,777.73	-5,305.60	5,044.58	4,803.52	241.06	20.926		
12,300.00	7,058.52	9,582.11	6,932.68	154.55	93.03	-88.57	-3,780.05	-5,405.56	5,046.16	4,799.22	246.94	20.434		
12,400.00	7,058.24	9,682.09	6,932.26	157.34	96.13	-88.57	-3,782.38	-5,505.52	5,047.74	4,794.90	252.84	19.964		
12,500.00	7,057.96	9,782.08	6,931.84	160.14	99.25	-88.57	-3,784.70	-5,605.48	5,049.31	4,790.56	258.75	19.514		
12,600.00	7,057.67	9,882.07	6,931.43	162.93	102.39	-88.57	-3,787.03	-5,705.44	5,050.89	4,786.21	264.68	19.083		
12,700.00	7,057.39	9,982.06	6,931.01	165.73	105.53	-88.56	-3,789.35	-5,805.40	5,052.46	4,781.84	270.63	18.670		
12,800.00	7,057.10	10,082.04	6,930.59	168.53	108.68	-88.56	-3,791.68	-5,905.36	5,054.04	4,777.46	276.58	18.273		
12,900.00	7,056.82	10,182.03	6,930.17	171.33	111.85	-88.56	-3,794.00	-6,005.32	5,055.62	4,773.07	282.55	17.893		
13,000.00	7,056.53	10,282.02	6,929.76	174.13	115.02	-88.56	-3,796.33	-6,105.28	5,057.19	4,768.66	288.53	17.528		
13,100.00	7,056.25	10,382.01	6,929.34	176.94	118.21	-88.56	-3,798.65	-6,205.24	5,058.77	4,764.25	294.52	17.177		
13,200.00	7,055.96	10,479.20	6,928.97	179.74	121.02	-88.56	-3,800.70	-6,293.41	5,060.36	4,760.25	300.10	16.862		
13,300.00	7,055.68	10,500.00	6,928.85	182.55	121.97	-88.56	-3,801.63	-6,323.19	5,062.82	4,759.18	303.64	16.674		
13,400.00	7,055.39	10,535.25	6,928.70	185.36	123.09	-88.56	-3,803.30	-6,358.40	5,066.70	4,759.39	307.31	16.487		
13,500.00	7,055.11	10,635.15	6,928.28	188.17	126.27	-88.56	-3,808.51	-6,458.17	5,071.17	4,757.87	313.30	16.186		
13,600.00	7,054.82	10,725.53	6,927.91	190.98	129.16	-88.56	-3,813.23	-6,548.42	5,075.65	4,756.69	318.96	15.913		
13,700.00	7,054.54	10,755.43	6,927.78	193.80	130.11	-88.56	-3,815.03	-6,578.27	5,080.97	4,758.59	322.38	15.761		
13,800.00	7,054.25	10,800.00	6,927.60	196.61	131.53	-88.56	-3,818.57	-6,622.69	5,087.83	4,761.53	326.29	15.593		
13,900.00	7,053.97	10,809.87	6,927.55	199.43	131.84	-88.56	-3,819.49	-6,632.52	5,095.88	4,767.07	328.81	15.498		
14,000.00	7,053.68	10,825.02	6,927.49	202.25	132.32	-88.56	-3,821.01	-6,647.59	5,105.52	4,774.07	331.45	15.404		
14,100.00	7,053.40	10,864.04	6,927.33	205.06	133.55	-88.56	-3,825.47	-6,686.35	5,116.46	4,781.50	334.96	15.275		
14,200.00	7,053.11	10,900.00	6,927.18	207.88	134.68	-88.56	-3,830.28	-6,721.99	5,128.89	4,790.59	338.30	15.161		
14,300.00	7,052.83	10,925.02	6,927.07	210.70	135.46	-88.56	-3,834.02	-6,746.73	5,142.67	4,801.55	341.12	15.076		
14,400.00	7,052.54	11,806.86	6,923.39	213.53	163.64	-88.56	-3,899.73	-7,623.46	5,148.71	4,771.91	376.81	13.664		
14,500.00	7,052.26	11,906.85	6,922.97	216.35	166.90	-88.56	-3,899.72	-7,723.46	5,147.95	4,765.06	382.89	13.445		
14,600.00	7,051.98	12,006.85	6,922.56	219.17	170.17	-88.56	-3,899.70	-7,823.45	5,147.19	4,758.21	388.98	13.232		
14,700.00	7,051.69	12,106.85	6,922.14	222.00	173.44	-88.56	-3,899.69	-7,923.45	5,146.43	4,751.35	395.07	13.026		
14,800.00	7,051.41	12,206.85	6,921.72	224.82	176.71	-88.56	-3,899.68	-8,023.45	5,145.67	4,744.50	401.17	12.827		
14,900.00	7,051.12	12,306.84	6,921.31	227.65	179.99	-88.56	-3,899.67	-8,123.44	5,144.90	4,737.63	407.27	12.633		
14,942.37	7,051.00	12,349.21	6,921.13	228.85	181.37	-88.55	-3,899.66	-8,165.81	5,144.58	4,734.73	409.85	12.552 ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	69.00	3.28	0.00	-143.44	-4,409.68	-3,269.80	5,490.14					
100.00	100.00	56.00	100.00	3.28	0.07	-143.44	-4,409.68	-3,269.80	5,489.71	5,486.35	3.35	1,637.328		
200.00	200.00	904.30	944.81	3.34	3.86	-143.67	-4,379.83	-3,220.33	5,487.09	5,479.84	7.25	756.880		
300.00	300.00	1,003.22	1,042.65	3.44	4.36	-143.73	-4,372.33	-3,207.90	5,473.52	5,465.72	7.80	702.086		
400.00	399.98	1,102.22	1,140.58	3.60	4.87	-136.67	-4,364.82	-3,195.46	5,461.21	5,452.82	8.39	650.708		
500.00	499.84	1,201.31	1,238.59	3.81	5.38	-136.90	-4,357.31	-3,183.01	5,451.44	5,442.40	9.04	603.305		
600.00	599.45	1,300.36	1,336.57	4.06	5.90	-137.13	-4,349.80	-3,170.57	5,444.22	5,434.50	9.72	559.938		
700.00	698.70	1,399.26	1,434.40	4.34	6.41	-137.33	-4,342.30	-3,158.14	5,439.60	5,429.15	10.45	520.637		
800.00	797.47	1,502.12	1,531.95	4.64	6.95	-137.53	-4,334.82	-3,145.75	5,437.57	5,426.35	11.23	484.373		
836.76	833.63	1,534.04	1,567.73	4.77	7.12	-137.60	-4,332.08	-3,141.20	5,437.44	5,425.95	11.49	473.082		
900.00	895.65	1,596.12	1,629.13	4.98	7.44	-137.72	-4,327.37	-3,133.40	5,438.09	5,426.09	11.99	453.414		
1,000.00	993.66	1,694.25	1,726.20	5.32	7.96	-137.92	-4,319.93	-3,121.07	5,439.35	5,426.54	12.80	424.784		
1,100.00	1,091.67	1,792.37	1,823.26	5.69	8.47	-138.12	-4,312.49	-3,108.75	5,440.68	5,427.04	13.64	399.003		
1,200.00	1,189.68	1,890.50	1,920.32	6.09	8.99	-138.32	-4,305.05	-3,096.42	5,442.07	5,427.59	14.48	375.774		
1,300.00	1,287.69	1,988.62	2,017.38	6.49	9.50	-138.52	-4,297.61	-3,084.09	5,443.54	5,428.20	15.34	354.811		
1,400.00	1,385.69	2,086.74	2,114.44	6.90	10.02	-138.72	-4,290.17	-3,071.76	5,445.07	5,428.86	16.21	335.849		
1,500.00	1,483.70	2,184.87	2,211.50	7.33	10.54	-138.91	-4,282.73	-3,059.43	5,446.67	5,429.58	17.09	318.654		
1,600.00	1,581.71	2,282.99	2,308.57	7.76	11.06	-139.11	-4,275.29	-3,047.10	5,448.34	5,430.36	17.98	303.014		
1,700.00	1,679.72	2,381.12	2,405.63	8.19	11.57	-139.31	-4,267.85	-3,034.77	5,450.08	5,431.20	18.87	288.749		
1,800.00	1,777.73	2,479.24	2,502.69	8.63	12.09	-139.51	-4,260.40	-3,022.44	5,451.88	5,432.10	19.77	275.699		
1,900.00	1,875.74	2,577.36	2,599.75	9.08	12.61	-139.71	-4,252.96	-3,010.11	5,453.75	5,433.07	20.68	263.725		
2,000.00	1,973.75	2,675.49	2,696.81	9.53	13.13	-139.90	-4,245.52	-2,997.78	5,455.69	5,434.10	21.59	252.708		
2,100.00	2,071.76	2,773.61	2,793.87	9.98	13.65	-140.10	-4,238.08	-2,985.45	5,457.69	5,435.19	22.50	242.543		
2,200.00	2,169.77	2,871.74	2,890.93	10.44	14.17	-140.30	-4,230.64	-2,973.12	5,459.77	5,436.35	23.42	233.142		
2,300.00	2,267.77	2,969.86	2,988.00	10.90	14.69	-140.50	-4,223.20	-2,960.80	5,461.91	5,437.57	24.34	224.423		
2,400.00	2,365.78	3,067.98	3,085.06	11.36	15.20	-140.69	-4,215.76	-2,948.47	5,464.12	5,438.86	25.26	216.319		
2,500.00	2,463.79	3,166.11	3,182.12	11.82	15.72	-140.89	-4,208.32	-2,936.14	5,466.39	5,440.21	26.18	208.770		
2,600.00	2,561.80	3,264.23	3,279.18	12.28	16.24	-141.09	-4,200.88	-2,923.81	5,468.73	5,441.62	27.11	201.722		
2,700.00	2,659.81	3,362.36	3,376.24	12.75	16.76	-141.29	-4,193.44	-2,911.48	5,471.14	5,443.10	28.04	195.128		
2,800.00	2,757.82	3,460.48	3,473.30	13.21	17.28	-141.48	-4,186.00	-2,899.15	5,473.62	5,444.65	28.97	188.947		
2,900.00	2,855.83	3,558.60	3,570.37	13.68	17.80	-141.68	-4,178.56	-2,886.82	5,476.16	5,446.26	29.90	183.143		
3,000.00	2,953.84	3,656.73	3,667.43	14.15	18.32	-141.87	-4,171.12	-2,874.49	5,478.77	5,447.93	30.83	177.683		
3,100.00	3,051.85	3,754.85	3,764.49	14.62	18.84	-142.07	-4,163.68	-2,862.16	5,481.44	5,449.67	31.77	172.539		
3,200.00	3,149.85	3,852.98	3,861.55	15.09	19.36	-142.27	-4,156.24	-2,849.83	5,484.19	5,451.48	32.71	167.684		
3,300.00	3,247.86	3,951.10	3,958.61	15.56	19.88	-142.46	-4,148.80	-2,837.50	5,486.99	5,453.35	33.64	163.095		
3,400.00	3,345.87	4,049.22	4,055.67	16.04	20.40	-142.66	-4,141.36	-2,825.17	5,489.87	5,455.29	34.58	158.751		
3,500.00	3,443.88	4,147.35	4,152.74	16.51	20.92	-142.85	-4,133.92	-2,812.85	5,492.81	5,457.29	35.52	154.634		
3,600.00	3,541.89	4,245.47	4,249.80	16.98	21.44	-143.05	-4,126.48	-2,800.52	5,495.82	5,459.35	36.46	150.727		
3,700.00	3,639.90	4,343.60	4,346.86	17.46	21.96	-143.24	-4,119.04	-2,788.19	5,498.89	5,461.49	37.40	147.014		
3,800.00	3,737.91	4,441.72	4,443.92	17.93	22.48	-143.44	-4,111.60	-2,775.86	5,502.03	5,463.68	38.35	143.482		
3,900.00	3,835.92	4,539.84	4,540.98	18.41	23.00	-143.63	-4,104.15	-2,763.53	5,505.23	5,465.94	39.29	140.118		
4,000.00	3,933.93	4,637.97	4,638.04	18.88	23.52	-143.83	-4,096.71	-2,751.20	5,508.50	5,468.27	40.23	136.910		
4,100.00	4,031.93	4,736.09	4,735.11	19.36	24.04	-144.02	-4,089.27	-2,738.87	5,511.84	5,470.66	41.18	133.849		
4,200.00	4,129.94	4,834.22	4,832.17	19.84	24.56	-144.21	-4,081.83	-2,726.54	5,515.24	5,473.11	42.13	130.924		
4,300.00	4,227.95	4,932.34	4,929.23	20.31	25.08	-144.41	-4,074.39	-2,714.21	5,518.71	5,475.63	43.07	128.126		
4,400.00	4,325.96	5,030.46	5,026.29	20.79	25.60	-144.60	-4,066.95	-2,701.88	5,522.24	5,478.22	44.02	125.449		
4,500.00	4,423.97	5,128.59	5,123.35	21.27	26.12	-144.79	-4,059.51	-2,689.55	5,525.83	5,480.86	44.97	122.883		
4,600.00	4,521.98	5,226.71	5,220.41	21.75	26.64	-144.99	-4,052.07	-2,677.22	5,529.49	5,483.58	45.92	120.424		
4,700.00	4,619.99	5,324.84	5,317.47	22.23	27.16	-145.18	-4,044.63	-2,664.90	5,533.22	5,486.35	46.87	118.063		
4,800.00	4,718.00	5,422.96	5,414.54	22.70	27.70	-145.37	-4,037.19	-2,652.57	5,537.01	5,489.17	47.84	115.749		
4,900.00	4,816.01	5,521.07	5,511.60	23.18	28.24	-145.56	-4,029.75	-2,640.24	5,540.87	5,492.06	48.81	113.530		
5,000.00	4,914.01	5,619.18	5,608.66	23.66	28.78	-145.75	-4,022.31	-2,627.91	5,544.78	5,495.01	49.77	111.398		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,012.02	5,717.33	5,705.72	24.14	29.24	-145.95	-4,014.87	-2,615.58	5,548.77	5,498.10	50.67	109.506		
5,200.00	5,110.03	5,815.46	5,802.78	24.62	29.76	-146.14	-4,007.43	-2,603.25	5,552.82	5,501.19	51.62	107.564		
5,300.00	5,208.04	5,913.58	5,899.84	25.10	30.28	-146.33	-3,999.99	-2,590.92	5,556.93	5,504.35	52.58	105.692		
5,400.00	5,306.05	6,011.70	5,996.91	25.58	30.80	-146.52	-3,992.55	-2,578.59	5,561.10	5,507.57	53.53	103.887		
5,500.00	5,404.06	6,109.83	6,093.97	26.06	31.32	-146.71	-3,985.11	-2,566.26	5,565.34	5,510.86	54.48	102.145		
5,600.00	5,502.07	6,207.95	6,191.03	26.54	31.84	-146.90	-3,977.67	-2,553.93	5,569.64	5,514.20	55.44	100.463		
5,700.00	5,600.08	6,306.08	6,288.09	27.02	32.36	-147.09	-3,970.23	-2,541.60	5,574.01	5,517.62	56.39	98.839		
5,800.00	5,698.09	6,374.99	6,356.26	27.50	32.72	-147.22	-3,965.00	-2,532.94	5,578.52	5,521.31	57.21	97.513		
5,900.00	5,796.09	6,400.00	6,381.05	27.98	32.85	-147.27	-3,963.11	-2,530.29	5,584.09	5,526.30	57.79	96.620		
6,000.00	5,894.10	6,425.01	6,405.94	28.46	32.97	-147.30	-3,961.24	-2,528.61	5,591.12	5,532.76	58.36	95.799		
6,100.00	5,992.11	6,450.00	6,430.85	28.94	33.08	-147.33	-3,959.39	-2,527.92	5,599.60	5,540.69	58.91	95.049		
6,200.00	6,090.12	6,450.00	6,430.85	29.42	33.08	-147.33	-3,959.39	-2,527.92	5,609.47	5,550.14	59.33	94.542		
6,300.00	6,188.13	6,480.88	6,461.63	29.90	33.19	-147.35	-3,957.13	-2,528.42	5,620.69	5,560.82	59.87	93.878		
6,400.00	6,286.14	6,500.00	6,480.68	30.38	33.26	-147.35	-3,955.75	-2,529.47	5,633.36	5,573.01	60.35	93.348		
6,500.00	6,384.15	6,525.01	6,505.52	30.87	33.34	-147.35	-3,953.97	-2,531.72	5,647.42	5,586.60	60.83	92.843		
6,600.00	6,482.15	6,550.00	6,530.24	31.35	33.41	-138.60	-3,952.22	-2,534.94	5,662.76	5,601.47	61.29	92.392		
6,700.00	6,579.21	6,550.00	6,530.24	31.83	33.41	-106.60	-3,952.22	-2,534.94	5,674.78	5,613.13	61.65	92.051		
6,800.00	6,673.04	6,580.80	6,560.50	32.30	33.48	-91.57	-3,950.11	-2,540.24	5,681.01	5,618.88	62.14	91.427		
6,900.00	6,761.33	6,600.00	6,579.23	32.74	33.53	-84.27	-3,948.83	-2,544.29	5,681.46	5,618.87	62.59	90.771		
7,000.00	6,841.90	6,625.01	6,603.42	33.17	33.58	-80.64	-3,947.18	-2,550.40	5,676.11	5,613.01	63.10	89.955		
7,100.00	6,912.77	6,637.53	6,615.44	33.60	33.60	-79.03	-3,946.38	-2,553.82	5,665.07	5,601.45	63.62	89.042		
7,200.00	6,972.19	6,650.00	6,627.34	34.09	33.63	-78.81	-3,945.58	-2,557.46	5,648.70	5,584.44	64.26	87.909		
7,300.00	7,018.70	6,670.27	6,646.53	34.73	33.66	-79.68	-3,944.32	-2,563.87	5,627.38	5,562.31	65.07	86.485		
7,400.00	7,051.15	6,700.00	6,674.28	35.55	33.70	-81.51	-3,942.52	-2,574.37	5,601.77	5,535.68	66.09	84.760		
7,500.00	7,068.75	6,700.00	6,674.28	36.56	33.70	-83.82	-3,942.52	-2,574.37	5,572.24	5,505.07	67.17	82.961		
7,600.00	7,071.91	6,700.00	6,674.28	37.71	33.70	-85.71	-3,942.52	-2,574.37	5,540.04	5,471.64	68.39	81.004		
7,700.00	7,071.62	6,714.96	6,688.05	39.03	33.72	-85.86	-3,941.63	-2,580.15	5,508.43	5,438.60	69.83	78.880		
7,800.00	7,071.34	6,725.01	6,697.23	40.51	33.73	-85.96	-3,941.05	-2,584.21	5,478.41	5,407.00	71.41	76.719		
7,900.00	7,071.05	6,735.94	6,707.13	42.14	33.74	-86.06	-3,940.43	-2,588.78	5,449.99	5,376.86	73.13	74.527		
8,000.00	7,070.77	6,750.00	6,719.75	43.89	33.75	-86.20	-3,939.64	-2,594.92	5,423.17	5,348.18	74.98	72.324		
8,100.00	7,070.48	6,750.00	6,719.75	45.76	33.75	-86.20	-3,939.64	-2,594.92	5,398.00	5,321.09	76.91	70.188		
8,200.00	7,070.20	6,774.11	6,741.08	47.72	33.77	-86.43	-3,938.32	-2,606.10	5,374.39	5,295.38	79.01	68.019		
8,300.00	7,069.92	6,800.00	6,763.49	49.78	33.79	-86.68	-3,936.97	-2,618.98	5,352.49	5,271.28	81.21	65.908		
8,400.00	7,069.63	6,800.00	6,763.49	51.90	33.79	-86.68	-3,936.97	-2,618.98	5,332.17	5,248.76	83.41	63.927		
8,500.00	7,069.35	6,825.01	6,784.63	54.10	33.81	-86.91	-3,935.72	-2,632.29	5,313.51	5,227.76	85.75	61.963		
8,600.00	7,069.06	6,842.52	6,799.10	56.36	33.81	-87.07	-3,934.88	-2,642.09	5,296.49	5,208.35	88.13	60.097		
8,700.00	7,068.78	6,863.84	6,816.36	58.66	33.82	-87.25	-3,933.90	-2,654.57	5,281.08	5,190.51	90.57	58.306		
8,800.00	7,068.49	6,900.00	6,844.66	61.02	33.84	-87.56	-3,932.33	-2,677.02	5,267.32	5,174.22	93.10	56.577		
8,900.00	7,068.21	6,913.08	6,854.57	63.42	33.84	-87.67	-3,931.80	-2,685.53	5,255.05	5,159.45	95.60	54.969		
9,000.00	7,067.92	6,941.53	6,875.53	65.85	33.85	-87.90	-3,930.69	-2,704.74	5,244.36	5,146.18	98.17	53.419		
9,100.00	7,067.64	6,972.93	6,897.64	68.32	33.86	-88.15	-3,929.58	-2,727.01	5,235.16	5,134.37	100.79	51.942		
9,200.00	7,067.35	7,007.58	6,920.73	70.81	33.88	-88.40	-3,928.47	-2,752.81	5,227.40	5,123.97	103.44	50.538		
9,300.00	7,067.07	7,050.00	6,947.05	73.34	33.92	-88.69	-3,927.30	-2,786.05	5,221.02	5,114.88	106.14	49.190		
9,400.00	7,066.78	7,087.77	6,968.58	75.88	33.97	-88.93	-3,926.43	-2,817.07	5,215.93	5,107.07	108.86	47.913		
9,500.00	7,066.50	7,133.74	6,992.25	78.45	34.05	-89.19	-3,925.60	-2,856.45	5,212.05	5,100.40	111.65	46.681		
9,600.00	7,066.21	7,183.73	7,014.71	81.04	34.18	-89.44	-3,924.98	-2,901.09	5,209.28	5,094.77	114.52	45.489		
9,700.00	7,065.93	7,237.58	7,034.92	83.64	34.39	-89.66	-3,924.64	-2,950.99	5,207.53	5,090.07	117.46	44.336		
9,800.00	7,065.64	7,300.00	7,052.98	86.26	34.72	-89.86	-3,924.69	-3,010.71	5,206.69	5,086.15	120.54	43.195		
9,850.82	7,065.50	7,325.01	7,058.57	87.60	34.89	-89.92	-3,924.84	-3,035.09	5,206.58	5,084.51	122.08	42.650 CC		
9,900.00	7,065.36	7,350.00	7,063.19	88.90	35.08	-89.98	-3,925.07	-3,059.65	5,206.68	5,083.10	123.58	42.131		
10,000.00	7,065.07	7,417.08	7,070.82	91.55	35.66	-90.06	-3,926.05	-3,126.25	5,207.42	5,080.55	126.87	41.044		
10,100.00	7,064.79	7,491.61	7,071.82	94.21	36.45	-90.07	-3,927.70	-3,200.74	5,208.86	5,078.52	130.35	39.962		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,200.00	7,064.50	7,591.60	7,071.22	96.88	37.76	-90.07	-3,930.06	-3,300.70	5,210.47	5,076.11	134.36	38.780		
10,300.00	7,064.22	7,691.59	7,070.61	99.57	39.33	-90.07	-3,932.41	-3,400.66	5,212.07	5,073.45	138.62	37.601		
10,400.00	7,063.94	7,791.57	7,070.01	102.26	41.11	-90.06	-3,934.77	-3,500.61	5,213.67	5,070.58	143.09	36.436		
10,500.00	7,063.65	7,891.56	7,069.41	104.96	43.09	-90.06	-3,937.12	-3,600.57	5,215.28	5,067.52	147.76	35.295		
10,600.00	7,063.37	7,991.55	7,068.81	107.67	45.22	-90.06	-3,939.48	-3,700.53	5,216.88	5,064.29	152.60	34.187		
10,700.00	7,063.08	8,091.53	7,068.21	110.39	47.49	-90.05	-3,941.84	-3,800.48	5,218.49	5,060.91	157.58	33.117		
10,800.00	7,062.80	8,191.52	7,067.60	113.11	49.88	-90.05	-3,944.19	-3,900.44	5,220.09	5,057.40	162.69	32.087		
10,900.00	7,062.51	8,291.51	7,067.00	115.84	52.37	-90.05	-3,946.55	-4,000.40	5,221.69	5,053.79	167.90	31.099		
11,000.00	7,062.23	8,391.49	7,066.40	118.58	54.95	-90.04	-3,948.91	-4,100.36	5,223.30	5,050.08	173.22	30.155		
11,100.00	7,061.94	8,491.48	7,065.80	121.32	57.61	-90.04	-3,951.26	-4,200.31	5,224.90	5,046.29	178.61	29.253		
11,200.00	7,061.66	8,591.47	7,065.20	124.07	60.33	-90.04	-3,953.62	-4,300.27	5,226.51	5,042.43	184.08	28.392		
11,300.00	7,061.37	8,691.45	7,064.59	126.82	63.11	-90.03	-3,955.97	-4,400.23	5,228.11	5,038.50	189.61	27.573		
11,400.00	7,061.09	8,791.44	7,063.99	129.58	65.94	-90.03	-3,958.33	-4,500.18	5,229.72	5,034.52	195.20	26.792		
11,500.00	7,060.80	8,891.43	7,063.39	132.34	68.81	-90.03	-3,960.69	-4,600.14	5,231.32	5,030.49	200.83	26.048		
11,600.00	7,060.52	8,991.41	7,062.79	135.10	71.72	-90.02	-3,963.04	-4,700.10	5,232.92	5,026.41	206.51	25.339		
11,700.00	7,060.23	9,091.40	7,062.19	137.87	74.67	-90.02	-3,965.40	-4,800.05	5,234.53	5,022.30	212.23	24.664		
11,800.00	7,059.95	9,191.39	7,061.58	140.64	77.65	-90.02	-3,967.76	-4,900.01	5,236.13	5,018.15	217.98	24.021		
11,900.00	7,059.66	9,291.37	7,060.98	143.42	80.65	-90.01	-3,970.11	-4,999.97	5,237.74	5,013.97	223.76	23.407		
12,000.00	7,059.38	9,391.36	7,060.38	146.20	83.68	-90.01	-3,972.47	-5,099.93	5,239.34	5,009.77	229.57	22.822		
12,100.00	7,059.09	9,491.35	7,059.78	148.98	86.73	-90.00	-3,974.83	-5,199.88	5,240.95	5,005.54	235.41	22.263		
12,200.00	7,058.81	9,591.33	7,059.18	151.77	89.80	-90.00	-3,977.18	-5,299.84	5,242.55	5,001.29	241.27	21.729		
12,300.00	7,058.52	9,691.32	7,058.57	154.55	92.89	-90.00	-3,979.54	-5,399.80	5,244.16	4,997.01	247.14	21.219		
12,400.00	7,058.24	9,791.31	7,057.97	157.34	95.99	-89.99	-3,981.89	-5,499.75	5,245.76	4,992.72	253.04	20.731		
12,500.00	7,057.96	9,891.29	7,057.37	160.14	99.11	-89.99	-3,984.25	-5,599.71	5,247.36	4,988.41	258.95	20.264		
12,600.00	7,057.67	9,991.28	7,056.77	162.93	102.24	-89.99	-3,986.61	-5,699.67	5,248.97	4,984.09	264.88	19.817		
12,700.00	7,057.39	10,091.27	7,056.17	165.73	105.38	-89.98	-3,988.96	-5,799.63	5,250.57	4,979.75	270.82	19.388		
12,800.00	7,057.10	10,191.25	7,055.56	168.53	108.54	-89.98	-3,991.32	-5,899.58	5,252.18	4,975.40	276.77	18.976		
12,900.00	7,056.82	10,291.24	7,054.96	171.33	111.70	-89.98	-3,993.68	-5,999.54	5,253.78	4,971.04	282.74	18.582		
13,000.00	7,056.53	10,391.23	7,054.36	174.13	114.87	-89.97	-3,996.03	-6,099.50	5,255.39	4,966.67	288.72	18.202		
13,100.00	7,056.25	10,491.21	7,053.76	176.94	118.05	-89.97	-3,998.39	-6,199.45	5,256.99	4,962.29	294.71	17.838		
13,200.00	7,055.96	10,591.20	7,053.16	179.74	121.24	-89.97	-4,000.74	-6,299.41	5,258.60	4,957.89	300.70	17.488		
13,300.00	7,055.68	10,691.19	7,052.55	182.55	124.44	-89.96	-4,003.10	-6,399.37	5,260.20	4,953.49	306.71	17.150		
13,400.00	7,055.39	10,791.17	7,051.95	185.36	127.64	-89.96	-4,005.46	-6,499.32	5,261.81	4,949.08	312.72	16.826		
13,500.00	7,055.11	10,891.16	7,051.35	188.17	130.85	-89.96	-4,007.81	-6,599.28	5,263.41	4,944.67	318.75	16.513		
13,600.00	7,054.82	10,991.15	7,050.75	190.98	134.07	-89.95	-4,010.17	-6,699.24	5,265.02	4,940.24	324.77	16.211		
13,700.00	7,054.54	11,091.13	7,050.14	193.80	137.29	-89.95	-4,012.53	-6,799.20	5,266.62	4,935.81	330.81	15.920		
13,800.00	7,054.25	11,191.12	7,049.54	196.61	140.51	-89.95	-4,014.88	-6,899.15	5,268.22	4,931.37	336.85	15.640		
13,900.00	7,053.97	11,291.11	7,048.94	199.43	143.74	-89.94	-4,017.24	-6,999.11	5,269.83	4,926.93	342.90	15.369		
14,000.00	7,053.68	11,391.09	7,048.34	202.25	146.98	-89.94	-4,019.60	-7,099.07	5,271.43	4,922.48	348.95	15.107		
14,100.00	7,053.40	11,491.08	7,047.74	205.06	150.21	-89.94	-4,021.95	-7,199.02	5,273.04	4,918.03	355.01	14.853		
14,200.00	7,053.11	11,591.07	7,047.13	207.88	153.46	-89.93	-4,024.31	-7,298.98	5,274.64	4,913.57	361.07	14.608		
14,300.00	7,052.83	11,691.05	7,046.53	210.70	156.70	-89.93	-4,026.66	-7,398.94	5,276.25	4,909.11	367.14	14.371		
14,400.00	7,052.54	11,791.04	7,045.93	213.53	159.95	-89.93	-4,029.02	-7,498.90	5,277.85	4,904.64	373.21	14.142		
14,500.00	7,052.26	11,891.03	7,045.33	216.35	163.20	-89.92	-4,031.38	-7,598.85	5,279.46	4,900.17	379.28	13.920		
14,600.00	7,051.98	11,991.01	7,044.73	219.17	166.46	-89.92	-4,033.73	-7,698.81	5,281.06	4,895.70	385.36	13.704		
14,700.00	7,051.69	12,091.00	7,044.12	222.00	169.71	-89.92	-4,036.09	-7,798.77	5,282.67	4,891.22	391.45	13.495		
14,800.00	7,051.41	12,190.99	7,043.52	224.82	172.97	-89.91	-4,038.45	-7,898.72	5,284.27	4,886.74	397.53	13.293		
14,900.00	7,051.12	12,290.97	7,042.92	227.65	176.24	-89.91	-4,040.80	-7,998.68	5,285.88	4,882.26	403.62	13.096		
14,942.37	7,051.00	12,333.34	7,042.67	228.85	177.62	-89.91	-4,041.80	-8,041.03	5,286.56	4,880.35	406.20	13.015 ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	15,788.55	7,244.40	3.28	247.76	0.62	1,963.45	21.23	7,505.79					
100.00	100.00	15,788.79	7,244.40	3.28	247.76	0.61	1,963.45	20.98	7,409.32	7,293.92	115.40	64.205		
200.00	200.00	15,789.03	7,244.40	3.34	247.77	0.61	1,963.45	20.74	7,312.94	7,197.17	115.78	63.165		
300.00	300.00	15,789.28	7,244.40	3.44	247.78	0.60	1,963.45	20.49	7,216.67	7,100.50	116.17	62.122		
400.00	399.98	15,789.75	7,244.40	3.60	247.79	8.99	1,963.45	20.02	7,120.03	7,003.47	116.56	61.085		
500.00	499.84	15,809.40	7,244.40	3.81	248.35	10.40	1,963.45	19.10	7,022.65	6,905.51	117.14	59.952		
600.00	599.45	15,808.03	7,244.41	4.06	248.31	12.31	1,963.46	17.74	6,924.60	6,807.19	117.41	58.977		
700.00	698.70	15,806.22	7,244.41	4.34	248.26	15.03	1,963.46	15.93	6,825.98	6,708.36	117.62	58.032		
800.00	797.47	15,803.96	7,244.42	4.64	248.19	19.24	1,963.46	13.67	6,726.89	6,609.12	117.77	57.119		
900.00	895.65	15,801.28	7,244.42	4.98	248.12	23.98	1,963.47	10.99	6,627.44	6,509.59	117.85	56.236		
1,000.00	993.66	15,801.59	7,244.43	5.32	248.12	23.74	1,963.47	8.19	6,527.92	6,409.97	117.95	55.345		
1,100.00	1,091.67	15,804.38	7,244.44	5.69	248.20	23.50	1,963.48	5.39	6,428.41	6,310.32	118.09	54.438		
1,200.00	1,189.68	15,807.18	7,244.44	6.09	248.28	23.26	1,963.48	2.59	6,328.91	6,210.68	118.23	53.529		
1,300.00	1,287.69	15,809.98	7,244.45	6.49	248.36	23.02	1,963.49	-0.21	6,229.43	6,111.04	118.39	52.617		
1,400.00	1,385.69	15,812.78	7,244.46	6.90	248.44	22.77	1,963.49	-3.01	6,129.96	6,011.40	118.56	51.704		
1,500.00	1,483.70	15,815.58	7,244.46	7.33	248.52	22.53	1,963.50	-5.81	6,030.51	5,911.77	118.74	50.789		
1,600.00	1,581.71	15,818.38	7,244.47	7.76	248.60	22.29	1,963.50	-8.60	5,931.08	5,812.15	118.93	49.872		
1,700.00	1,679.72	15,821.18	7,244.48	8.19	248.68	22.05	1,963.51	-11.40	5,831.66	5,712.53	119.13	48.953		
1,800.00	1,777.73	15,823.97	7,244.48	8.63	248.76	21.80	1,963.51	-14.20	5,732.27	5,612.92	119.34	48.033		
1,900.00	1,875.74	15,826.77	7,244.49	9.08	248.84	21.56	1,963.52	-17.00	5,632.89	5,513.32	119.57	47.110		
2,000.00	1,973.75	15,829.57	7,244.50	9.53	248.92	21.31	1,963.52	-19.80	5,533.53	5,413.72	119.81	46.186		
2,100.00	2,071.76	15,832.37	7,244.51	9.98	248.99	21.06	1,963.53	-22.60	5,434.20	5,314.13	120.07	45.260		
2,200.00	2,169.77	15,835.17	7,244.51	10.44	249.07	20.82	1,963.53	-25.40	5,334.89	5,214.55	120.34	44.332		
2,300.00	2,267.77	15,837.97	7,244.52	10.90	249.15	20.57	1,963.54	-28.19	5,235.61	5,114.98	120.63	43.402		
2,400.00	2,365.78	15,840.77	7,244.53	11.36	249.23	20.32	1,963.54	-30.99	5,136.35	5,015.41	120.94	42.471		
2,500.00	2,463.79	15,843.56	7,244.53	11.82	249.31	20.08	1,963.55	-33.79	5,037.12	4,915.85	121.27	41.538		
2,600.00	2,561.80	15,846.36	7,244.54	12.28	249.39	19.83	1,963.55	-36.59	4,937.92	4,816.30	121.61	40.603		
2,700.00	2,659.81	15,849.16	7,244.55	12.75	249.47	19.58	1,963.56	-39.39	4,838.75	4,716.76	121.99	39.667		
2,800.00	2,757.82	15,851.96	7,244.55	13.21	249.55	19.33	1,963.56	-42.19	4,739.61	4,617.23	122.38	38.728		
2,900.00	2,855.83	15,854.76	7,244.56	13.68	249.63	19.08	1,963.57	-44.99	4,640.51	4,517.71	122.80	37.789		
3,000.00	2,953.84	15,857.56	7,244.57	14.15	249.71	18.83	1,963.57	-47.78	4,541.45	4,418.20	123.25	36.847		
3,100.00	3,051.85	15,860.36	7,244.57	14.62	249.79	18.58	1,963.58	-50.58	4,442.42	4,318.69	123.73	35.905		
3,200.00	3,149.85	15,863.15	7,244.58	15.09	249.87	18.33	1,963.58	-53.38	4,343.44	4,219.20	124.24	34.961		
3,300.00	3,247.86	15,865.95	7,244.59	15.56	249.94	18.07	1,963.59	-56.18	4,244.51	4,119.73	124.78	34.016		
3,400.00	3,345.87	15,868.75	7,244.59	16.04	250.02	17.82	1,963.59	-58.98	4,145.62	4,020.26	125.36	33.070		
3,500.00	3,443.88	15,871.55	7,244.60	16.51	250.10	17.57	1,963.60	-61.78	4,046.79	3,920.81	125.98	32.122		
3,600.00	3,541.89	15,874.35	7,244.61	16.98	250.18	17.32	1,963.60	-64.58	3,948.01	3,821.37	126.64	31.175		
3,700.00	3,639.90	15,877.15	7,244.61	17.46	250.26	17.06	1,963.61	-67.37	3,849.30	3,721.95	127.35	30.227		
3,800.00	3,737.91	15,879.95	7,244.62	17.93	250.34	16.81	1,963.61	-70.17	3,750.65	3,622.55	128.10	29.279		
3,900.00	3,835.92	15,882.74	7,244.63	18.41	250.42	16.56	1,963.62	-72.97	3,652.07	3,523.16	128.91	28.330		
4,000.00	3,933.93	15,885.54	7,244.64	18.88	250.50	16.30	1,963.62	-75.77	3,553.57	3,423.80	129.77	27.383		
4,100.00	4,031.93	15,888.34	7,244.64	19.36	250.58	16.05	1,963.63	-78.57	3,455.16	3,324.46	130.70	26.436		
4,200.00	4,129.94	15,908.92	7,244.65	19.84	251.16	15.79	1,963.63	-81.37	3,356.83	3,224.90	131.93	25.444		
4,300.00	4,227.95	15,906.13	7,244.66	20.31	251.08	15.53	1,963.64	-84.17	3,258.61	3,125.69	132.91	24.517		
4,400.00	4,325.96	15,903.33	7,244.66	20.79	251.00	15.28	1,963.64	-86.96	3,160.49	3,026.52	133.97	23.590		
4,500.00	4,423.97	15,900.53	7,244.67	21.27	250.92	15.02	1,963.65	-89.76	3,062.50	2,927.38	135.12	22.666		
4,600.00	4,521.98	15,902.33	7,244.68	21.75	250.97	14.77	1,963.65	-92.56	2,964.63	2,828.22	136.41	21.733		
4,700.00	4,619.99	15,905.13	7,244.68	22.23	251.05	14.51	1,963.66	-95.36	2,866.91	2,729.09	137.82	20.801		
4,800.00	4,718.00	15,907.93	7,244.69	22.70	251.13	14.25	1,963.66	-98.16	2,769.35	2,630.01	139.34	19.875		
4,900.00	4,816.01	15,910.73	7,244.70	23.18	251.21	13.99	1,963.67	-100.96	2,671.96	2,530.99	140.98	18.953		
5,000.00	4,914.01	15,913.53	7,244.70	23.66	251.29	13.74	1,963.67	-103.76	2,574.78	2,432.03	142.75	18.037		
5,100.00	5,012.02	15,916.33	7,244.71	24.14	251.37	13.48	1,963.68	-106.55	2,477.81	2,333.15	144.66	17.128		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	15,919.13	7,244.72	24.62	251.45	13.22	1,963.68	-109.35	2,381.10	2,234.36	146.74	16.227		
5,300.00	5,208.04	15,921.92	7,244.72	25.10	251.53	12.96	1,963.69	-112.15	2,284.66	2,135.66	149.00	15.334		
5,400.00	5,306.05	15,924.72	7,244.73	25.58	251.61	12.70	1,963.69	-114.95	2,188.53	2,037.08	151.46	14.450		
5,500.00	5,404.06	15,927.52	7,244.74	26.06	251.69	12.44	1,963.70	-117.75	2,092.77	1,938.63	154.15	13.576		
5,600.00	5,502.07	15,930.32	7,244.74	26.54	251.77	12.19	1,963.70	-120.55	1,997.42	1,840.33	157.09	12.715		
5,700.00	5,600.08	15,933.12	7,244.75	27.02	251.84	11.93	1,963.71	-123.35	1,902.54	1,742.21	160.33	11.866		
5,800.00	5,698.09	15,935.92	7,244.76	27.50	251.92	11.67	1,963.71	-126.15	1,808.21	1,644.32	163.90	11.033		
5,900.00	5,796.09	15,938.72	7,244.77	27.98	252.00	11.41	1,963.72	-128.94	1,714.52	1,546.68	167.84	10.215		
6,000.00	5,894.10	15,941.51	7,244.77	28.46	252.08	11.15	1,963.72	-131.74	1,621.58	1,449.36	172.22	9.416		
6,100.00	5,992.11	15,944.31	7,244.78	28.94	252.16	10.89	1,963.73	-134.54	1,529.52	1,352.43	177.09	8.637		
6,200.00	6,090.12	15,947.11	7,244.79	29.42	252.24	10.63	1,963.73	-137.34	1,438.52	1,255.99	182.53	7.881		
6,300.00	6,188.13	15,949.91	7,244.79	29.90	252.32	10.37	1,963.74	-140.14	1,348.78	1,160.17	188.61	7.151		
6,400.00	6,286.14	15,952.71	7,244.80	30.38	252.40	10.11	1,963.74	-142.94	1,260.59	1,065.16	195.43	6.450		
6,500.00	6,384.15	15,955.51	7,244.81	30.87	252.48	9.85	1,963.75	-145.74	1,174.28	971.20	203.08	5.782		
6,600.00	6,482.15	15,958.61	7,244.81	31.35	252.57	20.68	1,963.76	-148.84	1,090.32	878.67	211.65	5.151		
6,700.00	6,579.21	15,972.31	7,244.85	31.83	252.95	62.38	1,963.78	-162.54	1,010.12	788.77	221.35	4.563		
6,800.00	6,673.04	16,001.32	7,244.92	32.30	253.77	84.00	1,963.83	-191.55	936.15	704.11	232.03	4.035		
6,900.00	6,761.33	16,044.93	7,245.02	32.74	255.01	95.43	1,963.91	-235.16	870.53	627.25	243.28	3.578		
7,000.00	6,841.90	16,102.06	7,245.16	33.17	256.62	101.51	1,964.01	-292.29	814.86	560.34	254.53	3.201		
7,100.00	6,912.77	16,171.31	7,245.33	33.60	258.58	104.49	1,964.14	-361.53	769.96	504.79	265.17	2.904		
7,200.00	6,972.19	16,250.96	7,245.53	34.09	260.84	105.57	1,964.28	-441.19	735.83	461.12	274.71	2.679		
7,300.00	7,018.70	16,339.07	7,245.74	34.73	263.33	105.60	1,964.44	-529.29	711.77	428.91	282.86	2.516		
7,400.00	7,051.15	16,433.45	7,245.97	35.55	266.01	105.19	1,964.61	-623.68	696.68	407.08	289.61	2.406		
7,500.00	7,068.75	16,531.79	7,246.21	36.56	268.79	104.79	1,964.78	-722.02	689.44	394.43	295.01	2.337		
7,577.71	7,073.42	16,609.35	7,246.40	37.45	270.99	104.56	1,964.92	-799.58	688.05	389.58	298.46	2.305 CC		
7,600.00	7,071.91	16,631.69	7,246.46	37.71	271.62	104.68	1,964.96	-821.91	688.92	389.74	299.19	2.303		
7,700.00	7,071.62	16,731.68	7,246.70	39.03	274.46	104.70	1,965.14	-921.91	689.96	386.75	303.21	2.276		
7,800.00	7,071.34	16,831.68	7,246.95	40.51	277.29	104.72	1,965.32	-1,021.90	691.00	383.60	307.40	2.248		
7,900.00	7,071.05	16,931.67	7,247.19	42.14	280.13	104.74	1,965.50	-1,121.90	692.03	380.31	311.73	2.220		
8,000.00	7,070.77	17,031.67	7,247.44	43.89	282.96	104.77	1,965.68	-1,221.89	693.07	376.89	316.18	2.192		
8,100.00	7,070.48	17,131.66	7,247.68	45.76	285.80	104.79	1,965.86	-1,321.88	694.10	373.36	320.75	2.164		
8,200.00	7,070.20	17,231.66	7,247.92	47.72	288.63	104.81	1,966.04	-1,421.88	695.14	369.73	325.41	2.136		
8,300.00	7,069.92	17,331.65	7,248.17	49.78	291.47	104.83	1,966.22	-1,521.87	696.18	366.02	330.16	2.109		
8,400.00	7,069.63	17,431.64	7,248.41	51.90	294.31	104.86	1,966.40	-1,621.86	697.21	362.24	334.98	2.081		
8,500.00	7,069.35	17,531.64	7,248.66	54.10	297.14	104.88	1,966.58	-1,721.86	698.25	358.39	339.86	2.055		
8,600.00	7,069.06	17,631.63	7,248.90	56.36	299.98	104.90	1,966.76	-1,821.85	699.28	354.48	344.80	2.028		
8,700.00	7,068.78	17,731.63	7,249.15	58.66	302.82	104.92	1,966.94	-1,921.85	700.32	350.53	349.79	2.002		
8,800.00	7,068.49	17,831.62	7,249.39	61.02	305.66	104.95	1,967.12	-2,021.84	701.36	346.53	354.83	1.977		
8,900.00	7,068.21	17,931.62	7,249.63	63.42	308.50	104.97	1,967.30	-2,121.83	702.39	342.50	359.90	1.952		
9,000.00	7,067.92	18,031.61	7,249.88	65.85	311.34	104.99	1,967.48	-2,221.83	703.43	338.43	365.01	1.927		
9,100.00	7,067.64	18,131.60	7,250.12	68.32	314.18	105.01	1,967.66	-2,321.82	704.47	334.33	370.14	1.903		
9,200.00	7,067.35	18,231.60	7,250.37	70.81	317.02	105.03	1,967.84	-2,421.82	705.51	330.20	375.31	1.880		
9,300.00	7,067.07	18,331.59	7,250.61	73.34	319.86	105.06	1,968.01	-2,521.81	706.54	326.05	380.49	1.857		
9,400.00	7,066.78	18,431.59	7,250.86	75.88	322.70	105.08	1,968.19	-2,621.80	707.58	321.88	385.70	1.835		
9,500.00	7,066.50	18,531.58	7,251.10	78.45	325.54	105.10	1,968.37	-2,721.80	708.62	317.69	390.93	1.813		
9,600.00	7,066.21	18,631.58	7,251.35	81.04	328.38	105.12	1,968.55	-2,821.79	709.66	313.48	396.17	1.791		
9,700.00	7,065.93	18,731.57	7,251.59	83.64	331.23	105.14	1,968.73	-2,921.78	710.69	309.26	401.43	1.770		
9,800.00	7,065.64	18,831.56	7,251.83	86.26	334.07	105.16	1,968.91	-3,021.78	711.73	305.02	406.71	1.750		
9,900.00	7,065.36	18,931.56	7,252.08	88.90	336.91	105.19	1,969.09	-3,121.77	712.77	300.77	412.00	1.730		
10,000.00	7,065.07	19,031.55	7,252.32	91.55	339.75	105.21	1,969.27	-3,221.77	713.81	296.51	417.29	1.711		
10,100.00	7,064.79	19,131.54	7,252.53	94.21	342.22	105.23	1,969.43	-3,308.47	714.97	292.67	422.30	1.693 ES, SF		
10,200.00	7,064.50	19,131.54	7,252.53	96.88	342.22	105.23	1,969.43	-3,308.47	724.79	303.85	420.94	1.722		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34C-9-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,064.22	19,118.26	7,252.53	99.57	342.22	105.23	1,969.43	-3,308.47	747.97	335.53	412.44	1.814		
10,400.00	7,063.94	19,118.26	7,252.53	102.26	342.22	105.23	1,969.43	-3,308.47	783.33	384.88	398.45	1.966		
10,500.00	7,063.65	19,118.26	7,252.53	104.96	342.22	105.23	1,969.43	-3,308.47	829.30	448.32	380.98	2.177		
10,600.00	7,063.37	19,118.26	7,252.53	107.67	342.22	105.23	1,969.43	-3,308.47	884.24	522.38	361.86	2.444		
10,700.00	7,063.08	19,118.26	7,252.53	110.39	342.22	105.23	1,969.43	-3,308.47	946.59	604.12	342.47	2.764		
10,800.00	7,062.80	19,118.26	7,252.53	113.11	342.22	105.23	1,969.43	-3,308.47	1,014.97	691.28	323.70	3.136		
10,900.00	7,062.51	19,118.26	7,252.53	115.84	342.22	105.23	1,969.43	-3,308.47	1,088.26	782.21	306.05	3.556		
11,000.00	7,062.23	19,118.26	7,252.53	118.58	342.22	105.23	1,969.43	-3,308.47	1,165.53	875.76	289.77	4.022		
11,100.00	7,061.94	19,118.26	7,252.53	121.32	342.22	105.23	1,969.43	-3,308.47	1,246.03	971.12	274.91	4.533		
11,200.00	7,061.66	19,118.26	7,252.53	124.07	342.22	105.23	1,969.43	-3,308.47	1,329.19	1,067.76	261.42	5.084		
11,300.00	7,061.37	19,118.26	7,252.53	126.82	342.22	105.23	1,969.43	-3,308.47	1,414.52	1,165.29	249.23	5.676		
11,400.00	7,061.09	19,118.26	7,252.53	129.58	342.22	105.23	1,969.43	-3,308.47	1,501.67	1,263.46	238.22	6.304		
11,500.00	7,060.80	19,118.26	7,252.53	132.34	342.22	105.23	1,969.43	-3,308.47	1,590.33	1,362.07	228.26	6.967		
11,600.00	7,060.52	19,118.26	7,252.53	135.10	342.22	105.23	1,969.43	-3,308.47	1,680.27	1,461.01	219.26	7.663		
11,700.00	7,060.23	19,118.26	7,252.53	137.87	342.22	105.23	1,969.43	-3,308.47	1,771.28	1,560.18	211.10	8.391		
11,800.00	7,059.95	19,118.26	7,252.53	140.64	342.22	105.23	1,969.43	-3,308.47	1,863.22	1,659.53	203.69	9.147		
11,900.00	7,059.66	19,118.26	7,252.53	143.42	342.22	105.23	1,969.43	-3,308.47	1,955.95	1,759.00	196.95	9.931		
12,000.00	7,059.38	19,118.26	7,252.53	146.20	342.22	105.23	1,969.43	-3,308.47	2,049.36	1,858.56	190.80	10.741		
12,100.00	7,059.09	19,118.26	7,252.53	148.98	342.22	105.23	1,969.43	-3,308.47	2,143.36	1,958.19	185.17	11.575		
12,200.00	7,058.81	19,118.26	7,252.53	151.77	342.22	105.23	1,969.43	-3,308.47	2,237.89	2,057.87	180.02	12.432		
12,300.00	7,058.52	19,118.26	7,252.53	154.55	342.22	105.23	1,969.43	-3,308.47	2,332.87	2,157.59	175.28	13.309		
12,400.00	7,058.24	19,118.26	7,252.53	157.34	342.22	105.23	1,969.43	-3,308.47	2,428.26	2,257.34	170.92	14.207		
12,500.00	7,057.96	19,118.26	7,252.53	160.14	342.22	105.23	1,969.43	-3,308.47	2,524.00	2,357.10	166.90	15.123		
12,600.00	7,057.67	19,118.26	7,252.53	162.93	342.22	105.23	1,969.43	-3,308.47	2,620.06	2,456.88	163.18	16.056		
12,700.00	7,057.39	19,118.26	7,252.53	165.73	342.22	105.23	1,969.43	-3,308.47	2,716.41	2,556.67	159.73	17.006		
12,800.00	7,057.10	19,118.26	7,252.53	168.53	342.22	105.23	1,969.43	-3,308.47	2,813.01	2,656.47	156.54	17.970		
12,900.00	7,056.82	19,118.26	7,252.53	171.33	342.22	105.23	1,969.43	-3,308.47	2,909.84	2,756.27	153.56	18.949		
13,000.00	7,056.53	19,118.26	7,252.53	174.13	342.22	105.23	1,969.43	-3,308.47	3,006.87	2,856.08	150.79	19.940		
13,100.00	7,056.25	19,118.26	7,252.53	176.94	342.22	105.23	1,969.43	-3,308.47	3,104.10	2,955.89	148.21	20.944		
13,200.00	7,055.96	19,118.26	7,252.53	179.74	342.22	105.23	1,969.43	-3,308.47	3,201.49	3,055.70	145.80	21.959		
13,300.00	7,055.68	19,118.26	7,252.53	182.55	342.22	105.23	1,969.43	-3,308.47	3,299.05	3,155.51	143.54	22.984		
13,400.00	7,055.39	19,118.26	7,252.53	185.36	342.22	105.23	1,969.43	-3,308.47	3,396.74	3,255.32	141.42	24.018		
13,500.00	7,055.11	19,118.26	7,252.53	188.17	342.22	105.23	1,969.43	-3,308.47	3,494.57	3,355.13	139.44	25.062		
13,600.00	7,054.82	19,118.26	7,252.53	190.98	342.22	105.23	1,969.43	-3,308.47	3,592.51	3,454.94	137.57	26.113		
13,700.00	7,054.54	19,118.26	7,252.53	193.80	342.22	105.23	1,969.43	-3,308.47	3,690.57	3,554.75	135.82	27.173		
13,800.00	7,054.25	19,118.26	7,252.53	196.61	342.22	105.23	1,969.43	-3,308.47	3,788.72	3,654.55	134.17	28.239		
13,900.00	7,053.97	19,118.26	7,252.53	199.43	342.22	105.23	1,969.43	-3,308.47	3,886.97	3,754.36	132.61	29.311		
14,000.00	7,053.68	19,118.26	7,252.53	202.25	342.22	105.23	1,969.43	-3,308.47	3,985.31	3,854.17	131.14	30.389		
14,100.00	7,053.40	19,118.26	7,252.53	205.06	342.22	105.23	1,969.43	-3,308.47	4,083.73	3,953.97	129.75	31.473		
14,200.00	7,053.11	19,118.26	7,252.53	207.88	342.22	105.23	1,969.43	-3,308.47	4,182.22	4,053.78	128.44	32.561		
14,300.00	7,052.83	19,118.26	7,252.53	210.70	342.22	105.23	1,969.43	-3,308.47	4,280.79	4,153.58	127.20	33.653		
14,400.00	7,052.54	19,118.26	7,252.53	213.53	342.22	105.23	1,969.43	-3,308.47	4,379.41	4,253.39	126.03	34.750		
14,500.00	7,052.26	19,118.26	7,252.53	216.35	342.22	105.23	1,969.43	-3,308.47	4,478.10	4,353.19	124.91	35.850		
14,600.00	7,051.98	19,118.26	7,252.53	219.17	342.22	105.23	1,969.43	-3,308.47	4,576.85	4,452.99	123.86	36.953		
14,700.00	7,051.69	19,118.26	7,252.53	222.00	342.22	105.23	1,969.43	-3,308.47	4,675.65	4,552.79	122.85	38.058		
14,800.00	7,051.41	19,118.26	7,252.53	224.82	342.22	105.23	1,969.43	-3,308.47	4,774.50	4,652.60	121.90	39.167		
14,900.00	7,051.12	19,118.26	7,252.53	227.65	342.22	105.23	1,969.43	-3,308.47	4,873.39	4,752.40	121.00	40.277		
14,942.37	7,051.00	19,118.26	7,252.53	228.85	342.22	105.23	1,969.43	-3,308.47	4,915.31	4,794.69	120.63	40.748		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	15,712.08	7,136.44	3.28	247.91	-0.03	1,803.22	-1.04	7,360.73					
100.00	100.00	15,712.32	7,136.44	3.28	247.92	-0.04	1,803.22	-1.29	7,263.82	7,150.29	113.54	63.978		
200.00	200.00	15,712.57	7,136.44	3.34	247.92	-0.05	1,803.22	-1.53	7,167.00	7,053.12	113.87	62.939		
300.00	300.00	15,712.81	7,136.44	3.44	247.93	-0.06	1,803.22	-1.77	7,070.26	6,956.03	114.23	61.897		
400.00	399.98	15,713.26	7,136.44	3.60	247.94	8.33	1,803.21	-2.22	6,973.18	6,858.61	114.58	60.860		
500.00	499.84	15,714.12	7,136.45	3.81	247.97	9.76	1,803.20	-3.08	6,875.41	6,760.52	114.89	59.845		
600.00	599.45	15,715.38	7,136.45	4.06	248.00	11.76	1,803.19	-4.34	6,777.01	6,661.86	115.15	58.853		
700.00	698.70	15,717.05	7,136.45	4.34	248.05	14.74	1,803.17	-6.01	6,678.11	6,562.75	115.36	57.888		
800.00	797.47	15,719.12	7,136.46	4.64	248.11	19.67	1,803.15	-8.08	6,578.78	6,463.27	115.52	56.951		
900.00	895.65	15,721.57	7,136.46	4.98	248.18	25.73	1,803.13	-10.53	6,479.15	6,363.54	115.61	56.042		
1,000.00	993.66	15,724.13	7,136.47	5.32	248.25	25.46	1,803.10	-13.10	6,379.46	6,263.77	115.69	55.141		
1,100.00	1,091.67	15,726.69	7,136.48	5.69	248.32	25.18	1,803.07	-15.66	6,279.77	6,163.99	115.78	54.239		
1,200.00	1,189.68	15,729.26	7,136.48	6.09	248.40	24.91	1,803.05	-18.22	6,180.10	6,064.22	115.88	53.334		
1,300.00	1,287.69	15,731.82	7,136.49	6.49	248.47	24.63	1,803.02	-20.78	6,080.43	5,964.45	115.98	52.427		
1,400.00	1,385.69	15,734.38	7,136.49	6.90	248.54	24.35	1,803.00	-23.34	5,980.78	5,864.69	116.09	51.518		
1,500.00	1,483.70	15,736.94	7,136.50	7.33	248.61	24.07	1,802.97	-25.90	5,881.13	5,764.92	116.21	50.608		
1,600.00	1,581.71	15,739.50	7,136.51	7.76	248.69	23.79	1,802.94	-28.46	5,781.50	5,665.16	116.34	49.695		
1,700.00	1,679.72	15,742.06	7,136.51	8.19	248.76	23.51	1,802.92	-31.02	5,681.88	5,565.40	116.48	48.781		
1,800.00	1,777.73	15,744.62	7,136.52	8.63	248.83	23.22	1,802.89	-33.58	5,582.27	5,465.64	116.63	47.864		
1,900.00	1,875.74	15,747.18	7,136.53	9.08	248.90	22.94	1,802.86	-36.15	5,482.67	5,365.88	116.79	46.946		
2,000.00	1,973.75	15,749.75	7,136.53	9.53	248.97	22.66	1,802.84	-38.71	5,383.09	5,266.13	116.96	46.026		
2,100.00	2,071.76	15,752.31	7,136.54	9.98	249.05	22.37	1,802.81	-41.27	5,283.52	5,166.38	117.14	45.104		
2,200.00	2,169.77	15,754.87	7,136.54	10.44	249.12	22.08	1,802.79	-43.83	5,183.97	5,066.63	117.34	44.180		
2,300.00	2,267.77	15,757.43	7,136.55	10.90	249.19	21.80	1,802.76	-46.39	5,084.43	4,966.88	117.55	43.254		
2,400.00	2,365.78	15,759.99	7,136.56	11.36	249.26	21.51	1,802.73	-48.95	4,984.91	4,867.14	117.77	42.326		
2,500.00	2,463.79	15,762.55	7,136.56	11.82	249.34	21.22	1,802.71	-51.51	4,885.41	4,767.39	118.01	41.397		
2,600.00	2,561.80	15,765.11	7,136.57	12.28	249.41	20.93	1,802.68	-54.07	4,785.93	4,667.65	118.27	40.466		
2,700.00	2,659.81	15,767.68	7,136.58	12.75	249.48	20.64	1,802.65	-56.64	4,686.46	4,567.92	118.55	39.532		
2,800.00	2,757.82	15,770.24	7,136.58	13.21	249.55	20.35	1,802.63	-59.20	4,587.02	4,468.18	118.84	38.597		
2,900.00	2,855.83	15,772.80	7,136.59	13.68	249.63	20.06	1,802.60	-61.76	4,487.61	4,368.45	119.16	37.660		
3,000.00	2,953.84	15,775.36	7,136.59	14.15	249.70	19.77	1,802.58	-64.32	4,388.22	4,268.72	119.50	36.722		
3,100.00	3,051.85	15,777.92	7,136.60	14.62	249.77	19.48	1,802.55	-66.88	4,288.85	4,168.99	119.86	35.781		
3,200.00	3,149.85	15,780.48	7,136.61	15.09	249.84	19.18	1,802.52	-69.44	4,189.52	4,069.26	120.25	34.839		
3,300.00	3,247.86	15,783.04	7,136.61	15.56	249.92	18.89	1,802.50	-72.00	4,090.21	3,969.54	120.67	33.895		
3,400.00	3,345.87	15,785.60	7,136.62	16.04	249.99	18.60	1,802.47	-74.56	3,990.94	3,869.82	121.12	32.950		
3,500.00	3,443.88	15,788.17	7,136.63	16.51	250.06	18.30	1,802.45	-77.12	3,891.71	3,770.10	121.60	32.003		
3,600.00	3,541.89	15,809.34	7,136.63	16.98	250.66	18.00	1,802.42	-79.69	3,792.51	3,670.15	122.36	30.995		
3,700.00	3,639.90	15,806.78	7,136.64	17.46	250.59	17.71	1,802.39	-82.25	3,693.35	3,570.50	122.85	30.063		
3,800.00	3,737.91	15,804.21	7,136.64	17.93	250.51	17.41	1,802.37	-84.81	3,594.24	3,470.85	123.39	29.130		
3,900.00	3,835.92	15,801.65	7,136.65	18.41	250.44	17.11	1,802.34	-87.37	3,495.18	3,371.21	123.97	28.194		
4,000.00	3,933.93	15,800.97	7,136.66	18.88	250.42	16.82	1,802.31	-89.93	3,396.17	3,271.55	124.62	27.252		
4,100.00	4,031.93	15,803.53	7,136.66	19.36	250.49	16.52	1,802.29	-92.49	3,297.22	3,171.85	125.37	26.301		
4,200.00	4,129.94	15,806.09	7,136.67	19.84	250.57	16.22	1,802.26	-95.05	3,198.33	3,072.16	126.17	25.349		
4,300.00	4,227.95	15,808.66	7,136.68	20.31	250.64	15.92	1,802.24	-97.61	3,099.51	2,972.47	127.04	24.398		
4,400.00	4,325.96	15,811.22	7,136.68	20.79	250.71	15.62	1,802.21	-100.17	3,000.77	2,872.79	127.98	23.447		
4,500.00	4,423.97	15,813.78	7,136.69	21.27	250.78	15.32	1,802.18	-102.74	2,902.11	2,773.12	128.99	22.499		
4,600.00	4,521.98	15,816.34	7,136.70	21.75	250.86	15.01	1,802.16	-105.30	2,803.54	2,673.46	130.09	21.551		
4,700.00	4,619.99	15,818.90	7,136.70	22.23	250.93	14.71	1,802.13	-107.86	2,705.08	2,573.81	131.27	20.607		
4,800.00	4,718.00	15,821.46	7,136.71	22.70	251.00	14.41	1,802.10	-110.42	2,606.73	2,474.17	132.56	19.665		
4,900.00	4,816.01	15,824.02	7,136.71	23.18	251.07	14.11	1,802.08	-112.98	2,508.51	2,374.55	133.96	18.726		
5,000.00	4,914.01	15,826.58	7,136.72	23.66	251.15	13.80	1,802.05	-115.54	2,410.43	2,274.95	135.48	17.792		
5,100.00	5,012.02	15,829.15	7,136.73	24.14	251.22	13.50	1,802.03	-118.10	2,312.51	2,175.37	137.14	16.863		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	15,831.71	7,136.73	24.62	251.29	13.20	1,802.00	-120.66	2,214.78	2,075.83	138.96	15.939		
5,300.00	5,208.04	15,834.27	7,136.74	25.10	251.36	12.89	1,801.97	-123.22	2,117.26	1,976.31	140.95	15.022		
5,400.00	5,306.05	15,836.83	7,136.75	25.58	251.43	12.59	1,801.95	-125.79	2,019.97	1,876.83	143.14	14.112		
5,500.00	5,404.06	15,839.39	7,136.75	26.06	251.51	12.28	1,801.92	-128.35	1,922.96	1,777.40	145.56	13.210		
5,600.00	5,502.07	15,841.95	7,136.76	26.54	251.58	11.98	1,801.89	-130.91	1,826.27	1,678.02	148.25	12.319		
5,700.00	5,600.08	15,844.51	7,136.76	27.02	251.65	11.67	1,801.87	-133.47	1,729.95	1,578.71	151.24	11.438		
5,800.00	5,698.09	15,847.08	7,136.77	27.50	251.72	11.37	1,801.84	-136.03	1,634.07	1,479.49	154.59	10.571		
5,900.00	5,796.09	15,849.64	7,136.78	27.98	251.80	11.06	1,801.82	-138.59	1,538.71	1,380.37	158.34	9.718		
6,000.00	5,894.10	15,852.20	7,136.78	28.46	251.87	10.75	1,801.79	-141.15	1,443.97	1,281.38	162.59	8.881		
6,100.00	5,992.11	15,854.76	7,136.79	28.94	251.94	10.45	1,801.76	-143.71	1,349.99	1,182.58	167.41	8.064		
6,200.00	6,090.12	15,857.32	7,136.80	29.42	252.01	10.14	1,801.74	-146.28	1,256.93	1,084.02	172.92	7.269		
6,300.00	6,188.13	15,859.88	7,136.80	29.90	252.09	9.83	1,801.71	-148.84	1,165.02	985.78	179.24	6.500		
6,400.00	6,286.14	15,862.44	7,136.81	30.38	252.16	9.52	1,801.68	-151.40	1,074.55	888.01	186.53	5.761		
6,500.00	6,384.15	15,865.00	7,136.81	30.87	252.23	9.22	1,801.66	-153.96	985.91	790.93	194.98	5.057		
6,600.00	6,482.15	15,867.87	7,136.82	31.35	252.31	20.25	1,801.63	-156.83	899.66	694.89	204.77	4.393		
6,700.00	6,579.21	15,881.34	7,136.85	31.83	252.69	62.60	1,801.49	-170.29	817.30	601.11	216.20	3.780		
6,800.00	6,673.04	15,910.12	7,136.92	32.30	253.51	84.12	1,801.20	-199.07	741.55	512.43	229.12	3.236		
6,900.00	6,761.33	15,953.52	7,137.03	32.74	254.73	94.92	1,800.75	-242.47	674.89	431.88	243.00	2.777		
7,000.00	6,841.90	16,010.45	7,137.17	33.17	256.34	100.04	1,800.17	-299.40	619.19	362.25	256.94	2.410		
7,100.00	6,912.77	16,079.53	7,137.34	33.60	258.29	101.79	1,799.46	-368.47	575.40	305.54	269.87	2.132		
7,200.00	6,972.19	16,159.04	7,137.53	34.09	260.54	101.52	1,798.64	-447.98	543.33	262.46	280.87	1.934		
7,300.00	7,018.70	16,247.04	7,137.75	34.73	263.03	100.23	1,797.74	-535.97	521.68	232.08	289.60	1.801		
7,400.00	7,051.15	16,341.35	7,137.98	35.55	265.70	98.76	1,796.78	-630.28	508.54	212.25	296.29	1.716		
7,500.00	7,068.75	16,439.65	7,138.22	36.56	268.48	97.79	1,795.77	-728.57	502.04	200.54	301.50	1.665		
7,600.00	7,071.91	16,539.54	7,138.46	37.71	271.31	97.64	1,794.75	-828.46	500.69	195.01	305.68	1.638		
7,700.00	7,071.62	16,639.54	7,138.71	39.03	274.14	97.60	1,793.72	-928.45	500.49	190.72	309.77	1.616		
7,800.00	7,071.34	16,739.54	7,138.95	40.51	276.97	97.77	1,792.70	-1,028.45	500.29	186.26	314.03	1.593		
7,900.00	7,071.05	16,839.54	7,139.20	42.14	279.80	97.83	1,791.67	-1,128.44	500.10	181.67	318.43	1.571		
8,000.00	7,070.77	16,939.54	7,139.44	43.89	282.63	97.90	1,790.65	-1,228.43	499.90	176.94	322.95	1.548		
8,100.00	7,070.48	17,039.53	7,139.68	45.76	285.46	97.96	1,789.62	-1,328.42	499.70	172.11	327.59	1.525		
8,200.00	7,070.20	17,139.53	7,139.93	47.72	288.30	98.02	1,788.60	-1,428.42	499.51	167.18	332.32	1.503		
8,300.00	7,069.92	17,239.53	7,140.17	49.78	291.13	98.09	1,787.57	-1,528.41	499.31	162.17	337.14	1.481 Level 3		
8,400.00	7,069.63	17,339.53	7,140.42	51.90	293.96	98.15	1,786.55	-1,628.40	499.11	157.08	342.03	1.459 Level 3		
8,500.00	7,069.35	17,439.53	7,140.66	54.10	296.80	98.22	1,785.52	-1,728.39	498.92	151.93	346.99	1.438 Level 3		
8,600.00	7,069.06	17,539.53	7,140.91	56.36	299.63	98.28	1,784.50	-1,828.39	498.73	146.73	352.00	1.417 Level 3		
8,700.00	7,068.78	17,639.52	7,141.15	58.66	302.47	98.35	1,783.47	-1,928.38	498.53	141.47	357.06	1.396 Level 3		
8,800.00	7,068.49	17,739.52	7,141.39	61.02	305.30	98.41	1,782.45	-2,028.37	498.34	136.17	362.17	1.376 Level 3		
8,900.00	7,068.21	17,839.52	7,141.64	63.42	308.14	98.48	1,781.42	-2,128.36	498.15	130.83	367.31	1.356 Level 3		
9,000.00	7,067.92	17,939.52	7,141.88	65.85	310.98	98.54	1,780.40	-2,228.36	497.96	125.46	372.49	1.337 Level 3		
9,100.00	7,067.64	18,039.52	7,142.13	68.32	313.81	98.61	1,779.37	-2,328.35	497.77	120.06	377.70	1.318 Level 3		
9,200.00	7,067.35	18,139.51	7,142.37	70.81	316.65	98.67	1,778.35	-2,428.34	497.58	114.64	382.94	1.299 Level 3		
9,300.00	7,067.07	18,239.51	7,142.62	73.34	319.49	98.74	1,777.32	-2,528.34	497.39	109.19	388.20	1.281 Level 3		
9,400.00	7,066.78	18,339.51	7,142.86	75.88	322.32	98.80	1,776.30	-2,628.33	497.20	103.72	393.48	1.264 Level 3		
9,500.00	7,066.50	18,439.51	7,143.10	78.45	325.16	98.87	1,775.27	-2,728.32	497.01	98.23	398.78	1.246 Level 2		
9,600.00	7,066.21	18,539.51	7,143.35	81.04	328.00	98.93	1,774.25	-2,828.31	496.82	92.73	404.09	1.229 Level 2		
9,700.00	7,065.93	18,639.51	7,143.59	83.64	330.84	99.00	1,773.23	-2,928.31	496.64	87.21	409.43	1.213 Level 2		
9,800.00	7,065.64	18,739.50	7,143.84	86.26	333.68	99.06	1,772.20	-3,028.30	496.45	81.68	414.77	1.197 Level 2		
9,900.00	7,065.36	18,839.50	7,144.08	88.90	336.52	99.13	1,771.18	-3,128.29	496.27	76.14	420.13	1.181 Level 2		
10,000.00	7,065.07	18,939.50	7,144.33	91.55	339.36	99.19	1,770.15	-3,228.28	496.08	70.59	425.49	1.166 Level 2		
10,080.13	7,064.85	19,019.63	7,144.52	93.68	341.63	99.25	1,769.33	-3,308.41	495.93	66.13	429.80	1.154 Level 2, CC		
10,100.00	7,064.79	19,018.34	7,144.52	94.21	341.60	99.24	1,769.34	-3,307.12	496.35	66.09	430.26	1.154 Level 2, ES, SF		
10,200.00	7,064.50	19,018.34	7,144.52	96.88	341.60	99.24	1,769.34	-3,307.12	510.31	87.30	423.00	1.206 Level 2		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FALKEN 34N-9C-L(SRC PLAN_75CC) - OH - Plan 1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,064.22	19,018.34	7,144.52	99.57	341.60	99.24	1,769.34	-3,307.12	542.64	139.99	402.65	1.348	Level 3	
10,400.00	7,063.94	19,018.34	7,144.52	102.26	341.60	99.24	1,769.34	-3,307.12	590.35	215.26	375.09	1.574		
10,500.00	7,063.65	19,018.34	7,144.52	104.96	341.60	99.24	1,769.34	-3,307.12	650.05	304.46	345.59	1.881		
10,600.00	7,063.37	19,018.34	7,144.52	107.67	341.60	99.24	1,769.34	-3,307.12	718.76	401.38	317.38	2.265		
10,700.00	7,063.08	19,018.34	7,144.52	110.39	341.60	99.24	1,769.34	-3,307.12	794.14	502.23	291.91	2.720		
10,800.00	7,062.80	19,018.34	7,144.52	113.11	341.60	99.24	1,769.34	-3,307.12	874.48	604.90	269.57	3.244		
10,900.00	7,062.51	19,018.34	7,144.52	115.84	341.60	99.24	1,769.34	-3,307.12	958.52	708.29	250.23	3.831		
11,000.00	7,062.23	19,018.34	7,144.52	118.58	341.60	99.24	1,769.34	-3,307.12	1,045.38	811.82	233.56	4.476		
11,100.00	7,061.94	19,018.34	7,144.52	121.32	341.60	99.24	1,769.34	-3,307.12	1,134.40	915.22	219.18	5.176		
11,200.00	7,061.66	19,018.34	7,144.52	124.07	341.60	99.24	1,769.34	-3,307.12	1,225.12	1,018.38	206.73	5.926		
11,300.00	7,061.37	19,018.34	7,144.52	126.82	341.60	99.24	1,769.34	-3,307.12	1,317.18	1,121.26	195.92	6.723		
11,400.00	7,061.09	19,018.34	7,144.52	129.58	341.60	99.24	1,769.34	-3,307.12	1,410.32	1,223.84	186.49	7.563		
11,500.00	7,060.80	19,018.34	7,144.52	132.34	341.60	99.24	1,769.34	-3,307.12	1,504.35	1,326.14	178.21	8.442		
11,600.00	7,060.52	19,018.34	7,144.52	135.10	341.60	99.24	1,769.34	-3,307.12	1,599.10	1,428.19	170.90	9.357		
11,700.00	7,060.23	19,018.34	7,144.52	137.87	341.60	99.24	1,769.34	-3,307.12	1,694.45	1,530.01	164.44	10.305		
11,800.00	7,059.95	19,018.34	7,144.52	140.64	341.60	99.24	1,769.34	-3,307.12	1,790.31	1,631.63	158.68	11.283		
11,900.00	7,059.66	19,018.34	7,144.52	143.42	341.60	99.24	1,769.34	-3,307.12	1,886.60	1,733.07	153.53	12.288		
12,000.00	7,059.38	19,018.34	7,144.52	146.20	341.60	99.24	1,769.34	-3,307.12	1,983.26	1,834.34	148.91	13.318		
12,100.00	7,059.09	19,018.34	7,144.52	148.98	341.60	99.24	1,769.34	-3,307.12	2,080.23	1,935.48	144.75	14.371		
12,200.00	7,058.81	19,018.34	7,144.52	151.77	341.60	99.24	1,769.34	-3,307.12	2,177.48	2,036.48	140.99	15.444		
12,300.00	7,058.52	19,018.34	7,144.52	154.55	341.60	99.24	1,769.34	-3,307.12	2,274.96	2,137.38	137.58	16.535		
12,400.00	7,058.24	19,018.34	7,144.52	157.34	341.60	99.24	1,769.34	-3,307.12	2,372.66	2,238.18	134.48	17.643		
12,500.00	7,057.96	19,018.34	7,144.52	160.14	341.60	99.24	1,769.34	-3,307.12	2,470.54	2,338.89	131.65	18.766		
12,600.00	7,057.67	19,018.34	7,144.52	162.93	341.60	99.24	1,769.34	-3,307.12	2,568.58	2,439.52	129.06	19.902		
12,700.00	7,057.39	19,018.34	7,144.52	165.73	341.60	99.24	1,769.34	-3,307.12	2,666.77	2,540.08	126.69	21.049		
12,800.00	7,057.10	19,018.34	7,144.52	168.53	341.60	99.24	1,769.34	-3,307.12	2,765.09	2,640.58	124.51	22.208		
12,900.00	7,056.82	19,018.34	7,144.52	171.33	341.60	99.24	1,769.34	-3,307.12	2,863.52	2,741.02	122.50	23.375		
13,000.00	7,056.53	19,018.34	7,144.52	174.13	341.60	99.24	1,769.34	-3,307.12	2,962.06	2,841.41	120.65	24.551		
13,100.00	7,056.25	19,018.34	7,144.52	176.94	341.60	99.24	1,769.34	-3,307.12	3,060.69	2,941.76	118.94	25.734		
13,200.00	7,055.96	19,018.34	7,144.52	179.74	341.60	99.24	1,769.34	-3,307.12	3,159.41	3,042.06	117.35	26.923		
13,300.00	7,055.68	19,018.34	7,144.52	182.55	341.60	99.24	1,769.34	-3,307.12	3,258.21	3,142.33	115.88	28.117		
13,400.00	7,055.39	19,018.34	7,144.52	185.36	341.60	99.24	1,769.34	-3,307.12	3,357.08	3,242.57	114.51	29.317		
13,500.00	7,055.11	19,018.34	7,144.52	188.17	341.60	99.24	1,769.34	-3,307.12	3,456.02	3,342.78	113.24	30.520		
13,600.00	7,054.82	19,018.34	7,144.52	190.98	341.60	99.24	1,769.34	-3,307.12	3,555.01	3,442.96	112.05	31.726		
13,700.00	7,054.54	19,018.34	7,144.52	193.80	341.60	99.24	1,769.34	-3,307.12	3,654.06	3,543.11	110.95	32.935		
13,800.00	7,054.25	19,018.34	7,144.52	196.61	341.60	99.24	1,769.34	-3,307.12	3,753.16	3,643.24	109.92	34.146		
13,900.00	7,053.97	19,018.34	7,144.52	199.43	341.60	99.24	1,769.34	-3,307.12	3,852.30	3,743.35	108.95	35.358		
14,000.00	7,053.68	19,018.34	7,144.52	202.25	341.60	99.24	1,769.34	-3,307.12	3,951.49	3,843.45	108.05	36.572		
14,100.00	7,053.40	19,018.34	7,144.52	205.06	341.60	99.24	1,769.34	-3,307.12	4,050.72	3,943.52	107.20	37.787		
14,200.00	7,053.11	19,018.34	7,144.52	207.88	341.60	99.24	1,769.34	-3,307.12	4,149.99	4,043.58	106.41	39.002		
14,300.00	7,052.83	19,018.34	7,144.52	210.70	341.60	99.24	1,769.34	-3,307.12	4,249.29	4,143.63	105.66	40.216		
14,400.00	7,052.54	19,018.34	7,144.52	213.53	341.60	99.24	1,769.34	-3,307.12	4,348.62	4,243.66	104.96	41.431		
14,500.00	7,052.26	19,018.34	7,144.52	216.35	341.60	99.24	1,769.34	-3,307.12	4,447.98	4,343.68	104.30	42.645		
14,600.00	7,051.98	19,018.34	7,144.52	219.17	341.60	99.24	1,769.34	-3,307.12	4,547.37	4,443.69	103.68	43.858		
14,700.00	7,051.69	19,018.34	7,144.52	222.00	341.60	99.24	1,769.34	-3,307.12	4,646.79	4,543.69	103.10	45.071		
14,800.00	7,051.41	19,018.34	7,144.52	224.82	341.60	99.24	1,769.34	-3,307.12	4,746.23	4,643.68	102.55	46.282		
14,900.00	7,051.12	19,018.34	7,144.52	227.65	341.60	99.24	1,769.34	-3,307.12	4,845.69	4,743.66	102.03	47.491		
14,942.37	7,051.00	19,018.34	7,144.52	228.85	341.60	99.24	1,769.34	-3,307.12	4,887.85	4,786.02	101.82	48.003		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1,508.64	1,557.88	3.28	8.11	-119.38	-4,234.65	-7,520.08	8,769.88					
100.00	100.00	1,584.00	1,632.02	3.28	8.51	-119.35	-4,224.47	-7,511.27	8,752.85	8,741.78	11.08	790.218		
200.00	200.00	1,584.00	1,632.02	3.34	8.51	-119.35	-4,224.47	-7,511.27	8,735.90	8,724.81	11.10	787.340		
300.00	300.00	300.00	1,713.91	3.44	3.41	-119.32	-4,212.98	-7,502.29	8,719.67	8,712.63	7.04	1,238.075		
400.00	399.98	1,736.88	1,782.52	3.60	9.30	-112.28	-4,203.22	-7,494.84	8,704.16	8,692.18	11.98	726.626		
500.00	499.84	1,805.70	1,850.37	3.81	9.66	-112.53	-4,194.20	-7,487.62	8,690.48	8,678.03	12.46	697.676		
600.00	599.45	1,894.23	1,937.68	4.06	10.12	-112.77	-4,183.14	-7,478.04	8,678.20	8,665.14	13.06	664.295		
700.00	698.70	1,963.00	2,005.52	4.34	10.47	-112.99	-4,174.24	-7,471.13	8,667.68	8,654.05	13.62	636.308		
800.00	797.47	2,270.38	2,308.32	4.64	12.11	-113.37	-4,135.39	-7,435.41	8,657.14	8,641.85	15.29	566.188		
900.00	895.65	2,494.54	2,528.43	4.98	13.36	-113.71	-4,105.62	-7,405.20	8,646.05	8,629.43	16.62	520.137		
1,000.00	993.66	2,550.68	2,583.52	5.32	13.68	-113.76	-4,098.23	-7,397.36	8,635.13	8,617.91	17.22	501.443		
1,100.00	1,091.67	2,885.47	2,911.20	5.69	15.64	-114.05	-4,050.23	-7,348.66	8,623.14	8,604.02	19.12	450.981		
1,200.00	1,189.68	2,931.54	2,956.19	6.09	15.91	-114.09	-4,043.19	-7,341.65	8,610.10	8,590.39	19.72	436.718		
1,300.00	1,287.69	1,300.00	3,050.80	6.49	6.62	-114.18	-4,029.29	-7,327.22	8,597.79	8,584.98	12.81	671.154		
1,400.00	1,385.69	3,140.08	3,160.11	6.90	17.16	-114.29	-4,013.77	-7,309.47	8,584.92	8,563.44	21.48	399.761		
1,500.00	1,483.70	3,200.00	3,218.79	7.33	17.52	-114.35	-4,005.87	-7,300.22	8,572.63	8,550.46	22.17	386.739		
1,600.00	1,581.71	3,254.93	3,272.63	7.76	17.84	-114.40	-3,998.74	-7,291.98	8,560.80	8,537.96	22.84	374.765		
1,700.00	1,679.72	3,349.69	3,365.42	8.19	18.39	-114.50	-3,986.21	-7,277.43	8,548.81	8,525.10	23.71	360.606		
1,800.00	1,777.73	3,391.00	3,405.90	8.63	18.64	-114.54	-3,980.81	-7,271.23	8,537.30	8,512.96	24.34	350.808		
1,900.00	1,875.74	3,424.46	3,438.73	9.08	18.83	-114.57	-3,976.46	-7,266.46	8,526.53	8,501.60	24.93	341.956		
2,000.00	1,973.75	3,450.12	3,463.96	9.53	18.97	-114.60	-3,973.12	-7,263.09	8,516.64	8,491.14	25.50	333.959		
2,100.00	2,071.76	3,486.00	3,499.27	9.98	19.18	-114.63	-3,968.46	-7,258.81	8,507.64	8,481.52	26.12	325.727		
2,200.00	2,169.77	2,200.00	3,601.18	10.44	12.09	-114.72	-3,954.63	-7,246.76	8,498.88	8,478.19	20.69	410.685		
2,300.00	2,267.77	3,621.54	3,632.66	10.90	19.93	-114.74	-3,950.15	-7,243.23	8,490.46	8,462.81	27.65	307.039		
2,400.00	2,365.78	4,071.55	4,073.98	11.36	22.51	-115.06	-3,878.07	-7,193.76	8,482.36	8,452.17	30.19	280.931		
2,500.00	2,463.79	4,106.25	4,107.96	11.82	22.72	-115.09	-3,873.02	-7,188.86	8,470.77	8,439.95	30.82	274.826		
2,600.00	2,561.80	2,600.00	4,243.99	12.28	13.88	-115.22	-3,854.54	-7,168.20	8,459.33	8,435.04	24.29	348.193		
2,700.00	2,659.81	4,295.31	4,293.15	12.75	23.83	-115.28	-3,847.80	-7,160.44	8,447.62	8,415.00	32.62	258.983		
2,800.00	2,757.82	4,343.00	4,339.99	13.21	24.11	-115.32	-3,841.68	-7,153.85	8,437.07	8,403.76	33.31	253.289		
2,900.00	2,855.83	4,345.04	4,342.00	13.68	24.13	-115.32	-3,841.42	-7,153.58	8,427.14	8,393.35	33.80	249.335		
3,000.00	2,953.84	4,439.00	4,434.35	14.15	24.66	-115.41	-3,829.15	-7,141.41	8,417.57	8,382.87	34.70	242.595		
3,100.00	3,051.85	4,504.83	4,499.07	14.62	25.03	-115.47	-3,820.32	-7,133.19	8,408.31	8,372.84	35.47	237.029		
3,200.00	3,149.85	4,556.37	4,549.81	15.09	25.32	-115.52	-3,813.61	-7,127.10	8,399.74	8,363.55	36.18	232.135		
3,300.00	3,247.86	4,629.00	4,621.39	15.56	25.72	-115.59	-3,804.91	-7,118.46	8,391.67	8,354.68	36.99	226.872		
3,400.00	3,345.87	4,629.00	4,621.39	16.04	25.72	-115.59	-3,804.91	-7,118.46	8,384.28	8,346.82	37.47	223.777		
3,500.00	3,443.88	4,681.10	4,672.84	16.51	26.00	-115.64	-3,799.16	-7,112.57	8,377.52	8,339.35	38.18	219.449		
3,600.00	3,541.89	4,724.00	4,715.28	16.98	26.23	-115.69	-3,794.67	-7,108.28	8,371.78	8,332.93	38.84	215.534		
3,700.00	3,639.90	4,805.28	4,795.77	17.46	26.64	-115.77	-3,786.62	-7,100.26	8,366.60	8,326.92	39.68	210.866		
3,800.00	3,737.91	4,851.53	4,841.57	17.93	26.88	-115.82	-3,782.28	-7,095.54	8,361.57	8,321.21	40.36	207.198		
3,900.00	3,835.92	4,887.08	4,876.82	18.41	27.05	-115.86	-3,779.06	-7,092.18	8,357.30	8,316.31	40.98	203.912		
4,000.00	3,933.93	4,915.00	4,904.51	18.88	27.19	-115.89	-3,776.60	-7,089.72	8,353.82	8,312.24	41.58	200.919		
4,100.00	4,031.93	4,973.39	4,962.50	19.36	27.47	-115.95	-3,771.58	-7,084.96	8,350.98	8,308.68	42.31	197.399		
4,200.00	4,129.94	5,021.48	5,010.28	19.84	27.70	-116.00	-3,767.54	-7,081.36	8,348.79	8,305.80	42.99	194.225		
4,300.00	4,227.95	5,104.00	5,092.34	20.31	28.09	-116.08	-3,760.79	-7,075.86	8,347.37	8,303.55	43.82	190.491		
4,400.00	4,325.96	5,104.00	5,092.34	20.79	28.09	-116.08	-3,760.79	-7,075.86	8,346.30	8,302.03	44.28	188.492		
4,438.62	4,363.81	5,104.00	5,092.34	20.98	28.09	-116.08	-3,760.79	-7,075.86	8,346.22	8,301.76	44.46	187.745		
4,500.00	4,423.97	5,104.00	5,092.34	21.27	28.09	-116.08	-3,760.79	-7,075.86	8,346.44	8,301.71	44.73	186.585		
4,600.00	4,521.98	5,187.12	5,175.10	21.75	28.46	-116.16	-3,754.73	-7,071.20	8,346.65	8,301.09	45.56	183.197		
4,700.00	4,619.99	5,223.42	5,211.29	22.23	28.61	-116.20	-3,752.47	-7,069.45	8,347.98	8,301.81	46.17	180.791		
4,800.00	4,718.00	5,294.00	5,281.71	22.70	28.92	-116.28	-3,748.75	-7,066.52	8,350.28	8,303.33	46.94	177.875		
4,900.00	4,816.01	5,294.00	5,281.71	23.18	28.92	-116.28	-3,748.75	-7,066.52	8,352.95	8,305.57	47.39	176.277		
5,000.00	4,914.01	5,354.27	5,341.89	23.66	29.16	-116.34	-3,746.08	-7,064.40	8,356.45	8,308.35	48.10	173.740		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,012.02	5,411.48	5,399.01	24.14	29.39	-116.41	-3,743.80	-7,062.57	8,360.47	8,311.68	48.79	171.340		
5,200.00	5,110.03	5,468.62	5,456.10	24.62	29.61	-116.47	-3,741.76	-7,060.92	8,365.01	8,315.52	49.49	169.024		
5,300.00	5,208.04	5,525.70	5,513.13	25.10	29.84	-116.54	-3,739.96	-7,059.45	8,370.07	8,319.89	50.18	166.789		
5,400.00	5,306.05	5,579.00	5,566.40	25.58	30.05	-116.60	-3,738.50	-7,058.24	8,375.65	8,324.79	50.86	164.687		
5,500.00	5,404.06	5,641.20	5,628.57	26.06	30.28	-116.67	-3,737.02	-7,057.04	8,381.74	8,330.17	51.57	162.534		
5,600.00	5,502.07	5,699.55	5,686.90	26.54	30.50	-116.74	-3,735.83	-7,056.13	8,388.34	8,336.08	52.26	160.509		
5,700.00	5,600.08	5,757.84	5,745.17	27.02	30.71	-116.81	-3,734.83	-7,055.43	8,395.43	8,342.48	52.95	158.552		
5,800.00	5,698.09	5,816.08	5,803.40	27.50	30.93	-116.87	-3,734.01	-7,054.94	8,403.03	8,349.39	53.64	156.660		
5,900.00	5,796.09	5,864.00	5,851.32	27.98	31.11	-116.93	-3,733.48	-7,054.69	8,411.15	8,356.87	54.28	154.970		
6,000.00	5,894.10	5,949.79	5,937.11	28.46	31.41	-117.03	-3,732.66	-7,054.54	8,419.62	8,364.54	55.08	152.850		
6,100.00	5,992.11	6,022.72	6,010.04	28.94	31.66	-117.11	-3,732.01	-7,054.67	8,428.44	8,372.60	55.83	150.963		
6,200.00	6,090.12	6,095.65	6,082.96	29.42	31.92	-117.20	-3,731.39	-7,055.05	8,437.58	8,381.00	56.58	149.133		
6,300.00	6,188.13	6,178.63	6,165.94	29.90	32.21	-117.29	-3,730.72	-7,055.75	8,447.03	8,389.66	57.37	147.237		
6,400.00	6,286.14	6,293.37	6,280.67	30.38	32.61	-117.42	-3,729.66	-7,056.72	8,456.47	8,398.16	58.31	145.018		
6,500.00	6,384.15	6,408.18	6,395.47	30.87	33.01	-117.55	-3,728.40	-7,057.57	8,465.74	8,406.49	59.26	142.868		
6,600.00	6,482.15	6,502.77	6,490.05	31.35	33.35	-109.07	-3,727.22	-7,058.23	8,474.69	8,414.58	60.11	140.993		
6,700.00	6,579.21	6,589.85	6,577.12	31.83	33.66	-78.16	-3,726.08	-7,059.01	8,475.01	8,414.08	60.93	139.093		
6,800.00	6,673.04	6,674.26	6,661.51	32.30	33.96	-64.41	-3,724.92	-7,059.92	8,462.62	8,400.88	61.74	137.069		
6,900.00	6,761.33	6,723.00	6,710.25	32.74	34.14	-58.57	-3,724.24	-7,060.52	8,437.96	8,375.59	62.37	135.278		
7,000.00	6,841.90	6,797.92	6,785.16	33.17	34.40	-56.83	-3,723.26	-7,061.64	8,401.74	8,338.60	63.14	133.067		
7,100.00	6,912.77	6,844.62	6,831.84	33.60	34.56	-57.59	-3,722.74	-7,062.50	8,355.03	8,291.24	63.79	130.977		
7,200.00	6,972.19	6,884.24	6,871.45	34.09	34.70	-60.46	-3,722.35	-7,063.33	8,298.94	8,234.50	64.45	128.770		
7,300.00	7,018.70	6,915.80	6,903.01	34.73	34.81	-65.38	-3,722.08	-7,064.06	8,234.86	8,169.74	65.12	126.452		
7,400.00	7,051.15	6,938.48	6,925.67	35.55	34.89	-72.42	-3,721.91	-7,064.61	8,164.34	8,098.52	65.82	124.040		
7,500.00	7,068.75	6,951.64	6,938.83	36.56	34.94	-81.57	-3,721.82	-7,064.95	8,089.09	8,022.55	66.54	121.574		
7,600.00	7,071.91	6,955.42	6,942.60	37.71	34.95	-88.72	-3,721.79	-7,065.05	8,011.04	7,943.77	67.26	119.102		
7,700.00	7,071.62	6,956.95	6,944.14	39.03	34.96	-88.73	-3,721.78	-7,065.09	7,932.89	7,864.84	68.06	116.563		
7,800.00	7,071.34	6,958.49	6,945.68	40.51	34.96	-88.75	-3,721.77	-7,065.13	7,855.25	7,786.30	68.94	113.936		
7,900.00	7,071.05	6,960.05	6,947.24	42.14	34.97	-88.77	-3,721.76	-7,065.17	7,778.11	7,708.19	69.92	111.238		
8,000.00	7,070.77	6,961.62	6,948.80	43.89	34.97	-88.79	-3,721.75	-7,065.21	7,701.50	7,630.51	70.99	108.482		
8,100.00	7,070.48	6,963.20	6,950.38	45.76	34.98	-88.81	-3,721.74	-7,065.25	7,625.43	7,553.28	72.15	105.685		
8,200.00	7,070.20	6,964.79	6,951.98	47.72	34.98	-88.82	-3,721.73	-7,065.29	7,549.92	7,476.52	73.40	102.860		
8,300.00	7,069.92	6,966.40	6,953.58	49.78	34.99	-88.84	-3,721.72	-7,065.34	7,474.98	7,400.24	74.73	100.022		
8,400.00	7,069.63	6,968.02	6,955.20	51.90	35.00	-88.86	-3,721.71	-7,065.38	7,400.63	7,324.48	76.15	97.182		
8,500.00	7,069.35	6,969.65	6,956.83	54.10	35.00	-88.88	-3,721.70	-7,065.42	7,326.90	7,249.24	77.65	94.354		
8,600.00	7,069.06	6,971.29	6,958.47	56.36	35.01	-88.90	-3,721.69	-7,065.47	7,253.79	7,174.55	79.24	91.546		
8,700.00	7,068.78	6,972.94	6,960.13	58.66	35.01	-88.92	-3,721.68	-7,065.51	7,181.33	7,100.43	80.90	88.770		
8,800.00	7,068.49	6,974.61	6,961.79	61.02	35.02	-88.94	-3,721.67	-7,065.56	7,109.54	7,026.90	82.64	86.032		
8,900.00	7,068.21	6,976.30	6,963.48	63.42	35.02	-88.96	-3,721.66	-7,065.60	7,038.43	6,953.98	84.45	83.339		
9,000.00	7,067.92	6,977.99	6,965.17	65.85	35.03	-88.98	-3,721.65	-7,065.65	6,968.04	6,881.69	86.35	80.699		
9,100.00	7,067.64	6,979.70	6,966.88	68.32	35.04	-89.00	-3,721.64	-7,065.70	6,898.37	6,810.06	88.31	78.115		
9,200.00	7,067.35	6,981.43	6,968.60	70.81	35.04	-89.02	-3,721.63	-7,065.75	6,829.46	6,739.11	90.35	75.592		
9,300.00	7,067.07	6,983.16	6,970.34	73.34	35.05	-89.04	-3,721.62	-7,065.79	6,761.32	6,668.87	92.45	73.132		
9,400.00	7,066.78	6,984.91	6,972.09	75.88	35.05	-89.06	-3,721.61	-7,065.84	6,693.99	6,599.36	94.63	70.739		
9,500.00	7,066.50	6,986.68	6,973.85	78.45	35.06	-89.08	-3,721.60	-7,065.89	6,627.48	6,530.60	96.87	68.414		
9,600.00	7,066.21	6,988.46	6,975.63	81.04	35.07	-89.10	-3,721.59	-7,065.94	6,561.81	6,462.63	99.18	66.159		
9,700.00	7,065.93	7,010.00	6,997.17	83.64	35.14	-89.34	-3,721.47	-7,066.56	6,497.07	6,395.41	101.66	63.909		
9,800.00	7,065.64	7,010.00	6,997.17	86.26	35.14	-89.34	-3,721.47	-7,066.56	6,433.17	6,329.08	104.09	61.803		
9,900.00	7,065.36	7,010.00	6,997.17	88.90	35.14	-89.34	-3,721.47	-7,066.56	6,370.21	6,263.62	106.59	59.766		
10,000.00	7,065.07	7,010.00	6,997.17	91.55	35.14	-89.34	-3,721.47	-7,066.56	6,308.20	6,199.06	109.14	57.798		
10,100.00	7,064.79	7,010.00	6,997.17	94.21	35.14	-89.34	-3,721.47	-7,066.56	6,247.18	6,135.42	111.76	55.899		
10,200.00	7,064.50	7,010.00	6,997.17	96.88	35.14	-89.34	-3,721.47	-7,066.56	6,187.17	6,072.74	114.43	54.067		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	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: 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	
10,300.00	7,064.22	7,010.00	6,997.17	99.57	35.14	-89.34	-3,721.47	-7,066.56	6,128.21	6,011.04	117.17	52.302	
10,400.00	7,063.94	7,010.00	6,997.17	102.26	35.14	-89.34	-3,721.47	-7,066.56	6,070.32	5,950.36	119.96	50.603	
10,500.00	7,063.65	7,010.00	6,997.17	104.96	35.14	-89.34	-3,721.47	-7,066.56	6,013.53	5,890.73	122.81	48.968	
10,600.00	7,063.37	7,010.00	6,997.17	107.67	35.14	-89.34	-3,721.47	-7,066.56	5,957.89	5,832.18	125.71	47.396	
10,700.00	7,063.08	7,010.00	6,997.17	110.39	35.14	-89.34	-3,721.47	-7,066.56	5,903.41	5,774.76	128.66	45.885	
10,800.00	7,062.80	7,012.16	6,999.33	113.11	35.15	-89.37	-3,721.46	-7,066.62	5,850.14	5,718.47	131.67	44.430	
10,900.00	7,062.51	7,016.40	7,003.56	115.84	35.16	-89.42	-3,721.44	-7,066.75	5,798.10	5,663.35	134.74	43.031	
11,000.00	7,062.23	7,020.67	7,007.83	118.58	35.18	-89.47	-3,721.41	-7,066.87	5,747.32	5,609.46	137.86	41.689	
11,100.00	7,061.94	7,024.99	7,012.15	121.32	35.20	-89.52	-3,721.39	-7,067.00	5,697.85	5,556.82	141.03	40.402	
11,200.00	7,061.66	7,029.34	7,016.50	124.07	35.21	-89.57	-3,721.36	-7,067.13	5,649.71	5,505.48	144.23	39.171	
11,300.00	7,061.37	7,033.73	7,020.89	126.82	35.23	-89.62	-3,721.33	-7,067.26	5,602.94	5,455.47	147.48	37.992	
11,400.00	7,061.09	7,038.17	7,025.32	129.58	35.24	-89.67	-3,721.30	-7,067.39	5,557.58	5,406.82	150.76	36.864	
11,500.00	7,060.80	7,042.64	7,029.79	132.34	35.26	-89.72	-3,721.26	-7,067.53	5,513.65	5,359.58	154.08	35.785	
11,600.00	7,060.52	7,047.16	7,034.30	135.10	35.27	-89.77	-3,721.22	-7,067.66	5,471.20	5,313.78	157.42	34.755	
11,700.00	7,060.23	7,051.71	7,038.86	137.87	35.29	-89.83	-3,721.19	-7,067.80	5,430.25	5,269.46	160.79	33.772	
11,800.00	7,059.95	7,056.32	7,043.46	140.64	35.31	-89.88	-3,721.14	-7,067.94	5,390.85	5,226.66	164.19	32.833	
11,900.00	7,059.66	7,060.96	7,048.10	143.42	35.32	-89.93	-3,721.10	-7,068.09	5,353.02	5,185.41	167.61	31.938	
12,000.00	7,059.38	7,065.65	7,052.79	146.20	35.34	-89.99	-3,721.05	-7,068.23	5,316.80	5,145.76	171.04	31.085	
12,100.00	7,059.09	7,070.38	7,057.52	148.98	35.35	-90.04	-3,721.01	-7,068.38	5,282.22	5,107.74	174.48	30.274	
12,200.00	7,058.81	7,075.16	7,062.29	151.77	35.37	-90.10	-3,720.95	-7,068.53	5,249.32	5,071.39	177.93	29.502	
12,300.00	7,058.52	7,079.98	7,067.11	154.55	35.39	-90.15	-3,720.90	-7,068.68	5,218.13	5,036.74	181.39	28.768	
12,400.00	7,058.24	7,084.85	7,071.98	157.34	35.41	-90.21	-3,720.84	-7,068.83	5,188.67	5,003.83	184.84	28.071	
12,500.00	7,057.96	7,089.77	7,076.90	160.14	35.42	-90.26	-3,720.78	-7,068.98	5,160.98	4,972.69	188.29	27.410	
12,600.00	7,057.67	7,094.74	7,081.86	162.93	35.44	-90.32	-3,720.72	-7,069.14	5,135.09	4,943.36	191.72	26.784	
12,700.00	7,057.39	7,099.75	7,086.87	165.73	35.46	-90.38	-3,720.66	-7,069.30	5,111.01	4,915.87	195.14	26.191	
12,800.00	7,057.10	7,104.81	7,091.93	168.53	35.48	-90.44	-3,720.59	-7,069.46	5,088.79	4,890.25	198.54	25.631	
12,900.00	7,056.82	7,109.93	7,097.04	171.33	35.49	-90.50	-3,720.52	-7,069.62	5,068.44	4,866.53	201.91	25.102	
13,000.00	7,056.53	7,115.09	7,102.20	174.13	35.51	-90.56	-3,720.44	-7,069.79	5,049.99	4,844.74	205.25	24.604	
13,100.00	7,056.25	7,120.31	7,107.42	176.94	35.53	-90.62	-3,720.36	-7,069.96	5,033.45	4,824.89	208.55	24.135	
13,200.00	7,055.96	7,125.58	7,112.68	179.74	35.55	-90.68	-3,720.28	-7,070.13	5,018.85	4,807.03	211.82	23.694	
13,300.00	7,055.68	7,130.90	7,118.00	182.55	35.57	-90.74	-3,720.20	-7,070.30	5,006.20	4,791.16	215.03	23.281	
13,400.00	7,055.39	7,136.27	7,123.37	185.36	35.59	-90.80	-3,720.11	-7,070.48	4,995.51	4,777.32	218.19	22.895	
13,500.00	7,055.11	7,141.70	7,128.80	188.17	35.61	-90.86	-3,720.02	-7,070.66	4,986.81	4,765.51	221.30	22.534	
13,600.00	7,054.82	7,147.19	7,134.28	190.98	35.62	-90.93	-3,719.92	-7,070.84	4,980.09	4,755.75	224.35	22.198	
13,700.00	7,054.54	7,152.73	7,139.82	193.80	35.64	-90.99	-3,719.83	-7,071.03	4,975.38	4,748.05	227.32	21.887	
13,800.00	7,054.25	7,158.33	7,145.41	196.61	35.66	-91.05	-3,719.72	-7,071.21	4,972.66	4,742.43	230.23	21.598	
13,885.17	7,054.01	7,163.15	7,150.22	199.01	35.68	-91.11	-3,719.63	-7,071.37	4,971.94	4,739.28	232.65	21.370 CC	
13,900.00	7,053.97	7,163.99	7,151.06	199.43	35.68	-91.12	-3,719.62	-7,071.40	4,971.96	4,738.89	233.07	21.332	
14,000.00	7,053.68	7,169.70	7,156.78	202.25	35.70	-91.18	-3,719.50	-7,071.60	4,973.26	4,737.43	235.83	21.088 ES	
14,100.00	7,053.40	7,175.48	7,162.55	205.06	35.72	-91.25	-3,719.39	-7,071.79	4,976.57	4,738.06	238.51	20.866	
14,200.00	7,053.11	7,181.32	7,168.38	207.88	35.75	-91.32	-3,719.27	-7,071.99	4,981.88	4,740.78	241.10	20.663	
14,300.00	7,052.83	7,187.22	7,174.28	210.70	35.77	-91.39	-3,719.15	-7,072.19	4,989.18	4,745.58	243.61	20.481	
14,400.00	7,052.54	7,193.18	7,180.23	213.53	35.79	-91.45	-3,719.02	-7,072.40	4,998.47	4,752.45	246.02	20.317	
14,500.00	7,052.26	7,199.21	7,186.26	216.35	35.81	-91.52	-3,718.88	-7,072.61	5,009.74	4,761.39	248.35	20.172	
14,600.00	7,051.98	7,205.30	7,192.34	219.17	35.83	-91.59	-3,718.74	-7,072.82	5,022.97	4,772.39	250.58	20.045	
14,700.00	7,051.69	7,211.46	7,198.49	222.00	35.85	-91.67	-3,718.60	-7,073.03	5,038.14	4,785.42	252.72	19.935	
14,800.00	7,051.41	7,217.68	7,204.71	224.82	35.87	-91.74	-3,718.45	-7,073.25	5,055.25	4,800.48	254.77	19.843	
14,900.00	7,051.12	7,223.98	7,211.00	227.65	35.90	-91.81	-3,718.30	-7,073.48	5,074.26	4,817.55	256.71	19.766	
14,942.37	7,051.00	7,226.66	7,213.69	228.85	35.90	-91.84	-3,718.23	-7,073.57	5,082.89	4,825.38	257.51	19.739 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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	69.00	3.28	3.28	-119.81	-4,390.87	-7,664.30	8,833.23					
100.00	100.00	31.00	100.00	3.28	3.32	-119.81	-4,390.87	-7,664.30	8,832.96	8,826.35	6.61	1,336.494		
200.00	200.00	131.00	200.00	3.34	4.33	-119.81	-4,390.87	-7,664.30	8,832.96	8,825.29	7.67	1,151.976		
300.00	300.00	231.00	300.00	3.44	7.12	-119.81	-4,390.87	-7,664.30	8,832.96	8,822.40	10.56	836.121		
400.00	399.98	330.98	399.98	3.60	10.34	-112.50	-4,390.87	-7,664.30	8,833.63	8,819.68	13.95	633.415		
500.00	499.84	430.84	499.84	3.81	13.69	-112.50	-4,390.87	-7,664.30	8,835.63	8,818.14	17.50	504.905		
600.00	599.45	530.45	599.45	4.06	17.09	-112.49	-4,390.87	-7,664.30	8,838.98	8,817.84	21.14	418.161		
700.00	698.70	629.70	698.70	4.34	20.50	-112.47	-4,390.87	-7,664.30	8,843.67	8,818.85	24.82	356.245		
800.00	797.47	728.47	797.47	4.64	23.91	-112.46	-4,390.87	-7,664.30	8,849.71	8,821.17	28.54	310.071		
900.00	895.65	826.65	895.65	4.98	27.31	-112.47	-4,390.87	-7,664.30	8,857.06	8,824.79	32.27	274.430		
1,000.00	993.66	924.66	993.66	5.32	30.71	-112.59	-4,390.87	-7,664.30	8,864.80	8,828.77	36.03	246.038		
1,100.00	1,091.67	1,022.67	1,091.67	5.69	34.11	-112.70	-4,390.87	-7,664.30	8,872.58	8,832.77	39.81	222.880		
1,200.00	1,189.68	1,120.68	1,189.68	6.09	37.52	-112.82	-4,390.87	-7,664.30	8,880.39	8,836.79	43.61	203.652		
1,300.00	1,287.69	1,218.69	1,287.69	6.49	40.93	-112.93	-4,390.87	-7,664.30	8,888.24	8,840.83	47.42	187.447		
1,400.00	1,385.69	1,316.69	1,385.69	6.90	44.34	-113.05	-4,390.87	-7,664.30	8,896.13	8,844.89	51.24	173.613		
1,500.00	1,483.70	1,414.70	1,483.70	7.33	47.75	-113.17	-4,390.87	-7,664.30	8,904.06	8,848.98	55.07	161.672		
1,600.00	1,581.71	1,512.71	1,581.71	7.76	51.17	-113.28	-4,390.87	-7,664.30	8,912.02	8,853.11	58.92	151.265		
1,700.00	1,679.72	1,610.72	1,679.72	8.19	54.58	-113.40	-4,390.87	-7,664.30	8,920.02	8,857.26	62.77	142.117		
1,800.00	1,777.73	1,708.73	1,777.73	8.63	58.00	-113.51	-4,390.87	-7,664.30	8,928.06	8,861.44	66.62	134.015		
1,900.00	1,875.74	1,806.74	1,875.74	9.08	61.42	-113.63	-4,390.87	-7,664.30	8,936.13	8,865.66	70.48	126.791		
2,000.00	1,973.75	1,904.75	1,973.75	9.53	64.83	-113.74	-4,390.87	-7,664.30	8,944.25	8,869.90	74.34	120.311		
2,100.00	2,071.76	2,002.76	2,071.76	9.98	68.25	-113.86	-4,390.87	-7,664.30	8,952.39	8,874.18	78.21	114.466		
2,200.00	2,169.77	2,100.77	2,169.77	10.44	71.67	-113.97	-4,390.87	-7,664.30	8,960.58	8,878.50	82.08	109.168		
2,300.00	2,267.77	2,201.23	2,267.77	10.90	75.17	-114.08	-4,390.87	-7,664.30	8,968.80	8,882.76	86.04	104.241		
2,400.00	2,365.78	2,303.22	2,365.78	11.36	78.73	-114.20	-4,390.87	-7,664.30	8,977.06	8,887.00	90.05	99.686		
2,500.00	2,463.79	2,405.21	2,463.79	11.82	82.29	-114.31	-4,390.87	-7,664.30	8,985.35	8,891.28	94.07	95.517		
2,600.00	2,561.80	2,507.20	2,561.80	12.28	85.84	-114.42	-4,390.87	-7,664.30	8,993.68	8,895.59	98.09	91.689		
2,700.00	2,659.81	2,609.19	2,659.81	12.75	89.40	-114.54	-4,390.87	-7,664.30	9,002.04	8,899.94	102.11	88.161		
2,800.00	2,757.82	2,688.82	2,757.82	13.21	92.18	-114.65	-4,390.87	-7,664.30	9,010.45	8,905.10	105.35	85.528		
2,900.00	2,855.83	2,786.83	2,855.83	13.68	95.60	-114.76	-4,390.87	-7,664.30	9,018.88	8,909.65	109.23	82.564		
3,000.00	2,953.84	2,884.84	2,953.84	14.15	99.02	-114.88	-4,390.87	-7,664.30	9,027.36	8,914.24	113.12	79.804		
3,100.00	3,051.85	2,982.85	3,051.85	14.62	102.44	-114.99	-4,390.87	-7,664.30	9,035.87	8,918.86	117.01	77.226		
3,200.00	3,149.85	3,080.85	3,149.85	15.09	105.86	-115.10	-4,390.87	-7,664.30	9,044.41	8,923.52	120.89	74.813		
3,300.00	3,247.86	3,178.86	3,247.86	15.56	109.28	-115.21	-4,390.87	-7,664.30	9,052.99	8,928.21	124.78	72.551		
3,400.00	3,345.87	3,276.87	3,345.87	16.04	112.70	-115.32	-4,390.87	-7,664.30	9,061.61	8,932.94	128.67	70.425		
3,500.00	3,443.88	3,374.88	3,443.88	16.51	116.12	-115.44	-4,390.87	-7,664.30	9,070.26	8,937.70	132.56	68.424		
3,600.00	3,541.89	3,472.89	3,541.89	16.98	119.54	-115.55	-4,390.87	-7,664.30	9,078.94	8,942.49	136.45	66.537		
3,700.00	3,639.90	3,570.90	3,639.90	17.46	122.96	-115.66	-4,390.87	-7,664.30	9,087.67	8,947.32	140.34	64.754		
3,800.00	3,737.91	3,668.91	3,737.91	17.93	126.38	-115.77	-4,390.87	-7,664.30	9,096.42	8,952.19	144.23	63.068		
3,900.00	3,835.92	3,766.92	3,835.92	18.41	129.80	-115.88	-4,390.87	-7,664.30	9,105.21	8,957.09	148.12	61.470		
4,000.00	3,933.93	3,864.93	3,933.93	18.88	133.22	-115.99	-4,390.87	-7,664.30	9,114.04	8,962.02	152.02	59.954		
4,100.00	4,031.93	3,962.93	4,031.93	19.36	136.64	-116.10	-4,390.87	-7,664.30	9,122.90	8,966.99	155.91	58.514		
4,200.00	4,129.94	4,060.94	4,129.94	19.84	140.06	-116.21	-4,390.87	-7,664.30	9,131.79	8,971.99	159.80	57.144		
4,300.00	4,227.95	4,158.95	4,227.95	20.31	143.48	-116.32	-4,390.87	-7,664.30	9,140.72	8,977.03	163.70	55.840		
4,400.00	4,325.96	4,256.96	4,325.96	20.79	146.90	-116.43	-4,390.87	-7,664.30	9,149.69	8,982.10	167.59	54.596		
4,500.00	4,423.97	4,354.97	4,423.97	21.27	150.32	-116.54	-4,390.87	-7,664.30	9,158.69	8,987.20	171.48	53.409		
4,600.00	4,521.98	4,452.98	4,521.98	21.75	153.74	-116.65	-4,390.87	-7,664.30	9,167.72	8,992.34	175.38	52.274		
4,700.00	4,619.99	4,550.99	4,619.99	22.23	157.16	-116.76	-4,390.87	-7,664.30	9,176.78	8,997.51	179.27	51.189		
4,800.00	4,718.00	4,649.00	4,718.00	22.70	160.58	-116.87	-4,390.87	-7,664.30	9,185.88	9,002.72	183.17	50.150		
4,900.00	4,816.01	4,747.01	4,816.01	23.18	164.01	-116.98	-4,390.87	-7,664.30	9,195.02	9,007.96	187.06	49.155		
5,000.00	4,914.01	4,845.01	4,914.01	23.66	167.43	-117.08	-4,390.87	-7,664.30	9,204.19	9,013.23	190.96	48.200		
5,100.00	5,012.02	4,943.02	5,012.02	24.14	170.85	-117.19	-4,390.87	-7,664.30	9,213.39	9,018.54	194.85	47.284		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,041.03	5,110.03	24.62	174.27	-117.30	-4,390.87	-7,664.30	9,222.62	9,023.88	198.75	46.404		
5,300.00	5,208.04	5,139.04	5,208.04	25.10	177.69	-117.41	-4,390.87	-7,664.30	9,231.89	9,029.25	202.64	45.557		
5,400.00	5,306.05	5,237.05	5,306.05	25.58	181.11	-117.52	-4,390.87	-7,664.30	9,241.20	9,034.66	206.54	44.743		
5,500.00	5,404.06	5,335.06	5,404.06	26.06	184.53	-117.62	-4,390.87	-7,664.30	9,250.53	9,040.09	210.44	43.959		
5,600.00	5,502.07	5,433.07	5,502.07	26.54	187.95	-117.73	-4,390.87	-7,664.30	9,259.90	9,045.57	214.33	43.204		
5,700.00	5,600.08	5,531.08	5,600.08	27.02	191.37	-117.84	-4,390.87	-7,664.30	9,269.30	9,051.07	218.23	42.475		
5,800.00	5,698.09	5,629.09	5,698.09	27.50	194.79	-117.94	-4,390.87	-7,664.30	9,278.74	9,056.61	222.12	41.773		
5,900.00	5,796.09	5,727.09	5,796.09	27.98	198.21	-118.05	-4,390.87	-7,664.30	9,288.20	9,062.18	226.02	41.094		
6,000.00	5,894.10	5,825.10	5,894.10	28.46	201.64	-118.16	-4,390.87	-7,664.30	9,297.70	9,067.79	229.92	40.439		
6,100.00	5,992.11	5,923.11	5,992.11	28.94	205.06	-118.26	-4,390.87	-7,664.30	9,307.24	9,073.42	233.81	39.806		
6,200.00	6,090.12	6,021.12	6,090.12	29.42	208.48	-118.37	-4,390.87	-7,664.30	9,316.80	9,079.09	237.71	39.194		
6,300.00	6,188.13	6,119.13	6,188.13	29.90	211.90	-118.47	-4,390.87	-7,664.30	9,326.40	9,084.79	241.61	38.602		
6,400.00	6,286.14	6,217.14	6,286.14	30.38	215.32	-118.58	-4,390.87	-7,664.30	9,336.03	9,090.53	245.50	38.028		
6,500.00	6,384.15	6,315.15	6,384.15	30.87	218.74	-118.68	-4,390.87	-7,664.30	9,345.69	9,096.29	249.40	37.473		
6,600.00	6,482.15	6,413.15	6,482.15	31.35	222.16	-110.20	-4,390.87	-7,664.30	9,355.14	9,101.84	253.30	36.933		
6,700.00	6,579.21	6,510.21	6,579.21	31.83	225.55	-79.27	-4,390.87	-7,664.30	9,355.96	9,098.80	257.17	36.381		
6,800.00	6,673.04	6,604.04	6,673.04	32.30	228.83	-65.53	-4,390.87	-7,664.30	9,344.14	9,083.22	260.93	35.812		
6,900.00	6,761.33	6,707.67	6,761.33	32.74	232.44	-59.80	-4,390.87	-7,664.30	9,320.05	9,055.03	265.02	35.167		
7,000.00	6,841.90	6,772.90	6,841.90	33.17	234.72	-58.09	-4,390.87	-7,664.30	9,284.38	9,016.60	267.78	34.672		
7,100.00	6,912.77	6,843.77	6,912.77	33.60	237.19	-58.98	-4,390.87	-7,664.30	9,238.10	8,967.35	270.75	34.120		
7,200.00	6,972.19	6,903.19	6,972.19	34.09	239.27	-62.00	-4,390.87	-7,664.30	9,182.44	8,909.08	273.36	33.591		
7,300.00	7,018.70	6,949.70	7,018.70	34.73	240.89	-67.05	-4,390.87	-7,664.30	9,118.86	8,843.30	275.57	33.091		
7,400.00	7,051.15	6,982.15	7,051.15	35.55	242.02	-74.16	-4,390.87	-7,664.30	9,048.98	8,771.64	277.34	32.628		
7,500.00	7,068.75	7,000.25	7,068.75	36.56	242.66	-83.23	-4,390.87	-7,664.30	8,974.54	8,695.88	278.67	32.205		
7,600.00	7,071.91	7,002.91	7,071.91	37.71	242.75	-90.20	-4,390.87	-7,664.30	8,897.48	8,617.98	279.50	31.834		
7,700.00	7,071.62	7,002.62	7,071.62	39.03	242.74	-90.20	-4,390.87	-7,664.30	8,820.35	8,540.04	280.31	31.467		
7,800.00	7,071.34	7,002.34	7,071.34	40.51	242.73	-90.19	-4,390.87	-7,664.30	8,743.67	8,462.47	281.21	31.094		
7,900.00	7,071.05	7,002.05	7,071.05	42.14	242.72	-90.19	-4,390.87	-7,664.30	8,667.48	8,385.28	282.19	30.715		
8,000.00	7,070.77	7,001.77	7,070.77	43.89	242.71	-90.19	-4,390.87	-7,664.30	8,591.77	8,308.50	283.27	30.330		
8,100.00	7,070.48	7,001.48	7,070.48	45.76	242.70	-90.18	-4,390.87	-7,664.30	8,516.56	8,232.12	284.44	29.942		
8,200.00	7,070.20	7,001.20	7,070.20	47.72	242.69	-90.18	-4,390.87	-7,664.30	8,441.87	8,156.18	285.69	29.549		
8,300.00	7,069.92	7,000.92	7,069.92	49.78	242.68	-90.18	-4,390.87	-7,664.30	8,367.70	8,080.68	287.02	29.154		
8,400.00	7,069.63	7,000.63	7,069.63	51.90	242.67	-90.18	-4,390.87	-7,664.30	8,294.08	8,005.65	288.44	28.755		
8,500.00	7,069.35	7,000.35	7,069.35	54.10	242.66	-90.17	-4,390.87	-7,664.30	8,221.02	7,931.09	289.93	28.355		
8,600.00	7,069.06	7,000.06	7,069.06	56.36	242.65	-90.17	-4,390.87	-7,664.30	8,148.53	7,857.03	291.50	27.954		
8,700.00	7,068.78	7,000.22	7,068.78	58.66	242.65	-90.17	-4,390.87	-7,664.30	8,076.62	7,783.47	293.15	27.551		
8,800.00	7,068.49	7,000.51	7,068.49	61.02	242.66	-90.16	-4,390.87	-7,664.30	8,005.32	7,710.43	294.89	27.147		
8,900.00	7,068.21	7,000.79	7,068.21	63.42	242.67	-90.16	-4,390.87	-7,664.30	7,934.64	7,637.94	296.69	26.744		
9,000.00	7,067.92	7,001.08	7,067.92	65.85	242.68	-90.16	-4,390.87	-7,664.30	7,864.59	7,566.02	298.57	26.341		
9,100.00	7,067.64	7,001.36	7,067.64	68.32	242.69	-90.16	-4,390.87	-7,664.30	7,795.20	7,494.69	300.51	25.940		
9,200.00	7,067.35	7,001.65	7,067.35	70.81	242.70	-90.15	-4,390.87	-7,664.30	7,726.48	7,423.97	302.51	25.541		
9,300.00	7,067.07	7,001.93	7,067.07	73.34	242.71	-90.15	-4,390.87	-7,664.30	7,658.44	7,353.87	304.58	25.144		
9,400.00	7,066.78	7,002.22	7,066.78	75.88	242.72	-90.15	-4,390.87	-7,664.30	7,591.12	7,284.41	306.71	24.750		
9,500.00	7,066.50	7,002.50	7,066.50	78.45	242.73	-90.14	-4,390.87	-7,664.30	7,524.52	7,215.62	308.90	24.359		
9,600.00	7,066.21	7,002.79	7,066.21	81.04	242.74	-90.14	-4,390.87	-7,664.30	7,458.67	7,147.52	311.15	23.971		
9,700.00	7,065.93	7,003.07	7,065.93	83.64	242.75	-90.14	-4,390.87	-7,664.30	7,393.58	7,080.13	313.46	23.587		
9,800.00	7,065.64	7,003.36	7,065.64	86.26	242.76	-90.14	-4,390.87	-7,664.30	7,329.28	7,013.46	315.82	23.207		
9,900.00	7,065.36	7,003.64	7,065.36	88.90	242.77	-90.13	-4,390.87	-7,664.30	7,265.79	6,947.55	318.25	22.831		
10,000.00	7,065.07	7,003.93	7,065.07	91.55	242.78	-90.13	-4,390.87	-7,664.30	7,203.13	6,882.41	320.72	22.459		
10,100.00	7,064.79	7,004.21	7,064.79	94.21	242.79	-90.13	-4,390.87	-7,664.30	7,141.32	6,818.07	323.25	22.092		
10,200.00	7,064.50	7,004.50	7,064.50	96.88	242.80	-90.12	-4,390.87	-7,664.30	7,080.38	6,754.54	325.83	21.730		
10,300.00	7,064.22	7,004.78	7,064.22	99.57	242.81	-90.12	-4,390.87	-7,664.30	7,020.33	6,691.87	328.46	21.373		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 11-21(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	7,005.07	7,063.94	102.26	242.82	-90.12	-4,390.87	-7,664.30	6,961.21	6,630.06	331.15	21.021		
10,500.00	7,063.65	7,005.35	7,063.65	104.96	242.83	-90.12	-4,390.87	-7,664.30	6,903.02	6,569.14	333.88	20.675		
10,600.00	7,063.37	7,005.63	7,063.37	107.67	242.84	-90.11	-4,390.87	-7,664.30	6,845.80	6,509.14	336.66	20.335		
10,700.00	7,063.08	7,005.92	7,063.08	110.39	242.85	-90.11	-4,390.87	-7,664.30	6,789.58	6,450.09	339.49	20.000		
10,800.00	7,062.80	7,006.20	7,062.80	113.11	242.86	-90.11	-4,390.87	-7,664.30	6,734.37	6,392.01	342.36	19.671		
10,900.00	7,062.51	7,006.49	7,062.51	115.84	242.87	-90.10	-4,390.87	-7,664.30	6,680.20	6,334.92	345.27	19.348		
11,000.00	7,062.23	7,006.77	7,062.23	118.58	242.88	-90.10	-4,390.87	-7,664.30	6,627.09	6,278.86	348.23	19.031		
11,100.00	7,061.94	7,007.06	7,061.94	121.32	242.89	-90.10	-4,390.87	-7,664.30	6,575.08	6,223.85	351.23	18.720		
11,200.00	7,061.66	7,007.34	7,061.66	124.07	242.90	-90.10	-4,390.87	-7,664.30	6,524.18	6,169.92	354.27	18.416		
11,300.00	7,061.37	7,007.63	7,061.37	126.82	242.91	-90.09	-4,390.87	-7,664.30	6,474.44	6,117.10	357.34	18.118		
11,400.00	7,061.09	7,007.91	7,061.09	129.58	242.92	-90.09	-4,390.87	-7,664.30	6,425.86	6,065.41	360.45	17.827		
11,500.00	7,060.80	7,008.20	7,060.80	132.34	242.93	-90.09	-4,390.87	-7,664.30	6,378.48	6,014.88	363.59	17.543		
11,600.00	7,060.52	7,008.48	7,060.52	135.10	242.94	-90.08	-4,390.87	-7,664.30	6,332.32	5,965.55	366.77	17.265		
11,700.00	7,060.23	7,008.77	7,060.23	137.87	242.95	-90.08	-4,390.87	-7,664.30	6,287.42	5,917.44	369.98	16.994		
11,800.00	7,059.95	7,009.05	7,059.95	140.64	242.96	-90.08	-4,390.87	-7,664.30	6,243.79	5,870.58	373.21	16.730		
11,900.00	7,059.66	7,009.34	7,059.66	143.42	242.97	-90.07	-4,390.87	-7,664.30	6,201.47	5,825.01	376.47	16.473		
12,000.00	7,059.38	7,009.62	7,059.38	146.20	242.98	-90.07	-4,390.87	-7,664.30	6,160.49	5,780.74	379.75	16.223		
12,100.00	7,059.09	7,009.91	7,059.09	148.98	242.99	-90.07	-4,390.87	-7,664.30	6,120.86	5,737.81	383.04	15.980		
12,200.00	7,058.81	6,989.81	7,058.81	151.77	242.29	-90.07	-4,390.87	-7,664.30	6,082.62	5,696.97	385.65	15.772		
12,300.00	7,058.52	6,989.52	7,058.52	154.55	242.28	-90.06	-4,390.87	-7,664.30	6,045.79	5,656.83	388.96	15.544		
12,400.00	7,058.24	6,989.24	7,058.24	157.34	242.27	-90.06	-4,390.87	-7,664.30	6,010.40	5,618.12	392.28	15.322		
12,500.00	7,057.96	6,988.96	7,057.96	160.14	242.26	-90.06	-4,390.87	-7,664.30	5,976.47	5,580.86	395.61	15.107		
12,600.00	7,057.67	6,988.67	7,057.67	162.93	242.25	-90.05	-4,390.87	-7,664.30	5,944.03	5,545.09	398.94	14.900		
12,700.00	7,057.39	6,988.39	7,057.39	165.73	242.24	-90.05	-4,390.87	-7,664.30	5,913.11	5,510.83	402.27	14.699		
12,800.00	7,057.10	6,988.10	7,057.10	168.53	242.23	-90.05	-4,390.87	-7,664.30	5,883.72	5,478.11	405.61	14.506		
12,900.00	7,056.82	6,987.82	7,056.82	171.33	242.22	-90.05	-4,390.87	-7,664.30	5,855.89	5,446.96	408.93	14.320		
13,000.00	7,056.53	6,987.53	7,056.53	174.13	242.21	-90.04	-4,390.87	-7,664.30	5,829.65	5,417.40	412.25	14.141		
13,100.00	7,056.25	6,987.25	7,056.25	176.94	242.20	-90.04	-4,390.87	-7,664.30	5,805.01	5,389.46	415.55	13.969		
13,200.00	7,055.96	6,986.96	7,055.96	179.74	242.19	-90.04	-4,390.87	-7,664.30	5,781.99	5,363.16	418.84	13.805		
13,300.00	7,055.68	6,986.68	7,055.68	182.55	242.18	-90.03	-4,390.87	-7,664.30	5,760.62	5,338.52	422.10	13.647		
13,400.00	7,055.39	6,986.39	7,055.39	185.36	242.17	-90.03	-4,390.87	-7,664.30	5,740.92	5,315.57	425.34	13.497		
13,500.00	7,055.11	6,986.11	7,055.11	188.17	242.16	-90.03	-4,390.87	-7,664.30	5,722.89	5,294.33	428.55	13.354		
13,600.00	7,054.82	6,985.82	7,054.82	190.98	242.15	-90.03	-4,390.87	-7,664.30	5,706.55	5,274.82	431.73	13.218		
13,700.00	7,054.54	6,985.54	7,054.54	193.80	242.14	-90.02	-4,390.87	-7,664.30	5,691.93	5,257.05	434.88	13.089		
13,800.00	7,054.25	6,985.25	7,054.25	196.61	242.13	-90.02	-4,390.87	-7,664.30	5,679.03	5,241.05	437.98	12.966		
13,900.00	7,053.97	6,984.97	7,053.97	199.43	242.12	-90.02	-4,390.87	-7,664.30	5,667.87	5,226.82	441.04	12.851		
14,000.00	7,053.68	6,984.68	7,053.68	202.25	242.11	-90.01	-4,390.87	-7,664.30	5,658.45	5,214.39	444.06	12.743		
14,100.00	7,053.40	6,984.40	7,053.40	205.06	242.10	-90.01	-4,390.87	-7,664.30	5,650.78	5,203.76	447.02	12.641		
14,200.00	7,053.11	6,984.11	7,053.11	207.88	242.09	-90.01	-4,390.87	-7,664.30	5,644.88	5,194.95	449.93	12.546		
14,300.00	7,052.83	6,983.83	7,052.83	210.70	242.08	-90.01	-4,390.87	-7,664.30	5,640.74	5,187.96	452.79	12.458		
14,400.00	7,052.54	6,983.54	7,052.54	213.53	242.07	-90.00	-4,390.87	-7,664.30	5,638.38	5,182.80	455.58	12.376		
14,483.40	7,052.31	6,983.31	7,052.31	215.88	242.06	-90.00	-4,390.87	-7,664.30	5,637.76	5,179.90	457.86	12.313 CC		
14,500.00	7,052.26	6,983.26	7,052.26	216.35	242.06	-90.00	-4,390.87	-7,664.30	5,637.79	5,179.48	458.31	12.301		
14,600.00	7,051.98	6,982.98	7,051.98	219.17	242.05	-90.00	-4,390.87	-7,664.30	5,638.97	5,177.99	460.97	12.233 ES		
14,700.00	7,051.69	6,982.69	7,051.69	222.00	242.04	-89.99	-4,390.87	-7,664.30	5,641.92	5,178.35	463.57	12.171		
14,800.00	7,051.41	6,982.41	7,051.41	224.82	242.03	-89.99	-4,390.87	-7,664.30	5,646.64	5,180.55	466.10	12.115		
14,900.00	7,051.12	6,982.12	7,051.12	227.65	242.02	-89.99	-4,390.87	-7,664.30	5,653.13	5,184.58	468.55	12.065		
14,942.37	7,051.00	6,982.00	7,051.00	228.85	242.02	-89.99	-4,390.87	-7,664.30	5,656.41	5,186.84	469.57	12.046 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	54.00	3.28	3.28	-108.92	-3,073.47	-8,964.62	9,477.00				
100.00	100.00	46.00	100.00	3.28	3.38	-108.92	-3,073.47	-8,964.62	9,476.84	9,470.18	6.66	1,422.614	
200.00	200.00	146.00	200.00	3.34	4.69	-108.92	-3,073.47	-8,964.62	9,476.84	9,468.82	8.03	1,180.712	
300.00	300.00	246.00	300.00	3.44	7.59	-108.92	-3,073.47	-8,964.62	9,476.84	9,465.81	11.03	858.969	
400.00	399.98	345.98	399.98	3.60	10.84	-101.63	-3,073.47	-8,964.62	9,477.19	9,462.75	14.44	656.142	
500.00	499.84	445.84	499.84	3.81	14.20	-101.64	-3,073.47	-8,964.62	9,478.25	9,460.24	18.01	526.339	
600.00	599.45	545.45	599.45	4.06	17.60	-101.65	-3,073.47	-8,964.62	9,480.02	9,458.37	21.65	437.865	
700.00	698.70	644.70	698.70	4.34	21.02	-101.68	-3,073.47	-8,964.62	9,482.50	9,457.16	25.34	374.217	
800.00	797.47	743.47	797.47	4.64	24.43	-101.70	-3,073.47	-8,964.62	9,485.71	9,456.65	29.06	326.453	
900.00	895.65	841.65	895.65	4.98	27.83	-101.76	-3,073.47	-8,964.62	9,489.63	9,456.83	32.79	289.398	
1,000.00	993.66	939.66	993.66	5.32	31.23	-101.87	-3,073.47	-8,964.62	9,493.77	9,457.22	36.55	259.757	
1,100.00	1,091.67	1,037.67	1,091.67	5.69	34.64	-101.99	-3,073.47	-8,964.62	9,497.96	9,457.63	40.33	235.510	
1,200.00	1,189.68	1,135.68	1,189.68	6.09	38.04	-102.10	-3,073.47	-8,964.62	9,502.18	9,458.05	44.13	215.331	
1,300.00	1,287.69	1,233.69	1,287.69	6.49	41.45	-102.22	-3,073.47	-8,964.62	9,506.44	9,458.50	47.94	198.291	
1,400.00	1,385.69	1,331.69	1,385.69	6.90	44.86	-102.33	-3,073.47	-8,964.62	9,510.75	9,458.98	51.77	183.720	
1,500.00	1,483.70	1,429.70	1,483.70	7.33	48.28	-102.45	-3,073.47	-8,964.62	9,515.09	9,459.49	55.60	171.125	
1,600.00	1,581.71	1,527.71	1,581.71	7.76	51.69	-102.56	-3,073.47	-8,964.62	9,519.47	9,460.03	59.45	160.134	
1,700.00	1,679.72	1,625.72	1,679.72	8.19	55.11	-102.68	-3,073.47	-8,964.62	9,523.90	9,460.60	63.30	150.462	
1,800.00	1,777.73	1,723.73	1,777.73	8.63	58.52	-102.79	-3,073.47	-8,964.62	9,528.36	9,461.20	67.15	141.887	
1,900.00	1,875.74	1,821.74	1,875.74	9.08	61.94	-102.91	-3,073.47	-8,964.62	9,532.86	9,461.84	71.02	134.235	
2,000.00	1,973.75	1,919.75	1,973.75	9.53	65.36	-103.02	-3,073.47	-8,964.62	9,537.40	9,462.52	74.88	127.366	
2,100.00	2,071.76	2,017.76	2,071.76	9.98	68.77	-103.13	-3,073.47	-8,964.62	9,541.98	9,463.22	78.75	121.166	
2,200.00	2,169.77	2,115.77	2,169.77	10.44	72.19	-103.25	-3,073.47	-8,964.62	9,546.59	9,463.97	82.62	115.543	
2,300.00	2,267.77	2,213.77	2,267.77	10.90	75.61	-103.36	-3,073.47	-8,964.62	9,551.25	9,464.75	86.50	110.420	
2,400.00	2,365.78	2,311.78	2,365.78	11.36	79.03	-103.47	-3,073.47	-8,964.62	9,555.95	9,465.57	90.38	105.734	
2,500.00	2,463.79	2,409.79	2,463.79	11.82	82.45	-103.59	-3,073.47	-8,964.62	9,560.68	9,466.42	94.26	101.432	
2,600.00	2,561.80	2,507.80	2,561.80	12.28	85.86	-103.70	-3,073.47	-8,964.62	9,565.46	9,467.32	98.14	97.468	
2,700.00	2,659.81	2,605.81	2,659.81	12.75	89.28	-103.82	-3,073.47	-8,964.62	9,570.27	9,468.25	102.02	93.805	
2,800.00	2,757.82	2,703.82	2,757.82	13.21	92.70	-103.93	-3,073.47	-8,964.62	9,575.12	9,469.21	105.91	90.410	
2,900.00	2,855.83	2,801.83	2,855.83	13.68	96.12	-104.04	-3,073.47	-8,964.62	9,580.01	9,470.22	109.79	87.254	
3,000.00	2,953.84	2,900.16	2,953.84	14.15	99.55	-104.15	-3,073.47	-8,964.62	9,584.94	9,471.25	113.69	84.305	
3,100.00	3,051.85	3,002.15	3,051.85	14.62	103.11	-104.27	-3,073.47	-8,964.62	9,589.91	9,472.18	117.72	81.463	
3,200.00	3,149.85	3,104.15	3,149.85	15.09	106.67	-104.38	-3,073.47	-8,964.62	9,594.91	9,473.16	121.75	78.808	
3,300.00	3,247.86	3,206.14	3,247.86	15.56	110.23	-104.49	-3,073.47	-8,964.62	9,599.96	9,474.18	125.78	76.324	
3,400.00	3,345.87	3,308.13	3,345.87	16.04	113.79	-104.61	-3,073.47	-8,964.62	9,605.04	9,475.23	129.81	73.993	
3,500.00	3,443.88	3,389.88	3,443.88	16.51	116.64	-104.72	-3,073.47	-8,964.62	9,610.16	9,477.03	133.13	72.184	
3,600.00	3,541.89	3,487.89	3,541.89	16.98	120.06	-104.83	-3,073.47	-8,964.62	9,615.32	9,478.29	137.03	70.171	
3,700.00	3,639.90	3,585.90	3,639.90	17.46	123.48	-104.94	-3,073.47	-8,964.62	9,620.52	9,479.60	140.92	68.269	
3,800.00	3,737.91	3,683.91	3,737.91	17.93	126.90	-105.05	-3,073.47	-8,964.62	9,625.75	9,480.94	144.81	66.469	
3,900.00	3,835.92	3,781.92	3,835.92	18.41	130.32	-105.17	-3,073.47	-8,964.62	9,631.03	9,482.32	148.71	64.764	
4,000.00	3,933.93	3,879.93	3,933.93	18.88	133.74	-105.28	-3,073.47	-8,964.62	9,636.34	9,483.73	152.60	63.146	
4,100.00	4,031.93	3,977.93	4,031.93	19.36	137.16	-105.39	-3,073.47	-8,964.62	9,641.69	9,485.19	156.50	61.608	
4,200.00	4,129.94	4,075.94	4,129.94	19.84	140.58	-105.50	-3,073.47	-8,964.62	9,647.08	9,486.68	160.40	60.146	
4,300.00	4,227.95	4,173.95	4,227.95	20.31	144.00	-105.61	-3,073.47	-8,964.62	9,652.50	9,488.21	164.29	58.752	
4,400.00	4,325.96	4,271.96	4,325.96	20.79	147.43	-105.72	-3,073.47	-8,964.62	9,657.96	9,489.78	168.19	57.424	
4,500.00	4,423.97	4,369.97	4,423.97	21.27	150.85	-105.84	-3,073.47	-8,964.62	9,663.46	9,491.38	172.08	56.155	
4,600.00	4,521.98	4,467.98	4,521.98	21.75	154.27	-105.95	-3,073.47	-8,964.62	9,669.00	9,493.02	175.98	54.943	
4,700.00	4,619.99	4,565.99	4,619.99	22.23	157.69	-106.06	-3,073.47	-8,964.62	9,674.58	9,494.70	179.88	53.784	
4,800.00	4,718.00	4,664.00	4,718.00	22.70	161.11	-106.17	-3,073.47	-8,964.62	9,680.19	9,496.42	183.78	52.674	
4,900.00	4,816.01	4,762.01	4,816.01	23.18	164.53	-106.28	-3,073.47	-8,964.62	9,685.84	9,498.17	187.67	51.610	
5,000.00	4,914.01	4,860.01	4,914.01	23.66	167.95	-106.39	-3,073.47	-8,964.62	9,691.53	9,499.96	191.57	50.589	
5,100.00	5,012.02	4,958.02	5,012.02	24.14	171.37	-106.50	-3,073.47	-8,964.62	9,697.26	9,501.79	195.47	49.610	

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,056.03	5,110.03	24.62	174.79	-106.61	-3,073.47	-8,964.62	9,703.02	9,503.65	199.37	48.669		
5,300.00	5,208.04	5,154.04	5,208.04	25.10	178.21	-106.72	-3,073.47	-8,964.62	9,708.82	9,505.55	203.27	47.764		
5,400.00	5,306.05	5,252.05	5,306.05	25.58	181.63	-106.83	-3,073.47	-8,964.62	9,714.66	9,507.49	207.17	46.893		
5,500.00	5,404.06	5,350.06	5,404.06	26.06	185.05	-106.94	-3,073.47	-8,964.62	9,720.53	9,509.47	211.07	46.055		
5,600.00	5,502.07	5,448.07	5,502.07	26.54	188.48	-107.05	-3,073.47	-8,964.62	9,726.45	9,511.48	214.96	45.247		
5,700.00	5,600.08	5,546.08	5,600.08	27.02	191.90	-107.16	-3,073.47	-8,964.62	9,732.39	9,513.53	218.86	44.468		
5,800.00	5,698.09	5,644.09	5,698.09	27.50	195.32	-107.27	-3,073.47	-8,964.62	9,738.38	9,515.62	222.76	43.716		
5,900.00	5,796.09	5,742.09	5,796.09	27.98	198.74	-107.38	-3,073.47	-8,964.62	9,744.40	9,517.74	226.66	42.991		
6,000.00	5,894.10	5,840.10	5,894.10	28.46	202.16	-107.49	-3,073.47	-8,964.62	9,750.46	9,519.90	230.56	42.290		
6,100.00	5,992.11	5,938.11	5,992.11	28.94	205.58	-107.60	-3,073.47	-8,964.62	9,756.56	9,522.09	234.46	41.613		
6,200.00	6,090.12	6,036.12	6,090.12	29.42	209.00	-107.71	-3,073.47	-8,964.62	9,762.69	9,524.33	238.36	40.958		
6,300.00	6,188.13	6,134.13	6,188.13	29.90	212.42	-107.82	-3,073.47	-8,964.62	9,768.86	9,526.60	242.26	40.324		
6,400.00	6,286.14	6,232.14	6,286.14	30.38	215.84	-107.92	-3,073.47	-8,964.62	9,775.06	9,528.90	246.16	39.710		
6,500.00	6,384.15	6,330.15	6,384.15	30.87	219.26	-108.03	-3,073.47	-8,964.62	9,781.30	9,531.24	250.06	39.116		
6,600.00	6,482.15	6,428.15	6,482.15	31.35	222.69	-99.61	-3,073.47	-8,964.62	9,787.30	9,533.34	253.96	38.539		
6,700.00	6,579.21	6,525.21	6,579.21	31.83	226.07	-68.85	-3,073.47	-8,964.62	9,783.69	9,525.86	257.83	37.946		
6,800.00	6,673.04	6,619.04	6,673.04	32.30	229.35	-55.15	-3,073.47	-8,964.62	9,766.04	9,504.46	261.58	37.334		
6,900.00	6,761.33	6,707.33	6,761.33	32.74	232.43	-49.37	-3,073.47	-8,964.62	9,734.85	9,469.71	265.13	36.717		
7,000.00	6,841.90	6,787.90	6,841.90	33.17	235.24	-47.57	-3,073.47	-8,964.62	9,690.92	9,422.52	268.40	36.107		
7,100.00	6,912.77	6,858.77	6,912.77	33.60	237.72	-48.43	-3,073.47	-8,964.62	9,635.39	9,364.08	271.32	35.513		
7,200.00	6,972.19	6,918.19	6,972.19	34.09	239.79	-51.67	-3,073.47	-8,964.62	9,569.68	9,295.84	273.84	34.946		
7,300.00	7,018.70	6,964.70	7,018.70	34.73	241.41	-57.55	-3,073.47	-8,964.62	9,495.44	9,219.52	275.93	34.413		
7,400.00	7,051.15	7,002.85	7,051.15	35.55	242.75	-66.68	-3,073.47	-8,964.62	9,414.52	9,136.78	277.73	33.898		
7,500.00	7,068.75	7,014.75	7,068.75	36.56	243.16	-79.65	-3,073.47	-8,964.62	9,328.90	9,050.27	278.63	33.481		
7,600.00	7,071.91	7,017.91	7,071.91	37.71	243.27	-90.31	-3,073.47	-8,964.62	9,240.75	8,961.51	279.24	33.093		
7,700.00	7,071.62	7,017.62	7,071.62	39.03	243.26	-90.31	-3,073.47	-8,964.62	9,152.42	8,872.65	279.76	32.715		
7,800.00	7,071.34	7,017.34	7,071.34	40.51	243.25	-90.30	-3,073.47	-8,964.62	9,064.32	8,783.98	280.34	32.333		
7,900.00	7,071.05	7,017.05	7,071.05	42.14	243.24	-90.30	-3,073.47	-8,964.62	8,976.48	8,695.49	280.99	31.946		
8,000.00	7,070.77	7,016.77	7,070.77	43.89	243.23	-90.29	-3,073.47	-8,964.62	8,888.90	8,607.21	281.69	31.556		
8,100.00	7,070.48	7,016.48	7,070.48	45.76	243.22	-90.29	-3,073.47	-8,964.62	8,801.58	8,519.13	282.45	31.162		
8,200.00	7,070.20	7,016.20	7,070.20	47.72	243.21	-90.29	-3,073.47	-8,964.62	8,714.53	8,431.26	283.27	30.764		
8,300.00	7,069.92	7,015.92	7,069.92	49.78	243.20	-90.28	-3,073.47	-8,964.62	8,627.76	8,343.61	284.15	30.364		
8,400.00	7,069.63	7,015.63	7,069.63	51.90	243.19	-90.28	-3,073.47	-8,964.62	8,541.28	8,256.20	285.09	29.960		
8,500.00	7,069.35	7,015.35	7,069.35	54.10	243.18	-90.28	-3,073.47	-8,964.62	8,455.10	8,169.02	286.08	29.555		
8,600.00	7,069.06	7,015.06	7,069.06	56.36	243.17	-90.27	-3,073.47	-8,964.62	8,369.23	8,082.09	287.14	29.147		
8,700.00	7,068.78	7,014.78	7,068.78	58.66	243.16	-90.27	-3,073.47	-8,964.62	8,283.68	7,995.41	288.26	28.737		
8,800.00	7,068.49	7,014.49	7,068.49	61.02	243.15	-90.26	-3,073.47	-8,964.62	8,198.45	7,909.01	289.44	28.325		
8,900.00	7,068.21	7,014.21	7,068.21	63.42	243.14	-90.26	-3,073.47	-8,964.62	8,113.56	7,822.88	290.68	27.913		
9,000.00	7,067.92	7,013.92	7,067.92	65.85	243.13	-90.26	-3,073.47	-8,964.62	8,029.01	7,737.04	291.97	27.499		
9,100.00	7,067.64	7,013.64	7,067.64	68.32	243.12	-90.25	-3,073.47	-8,964.62	7,944.83	7,651.50	293.33	27.085		
9,200.00	7,067.35	7,013.35	7,067.35	70.81	243.11	-90.25	-3,073.47	-8,964.62	7,861.02	7,566.27	294.74	26.671		
9,300.00	7,067.07	7,013.07	7,067.07	73.34	243.10	-90.25	-3,073.47	-8,964.62	7,777.58	7,481.37	296.21	26.257		
9,400.00	7,066.78	7,012.78	7,066.78	75.88	243.09	-90.24	-3,073.47	-8,964.62	7,694.55	7,396.80	297.75	25.843		
9,500.00	7,066.50	7,012.50	7,066.50	78.45	243.08	-90.24	-3,073.47	-8,964.62	7,611.92	7,312.58	299.34	25.429		
9,600.00	7,066.21	7,012.21	7,066.21	81.04	243.07	-90.23	-3,073.47	-8,964.62	7,529.71	7,228.72	300.99	25.017		
9,700.00	7,065.93	7,011.93	7,065.93	83.64	243.06	-90.23	-3,073.47	-8,964.62	7,447.94	7,145.24	302.70	24.605		
9,800.00	7,065.64	7,011.64	7,065.64	86.26	243.05	-90.23	-3,073.47	-8,964.62	7,366.62	7,062.15	304.47	24.195		
9,900.00	7,065.36	7,011.36	7,065.36	88.90	243.04	-90.22	-3,073.47	-8,964.62	7,285.76	6,979.47	306.30	23.787		
10,000.00	7,065.07	7,011.07	7,065.07	91.55	243.03	-90.22	-3,073.47	-8,964.62	7,205.39	6,897.20	308.18	23.380		
10,100.00	7,064.79	7,010.79	7,064.79	94.21	243.02	-90.21	-3,073.47	-8,964.62	7,125.51	6,815.38	310.13	22.976		
10,200.00	7,064.50	7,010.50	7,064.50	96.88	243.01	-90.21	-3,073.47	-8,964.62	7,046.14	6,734.00	312.14	22.574		
10,300.00	7,064.22	7,010.22	7,064.22	99.57	243.00	-90.21	-3,073.47	-8,964.62	6,967.31	6,653.10	314.21	22.174		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	7,009.94	7,063.94	102.26	242.99	-90.20	-3,073.47	-8,964.62	6,889.02	6,572.69	316.34	21.778		
10,500.00	7,063.65	7,009.65	7,063.65	104.96	242.98	-90.20	-3,073.47	-8,964.62	6,811.30	6,492.78	318.53	21.384		
10,600.00	7,063.37	7,009.37	7,063.37	107.67	242.97	-90.20	-3,073.47	-8,964.62	6,734.18	6,413.40	320.78	20.993		
10,700.00	7,063.08	7,009.08	7,063.08	110.39	242.96	-90.19	-3,073.47	-8,964.62	6,657.66	6,334.57	323.09	20.606		
10,800.00	7,062.80	7,008.80	7,062.80	113.11	242.95	-90.19	-3,073.47	-8,964.62	6,581.76	6,256.30	325.46	20.223		
10,900.00	7,062.51	7,008.51	7,062.51	115.84	242.94	-90.18	-3,073.47	-8,964.62	6,506.53	6,178.62	327.90	19.843		
11,000.00	7,062.23	7,008.23	7,062.23	118.58	242.93	-90.18	-3,073.47	-8,964.62	6,431.96	6,101.56	330.40	19.467		
11,100.00	7,061.94	7,007.94	7,061.94	121.32	242.92	-90.18	-3,073.47	-8,964.62	6,358.10	6,025.13	332.96	19.095		
11,200.00	7,061.66	7,007.66	7,061.66	124.07	242.91	-90.17	-3,073.47	-8,964.62	6,284.95	5,949.36	335.59	18.728		
11,300.00	7,061.37	7,007.37	7,061.37	126.82	242.90	-90.17	-3,073.47	-8,964.62	6,212.56	5,874.28	338.28	18.365		
11,400.00	7,061.09	7,007.09	7,061.09	129.58	242.89	-90.17	-3,073.47	-8,964.62	6,140.94	5,799.91	341.03	18.007		
11,500.00	7,060.80	7,006.80	7,060.80	132.34	242.88	-90.16	-3,073.47	-8,964.62	6,070.12	5,726.27	343.85	17.653		
11,600.00	7,060.52	7,006.52	7,060.52	135.10	242.87	-90.16	-3,073.47	-8,964.62	6,000.14	5,653.41	346.73	17.305		
11,700.00	7,060.23	7,006.23	7,060.23	137.87	242.86	-90.15	-3,073.47	-8,964.62	5,931.01	5,581.33	349.68	16.961		
11,800.00	7,059.95	7,005.95	7,059.95	140.64	242.85	-90.15	-3,073.47	-8,964.62	5,862.78	5,510.09	352.69	16.623		
11,900.00	7,059.66	7,005.66	7,059.66	143.42	242.84	-90.15	-3,073.47	-8,964.62	5,795.46	5,439.71	355.76	16.290		
12,000.00	7,059.38	7,005.38	7,059.38	146.20	242.83	-90.14	-3,073.47	-8,964.62	5,729.11	5,370.21	358.89	15.963		
12,100.00	7,059.09	7,005.09	7,059.09	148.98	242.82	-90.14	-3,073.47	-8,964.62	5,663.74	5,301.65	362.09	15.642		
12,200.00	7,058.81	7,004.81	7,058.81	151.77	242.82	-90.14	-3,073.47	-8,964.62	5,599.39	5,234.04	365.35	15.326		
12,300.00	7,058.52	7,004.52	7,058.52	154.55	242.81	-90.13	-3,073.47	-8,964.62	5,536.10	5,167.43	368.67	15.016		
12,400.00	7,058.24	7,004.24	7,058.24	157.34	242.80	-90.13	-3,073.47	-8,964.62	5,473.91	5,101.86	372.05	14.713		
12,500.00	7,057.96	7,003.96	7,057.96	160.14	242.79	-90.12	-3,073.47	-8,964.62	5,412.85	5,037.36	375.49	14.416		
12,600.00	7,057.67	7,003.67	7,057.67	162.93	242.78	-90.12	-3,073.47	-8,964.62	5,352.96	4,973.97	378.98	14.125		
12,700.00	7,057.39	7,003.39	7,057.39	165.73	242.77	-90.12	-3,073.47	-8,964.62	5,294.28	4,911.75	382.53	13.840		
12,800.00	7,057.10	7,003.10	7,057.10	168.53	242.76	-90.11	-3,073.47	-8,964.62	5,236.86	4,850.72	386.14	13.562		
12,900.00	7,056.82	7,002.82	7,056.82	171.33	242.75	-90.11	-3,073.47	-8,964.62	5,180.72	4,790.93	389.79	13.291		
13,000.00	7,056.53	7,002.53	7,056.53	174.13	242.74	-90.10	-3,073.47	-8,964.62	5,125.93	4,732.44	393.49	13.027		
13,100.00	7,056.25	7,002.25	7,056.25	176.94	242.73	-90.10	-3,073.47	-8,964.62	5,072.51	4,675.27	397.24	12.769		
13,200.00	7,055.96	7,001.96	7,055.96	179.74	242.72	-90.10	-3,073.47	-8,964.62	5,020.52	4,619.49	401.03	12.519		
13,300.00	7,055.68	7,001.68	7,055.68	182.55	242.71	-90.09	-3,073.47	-8,964.62	4,970.00	4,565.14	404.86	12.276		
13,400.00	7,055.39	7,001.39	7,055.39	185.36	242.70	-90.09	-3,073.47	-8,964.62	4,920.99	4,512.27	408.72	12.040		
13,500.00	7,055.11	7,001.11	7,055.11	188.17	242.69	-90.09	-3,073.47	-8,964.62	4,873.54	4,460.93	412.61	11.811		
13,600.00	7,054.82	7,000.82	7,054.82	190.98	242.68	-90.08	-3,073.47	-8,964.62	4,827.70	4,411.17	416.53	11.590		
13,700.00	7,054.54	7,000.54	7,054.54	193.80	242.67	-90.08	-3,073.47	-8,964.62	4,783.50	4,363.04	420.46	11.377		
13,800.00	7,054.25	7,000.25	7,054.25	196.61	242.66	-90.07	-3,073.47	-8,964.62	4,741.01	4,316.59	424.41	11.171		
13,900.00	7,053.97	7,000.03	7,053.97	199.43	242.65	-90.07	-3,073.47	-8,964.62	4,700.25	4,271.88	428.37	10.972		
14,000.00	7,053.68	7,000.32	7,053.68	202.25	242.66	-90.07	-3,073.47	-8,964.62	4,661.29	4,228.94	432.35	10.781		
14,100.00	7,053.40	7,000.60	7,053.40	205.06	242.67	-90.06	-3,073.47	-8,964.62	4,624.16	4,187.84	436.33	10.598		
14,200.00	7,053.11	7,000.89	7,053.11	207.88	242.68	-90.06	-3,073.47	-8,964.62	4,588.91	4,148.62	440.29	10.422		
14,300.00	7,052.83	7,001.17	7,052.83	210.70	242.69	-90.06	-3,073.47	-8,964.62	4,555.59	4,111.35	444.24	10.255		
14,400.00	7,052.54	7,001.46	7,052.54	213.53	242.70	-90.05	-3,073.47	-8,964.62	4,524.23	4,076.07	448.16	10.095		
14,500.00	7,052.26	7,001.74	7,052.26	216.35	242.71	-90.05	-3,073.47	-8,964.62	4,494.87	4,042.83	452.04	9.944		
14,600.00	7,051.98	7,002.03	7,051.98	219.17	242.72	-90.04	-3,073.47	-8,964.62	4,467.56	4,011.68	455.88	9.800		
14,700.00	7,051.69	7,002.31	7,051.69	222.00	242.73	-90.04	-3,073.47	-8,964.62	4,442.34	3,982.66	459.67	9.664		
14,800.00	7,051.41	7,002.59	7,051.41	224.82	242.74	-90.04	-3,073.47	-8,964.62	4,419.23	3,955.82	463.41	9.536		
14,900.00	7,051.12	7,002.88	7,051.12	227.65	242.75	-90.03	-3,073.47	-8,964.62	4,398.28	3,931.20	467.08	9.417		
14,942.37	7,051.00	7,003.00	7,051.00	228.85	242.75	-90.03	-3,073.47	-8,964.62	4,390.06	3,921.45	468.61	9.368 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	37.00	3.28	3.28	-108.67	-3,040.31	-8,996.87	9,496.77					
100.00	100.00	0.00	37.00	3.28	3.28	-108.67	-3,040.31	-8,996.87	9,496.90	9,490.34	6.56	1,446.622		
200.00	200.00	72.27	109.27	3.34	3.28	-108.67	-3,040.70	-8,997.11	9,497.47	9,490.85	6.62	1,434.553		
300.00	300.00	121.00	157.99	3.44	3.29	-108.68	-3,041.39	-8,997.53	9,498.72	9,491.99	6.73	1,410.537		
400.00	399.98	161.91	198.89	3.60	3.31	-101.34	-3,042.10	-8,998.09	9,500.90	9,493.98	6.91	1,374.751		
500.00	499.84	208.00	244.97	3.81	3.34	-101.29	-3,042.85	-8,999.01	9,504.33	9,497.18	7.15	1,330.084		
600.00	599.45	208.00	244.97	4.06	3.34	-101.19	-3,042.85	-8,999.01	9,509.25	9,501.86	7.39	1,286.855		
700.00	698.70	255.60	292.54	4.34	3.39	-101.10	-3,043.44	-9,000.56	9,515.40	9,507.69	7.71	1,234.171		
800.00	797.47	300.00	336.88	4.64	3.44	-100.99	-3,043.74	-9,002.80	9,523.24	9,515.17	8.07	1,180.212		
900.00	895.65	300.00	336.88	4.98	3.44	-100.86	-3,043.74	-9,002.80	9,532.32	9,523.92	8.40	1,134.128		
1,000.00	993.66	300.00	336.88	5.32	3.44	-100.86	-3,043.74	-9,002.80	9,542.62	9,533.86	8.76	1,088.891		
1,100.00	1,091.67	353.51	390.26	5.69	3.52	-100.92	-3,043.67	-9,006.53	9,553.37	9,544.16	9.21	1,036.881		
1,200.00	1,189.68	391.00	427.60	6.09	3.59	-100.95	-3,043.27	-9,009.81	9,565.10	9,555.43	9.66	989.819		
1,300.00	1,287.69	391.00	427.60	6.49	3.59	-100.95	-3,043.27	-9,009.81	9,577.56	9,567.50	10.06	951.586		
1,400.00	1,385.69	430.24	466.63	6.90	3.66	-100.99	-3,042.53	-9,013.82	9,590.75	9,580.20	10.55	909.384		
1,500.00	1,483.70	481.00	517.00	7.33	3.78	-101.03	-3,041.05	-9,019.89	9,604.85	9,593.79	11.07	867.946		
1,600.00	1,581.71	481.00	517.00	7.76	3.78	-101.03	-3,041.05	-9,019.89	9,619.47	9,607.98	11.49	837.288		
1,700.00	1,679.72	481.00	517.00	8.19	3.78	-101.03	-3,041.05	-9,019.89	9,635.10	9,623.18	11.92	808.595		
1,800.00	1,777.73	538.14	573.55	8.63	3.93	-101.07	-3,038.85	-9,027.81	9,651.14	9,638.66	12.48	773.359		
1,900.00	1,875.74	572.00	606.97	9.08	4.02	-101.09	-3,037.35	-9,032.99	9,668.08	9,655.08	13.00	743.849		
2,000.00	1,973.75	572.00	606.97	9.53	4.02	-101.09	-3,037.35	-9,032.99	9,685.80	9,672.37	13.43	721.124		
2,100.00	2,071.76	572.00	606.97	9.98	4.02	-101.09	-3,037.35	-9,032.99	9,704.53	9,690.66	13.87	699.842		
2,200.00	2,169.77	634.25	668.24	10.44	4.23	-101.12	-3,034.36	-9,043.59	9,723.38	9,708.90	14.48	671.490		
2,300.00	2,267.77	693.00	725.80	10.90	4.44	-101.15	-3,031.36	-9,054.96	9,743.65	9,728.55	15.10	645.378		
2,400.00	2,365.78	693.00	725.80	11.36	4.44	-101.15	-3,031.36	-9,054.96	9,764.12	9,748.59	15.53	628.604		
2,500.00	2,463.79	693.00	725.80	11.82	4.44	-101.15	-3,031.36	-9,054.96	9,785.58	9,769.61	15.97	612.838		
2,600.00	2,561.80	726.21	758.23	12.28	4.57	-101.17	-3,029.69	-9,061.90	9,807.79	9,791.27	16.51	593.918		
2,700.00	2,659.81	761.00	792.15	12.75	4.72	-101.18	-3,028.12	-9,069.49	9,830.76	9,813.69	17.07	575.968		
2,800.00	2,757.82	784.33	814.85	13.21	4.83	-101.19	-3,027.05	-9,074.75	9,854.38	9,836.79	17.59	560.198		
2,900.00	2,855.83	825.16	854.49	13.68	5.02	-101.21	-3,024.80	-9,084.28	9,878.59	9,860.41	18.18	543.449		
3,000.00	2,953.84	855.00	883.38	14.15	5.16	-101.22	-3,022.85	-9,091.50	9,903.37	9,884.65	18.72	529.071		
3,100.00	3,051.85	855.00	883.38	14.62	5.16	-101.22	-3,022.85	-9,091.50	9,928.99	9,909.84	19.14	518.665		
3,200.00	3,149.85	908.32	934.79	15.09	5.45	-101.23	-3,019.07	-9,105.09	9,954.96	9,935.16	19.79	502.973		
3,300.00	3,247.86	949.00	973.84	15.56	5.67	-101.24	-3,016.10	-9,116.11	9,981.88	9,961.48	20.40	489.339		
8,600.00	7,069.06	4,046.43	3,800.08	56.36	36.77	-50.07	-2,649.91	-10,324.57	9,923.96	9,856.79	67.18	147.733		
8,700.00	7,068.78	7,196.00	6,817.82	58.66	57.37	-86.51	-2,466.43	-11,005.47	9,831.47	9,746.25	85.22	115.365		
8,800.00	7,068.49	7,196.00	6,817.82	61.02	57.37	-86.51	-2,466.43	-11,005.47	9,738.87	9,652.83	86.05	113.179		
8,900.00	7,068.21	7,196.00	6,817.82	63.42	57.37	-86.51	-2,466.43	-11,005.47	9,646.43	9,559.51	86.92	110.984		
9,000.00	7,067.92	7,196.00	6,817.82	65.85	57.37	-86.51	-2,466.43	-11,005.47	9,554.13	9,466.30	87.83	108.784		
9,100.00	7,067.64	7,196.00	6,817.82	68.32	57.37	-86.51	-2,466.43	-11,005.47	9,461.99	9,373.22	88.78	106.582		
9,200.00	7,067.35	7,196.00	6,817.82	70.81	57.37	-86.51	-2,466.43	-11,005.47	9,370.01	9,280.25	89.77	104.380		
9,300.00	7,067.07	7,196.00	6,817.82	73.34	57.37	-86.51	-2,466.43	-11,005.47	9,278.20	9,187.40	90.80	102.181		
9,400.00	7,066.78	7,196.00	6,817.82	75.88	57.37	-86.51	-2,466.43	-11,005.47	9,186.56	9,094.68	91.88	99.987		
9,500.00	7,066.50	7,196.00	6,817.82	78.45	57.37	-86.51	-2,466.43	-11,005.47	9,095.10	9,002.10	93.00	97.801		
9,600.00	7,066.21	7,196.00	6,817.82	81.04	57.37	-86.51	-2,466.43	-11,005.47	9,003.81	8,909.65	94.16	95.625		
9,700.00	7,065.93	7,196.00	6,817.82	83.64	57.37	-86.51	-2,466.43	-11,005.47	8,912.72	8,817.35	95.36	93.461		
9,800.00	7,065.64	7,196.00	6,817.82	86.26	57.37	-86.51	-2,466.43	-11,005.47	8,821.81	8,725.20	96.61	91.312		
9,900.00	7,065.36	7,196.00	6,817.82	88.90	57.37	-86.51	-2,466.43	-11,005.47	8,731.11	8,633.20	97.91	89.179		
10,000.00	7,065.07	7,196.00	6,817.82	91.55	57.37	-86.51	-2,466.43	-11,005.47	8,640.61	8,541.36	99.24	87.064		
10,100.00	7,064.79	7,196.00	6,817.82	94.21	57.37	-86.51	-2,466.43	-11,005.47	8,550.32	8,449.69	100.63	84.969		
10,200.00	7,064.50	7,196.00	6,817.82	96.88	57.37	-86.51	-2,466.43	-11,005.47	8,460.25	8,358.19	102.06	82.896		
10,300.00	7,064.22	7,196.00	6,817.82	99.57	57.37	-86.51	-2,466.43	-11,005.47	8,370.41	8,266.87	103.53	80.846		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,400.00	7,063.94	7,196.00	6,817.82	102.26	57.37	-86.51	-2,466.43	-11,005.47	8,280.80	8,175.74	105.06	78.820		
10,500.00	7,063.65	7,196.00	6,817.82	104.96	57.37	-86.51	-2,466.43	-11,005.47	8,191.43	8,084.79	106.63	76.820		
10,600.00	7,063.37	7,196.00	6,817.82	107.67	57.37	-86.51	-2,466.43	-11,005.47	8,102.30	7,994.05	108.25	74.847		
10,700.00	7,063.08	7,196.00	6,817.82	110.39	57.37	-86.51	-2,466.43	-11,005.47	8,013.44	7,903.52	109.92	72.902		
10,800.00	7,062.80	7,196.00	6,817.82	113.11	57.37	-86.51	-2,466.43	-11,005.47	7,924.84	7,813.20	111.64	70.985		
10,900.00	7,062.51	7,196.00	6,817.82	115.84	57.37	-86.51	-2,466.43	-11,005.47	7,836.51	7,723.10	113.41	69.098		
11,000.00	7,062.23	7,196.00	6,817.82	118.58	57.37	-86.51	-2,466.43	-11,005.47	7,748.47	7,633.24	115.23	67.241		
11,100.00	7,061.94	7,196.00	6,817.82	121.32	57.37	-86.51	-2,466.43	-11,005.47	7,660.72	7,543.61	117.11	65.415		
11,200.00	7,061.66	7,238.55	6,860.35	124.07	57.47	-87.17	-2,467.16	-11,006.22	7,573.02	7,453.87	119.15	63.559		
11,300.00	7,061.37	7,239.33	6,861.14	126.82	57.47	-87.18	-2,467.18	-11,006.22	7,485.88	7,364.74	121.14	61.797		
11,400.00	7,061.09	7,240.13	6,861.93	129.58	57.47	-87.19	-2,467.19	-11,006.23	7,399.06	7,275.89	123.18	60.068		
11,500.00	7,060.80	7,240.93	6,862.74	132.34	57.47	-87.21	-2,467.21	-11,006.25	7,312.58	7,187.31	125.28	58.372		
11,600.00	7,060.52	7,241.74	6,863.55	135.10	57.48	-87.22	-2,467.23	-11,006.26	7,226.45	7,099.02	127.43	56.708		
11,700.00	7,060.23	7,242.56	6,864.37	137.87	57.48	-87.23	-2,467.24	-11,006.28	7,140.68	7,011.04	129.65	55.078		
11,800.00	7,059.95	7,243.39	6,865.20	140.64	57.48	-87.24	-2,467.26	-11,006.30	7,055.29	6,923.37	131.92	53.481		
11,900.00	7,059.66	7,244.23	6,866.03	143.42	57.48	-87.26	-2,467.28	-11,006.31	6,970.28	6,836.02	134.26	51.917		
12,000.00	7,059.38	7,245.08	6,866.88	146.20	57.48	-87.27	-2,467.29	-11,006.33	6,885.68	6,749.02	136.66	50.387		
12,100.00	7,059.09	7,245.94	6,867.74	148.98	57.49	-87.28	-2,467.31	-11,006.35	6,801.49	6,662.37	139.12	48.891		
12,200.00	7,058.81	7,246.80	6,868.60	151.77	57.49	-87.30	-2,467.33	-11,006.37	6,717.74	6,576.09	141.64	47.427		
12,300.00	7,058.52	7,247.68	6,869.48	154.55	57.49	-87.31	-2,467.35	-11,006.38	6,634.43	6,490.20	144.23	45.998		
12,400.00	7,058.24	7,248.56	6,870.37	157.34	57.49	-87.32	-2,467.36	-11,006.40	6,551.60	6,404.70	146.89	44.601		
12,500.00	7,057.96	7,249.46	6,871.26	160.14	57.50	-87.34	-2,467.38	-11,006.42	6,469.24	6,319.62	149.62	43.237		
12,600.00	7,057.67	7,250.37	6,872.17	162.93	57.50	-87.35	-2,467.40	-11,006.44	6,387.40	6,234.98	152.42	41.907		
12,700.00	7,057.39	7,251.28	6,873.08	165.73	57.50	-87.37	-2,467.42	-11,006.46	6,306.07	6,150.78	155.29	40.609		
12,800.00	7,057.10	7,252.21	6,874.01	168.53	57.50	-87.38	-2,467.44	-11,006.48	6,225.29	6,067.06	158.23	39.344		
12,900.00	7,056.82	7,253.15	6,874.95	171.33	57.50	-87.39	-2,467.46	-11,006.50	6,145.07	5,983.83	161.24	38.110		
13,000.00	7,056.53	7,254.10	6,875.90	174.13	57.51	-87.41	-2,467.48	-11,006.52	6,065.44	5,901.11	164.33	36.909		
13,100.00	7,056.25	7,255.06	6,876.86	176.94	57.51	-87.42	-2,467.50	-11,006.54	5,986.43	5,818.93	167.50	35.740		
13,200.00	7,055.96	7,256.03	6,877.83	179.74	57.51	-87.44	-2,467.52	-11,006.56	5,908.04	5,737.30	170.74	34.602		
13,300.00	7,055.68	7,257.01	6,878.81	182.55	57.51	-87.45	-2,467.54	-11,006.58	5,830.32	5,656.26	174.06	33.495		
13,400.00	7,055.39	7,258.00	6,879.80	185.36	57.52	-87.47	-2,467.56	-11,006.60	5,753.29	5,575.83	177.46	32.419		
13,500.00	7,055.11	7,259.01	6,880.81	188.17	57.52	-87.49	-2,467.59	-11,006.62	5,676.97	5,496.03	180.95	31.374		
13,600.00	7,054.82	7,260.03	6,881.83	190.98	57.52	-87.50	-2,467.61	-11,006.65	5,601.40	5,416.89	184.51	30.359		
13,700.00	7,054.54	7,261.06	6,882.86	193.80	57.52	-87.52	-2,467.63	-11,006.67	5,526.61	5,338.45	188.15	29.373		
13,800.00	7,054.25	7,262.10	6,883.90	196.61	57.53	-87.53	-2,467.65	-11,006.69	5,452.62	5,260.74	191.88	28.417		
13,900.00	7,053.97	7,263.16	6,884.95	199.43	57.53	-87.55	-2,467.68	-11,006.71	5,379.47	5,183.78	195.69	27.490		
14,000.00	7,053.68	7,264.23	6,886.02	202.25	57.53	-87.57	-2,467.70	-11,006.74	5,307.20	5,107.62	199.58	26.592		
14,100.00	7,053.40	7,265.31	6,887.10	205.06	57.53	-87.58	-2,467.72	-11,006.76	5,235.84	5,032.28	203.56	25.722		
14,200.00	7,053.11	7,266.41	6,888.20	207.88	57.54	-87.60	-2,467.75	-11,006.79	5,165.43	4,957.81	207.61	24.880		
14,300.00	7,052.83	7,267.51	6,889.31	210.70	57.54	-87.62	-2,467.77	-11,006.81	5,096.01	4,884.25	211.75	24.066		
14,400.00	7,052.54	7,268.64	6,890.43	213.53	57.54	-87.63	-2,467.80	-11,006.84	5,027.62	4,811.64	215.98	23.279		
14,500.00	7,052.26	7,269.78	6,891.57	216.35	57.54	-87.65	-2,467.83	-11,006.86	4,960.30	4,740.02	220.28	22.518		
14,600.00	7,051.98	7,270.93	6,892.72	219.17	57.55	-87.67	-2,467.85	-11,006.89	4,894.10	4,669.44	224.66	21.785		
14,700.00	7,051.69	7,272.10	6,893.89	222.00	57.55	-87.69	-2,467.88	-11,006.92	4,829.06	4,599.94	229.12	21.077		
14,800.00	7,051.41	7,273.28	6,895.07	224.82	57.55	-87.71	-2,467.91	-11,006.94	4,765.23	4,531.58	233.65	20.395		
14,900.00	7,051.12	7,274.48	6,896.26	227.65	57.56	-87.73	-2,467.93	-11,006.97	4,702.66	4,464.41	238.25	19.738		
14,942.37	7,051.00	7,274.99	6,896.78	228.85	57.56	-87.73	-2,467.95	-11,006.99	4,676.54	4,436.32	240.22	19.468 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 120-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	37.00	3.28	3.28	-108.68	-3,031.21	-8,964.32	9,463.02					
100.00	100.00	0.00	37.00	3.28	3.28	-108.68	-3,031.21	-8,964.32	9,463.16	9,456.59	6.56	1,441.481		
200.00	200.00	55.92	92.92	3.34	3.28	-108.68	-3,031.56	-8,964.54	9,463.87	9,457.25	6.62	1,429.671		
300.00	300.00	577.00	613.23	3.44	3.96	-108.60	-3,017.01	-8,963.41	9,462.73	9,455.31	7.42	1,276.065		
400.00	399.98	608.95	644.94	3.60	4.04	-101.33	-3,013.10	-8,963.76	9,460.14	9,452.48	7.65	1,236.123		
500.00	499.84	667.00	702.45	3.81	4.21	-101.33	-3,005.36	-8,965.14	9,459.00	9,450.99	8.02	1,179.998		
544.39	544.09	667.00	702.45	3.91	4.21	-101.33	-3,005.36	-8,965.14	9,458.83	9,450.71	8.12	1,165.371		
600.00	599.45	713.03	747.96	4.06	4.35	-101.31	-2,998.66	-8,966.68	9,459.02	9,450.62	8.40	1,126.276		
700.00	698.70	923.26	955.00	4.34	5.13	-101.24	-2,962.94	-8,973.89	9,459.20	9,449.75	9.45	1,000.669		
800.00	797.47	1,029.59	1,058.95	4.64	5.60	-101.20	-2,941.02	-8,978.16	9,459.48	9,449.25	10.23	924.854		
900.00	895.65	1,145.74	1,171.56	4.98	6.19	-101.15	-2,913.17	-8,984.00	9,460.30	9,449.16	11.14	848.954		
1,000.00	993.66	1,219.11	1,242.13	5.32	6.59	-101.11	-2,893.59	-8,988.43	9,461.38	9,449.48	11.90	794.747		
1,100.00	1,091.67	1,323.88	1,341.98	5.69	7.22	-101.04	-2,862.77	-8,995.87	9,462.60	9,449.69	12.91	732.819		
1,200.00	1,189.68	1,418.15	1,430.77	6.09	7.85	-100.96	-2,832.06	-9,003.55	9,463.82	9,449.89	13.93	679.310		
1,300.00	1,287.69	1,454.64	1,464.90	6.49	8.11	-100.92	-2,819.58	-9,006.87	9,465.41	9,450.82	14.60	648.519		
1,400.00	1,385.69	1,512.00	1,518.35	6.90	8.53	-100.86	-2,799.62	-9,012.69	9,467.73	9,452.31	15.42	613.897		
1,500.00	1,483.70	1,546.20	1,550.11	7.33	8.79	-100.82	-2,787.50	-9,016.43	9,470.57	9,454.47	16.10	588.132		
1,600.00	1,581.71	1,607.00	1,606.40	7.76	9.25	-100.75	-2,765.57	-9,023.32	9,473.81	9,456.81	17.00	557.399		
1,700.00	1,679.72	1,673.60	1,667.74	8.19	9.79	-100.67	-2,740.90	-9,031.33	9,477.43	9,459.47	17.97	527.500		
1,800.00	1,777.73	1,729.07	1,718.53	8.63	10.24	-100.60	-2,719.77	-9,038.47	9,481.55	9,462.69	18.87	502.581		
1,900.00	1,875.74	1,796.00	1,779.41	9.08	10.81	-100.51	-2,693.54	-9,047.68	9,486.17	9,466.29	19.88	477.153		
2,000.00	1,973.75	1,954.04	1,921.98	9.53	12.24	-100.27	-2,628.99	-9,069.69	9,490.51	9,468.75	21.76	436.071		
2,100.00	2,071.76	2,020.77	1,981.82	9.98	12.87	-100.17	-2,601.01	-9,079.09	9,494.81	9,471.97	22.84	415.744		
2,200.00	2,169.77	2,085.00	2,039.37	10.44	13.47	-100.07	-2,574.09	-9,088.51	9,499.64	9,475.74	23.90	397.483		
2,300.00	2,267.77	2,203.00	2,144.95	10.90	14.61	-99.88	-2,524.33	-9,105.85	9,504.55	9,479.06	25.50	372.774		
2,400.00	2,365.78	2,274.00	2,208.37	11.36	15.30	-99.77	-2,494.17	-9,116.35	9,509.52	9,482.88	26.65	356.858		
2,500.00	2,463.79	2,328.79	2,257.29	11.82	15.84	-99.68	-2,470.95	-9,124.63	9,514.90	9,487.26	27.64	344.188		
2,600.00	2,561.80	2,369.00	2,293.24	12.28	16.24	-99.61	-2,454.02	-9,130.82	9,520.78	9,492.28	28.50	334.094		
2,700.00	2,659.81	2,422.88	2,341.43	12.75	16.77	-99.53	-2,431.48	-9,139.37	9,527.20	9,497.71	29.49	323.091		
2,800.00	2,757.82	2,465.26	2,379.35	13.21	17.19	-99.46	-2,413.89	-9,146.34	9,534.27	9,503.91	30.36	314.004		
2,900.00	2,855.83	2,571.61	2,474.58	13.68	18.25	-99.30	-2,369.96	-9,164.02	9,541.63	9,509.74	31.89	299.244		
3,000.00	2,953.84	2,629.08	2,526.15	14.15	18.82	-99.21	-2,346.50	-9,173.61	9,549.23	9,516.32	32.91	290.139		
3,100.00	3,051.85	2,690.65	2,759.64	14.62	21.47	-98.79	-2,236.48	-9,215.84	9,555.82	9,519.77	36.05	265.045		
3,200.00	3,149.85	2,952.39	2,814.23	15.09	22.11	-98.69	-2,209.41	-9,225.78	9,562.25	9,525.09	37.16	257.333		
3,300.00	3,247.86	3,166.78	3,006.10	15.56	24.29	-98.35	-2,119.62	-9,258.69	9,568.86	9,529.04	39.82	240.307		
3,400.00	3,345.87	3,221.00	3,054.39	16.04	24.85	-98.26	-2,096.31	-9,266.71	9,574.52	9,533.68	40.84	234.445		
3,500.00	3,443.88	3,283.71	3,110.30	16.51	25.49	-98.16	-2,069.53	-9,276.19	9,580.61	9,538.67	41.95	228.404		
3,600.00	3,541.89	3,600.00	3,199.12	16.98	28.69	-98.01	-2,028.58	-9,291.22	9,587.12	9,541.51	45.60	210.230		
3,700.00	3,639.90	3,466.80	3,274.81	17.46	27.34	-97.88	-1,994.07	-9,303.77	9,593.54	9,548.82	44.73	214.497		
3,800.00	3,737.91	3,526.69	3,328.81	17.93	27.94	-97.80	-1,969.80	-9,312.92	9,600.44	9,554.65	45.79	209.672		
3,900.00	3,835.92	3,616.99	3,410.04	18.41	28.85	-97.66	-1,932.99	-9,326.98	9,607.65	9,560.49	47.16	203.718		
4,000.00	3,933.93	3,739.98	3,520.72	18.88	30.08	-97.48	-1,882.75	-9,345.83	9,614.64	9,565.77	48.87	196.743		
4,100.00	4,031.93	3,877.79	3,644.99	19.36	31.46	-97.28	-1,826.95	-9,366.64	9,621.64	9,570.92	50.72	189.692		
4,200.00	4,129.94	3,931.72	3,693.24	19.84	32.02	-97.20	-1,804.30	-9,374.91	9,628.54	9,576.80	51.74	186.079		
4,300.00	4,227.95	3,976.00	3,732.52	20.31	32.49	-97.12	-1,785.16	-9,382.04	9,635.97	9,583.30	52.66	182.972		
4,400.00	4,325.96	4,035.09	3,784.49	20.79	33.13	-97.02	-1,758.88	-9,392.01	9,643.90	9,590.13	53.77	179.359		
4,500.00	4,423.97	4,093.53	3,835.42	21.27	33.78	-96.91	-1,732.14	-9,402.33	9,652.35	9,597.47	54.88	175.897		
4,600.00	4,521.98	4,165.00	3,897.12	21.75	34.60	-96.78	-1,698.51	-9,415.36	9,661.15	9,605.01	56.15	172.069		
4,700.00	4,619.99	4,209.02	3,934.90	22.23	35.11	-96.69	-1,677.48	-9,423.63	9,670.43	9,613.32	57.11	169.330		
4,800.00	4,718.00	4,260.00	3,978.55	22.70	35.71	-96.59	-1,653.08	-9,433.52	9,680.32	9,622.16	58.15	166.462		
4,900.00	4,816.01	4,576.06	4,257.21	23.18	39.13	-96.06	-1,515.10	-9,489.37	9,690.11	9,628.03	62.08	156.084		
5,000.00	4,914.01	4,638.00	4,313.28	23.66	39.75	-95.97	-1,490.60	-9,499.02	9,698.35	9,635.19	63.16	153.553		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 120-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,012.02	4,755.06	4,420.25	24.14	40.87	-95.82	-1,446.52	-9,516.77	9,706.64	9,641.89	64.75	149.918		
5,200.00	5,110.03	4,829.00	4,488.09	24.62	41.57	-95.74	-1,419.31	-9,527.94	9,715.09	9,649.19	65.90	147.421		
5,300.00	5,208.04	5,432.03	5,059.27	25.10	46.30	-95.30	-1,239.09	-9,593.68	9,720.62	9,649.47	71.15	136.618		
5,400.00	5,306.05	5,538.78	5,163.01	25.58	46.96	-95.28	-1,214.96	-9,600.77	9,724.00	9,651.70	72.30	134.499		
5,500.00	5,404.06	5,651.18	5,273.01	26.06	47.61	-95.27	-1,192.91	-9,607.42	9,727.34	9,653.92	73.42	132.493		
5,600.00	5,502.07	5,923.73	5,542.51	26.54	48.87	-95.35	-1,154.03	-9,617.05	9,729.22	9,654.06	75.16	129.449		
5,700.00	5,600.08	5,978.10	5,596.63	27.02	49.07	-95.39	-1,149.05	-9,618.08	9,730.93	9,655.08	75.85	128.287		
5,800.00	5,698.09	6,055.26	5,673.57	27.50	49.34	-95.44	-1,143.34	-9,619.50	9,732.99	9,656.39	76.60	127.058		
5,900.00	5,796.09	6,168.79	5,786.89	27.98	49.70	-95.54	-1,136.66	-9,621.24	9,735.12	9,657.67	77.45	125.696		
6,000.00	5,894.10	6,247.28	5,865.28	28.46	49.93	-95.60	-1,132.85	-9,622.30	9,737.30	9,659.13	78.17	124.565		
6,100.00	5,992.11	6,385.09	6,002.97	28.94	50.33	-95.73	-1,127.24	-9,623.61	9,739.27	9,660.22	79.05	123.200		
6,200.00	6,090.12	6,460.32	6,078.16	29.42	50.54	-95.80	-1,124.71	-9,624.19	9,741.30	9,661.55	79.75	122.151		
6,300.00	6,188.13	6,528.32	6,146.13	29.90	50.72	-95.87	-1,122.78	-9,624.84	9,743.64	9,663.23	80.42	121.165		
6,400.00	6,286.14	6,596.21	6,213.99	30.38	50.90	-95.94	-1,121.19	-9,625.63	9,746.33	9,665.24	81.08	120.201		
6,500.00	6,384.15	6,675.36	6,293.12	30.87	51.10	-96.02	-1,119.76	-9,626.69	9,749.32	9,667.55	81.77	119.223		
6,600.00	6,482.15	6,767.12	6,384.86	31.35	51.34	-87.61	-1,118.49	-9,627.90	9,752.15	9,669.66	82.49	118.220		
6,700.00	6,579.21	6,858.25	6,475.98	31.83	51.56	-56.85	-1,117.61	-9,629.08	9,744.71	9,661.50	83.21	117.114		
6,800.00	6,673.04	6,946.82	6,564.55	32.30	51.78	-42.90	-1,116.98	-9,630.23	9,722.29	9,638.39	83.90	115.881		
6,900.00	6,761.33	7,031.64	6,649.35	32.74	51.99	-36.62	-1,116.53	-9,631.34	9,685.45	9,600.89	84.56	114.539		
7,000.00	6,841.90	7,113.02	6,730.73	33.17	52.19	-34.07	-1,116.14	-9,632.41	9,635.08	9,549.90	85.19	113.105		
7,100.00	6,912.77	7,215.14	6,802.55	33.60	52.44	-33.92	-1,115.79	-9,633.35	9,572.42	9,486.59	85.84	111.521		
7,200.00	6,972.19	7,245.37	6,863.06	34.09	52.51	-35.96	-1,115.50	-9,634.15	9,499.02	9,412.74	86.28	110.100		
7,300.00	7,018.70	7,293.07	6,910.76	34.73	52.63	-40.80	-1,115.28	-9,634.77	9,416.68	9,329.95	86.73	108.577		
7,400.00	7,051.15	7,326.79	6,944.47	35.55	52.72	-50.30	-1,115.12	-9,635.21	9,327.44	9,240.33	87.11	107.073		
7,500.00	7,068.75	7,345.69	6,963.37	36.56	52.76	-68.59	-1,115.03	-9,635.46	9,233.47	9,146.05	87.43	105.614		
7,600.00	7,071.91	7,350.15	6,967.84	37.71	52.78	-88.07	-1,115.00	-9,635.52	9,137.12	9,049.45	87.68	104.214		
7,700.00	7,071.62	7,351.18	6,968.86	39.03	52.78	-88.10	-1,115.00	-9,635.53	9,040.52	8,952.59	87.93	102.821		
7,800.00	7,071.34	7,352.20	6,969.88	40.51	52.78	-88.12	-1,114.99	-9,635.55	8,943.99	8,855.79	88.20	101.411		
7,900.00	7,071.05	7,353.22	6,970.91	42.14	52.78	-88.15	-1,114.99	-9,635.56	8,847.54	8,759.05	88.49	99.985		
8,000.00	7,070.77	7,354.25	6,971.93	43.89	52.79	-88.17	-1,114.98	-9,635.57	8,751.16	8,662.36	88.81	98.543		
8,100.00	7,070.48	7,355.27	6,972.95	45.76	52.79	-88.20	-1,114.98	-9,635.59	8,654.87	8,565.73	89.15	97.086		
8,200.00	7,070.20	7,356.29	6,973.98	47.72	52.79	-88.22	-1,114.97	-9,635.60	8,558.67	8,469.15	89.51	95.614		
8,300.00	7,069.92	7,357.32	6,975.00	49.78	52.79	-88.25	-1,114.97	-9,635.62	8,462.55	8,372.64	89.90	94.128		
8,400.00	7,069.63	7,358.34	6,976.02	51.90	52.80	-88.27	-1,114.96	-9,635.63	8,366.52	8,276.20	90.32	92.628		
8,500.00	7,069.35	7,359.37	6,977.05	54.10	52.80	-88.30	-1,114.96	-9,635.64	8,270.59	8,179.82	90.77	91.115		
8,600.00	7,069.06	7,360.39	6,978.07	56.36	52.80	-88.32	-1,114.96	-9,635.66	8,174.75	8,083.51	91.25	89.589		
8,700.00	7,068.78	7,361.41	6,979.09	58.66	52.80	-88.35	-1,114.95	-9,635.67	8,079.02	7,987.27	91.75	88.053		
8,800.00	7,068.49	7,362.44	6,980.12	61.02	52.81	-88.37	-1,114.95	-9,635.68	7,983.39	7,891.10	92.29	86.505		
8,900.00	7,068.21	7,363.46	6,981.14	63.42	52.81	-88.40	-1,114.94	-9,635.70	7,887.87	7,795.01	92.85	84.949		
9,000.00	7,067.92	7,364.48	6,982.16	65.85	52.81	-88.42	-1,114.94	-9,635.71	7,792.46	7,699.00	93.45	83.383		
9,100.00	7,067.64	7,365.51	6,983.19	68.32	52.81	-88.45	-1,114.93	-9,635.72	7,697.16	7,603.08	94.09	81.809		
9,200.00	7,067.35	7,366.53	6,984.21	70.81	52.82	-88.47	-1,114.93	-9,635.74	7,601.99	7,507.24	94.75	80.229		
9,300.00	7,067.07	7,367.55	6,985.23	73.34	52.82	-88.50	-1,114.92	-9,635.75	7,506.94	7,411.49	95.46	78.644		
9,400.00	7,066.78	7,368.58	6,986.26	75.88	52.82	-88.52	-1,114.92	-9,635.76	7,412.02	7,315.83	96.19	77.054		
9,500.00	7,066.50	7,369.60	6,987.28	78.45	52.82	-88.55	-1,114.91	-9,635.78	7,317.24	7,220.27	96.97	75.460		
9,600.00	7,066.21	7,370.62	6,988.30	81.04	52.83	-88.57	-1,114.91	-9,635.79	7,222.60	7,124.82	97.78	73.865		
9,700.00	7,065.93	7,371.65	6,989.33	83.64	52.83	-88.60	-1,114.90	-9,635.80	7,128.11	7,029.47	98.63	72.268		
9,800.00	7,065.64	7,372.67	6,990.35	86.26	52.83	-88.62	-1,114.90	-9,635.82	7,033.76	6,934.24	99.53	70.672		
9,900.00	7,065.36	7,373.69	6,991.37	88.90	52.83	-88.65	-1,114.89	-9,635.83	6,939.58	6,839.12	100.46	69.076		
10,000.00	7,065.07	7,374.72	6,992.40	91.55	52.84	-88.67	-1,114.89	-9,635.84	6,845.56	6,744.12	101.44	67.484		
10,100.00	7,064.79	7,375.74	6,993.42	94.21	52.84	-88.70	-1,114.88	-9,635.86	6,751.71	6,649.25	102.46	65.895		
10,200.00	7,064.50	7,376.76	6,994.44	96.88	52.84	-88.72	-1,114.88	-9,635.87	6,658.04	6,554.51	103.53	64.312		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-32-12(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 120-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,064.22	7,377.79	6,995.47	99.57	52.84	-88.75	-1,114.87	-9,635.88	6,564.56	6,459.92	104.64	62.734		
10,400.00	7,063.94	7,378.81	6,996.49	102.26	52.85	-88.77	-1,114.87	-9,635.90	6,471.27	6,365.47	105.80	61.164		
10,500.00	7,063.65	7,379.83	6,997.51	104.96	52.85	-88.80	-1,114.86	-9,635.91	6,378.18	6,271.17	107.01	59.603		
10,600.00	7,063.37	7,380.86	6,998.54	107.67	52.85	-88.82	-1,114.86	-9,635.92	6,285.31	6,177.04	108.27	58.051		
10,700.00	7,063.08	7,381.88	6,999.56	110.39	52.85	-88.85	-1,114.85	-9,635.94	6,192.66	6,083.07	109.59	56.509		
10,800.00	7,062.80	7,382.90	7,000.58	113.11	52.86	-88.87	-1,114.85	-9,635.95	6,100.24	5,989.29	110.95	54.980		
10,900.00	7,062.51	7,383.93	7,001.61	115.84	52.86	-88.90	-1,114.84	-9,635.96	6,008.07	5,895.69	112.38	53.463		
11,000.00	7,062.23	7,384.95	7,002.63	118.58	52.86	-88.92	-1,114.84	-9,635.98	5,916.14	5,802.29	113.86	51.961		
11,100.00	7,061.94	7,385.98	7,003.65	121.32	52.86	-88.95	-1,114.83	-9,635.99	5,824.49	5,709.09	115.40	50.473		
11,200.00	7,061.66	7,387.00	7,004.68	124.07	52.87	-88.97	-1,114.83	-9,636.00	5,733.11	5,616.11	117.00	49.002		
11,300.00	7,061.37	7,388.02	7,005.70	126.82	52.87	-89.00	-1,114.82	-9,636.02	5,642.02	5,523.36	118.66	47.547		
11,400.00	7,061.09	7,389.05	7,006.73	129.58	52.87	-89.02	-1,114.82	-9,636.03	5,551.24	5,430.85	120.39	46.110		
11,500.00	7,060.80	7,390.24	7,007.92	132.34	52.88	-89.05	-1,114.81	-9,636.05	5,460.79	5,338.60	122.19	44.691		
11,600.00	7,060.52	7,391.42	7,009.10	135.10	52.88	-89.08	-1,114.81	-9,636.06	5,370.67	5,246.61	124.06	43.292		
11,700.00	7,060.23	7,392.60	7,010.27	137.87	52.88	-89.11	-1,114.80	-9,636.08	5,280.91	5,154.91	126.00	41.913		
11,800.00	7,059.95	7,393.76	7,011.44	140.64	52.88	-89.14	-1,114.80	-9,636.09	5,191.52	5,063.51	128.01	40.556		
11,900.00	7,059.66	7,394.92	7,012.60	143.42	52.89	-89.17	-1,114.79	-9,636.11	5,102.52	4,972.42	130.10	39.220		
12,000.00	7,059.38	7,396.07	7,013.75	146.20	52.89	-89.19	-1,114.78	-9,636.12	5,013.94	4,881.67	132.27	37.906		
12,100.00	7,059.09	7,397.21	7,014.89	148.98	52.89	-89.22	-1,114.78	-9,636.14	4,925.80	4,791.27	134.53	36.616		
12,200.00	7,058.81	7,398.34	7,016.02	151.77	52.90	-89.25	-1,114.77	-9,636.15	4,838.12	4,701.25	136.87	35.349		
12,300.00	7,058.52	7,399.47	7,017.15	154.55	52.90	-89.28	-1,114.77	-9,636.17	4,750.92	4,611.62	139.29	34.107		
12,400.00	7,058.24	7,400.59	7,018.27	157.34	52.90	-89.30	-1,114.76	-9,636.18	4,664.24	4,522.42	141.81	32.890		
12,500.00	7,057.96	7,401.70	7,019.38	160.14	52.90	-89.33	-1,114.76	-9,636.19	4,578.10	4,433.67	144.43	31.698		
12,600.00	7,057.67	7,402.80	7,020.48	162.93	52.91	-89.36	-1,114.75	-9,636.21	4,492.53	4,345.39	147.14	30.532		
12,700.00	7,057.39	7,403.90	7,021.58	165.73	52.91	-89.39	-1,114.75	-9,636.22	4,407.57	4,257.61	149.96	29.392		
12,800.00	7,057.10	7,404.99	7,022.67	168.53	52.91	-89.41	-1,114.74	-9,636.24	4,323.26	4,170.38	152.88	28.279		
12,900.00	7,056.82	7,406.07	7,023.75	171.33	52.92	-89.44	-1,114.74	-9,636.25	4,239.62	4,083.72	155.90	27.194		
13,000.00	7,056.53	7,407.15	7,024.83	174.13	52.92	-89.46	-1,114.73	-9,636.26	4,156.71	3,997.67	159.04	26.136		
13,100.00	7,056.25	7,408.22	7,025.90	176.94	52.92	-89.49	-1,114.73	-9,636.28	4,074.57	3,912.27	162.29	25.106		
13,200.00	7,055.96	7,409.28	7,026.96	179.74	52.92	-89.52	-1,114.72	-9,636.29	3,993.24	3,827.57	165.67	24.104		
13,300.00	7,055.68	7,410.34	7,028.01	182.55	52.93	-89.54	-1,114.72	-9,636.30	3,912.78	3,743.62	169.16	23.131		
13,400.00	7,055.39	7,411.38	7,029.06	185.36	52.93	-89.57	-1,114.71	-9,636.32	3,833.23	3,660.46	172.77	22.187		
13,500.00	7,055.11	7,412.43	7,030.10	188.17	52.93	-89.59	-1,114.71	-9,636.33	3,754.66	3,578.15	176.51	21.271		
13,600.00	7,054.82	7,413.46	7,031.14	190.98	52.93	-89.62	-1,114.70	-9,636.34	3,677.14	3,496.76	180.38	20.385		
13,700.00	7,054.54	7,414.49	7,032.16	193.80	52.94	-89.64	-1,114.70	-9,636.36	3,600.72	3,416.34	184.38	19.529		
13,800.00	7,054.25	7,415.51	7,033.19	196.61	52.94	-89.67	-1,114.69	-9,636.37	3,525.48	3,336.97	188.51	18.702		
13,900.00	7,053.97	7,416.53	7,034.20	199.43	52.94	-89.69	-1,114.69	-9,636.38	3,451.50	3,258.73	192.77	17.905		
14,000.00	7,053.68	7,417.53	7,035.21	202.25	52.94	-89.72	-1,114.68	-9,636.39	3,378.86	3,181.70	197.16	17.138		
14,100.00	7,053.40	7,418.54	7,036.21	205.06	52.95	-89.74	-1,114.68	-9,636.41	3,307.65	3,105.97	201.68	16.400		
14,200.00	7,053.11	7,419.53	7,037.21	207.88	52.95	-89.77	-1,114.67	-9,636.42	3,237.96	3,031.63	206.33	15.693		
14,300.00	7,052.83	7,420.52	7,038.20	210.70	52.95	-89.79	-1,114.67	-9,636.43	3,169.89	2,958.79	211.10	15.016		
14,400.00	7,052.54	7,421.51	7,039.18	213.53	52.95	-89.81	-1,114.66	-9,636.44	3,103.55	2,887.57	215.98	14.370		
14,500.00	7,052.26	7,422.49	7,040.16	216.35	52.96	-89.84	-1,114.66	-9,636.45	3,039.05	2,818.08	220.97	13.753		
14,600.00	7,051.98	7,423.46	7,041.13	219.17	52.96	-89.86	-1,114.65	-9,636.47	2,976.52	2,750.46	226.06	13.167		
14,700.00	7,051.69	7,424.42	7,042.10	222.00	52.96	-89.89	-1,114.65	-9,636.48	2,916.07	2,684.84	231.24	12.611		
14,800.00	7,051.41	7,425.38	7,043.06	224.82	52.96	-89.91	-1,114.65	-9,636.49	2,857.85	2,621.37	236.48	12.085		
14,900.00	7,051.12	7,426.34	7,044.01	227.65	52.97	-89.93	-1,114.64	-9,636.50	2,801.99	2,560.20	241.78	11.589		
14,942.37	7,051.00	7,426.74	7,044.41	228.85	52.97	-89.94	-1,114.64	-9,636.50	2,779.06	2,535.03	244.04	11.388	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2,251.44	2,182.53	3.28	15.79	-105.71	-2,460.22	-8,746.55	9,344.42					
100.00	100.00	2,302.00	2,228.88	3.28	16.24	-105.60	-2,440.90	-8,740.65	9,321.43	9,303.06	18.37	507.456		
200.00	200.00	2,355.10	2,277.63	3.34	16.71	-105.49	-2,420.73	-8,734.63	9,298.94	9,280.12	18.82	494.076		
300.00	300.00	2,543.39	2,450.01	3.44	18.40	-105.09	-2,348.43	-8,712.06	9,275.65	9,255.22	20.43	454.069		
400.00	399.98	2,586.71	2,489.42	3.60	18.80	-98.15	-2,331.17	-8,707.11	9,253.00	9,232.09	20.91	442.428		
500.00	499.84	2,671.73	2,566.76	3.81	19.58	-98.43	-2,297.11	-8,697.72	9,231.23	9,209.43	21.80	423.489		
600.00	599.45	2,895.25	2,769.29	4.06	21.67	-98.47	-2,206.23	-8,671.65	9,209.10	9,185.20	23.90	385.287		
700.00	698.70	2,964.00	2,831.67	4.34	22.32	-98.80	-2,178.55	-8,663.34	9,187.44	9,162.70	24.73	371.489		
800.00	797.47	3,019.21	2,882.07	4.64	22.82	-99.16	-2,157.04	-8,656.62	9,166.67	9,141.21	25.46	359.994		
900.00	895.65	3,106.87	2,962.58	4.98	23.62	-99.37	-2,124.11	-8,645.67	9,146.67	9,120.19	26.48	345.373		
1,000.00	993.66	3,211.54	3,058.46	5.32	24.57	-99.27	-2,084.18	-8,632.80	9,126.83	9,099.16	27.67	329.835		
1,100.00	1,091.67	3,278.10	3,119.47	5.69	25.17	-99.21	-2,058.85	-8,624.59	9,107.04	9,078.47	28.57	318.767		
1,200.00	1,189.68	3,323.53	3,161.37	6.09	25.57	-99.17	-2,042.20	-8,619.04	9,087.79	9,058.48	29.31	310.030		
1,300.00	1,287.69	3,346.00	3,182.19	6.49	25.77	-99.16	-2,034.20	-8,616.32	9,069.18	9,039.28	29.89	303.410		
1,400.00	1,385.69	3,403.40	3,235.55	6.90	26.26	-99.12	-2,014.14	-8,609.60	9,051.10	9,020.36	30.74	294.448		
1,500.00	1,483.70	3,448.31	3,277.44	7.33	26.64	-99.08	-1,998.71	-8,604.66	9,033.73	9,002.23	31.50	286.761		
1,600.00	1,581.71	3,562.84	3,384.60	7.76	27.59	-99.01	-1,960.46	-8,591.66	9,016.35	8,983.57	32.78	275.064		
1,700.00	1,679.72	3,883.24	3,684.42	8.19	30.26	-98.82	-1,855.18	-8,550.80	8,997.73	8,962.20	35.53	253.231		
1,800.00	1,777.73	3,962.67	3,757.99	8.63	30.96	-98.77	-1,827.18	-8,540.24	8,978.00	8,941.41	36.58	245.407		
1,900.00	1,875.74	4,015.00	3,806.31	9.08	31.42	-98.72	-1,808.17	-8,533.77	8,958.80	8,921.35	37.45	239.237		
2,000.00	1,973.75	4,096.45	3,881.39	9.53	32.15	-98.65	-1,778.07	-8,524.15	8,939.96	8,901.40	38.55	231.884		
2,100.00	2,071.76	4,167.52	3,946.84	9.98	32.78	-98.59	-1,751.64	-8,515.94	8,921.32	8,881.73	39.58	225.372		
2,200.00	2,169.77	4,679.00	4,411.34	10.44	37.61	-98.05	-1,548.87	-8,449.55	8,900.44	8,856.19	44.24	201.168		
2,300.00	2,267.77	4,721.73	4,449.40	10.90	38.04	-97.99	-1,530.36	-8,443.61	8,877.77	8,832.66	45.11	196.803		
2,400.00	2,365.78	4,774.00	4,496.17	11.36	38.57	-97.92	-1,508.10	-8,436.67	8,855.81	8,809.75	46.06	192.260		
2,500.00	2,463.79	4,774.00	4,496.17	11.82	38.57	-97.92	-1,508.10	-8,436.67	8,834.53	8,787.96	46.56	189.728		
2,600.00	2,561.80	4,828.20	4,545.05	12.28	39.09	-97.86	-1,485.70	-8,429.81	8,813.86	8,766.34	47.52	185.480		
2,700.00	2,659.81	4,869.00	4,582.16	12.75	39.48	-97.81	-1,469.49	-8,424.85	8,793.98	8,745.61	48.36	181.829		
2,800.00	2,757.82	4,929.59	4,637.63	13.21	40.03	-97.75	-1,446.21	-8,417.56	8,774.65	8,725.30	49.35	177.799		
2,900.00	2,855.83	5,069.21	4,765.68	13.68	41.31	-97.61	-1,393.28	-8,400.50	8,755.41	8,704.44	50.97	171.787		
3,000.00	2,953.84	5,100.37	4,794.25	14.15	41.59	-97.58	-1,381.39	-8,396.78	8,736.22	8,684.50	51.72	168.899		
3,100.00	3,051.85	5,152.00	4,841.75	14.62	42.06	-97.53	-1,362.07	-8,390.81	8,717.69	8,665.05	52.65	165.593		
3,200.00	3,149.85	5,181.42	4,868.94	15.09	42.32	-97.51	-1,351.32	-8,387.53	8,699.79	8,646.41	53.38	162.976		
3,300.00	3,247.86	5,221.29	4,905.92	15.56	42.67	-97.47	-1,337.07	-8,383.22	8,682.57	8,628.37	54.20	160.207		
3,400.00	3,345.87	5,247.00	4,929.86	16.04	42.89	-97.45	-1,328.08	-8,380.53	8,666.04	8,611.14	54.90	157.847		
3,500.00	3,443.88	5,299.60	4,979.06	16.51	43.33	-97.41	-1,310.23	-8,375.23	8,650.14	8,594.35	55.79	155.038		
3,600.00	3,541.89	5,342.00	5,018.93	16.98	43.68	-97.38	-1,296.40	-8,371.16	8,634.96	8,578.35	56.61	152.533		
3,700.00	3,639.90	5,342.00	5,018.93	17.46	43.68	-97.38	-1,296.40	-8,371.16	8,620.65	8,563.54	57.11	150.943		
3,800.00	3,737.91	5,393.14	5,067.37	17.93	44.06	-97.36	-1,280.63	-8,366.61	8,606.92	8,548.96	57.96	148.492		
3,900.00	3,835.92	5,437.00	5,109.25	18.41	44.40	-97.34	-1,268.10	-8,363.10	8,594.21	8,535.45	58.76	146.259		
4,000.00	3,933.93	5,437.00	5,109.25	18.88	44.40	-97.34	-1,268.10	-8,363.10	8,582.23	8,522.98	59.25	144.842		
4,100.00	4,031.93	5,481.54	5,152.05	19.36	44.70	-97.32	-1,256.23	-8,359.85	8,571.05	8,511.03	60.02	142.800		
4,200.00	4,129.94	5,531.00	5,199.87	19.84	45.04	-97.31	-1,244.01	-8,356.56	8,560.72	8,499.90	60.82	140.757		
4,300.00	4,227.95	5,570.08	5,237.80	20.31	45.28	-97.31	-1,234.95	-8,354.05	8,551.01	8,489.48	61.53	138.975		
4,400.00	4,325.96	5,626.00	5,292.24	20.79	45.63	-97.31	-1,222.72	-8,350.35	8,541.68	8,479.34	62.34	137.028		
4,500.00	4,423.97	5,681.25	5,346.26	21.27	45.95	-97.32	-1,211.71	-8,346.71	8,532.86	8,469.76	63.11	135.216		
4,600.00	4,521.98	5,731.60	5,395.71	21.75	46.23	-97.33	-1,202.78	-8,343.52	8,524.74	8,460.89	63.84	133.529		
4,700.00	4,619.99	5,814.00	5,476.81	22.23	46.66	-97.36	-1,189.32	-8,338.05	8,516.75	8,452.04	64.72	131.601		
4,800.00	4,718.00	5,853.20	5,515.49	22.70	46.85	-97.38	-1,183.44	-8,335.50	8,509.34	8,443.97	65.36	130.188		
4,900.00	4,816.01	5,909.00	5,570.71	23.18	47.12	-97.41	-1,176.09	-8,332.44	8,502.96	8,436.89	66.08	128.678		
5,000.00	4,914.01	5,909.00	5,570.71	23.66	47.12	-97.41	-1,176.09	-8,332.44	8,497.10	8,430.56	66.54	127.702		
5,100.00	5,012.02	5,974.64	5,635.83	24.14	47.41	-97.46	-1,168.42	-8,329.29	8,492.04	8,424.77	67.27	126.234		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-42-11(PR_150CC) - OH - MWD													Offset Site Error:	0.00 ft
Survey Program: 57-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	6,032.41	5,693.19	24.62	47.65	-97.50	-1,162.15	-8,326.63	8,487.40	8,419.43	67.96	124.880		
5,300.00	5,208.04	6,097.00	5,757.41	25.10	47.92	-97.55	-1,155.80	-8,323.91	8,483.34	8,414.67	68.68	123.527		
5,400.00	5,306.05	6,128.92	5,789.18	25.58	48.04	-97.57	-1,152.87	-8,322.71	8,479.85	8,410.60	69.25	122.460		
5,500.00	5,404.06	6,192.00	5,851.98	26.06	48.28	-97.62	-1,147.36	-8,320.73	8,477.08	8,407.15	69.94	121.210		
5,600.00	5,502.07	6,231.20	5,891.03	26.54	48.43	-97.66	-1,144.00	-8,319.71	8,474.84	8,404.31	70.53	120.159		
5,700.00	5,600.08	6,299.68	5,959.22	27.02	48.69	-97.71	-1,137.94	-8,318.17	8,473.04	8,401.80	71.24	118.935		
5,800.00	5,698.09	6,365.02	6,024.32	27.50	48.94	-97.76	-1,132.50	-8,316.88	8,471.64	8,399.70	71.93	117.769		
5,900.00	5,796.09	6,433.56	6,092.66	27.98	49.18	-97.83	-1,127.41	-8,315.63	8,470.64	8,398.01	72.63	116.627		
6,000.00	5,894.10	6,503.92	6,162.85	28.46	49.42	-97.89	-1,122.72	-8,314.46	8,470.01	8,396.68	73.33	115.513		
6,100.00	5,992.11	6,570.00	6,228.81	28.94	49.65	-97.96	-1,118.81	-8,313.44	8,469.73	8,395.73	74.00	114.463		
6,104.03	5,996.06	6,570.00	6,228.81	28.96	49.65	-97.96	-1,118.81	-8,313.44	8,469.72	8,395.71	74.01	114.437		
6,200.00	6,090.12	6,620.52	6,279.25	29.42	49.81	-98.01	-1,116.14	-8,312.83	8,469.95	8,395.35	74.60	113.543		
6,300.00	6,188.13	6,665.00	6,323.68	29.90	49.95	-98.05	-1,114.02	-8,312.51	8,470.81	8,395.64	75.17	112.685		
6,400.00	6,286.14	6,739.02	6,397.64	30.38	50.17	-98.13	-1,110.98	-8,312.20	8,472.15	8,396.31	75.85	111.700		
6,500.00	6,384.15	6,827.91	6,486.48	30.87	50.43	-98.23	-1,108.10	-8,311.87	8,473.78	8,397.21	76.57	110.672		
6,600.00	6,482.15	6,923.23	6,581.77	31.35	50.70	-98.84	-1,105.67	-8,311.37	8,475.19	8,397.88	77.30	109.640		
6,700.00	6,579.21	7,017.23	6,675.74	31.83	50.96	-59.16	-1,103.47	-8,310.86	8,466.41	8,388.39	78.03	108.509		
6,800.00	6,673.04	7,105.10	6,763.59	32.30	51.20	-45.34	-1,101.60	-8,310.38	8,442.84	8,364.13	78.71	107.268		
6,900.00	6,761.33	7,186.53	6,845.01	32.74	51.43	-39.27	-1,100.14	-8,309.92	8,405.09	8,325.75	79.34	105.935		
7,000.00	6,841.90	7,260.60	6,919.07	33.17	51.63	-37.01	-1,099.02	-8,309.51	8,354.12	8,274.20	79.92	104.527		
7,100.00	6,912.77	7,325.53	6,983.99	33.60	51.81	-37.27	-1,098.19	-8,309.15	8,291.19	8,210.75	80.45	103.065		
7,200.00	6,972.19	7,379.84	7,038.29	34.09	51.95	-39.91	-1,097.58	-8,308.86	8,217.85	8,136.93	80.91	101.566		
7,300.00	7,018.70	7,422.31	7,080.76	34.73	52.07	-45.58	-1,097.17	-8,308.64	8,135.87	8,054.56	81.32	100.053		
7,400.00	7,051.15	7,464.54	7,122.99	35.55	52.18	-56.21	-1,096.78	-8,308.39	8,047.25	7,965.55	81.70	98.494		
7,500.00	7,068.75	7,486.87	7,145.32	36.56	52.24	-74.78	-1,096.57	-8,308.24	7,954.16	7,872.15	82.01	96.992		
7,600.00	7,071.91	7,490.07	7,148.52	37.71	52.25	-92.40	-1,096.54	-8,308.22	7,858.92	7,776.68	82.24	95.562		
7,700.00	7,071.62	7,488.74	7,147.19	39.03	52.25	-92.37	-1,096.55	-8,308.23	7,763.52	7,681.05	82.47	94.136		
7,800.00	7,071.34	7,487.43	7,145.88	40.51	52.24	-92.33	-1,096.57	-8,308.24	7,668.23	7,585.50	82.73	92.689		
7,900.00	7,071.05	7,486.13	7,144.58	42.14	52.24	-92.30	-1,096.58	-8,308.25	7,573.06	7,490.04	83.02	91.219		
8,000.00	7,070.77	7,484.84	7,143.29	43.89	52.24	-92.27	-1,096.59	-8,308.26	7,478.02	7,394.68	83.34	89.729		
8,100.00	7,070.48	7,483.56	7,142.01	45.76	52.23	-92.24	-1,096.60	-8,308.26	7,383.11	7,299.42	83.69	88.218		
8,200.00	7,070.20	7,482.29	7,140.74	47.72	52.23	-92.21	-1,096.62	-8,308.27	7,288.34	7,204.26	84.08	86.688		
8,300.00	7,069.92	7,481.03	7,139.47	49.78	52.22	-92.18	-1,096.63	-8,308.28	7,193.71	7,109.21	84.49	85.139		
8,400.00	7,069.63	7,479.77	7,138.22	51.90	52.22	-92.15	-1,096.64	-8,308.29	7,099.22	7,014.28	84.95	83.572		
8,500.00	7,069.35	7,478.53	7,136.98	54.10	52.22	-92.12	-1,096.65	-8,308.30	7,004.89	6,919.45	85.44	81.988		
8,600.00	7,069.06	7,477.30	7,135.75	56.36	52.21	-92.09	-1,096.66	-8,308.31	6,910.72	6,824.75	85.97	80.389		
8,700.00	7,068.78	7,476.07	7,134.52	58.66	52.21	-92.06	-1,096.67	-8,308.32	6,816.71	6,730.18	86.53	78.776		
8,800.00	7,068.49	7,474.86	7,133.31	61.02	52.21	-92.03	-1,096.68	-8,308.32	6,722.88	6,635.74	87.14	77.150		
8,900.00	7,068.21	7,473.65	7,132.10	63.42	52.21	-92.00	-1,096.70	-8,308.33	6,629.22	6,541.43	87.79	75.513		
9,000.00	7,067.92	7,472.46	7,130.91	65.85	52.20	-91.97	-1,096.71	-8,308.34	6,535.76	6,447.28	88.48	73.866		
9,100.00	7,067.64	7,471.27	7,129.72	68.32	52.20	-91.94	-1,096.72	-8,308.35	6,442.49	6,353.27	89.22	72.210		
9,200.00	7,067.35	7,470.09	7,128.54	70.81	52.20	-91.91	-1,096.73	-8,308.36	6,349.42	6,259.42	90.00	70.549		
9,300.00	7,067.07	7,468.92	7,127.37	73.34	52.19	-91.88	-1,096.74	-8,308.36	6,256.57	6,165.74	90.83	68.882		
9,400.00	7,066.78	7,467.76	7,126.21	75.88	52.19	-91.85	-1,096.75	-8,308.37	6,163.94	6,072.23	91.71	67.212		
9,500.00	7,066.50	7,466.60	7,125.06	78.45	52.19	-91.82	-1,096.76	-8,308.38	6,071.55	5,978.91	92.64	65.541		
9,600.00	7,066.21	7,465.46	7,123.91	81.04	52.18	-91.80	-1,096.77	-8,308.39	5,979.40	5,885.78	93.62	63.871		
9,700.00	7,065.93	7,464.32	7,122.77	83.64	52.18	-91.77	-1,096.78	-8,308.39	5,887.50	5,792.85	94.65	62.203		
9,800.00	7,065.64	7,463.20	7,121.65	86.26	52.18	-91.74	-1,096.79	-8,308.40	5,795.88	5,700.14	95.74	60.539		
9,900.00	7,065.36	7,462.08	7,120.53	88.90	52.17	-91.71	-1,096.80	-8,308.41	5,704.53	5,607.65	96.88	58.881		
10,000.00	7,065.07	7,460.96	7,119.41	91.55	52.17	-91.69	-1,096.81	-8,308.42	5,613.48	5,515.40	98.09	57.230		
10,100.00	7,064.79	7,459.86	7,118.31	94.21	52.17	-91.66	-1,096.82	-8,308.42	5,522.74	5,423.39	99.35	55.589		
10,200.00	7,064.50	7,458.76	7,117.22	96.88	52.16	-91.63	-1,096.83	-8,308.43	5,432.33	5,331.65	100.67	53.959		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 17-42-11(PR_150CC) - OH - MWD													Offset Site Error:	0.00 ft
Survey Program: 57-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,064.22	7,457.68	7,116.13	99.57	52.16	-91.61	-1,096.84	-8,308.44	5,342.25	5,240.19	102.06	52.342		
10,400.00	7,063.94	7,456.60	7,115.05	102.26	52.16	-91.58	-1,096.85	-8,308.44	5,252.54	5,149.02	103.52	50.739		
10,500.00	7,063.65	7,455.52	7,113.97	104.96	52.16	-91.55	-1,096.86	-8,308.45	5,163.20	5,058.16	105.04	49.153		
10,600.00	7,063.37	7,454.46	7,112.91	107.67	52.15	-91.53	-1,096.87	-8,308.46	5,074.26	4,967.62	106.64	47.583		
10,700.00	7,063.08	7,453.40	7,111.85	110.39	52.15	-91.50	-1,096.88	-8,308.46	4,985.74	4,877.43	108.31	46.033		
10,800.00	7,062.80	7,452.35	7,110.80	113.11	52.15	-91.48	-1,096.89	-8,308.47	4,897.66	4,787.61	110.05	44.503		
10,900.00	7,062.51	7,451.31	7,109.76	115.84	52.14	-91.45	-1,096.90	-8,308.48	4,810.05	4,698.17	111.87	42.996		
11,000.00	7,062.23	7,450.27	7,108.72	118.58	52.14	-91.42	-1,096.91	-8,308.48	4,722.93	4,609.15	113.78	41.511		
11,100.00	7,061.94	7,449.24	7,107.69	121.32	52.14	-91.40	-1,096.92	-8,308.49	4,636.33	4,520.56	115.76	40.050		
11,200.00	7,061.66	7,448.22	7,106.67	124.07	52.14	-91.37	-1,096.93	-8,308.49	4,550.27	4,432.44	117.84	38.615		
11,300.00	7,061.37	7,447.21	7,105.66	126.82	52.13	-91.35	-1,096.94	-8,308.50	4,464.80	4,344.80	120.00	37.207		
11,400.00	7,061.09	7,446.20	7,104.65	129.58	52.13	-91.33	-1,096.95	-8,308.51	4,379.95	4,257.69	122.25	35.827		
11,500.00	7,060.80	7,445.20	7,103.65	132.34	52.13	-91.30	-1,096.96	-8,308.51	4,295.74	4,171.14	124.61	34.475		
11,600.00	7,060.52	7,444.20	7,102.66	135.10	52.13	-91.28	-1,096.97	-8,308.52	4,212.23	4,085.17	127.06	33.152		
11,700.00	7,060.23	7,443.22	7,101.67	137.87	52.12	-91.25	-1,096.98	-8,308.52	4,129.45	3,999.84	129.61	31.860		
11,800.00	7,059.95	7,442.24	7,100.69	140.64	52.12	-91.23	-1,096.99	-8,308.53	4,047.44	3,915.17	132.27	30.600		
11,900.00	7,059.66	7,441.26	7,099.72	143.42	52.12	-91.20	-1,097.00	-8,308.53	3,966.26	3,831.22	135.04	29.371		
12,000.00	7,059.38	7,440.30	7,098.75	146.20	52.12	-91.18	-1,097.00	-8,308.54	3,885.96	3,748.04	137.92	28.175		
12,100.00	7,059.09	7,439.34	7,097.79	148.98	52.11	-91.16	-1,097.01	-8,308.55	3,806.60	3,665.68	140.92	27.012		
12,200.00	7,058.81	7,438.38	7,096.83	151.77	52.11	-91.13	-1,097.02	-8,308.55	3,728.22	3,584.18	144.04	25.883		
12,300.00	7,058.52	7,437.43	7,095.89	154.55	52.11	-91.11	-1,097.03	-8,308.56	3,650.90	3,503.62	147.28	24.789		
12,400.00	7,058.24	7,436.49	7,094.94	157.34	52.10	-91.09	-1,097.04	-8,308.56	3,574.71	3,424.06	150.65	23.729		
12,500.00	7,057.96	7,435.56	7,094.01	160.14	52.10	-91.06	-1,097.05	-8,308.57	3,499.71	3,345.57	154.14	22.705		
12,600.00	7,057.67	7,434.63	7,093.08	162.93	52.10	-91.04	-1,097.06	-8,308.57	3,425.99	3,268.23	157.76	21.716		
12,700.00	7,057.39	7,433.70	7,092.16	165.73	52.10	-91.02	-1,097.07	-8,308.58	3,353.64	3,192.12	161.52	20.763		
12,800.00	7,057.10	7,432.79	7,091.24	168.53	52.09	-91.00	-1,097.07	-8,308.58	3,282.73	3,117.32	165.41	19.846		
12,900.00	7,056.82	7,431.87	7,090.33	171.33	52.09	-90.97	-1,097.08	-8,308.59	3,213.37	3,043.94	169.43	18.966		
13,000.00	7,056.53	7,430.97	7,089.42	174.13	52.09	-90.95	-1,097.09	-8,308.59	3,145.67	2,972.08	173.58	18.122		
13,100.00	7,056.25	7,430.07	7,088.52	176.94	52.09	-90.93	-1,097.10	-8,308.60	3,079.72	2,901.85	177.87	17.315		
13,200.00	7,055.96	7,429.18	7,087.63	179.74	52.09	-90.91	-1,097.11	-8,308.60	3,015.64	2,833.36	182.28	16.544		
13,300.00	7,055.68	7,428.29	7,086.74	182.55	52.08	-90.89	-1,097.11	-8,308.61	2,953.56	2,766.75	186.82	15.810		
13,400.00	7,055.39	7,427.41	7,085.86	185.36	52.08	-90.86	-1,097.12	-8,308.61	2,893.61	2,702.14	191.47	15.113		
13,500.00	7,055.11	7,426.53	7,084.98	188.17	52.08	-90.84	-1,097.13	-8,308.62	2,835.92	2,639.69	196.23	14.452		
13,600.00	7,054.82	7,425.66	7,084.11	190.98	52.08	-90.82	-1,097.14	-8,308.62	2,780.62	2,579.54	201.08	13.828		
13,700.00	7,054.54	7,424.79	7,083.25	193.80	52.07	-90.80	-1,097.15	-8,308.63	2,727.87	2,521.85	206.03	13.240		
13,800.00	7,054.25	7,423.93	7,082.39	196.61	52.07	-90.78	-1,097.15	-8,308.63	2,677.82	2,466.78	211.04	12.689		
13,900.00	7,053.97	7,423.08	7,081.53	199.43	52.07	-90.76	-1,097.16	-8,308.63	2,630.62	2,414.52	216.10	12.173		
14,000.00	7,053.68	7,422.23	7,080.68	202.25	52.07	-90.74	-1,097.17	-8,308.64	2,586.42	2,365.24	221.18	11.693		
14,100.00	7,053.40	7,421.45	7,079.90	205.06	52.06	-90.72	-1,097.18	-8,308.64	2,545.39	2,319.11	226.28	11.249		
14,200.00	7,053.11	7,420.69	7,079.15	207.88	52.06	-90.70	-1,097.18	-8,308.65	2,507.67	2,276.33	231.35	10.840		
14,300.00	7,052.83	7,419.94	7,078.39	210.70	52.06	-90.68	-1,097.19	-8,308.65	2,473.43	2,237.07	236.36	10.465		
14,400.00	7,052.54	7,419.18	7,077.63	213.53	52.06	-90.66	-1,097.20	-8,308.65	2,442.80	2,201.52	241.28	10.124		
14,500.00	7,052.26	7,418.42	7,076.88	216.35	52.06	-90.64	-1,097.20	-8,308.66	2,415.93	2,169.84	246.08	9.817		
14,600.00	7,051.98	7,417.67	7,076.12	219.17	52.05	-90.63	-1,097.21	-8,308.66	2,392.93	2,142.21	250.72	9.544		
14,700.00	7,051.69	7,416.91	7,075.36	222.00	52.05	-90.61	-1,097.22	-8,308.67	2,373.93	2,118.77	255.16	9.304		
14,800.00	7,051.41	7,416.15	7,074.60	224.82	52.05	-90.59	-1,097.23	-8,308.67	2,359.02	2,099.65	259.37	9.095		
14,900.00	7,051.12	7,415.39	7,073.85	227.65	52.05	-90.57	-1,097.23	-8,308.67	2,348.27	2,084.98	263.30	8.919		
14,942.37	7,051.00	7,415.07	7,073.52	228.85	52.05	-90.56	-1,097.24	-8,308.68	2,344.99	2,080.12	264.87	8.853 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	37.00	3.28	3.28	-108.98	-3,097.13	-9,005.52	9,523.28					
100.00	100.00	36.81	73.81	3.28	3.28	-108.98	-3,097.06	-9,005.60	9,523.30	9,516.73	6.57	1,450.483		
200.00	200.00	95.24	132.24	3.34	3.29	-108.97	-3,096.61	-9,006.06	9,523.79	9,517.17	6.62	1,438.001		
300.00	300.00	168.00	204.98	3.44	3.30	-108.97	-3,095.50	-9,007.20	9,524.74	9,518.00	6.74	1,412.575		
400.00	399.98	168.00	204.98	3.60	3.30	-101.63	-3,095.50	-9,007.20	9,526.62	9,519.71	6.90	1,380.206		
500.00	499.84	213.20	250.15	3.81	3.33	-101.57	-3,094.62	-9,008.42	9,529.83	9,522.69	7.13	1,336.050		
600.00	599.45	259.00	295.90	4.06	3.37	-101.49	-3,093.75	-9,010.33	9,534.67	9,527.26	7.41	1,286.144		
700.00	698.70	259.00	295.90	4.34	3.37	-101.37	-3,093.75	-9,010.33	9,540.83	9,533.14	7.69	1,240.409		
800.00	797.47	292.44	329.29	4.64	3.40	-101.24	-3,093.21	-9,012.09	9,548.51	9,540.48	8.03	1,188.380		
900.00	895.65	350.00	386.74	4.98	3.48	-101.17	-3,092.74	-9,015.72	9,557.78	9,549.34	8.44	1,131.983		
1,000.00	993.66	350.00	386.74	5.32	3.48	-101.17	-3,092.74	-9,015.72	9,567.64	9,558.84	8.80	1,086.993		
1,100.00	1,091.67	404.66	441.25	5.69	3.57	-101.23	-3,092.58	-9,019.61	9,578.28	9,569.02	9.26	1,034.067		
1,200.00	1,189.68	478.05	514.44	6.09	3.72	-101.30	-3,092.43	-9,025.09	9,589.31	9,579.52	9.79	979.611		
1,300.00	1,287.69	532.00	568.24	6.49	3.84	-101.36	-3,092.26	-9,029.20	9,600.57	9,590.26	10.31	931.604		
1,400.00	1,385.69	581.88	617.95	6.90	3.97	-101.41	-3,092.20	-9,033.21	9,612.33	9,601.50	10.83	887.310		
1,500.00	1,483.70	644.00	679.83	7.33	4.14	-101.47	-3,092.54	-9,038.73	9,624.89	9,613.48	11.41	843.615		
1,600.00	1,581.71	659.76	695.52	7.76	4.18	-101.49	-3,092.69	-9,040.21	9,637.90	9,626.03	11.87	811.627		
1,700.00	1,679.72	728.71	764.14	8.19	4.40	-101.56	-3,093.46	-9,046.81	9,651.46	9,638.97	12.50	772.287		
1,800.00	1,777.73	849.04	883.93	8.63	4.80	-101.68	-3,094.99	-9,058.19	9,665.00	9,651.70	13.30	726.711		
1,900.00	1,875.74	1,900.00	1,077.10	9.08	9.11	-101.88	-3,095.68	-9,076.47	9,678.45	9,660.65	17.80	543.739		
2,000.00	1,973.75	1,096.00	1,129.81	9.53	5.72	-101.93	-3,095.68	-9,081.13	9,691.12	9,676.09	15.03	644.845		
2,100.00	2,071.76	1,148.93	1,182.52	9.98	5.93	-101.98	-3,095.54	-9,085.93	9,704.12	9,688.45	15.67	619.447		
2,200.00	2,169.77	1,190.00	1,223.36	10.44	6.09	-102.02	-3,095.30	-9,090.29	9,718.05	9,701.79	16.26	597.566		
2,300.00	2,267.77	1,190.00	1,223.36	10.90	6.09	-102.02	-3,095.30	-9,090.29	9,732.67	9,715.97	16.70	582.652		
2,400.00	2,365.78	1,235.15	1,268.20	11.36	6.28	-102.06	-3,094.99	-9,095.62	9,747.97	9,730.65	17.32	562.742		
2,500.00	2,463.79	1,285.00	1,317.63	11.82	6.50	-102.10	-3,094.67	-9,102.02	9,764.03	9,746.07	17.96	543.595		
2,600.00	2,561.80	1,285.00	1,317.63	12.28	6.50	-102.10	-3,094.67	-9,102.02	9,780.69	9,762.29	18.40	531.499		
2,700.00	2,659.81	1,330.64	1,362.84	12.75	6.70	-102.14	-3,094.62	-9,108.27	9,798.02	9,779.00	19.03	514.944		
2,800.00	2,757.82	1,379.00	1,410.70	13.21	6.92	-102.18	-3,095.07	-9,115.22	9,816.10	9,796.44	19.67	499.147		
2,900.00	2,855.83	1,379.00	1,410.70	13.68	6.92	-102.18	-3,095.07	-9,115.22	9,834.80	9,814.70	20.10	489.238		
3,000.00	2,953.84	1,436.06	1,467.08	14.15	7.19	-102.23	-3,095.64	-9,123.98	9,854.07	9,833.29	20.78	474.211		
3,100.00	3,051.85	1,475.00	1,505.49	14.62	7.38	-102.27	-3,095.73	-9,130.37	9,873.97	9,852.58	21.38	461.805		
3,200.00	3,149.85	1,511.01	1,540.97	15.09	7.56	-102.29	-3,095.76	-9,136.53	9,894.47	9,872.50	21.97	450.332		
3,300.00	3,247.86	1,570.00	1,599.02	15.56	7.85	-102.34	-3,096.09	-9,147.02	9,915.66	9,892.99	22.66	437.496		
3,400.00	3,345.87	1,570.00	1,599.02	16.04	7.85	-102.34	-3,096.09	-9,147.02	9,937.34	9,914.24	23.09	430.335		
3,500.00	3,443.88	1,632.98	1,660.89	16.51	8.18	-102.39	-3,096.56	-9,158.74	9,959.56	9,935.75	23.81	418.374		
3,600.00	3,541.89	1,665.00	1,692.32	16.98	8.34	-102.42	-3,096.75	-9,164.89	9,982.33	9,957.96	24.38	409.502		
8,100.00	7,070.48	6,974.00	6,859.74	45.76	40.55	-87.57	-3,134.64	-10,249.70	9,966.98	9,895.49	71.49	139.427		
8,200.00	7,070.20	6,974.00	6,859.74	47.72	40.55	-87.57	-3,134.64	-10,249.70	9,877.18	9,804.97	72.21	136.776		
8,300.00	7,069.92	6,974.00	6,859.74	49.78	40.55	-87.57	-3,134.64	-10,249.70	9,787.58	9,714.59	72.99	134.089		
8,400.00	7,069.63	6,974.00	6,859.74	51.90	40.55	-87.57	-3,134.64	-10,249.70	9,698.18	9,624.36	73.82	131.372		
8,500.00	7,069.35	6,974.00	6,859.74	54.10	40.55	-87.57	-3,134.64	-10,249.70	9,608.99	9,534.29	74.70	128.632		
8,600.00	7,069.06	6,974.00	6,859.74	56.36	40.55	-87.57	-3,134.64	-10,249.70	9,520.02	9,444.39	75.63	125.875		
8,700.00	7,068.78	6,974.00	6,859.74	58.66	40.55	-87.57	-3,134.64	-10,249.70	9,431.27	9,354.66	76.61	123.106		
8,800.00	7,068.49	6,974.00	6,859.74	61.02	40.55	-87.57	-3,134.64	-10,249.70	9,342.75	9,265.10	77.64	120.333		
8,900.00	7,068.21	6,974.00	6,859.74	63.42	40.55	-87.57	-3,134.64	-10,249.70	9,254.45	9,175.73	78.72	117.560		
9,000.00	7,067.92	6,974.00	6,859.74	65.85	40.55	-87.57	-3,134.64	-10,249.70	9,166.40	9,086.55	79.85	114.792		
9,100.00	7,067.64	6,974.00	6,859.74	68.32	40.55	-87.57	-3,134.64	-10,249.70	9,078.60	8,997.57	81.03	112.035		
9,200.00	7,067.35	6,974.00	6,859.74	70.81	40.55	-87.57	-3,134.64	-10,249.70	8,991.05	8,908.79	82.27	109.293		
9,300.00	7,067.07	6,974.00	6,859.74	73.34	40.55	-87.57	-3,134.64	-10,249.70	8,903.77	8,820.22	83.55	106.570		
9,400.00	7,066.78	6,974.00	6,859.74	75.88	40.55	-87.57	-3,134.64	-10,249.70	8,816.75	8,731.87	84.88	103.872		
9,500.00	7,066.50	6,974.00	6,859.74	78.45	40.55	-87.57	-3,134.64	-10,249.70	8,730.01	8,643.75	86.27	101.200		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
9,600.00	7,066.21	6,974.00	6,859.74	81.04	40.55	-87.57	-3,134.64	-10,249.70	8,643.56	8,555.86	87.70	98.559		
9,700.00	7,065.93	6,974.00	6,859.74	83.64	40.55	-87.57	-3,134.64	-10,249.70	8,557.41	8,468.22	89.19	95.951		
9,800.00	7,065.64	6,974.00	6,859.74	86.26	40.55	-87.57	-3,134.64	-10,249.70	8,471.56	8,380.83	90.72	93.379		
9,900.00	7,065.36	6,974.00	6,859.74	88.90	40.55	-87.57	-3,134.64	-10,249.70	8,386.02	8,293.71	92.31	90.846		
10,000.00	7,065.07	6,974.00	6,859.74	91.55	40.55	-87.57	-3,134.64	-10,249.70	8,300.80	8,206.85	93.95	88.353		
10,100.00	7,064.79	6,974.00	6,859.74	94.21	40.55	-87.57	-3,134.64	-10,249.70	8,215.92	8,120.28	95.64	85.903		
10,200.00	7,064.50	6,974.00	6,859.74	96.88	40.55	-87.57	-3,134.64	-10,249.70	8,131.38	8,034.00	97.39	83.497		
10,300.00	7,064.22	6,974.00	6,859.74	99.57	40.55	-87.57	-3,134.64	-10,249.70	8,047.20	7,948.02	99.18	81.135		
10,400.00	7,063.94	6,974.00	6,859.74	102.26	40.55	-87.57	-3,134.64	-10,249.70	7,963.38	7,862.35	101.03	78.820		
10,500.00	7,063.65	6,974.00	6,859.74	104.96	40.55	-87.57	-3,134.64	-10,249.70	7,879.94	7,777.01	102.94	76.552		
10,600.00	7,063.37	6,974.00	6,859.74	107.67	40.55	-87.57	-3,134.64	-10,249.70	7,796.89	7,692.00	104.89	74.332		
10,700.00	7,063.08	6,974.00	6,859.74	110.39	40.55	-87.57	-3,134.64	-10,249.70	7,714.25	7,607.34	106.90	72.160		
10,800.00	7,062.80	6,974.00	6,859.74	113.11	40.55	-87.57	-3,134.64	-10,249.70	7,632.01	7,523.04	108.97	70.037		
10,900.00	7,062.51	6,974.00	6,859.74	115.84	40.55	-87.57	-3,134.64	-10,249.70	7,550.21	7,439.12	111.09	67.963		
11,000.00	7,062.23	6,974.00	6,859.74	118.58	40.55	-87.57	-3,134.64	-10,249.70	7,468.85	7,355.58	113.27	65.937		
11,100.00	7,061.94	6,974.00	6,859.74	121.32	40.55	-87.57	-3,134.64	-10,249.70	7,387.95	7,272.44	115.51	63.961		
11,200.00	7,061.66	6,974.00	6,859.74	124.07	40.55	-87.57	-3,134.64	-10,249.70	7,307.52	7,189.72	117.80	62.033		
11,300.00	7,061.37	6,974.00	6,859.74	126.82	40.55	-87.57	-3,134.64	-10,249.70	7,227.57	7,107.42	120.15	60.154		
11,400.00	7,061.09	6,974.00	6,859.74	129.58	40.55	-87.57	-3,134.64	-10,249.70	7,148.14	7,025.58	122.56	58.323		
11,500.00	7,060.80	6,974.00	6,859.74	132.34	40.55	-87.57	-3,134.64	-10,249.70	7,069.22	6,944.19	125.03	56.540		
11,600.00	7,060.52	6,974.00	6,859.74	135.10	40.55	-87.57	-3,134.64	-10,249.70	6,990.85	6,863.29	127.56	54.805		
11,700.00	7,060.23	6,995.95	6,881.69	137.87	40.62	-87.86	-3,135.05	-10,250.07	6,912.98	6,782.74	130.23	53.081		
11,800.00	7,059.95	6,996.90	6,882.64	140.64	40.62	-87.87	-3,135.07	-10,250.09	6,835.73	6,702.84	132.89	51.439		
11,900.00	7,059.66	6,997.85	6,883.59	143.42	40.63	-87.88	-3,135.09	-10,250.10	6,759.08	6,623.48	135.61	49.843		
12,000.00	7,059.38	6,998.80	6,884.53	146.20	40.63	-87.89	-3,135.11	-10,250.12	6,683.05	6,544.67	138.39	48.293		
12,100.00	7,059.09	6,999.75	6,885.48	148.98	40.63	-87.91	-3,135.13	-10,250.13	6,607.66	6,466.43	141.23	46.787		
12,200.00	7,058.81	7,000.69	6,886.43	151.77	40.64	-87.92	-3,135.15	-10,250.15	6,532.93	6,388.79	144.14	45.324		
12,300.00	7,058.52	7,001.64	6,887.37	154.55	40.64	-87.93	-3,135.17	-10,250.17	6,458.88	6,311.77	147.11	43.905		
12,400.00	7,058.24	7,002.58	6,888.31	157.34	40.64	-87.94	-3,135.19	-10,250.18	6,385.53	6,235.39	150.15	42.529		
12,500.00	7,057.96	7,003.52	6,889.25	160.14	40.65	-87.96	-3,135.21	-10,250.20	6,312.92	6,159.68	153.25	41.195		
12,600.00	7,057.67	7,004.46	6,890.19	162.93	40.65	-87.97	-3,135.23	-10,250.21	6,241.07	6,084.65	156.41	39.901		
12,700.00	7,057.39	7,005.40	6,891.13	165.73	40.65	-87.98	-3,135.25	-10,250.23	6,170.00	6,010.35	159.65	38.648		
12,800.00	7,057.10	7,006.34	6,892.07	168.53	40.66	-87.99	-3,135.27	-10,250.24	6,099.74	5,936.80	162.95	37.434		
12,900.00	7,056.82	7,007.27	6,893.01	171.33	40.66	-88.01	-3,135.29	-10,250.26	6,030.32	5,864.01	166.31	36.260		
13,000.00	7,056.53	7,008.21	6,893.94	174.13	40.66	-88.02	-3,135.31	-10,250.28	5,961.77	5,792.03	169.74	35.123		
13,100.00	7,056.25	7,009.14	6,894.87	176.94	40.66	-88.03	-3,135.33	-10,250.29	5,894.12	5,720.89	173.24	34.024		
13,200.00	7,055.96	7,010.08	6,895.81	179.74	40.67	-88.04	-3,135.35	-10,250.31	5,827.40	5,650.60	176.80	32.961		
13,300.00	7,055.68	7,011.01	6,896.74	182.55	40.67	-88.05	-3,135.37	-10,250.32	5,761.64	5,581.22	180.42	31.934		
13,400.00	7,055.39	7,011.94	6,897.67	185.36	40.67	-88.07	-3,135.39	-10,250.34	5,696.88	5,512.77	184.11	30.943		
13,500.00	7,055.11	7,012.86	6,898.59	188.17	40.68	-88.08	-3,135.41	-10,250.35	5,633.15	5,445.29	187.86	29.986		
13,600.00	7,054.82	7,013.79	6,899.52	190.98	40.68	-88.09	-3,135.43	-10,250.37	5,570.49	5,378.81	191.67	29.062		
13,700.00	7,054.54	7,014.72	6,900.45	193.80	40.68	-88.10	-3,135.45	-10,250.38	5,508.92	5,313.38	195.55	28.172		
13,800.00	7,054.25	7,015.64	6,901.37	196.61	40.69	-88.11	-3,135.48	-10,250.40	5,448.50	5,249.02	199.48	27.314		
13,900.00	7,053.97	7,016.56	6,902.29	199.43	40.69	-88.13	-3,135.50	-10,250.41	5,389.26	5,185.79	203.47	26.487		
14,000.00	7,053.68	7,017.49	6,903.21	202.25	40.69	-88.14	-3,135.52	-10,250.43	5,331.23	5,123.72	207.51	25.692		
14,100.00	7,053.40	7,018.41	6,904.13	205.06	40.70	-88.15	-3,135.54	-10,250.44	5,274.46	5,062.86	211.60	24.927		
14,200.00	7,053.11	7,019.33	6,905.05	207.88	40.70	-88.16	-3,135.56	-10,250.46	5,218.99	5,003.25	215.74	24.191		
14,300.00	7,052.83	7,020.24	6,905.97	210.70	40.70	-88.18	-3,135.58	-10,250.47	5,164.85	4,944.93	219.93	23.484		
14,400.00	7,052.54	7,021.16	6,906.89	213.53	40.70	-88.19	-3,135.60	-10,250.49	5,112.11	4,887.95	224.15	22.806		
14,500.00	7,052.26	7,022.08	6,907.80	216.35	40.71	-88.20	-3,135.62	-10,250.51	5,060.78	4,832.37	228.42	22.156		
14,600.00	7,051.98	7,022.99	6,908.72	219.17	40.71	-88.21	-3,135.65	-10,250.52	5,010.93	4,778.22	232.71	21.533		
14,700.00	7,051.69	7,023.90	6,909.63	222.00	40.71	-88.22	-3,135.67	-10,250.54	4,962.59	4,725.56	237.04	20.936		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
14,800.00	7,051.41	7,024.81	6,910.54	224.82	40.72	-88.24	-3,135.69	-10,250.55	4,915.81	4,674.43	241.38	20.365	
14,900.00	7,051.12	7,025.72	6,911.45	227.65	40.72	-88.25	-3,135.71	-10,250.57	4,870.64	4,624.89	245.75	19.820	
14,942.37	7,051.00	7,026.11	6,911.83	228.85	40.72	-88.25	-3,135.72	-10,250.57	4,851.99	4,604.39	247.60	19.596	CC, ES, SF



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	37.00	3.28	3.28	-108.70	-3,029.39	-8,949.58	9,448.47					
100.00	100.00	36.81	73.81	3.28	3.28	-108.70	-3,029.32	-8,949.66	9,448.48	9,441.92	6.57	1,439.105		
200.00	200.00	95.22	132.22	3.34	3.29	-108.70	-3,028.88	-8,950.11	9,448.98	9,442.36	6.62	1,426.816		
300.00	300.00	468.90	505.73	3.44	3.73	-108.64	-3,019.24	-8,949.03	9,446.87	9,439.69	7.18	1,316.505		
400.00	399.98	740.70	777.33	3.60	4.42	-101.38	-3,010.53	-8,943.39	9,444.38	9,436.35	8.03	1,175.779		
500.00	499.84	796.89	833.45	3.81	4.59	-101.44	-3,008.14	-8,941.91	9,441.60	9,433.19	8.40	1,123.885		
600.00	599.45	850.00	886.47	4.06	4.76	-101.49	-3,005.19	-8,941.11	9,440.08	9,431.28	8.81	1,071.991		
671.82	670.77	878.00	914.42	4.25	4.85	-101.50	-3,003.36	-8,940.93	9,439.76	9,430.67	9.09	1,038.386		
700.00	698.70	892.31	928.69	4.34	4.90	-101.51	-3,002.36	-8,940.89	9,439.81	9,430.59	9.22	1,024.039		
800.00	797.47	945.00	981.22	4.64	5.08	-101.51	-2,998.28	-8,941.07	9,440.76	9,431.06	9.70	973.176		
900.00	895.65	1,031.17	1,066.95	4.98	5.39	-101.53	-2,989.73	-8,942.30	9,442.72	9,432.38	10.34	913.009		
1,000.00	993.66	1,183.26	1,217.68	5.32	5.98	-101.59	-2,969.67	-8,945.58	9,444.42	9,433.13	11.29	836.306		
1,100.00	1,091.67	1,100.00	1,951.01	5.69	5.56	-101.49	-2,801.30	-8,955.96	9,441.44	9,430.60	10.84	871.052		
1,200.00	1,189.68	2,037.26	2,047.71	6.09	10.50	-101.45	-2,772.77	-8,955.72	9,435.98	9,419.48	16.50	571.848		
1,300.00	1,287.69	2,081.00	2,089.61	6.49	10.77	-101.42	-2,760.23	-8,955.91	9,431.03	9,413.85	17.18	549.090		
1,400.00	1,385.69	2,126.64	2,133.28	6.90	11.07	-101.40	-2,746.98	-8,956.44	9,426.66	9,408.78	17.88	527.165		
1,500.00	1,483.70	2,175.00	2,179.46	7.33	11.38	-101.37	-2,732.63	-8,957.38	9,422.85	9,404.23	18.61	506.197		
1,600.00	1,581.71	2,418.70	2,411.38	7.76	13.05	-101.22	-2,657.91	-8,961.03	9,417.90	9,397.23	20.67	455.727		
1,700.00	1,679.72	2,540.46	2,527.22	8.19	13.89	-101.14	-2,620.41	-8,962.18	9,412.79	9,390.87	21.93	429.263		
1,800.00	1,777.73	2,640.18	2,622.25	8.63	14.59	-101.08	-2,590.19	-8,962.75	9,407.50	9,384.45	23.05	408.136		
1,900.00	1,875.74	2,800.24	2,773.74	9.08	15.76	-100.97	-2,538.56	-8,963.89	9,401.59	9,376.96	24.63	381.735		
2,000.00	1,973.75	2,860.94	2,831.14	9.53	16.20	-100.92	-2,518.81	-8,964.40	9,395.87	9,370.35	25.51	368.256		
2,100.00	2,071.76	2,909.26	2,877.16	9.98	16.54	-100.89	-2,504.11	-8,964.72	9,390.66	9,364.36	26.31	356.943		
2,200.00	2,169.77	2,970.00	2,935.39	10.44	16.97	-100.86	-2,486.83	-8,965.06	9,385.98	9,358.79	27.18	345.265		
2,300.00	2,267.77	3,143.26	3,101.32	10.90	18.18	-100.77	-2,436.96	-8,966.07	9,381.35	9,352.54	28.82	325.554		
2,400.00	2,365.78	3,237.24	3,191.60	11.36	18.82	-100.73	-2,410.86	-8,965.88	9,376.19	9,346.29	29.91	313.499		
2,500.00	2,463.79	3,350.64	3,300.46	11.82	19.61	-100.68	-2,379.13	-8,965.24	9,370.60	9,339.47	31.13	300.979		
2,600.00	2,561.80	3,409.00	3,356.40	12.28	20.02	-100.66	-2,362.48	-8,965.36	9,365.54	9,333.54	32.00	292.672		
2,700.00	2,659.81	3,489.06	3,433.17	12.75	20.57	-100.62	-2,339.76	-8,965.75	9,360.85	9,327.83	33.02	283.528		
2,800.00	2,757.82	3,577.19	3,517.71	13.21	21.19	-100.58	-2,314.88	-8,966.15	9,356.19	9,322.11	34.09	274.465		
2,900.00	2,855.83	3,658.47	3,595.51	13.68	21.77	-100.53	-2,291.36	-8,966.85	9,351.72	9,316.59	35.12	266.244		
3,000.00	2,953.84	3,777.14	3,708.73	14.15	22.63	-100.46	-2,255.85	-8,968.37	9,347.34	9,310.90	36.44	256.524		
3,100.00	3,051.85	3,888.42	3,814.24	14.62	23.47	-100.38	-2,220.52	-8,970.17	9,342.70	9,304.97	37.73	247.621		
3,200.00	3,149.85	3,993.65	3,913.92	15.09	24.26	-100.31	-2,186.83	-8,971.82	9,337.95	9,298.97	38.98	239.530		
3,300.00	3,247.86	4,060.49	3,977.33	15.56	24.77	-100.26	-2,165.73	-8,972.91	9,333.40	9,293.44	39.96	233.588		
3,400.00	3,345.87	4,110.17	4,024.56	16.04	25.13	-100.23	-2,150.34	-8,973.83	9,329.29	9,288.49	40.80	228.665		
3,500.00	3,443.88	4,166.00	4,077.76	16.51	25.55	-100.19	-2,133.48	-8,975.09	9,325.76	9,284.07	41.68	223.724		
3,600.00	3,541.89	4,598.46	4,487.32	16.98	28.84	-99.88	-1,994.83	-8,978.21	9,318.92	9,273.57	45.34	205.514		
3,700.00	3,639.90	4,639.00	4,525.56	17.46	29.16	-99.85	-1,981.38	-8,978.17	9,312.34	9,266.19	46.14	201.809		
3,800.00	3,737.91	4,686.31	4,570.36	17.93	29.52	-99.81	-1,966.19	-8,978.26	9,306.36	9,259.38	46.98	198.088		
3,900.00	3,835.92	4,736.00	4,617.68	18.41	29.89	-99.78	-1,951.01	-8,978.44	9,300.98	9,253.15	47.83	194.442		
4,000.00	3,933.93	4,779.33	4,659.08	18.88	30.21	-99.76	-1,938.24	-8,978.71	9,296.18	9,247.55	48.63	191.168		
4,100.00	4,031.93	4,830.00	4,707.59	19.36	30.57	-99.73	-1,923.62	-8,979.19	9,291.92	9,242.45	49.47	187.818		
4,200.00	4,129.94	4,887.08	4,762.50	19.84	30.97	-99.71	-1,908.01	-8,979.75	9,288.16	9,237.82	50.34	184.504		
4,300.00	4,227.95	4,945.93	4,819.47	20.31	31.36	-99.69	-1,893.31	-8,980.17	9,284.85	9,233.64	51.21	181.303		
4,400.00	4,325.96	5,005.83	4,877.65	20.79	31.75	-99.68	-1,879.05	-8,980.64	9,281.97	9,229.90	52.07	178.246		
4,500.00	4,423.97	5,066.26	4,936.48	21.27	32.13	-99.67	-1,865.24	-8,981.21	9,279.53	9,226.60	52.93	175.320		
4,600.00	4,521.98	5,114.00	4,983.06	21.75	32.42	-99.66	-1,854.79	-8,981.71	9,277.52	9,223.82	53.70	172.758		
4,700.00	4,619.99	5,186.12	5,053.67	22.23	32.85	-99.66	-1,840.17	-8,982.43	9,275.92	9,221.32	54.60	169.889		
4,800.00	4,718.00	5,244.26	5,110.84	22.70	33.17	-99.67	-1,829.61	-8,982.92	9,274.77	9,219.37	55.40	167.419		
4,900.00	4,816.01	5,304.00	5,169.80	23.18	33.49	-99.68	-1,819.97	-8,983.35	9,274.08	9,217.89	56.19	165.036		
5,000.00	4,914.01	5,364.05	5,229.20	23.66	33.80	-99.70	-1,811.20	-8,983.77	9,273.83	9,216.86	56.97	162.786		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
5,013.04	4,926.80	5,372.23	5,237.30	23.72	33.84	-99.71	-1,810.05	-8,983.83	9,273.83	9,216.75	57.07	162.492	
5,100.00	5,012.02	5,421.42	5,286.05	24.14	34.07	-99.73	-1,803.44	-8,984.21	9,273.99	9,216.27	57.72	160.669	
5,200.00	5,110.03	5,472.37	5,336.66	24.62	34.31	-99.75	-1,797.58	-8,984.57	9,274.66	9,216.24	58.43	158.739	
5,300.00	5,208.04	5,528.89	5,392.91	25.10	34.56	-99.79	-1,792.18	-8,984.93	9,275.85	9,216.71	59.14	156.835	
5,400.00	5,306.05	5,592.81	5,456.59	25.58	34.83	-99.83	-1,786.71	-8,985.43	9,277.48	9,217.59	59.88	154.925	
5,500.00	5,404.06	5,793.22	5,656.54	26.06	35.61	-100.00	-1,773.30	-8,984.94	9,278.67	9,217.52	61.15	151.726	
5,600.00	5,502.07	5,824.88	5,688.17	26.54	35.72	-100.03	-1,771.79	-8,984.70	9,279.85	9,218.12	61.73	150.324	
5,700.00	5,600.08	5,872.00	5,735.24	27.02	35.89	-100.08	-1,769.77	-8,984.50	9,281.64	9,219.27	62.37	148.819	
5,800.00	5,698.09	5,914.05	5,777.26	27.50	36.04	-100.12	-1,768.24	-8,984.49	9,284.03	9,221.06	62.98	147.418	
5,900.00	5,796.09	5,966.00	5,829.19	27.98	36.21	-100.17	-1,766.77	-8,984.67	9,287.02	9,223.40	63.62	145.976	
6,000.00	5,894.10	6,033.32	5,896.50	28.46	36.44	-100.24	-1,765.22	-8,985.08	9,290.47	9,226.16	64.31	144.461	
6,100.00	5,992.11	6,131.20	5,994.35	28.94	36.76	-100.35	-1,763.15	-8,985.76	9,294.10	9,228.98	65.11	142.742	
6,200.00	6,090.12	6,239.41	6,102.54	29.42	37.12	-100.46	-1,761.07	-8,986.34	9,297.67	9,231.72	65.95	140.985	
6,300.00	6,188.13	6,313.33	6,176.44	29.90	37.36	-100.54	-1,759.60	-8,986.84	9,301.39	9,234.72	66.67	139.524	
6,400.00	6,286.14	6,392.06	6,255.15	30.38	37.63	-100.63	-1,757.91	-8,987.59	9,305.34	9,237.94	67.40	138.062	
6,500.00	6,384.15	6,470.79	6,333.86	30.87	37.89	-100.71	-1,756.23	-8,988.50	9,309.53	9,241.40	68.14	136.630	
6,600.00	6,482.15	6,554.14	6,417.18	31.35	38.17	-92.28	-1,754.54	-8,989.63	9,313.67	9,244.78	68.89	135.194	
6,700.00	6,579.21	6,661.19	6,524.20	31.83	38.53	-61.56	-1,752.45	-8,991.05	9,307.71	9,237.97	69.74	133.470	
6,800.00	6,673.04	6,745.33	6,608.32	32.30	38.82	-47.72	-1,750.85	-8,992.13	9,286.99	9,216.50	70.48	131.759	
6,900.00	6,761.33	6,815.86	6,678.83	32.74	39.06	-41.65	-1,749.55	-8,993.16	9,252.25	9,181.09	71.16	130.015	
7,000.00	6,841.90	6,891.03	6,753.98	33.17	39.31	-39.44	-1,748.16	-8,994.40	9,204.34	9,132.49	71.84	128.119	
7,100.00	6,912.77	6,969.35	6,832.27	33.60	39.59	-39.81	-1,746.45	-8,995.76	9,144.28	9,071.77	72.52	126.098	
7,200.00	6,972.19	7,037.18	6,900.06	34.09	39.82	-42.55	-1,744.75	-8,996.96	9,073.58	9,000.44	73.14	124.060	
7,300.00	7,018.70	7,092.64	6,955.50	34.73	40.02	-48.20	-1,743.36	-8,997.89	8,993.98	8,920.28	73.70	122.035	
7,400.00	7,051.15	7,131.78	6,994.62	35.55	40.16	-58.13	-1,742.40	-8,998.52	8,907.48	8,833.30	74.19	120.070	
7,500.00	7,068.75	7,153.74	7,016.57	36.56	40.23	-74.47	-1,741.88	-8,998.85	8,816.24	8,741.65	74.59	118.192	
7,600.00	7,071.91	7,159.06	7,021.89	37.71	40.25	-89.49	-1,741.75	-8,998.93	8,722.55	8,647.62	74.92	116.417	
7,700.00	7,071.62	7,160.42	7,023.25	39.03	40.26	-89.51	-1,741.72	-8,998.95	8,628.63	8,553.36	75.26	114.646	
7,800.00	7,071.34	7,161.77	7,024.60	40.51	40.26	-89.54	-1,741.69	-8,998.97	8,534.84	8,459.21	75.64	112.840	
7,900.00	7,071.05	7,163.12	7,025.95	42.14	40.27	-89.57	-1,741.65	-8,998.99	8,441.20	8,365.16	76.05	111.001	
8,000.00	7,070.77	7,164.46	7,027.29	43.89	40.27	-89.59	-1,741.62	-8,999.01	8,347.71	8,271.22	76.49	109.130	
8,100.00	7,070.48	7,165.80	7,028.63	45.76	40.28	-89.62	-1,741.59	-8,999.03	8,254.37	8,177.39	76.98	107.230	
8,200.00	7,070.20	7,167.13	7,029.96	47.72	40.28	-89.64	-1,741.56	-8,999.05	8,161.19	8,083.69	77.50	105.302	
8,300.00	7,069.92	7,168.45	7,031.28	49.78	40.29	-89.67	-1,741.53	-8,999.07	8,068.17	7,990.10	78.07	103.349	
8,400.00	7,069.63	7,169.77	7,032.60	51.90	40.29	-89.69	-1,741.50	-8,999.09	7,975.32	7,896.65	78.67	101.372	
8,500.00	7,069.35	7,171.08	7,033.91	54.10	40.30	-89.72	-1,741.46	-8,999.11	7,882.64	7,803.32	79.32	99.376	
8,600.00	7,069.06	7,172.39	7,035.22	56.36	40.30	-89.74	-1,741.43	-8,999.13	7,790.15	7,710.13	80.01	97.361	
8,700.00	7,068.78	7,173.69	7,036.52	58.66	40.31	-89.77	-1,741.40	-8,999.15	7,697.84	7,617.09	80.75	95.331	
8,800.00	7,068.49	7,174.98	7,037.81	61.02	40.31	-89.79	-1,741.37	-8,999.17	7,605.73	7,524.20	81.53	93.289	
8,900.00	7,068.21	7,176.27	7,039.10	63.42	40.31	-89.82	-1,741.34	-8,999.19	7,513.81	7,431.46	82.35	91.237	
9,000.00	7,067.92	7,177.56	7,040.38	65.85	40.32	-89.84	-1,741.31	-8,999.21	7,422.11	7,338.88	83.23	89.178	
9,100.00	7,067.64	7,178.83	7,041.66	68.32	40.32	-89.87	-1,741.28	-8,999.22	7,330.62	7,246.48	84.15	87.116	
9,200.00	7,067.35	7,180.11	7,042.93	70.81	40.33	-89.89	-1,741.25	-8,999.24	7,239.36	7,154.25	85.12	85.052	
9,300.00	7,067.07	7,181.37	7,044.19	73.34	40.33	-89.92	-1,741.22	-8,999.26	7,148.33	7,062.20	86.14	82.990	
9,400.00	7,066.78	7,182.63	7,045.45	75.88	40.34	-89.94	-1,741.19	-8,999.28	7,057.55	6,970.35	87.20	80.932	
9,500.00	7,066.50	7,183.89	7,046.71	78.45	40.34	-89.96	-1,741.16	-8,999.30	6,967.02	6,878.69	88.32	78.881	
9,600.00	7,066.21	7,185.14	7,047.96	81.04	40.35	-89.99	-1,741.13	-8,999.32	6,876.75	6,787.25	89.49	76.840	
9,700.00	7,065.93	7,186.38	7,049.20	83.64	40.35	-90.01	-1,741.10	-8,999.33	6,786.75	6,696.03	90.72	74.810	
9,800.00	7,065.64	7,187.62	7,050.44	86.26	40.35	-90.04	-1,741.08	-8,999.35	6,697.03	6,605.03	92.00	72.795	
9,900.00	7,065.36	7,188.85	7,051.67	88.90	40.36	-90.06	-1,741.05	-8,999.37	6,607.61	6,514.28	93.33	70.796	
10,000.00	7,065.07	7,190.08	7,052.90	91.55	40.36	-90.08	-1,741.02	-8,999.39	6,518.50	6,423.78	94.72	68.816	
10,100.00	7,064.79	7,191.31	7,054.12	94.21	40.37	-90.11	-1,740.99	-8,999.40	6,429.71	6,333.54	96.17	66.856	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,200.00	7,064.50	7,186.82	7,049.64	96.88	40.35	-90.02	-1,741.10	-8,999.35	6,341.26	6,243.61	97.65	64.936		
10,300.00	7,064.22	7,187.81	7,050.63	99.57	40.35	-90.04	-1,741.08	-8,999.36	6,253.15	6,153.93	99.22	63.023		
10,400.00	7,063.94	7,188.80	7,051.62	102.26	40.36	-90.06	-1,741.05	-8,999.38	6,165.40	6,064.55	100.85	61.136		
10,500.00	7,063.65	7,189.80	7,052.62	104.96	40.36	-90.08	-1,741.03	-8,999.39	6,078.03	5,975.50	102.54	59.277		
10,600.00	7,063.37	7,190.80	7,053.62	107.67	40.36	-90.10	-1,741.01	-8,999.41	5,991.06	5,886.77	104.29	57.446		
10,700.00	7,063.08	7,191.80	7,054.62	110.39	40.37	-90.12	-1,740.99	-8,999.42	5,904.50	5,798.39	106.11	55.646		
10,800.00	7,062.80	7,192.81	7,055.63	113.11	40.37	-90.14	-1,740.96	-8,999.44	5,818.36	5,710.37	107.99	53.877		
10,900.00	7,062.51	7,193.81	7,056.63	115.84	40.38	-90.16	-1,740.94	-8,999.45	5,732.68	5,622.73	109.95	52.140		
11,000.00	7,062.23	7,194.82	7,057.64	118.58	40.38	-90.17	-1,740.92	-8,999.47	5,647.47	5,535.50	111.97	50.436		
11,100.00	7,061.94	7,195.83	7,058.65	121.32	40.38	-90.19	-1,740.90	-8,999.48	5,562.75	5,448.68	114.07	48.767		
11,200.00	7,061.66	7,196.84	7,059.66	124.07	40.39	-90.21	-1,740.87	-8,999.50	5,478.55	5,362.31	116.24	47.132		
11,300.00	7,061.37	7,197.86	7,060.68	126.82	40.39	-90.23	-1,740.85	-8,999.51	5,394.88	5,276.40	118.48	45.533		
11,400.00	7,061.09	7,198.88	7,061.69	129.58	40.39	-90.25	-1,740.83	-8,999.53	5,311.78	5,190.98	120.80	43.970		
11,500.00	7,060.80	7,199.90	7,062.71	132.34	40.40	-90.27	-1,740.81	-8,999.54	5,229.28	5,106.07	123.20	42.444		
11,600.00	7,060.52	7,200.92	7,063.73	135.10	40.40	-90.29	-1,740.78	-8,999.56	5,147.39	5,021.70	125.68	40.955		
11,700.00	7,060.23	7,201.94	7,064.75	137.87	40.40	-90.31	-1,740.76	-8,999.57	5,066.15	4,937.90	128.25	39.503		
11,800.00	7,059.95	7,202.97	7,065.78	140.64	40.41	-90.33	-1,740.74	-8,999.59	4,985.59	4,854.70	130.90	38.088		
11,900.00	7,059.66	7,203.99	7,066.81	143.42	40.41	-90.35	-1,740.72	-8,999.61	4,905.75	4,772.12	133.63	36.712		
12,000.00	7,059.38	7,205.02	7,067.84	146.20	40.41	-90.37	-1,740.69	-8,999.62	4,826.66	4,690.21	136.45	35.373		
12,100.00	7,059.09	7,206.05	7,068.87	148.98	40.42	-90.39	-1,740.67	-8,999.64	4,748.36	4,609.00	139.36	34.072		
12,200.00	7,058.81	7,207.09	7,069.90	151.77	40.42	-90.41	-1,740.65	-8,999.65	4,670.89	4,528.52	142.36	32.810		
12,300.00	7,058.52	7,208.13	7,070.94	154.55	40.43	-90.43	-1,740.62	-8,999.67	4,594.28	4,448.83	145.46	31.585		
12,400.00	7,058.24	7,209.16	7,071.98	157.34	40.43	-90.45	-1,740.60	-8,999.68	4,518.59	4,369.95	148.64	30.399		
12,500.00	7,057.96	7,210.21	7,073.02	160.14	40.43	-90.47	-1,740.58	-8,999.70	4,443.86	4,291.94	151.93	29.250		
12,600.00	7,057.67	7,211.25	7,074.06	162.93	40.44	-90.49	-1,740.56	-8,999.72	4,370.15	4,214.84	155.31	28.139		
12,700.00	7,057.39	7,212.29	7,075.11	165.73	40.44	-90.51	-1,740.53	-8,999.73	4,297.49	4,138.71	158.78	27.065		
12,800.00	7,057.10	7,213.34	7,076.15	168.53	40.44	-90.53	-1,740.51	-8,999.75	4,225.95	4,063.60	162.35	26.029		
12,900.00	7,056.82	7,214.39	7,077.20	171.33	40.45	-90.55	-1,740.49	-8,999.77	4,155.59	3,989.56	166.02	25.030		
13,000.00	7,056.53	7,215.44	7,078.25	174.13	40.45	-90.57	-1,740.47	-8,999.78	4,086.46	3,916.67	169.79	24.068		
13,100.00	7,056.25	7,216.50	7,079.31	176.94	40.45	-90.59	-1,740.44	-8,999.80	4,018.63	3,844.98	173.65	23.142		
13,200.00	7,055.96	7,217.56	7,080.36	179.74	40.46	-90.61	-1,740.42	-8,999.81	3,952.16	3,774.56	177.61	22.252		
13,300.00	7,055.68	7,218.61	7,081.42	182.55	40.46	-90.63	-1,740.40	-8,999.83	3,887.14	3,705.48	181.65	21.399		
13,400.00	7,055.39	7,219.68	7,082.48	185.36	40.47	-90.65	-1,740.38	-8,999.85	3,823.62	3,637.83	185.79	20.580		
13,500.00	7,055.11	7,220.74	7,083.55	188.17	40.47	-90.67	-1,740.35	-8,999.86	3,761.69	3,571.68	190.01	19.797		
13,600.00	7,054.82	7,221.81	7,084.61	190.98	40.47	-90.69	-1,740.33	-8,999.88	3,701.42	3,507.11	194.31	19.049		
13,700.00	7,054.54	7,222.87	7,085.68	193.80	40.48	-90.71	-1,740.31	-8,999.90	3,642.90	3,444.21	198.69	18.335		
13,800.00	7,054.25	7,223.94	7,086.75	196.61	40.48	-90.73	-1,740.29	-8,999.91	3,586.21	3,383.08	203.13	17.655		
13,900.00	7,053.97	7,225.02	7,087.82	199.43	40.48	-90.76	-1,740.26	-8,999.93	3,531.45	3,323.81	207.64	17.008		
14,000.00	7,053.68	7,226.09	7,088.90	202.25	40.49	-90.78	-1,740.24	-8,999.95	3,478.70	3,266.51	212.19	16.394		
14,100.00	7,053.40	7,227.17	7,089.98	205.06	40.49	-90.80	-1,740.22	-8,999.96	3,428.06	3,211.27	216.79	15.813		
14,200.00	7,053.11	7,228.25	7,091.06	207.88	40.50	-90.82	-1,740.19	-8,999.98	3,379.61	3,158.20	221.42	15.264		
14,300.00	7,052.83	7,229.33	7,092.14	210.70	40.50	-90.84	-1,740.17	-9,000.00	3,333.46	3,107.41	226.06	14.746		
14,400.00	7,052.54	7,230.42	7,093.22	213.53	40.50	-90.86	-1,740.15	-9,000.01	3,289.71	3,059.01	230.70	14.260		
14,500.00	7,052.26	7,231.50	7,094.31	216.35	40.51	-90.88	-1,740.13	-9,000.03	3,248.44	3,013.11	235.33	13.804		
14,600.00	7,051.98	7,232.59	7,095.40	219.17	40.51	-90.90	-1,740.10	-9,000.05	3,209.76	2,969.83	239.93	13.378		
14,700.00	7,051.69	7,233.69	7,096.49	222.00	40.51	-90.92	-1,740.08	-9,000.06	3,173.76	2,929.28	244.48	12.982		
14,800.00	7,051.41	7,234.78	7,097.58	224.82	40.52	-90.94	-1,740.06	-9,000.08	3,140.53	2,891.57	248.96	12.614		
14,900.00	7,051.12	7,235.88	7,098.68	227.65	40.52	-90.96	-1,740.04	-9,000.10	3,110.17	2,856.81	253.36	12.276		
14,942.37	7,051.00	7,236.34	7,099.15	228.85	40.52	-90.97	-1,740.03	-9,000.11	3,098.18	2,842.99	255.19	12.141	CC, ES, SF	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	37.00	3.28	3.28	-108.67	-3,035.21	-8,980.46	9,479.58					
100.00	100.00	190.00	226.97	3.28	3.34	-108.66	-3,032.16	-8,980.08	9,479.03	9,472.41	6.62	1,431.499		
200.00	200.00	311.97	348.90	3.34	3.48	-108.64	-3,029.28	-8,979.12	9,477.52	9,470.71	6.81	1,391.152		
300.00	300.00	421.09	457.97	3.44	3.66	-108.62	-3,025.92	-8,978.44	9,475.95	9,468.84	7.11	1,333.212		
400.00	399.98	502.29	539.11	3.60	3.84	-101.34	-3,022.88	-8,978.06	9,474.66	9,467.22	7.44	1,273.774		
469.00	468.90	542.00	578.78	3.74	3.93	-101.34	-3,021.16	-8,978.07	9,474.37	9,466.71	7.67	1,235.752		
500.00	499.84	542.00	578.78	3.81	3.93	-101.34	-3,021.16	-8,978.07	9,474.46	9,466.72	7.73	1,225.100		
600.00	599.45	594.81	631.54	4.06	4.06	-101.33	-3,018.78	-8,978.43	9,475.48	9,467.37	8.11	1,168.677		
700.00	698.70	648.00	684.67	4.34	4.21	-101.31	-3,016.42	-8,979.30	9,477.91	9,469.38	8.53	1,111.602		
800.00	797.47	669.99	706.63	4.64	4.27	-101.25	-3,015.48	-8,979.80	9,481.61	9,472.72	8.89	1,066.029		
900.00	895.65	724.52	761.11	4.98	4.43	-101.23	-3,013.37	-8,981.26	9,486.64	9,477.25	9.39	1,010.780		
1,000.00	993.66	790.00	826.51	5.32	4.62	-101.29	-3,010.99	-8,983.09	9,492.13	9,482.19	9.94	954.795		
1,100.00	1,091.67	842.96	879.40	5.69	4.79	-101.34	-3,008.84	-8,984.88	9,498.07	9,487.58	10.49	905.803		
1,200.00	1,189.68	884.00	920.35	6.09	4.93	-101.37	-3,006.82	-8,986.67	9,504.62	9,493.61	11.01	863.216		
1,300.00	1,287.69	884.00	920.35	6.49	4.93	-101.37	-3,006.82	-8,986.67	9,512.02	9,500.61	11.41	833.446		
1,400.00	1,385.69	939.53	975.71	6.90	5.12	-101.41	-3,003.88	-8,989.79	9,519.88	9,507.87	12.01	792.462		
1,500.00	1,483.70	979.00	1,015.03	7.33	5.25	-101.44	-3,001.80	-8,992.55	9,528.68	9,516.11	12.57	758.083		
1,600.00	1,581.71	1,008.32	1,044.22	7.76	5.36	-101.46	-3,000.15	-8,994.85	9,538.14	9,525.04	13.10	728.123		
1,700.00	1,679.72	1,074.00	1,109.50	8.19	5.60	-101.51	-2,995.76	-9,000.53	9,548.15	9,534.38	13.77	693.351		
1,800.00	1,777.73	1,151.63	1,186.49	8.63	5.91	-101.55	-2,989.21	-9,007.96	9,558.47	9,543.97	14.51	658.874		
1,900.00	1,875.74	1,200.28	1,234.64	9.08	6.11	-101.56	-2,984.34	-9,012.98	9,569.04	9,553.89	15.14	631.943		
2,000.00	1,973.75	1,263.00	1,296.53	9.53	6.37	-101.58	-2,977.30	-9,020.28	9,580.31	9,564.46	15.85	604.619		
2,100.00	2,071.76	1,263.00	1,296.53	9.98	6.37	-101.58	-2,977.30	-9,020.28	9,592.07	9,575.79	16.28	589.022		
2,200.00	2,169.77	1,310.95	1,343.68	10.44	6.59	-101.59	-2,971.30	-9,026.58	9,604.53	9,587.59	16.94	566.963		
2,300.00	2,267.77	1,358.00	1,389.78	10.90	6.80	-101.60	-2,964.81	-9,033.42	9,617.70	9,600.10	17.60	546.584		
2,400.00	2,365.78	1,423.57	1,453.90	11.36	7.12	-101.60	-2,955.41	-9,043.38	9,631.34	9,612.99	18.35	524.841		
2,500.00	2,463.79	1,525.81	1,553.99	11.82	7.62	-101.61	-2,941.25	-9,058.72	9,645.02	9,625.73	19.29	499.919		
2,600.00	2,561.80	1,583.71	1,610.77	12.28	7.92	-101.62	-2,933.79	-9,067.29	9,658.85	9,638.82	20.02	482.354		
2,700.00	2,659.81	1,642.00	1,667.84	12.75	8.21	-101.62	-2,926.19	-9,076.32	9,673.22	9,652.46	20.76	465.929		
2,800.00	2,757.82	1,715.63	1,739.96	13.21	8.60	-101.63	-2,916.86	-9,087.92	9,687.95	9,666.37	21.58	448.914		
2,900.00	2,855.83	1,869.86	1,891.12	13.68	9.42	-101.66	-2,897.16	-9,111.33	9,702.00	9,679.16	22.83	424.917		
3,000.00	2,953.84	1,926.00	1,946.04	14.15	9.72	-101.66	-2,889.69	-9,120.20	9,716.52	9,692.94	23.58	412.119		
3,100.00	3,051.85	2,052.75	2,070.27	14.62	10.42	-101.68	-2,873.77	-9,139.67	9,730.94	9,706.24	24.70	393.917		
3,200.00	3,149.85	2,117.00	2,133.24	15.09	10.77	-101.69	-2,865.82	-9,149.66	9,745.57	9,720.08	25.49	382.270		
3,300.00	3,247.86	2,367.59	2,378.29	15.56	12.19	-101.70	-2,829.61	-9,187.34	9,758.45	9,731.10	27.35	356.789		
3,400.00	3,345.87	2,401.00	2,411.05	16.04	12.38	-101.71	-2,825.21	-9,192.22	9,771.97	9,743.98	27.99	349.165		
3,500.00	3,443.88	2,477.89	2,486.44	16.51	12.82	-101.72	-2,815.44	-9,203.70	9,785.95	9,757.08	28.86	339.063		
3,600.00	3,541.89	2,535.74	2,543.10	16.98	13.15	-101.72	-2,807.77	-9,212.59	9,800.18	9,770.55	29.63	330.696		
3,700.00	3,639.90	2,590.00	2,596.13	17.46	13.47	-101.73	-2,800.36	-9,221.30	9,814.90	9,784.51	30.39	322.971		
3,800.00	3,737.91	2,706.84	2,710.30	17.93	14.16	-101.73	-2,784.22	-9,240.20	9,829.69	9,798.17	31.51	311.913		
3,900.00	3,835.92	2,779.00	2,780.81	18.41	14.58	-101.74	-2,774.33	-9,251.91	9,844.57	9,812.19	32.38	304.047		
4,000.00	3,933.93	2,874.00	2,873.84	18.88	15.14	-101.75	-2,762.17	-9,266.85	9,859.29	9,825.92	33.37	295.460		
4,100.00	4,031.93	2,925.24	2,924.11	19.36	15.43	-101.76	-2,756.25	-9,274.82	9,874.40	9,840.30	34.10	289.582		
4,200.00	4,129.94	2,969.00	2,967.02	19.84	15.68	-101.77	-2,751.53	-9,281.99	9,890.30	9,855.51	34.78	284.328		
4,300.00	4,227.95	4,300.00	3,118.29	20.31	23.42	-101.80	-2,734.22	-9,307.64	9,906.51	9,864.03	42.48	233.181		
4,400.00	4,325.96	3,225.06	3,218.21	20.79	17.16	-101.83	-2,724.00	-9,323.21	9,921.75	9,884.63	37.12	267.295		
4,500.00	4,423.97	3,406.45	3,396.89	21.27	18.15	-101.89	-2,708.24	-9,350.18	9,937.20	9,898.65	38.55	257.780		
4,600.00	4,521.98	3,729.00	3,715.36	21.75	19.88	-102.02	-2,678.82	-9,391.81	9,949.94	9,909.20	40.73	244.285		
4,700.00	4,619.99	3,773.92	3,759.65	22.23	20.13	-102.03	-2,673.96	-9,397.55	9,962.62	9,921.19	41.43	240.465		
4,800.00	4,718.00	3,824.00	3,808.87	22.70	20.41	-102.04	-2,667.99	-9,404.57	9,975.94	9,933.79	42.16	236.633		
4,900.00	4,816.01	3,851.28	3,835.63	23.18	20.58	-102.04	-2,664.56	-9,408.63	9,989.83	9,947.07	42.76	233.622		
7,200.00	6,972.19	6,801.45	6,755.09	34.09	34.97	-44.89	-2,438.86	-9,657.11	9,939.00	9,871.09	67.91	146.362		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
7,300.00	7,018.70	6,837.32	6,790.94	34.73	35.11	-50.25	-2,438.52	-9,658.12	9,861.84	9,793.37	68.47	144.039		
7,400.00	7,051.15	6,863.15	6,816.76	35.55	35.21	-59.36	-2,438.29	-9,658.87	9,777.64	9,708.66	68.98	141.746		
7,500.00	7,068.75	6,878.25	6,831.85	36.56	35.27	-73.74	-2,438.16	-9,659.32	9,688.43	9,618.98	69.44	139.517		
7,600.00	7,071.91	6,882.79	6,836.39	37.71	35.29	-86.72	-2,438.12	-9,659.46	9,596.43	9,526.58	69.85	137.377		
7,700.00	7,071.62	6,884.81	6,838.41	39.03	35.29	-86.75	-2,438.11	-9,659.52	9,504.14	9,433.85	70.28	135.227		
7,800.00	7,071.34	6,886.84	6,840.43	40.51	35.30	-86.78	-2,438.09	-9,659.58	9,412.00	9,341.24	70.75	133.027		
7,900.00	7,071.05	6,888.88	6,842.47	42.14	35.31	-86.82	-2,438.07	-9,659.64	9,320.02	9,248.76	71.27	130.779		
8,000.00	7,070.77	6,890.93	6,844.52	43.89	35.32	-86.85	-2,438.05	-9,659.71	9,228.21	9,156.39	71.82	128.488		
8,100.00	7,070.48	6,892.99	6,846.58	45.76	35.33	-86.88	-2,438.04	-9,659.77	9,136.57	9,064.15	72.42	126.158		
8,200.00	7,070.20	6,895.06	6,848.65	47.72	35.33	-86.91	-2,438.02	-9,659.83	9,045.11	8,972.04	73.07	123.792		
8,300.00	7,069.92	6,897.14	6,850.73	49.78	35.34	-86.94	-2,438.00	-9,659.90	8,953.83	8,880.07	73.76	121.395		
8,400.00	7,069.63	6,899.23	6,852.82	51.90	35.35	-86.98	-2,437.99	-9,659.96	8,862.73	8,788.24	74.50	118.971		
8,500.00	7,069.35	6,901.33	6,854.92	54.10	35.36	-87.01	-2,437.97	-9,660.02	8,771.83	8,696.56	75.28	116.524		
8,600.00	7,069.06	6,903.45	6,857.03	56.36	35.37	-87.04	-2,437.95	-9,660.09	8,681.13	8,605.02	76.11	114.060		
8,700.00	7,068.78	6,905.57	6,859.16	58.66	35.37	-87.08	-2,437.93	-9,660.16	8,590.64	8,513.65	76.99	111.583		
8,800.00	7,068.49	6,907.71	6,861.29	61.02	35.38	-87.11	-2,437.92	-9,660.22	8,500.36	8,422.44	77.92	109.096		
8,900.00	7,068.21	6,909.85	6,863.44	63.42	35.39	-87.14	-2,437.90	-9,660.29	8,410.29	8,331.40	78.89	106.606		
9,000.00	7,067.92	6,912.01	6,865.59	65.85	35.40	-87.18	-2,437.88	-9,660.36	8,320.46	8,240.54	79.92	104.114		
9,100.00	7,067.64	6,914.18	6,867.76	68.32	35.41	-87.21	-2,437.87	-9,660.42	8,230.85	8,149.86	80.99	101.627		
9,200.00	7,067.35	6,916.36	6,869.94	70.81	35.42	-87.24	-2,437.85	-9,660.49	8,141.49	8,059.38	82.11	99.148		
9,300.00	7,067.07	6,918.55	6,872.13	73.34	35.43	-87.28	-2,437.83	-9,660.56	8,052.38	7,969.09	83.29	96.680		
9,400.00	7,066.78	6,920.75	6,874.33	75.88	35.43	-87.31	-2,437.81	-9,660.63	7,963.52	7,879.01	84.51	94.227		
9,500.00	7,066.50	6,922.96	6,876.54	78.45	35.44	-87.35	-2,437.80	-9,660.70	7,874.94	7,789.15	85.79	91.793		
9,600.00	7,066.21	6,925.19	6,878.77	81.04	35.45	-87.38	-2,437.78	-9,660.77	7,786.62	7,699.50	87.12	89.380		
9,700.00	7,065.93	6,927.43	6,881.00	83.64	35.46	-87.42	-2,437.76	-9,660.84	7,698.60	7,610.10	88.50	86.991		
9,800.00	7,065.64	6,929.68	6,883.25	86.26	35.47	-87.45	-2,437.74	-9,660.91	7,610.86	7,520.93	89.93	84.629		
9,900.00	7,065.36	6,931.94	6,885.51	88.90	35.48	-87.49	-2,437.73	-9,660.98	7,523.44	7,432.02	91.42	82.297		
10,000.00	7,065.07	6,934.21	6,887.78	91.55	35.49	-87.52	-2,437.71	-9,661.06	7,436.32	7,343.37	92.96	79.996		
10,100.00	7,064.79	6,936.50	6,890.07	94.21	35.50	-87.56	-2,437.69	-9,661.13	7,349.54	7,254.99	94.55	77.729		
10,200.00	7,064.50	6,938.79	6,892.36	96.88	35.50	-87.59	-2,437.67	-9,661.20	7,263.09	7,166.89	96.20	75.498		
10,300.00	7,064.22	6,941.00	6,894.65	99.57	35.52	-87.67	-2,437.63	-9,661.37	7,177.00	7,079.08	97.92	73.294		
10,400.00	7,063.94	6,943.26	6,896.94	102.26	35.52	-87.67	-2,437.63	-9,661.37	7,091.27	6,991.60	99.67	71.145		
10,500.00	7,063.65	6,945.51	6,899.23	104.96	35.52	-87.67	-2,437.63	-9,661.37	7,005.92	6,904.43	101.48	69.035		
10,600.00	7,063.37	6,947.76	6,901.52	107.67	35.52	-87.67	-2,437.63	-9,661.37	6,920.96	6,817.60	103.35	66.965		
10,700.00	7,063.08	6,949.99	6,903.81	110.39	35.52	-87.67	-2,437.63	-9,661.37	6,836.40	6,731.12	105.28	64.936		
10,800.00	7,062.80	6,952.22	6,906.10	113.11	35.52	-87.67	-2,437.63	-9,661.37	6,752.27	6,645.01	107.27	62.948		
10,900.00	7,062.51	6,954.45	6,908.39	115.84	35.52	-87.67	-2,437.63	-9,661.37	6,668.58	6,559.26	109.32	61.003		
11,000.00	7,062.23	6,956.68	6,910.68	118.58	35.58	-87.87	-2,437.54	-9,661.78	6,585.33	6,473.85	111.48	59.072		
11,100.00	7,061.94	6,958.91	6,912.97	121.32	35.58	-87.90	-2,437.52	-9,661.86	6,502.55	6,388.89	113.66	57.209		
11,200.00	7,061.66	6,961.14	6,915.26	124.07	35.59	-87.94	-2,437.50	-9,661.94	6,420.27	6,304.36	115.91	55.390		
11,300.00	7,061.37	6,963.37	6,917.55	126.82	35.60	-87.98	-2,437.48	-9,662.02	6,338.50	6,220.27	118.22	53.615		
11,400.00	7,061.09	6,965.60	6,919.84	129.58	35.61	-88.01	-2,437.46	-9,662.10	6,257.25	6,136.65	120.60	51.885		
11,500.00	7,060.80	6,967.83	6,922.13	132.34	35.62	-88.05	-2,437.44	-9,662.18	6,176.55	6,053.51	123.04	50.198		
11,600.00	7,060.52	6,970.06	6,924.42	135.10	35.63	-88.09	-2,437.42	-9,662.26	6,096.43	5,970.87	125.56	48.555		
11,700.00	7,060.23	6,972.29	6,926.71	137.87	35.64	-88.13	-2,437.40	-9,662.35	6,016.89	5,888.75	128.14	46.955		
11,800.00	7,059.95	6,974.52	6,929.00	140.64	35.65	-88.17	-2,437.37	-9,662.44	5,937.98	5,807.19	130.79	45.399		
11,900.00	7,059.66	6,976.75	6,931.29	143.42	35.66	-88.21	-2,437.35	-9,662.53	5,859.71	5,726.19	133.52	43.887		
12,000.00	7,059.38	6,978.98	6,933.58	146.20	35.67	-88.25	-2,437.33	-9,662.62	5,782.10	5,645.79	136.32	42.417		
12,100.00	7,059.09	6,981.21	6,935.87	148.98	35.68	-88.29	-2,437.30	-9,662.72	5,705.19	5,566.01	139.19	40.990		
12,200.00	7,058.81	6,983.44	6,938.16	151.77	35.69	-88.33	-2,437.28	-9,662.81	5,629.01	5,486.88	142.13	39.605		
12,300.00	7,058.52	6,985.67	6,940.45	154.55	35.71	-88.37	-2,437.25	-9,662.91	5,553.58	5,408.43	145.15	38.261		
12,400.00	7,058.24	6,987.90	6,942.74	157.34	35.72	-88.41	-2,437.23	-9,663.01	5,478.94	5,330.69	148.24	36.959		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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)		
12,500.00	7,057.96	6,994.26	6,947.79	160.14	35.73	-88.46	-2,437.20	-9,663.11	5,405.11	5,253.69	151.42	35.697	
12,600.00	7,057.67	6,997.09	6,950.62	162.93	35.74	-88.50	-2,437.17	-9,663.22	5,332.13	5,177.47	154.66	34.475	
12,700.00	7,057.39	6,999.96	6,953.49	165.73	35.75	-88.55	-2,437.15	-9,663.33	5,260.04	5,102.05	157.99	33.293	
12,800.00	7,057.10	7,002.88	6,956.41	168.53	35.76	-88.59	-2,437.12	-9,663.44	5,188.88	5,027.48	161.39	32.150	
12,900.00	7,056.82	7,005.85	6,959.37	171.33	35.77	-88.64	-2,437.09	-9,663.55	5,118.68	4,953.80	164.87	31.046	
13,000.00	7,056.53	7,008.86	6,962.38	174.13	35.79	-88.68	-2,437.06	-9,663.66	5,049.48	4,881.04	168.43	29.979	
13,100.00	7,056.25	7,011.92	6,965.44	176.94	35.80	-88.73	-2,437.03	-9,663.78	4,981.32	4,809.25	172.07	28.950	
13,200.00	7,055.96	7,015.03	6,968.55	179.74	35.81	-88.78	-2,436.99	-9,663.90	4,914.25	4,738.47	175.78	27.957	
13,300.00	7,055.68	7,018.20	6,971.71	182.55	35.82	-88.83	-2,436.96	-9,664.03	4,848.31	4,668.75	179.56	27.000	
13,400.00	7,055.39	7,021.41	6,974.92	185.36	35.84	-88.88	-2,436.92	-9,664.15	4,783.56	4,600.13	183.42	26.079	
13,500.00	7,055.11	7,024.68	6,978.19	188.17	35.85	-88.93	-2,436.89	-9,664.28	4,720.03	4,532.67	187.36	25.193	
13,600.00	7,054.82	7,028.00	6,981.51	190.98	35.86	-88.98	-2,436.85	-9,664.41	4,657.78	4,466.42	191.36	24.341	
13,700.00	7,054.54	7,031.38	6,984.89	193.80	35.88	-89.04	-2,436.82	-9,664.55	4,596.86	4,401.43	195.42	23.522	
13,800.00	7,054.25	7,034.82	6,988.32	196.61	35.89	-89.09	-2,436.78	-9,664.69	4,537.32	4,337.76	199.56	22.737	
13,900.00	7,053.97	7,038.32	6,991.82	199.43	35.91	-89.14	-2,436.74	-9,664.83	4,479.22	4,275.47	203.75	21.984	
14,000.00	7,053.68	7,041.88	6,995.37	202.25	35.92	-89.20	-2,436.70	-9,664.98	4,422.61	4,214.62	208.00	21.263	
14,100.00	7,053.40	7,045.50	6,998.99	205.06	35.94	-89.26	-2,436.65	-9,665.13	4,367.56	4,155.27	212.29	20.573	
14,200.00	7,053.11	7,049.18	7,002.67	207.88	35.95	-89.31	-2,436.61	-9,665.29	4,314.12	4,097.49	216.64	19.914	
14,300.00	7,052.83	7,052.93	7,006.41	210.70	35.97	-89.37	-2,436.56	-9,665.44	4,262.36	4,041.34	221.02	19.285	
14,400.00	7,052.54	7,056.75	7,010.23	213.53	35.98	-89.43	-2,436.52	-9,665.61	4,212.33	3,986.89	225.44	18.685	
14,500.00	7,052.26	7,060.63	7,014.11	216.35	36.00	-89.49	-2,436.47	-9,665.77	4,164.09	3,934.21	229.88	18.114	
14,600.00	7,051.98	7,064.59	7,018.07	219.17	36.01	-89.55	-2,436.42	-9,665.95	4,117.72	3,883.38	234.34	17.571	
14,700.00	7,051.69	7,068.62	7,022.09	222.00	36.03	-89.62	-2,436.37	-9,666.12	4,073.27	3,834.46	238.81	17.057	
14,800.00	7,051.41	7,072.73	7,026.20	224.82	36.05	-89.68	-2,436.32	-9,666.30	4,030.81	3,787.53	243.27	16.569	
14,900.00	7,051.12	7,076.92	7,030.38	227.65	36.06	-89.75	-2,436.26	-9,666.49	3,990.39	3,742.67	247.73	16.108	
14,942.37	7,051.00	7,078.71	7,032.17	228.85	36.07	-89.77	-2,436.24	-9,666.57	3,973.90	3,724.30	249.61	15.921 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - FRITZLER 6-8-17(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 82-MWVD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	37.00	3.28	3.28	-108.99	-3,093.50	-8,988.83	9,506.32					
100.00	100.00	42.92	79.92	3.28	3.28	-108.99	-3,093.39	-8,988.91	9,506.31	9,499.75	6.57	1,447.886		
200.00	200.00	114.22	151.22	3.34	3.29	-108.99	-3,092.74	-8,989.42	9,506.68	9,500.05	6.63	1,433.847		
300.00	300.00	171.00	207.98	3.44	3.33	-108.98	-3,091.80	-8,990.11	9,507.35	9,500.58	6.77	1,404.409		
400.00	399.98	210.15	247.12	3.60	3.36	-101.64	-3,091.10	-8,990.83	9,508.94	9,501.98	6.96	1,365.977		
500.00	499.84	263.00	299.94	3.81	3.41	-101.60	-3,090.41	-8,992.30	9,512.04	9,504.82	7.22	1,317.187		
600.00	599.45	263.00	299.94	4.06	3.41	-101.51	-3,090.41	-8,992.30	9,516.43	9,508.96	7.47	1,274.644		
700.00	698.70	263.00	299.94	4.34	3.41	-101.39	-3,090.41	-8,992.30	9,522.56	9,514.81	7.75	1,229.455		
800.00	797.47	304.37	341.28	4.64	3.47	-101.27	-3,090.30	-8,994.01	9,529.92	9,521.81	8.11	1,175.562		
900.00	895.65	354.00	390.82	4.98	3.55	-101.20	-3,090.97	-8,996.91	9,539.26	9,530.74	8.52	1,120.087		
1,000.00	993.66	354.00	390.82	5.32	3.55	-101.20	-3,090.97	-8,996.91	9,549.09	9,540.22	8.88	1,075.850		
1,100.00	1,091.67	354.00	390.82	5.69	3.55	-101.20	-3,090.97	-8,996.91	9,559.97	9,550.71	9.25	1,033.157		
1,200.00	1,189.68	354.00	390.82	6.09	3.55	-101.20	-3,090.97	-8,996.91	9,571.87	9,562.23	9.64	992.441		
1,300.00	1,287.69	404.55	441.20	6.49	3.64	-101.26	-3,092.69	-9,000.58	9,584.25	9,574.11	10.13	945.941		
1,400.00	1,385.69	445.00	481.46	6.90	3.73	-101.32	-3,094.88	-9,003.88	9,597.64	9,587.03	10.62	903.773		
1,500.00	1,483.70	484.19	520.43	7.33	3.81	-101.37	-3,097.54	-9,007.12	9,611.66	9,600.54	11.12	864.399		
1,600.00	1,581.71	580.10	615.73	7.76	4.06	-101.51	-3,105.41	-9,014.36	9,625.76	9,613.99	11.77	817.964		
1,700.00	1,679.72	645.37	680.54	8.19	4.25	-101.61	-3,111.60	-9,019.16	9,640.19	9,627.83	12.37	779.453		
1,800.00	1,777.73	759.20	793.45	8.63	4.63	-101.80	-3,123.60	-9,027.07	9,654.68	9,641.55	13.14	734.823		
1,900.00	1,875.74	1,383.00	1,414.90	9.08	7.01	-102.65	-3,160.15	-9,062.48	9,665.96	9,650.13	15.83	610.581		
2,000.00	1,973.75	1,383.00	1,414.90	9.53	7.01	-102.65	-3,160.15	-9,062.48	9,675.75	9,659.48	16.27	594.581		
2,100.00	2,071.76	1,383.00	1,414.90	9.98	7.01	-102.65	-3,160.15	-9,062.48	9,686.57	9,669.85	16.72	579.452		
2,200.00	2,169.77	1,383.00	1,414.90	10.44	7.01	-102.65	-3,160.15	-9,062.48	9,698.40	9,681.24	17.16	565.149		
2,300.00	2,267.77	1,383.00	1,414.90	10.90	7.01	-102.65	-3,160.15	-9,062.48	9,711.25	9,693.65	17.60	551.627		
2,400.00	2,365.78	1,415.41	1,447.21	11.36	7.14	-102.69	-3,160.88	-9,064.90	9,724.51	9,706.34	18.18	535.013		
2,500.00	2,463.79	1,445.00	1,476.62	11.82	7.27	-102.72	-3,161.86	-9,068.00	9,739.27	9,720.53	18.74	519.786		
2,600.00	2,561.80	1,445.00	1,476.62	12.28	7.27	-102.72	-3,161.86	-9,068.00	9,754.52	9,735.34	19.18	508.603		
2,700.00	2,659.81	1,445.00	1,476.62	12.75	7.27	-102.72	-3,161.86	-9,068.00	9,770.78	9,751.16	19.62	498.013		
2,800.00	2,757.82	1,479.54	1,510.89	13.21	7.42	-102.76	-3,163.29	-9,072.13	9,787.92	9,767.72	20.20	484.517		
2,900.00	2,855.83	1,537.12	1,567.98	13.68	7.68	-102.82	-3,166.14	-9,079.01	9,805.54	9,784.66	20.88	469.616		
3,000.00	2,953.84	1,569.00	1,599.58	14.15	7.83	-102.86	-3,167.97	-9,082.82	9,823.63	9,802.18	21.45	457.960		
3,100.00	3,051.85	1,605.75	1,635.97	14.62	8.00	-102.91	-3,170.48	-9,087.31	9,842.36	9,820.31	22.05	446.458		
3,200.00	3,149.85	1,630.98	1,660.92	15.09	8.12	-102.94	-3,172.55	-9,090.47	9,861.84	9,839.26	22.59	436.582		
3,300.00	3,247.86	1,665.00	1,694.49	15.56	8.29	-102.99	-3,175.80	-9,094.87	9,882.08	9,858.91	23.17	426.511		
3,400.00	3,345.87	1,665.00	1,694.49	16.04	8.29	-102.99	-3,175.80	-9,094.87	9,903.06	9,879.46	23.60	419.669		
3,500.00	3,443.88	1,665.00	1,694.49	16.51	8.29	-102.99	-3,175.80	-9,094.87	9,925.00	9,900.98	24.02	413.164		
3,600.00	3,541.89	1,711.72	1,740.47	16.98	8.53	-103.06	-3,180.97	-9,101.35	9,947.31	9,922.65	24.66	403.391		
3,700.00	3,639.90	3,700.00	1,819.64	17.46	19.54	-103.18	-3,190.91	-9,113.37	9,970.62	9,936.65	33.97	293.545		
3,800.00	3,737.91	1,909.27	1,934.42	17.93	9.56	-103.35	-3,205.22	-9,129.95	9,993.32	9,966.89	26.43	378.099		
7,800.00	7,071.34	7,155.90	7,115.64	40.51	36.18	-90.80	-3,684.26	-9,620.00	9,935.51	9,866.39	69.13	143.727		
7,900.00	7,071.05	7,155.95	7,115.69	42.14	36.18	-90.80	-3,684.26	-9,620.01	9,848.74	9,778.94	69.80	141.096		
8,000.00	7,070.77	7,156.00	7,115.74	43.89	36.18	-90.80	-3,684.26	-9,620.01	9,762.22	9,691.69	70.54	138.401		
8,100.00	7,070.48	7,156.04	7,115.79	45.76	36.18	-90.80	-3,684.26	-9,620.01	9,675.97	9,604.63	71.33	135.650		
8,200.00	7,070.20	7,156.09	7,115.84	47.72	36.18	-90.81	-3,684.26	-9,620.01	9,589.97	9,517.79	72.19	132.852		
8,300.00	7,069.92	7,156.14	7,115.89	49.78	36.18	-90.81	-3,684.25	-9,620.01	9,504.26	9,431.16	73.10	130.017		
8,400.00	7,069.63	7,156.19	7,115.94	51.90	36.18	-90.81	-3,684.25	-9,620.01	9,418.82	9,344.75	74.07	127.154		
8,500.00	7,069.35	7,156.24	7,115.99	54.10	36.18	-90.81	-3,684.25	-9,620.01	9,333.67	9,258.57	75.11	124.271		
8,600.00	7,069.06	7,156.29	7,116.04	56.36	36.18	-90.81	-3,684.25	-9,620.01	9,248.82	9,172.62	76.20	121.376		
8,700.00	7,068.78	7,156.34	7,116.09	58.66	36.18	-90.81	-3,684.25	-9,620.01	9,164.28	9,086.93	77.35	118.478		
8,800.00	7,068.49	7,156.39	7,116.14	61.02	36.18	-90.81	-3,684.25	-9,620.01	9,080.05	9,001.49	78.56	115.584		
8,900.00	7,068.21	7,156.44	7,116.19	63.42	36.18	-90.81	-3,684.25	-9,620.01	8,996.15	8,916.32	79.82	112.701		
9,000.00	7,067.92	7,156.49	7,116.24	65.85	36.18	-90.81	-3,684.25	-9,620.01	8,912.57	8,831.43	81.15	109.835		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
9,100.00	7,067.64	7,156.55	7,116.29	68.32	36.18	-90.81	-3,684.25	-9,620.01	8,829.34	8,746.81	82.52	106.992		
9,200.00	7,067.35	7,156.60	7,116.34	70.81	36.18	-90.81	-3,684.25	-9,620.01	8,746.46	8,662.50	83.96	104.177		
9,300.00	7,067.07	7,156.65	7,116.39	73.34	36.18	-90.81	-3,684.25	-9,620.01	8,663.94	8,578.49	85.45	101.395		
9,400.00	7,066.78	7,156.70	7,116.44	75.88	36.18	-90.81	-3,684.25	-9,620.01	8,581.79	8,494.80	86.99	98.650		
9,500.00	7,066.50	7,156.75	7,116.50	78.45	36.18	-90.81	-3,684.25	-9,620.01	8,500.02	8,411.43	88.59	95.945		
9,600.00	7,066.21	7,156.80	7,116.55	81.04	36.18	-90.81	-3,684.24	-9,620.01	8,418.65	8,328.40	90.25	93.284		
9,700.00	7,065.93	7,156.86	7,116.60	83.64	36.18	-90.81	-3,684.24	-9,620.01	8,337.68	8,245.73	91.96	90.670		
9,800.00	7,065.64	7,156.91	7,116.65	86.26	36.18	-90.81	-3,684.24	-9,620.01	8,257.13	8,163.41	93.72	88.104		
9,900.00	7,065.36	7,156.96	7,116.71	88.90	36.18	-90.82	-3,684.24	-9,620.01	8,177.01	8,081.47	95.54	85.589		
10,000.00	7,065.07	7,157.02	7,116.76	91.55	36.18	-90.82	-3,684.24	-9,620.01	8,097.33	7,999.92	97.41	83.126		
10,100.00	7,064.79	7,157.07	7,116.81	94.21	36.18	-90.82	-3,684.24	-9,620.01	8,018.11	7,918.77	99.34	80.716		
10,200.00	7,064.50	7,157.12	7,116.87	96.88	36.18	-90.82	-3,684.24	-9,620.01	7,939.36	7,838.04	101.32	78.361		
10,300.00	7,064.22	7,157.18	7,116.92	99.57	36.18	-90.82	-3,684.24	-9,620.01	7,861.09	7,757.73	103.35	76.061		
10,400.00	7,063.94	7,157.23	7,116.97	102.26	36.18	-90.82	-3,684.24	-9,620.01	7,783.31	7,677.87	105.44	73.816		
10,500.00	7,063.65	7,157.28	7,117.03	104.96	36.19	-90.82	-3,684.24	-9,620.01	7,706.05	7,598.47	107.59	71.627		
10,600.00	7,063.37	7,157.34	7,117.08	107.67	36.19	-90.82	-3,684.24	-9,620.01	7,629.32	7,519.54	109.78	69.494		
10,700.00	7,063.08	7,157.39	7,117.14	110.39	36.19	-90.82	-3,684.24	-9,620.01	7,553.14	7,441.10	112.04	67.416		
10,800.00	7,062.80	7,157.45	7,117.19	113.11	36.19	-90.82	-3,684.23	-9,620.01	7,477.51	7,363.16	114.35	65.393		
10,900.00	7,062.51	7,157.50	7,117.25	115.84	36.19	-90.82	-3,684.23	-9,620.01	7,402.46	7,285.75	116.71	63.426		
11,000.00	7,062.23	7,157.56	7,117.30	118.58	36.19	-90.82	-3,684.23	-9,620.01	7,328.01	7,208.88	119.13	61.513		
11,100.00	7,061.94	7,157.62	7,117.36	121.32	36.19	-90.82	-3,684.23	-9,620.01	7,254.17	7,132.57	121.60	59.654		
11,200.00	7,061.66	7,157.67	7,117.42	124.07	36.19	-90.82	-3,684.23	-9,620.01	7,180.97	7,056.83	124.13	57.848		
11,300.00	7,061.37	7,157.73	7,117.47	126.82	36.19	-90.82	-3,684.23	-9,620.01	7,108.42	6,981.70	126.72	56.095		
11,400.00	7,061.09	7,157.79	7,117.53	129.58	36.19	-90.82	-3,684.23	-9,620.01	7,036.54	6,907.18	129.36	54.393		
11,500.00	7,060.80	7,157.84	7,117.59	132.34	36.19	-90.83	-3,684.23	-9,620.01	6,965.36	6,833.29	132.06	52.742		
11,600.00	7,060.52	7,157.90	7,117.64	135.10	36.19	-90.83	-3,684.23	-9,620.01	6,894.89	6,760.07	134.82	51.142		
11,700.00	7,060.23	7,157.96	7,117.70	137.87	36.19	-90.83	-3,684.23	-9,620.01	6,825.16	6,687.53	137.63	49.590		
11,800.00	7,059.95	7,158.02	7,117.76	140.64	36.19	-90.83	-3,684.23	-9,620.01	6,756.19	6,615.69	140.50	48.087		
11,900.00	7,059.66	7,158.07	7,117.82	143.42	36.19	-90.83	-3,684.23	-9,620.01	6,688.00	6,544.58	143.42	46.631		
12,000.00	7,059.38	7,158.13	7,117.88	146.20	36.19	-90.83	-3,684.22	-9,620.01	6,620.62	6,474.22	146.40	45.221		
12,100.00	7,059.09	7,158.19	7,117.93	148.98	36.19	-90.83	-3,684.22	-9,620.01	6,554.08	6,404.64	149.44	43.857		
12,200.00	7,058.81	7,158.25	7,117.99	151.77	36.19	-90.83	-3,684.22	-9,620.01	6,488.39	6,335.86	152.53	42.537		
12,300.00	7,058.52	7,158.31	7,118.05	154.55	36.19	-90.83	-3,684.22	-9,620.01	6,423.59	6,267.91	155.68	41.261		
12,400.00	7,058.24	7,158.37	7,118.11	157.34	36.19	-90.83	-3,684.22	-9,620.01	6,359.70	6,200.81	158.89	40.027		
12,500.00	7,057.96	7,158.43	7,118.17	160.14	36.19	-90.83	-3,684.22	-9,620.01	6,296.75	6,134.61	162.14	38.834		
12,600.00	7,057.67	7,158.49	7,118.23	162.93	36.19	-90.83	-3,684.22	-9,620.01	6,234.77	6,069.32	165.45	37.683		
12,700.00	7,057.39	7,158.55	7,118.29	165.73	36.19	-90.83	-3,684.22	-9,620.01	6,173.79	6,004.97	168.82	36.571		
12,800.00	7,057.10	7,158.61	7,118.35	168.53	36.19	-90.83	-3,684.22	-9,620.01	6,113.83	5,941.60	172.23	35.497		
12,900.00	7,056.82	7,158.67	7,118.41	171.33	36.19	-90.84	-3,684.22	-9,620.02	6,054.94	5,879.24	175.70	34.462		
13,000.00	7,056.53	7,158.73	7,118.47	174.13	36.19	-90.84	-3,684.22	-9,620.02	5,997.13	5,817.91	179.21	33.463		
13,100.00	7,056.25	7,158.79	7,118.54	176.94	36.19	-90.84	-3,684.21	-9,620.02	5,940.44	5,757.66	182.78	32.501		
13,200.00	7,055.96	7,158.85	7,118.60	179.74	36.19	-90.84	-3,684.21	-9,620.02	5,884.91	5,698.52	186.39	31.574		
13,300.00	7,055.68	7,158.92	7,118.66	182.55	36.19	-90.84	-3,684.21	-9,620.02	5,830.56	5,640.52	190.04	30.681		
13,400.00	7,055.39	7,158.98	7,118.72	185.36	36.19	-90.84	-3,684.21	-9,620.02	5,777.43	5,583.70	193.73	29.822		
13,500.00	7,055.11	7,159.04	7,118.78	188.17	36.19	-90.84	-3,684.21	-9,620.02	5,725.56	5,528.09	197.47	28.995		
13,600.00	7,054.82	7,159.10	7,118.85	190.98	36.19	-90.84	-3,684.21	-9,620.02	5,674.97	5,473.73	201.24	28.200		
13,700.00	7,054.54	7,159.17	7,118.91	193.80	36.19	-90.84	-3,684.21	-9,620.02	5,625.71	5,420.66	205.04	27.437		
13,800.00	7,054.25	7,159.23	7,118.97	196.61	36.19	-90.84	-3,684.21	-9,620.02	5,577.80	5,368.92	208.88	26.704		
13,900.00	7,053.97	7,159.29	7,119.04	199.43	36.19	-90.84	-3,684.21	-9,620.02	5,531.29	5,318.55	212.74	26.000		
14,000.00	7,053.68	7,159.36	7,119.10	202.25	36.19	-90.84	-3,684.21	-9,620.02	5,486.20	5,269.58	216.63	25.325		
14,100.00	7,053.40	7,159.42	7,119.17	205.06	36.19	-90.84	-3,684.20	-9,620.02	5,442.59	5,222.05	220.54	24.679		
14,200.00	7,053.11	7,159.49	7,119.23	207.88	36.19	-90.84	-3,684.20	-9,620.02	5,400.46	5,176.00	224.46	24.060		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
14,300.00	7,052.83	7,159.55	7,119.30	210.70	36.19	-90.85	-3,684.20	-9,620.02	5,359.88	5,131.48	228.40	23.467	
14,400.00	7,052.54	7,159.62	7,119.36	213.53	36.19	-90.85	-3,684.20	-9,620.02	5,320.86	5,088.53	232.34	22.901	
14,500.00	7,052.26	7,159.68	7,119.43	216.35	36.19	-90.85	-3,684.20	-9,620.02	5,283.45	5,047.17	236.28	22.361	
14,600.00	7,051.98	7,159.75	7,119.49	219.17	36.19	-90.85	-3,684.20	-9,620.02	5,247.68	5,007.46	240.23	21.845	
14,700.00	7,051.69	7,159.82	7,119.56	222.00	36.19	-90.85	-3,684.20	-9,620.02	5,213.59	4,969.42	244.16	21.353	
14,800.00	7,051.41	7,159.88	7,119.63	224.82	36.19	-90.85	-3,684.20	-9,620.02	5,181.19	4,933.11	248.08	20.885	
14,900.00	7,051.12	7,159.95	7,119.69	227.65	36.19	-90.85	-3,684.20	-9,620.02	5,150.54	4,898.56	251.98	20.440	
14,942.37	7,051.00	7,159.98	7,119.72	228.85	36.19	-90.85	-3,684.20	-9,620.02	5,138.08	4,884.45	253.63	20.258 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	867.12	896.37	3.28	5.23	-109.65	-3,161.97	-8,855.66	9,445.86					
100.00	100.00	975.78	1,002.39	3.28	5.77	-109.78	-3,178.68	-8,838.75	9,436.20	9,427.16	9.03	1,044.766		
200.00	200.00	1,033.50	1,058.56	3.34	6.08	-109.85	-3,188.36	-8,829.62	9,426.82	9,417.46	9.37	1,006.294		
300.00	300.00	1,098.00	1,121.48	3.44	6.43	-109.93	-3,198.78	-8,820.00	9,418.03	9,408.23	9.80	960.673		
400.00	399.98	1,098.00	1,121.48	3.60	6.43	-102.78	-3,198.78	-8,820.00	9,410.22	9,400.27	9.95	945.923		
500.00	499.84	1,155.20	1,177.47	3.81	6.73	-102.99	-3,207.48	-8,812.19	9,403.76	9,393.32	10.43	901.225		
600.00	599.45	1,193.00	1,214.58	4.06	6.93	-103.15	-3,212.90	-8,807.50	9,398.85	9,387.98	10.86	865.150		
700.00	698.70	1,253.85	1,274.32	4.34	7.26	-103.33	-3,221.93	-8,800.16	9,395.30	9,383.85	11.45	820.357		
800.00	797.47	1,322.97	1,341.99	4.64	7.63	-103.52	-3,233.14	-8,791.70	9,392.95	9,380.82	12.13	774.665		
900.00	895.65	1,395.64	1,413.24	4.98	8.03	-103.70	-3,244.55	-8,783.12	9,391.73	9,378.88	12.85	730.903		
1,000.00	993.66	1,711.99	1,724.66	5.32	9.72	-104.37	-3,285.22	-8,745.39	9,389.84	9,374.98	14.87	631.622		
1,100.00	1,091.67	1,757.00	1,768.95	5.69	9.97	-104.47	-3,290.91	-8,739.75	9,387.36	9,371.87	15.48	606.249		
1,200.00	1,189.68	1,782.86	1,794.40	6.09	10.11	-104.53	-3,294.26	-8,736.65	9,385.53	9,369.51	16.02	585.964		
1,300.00	1,287.69	1,851.00	1,861.42	6.49	10.49	-104.67	-3,303.53	-8,728.54	9,384.30	9,367.51	16.79	558.837		
1,400.00	1,385.69	2,256.07	2,258.79	6.90	12.82	-105.57	-3,357.73	-8,672.26	9,380.39	9,360.93	19.47	481.899		
1,500.00	1,483.70	2,321.00	2,322.65	7.33	13.19	-105.71	-3,364.96	-8,662.97	9,376.52	9,356.27	20.25	463.082		
1,600.00	1,581.71	2,354.73	2,355.88	7.76	13.38	-105.78	-3,368.50	-8,658.40	9,373.23	9,352.36	20.86	449.251		
1,700.00	1,679.72	2,386.84	2,387.51	8.19	13.55	-105.84	-3,372.04	-8,654.21	9,370.68	9,349.20	21.48	436.295		
1,800.00	1,777.73	2,445.35	2,445.14	8.63	13.88	-105.96	-3,378.94	-8,646.86	9,368.86	9,346.62	22.24	421.188		
1,900.00	1,875.74	2,567.79	2,565.37	9.08	14.59	-106.23	-3,395.18	-8,630.30	9,366.89	9,343.51	23.38	400.648		
2,000.00	1,973.75	2,720.84	2,715.58	9.53	15.48	-106.57	-3,415.56	-8,609.28	9,365.01	9,340.31	24.70	379.122		
2,100.00	2,071.76	2,794.63	2,787.61	9.98	15.95	-106.75	-3,427.11	-8,598.22	9,362.94	9,337.33	25.61	365.538		
2,200.00	2,169.77	2,891.20	2,882.00	10.44	16.54	-106.97	-3,441.69	-8,583.97	9,361.04	9,334.38	26.66	351.186		
2,300.00	2,267.77	2,927.76	2,917.88	10.90	16.75	-107.05	-3,446.66	-8,578.91	9,359.55	9,332.22	27.33	342.474		
2,400.00	2,365.78	2,984.00	2,973.18	11.36	17.08	-107.18	-3,453.93	-8,571.75	9,358.79	9,330.68	28.12	332.857		
2,476.20	2,440.47	3,001.45	2,990.36	11.71	17.18	-107.21	-3,456.15	-8,569.64	9,358.59	9,330.02	28.57	327.525		
2,500.00	2,463.79	3,016.90	3,005.56	11.82	17.27	-107.25	-3,458.19	-8,567.75	9,358.60	9,329.83	28.77	325.250		
2,600.00	2,561.80	3,078.00	3,065.54	12.28	17.63	-107.38	-3,466.91	-8,560.10	9,358.92	9,329.33	29.59	316.252		
2,700.00	2,659.81	3,134.27	3,120.88	12.75	17.94	-107.51	-3,474.65	-8,553.42	9,359.72	9,329.34	30.38	308.122		
2,800.00	2,757.82	3,169.00	3,155.18	13.21	18.14	-107.58	-3,478.66	-8,549.78	9,361.08	9,330.04	31.04	301.577		
2,900.00	2,855.83	3,232.17	3,217.72	13.68	18.46	-107.70	-3,485.25	-8,543.81	9,362.97	9,331.13	31.84	294.104		
3,000.00	2,953.84	3,281.93	3,267.04	14.15	18.72	-107.80	-3,490.26	-8,539.52	9,365.48	9,332.91	32.56	287.617		
3,100.00	3,051.85	3,337.19	3,321.77	14.62	19.00	-107.90	-3,496.28	-8,534.81	9,368.51	9,335.19	33.32	281.179		
3,200.00	3,149.85	3,407.79	3,391.65	15.09	19.37	-108.04	-3,504.39	-8,528.89	9,372.00	9,337.84	34.16	274.393		
3,300.00	3,247.86	3,579.66	3,561.90	15.56	20.25	-108.38	-3,522.72	-8,514.16	9,374.96	9,339.43	35.52	263.917		
3,400.00	3,345.87	3,640.00	3,621.64	16.04	20.57	-108.50	-3,529.51	-8,509.07	9,378.39	9,342.08	36.31	258.278		
3,500.00	3,443.88	4,070.59	4,044.95	16.51	23.04	-109.43	-3,587.96	-8,458.16	9,380.03	9,340.78	39.25	238.980		
3,600.00	3,541.89	4,112.00	4,085.51	16.98	23.30	-109.53	-3,593.99	-8,452.35	9,380.53	9,340.54	39.99	234.594		
3,700.00	3,639.90	4,177.18	4,149.54	17.46	23.68	-109.67	-3,602.68	-8,443.90	9,381.55	9,340.71	40.84	229.709		
3,800.00	3,737.91	4,227.86	4,199.45	17.93	23.98	-109.78	-3,609.02	-8,437.78	9,383.09	9,341.47	41.61	225.478		
3,900.00	3,835.92	4,271.14	4,241.99	18.41	24.23	-109.87	-3,615.03	-8,432.51	9,385.24	9,342.89	42.35	221.631		
4,000.00	3,933.93	4,301.00	4,271.26	18.88	24.40	-109.94	-3,619.62	-8,428.80	9,388.05	9,345.05	43.00	218.335		
4,100.00	4,031.93	4,364.17	4,333.23	19.36	24.78	-110.08	-3,629.33	-8,421.31	9,391.42	9,347.57	43.85	214.172		
4,200.00	4,129.94	4,419.95	4,388.11	19.84	25.10	-110.21	-3,637.33	-8,415.32	9,395.37	9,350.72	44.65	210.419		
4,300.00	4,227.95	4,491.00	4,458.11	20.31	25.50	-110.36	-3,647.10	-8,408.16	9,399.75	9,354.22	45.53	206.445		
4,400.00	4,325.96	4,536.32	4,502.84	20.79	25.75	-110.45	-3,653.06	-8,403.92	9,404.61	9,358.35	46.25	203.330		
4,500.00	4,423.97	4,585.00	4,550.97	21.27	26.01	-110.55	-3,659.12	-8,399.83	9,410.05	9,363.06	46.99	200.250		
4,600.00	4,521.98	4,624.99	4,590.58	21.75	26.21	-110.63	-3,663.77	-8,396.88	9,416.11	9,368.44	47.66	197.548		
4,700.00	4,619.99	4,680.00	4,645.17	22.23	26.49	-110.73	-3,669.60	-8,393.53	9,422.83	9,374.41	48.42	194.622		
4,800.00	4,718.00	4,707.86	4,672.87	22.70	26.62	-110.78	-3,672.34	-8,392.13	9,430.14	9,381.13	49.01	192.406		
4,900.00	4,816.01	4,912.22	4,876.36	23.18	27.54	-111.12	-3,688.83	-8,383.71	9,437.96	9,387.52	50.45	187.080		
5,000.00	4,914.01	4,964.00	4,928.00	23.66	27.76	-111.20	-3,692.06	-8,381.67	9,444.83	9,393.68	51.15	184.661		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,012.02	5,026.00	4,989.87	24.14	28.02	-111.30	-3,695.68	-8,379.65	9,452.15	9,400.27	51.88	182.189		
5,200.00	5,110.03	5,189.87	5,153.62	24.62	28.64	-111.51	-3,699.91	-8,377.14	9,459.46	9,406.46	52.99	178.497		
5,300.00	5,208.04	5,249.00	5,212.75	25.10	28.83	-111.58	-3,699.85	-8,376.96	9,466.58	9,412.92	53.66	176.404		
5,400.00	5,306.05	5,315.52	5,279.27	25.58	29.05	-111.65	-3,699.91	-8,376.97	9,474.10	9,419.75	54.36	174.300		
5,500.00	5,404.06	5,390.57	5,354.32	26.06	29.30	-111.74	-3,700.22	-8,377.19	9,482.02	9,426.94	55.08	172.156		
5,600.00	5,502.07	5,478.96	5,442.71	26.54	29.59	-111.84	-3,700.68	-8,377.51	9,490.10	9,434.25	55.85	169.921		
5,700.00	5,600.08	5,567.33	5,531.08	27.02	29.88	-111.94	-3,701.23	-8,377.89	9,498.31	9,441.69	56.62	167.748		
5,800.00	5,698.09	5,667.12	5,630.86	27.50	30.21	-112.05	-3,701.90	-8,378.37	9,506.64	9,449.21	57.43	165.522		
5,900.00	5,796.09	5,785.61	5,749.34	27.98	30.59	-112.18	-3,702.41	-8,378.89	9,514.85	9,456.54	58.31	163.177		
6,000.00	5,894.10	5,904.24	5,867.98	28.46	30.98	-112.31	-3,702.54	-8,379.34	9,522.89	9,463.70	59.19	160.895		
6,100.00	5,992.11	5,998.50	5,962.24	28.94	31.31	-112.42	-3,702.69	-8,379.57	9,530.88	9,470.88	59.99	158.866		
6,200.00	6,090.12	6,092.64	6,056.38	29.42	31.63	-112.52	-3,703.24	-8,379.62	9,538.93	9,478.13	60.80	156.891		
6,300.00	6,188.13	6,186.61	6,150.34	29.90	31.96	-112.63	-3,704.16	-8,379.49	9,547.07	9,485.46	61.61	154.970		
6,400.00	6,286.14	6,333.28	6,297.00	30.38	32.52	-112.81	-3,705.95	-8,378.68	9,555.01	9,492.35	62.66	152.489		
6,500.00	6,384.15	6,480.09	6,443.78	30.87	33.07	-112.98	-3,707.79	-8,376.96	9,562.50	9,498.78	63.72	150.082		
6,600.00	6,482.15	6,542.23	6,505.92	31.35	33.32	-104.50	-3,708.74	-8,376.12	9,569.72	9,505.28	64.43	148.518		
6,700.00	6,579.21	6,608.98	6,572.64	31.83	33.58	-73.65	-3,710.02	-8,375.28	9,568.05	9,502.88	65.18	146.799		
6,800.00	6,673.04	6,673.29	6,636.93	32.30	33.84	-59.90	-3,711.51	-8,374.56	9,553.24	9,487.33	65.91	144.948		
6,900.00	6,761.33	6,754.00	6,717.61	32.74	34.16	-54.16	-3,713.73	-8,373.75	9,525.70	9,458.99	66.70	142.808		
7,000.00	6,841.90	6,815.28	6,778.86	33.17	34.40	-52.36	-3,715.48	-8,373.20	9,485.96	9,418.55	67.41	140.713		
7,100.00	6,912.77	6,900.96	6,864.52	33.60	34.74	-53.34	-3,717.60	-8,372.47	9,434.92	9,366.68	68.24	138.264		
7,200.00	6,972.19	6,972.83	6,936.37	34.09	35.02	-56.59	-3,719.10	-8,371.92	9,373.88	9,304.86	69.03	135.802		
7,300.00	7,018.70	7,029.03	6,992.55	34.73	35.25	-62.20	-3,720.09	-8,371.51	9,304.45	9,234.67	69.78	133.344		
7,400.00	7,051.15	7,074.78	7,038.30	35.55	35.43	-70.49	-3,720.82	-8,371.15	9,228.39	9,157.87	70.52	130.856		
7,500.00	7,068.75	7,099.15	7,062.66	36.56	35.53	-81.52	-3,721.21	-8,370.93	9,147.63	9,076.42	71.21	128.455		
7,600.00	7,071.91	7,102.33	7,065.84	37.71	35.54	-90.18	-3,721.26	-8,370.90	9,064.26	8,992.42	71.84	126.172		
7,700.00	7,071.62	7,100.52	7,064.04	39.03	35.53	-90.16	-3,721.23	-8,370.92	8,980.75	8,908.24	72.51	123.861		
7,800.00	7,071.34	7,098.74	7,062.25	40.51	35.53	-90.14	-3,721.20	-8,370.93	8,897.58	8,824.33	73.25	121.474		
7,900.00	7,071.05	7,096.98	7,060.49	42.14	35.52	-90.12	-3,721.17	-8,370.95	8,814.76	8,740.69	74.06	119.021		
8,000.00	7,070.77	7,095.23	7,058.75	43.89	35.51	-90.10	-3,721.14	-8,370.97	8,732.29	8,657.34	74.95	116.511		
8,100.00	7,070.48	7,093.51	7,057.03	45.76	35.50	-90.08	-3,721.12	-8,370.98	8,650.20	8,574.29	75.91	113.955		
8,200.00	7,070.20	7,091.81	7,055.32	47.72	35.50	-90.06	-3,721.09	-8,371.00	8,568.48	8,491.54	76.94	111.363		
8,300.00	7,069.92	7,090.12	7,053.64	49.78	35.49	-90.04	-3,721.06	-8,371.02	8,487.16	8,409.11	78.05	108.745		
8,400.00	7,069.63	7,088.46	7,051.97	51.90	35.48	-90.02	-3,721.04	-8,371.03	8,406.24	8,327.02	79.22	106.110		
8,500.00	7,069.35	7,086.81	7,050.33	54.10	35.48	-90.00	-3,721.01	-8,371.05	8,325.74	8,245.27	80.47	103.467		
8,600.00	7,069.06	7,085.18	7,048.70	56.36	35.47	-89.98	-3,720.98	-8,371.06	8,245.66	8,163.88	81.78	100.825		
8,700.00	7,068.78	7,083.57	7,047.09	58.66	35.47	-89.96	-3,720.96	-8,371.08	8,166.02	8,082.85	83.16	98.192		
8,800.00	7,068.49	7,081.98	7,045.50	61.02	35.46	-89.94	-3,720.93	-8,371.09	8,086.83	8,002.22	84.61	95.574		
8,900.00	7,068.21	7,080.41	7,043.92	63.42	35.45	-89.93	-3,720.91	-8,371.10	8,008.11	7,921.98	86.13	92.979		
9,000.00	7,067.92	7,078.85	7,042.36	65.85	35.45	-89.91	-3,720.88	-8,371.12	7,929.86	7,842.16	87.71	90.412		
9,100.00	7,067.64	7,077.31	7,040.82	68.32	35.44	-89.89	-3,720.86	-8,371.13	7,852.11	7,762.76	89.35	87.878		
9,200.00	7,067.35	7,075.78	7,039.30	70.81	35.43	-89.87	-3,720.83	-8,371.14	7,774.87	7,683.81	91.06	85.381		
9,300.00	7,067.07	7,074.27	7,037.79	73.34	35.43	-89.86	-3,720.81	-8,371.16	7,698.16	7,605.33	92.83	82.926		
9,400.00	7,066.78	7,072.78	7,036.30	75.88	35.42	-89.84	-3,720.79	-8,371.17	7,621.98	7,527.32	94.66	80.516		
9,500.00	7,066.50	7,071.30	7,034.82	78.45	35.42	-89.82	-3,720.76	-8,371.18	7,546.36	7,449.80	96.56	78.154		
9,600.00	7,066.21	7,069.84	7,033.36	81.04	35.41	-89.80	-3,720.74	-8,371.20	7,471.31	7,372.80	98.51	75.841		
9,700.00	7,065.93	7,068.40	7,031.91	83.64	35.40	-89.79	-3,720.72	-8,371.21	7,396.85	7,296.32	100.53	73.580		
9,800.00	7,065.64	7,066.96	7,030.48	86.26	35.40	-89.77	-3,720.69	-8,371.22	7,323.00	7,220.40	102.60	71.373		
9,900.00	7,065.36	7,065.55	7,029.07	88.90	35.39	-89.75	-3,720.67	-8,371.23	7,249.78	7,145.04	104.74	69.220		
10,000.00	7,065.07	7,064.15	7,027.66	91.55	35.39	-89.74	-3,720.65	-8,371.24	7,177.20	7,070.27	106.93	67.122		
10,100.00	7,064.79	7,062.76	7,026.28	94.21	35.38	-89.72	-3,720.60	-8,371.28	7,105.29	6,996.11	109.18	65.080		
10,200.00	7,064.50	7,061.56	7,025.08	96.88	35.38	-89.71	-3,720.59	-8,371.28	7,034.06	6,922.58	111.49	63.093		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,064.22	7,060.36	7,023.88	99.57	35.37	-89.69	-3,720.57	-8,371.29	6,963.55	6,849.69	113.85	61.162		
10,400.00	7,063.94	7,059.16	7,022.68	102.26	35.37	-89.68	-3,720.55	-8,371.30	6,893.76	6,777.48	116.28	59.287		
10,500.00	7,063.65	7,057.95	7,021.47	104.96	35.36	-89.67	-3,720.53	-8,371.31	6,824.72	6,705.96	118.76	57.467		
10,600.00	7,063.37	7,056.74	7,020.26	107.67	35.36	-89.65	-3,720.52	-8,371.32	6,756.46	6,635.16	121.30	55.702		
10,700.00	7,063.08	7,055.53	7,019.05	110.39	35.35	-89.64	-3,720.50	-8,371.33	6,688.99	6,565.11	123.89	53.992		
10,800.00	7,062.80	7,054.31	7,017.83	113.11	35.35	-89.63	-3,720.48	-8,371.33	6,622.35	6,495.82	126.54	52.336		
10,900.00	7,062.51	7,053.10	7,016.62	115.84	35.34	-89.61	-3,720.46	-8,371.34	6,556.56	6,427.32	129.24	50.732		
11,000.00	7,062.23	7,051.88	7,015.40	118.58	35.34	-89.60	-3,720.44	-8,371.35	6,491.64	6,359.64	131.99	49.181		
11,100.00	7,061.94	7,050.66	7,014.18	121.32	35.33	-89.58	-3,720.42	-8,371.36	6,427.62	6,292.81	134.80	47.681		
11,200.00	7,061.66	7,049.43	7,012.95	124.07	35.33	-89.57	-3,720.41	-8,371.37	6,364.52	6,226.86	137.67	46.232		
11,300.00	7,061.37	7,048.20	7,011.73	126.82	35.32	-89.55	-3,720.39	-8,371.38	6,302.38	6,161.80	140.58	44.831		
11,400.00	7,061.09	7,046.98	7,010.50	129.58	35.32	-89.54	-3,720.37	-8,371.38	6,241.23	6,097.68	143.55	43.479		
11,500.00	7,060.80	7,045.74	7,009.27	132.34	35.31	-89.53	-3,720.35	-8,371.39	6,181.09	6,034.53	146.56	42.174		
11,600.00	7,060.52	7,044.51	7,008.03	135.10	35.31	-89.51	-3,720.33	-8,371.40	6,121.99	5,972.36	149.62	40.916		
11,700.00	7,060.23	7,043.27	7,006.80	137.87	35.30	-89.50	-3,720.31	-8,371.41	6,063.96	5,911.23	152.73	39.703		
11,800.00	7,059.95	7,042.03	7,005.56	140.64	35.30	-89.48	-3,720.29	-8,371.42	6,007.04	5,851.15	155.89	38.534		
11,900.00	7,059.66	7,040.79	7,004.32	143.42	35.29	-89.47	-3,720.27	-8,371.43	5,951.25	5,792.16	159.09	37.408		
12,000.00	7,059.38	7,039.55	7,003.07	146.20	35.29	-89.45	-3,720.25	-8,371.43	5,896.63	5,734.30	162.34	36.324		
12,100.00	7,059.09	7,038.30	7,001.82	148.98	35.28	-89.44	-3,720.23	-8,371.44	5,843.21	5,677.59	165.62	35.281		
12,200.00	7,058.81	7,037.05	7,000.58	151.77	35.28	-89.43	-3,720.21	-8,371.45	5,791.03	5,622.09	168.94	34.278		
12,300.00	7,058.52	7,035.80	6,999.32	154.55	35.27	-89.41	-3,720.19	-8,371.46	5,740.11	5,567.81	172.30	33.314		
12,400.00	7,058.24	7,034.55	6,998.07	157.34	35.27	-89.40	-3,720.18	-8,371.47	5,690.50	5,514.80	175.69	32.389		
12,500.00	7,057.96	7,033.29	6,996.81	160.14	35.26	-89.38	-3,720.16	-8,371.48	5,642.22	5,463.10	179.12	31.500		
12,600.00	7,057.67	7,032.03	6,995.55	162.93	35.26	-89.37	-3,720.13	-8,371.49	5,595.31	5,412.74	182.57	30.648		
12,700.00	7,057.39	7,030.77	6,994.29	165.73	35.25	-89.35	-3,720.11	-8,371.50	5,549.81	5,363.76	186.05	29.830		
12,800.00	7,057.10	7,029.50	6,993.03	168.53	35.25	-89.34	-3,720.09	-8,371.50	5,505.74	5,316.20	189.54	29.047		
12,900.00	7,056.82	7,028.24	6,991.76	171.33	35.24	-89.32	-3,720.07	-8,371.51	5,463.15	5,270.09	193.06	28.298		
13,000.00	7,056.53	7,026.97	6,990.49	174.13	35.24	-89.31	-3,720.05	-8,371.52	5,422.08	5,225.49	196.59	27.580		
13,100.00	7,056.25	7,025.70	6,989.22	176.94	35.23	-89.29	-3,720.03	-8,371.53	5,382.54	5,182.41	200.13	26.895		
13,200.00	7,055.96	7,024.42	6,987.95	179.74	35.23	-89.28	-3,720.01	-8,371.54	5,344.59	5,140.91	203.68	26.240		
13,300.00	7,055.68	7,023.14	6,986.67	182.55	35.22	-89.27	-3,719.99	-8,371.55	5,308.25	5,101.01	207.23	25.615		
13,400.00	7,055.39	7,021.86	6,985.39	185.36	35.22	-89.25	-3,719.97	-8,371.56	5,273.55	5,062.77	210.78	25.019		
13,500.00	7,055.11	7,020.58	6,984.11	188.17	35.21	-89.24	-3,719.95	-8,371.57	5,240.53	5,026.21	214.32	24.452		
13,600.00	7,054.82	7,019.30	6,982.82	190.98	35.21	-89.22	-3,719.93	-8,371.58	5,209.22	4,991.38	217.85	23.912		
13,700.00	7,054.54	7,018.01	6,981.53	193.80	35.20	-89.21	-3,719.90	-8,371.59	5,179.66	4,958.30	221.36	23.399		
13,800.00	7,054.25	7,016.72	6,980.24	196.61	35.20	-89.19	-3,719.88	-8,371.60	5,151.86	4,927.01	224.85	22.913		
13,900.00	7,053.97	7,015.42	6,978.95	199.43	35.19	-89.18	-3,719.86	-8,371.60	5,125.87	4,897.56	228.31	22.451		
14,000.00	7,053.68	7,014.13	6,977.65	202.25	35.19	-89.16	-3,719.84	-8,371.61	5,101.70	4,869.96	231.74	22.015		
14,100.00	7,053.40	7,012.83	6,976.35	205.06	35.18	-89.15	-3,719.82	-8,371.62	5,079.39	4,844.25	235.13	21.602		
14,200.00	7,053.11	7,011.53	6,975.05	207.88	35.18	-89.13	-3,719.80	-8,371.63	5,058.95	4,820.47	238.48	21.213		
14,300.00	7,052.83	7,010.22	6,973.75	210.70	35.17	-89.12	-3,719.77	-8,371.64	5,040.42	4,798.64	241.78	20.847		
14,400.00	7,052.54	7,008.92	6,972.44	213.53	35.17	-89.10	-3,719.75	-8,371.65	5,023.81	4,778.78	245.03	20.503		
14,500.00	7,052.26	7,007.61	6,971.13	216.35	35.16	-89.09	-3,719.73	-8,371.66	5,009.14	4,760.92	248.21	20.181		
14,600.00	7,051.98	7,006.29	6,969.82	219.17	35.16	-89.07	-3,719.71	-8,371.67	4,996.42	4,745.09	251.34	19.879		
14,700.00	7,051.69	7,004.98	6,968.51	222.00	35.15	-89.06	-3,719.68	-8,371.68	4,985.69	4,731.29	254.39	19.598		
14,800.00	7,051.41	7,003.66	6,967.19	224.82	35.15	-89.04	-3,719.66	-8,371.69	4,976.93	4,719.56	257.38	19.337		
14,900.00	7,051.12	7,002.34	6,965.87	227.65	35.14	-89.02	-3,719.64	-8,371.70	4,970.18	4,709.90	260.28	19.095		
14,942.37	7,051.00	7,001.78	6,965.31	228.85	35.14	-89.02	-3,719.63	-8,371.70	4,967.92	4,706.44	261.49	18.999 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	66.00	3.28	3.28	-135.45	-3,426.43	-3,372.59	4,808.24				
100.00	100.00	34.00	100.00	3.28	3.33	-135.45	-3,426.43	-3,372.59	4,807.78	4,801.17	6.62	726.473	
200.00	200.00	134.00	200.00	3.34	4.40	-135.45	-3,426.43	-3,372.59	4,807.78	4,800.05	7.74	621.421	
300.00	300.00	234.00	300.00	3.44	7.21	-135.45	-3,426.43	-3,372.59	4,807.78	4,797.13	10.66	451.125	
400.00	399.98	333.98	399.98	3.60	10.44	-128.15	-3,426.43	-3,372.59	4,808.86	4,794.82	14.05	342.374	
500.00	499.84	433.84	499.84	3.81	13.80	-128.15	-3,426.43	-3,372.59	4,812.10	4,794.49	17.60	273.374	
600.00	599.45	533.45	599.45	4.06	17.19	-128.15	-3,426.43	-3,372.59	4,817.49	4,796.25	21.24	226.777	
700.00	698.70	632.70	698.70	4.34	20.60	-128.14	-3,426.43	-3,372.59	4,825.06	4,800.12	24.93	193.526	
800.00	797.47	731.47	797.47	4.64	24.02	-128.13	-3,426.43	-3,372.59	4,834.79	4,806.14	28.65	168.754	
900.00	895.65	829.65	895.65	4.98	27.41	-128.17	-3,426.43	-3,372.59	4,846.63	4,814.24	32.38	149.659	
1,000.00	993.66	927.66	993.66	5.32	30.81	-128.35	-3,426.43	-3,372.59	4,859.07	4,822.94	36.14	134.463	
1,100.00	1,091.67	1,025.67	1,091.67	5.69	34.22	-128.53	-3,426.43	-3,372.59	4,871.57	4,831.66	39.91	122.058	
1,200.00	1,189.68	1,123.68	1,189.68	6.09	37.63	-128.71	-3,426.43	-3,372.59	4,884.12	4,840.41	43.70	111.753	
1,300.00	1,287.69	1,221.69	1,287.69	6.49	41.03	-128.89	-3,426.43	-3,372.59	4,896.71	4,849.20	47.51	103.063	
1,400.00	1,385.69	1,319.69	1,385.69	6.90	44.45	-129.07	-3,426.43	-3,372.59	4,909.35	4,858.02	51.33	95.641	
1,500.00	1,483.70	1,417.70	1,483.70	7.33	47.86	-129.25	-3,426.43	-3,372.59	4,922.04	4,866.88	55.16	89.232	
1,600.00	1,581.71	1,515.71	1,581.71	7.76	51.27	-129.42	-3,426.43	-3,372.59	4,934.78	4,875.78	59.00	83.645	
1,700.00	1,679.72	1,613.72	1,679.72	8.19	54.69	-129.60	-3,426.43	-3,372.59	4,947.56	4,884.72	62.84	78.732	
1,800.00	1,777.73	1,711.73	1,777.73	8.63	58.10	-129.77	-3,426.43	-3,372.59	4,960.40	4,893.71	66.69	74.380	
1,900.00	1,875.74	1,809.74	1,875.74	9.08	61.52	-129.95	-3,426.43	-3,372.59	4,973.27	4,902.73	70.54	70.499	
2,000.00	1,973.75	1,907.75	1,973.75	9.53	64.94	-130.12	-3,426.43	-3,372.59	4,986.20	4,911.79	74.40	67.017	
2,100.00	2,071.76	2,005.76	2,071.76	9.98	68.35	-130.29	-3,426.43	-3,372.59	4,999.16	4,920.90	78.26	63.876	
2,200.00	2,169.77	2,103.77	2,169.77	10.44	71.77	-130.46	-3,426.43	-3,372.59	5,012.18	4,930.05	82.13	61.028	
2,300.00	2,267.77	2,201.77	2,267.77	10.90	75.19	-130.64	-3,426.43	-3,372.59	5,025.23	4,939.24	86.00	58.435	
2,400.00	2,365.78	2,300.22	2,365.78	11.36	78.62	-130.80	-3,426.43	-3,372.59	5,038.34	4,948.46	89.88	56.055	
2,500.00	2,463.79	2,402.21	2,463.79	11.82	82.18	-130.97	-3,426.43	-3,372.59	5,051.48	4,957.59	93.89	53.801	
2,600.00	2,561.80	2,504.20	2,561.80	12.28	85.74	-131.14	-3,426.43	-3,372.59	5,064.67	4,966.77	97.91	51.730	
2,700.00	2,659.81	2,606.19	2,659.81	12.75	89.30	-131.31	-3,426.43	-3,372.59	5,077.91	4,975.99	101.92	49.823	
2,800.00	2,757.82	2,708.18	2,757.82	13.21	92.86	-131.47	-3,426.43	-3,372.59	5,091.18	4,985.25	105.94	48.059	
2,900.00	2,855.83	2,789.83	2,855.83	13.68	95.70	-131.64	-3,426.43	-3,372.59	5,104.50	4,995.26	109.24	46.726	
3,000.00	2,953.84	2,887.84	2,953.84	14.15	99.12	-131.80	-3,426.43	-3,372.59	5,117.86	5,004.74	113.12	45.242	
3,100.00	3,051.85	2,985.85	3,051.85	14.62	102.54	-131.97	-3,426.43	-3,372.59	5,131.27	5,014.27	117.00	43.856	
3,200.00	3,149.85	3,083.85	3,149.85	15.09	105.96	-132.13	-3,426.43	-3,372.59	5,144.71	5,023.83	120.88	42.560	
3,300.00	3,247.86	3,181.86	3,247.86	15.56	109.38	-132.29	-3,426.43	-3,372.59	5,158.20	5,033.44	124.76	41.343	
3,400.00	3,345.87	3,279.87	3,345.87	16.04	112.80	-132.45	-3,426.43	-3,372.59	5,171.73	5,043.08	128.65	40.201	
3,500.00	3,443.88	3,377.88	3,443.88	16.51	116.22	-132.61	-3,426.43	-3,372.59	5,185.30	5,052.77	132.53	39.125	
3,600.00	3,541.89	3,475.89	3,541.89	16.98	119.64	-132.77	-3,426.43	-3,372.59	5,198.91	5,062.49	136.41	38.111	
3,700.00	3,639.90	3,573.90	3,639.90	17.46	123.06	-132.93	-3,426.43	-3,372.59	5,212.56	5,072.26	140.30	37.153	
3,800.00	3,737.91	3,671.91	3,737.91	17.93	126.48	-133.09	-3,426.43	-3,372.59	5,226.24	5,082.06	144.18	36.247	
3,900.00	3,835.92	3,769.92	3,835.92	18.41	129.90	-133.24	-3,426.43	-3,372.59	5,239.97	5,091.90	148.07	35.389	
4,000.00	3,933.93	3,867.93	3,933.93	18.88	133.32	-133.40	-3,426.43	-3,372.59	5,253.74	5,101.79	151.95	34.574	
4,100.00	4,031.93	3,965.93	4,031.93	19.36	136.74	-133.56	-3,426.43	-3,372.59	5,267.55	5,111.71	155.84	33.801	
4,200.00	4,129.94	4,063.94	4,129.94	19.84	140.17	-133.71	-3,426.43	-3,372.59	5,281.39	5,121.66	159.73	33.065	
4,300.00	4,227.95	4,161.95	4,227.95	20.31	143.59	-133.86	-3,426.43	-3,372.59	5,295.27	5,131.66	163.61	32.364	
4,400.00	4,325.96	4,259.96	4,325.96	20.79	147.01	-134.02	-3,426.43	-3,372.59	5,309.20	5,141.70	167.50	31.697	
4,500.00	4,423.97	4,357.97	4,423.97	21.27	150.43	-134.17	-3,426.43	-3,372.59	5,323.16	5,151.77	171.39	31.059	
4,600.00	4,521.98	4,455.98	4,521.98	21.75	153.85	-134.32	-3,426.43	-3,372.59	5,337.15	5,161.88	175.28	30.450	
4,700.00	4,619.99	4,553.99	4,619.99	22.23	157.27	-134.47	-3,426.43	-3,372.59	5,351.18	5,172.02	179.16	29.868	
4,800.00	4,718.00	4,652.00	4,718.00	22.70	160.69	-134.62	-3,426.43	-3,372.59	5,365.25	5,182.20	183.05	29.310	
4,900.00	4,816.01	4,750.01	4,816.01	23.18	164.11	-134.77	-3,426.43	-3,372.59	5,379.36	5,192.42	186.94	28.776	
5,000.00	4,914.01	4,848.01	4,914.01	23.66	167.53	-134.92	-3,426.43	-3,372.59	5,393.50	5,202.68	190.83	28.264	
5,100.00	5,012.02	4,946.02	5,012.02	24.14	170.95	-135.07	-3,426.43	-3,372.59	5,407.68	5,212.97	194.72	27.772	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,044.03	5,110.03	24.62	174.37	-135.21	-3,426.43	-3,372.59	5,421.90	5,223.29	198.60	27.300		
5,300.00	5,208.04	5,142.04	5,208.04	25.10	177.79	-135.36	-3,426.43	-3,372.59	5,436.15	5,233.65	202.49	26.846		
5,400.00	5,306.05	5,240.05	5,306.05	25.58	181.21	-135.50	-3,426.43	-3,372.59	5,450.43	5,244.05	206.38	26.409		
5,500.00	5,404.06	5,338.06	5,404.06	26.06	184.64	-135.65	-3,426.43	-3,372.59	5,464.75	5,254.48	210.27	25.989		
5,600.00	5,502.07	5,436.07	5,502.07	26.54	188.06	-135.79	-3,426.43	-3,372.59	5,479.11	5,264.95	214.16	25.584		
5,700.00	5,600.08	5,534.08	5,600.08	27.02	191.48	-135.93	-3,426.43	-3,372.59	5,493.49	5,275.45	218.05	25.194		
5,800.00	5,698.09	5,632.09	5,698.09	27.50	194.90	-136.08	-3,426.43	-3,372.59	5,507.92	5,285.98	221.94	24.817		
5,900.00	5,796.09	5,730.09	5,796.09	27.98	198.32	-136.22	-3,426.43	-3,372.59	5,522.37	5,296.55	225.83	24.454		
6,000.00	5,894.10	5,828.10	5,894.10	28.46	201.74	-136.36	-3,426.43	-3,372.59	5,536.86	5,307.15	229.72	24.103		
6,100.00	5,992.11	5,926.11	5,992.11	28.94	205.16	-136.50	-3,426.43	-3,372.59	5,551.38	5,317.78	233.61	23.764		
6,200.00	6,090.12	6,024.12	6,090.12	29.42	208.58	-136.64	-3,426.43	-3,372.59	5,565.94	5,328.45	237.49	23.436		
6,300.00	6,188.13	6,122.13	6,188.13	29.90	212.00	-136.78	-3,426.43	-3,372.59	5,580.53	5,339.14	241.38	23.119		
6,400.00	6,286.14	6,220.14	6,286.14	30.38	215.42	-136.92	-3,426.43	-3,372.59	5,595.15	5,349.88	245.27	22.812		
6,500.00	6,384.15	6,318.15	6,384.15	30.87	218.85	-137.05	-3,426.43	-3,372.59	5,609.80	5,360.64	249.16	22.515		
6,600.00	6,482.15	6,416.15	6,482.15	31.35	222.27	-128.49	-3,426.43	-3,372.59	5,624.31	5,371.26	253.05	22.226		
6,700.00	6,579.21	6,513.21	6,579.21	31.83	225.65	-97.08	-3,426.43	-3,372.59	5,638.59	5,375.67	256.92	21.924		
6,800.00	6,673.04	6,607.04	6,673.04	32.30	228.93	-82.91	-3,426.43	-3,372.59	5,653.68	5,371.00	260.67	21.604		
6,900.00	6,761.33	6,704.67	6,761.33	32.74	232.34	-76.74	-3,426.43	-3,372.59	5,668.80	5,357.23	264.57	21.249		
7,000.00	6,841.90	6,775.90	6,841.90	33.17	234.82	-74.45	-3,426.43	-3,372.59	5,683.47	5,335.91	267.56	20.943		
7,100.00	6,912.77	6,846.77	6,912.77	33.60	237.30	-74.46	-3,426.43	-3,372.59	5,697.43	5,306.84	270.59	20.612		
7,200.00	6,972.19	6,906.19	6,972.19	34.09	239.37	-76.05	-3,426.43	-3,372.59	5,711.63	5,271.33	273.30	20.288		
7,300.00	7,018.70	6,952.70	7,018.70	34.73	241.00	-78.83	-3,426.43	-3,372.59	5,726.14	5,230.47	275.67	19.974		
7,400.00	7,051.15	6,985.15	7,051.15	35.55	242.13	-82.52	-3,426.43	-3,372.59	5,740.15	5,185.47	277.68	19.675		
7,500.00	7,068.75	7,002.75	7,068.75	36.56	242.74	-86.89	-3,426.43	-3,372.59	5,754.88	5,137.59	279.29	19.395		
7,600.00	7,071.91	7,005.91	7,071.91	37.71	242.85	-90.09	-3,426.43	-3,372.59	5,768.69	5,088.18	280.51	19.139		
7,700.00	7,071.62	7,005.62	7,071.62	39.03	242.84	-90.09	-3,426.43	-3,372.59	5,782.27	5,039.53	281.74	18.887		
7,800.00	7,071.34	7,005.34	7,071.34	40.51	242.83	-90.08	-3,426.43	-3,372.59	5,795.32	4,992.20	283.12	18.633		
7,900.00	7,071.05	7,005.05	7,071.05	42.14	242.82	-90.08	-3,426.43	-3,372.59	5,808.88	4,946.23	284.65	18.377		
8,000.00	7,070.77	7,004.77	7,070.77	43.89	242.81	-90.08	-3,426.43	-3,372.59	5,822.99	4,901.69	286.30	18.121		
8,100.00	7,070.48	7,004.48	7,070.48	45.76	242.80	-90.07	-3,426.43	-3,372.59	5,837.68	4,858.60	288.08	17.866		
8,200.00	7,070.20	7,004.20	7,070.20	47.72	242.79	-90.07	-3,426.43	-3,372.59	5,852.99	4,817.03	289.96	17.613		
8,300.00	7,069.92	7,003.92	7,069.92	49.78	242.78	-90.07	-3,426.43	-3,372.59	5,868.97	4,777.02	291.96	17.362		
8,400.00	7,069.63	7,003.63	7,069.63	51.90	242.77	-90.06	-3,426.43	-3,372.59	5,885.65	4,738.61	294.04	17.115		
8,500.00	7,069.35	7,003.35	7,069.35	54.10	242.76	-90.06	-3,426.43	-3,372.59	5,902.97	4,701.85	296.22	16.873		
8,600.00	7,069.06	7,003.06	7,069.06	56.36	242.75	-90.05	-3,426.43	-3,372.59	5,920.95	4,666.79	298.47	16.636		
8,700.00	7,068.78	7,002.78	7,068.78	58.66	242.74	-90.05	-3,426.43	-3,372.59	5,939.59	4,633.46	300.79	16.404		
8,800.00	7,068.49	7,002.49	7,068.49	61.02	242.73	-90.05	-3,426.43	-3,372.59	5,958.90	4,601.92	303.17	16.179		
8,900.00	7,068.21	7,002.21	7,068.21	63.42	242.72	-90.04	-3,426.43	-3,372.59	5,978.81	4,572.20	305.61	15.961		
9,000.00	7,067.92	7,001.92	7,067.92	65.85	242.71	-90.04	-3,426.43	-3,372.59	5,999.34	4,544.34	308.10	15.750		
9,100.00	7,067.64	7,001.64	7,067.64	68.32	242.70	-90.04	-3,426.43	-3,372.59	6,020.50	4,518.37	310.63	15.546		
9,200.00	7,067.35	7,001.35	7,067.35	70.81	242.69	-90.03	-3,426.43	-3,372.59	6,042.33	4,494.34	313.19	15.350		
9,300.00	7,067.07	7,001.07	7,067.07	73.34	242.68	-90.03	-3,426.43	-3,372.59	6,064.85	4,472.27	315.77	15.163		
9,400.00	7,066.78	7,000.78	7,066.78	75.88	242.67	-90.03	-3,426.43	-3,372.59	6,088.07	4,452.20	318.38	14.984		
9,500.00	7,066.50	7,000.50	7,066.50	78.45	242.66	-90.02	-3,426.43	-3,372.59	6,111.90	4,434.16	321.01	14.813		
9,600.00	7,066.21	7,000.21	7,066.21	81.04	242.65	-90.02	-3,426.43	-3,372.59	6,136.47	4,418.17	323.64	14.652		
9,700.00	7,065.93	7,000.07	7,065.93	83.64	242.65	-90.02	-3,426.43	-3,372.59	6,161.72	4,404.24	326.27	14.499		
9,800.00	7,065.64	7,000.36	7,065.64	86.26	242.66	-90.01	-3,426.43	-3,372.59	6,187.65	4,392.40	328.92	14.354		
9,900.00	7,065.36	7,000.64	7,065.36	88.90	242.67	-90.01	-3,426.43	-3,372.59	6,214.27	4,382.67	331.56	14.218		
10,000.00	7,065.07	7,000.93	7,065.07	91.55	242.68	-90.01	-3,426.43	-3,372.59	6,241.59	4,375.06	334.19	14.092		
10,100.00	7,064.79	7,001.21	7,064.79	94.21	242.69	-90.00	-3,426.43	-3,372.59	6,269.50	4,369.60	336.79	13.974		
10,184.54	7,064.55	7,001.45	7,064.55	96.47	242.70	-90.00	-3,426.43	-3,372.59	6,298.04	4,366.66	338.98	13.882 CC		
10,200.00	7,064.50	7,001.50	7,064.50	96.88	242.70	-90.00	-3,426.43	-3,372.59	6,307.66	4,366.29	339.37	13.866		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,064.22	7,001.78	7,064.22	99.57	242.71	-90.00	-3,426.43	-3,372.59	4,707.05	4,365.13	341.93	13.766	ES	
10,400.00	7,063.94	7,002.07	7,063.94	102.26	242.72	-89.99	-3,426.43	-3,372.59	4,710.57	4,366.12	344.44	13.676		
10,500.00	7,063.65	7,002.35	7,063.65	104.96	242.73	-89.99	-3,426.43	-3,372.59	4,716.20	4,369.27	346.92	13.594		
10,600.00	7,063.37	7,002.63	7,063.37	107.67	242.74	-89.99	-3,426.43	-3,372.59	4,723.94	4,374.58	349.36	13.522		
10,700.00	7,063.08	7,002.92	7,063.08	110.39	242.75	-89.98	-3,426.43	-3,372.59	4,733.78	4,382.03	351.75	13.458		
10,800.00	7,062.80	7,003.20	7,062.80	113.11	242.76	-89.98	-3,426.43	-3,372.59	4,745.71	4,391.62	354.10	13.402		
10,900.00	7,062.51	7,003.49	7,062.51	115.84	242.77	-89.98	-3,426.43	-3,372.59	4,759.71	4,403.33	356.39	13.355		
11,000.00	7,062.23	7,003.77	7,062.23	118.58	242.78	-89.97	-3,426.43	-3,372.59	4,775.77	4,417.14	358.63	13.317		
11,100.00	7,061.94	7,004.06	7,061.94	121.32	242.79	-89.97	-3,426.43	-3,372.59	4,793.86	4,433.05	360.81	13.286		
11,200.00	7,061.66	7,004.34	7,061.66	124.07	242.80	-89.96	-3,426.43	-3,372.59	4,813.95	4,451.02	362.93	13.264		
11,300.00	7,061.37	7,004.63	7,061.37	126.82	242.81	-89.96	-3,426.43	-3,372.59	4,836.04	4,471.04	364.99	13.250		
11,400.00	7,061.09	7,004.91	7,061.09	129.58	242.82	-89.96	-3,426.43	-3,372.59	4,860.07	4,493.09	366.99	13.243	SF	
11,500.00	7,060.80	7,005.20	7,060.80	132.34	242.83	-89.95	-3,426.43	-3,372.59	4,886.04	4,517.12	368.93	13.244		
11,600.00	7,060.52	7,005.48	7,060.52	135.10	242.84	-89.95	-3,426.43	-3,372.59	4,913.91	4,543.11	370.80	13.252		
11,700.00	7,060.23	7,005.77	7,060.23	137.87	242.85	-89.95	-3,426.43	-3,372.59	4,943.64	4,571.03	372.61	13.268		
11,800.00	7,059.95	7,006.05	7,059.95	140.64	242.86	-89.94	-3,426.43	-3,372.59	4,975.21	4,600.86	374.35	13.290		
11,900.00	7,059.66	7,006.34	7,059.66	143.42	242.87	-89.94	-3,426.43	-3,372.59	5,008.57	4,632.54	376.03	13.320		
12,000.00	7,059.38	7,006.62	7,059.38	146.20	242.88	-89.94	-3,426.43	-3,372.59	5,043.70	4,666.05	377.64	13.356		
12,100.00	7,059.09	7,006.91	7,059.09	148.98	242.89	-89.93	-3,426.43	-3,372.59	5,080.55	4,701.35	379.19	13.398		
12,200.00	7,058.81	7,007.19	7,058.81	151.77	242.90	-89.93	-3,426.43	-3,372.59	5,119.09	4,738.40	380.68	13.447		
12,300.00	7,058.52	7,007.48	7,058.52	154.55	242.91	-89.93	-3,426.43	-3,372.59	5,159.28	4,777.17	382.11	13.502		
12,400.00	7,058.24	7,007.76	7,058.24	157.34	242.92	-89.92	-3,426.43	-3,372.59	5,201.08	4,817.61	383.47	13.563		
12,500.00	7,057.96	7,008.05	7,057.96	160.14	242.93	-89.92	-3,426.43	-3,372.59	5,244.45	4,859.68	384.77	13.630		
12,600.00	7,057.67	7,008.33	7,057.67	162.93	242.94	-89.92	-3,426.43	-3,372.59	5,289.37	4,903.35	386.01	13.702		
12,700.00	7,057.39	7,008.61	7,057.39	165.73	242.95	-89.91	-3,426.43	-3,372.59	5,335.77	4,948.57	387.20	13.780		
12,800.00	7,057.10	7,008.90	7,057.10	168.53	242.96	-89.91	-3,426.43	-3,372.59	5,383.64	4,995.31	388.33	13.864		
12,900.00	7,056.82	7,009.18	7,056.82	171.33	242.97	-89.91	-3,426.43	-3,372.59	5,432.92	5,043.52	389.40	13.952		
13,000.00	7,056.53	7,009.47	7,056.53	174.13	242.98	-89.90	-3,426.43	-3,372.59	5,483.59	5,093.17	390.42	14.045		
13,100.00	7,056.25	7,009.75	7,056.25	176.94	242.99	-89.90	-3,426.43	-3,372.59	5,535.60	5,144.20	391.39	14.143		
13,200.00	7,055.96	6,989.96	7,055.96	179.74	242.30	-89.90	-3,426.43	-3,372.59	5,588.91	5,197.30	391.61	14.272		
13,300.00	7,055.68	6,989.68	7,055.68	182.55	242.29	-89.89	-3,426.43	-3,372.59	5,643.49	5,251.03	392.46	14.380		
13,400.00	7,055.39	6,989.39	7,055.39	185.36	242.28	-89.89	-3,426.43	-3,372.59	5,699.31	5,306.04	393.26	14.492		
13,500.00	7,055.11	6,989.11	7,055.11	188.17	242.27	-89.89	-3,426.43	-3,372.59	5,756.32	5,362.29	394.02	14.609		
13,600.00	7,054.82	6,988.82	7,054.82	190.98	242.26	-89.88	-3,426.43	-3,372.59	5,814.49	5,419.75	394.74	14.730		
13,700.00	7,054.54	6,988.54	7,054.54	193.80	242.25	-89.88	-3,426.43	-3,372.59	5,873.78	5,478.37	395.41	14.855		
13,800.00	7,054.25	6,988.25	7,054.25	196.61	242.24	-89.87	-3,426.43	-3,372.59	5,934.17	5,538.13	396.05	14.984		
13,900.00	7,053.97	6,987.97	7,053.97	199.43	242.23	-89.87	-3,426.43	-3,372.59	5,995.62	5,598.98	396.64	15.116		
14,000.00	7,053.68	6,987.68	7,053.68	202.25	242.22	-89.87	-3,426.43	-3,372.59	6,058.10	5,660.90	397.20	15.252		
14,100.00	7,053.40	6,987.40	7,053.40	205.06	242.21	-89.86	-3,426.43	-3,372.59	6,121.58	5,723.85	397.73	15.391		
14,200.00	7,053.11	6,987.11	7,053.11	207.88	242.20	-89.86	-3,426.43	-3,372.59	6,186.01	5,787.80	398.22	15.534		
14,300.00	7,052.83	6,986.83	7,052.83	210.70	242.19	-89.86	-3,426.43	-3,372.59	6,251.39	5,852.71	398.68	15.680		
14,400.00	7,052.54	6,986.54	7,052.54	213.53	242.18	-89.85	-3,426.43	-3,372.59	6,317.67	5,918.56	399.10	15.830		
14,500.00	7,052.26	6,986.26	7,052.26	216.35	242.17	-89.85	-3,426.43	-3,372.59	6,384.83	5,985.32	399.50	15.982		
14,600.00	7,051.98	6,985.98	7,051.98	219.17	242.16	-89.85	-3,426.43	-3,372.59	6,452.84	6,052.96	399.88	16.137		
14,700.00	7,051.69	6,985.69	7,051.69	222.00	242.15	-89.84	-3,426.43	-3,372.59	6,521.67	6,121.45	400.22	16.295		
14,800.00	7,051.41	6,985.41	7,051.41	224.82	242.14	-89.84	-3,426.43	-3,372.59	6,591.30	6,190.76	400.54	16.456		
14,900.00	7,051.12	6,985.12	7,051.12	227.65	242.13	-89.84	-3,426.43	-3,372.59	6,661.71	6,260.87	400.84	16.619		
14,942.37	7,051.00	6,985.00	7,051.00	228.85	242.12	-89.84	-3,426.43	-3,372.59	6,691.77	6,290.81	400.96	16.689		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	12.00	3.28	3.28	30.85	817.50	488.39	952.35					
100.00	100.00	85.87	97.87	3.28	3.29	30.86	817.58	488.45	952.38	945.81	6.57	144.961		
200.00	200.00	185.82	197.82	3.34	3.33	30.86	817.74	488.65	952.62	945.95	6.67	142.856		
300.00	300.00	288.29	300.29	3.44	3.44	30.87	817.76	488.85	952.74	945.86	6.88	138.482		
400.00	399.98	382.11	394.11	3.60	3.58	38.27	817.76	489.28	951.60	944.43	7.18	132.567		
500.00	499.84	484.36	496.35	3.81	3.77	38.56	817.85	490.29	948.09	940.51	7.58	125.101		
600.00	599.45	579.87	591.86	4.06	3.99	39.01	817.86	491.22	941.81	933.76	8.04	117.130		
700.00	698.70	681.76	693.74	4.34	4.25	39.68	817.84	492.73	933.11	924.53	8.58	108.712		
800.00	797.47	782.43	794.40	4.64	4.54	40.54	817.49	494.03	921.49	912.32	9.18	100.399		
900.00	895.65	877.62	889.58	4.98	4.83	41.49	817.27	495.16	907.54	897.74	9.80	92.563		
1,000.00	993.66	977.87	989.82	5.32	5.16	42.43	817.02	496.65	893.27	882.80	10.48	85.248		
1,100.00	1,091.67	1,072.38	1,084.32	5.69	5.48	43.33	816.89	497.73	879.13	867.96	11.17	78.731		
1,200.00	1,189.68	1,170.13	1,182.06	6.09	5.82	44.29	817.02	499.12	865.61	853.72	11.89	72.792		
1,300.00	1,287.69	1,273.51	1,285.43	6.49	6.19	45.36	816.71	500.62	852.02	839.36	12.66	67.314		
1,400.00	1,385.69	1,373.42	1,385.33	6.90	6.56	46.41	816.09	501.55	838.13	824.70	13.43	62.409		
1,500.00	1,483.70	1,471.13	1,483.04	7.33	6.92	47.45	815.57	502.27	824.48	810.27	14.21	58.019		
1,600.00	1,581.71	1,568.32	1,580.22	7.76	7.29	48.56	814.80	503.38	811.18	796.17	15.00	54.064		
1,700.00	1,679.72	1,665.76	1,677.65	8.19	7.67	49.70	814.18	504.42	798.26	782.45	15.81	50.491		
1,800.00	1,777.73	1,764.45	1,776.34	8.63	8.05	50.85	813.80	505.18	785.66	769.03	16.63	47.245		
1,900.00	1,875.74	1,867.55	1,879.44	9.08	8.46	52.11	813.14	505.78	773.08	755.61	17.47	44.251		
2,000.00	1,973.75	1,966.16	1,978.04	9.53	8.85	53.31	812.37	505.65	760.25	741.94	18.30	41.534		
2,100.00	2,071.76	2,064.23	2,076.11	9.98	9.23	54.52	812.00	505.29	747.87	728.73	19.14	39.068		
2,200.00	2,169.77	2,160.39	2,172.27	10.44	9.62	55.76	811.49	505.07	735.83	715.85	19.98	36.823		
2,300.00	2,267.77	2,255.60	2,267.48	10.90	10.00	56.98	811.56	504.83	724.55	703.72	20.83	34.790		
2,400.00	2,365.78	2,352.25	2,364.12	11.36	10.39	58.29	811.60	505.02	713.93	692.25	21.68	32.931		
2,500.00	2,463.79	2,452.62	2,464.50	11.82	10.80	59.67	811.73	505.12	703.71	681.16	22.55	31.209		
2,600.00	2,561.80	2,551.57	2,563.45	12.28	11.20	61.06	811.77	504.71	693.44	670.03	23.42	29.615		
2,700.00	2,659.81	2,648.42	2,660.30	12.75	11.59	62.43	812.16	504.30	683.78	659.50	24.28	28.162		
2,800.00	2,757.82	2,748.00	2,759.87	13.21	12.00	63.87	812.60	503.83	674.54	649.38	25.16	26.814		
2,900.00	2,855.83	2,849.39	2,861.26	13.68	12.41	65.38	812.86	502.99	665.33	639.29	26.04	25.552		
3,000.00	2,953.84	2,948.83	2,960.70	14.15	12.82	66.92	812.63	501.96	656.14	629.22	26.92	24.375		
3,100.00	3,051.85	3,049.25	3,061.11	14.62	13.24	68.48	812.72	500.60	647.34	619.53	27.80	23.283		
3,200.00	3,149.85	3,148.02	3,159.85	15.09	13.65	70.04	812.74	498.70	638.48	609.80	28.68	22.258		
3,300.00	3,247.86	3,244.30	3,256.13	15.56	14.05	71.61	812.86	497.19	630.47	600.90	29.56	21.325		
3,400.00	3,345.87	3,343.29	3,355.10	16.04	14.46	73.30	812.49	495.85	622.96	592.51	30.45	20.458		
3,500.00	3,443.88	3,441.56	3,453.36	16.51	14.87	75.03	812.06	494.36	615.85	584.52	31.34	19.652		
3,600.00	3,541.89	3,536.86	3,548.65	16.98	15.26	76.73	811.72	493.06	609.50	577.28	32.22	18.918		
3,700.00	3,639.90	3,630.18	3,641.97	17.46	15.65	78.43	811.55	492.41	604.41	571.32	33.09	18.264		
3,800.00	3,737.91	3,725.45	3,737.23	17.93	16.05	80.17	811.92	492.27	600.63	566.66	33.97	17.680		
3,900.00	3,835.92	3,825.35	3,837.14	18.41	16.47	81.99	812.42	492.09	597.46	562.59	34.87	17.136		
4,000.00	3,933.93	3,925.35	3,937.13	18.88	16.89	83.84	812.81	491.57	594.55	558.78	35.76	16.625		
4,100.00	4,031.93	4,023.35	4,035.14	19.36	17.30	85.66	813.24	490.90	592.12	555.47	36.65	16.156		
4,200.00	4,129.94	4,120.66	4,132.44	19.84	17.71	87.49	813.52	490.42	590.46	552.92	37.53	15.731		
4,300.00	4,227.95	4,219.87	4,231.65	20.31	18.12	89.38	813.69	489.81	589.32	550.90	38.43	15.337		
4,400.00	4,325.96	4,316.68	4,328.46	20.79	18.53	91.22	813.92	489.29	588.91	549.61	39.31	14.983		
4,400.17	4,326.13	4,316.85	4,328.63	20.79	18.53	91.22	813.92	489.29	588.91	549.60	39.31	14.982 CC		
4,500.00	4,423.97	4,414.77	4,426.55	21.27	18.94	93.08	814.20	488.82	589.21	549.02	40.19	14.660 ES		
4,600.00	4,521.98	4,511.20	4,522.97	21.75	19.35	94.91	814.53	488.51	590.31	549.24	41.07	14.374		
4,700.00	4,619.99	4,607.32	4,619.09	22.23	19.75	96.70	815.02	488.51	592.37	550.43	41.94	14.124		
4,800.00	4,718.00	4,706.83	4,718.60	22.70	20.17	98.54	815.55	488.54	595.08	552.26	42.83	13.895		
4,900.00	4,816.01	4,800.90	4,812.67	23.18	20.57	100.25	816.18	488.81	598.66	554.97	43.69	13.704		
5,000.00	4,914.01	4,896.72	4,908.48	23.66	20.97	101.93	817.27	489.60	603.31	558.76	44.55	13.542		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,012.02	4,999.52	5,011.27	24.14	21.41	103.67	818.75	490.31	608.34	562.88	45.46	13.383		
5,200.00	5,110.03	5,097.94	5,109.68	24.62	21.82	105.35	819.74	490.52	613.49	567.16	46.33	13.241		
5,300.00	5,208.04	5,199.30	5,211.04	25.10	22.25	107.12	820.07	490.36	618.93	571.70	47.23	13.106		
5,400.00	5,306.05	5,300.53	5,312.26	25.58	22.68	108.88	820.30	489.64	624.43	576.31	48.12	12.977		
5,500.00	5,404.06	5,397.89	5,409.62	26.06	23.09	110.56	820.29	488.70	630.29	581.31	48.98	12.867		
5,600.00	5,502.07	5,501.39	5,513.11	26.54	23.53	112.36	819.89	487.21	636.37	586.48	49.89	12.756		
5,700.00	5,600.08	5,595.27	5,606.98	27.02	23.93	113.96	819.61	485.77	642.90	592.17	50.73	12.673		
5,800.00	5,698.09	5,693.95	5,705.65	27.50	24.34	115.60	819.34	484.54	650.24	598.64	51.60	12.601		
5,900.00	5,796.09	5,797.23	5,808.91	27.98	24.78	117.28	819.15	482.79	657.67	605.17	52.50	12.526		
6,000.00	5,894.10	5,893.62	5,905.29	28.46	25.19	118.80	819.14	480.90	665.30	611.94	53.36	12.468		
6,100.00	5,992.11	5,992.40	6,004.05	28.94	25.61	120.32	819.27	479.11	673.52	619.29	54.23	12.419		
6,200.00	6,090.12	6,093.38	6,105.00	29.42	26.04	121.83	819.49	477.03	681.93	626.81	55.12	12.373		
6,300.00	6,188.13	6,188.43	6,200.03	29.90	26.44	123.24	819.46	474.93	690.76	634.80	55.96	12.344		
6,400.00	6,286.14	6,290.12	6,301.70	30.38	26.87	124.72	819.31	472.67	700.09	643.24	56.85	12.315		
6,500.00	6,384.15	6,391.39	6,402.93	30.87	27.30	126.16	819.39	469.89	709.28	651.55	57.74	12.285		
6,600.00	6,482.15	6,491.25	6,502.74	31.35	27.73	136.13	819.55	466.81	718.83	660.22	58.61	12.264 SF		
6,700.00	6,579.21	6,595.49	6,606.92	31.83	28.17	168.97	820.26	463.24	737.14	677.63	59.52	12.385		
6,800.00	6,673.04	6,691.26	6,702.61	32.30	28.58	-174.67	820.96	459.38	767.80	707.44	60.36	12.720		
6,900.00	6,761.33	6,777.82	6,789.09	32.74	28.95	-165.34	821.36	455.91	810.65	749.52	61.13	13.261		
7,000.00	6,841.90	6,865.10	6,876.31	33.17	29.32	-158.83	821.66	452.47	864.76	802.88	61.88	13.976		
7,100.00	6,912.77	6,944.60	6,955.72	33.60	29.66	-153.22	822.18	448.79	928.49	865.95	62.54	14.846		
7,200.00	6,972.19	7,011.78	7,022.81	34.09	29.95	-147.18	822.77	445.42	1,001.04	937.95	63.09	15.867		
7,300.00	7,018.70	7,061.82	7,072.78	34.73	30.16	-139.23	823.15	442.82	1,081.29	1,017.79	63.50	17.029		
7,400.00	7,051.15	7,099.04	7,109.95	35.55	30.32	-127.92	823.37	440.87	1,167.65	1,103.86	63.79	18.305		
7,500.00	7,068.75	7,129.88	7,140.74	36.56	30.45	-112.30	823.56	439.15	1,258.14	1,194.14	64.01	19.656		
7,600.00	7,071.91	7,142.62	7,153.46	37.71	30.51	-99.14	823.66	438.38	1,350.77	1,286.68	64.10	21.074		
7,700.00	7,071.62	7,151.14	7,161.96	39.03	30.55	-100.12	823.72	437.85	1,444.39	1,380.22	64.17	22.510		
7,800.00	7,071.34	7,160.18	7,170.99	40.51	30.58	-101.16	823.80	437.27	1,538.77	1,474.52	64.24	23.952		
7,900.00	7,071.05	7,169.80	7,180.59	42.14	30.63	-102.25	823.89	436.63	1,633.78	1,569.45	64.33	25.398		
8,000.00	7,070.77	7,180.05	7,190.81	43.89	30.67	-103.40	823.99	435.93	1,729.32	1,664.90	64.42	26.845		
8,100.00	7,070.48	7,191.00	7,201.73	45.76	30.72	-104.62	824.10	435.16	1,825.30	1,760.78	64.51	28.294		
8,200.00	7,070.20	7,202.72	7,213.42	47.72	30.77	-105.92	824.23	434.31	1,921.65	1,857.03	64.61	29.741		
8,300.00	7,069.92	7,215.29	7,225.95	49.78	30.82	-107.28	824.38	433.36	2,018.31	1,953.59	64.72	31.187		
8,400.00	7,069.63	7,213.30	7,223.97	51.90	30.81	-107.07	824.34	433.54	2,115.29	2,050.54	64.75	32.668		
8,500.00	7,069.35	7,219.16	7,229.82	54.10	30.84	-107.70	824.40	433.12	2,212.51	2,147.68	64.82	34.131		
8,600.00	7,069.06	7,224.95	7,235.59	56.36	30.86	-108.32	824.46	432.70	2,309.95	2,245.05	64.90	35.595		
8,700.00	7,068.78	7,230.68	7,241.31	58.66	30.89	-108.93	824.51	432.29	2,407.58	2,342.61	64.97	37.058		
8,800.00	7,068.49	7,236.34	7,246.96	61.02	30.91	-109.53	824.56	431.89	2,505.38	2,440.34	65.04	38.520		
8,900.00	7,068.21	7,241.94	7,252.54	63.42	30.93	-110.12	824.60	431.49	2,603.34	2,538.22	65.11	39.982		
9,000.00	7,067.92	7,247.30	7,255.30	65.85	31.08	-110.41	824.64	431.29	2,701.42	2,636.12	65.30	41.369		
9,100.00	7,067.64	7,268.66	7,261.92	68.32	31.05	-111.10	824.68	430.83	2,799.64	2,734.31	65.32	42.859		
9,200.00	7,067.35	7,262.02	7,268.54	70.81	31.02	-111.78	824.72	430.37	2,897.96	2,832.62	65.34	44.349		
9,300.00	7,067.07	7,264.62	7,275.16	73.34	31.03	-112.46	824.76	429.91	2,996.38	2,930.98	65.41	45.812		
9,400.00	7,066.78	7,271.26	7,281.79	75.88	31.06	-113.12	824.81	429.45	3,094.89	3,029.41	65.49	47.260		
9,500.00	7,066.50	7,277.90	7,288.41	78.45	31.09	-113.79	824.85	428.99	3,193.48	3,127.91	65.57	48.706		
9,600.00	7,066.21	7,284.54	7,295.03	81.04	31.12	-114.44	824.89	428.53	3,292.14	3,226.49	65.65	50.150		
9,700.00	7,065.93	7,291.18	7,301.66	83.64	31.15	-115.09	824.94	428.07	3,390.86	3,325.13	65.73	51.590		
9,800.00	7,065.64	7,297.82	7,308.28	86.26	31.18	-115.74	824.98	427.61	3,489.65	3,423.84	65.81	53.028		
9,900.00	7,065.36	7,304.46	7,314.90	88.90	31.21	-116.37	825.02	427.15	3,588.49	3,522.60	65.89	54.462		
10,000.00	7,065.07	7,311.10	7,321.53	91.55	31.24	-117.00	825.06	426.69	3,687.38	3,621.40	65.97	55.893		
10,100.00	7,064.79	7,317.74	7,328.15	94.21	31.26	-117.63	825.11	426.23	3,786.31	3,720.26	66.06	57.320		
10,200.00	7,064.50	7,324.37	7,334.77	96.88	31.29	-118.24	825.15	425.77	3,885.29	3,819.15	66.14	58.744		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,064.22	7,331.01	7,341.39	99.57	31.32	-118.85	825.19	425.31	3,984.31	3,918.09	66.22	60.165		
10,400.00	7,063.94	7,337.65	7,348.02	102.26	31.35	-119.45	825.23	424.85	4,083.37	4,017.06	66.31	61.582		
10,500.00	7,063.65	7,344.29	7,354.64	104.96	31.38	-120.05	825.28	424.39	4,182.46	4,116.07	66.39	62.995		
10,600.00	7,063.37	7,350.93	7,361.26	107.67	31.41	-120.64	825.32	423.93	4,281.58	4,215.10	66.48	64.404		
10,700.00	7,063.08	7,357.57	7,367.89	110.39	31.44	-121.22	825.36	423.47	4,380.74	4,314.17	66.57	65.810		
10,800.00	7,062.80	7,364.21	7,374.51	113.11	31.47	-121.79	825.41	423.01	4,479.92	4,413.26	66.65	67.211		
10,900.00	7,062.51	7,370.85	7,381.13	115.84	31.50	-122.36	825.45	422.55	4,579.12	4,512.38	66.74	68.608		
11,000.00	7,062.23	7,377.49	7,387.76	118.58	31.52	-122.92	825.49	422.09	4,678.35	4,611.52	66.83	70.002		
11,100.00	7,061.94	7,384.13	7,394.38	121.32	31.55	-123.47	825.53	421.63	4,777.61	4,710.69	66.92	71.391		
11,200.00	7,061.66	7,390.77	7,401.00	124.07	31.58	-124.02	825.58	421.17	4,876.88	4,809.87	67.01	72.776		
11,300.00	7,061.37	7,397.41	7,407.62	126.82	31.61	-124.56	825.62	420.71	4,976.18	4,909.08	67.10	74.156		
11,400.00	7,061.09	7,404.04	7,414.25	129.58	31.64	-125.09	825.66	420.25	5,075.49	5,008.30	67.20	75.533		
11,500.00	7,060.80	7,410.68	7,420.87	132.34	31.67	-125.62	825.71	419.79	5,174.83	5,107.54	67.29	76.905		
11,600.00	7,060.52	7,417.32	7,427.49	135.10	31.70	-126.14	825.75	419.33	5,274.18	5,206.79	67.38	78.272		
11,700.00	7,060.23	7,423.96	7,434.12	137.87	31.73	-126.65	825.79	418.87	5,373.54	5,306.06	67.48	79.635		
11,800.00	7,059.95	7,430.60	7,440.74	140.64	31.76	-127.16	825.83	418.41	5,472.92	5,405.35	67.57	80.993		
11,900.00	7,059.66	7,437.24	7,447.36	143.42	31.79	-127.66	825.88	417.95	5,572.32	5,504.65	67.67	82.347		
12,000.00	7,059.38	7,443.88	7,453.99	146.20	31.81	-128.15	825.92	417.49	5,671.72	5,603.96	67.77	83.696		
12,100.00	7,059.09	7,450.52	7,460.61	148.98	31.84	-128.64	825.96	417.03	5,771.14	5,703.28	67.86	85.041		
12,200.00	7,058.81	7,457.16	7,467.23	151.77	31.87	-129.12	826.01	416.57	5,870.58	5,802.62	67.96	86.381		
12,300.00	7,058.52	7,443.00	7,453.11	154.55	31.81	-128.08	825.91	417.55	5,970.06	5,902.12	67.94	87.873		
12,400.00	7,058.24	7,443.00	7,453.11	157.34	31.81	-128.08	825.91	417.55	6,069.54	6,001.54	68.00	89.256		
12,500.00	7,057.96	7,443.00	7,453.11	160.14	31.81	-128.08	825.91	417.55	6,169.04	6,100.97	68.06	90.637		
12,600.00	7,057.67	7,443.00	7,453.11	162.93	31.81	-128.08	825.91	417.55	6,268.55	6,200.43	68.13	92.015		
12,700.00	7,057.39	7,443.00	7,453.11	165.73	31.81	-128.08	825.91	417.55	6,368.08	6,299.89	68.19	93.389		
12,800.00	7,057.10	7,443.00	7,453.11	168.53	31.81	-128.08	825.91	417.55	6,467.62	6,399.37	68.25	94.761		
12,900.00	7,056.82	7,443.00	7,453.11	171.33	31.81	-128.08	825.91	417.55	6,567.18	6,498.87	68.32	96.129		
13,000.00	7,056.53	7,443.00	7,453.11	174.13	31.81	-128.08	825.91	417.55	6,666.75	6,598.37	68.38	97.493		
13,100.00	7,056.25	7,443.00	7,453.11	176.94	31.81	-128.08	825.91	417.55	6,766.34	6,697.89	68.45	98.854		
13,200.00	7,055.96	7,443.00	7,453.11	179.74	31.81	-128.08	825.91	417.55	6,865.93	6,797.42	68.51	100.212		
13,300.00	7,055.68	7,443.00	7,453.11	182.55	31.81	-128.08	825.91	417.55	6,965.54	6,896.96	68.58	101.566		
13,400.00	7,055.39	7,443.00	7,453.11	185.36	31.81	-128.08	825.91	417.55	7,065.16	6,996.51	68.65	102.916		
13,500.00	7,055.11	7,443.00	7,453.11	188.17	31.81	-128.08	825.91	417.55	7,164.79	7,096.07	68.72	104.263		
13,600.00	7,054.82	7,443.00	7,453.11	190.98	31.81	-128.08	825.91	417.55	7,264.43	7,195.64	68.79	105.607		
13,700.00	7,054.54	7,443.00	7,453.11	193.80	31.81	-128.08	825.91	417.55	7,364.08	7,295.22	68.86	106.946		
13,800.00	7,054.25	7,443.00	7,453.11	196.61	31.81	-128.08	825.91	417.55	7,463.73	7,394.81	68.93	108.282		
13,900.00	7,053.97	7,443.00	7,453.11	199.43	31.81	-128.08	825.91	417.55	7,563.40	7,494.40	69.00	109.614		
14,000.00	7,053.68	7,443.00	7,453.11	202.25	31.81	-128.08	825.91	417.55	7,663.08	7,594.01	69.07	110.943		
14,100.00	7,053.40	7,443.00	7,453.11	205.06	31.81	-128.08	825.91	417.55	7,762.76	7,693.62	69.15	112.267		
14,200.00	7,053.11	7,443.00	7,453.11	207.88	31.81	-128.08	825.91	417.55	7,862.45	7,793.24	69.22	113.588		
14,300.00	7,052.83	7,443.00	7,453.11	210.70	31.81	-128.08	825.91	417.55	7,962.15	7,892.86	69.29	114.905		
14,400.00	7,052.54	7,443.00	7,453.11	213.53	31.81	-128.08	825.91	417.55	8,061.86	7,992.49	69.37	116.218		
14,500.00	7,052.26	7,443.00	7,453.11	216.35	31.81	-128.08	825.91	417.55	8,161.58	8,092.13	69.44	117.527		
14,600.00	7,051.98	7,443.00	7,453.11	219.17	31.81	-128.08	825.91	417.55	8,261.30	8,191.78	69.52	118.832		
14,700.00	7,051.69	7,443.00	7,453.11	222.00	31.81	-128.08	825.91	417.55	8,361.03	8,291.43	69.60	120.133		
14,800.00	7,051.41	7,443.00	7,453.11	224.82	31.81	-128.08	825.91	417.55	8,460.76	8,391.08	69.68	121.430		
14,900.00	7,051.12	7,443.00	7,453.11	227.65	31.81	-128.08	825.91	417.55	8,560.50	8,490.75	69.75	122.723		
14,942.37	7,051.00	7,443.00	7,453.11	228.85	31.81	-128.08	825.91	417.55	8,602.77	8,532.98	69.79	123.269		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	22.00	3.28	3.28	114.39	-235.34	519.01	570.29					
100.00	100.00	80.71	102.71	3.28	3.29	114.34	-234.77	519.05	569.68	563.11	6.57	86.711		
200.00	200.00	183.18	205.17	3.34	3.33	114.19	-233.17	518.98	568.98	562.31	6.67	85.312		
300.00	300.00	283.41	305.38	3.44	3.43	114.09	-231.88	518.51	568.02	561.14	6.88	82.584		
344.42	344.42	327.03	349.00	3.51	3.49	121.39	-231.37	518.30	567.80	560.80	7.00	81.095 CC, ES		
400.00	399.98	381.07	403.04	3.60	3.58	121.45	-230.73	518.19	568.16	560.97	7.18	79.120		
500.00	499.84	478.79	500.75	3.81	3.77	121.73	-229.57	518.35	570.56	562.99	7.57	75.371		
600.00	599.45	578.94	600.89	4.06	3.99	122.26	-228.23	518.80	575.03	566.99	8.04	71.525		
700.00	698.70	677.08	699.02	4.34	4.25	122.99	-226.68	519.32	581.44	572.87	8.57	67.854		
800.00	797.47	776.25	798.17	4.64	4.53	123.97	-225.29	519.97	590.10	580.95	9.16	64.447		
900.00	895.65	873.49	895.39	4.98	4.82	125.13	-223.65	520.74	600.90	591.11	9.79	61.403		
1,000.00	993.66	971.46	993.35	5.32	5.14	126.47	-222.19	521.64	612.75	602.30	10.45	58.621		
1,100.00	1,091.67	1,070.50	1,092.38	5.69	5.47	127.78	-220.75	522.46	624.87	613.72	11.15	56.020		
1,200.00	1,189.68	1,169.05	1,190.92	6.09	5.82	129.04	-219.25	523.19	637.19	625.31	11.88	53.635		
1,300.00	1,287.69	1,269.42	1,291.27	6.49	6.18	130.28	-217.84	523.72	649.69	637.05	12.63	51.423		
1,400.00	1,385.69	1,367.21	1,389.05	6.90	6.54	131.44	-216.23	524.08	662.21	648.82	13.40	49.434		
1,500.00	1,483.70	1,465.72	1,487.55	7.33	6.91	132.58	-214.82	524.50	675.17	660.99	14.17	47.632		
1,600.00	1,581.71	1,565.93	1,587.75	7.76	7.29	133.73	-213.63	524.49	688.18	673.21	14.97	45.961		
1,700.00	1,679.72	1,665.37	1,687.18	8.19	7.67	134.83	-212.32	524.25	701.19	685.41	15.78	44.437		
1,800.00	1,777.73	1,761.62	1,783.43	8.63	8.05	135.90	-211.44	523.72	714.46	697.89	16.58	43.095		
1,900.00	1,875.74	1,859.30	1,881.10	9.08	8.43	136.93	-210.64	523.51	728.30	710.90	17.39	41.875		
2,000.00	1,973.75	1,958.52	1,980.32	9.53	8.82	137.94	-209.70	523.24	742.23	724.01	18.22	40.737		
2,100.00	2,071.76	2,055.68	2,077.48	9.98	9.21	138.93	-209.18	522.58	756.35	737.31	19.04	39.720		
2,200.00	2,169.77	2,152.43	2,174.22	10.44	9.60	139.92	-209.16	521.76	770.93	751.06	19.87	38.804		
2,300.00	2,267.77	2,248.99	2,270.78	10.90	9.98	140.86	-209.14	521.09	785.84	765.14	20.69	37.973		
2,400.00	2,365.78	2,346.27	2,368.05	11.36	10.38	141.80	-209.47	520.39	801.19	779.66	21.53	37.215		
2,500.00	2,463.79	2,442.99	2,464.77	11.82	10.77	142.71	-209.94	519.51	816.72	794.36	22.36	36.522		
2,600.00	2,561.80	2,537.79	2,559.57	12.28	11.15	143.58	-210.74	518.84	832.84	809.66	23.19	35.919		
2,700.00	2,659.81	2,633.98	2,655.75	12.75	11.54	144.43	-211.72	518.28	849.37	825.35	24.02	35.361		
2,800.00	2,757.82	2,730.20	2,751.96	13.21	11.94	145.22	-212.68	518.10	866.32	841.46	24.86	34.855		
2,900.00	2,855.83	2,829.60	2,851.36	13.68	12.34	146.03	-213.83	517.75	883.45	857.73	25.71	34.359		
3,000.00	2,953.84	2,930.97	2,952.72	14.15	12.76	146.82	-214.65	517.20	900.35	873.76	26.58	33.868		
3,100.00	3,051.85	3,030.55	3,052.30	14.62	13.17	147.55	-215.22	516.64	917.22	889.78	27.45	33.418		
3,200.00	3,149.85	3,131.91	3,153.66	15.09	13.59	148.27	-215.45	515.89	933.85	905.53	28.32	32.971		
3,300.00	3,247.86	3,229.80	3,251.54	15.56	14.00	148.94	-215.62	515.05	950.50	921.32	29.18	32.573		
3,400.00	3,345.87	3,326.36	3,348.10	16.04	14.40	149.58	-215.80	514.24	967.30	937.27	30.03	32.212		
3,500.00	3,443.88	3,420.46	3,442.20	16.51	14.79	150.16	-216.03	513.96	984.57	953.71	30.86	31.902		
3,600.00	3,541.89	3,518.48	3,540.21	16.98	15.20	150.74	-216.36	513.79	1,002.10	970.37	31.72	31.588		
3,700.00	3,639.90	3,616.46	3,638.20	17.46	15.61	151.32	-216.79	513.47	1,019.72	987.13	32.59	31.293		
3,800.00	3,737.91	3,714.41	3,736.15	17.93	16.02	151.88	-217.32	513.01	1,037.43	1,003.98	33.45	31.016		
3,900.00	3,835.92	3,812.33	3,834.06	18.41	16.43	152.43	-217.94	512.41	1,055.23	1,020.92	34.31	30.755		
4,000.00	3,933.93	3,910.21	3,931.93	18.88	16.84	152.97	-218.66	511.67	1,073.13	1,037.95	35.17	30.509		
4,100.00	4,031.93	4,008.06	4,029.77	19.36	17.25	153.51	-219.47	510.78	1,091.12	1,055.08	36.04	30.277		
4,200.00	4,129.94	4,105.87	4,127.57	19.84	17.66	154.03	-220.38	509.75	1,109.20	1,072.30	36.90	30.058		
4,300.00	4,227.95	4,203.64	4,225.34	20.31	18.08	154.55	-221.38	508.58	1,127.38	1,089.61	37.77	29.851		
4,400.00	4,325.96	4,300.26	4,321.94	20.79	18.48	155.04	-222.40	507.50	1,145.70	1,107.07	38.62	29.664		
4,500.00	4,423.97	4,397.16	4,418.83	21.27	18.89	155.51	-223.31	506.75	1,164.19	1,124.71	39.48	29.488		
4,600.00	4,521.98	4,503.46	4,525.13	21.75	19.34	155.98	-223.85	506.06	1,182.45	1,142.04	40.41	29.264		
4,700.00	4,619.99	4,601.27	4,622.93	22.23	19.75	156.40	-224.04	505.27	1,200.43	1,159.16	41.27	29.085		
4,800.00	4,718.00	4,698.33	4,719.99	22.70	20.16	156.80	-224.20	504.61	1,218.51	1,176.38	42.14	28.919		
4,900.00	4,816.01	4,792.26	4,813.92	23.18	20.56	157.17	-224.42	504.22	1,236.84	1,193.87	42.97	28.781		
5,000.00	4,914.01	4,894.69	4,916.35	23.66	20.99	157.55	-224.57	504.00	1,255.24	1,211.37	43.88	28.609		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,012.02	4,996.61	5,018.27	24.14	21.42	157.91	-224.33	503.72	1,273.33	1,228.56	44.77	28.439		
5,200.00	5,110.03	5,092.76	5,114.43	24.62	21.82	158.24	-224.10	503.28	1,291.39	1,245.75	45.63	28.300		
5,300.00	5,208.04	5,192.05	5,213.71	25.10	22.25	158.58	-223.92	502.83	1,309.53	1,263.01	46.51	28.154		
5,400.00	5,306.05	5,292.06	5,313.71	25.58	22.67	158.92	-223.72	502.15	1,327.58	1,280.19	47.40	28.009		
5,500.00	5,404.06	5,387.92	5,409.57	26.06	23.07	159.26	-223.69	501.16	1,345.68	1,297.43	48.26	27.887		
5,600.00	5,502.07	5,485.60	5,507.24	26.54	23.49	159.59	-223.78	500.18	1,363.94	1,314.81	49.13	27.765		
5,700.00	5,600.08	5,581.12	5,602.76	27.02	23.89	159.89	-223.81	499.49	1,382.31	1,332.33	49.98	27.658		
5,800.00	5,698.09	5,674.53	5,696.18	27.50	24.29	160.18	-224.02	498.98	1,400.98	1,350.16	50.82	27.569		
5,900.00	5,796.09	5,770.93	5,792.57	27.98	24.70	160.48	-224.54	498.43	1,419.94	1,368.26	51.68	27.477		
6,000.00	5,894.10	5,872.49	5,894.12	28.46	25.13	160.78	-224.98	497.92	1,438.87	1,386.30	52.58	27.367		
6,100.00	5,992.11	5,974.21	5,995.84	28.94	25.56	161.06	-225.01	497.52	1,457.54	1,404.06	53.48	27.255		
6,200.00	6,090.12	6,070.94	6,092.58	29.42	25.97	161.33	-225.06	496.87	1,476.13	1,421.78	54.34	27.164		
6,300.00	6,188.13	6,168.05	6,189.68	29.90	26.38	161.60	-225.29	496.13	1,494.88	1,439.67	55.21	27.077		
6,400.00	6,286.14	6,266.11	6,287.74	30.38	26.80	161.86	-225.44	495.57	1,513.67	1,457.58	56.08	26.989		
6,500.00	6,384.15	6,364.09	6,385.72	30.87	27.22	162.10	-225.46	495.28	1,532.48	1,475.52	56.96	26.905		
6,600.00	6,482.15	6,461.97	6,483.60	31.35	27.63	171.14	-225.47	495.04	1,551.45	1,493.62	57.83	26.827		
6,700.00	6,579.21	6,558.94	6,580.57	31.83	28.05	-156.00	-225.48	494.81	1,574.63	1,515.93	58.70	26.824 SF		
6,800.00	6,673.04	6,652.70	6,674.33	32.30	28.45	-139.55	-225.48	494.61	1,603.66	1,544.11	59.55	26.931		
6,900.00	6,761.33	6,740.95	6,762.58	32.74	28.82	-130.21	-225.49	494.44	1,638.28	1,577.93	60.35	27.144		
7,000.00	6,841.90	6,821.50	6,843.12	33.17	29.16	-123.72	-225.50	494.30	1,678.37	1,617.25	61.11	27.464		
7,100.00	6,912.77	6,892.36	6,913.98	33.60	29.47	-118.33	-225.50	494.18	1,723.78	1,661.97	61.81	27.887		
7,200.00	6,972.19	6,951.78	6,973.41	34.09	29.72	-113.15	-225.50	494.10	1,774.31	1,711.85	62.47	28.405		
7,300.00	7,018.70	6,998.32	7,019.95	34.73	29.92	-107.64	-225.51	494.03	1,829.51	1,766.45	63.07	29.009		
7,400.00	7,051.15	7,030.82	7,052.45	35.55	30.06	-101.53	-225.51	493.99	1,888.67	1,825.05	63.62	29.688		
7,500.00	7,068.75	7,048.50	7,070.13	36.56	30.13	-94.74	-225.51	493.97	1,950.75	1,886.65	64.10	30.431		
7,600.00	7,071.91	7,051.77	7,073.39	37.71	30.14	-89.92	-225.51	493.97	2,014.57	1,950.05	64.52	31.225		
7,700.00	7,071.62	7,051.60	7,073.23	39.03	30.14	-89.91	-225.51	493.97	2,080.79	2,015.84	64.95	32.036		
7,800.00	7,071.34	7,051.43	7,073.06	40.51	30.14	-89.90	-225.51	493.97	2,149.62	2,084.21	65.41	32.863		
7,900.00	7,071.05	7,051.27	7,072.90	42.14	30.14	-89.90	-225.51	493.97	2,220.83	2,154.94	65.89	33.707		
8,000.00	7,070.77	7,051.10	7,072.73	43.89	30.14	-89.89	-225.51	493.97	2,294.18	2,227.82	66.37	34.567		
8,100.00	7,070.48	7,050.94	7,072.56	45.76	30.14	-89.89	-225.51	493.97	2,369.49	2,302.64	66.85	35.446		
8,200.00	7,070.20	7,050.77	7,072.40	47.72	30.14	-89.88	-225.51	493.97	2,446.57	2,379.24	67.32	36.341		
8,300.00	7,069.92	7,050.60	7,072.23	49.78	30.14	-89.87	-225.51	493.97	2,525.25	2,457.46	67.79	37.253		
8,400.00	7,069.63	7,050.44	7,072.07	51.90	30.14	-89.87	-225.51	493.97	2,605.39	2,537.16	68.24	38.182		
8,500.00	7,069.35	7,050.27	7,071.90	54.10	30.14	-89.86	-225.51	493.97	2,686.87	2,618.20	68.67	39.126		
8,600.00	7,069.06	7,050.11	7,071.74	56.36	30.14	-89.85	-225.51	493.97	2,769.56	2,700.47	69.09	40.085		
8,700.00	7,068.78	7,049.94	7,071.57	58.66	30.14	-89.85	-225.51	493.97	2,853.36	2,783.87	69.50	41.058		
8,800.00	7,068.49	7,049.78	7,071.40	61.02	30.14	-89.84	-225.51	493.97	2,938.18	2,868.29	69.88	42.044		
8,900.00	7,068.21	7,049.61	7,071.24	63.42	30.14	-89.84	-225.51	493.97	3,023.92	2,953.66	70.26	43.042		
9,000.00	7,067.92	7,049.45	7,071.07	65.85	30.13	-89.83	-225.51	493.97	3,110.51	3,039.90	70.61	44.051		
9,100.00	7,067.64	7,049.28	7,070.91	68.32	30.13	-89.82	-225.51	493.97	3,197.89	3,126.93	70.95	45.072		
9,200.00	7,067.35	7,049.12	7,070.74	70.81	30.13	-89.82	-225.51	493.97	3,285.98	3,214.70	71.28	46.101		
9,300.00	7,067.07	7,048.95	7,070.58	73.34	30.13	-89.81	-225.51	493.97	3,374.74	3,303.15	71.59	47.141		
9,400.00	7,066.78	7,048.79	7,070.41	75.88	30.13	-89.81	-225.51	493.97	3,464.11	3,392.22	71.89	48.188		
9,500.00	7,066.50	7,048.62	7,070.25	78.45	30.13	-89.80	-225.51	493.97	3,554.05	3,481.88	72.17	49.243		
9,600.00	7,066.21	7,048.46	7,070.08	81.04	30.13	-89.79	-225.51	493.97	3,644.51	3,572.07	72.45	50.306		
9,700.00	7,065.93	7,048.29	7,069.92	83.64	30.13	-89.79	-225.51	493.97	3,735.46	3,662.75	72.71	51.375		
9,800.00	7,065.64	7,048.13	7,069.75	86.26	30.13	-89.78	-225.51	493.97	3,826.86	3,753.90	72.96	52.450		
9,900.00	7,065.36	7,047.96	7,069.59	88.90	30.13	-89.77	-225.51	493.97	3,918.68	3,845.48	73.20	53.531		
10,000.00	7,065.07	7,047.80	7,069.43	91.55	30.13	-89.77	-225.51	493.97	4,010.89	3,937.46	73.44	54.617		
10,100.00	7,064.79	7,047.63	7,069.26	94.21	30.13	-89.76	-225.51	493.97	4,103.47	4,029.81	73.66	55.708		
10,200.00	7,064.50	7,047.47	7,069.10	96.88	30.13	-89.76	-225.51	493.97	4,196.39	4,122.51	73.88	56.804		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,064.22	7,047.30	7,068.93	99.57	30.13	-89.75	-225.51	493.97	4,289.62	4,215.54	74.08	57.903		
10,400.00	7,063.94	7,047.14	7,068.77	102.26	30.12	-89.74	-225.51	493.97	4,383.16	4,308.87	74.28	59.006		
10,500.00	7,063.65	7,046.98	7,068.60	104.96	30.12	-89.74	-225.51	493.97	4,476.97	4,402.49	74.48	60.112		
10,600.00	7,063.37	7,046.81	7,068.44	107.67	30.12	-89.73	-225.51	493.97	4,571.05	4,496.38	74.66	61.222		
10,700.00	7,063.08	7,046.65	7,068.27	110.39	30.12	-89.73	-225.51	493.97	4,665.37	4,590.52	74.84	62.334		
10,800.00	7,062.80	7,046.48	7,068.11	113.11	30.12	-89.72	-225.51	493.97	4,759.92	4,684.90	75.02	63.449		
10,900.00	7,062.51	7,046.32	7,067.95	115.84	30.12	-89.71	-225.51	493.97	4,854.69	4,779.50	75.19	64.566		
11,000.00	7,062.23	7,046.16	7,067.78	118.58	30.12	-89.71	-225.51	493.97	4,949.67	4,874.32	75.35	65.685		
11,100.00	7,061.94	7,045.99	7,067.62	121.32	30.12	-89.70	-225.51	493.97	5,044.84	4,969.33	75.52	66.806		
11,200.00	7,061.66	7,045.83	7,067.46	124.07	30.12	-89.69	-225.51	493.97	5,140.20	5,064.53	75.67	67.928		
11,300.00	7,061.37	7,045.66	7,067.29	126.82	30.12	-89.69	-225.51	493.97	5,235.73	5,159.90	75.82	69.052		
11,400.00	7,061.09	7,045.50	7,067.13	129.58	30.12	-89.68	-225.51	493.97	5,331.42	5,255.45	75.97	70.177		
11,500.00	7,060.80	7,045.34	7,066.96	132.34	30.12	-89.68	-225.51	493.97	5,427.27	5,351.15	76.12	71.303		
11,600.00	7,060.52	7,045.17	7,066.80	135.10	30.12	-89.67	-225.51	493.97	5,523.26	5,447.01	76.26	72.430		
11,700.00	7,060.23	7,045.01	7,066.64	137.87	30.12	-89.66	-225.51	493.97	5,619.40	5,543.00	76.39	73.558		
11,800.00	7,059.95	7,044.85	7,066.47	140.64	30.12	-89.66	-225.51	493.97	5,715.67	5,639.14	76.53	74.687		
11,900.00	7,059.66	7,044.68	7,066.31	143.42	30.11	-89.65	-225.51	493.97	5,812.06	5,735.40	76.66	75.816		
12,000.00	7,059.38	7,044.52	7,066.15	146.20	30.11	-89.65	-225.51	493.98	5,908.57	5,831.78	76.79	76.945		
12,100.00	7,059.09	7,044.36	7,065.98	148.98	30.11	-89.64	-225.51	493.98	6,005.20	5,928.28	76.92	78.075		
12,200.00	7,058.81	7,044.19	7,065.82	151.77	30.11	-89.63	-225.51	493.98	6,101.94	6,024.90	77.04	79.205		
12,300.00	7,058.52	7,044.03	7,065.66	154.55	30.11	-89.63	-225.51	493.98	6,198.78	6,121.61	77.16	80.335		
12,400.00	7,058.24	7,043.87	7,065.50	157.34	30.11	-89.62	-225.51	493.98	6,295.71	6,218.43	77.28	81.464		
12,500.00	7,057.96	7,043.71	7,065.33	160.14	30.11	-89.62	-225.51	493.98	6,392.75	6,315.35	77.40	82.594		
12,600.00	7,057.67	7,043.54	7,065.17	162.93	30.11	-89.61	-225.51	493.98	6,489.87	6,412.35	77.52	83.723		
12,700.00	7,057.39	7,043.38	7,065.01	165.73	30.11	-89.60	-225.51	493.98	6,587.08	6,509.45	77.63	84.852		
12,800.00	7,057.10	7,043.22	7,064.84	168.53	30.11	-89.60	-225.51	493.98	6,684.37	6,606.63	77.74	85.980		
12,900.00	7,056.82	7,043.05	7,064.68	171.33	30.11	-89.59	-225.51	493.98	6,781.74	6,703.89	77.85	87.108		
13,000.00	7,056.53	7,042.89	7,064.52	174.13	30.11	-89.59	-225.51	493.98	6,879.19	6,801.22	77.96	88.235		
13,100.00	7,056.25	7,042.73	7,064.36	176.94	30.11	-89.58	-225.51	493.98	6,976.70	6,898.63	78.07	89.362		
13,200.00	7,055.96	7,042.57	7,064.19	179.74	30.11	-89.57	-225.51	493.98	7,074.29	6,996.11	78.18	90.488		
13,300.00	7,055.68	7,042.40	7,064.03	182.55	30.10	-89.57	-225.51	493.98	7,171.94	7,093.66	78.29	91.612		
13,400.00	7,055.39	7,042.24	7,063.87	185.36	30.10	-89.56	-225.51	493.98	7,269.66	7,191.27	78.39	92.736		
13,500.00	7,055.11	7,042.08	7,063.71	188.17	30.10	-89.55	-225.51	493.98	7,367.44	7,288.95	78.49	93.859		
13,600.00	7,054.82	7,041.92	7,063.55	190.98	30.10	-89.55	-225.51	493.98	7,465.28	7,386.68	78.60	94.981		
13,700.00	7,054.54	7,041.76	7,063.38	193.80	30.10	-89.54	-225.51	493.98	7,563.17	7,484.47	78.70	96.102		
13,800.00	7,054.25	7,041.59	7,063.22	196.61	30.10	-89.54	-225.51	493.98	7,661.12	7,582.32	78.80	97.222		
13,900.00	7,053.97	7,041.43	7,063.06	199.43	30.10	-89.53	-225.51	493.98	7,759.12	7,680.22	78.90	98.340		
14,000.00	7,053.68	7,041.27	7,062.90	202.25	30.10	-89.52	-225.51	493.98	7,857.17	7,778.17	79.00	99.457		
14,100.00	7,053.40	7,041.11	7,062.74	205.06	30.10	-89.52	-225.51	493.98	7,955.27	7,876.17	79.10	100.573		
14,200.00	7,053.11	7,040.95	7,062.57	207.88	30.10	-89.51	-225.51	493.98	8,053.42	7,974.22	79.20	101.688		
14,300.00	7,052.83	7,040.79	7,062.41	210.70	30.10	-89.51	-225.51	493.98	8,151.61	8,072.32	79.30	102.801		
14,400.00	7,052.54	7,040.62	7,062.25	213.53	30.10	-89.50	-225.51	493.98	8,249.85	8,170.45	79.39	103.912		
14,500.00	7,052.26	7,040.46	7,062.09	216.35	30.10	-89.49	-225.51	493.98	8,348.12	8,268.63	79.49	105.023		
14,600.00	7,051.98	7,040.30	7,061.93	219.17	30.10	-89.49	-225.51	493.98	8,446.44	8,366.85	79.59	106.131		
14,700.00	7,051.69	7,040.14	7,061.77	222.00	30.10	-89.48	-225.51	493.98	8,544.80	8,465.12	79.68	107.238		
14,800.00	7,051.41	7,039.98	7,061.61	224.82	30.09	-89.48	-225.51	493.98	8,643.19	8,563.41	79.78	108.343		
14,900.00	7,051.12	7,039.82	7,061.44	227.65	30.09	-89.47	-225.51	493.98	8,741.62	8,661.75	79.87	109.447		
14,942.37	7,051.00	7,039.75	7,061.38	228.85	30.09	-89.47	-225.51	493.98	8,783.34	8,703.43	79.91	109.914		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2.00	3.28	3.28	10.68	1,290.37	243.36	1,313.12					
100.00	100.00	105.75	107.75	3.28	3.29	10.69	1,290.04	243.42	1,312.83	1,306.26	6.57	199.729		
200.00	200.00	210.83	212.82	3.34	3.34	10.70	1,289.15	243.50	1,312.01	1,305.33	6.67	196.617		
300.00	300.00	313.43	315.42	3.44	3.45	10.70	1,288.03	243.41	1,310.92	1,304.03	6.89	190.232		
400.00	399.98	407.30	409.28	3.60	3.59	18.04	1,287.11	243.25	1,308.27	1,301.07	7.20	181.793		
500.00	499.84	503.25	505.23	3.81	3.78	18.13	1,286.66	242.85	1,302.75	1,295.16	7.59	171.606		
600.00	599.45	608.93	610.91	4.06	4.03	18.30	1,286.07	242.48	1,293.86	1,285.77	8.09	159.988		
700.00	698.70	705.47	707.44	4.34	4.29	18.53	1,285.43	241.87	1,281.52	1,272.90	8.62	148.590		
800.00	797.47	803.62	805.59	4.64	4.58	18.81	1,285.02	240.82	1,266.07	1,256.85	9.22	137.346		
900.00	895.65	905.55	907.51	4.98	4.90	19.14	1,284.33	239.66	1,247.24	1,237.37	9.87	126.333		
1,000.00	993.66	994.90	996.85	5.32	5.19	19.37	1,283.92	238.46	1,227.76	1,217.25	10.51	116.811		
1,100.00	1,091.67	1,076.78	1,078.69	5.69	5.47	19.51	1,284.75	236.20	1,209.41	1,198.26	11.15	108.459		
1,200.00	1,189.68	1,161.53	1,163.32	6.09	5.76	19.58	1,286.98	232.28	1,192.26	1,180.44	11.82	100.836		
1,300.00	1,287.69	1,242.14	1,243.68	6.49	6.05	19.55	1,290.54	227.02	1,176.45	1,163.94	12.51	94.068		
1,400.00	1,385.69	1,333.97	1,334.97	6.90	6.39	19.40	1,296.09	218.89	1,161.72	1,148.47	13.25	87.675		
1,500.00	1,483.70	1,420.17	1,420.41	7.33	6.72	19.15	1,302.39	209.27	1,147.80	1,133.80	14.00	81.995		
1,600.00	1,581.71	1,512.30	1,511.49	7.76	7.09	18.81	1,310.21	197.93	1,134.83	1,120.04	14.79	76.729		
1,700.00	1,679.72	1,610.31	1,608.33	8.19	7.51	18.41	1,318.91	185.53	1,122.22	1,106.60	15.63	71.822		
1,800.00	1,777.73	1,722.27	1,718.97	8.63	8.00	17.96	1,328.30	171.27	1,109.19	1,092.66	16.53	67.089		
1,900.00	1,875.74	1,821.29	1,816.94	9.08	8.44	17.56	1,335.87	158.96	1,095.54	1,078.13	17.40	62.949		
2,000.00	1,973.75	1,933.81	1,928.35	9.53	8.86	17.12	1,343.60	145.20	1,081.20	1,062.86	18.34	58.962		
2,100.00	2,071.76	2,033.41	2,027.05	9.98	9.41	16.75	1,349.65	133.38	1,066.19	1,046.96	19.23	55.449		
2,200.00	2,169.77	2,123.15	2,115.97	10.44	9.83	16.40	1,355.55	122.74	1,051.73	1,031.64	20.09	52.354		
2,300.00	2,267.77	2,215.08	2,206.95	10.90	10.27	16.01	1,362.42	111.52	1,038.13	1,017.17	20.97	49.516		
2,400.00	2,365.78	2,315.09	2,305.95	11.36	10.75	15.59	1,369.93	99.53	1,024.67	1,002.78	21.88	46.830		
2,500.00	2,463.79	2,407.69	2,397.62	11.82	11.20	15.20	1,377.29	88.70	1,011.71	988.95	22.77	44.435		
2,600.00	2,561.80	2,507.30	2,496.29	12.28	11.68	14.79	1,385.21	77.48	998.88	975.19	23.69	42.169		
2,700.00	2,659.81	2,603.18	2,591.23	12.75	12.14	14.39	1,393.20	66.77	986.47	961.87	24.59	40.111		
2,800.00	2,757.82	2,708.65	2,695.70	13.21	12.66	13.94	1,401.54	54.96	973.70	948.16	25.54	38.122		
2,900.00	2,855.83	2,807.44	2,793.53	13.68	13.15	13.49	1,409.10	43.48	960.69	934.22	26.47	36.296		
3,000.00	2,953.84	2,903.52	2,888.59	14.15	13.63	13.00	1,416.70	31.77	947.95	920.56	27.39	34.609		
3,100.00	3,051.85	3,004.96	2,988.92	14.62	14.14	12.46	1,424.91	19.23	935.45	907.11	28.34	33.014		
3,200.00	3,149.85	3,105.74	3,088.69	15.09	14.64	11.94	1,432.45	7.23	922.45	893.17	29.28	31.508		
3,300.00	3,247.86	3,202.65	3,184.62	15.56	15.13	11.42	1,439.92	-4.36	909.74	879.54	30.21	30.118		
3,400.00	3,345.87	3,313.27	3,294.09	16.04	15.69	10.78	1,448.07	-18.06	896.80	865.61	31.18	28.757		
3,500.00	3,443.88	3,417.35	3,397.28	16.51	16.21	10.22	1,454.30	-30.13	882.57	850.43	32.13	27.465		
3,600.00	3,541.89	3,515.43	3,494.61	16.98	16.69	9.72	1,459.99	-40.74	868.27	835.21	33.06	26.264		
3,700.00	3,639.90	3,604.16	3,582.73	17.46	17.13	9.32	1,465.62	-49.45	854.61	820.66	33.95	25.171		
3,800.00	3,737.91	3,696.01	3,673.86	17.93	17.58	8.88	1,472.48	-58.60	842.10	807.25	34.85	24.161		
3,900.00	3,835.92	3,796.86	3,773.91	18.41	18.08	8.39	1,480.38	-68.53	830.02	794.24	35.78	23.195		
4,000.00	3,933.93	3,886.74	3,863.08	18.88	18.52	7.96	1,487.60	-77.15	818.22	781.54	36.68	22.310		
4,100.00	4,031.93	3,983.95	3,959.46	19.36	19.00	7.48	1,496.33	-86.40	807.39	769.79	37.59	21.477		
4,200.00	4,129.94	4,079.43	4,054.01	19.84	19.49	6.93	1,505.04	-96.41	796.79	758.28	38.51	20.692		
4,300.00	4,227.95	4,175.45	4,149.01	20.31	19.98	6.34	1,514.28	-106.87	786.77	747.34	39.43	19.956		
4,400.00	4,325.96	4,287.72	4,260.19	20.79	20.55	5.66	1,524.52	-118.65	776.34	735.94	40.40	19.216		
4,500.00	4,423.97	4,393.43	4,365.03	21.27	21.08	5.02	1,532.66	-129.50	764.57	723.23	41.34	18.493		
4,600.00	4,521.98	4,501.56	4,472.36	21.75	21.61	4.35	1,539.99	-140.36	751.97	709.69	42.28	17.784		
4,700.00	4,619.99	4,615.43	4,585.64	22.23	22.16	3.72	1,545.70	-150.37	737.59	694.38	43.21	17.068		
4,800.00	4,718.00	4,722.60	4,692.34	22.70	22.66	3.10	1,549.40	-159.66	721.76	677.64	44.12	16.359		
4,900.00	4,816.01	4,828.16	4,797.51	23.18	23.15	2.50	1,551.98	-168.30	704.97	659.96	45.01	15.662		
5,000.00	4,914.01	4,929.02	4,898.15	23.66	23.60	2.04	1,553.81	-174.84	687.47	641.57	45.90	14.978		
5,100.00	5,012.02	5,031.71	5,000.73	24.14	24.04	1.74	1,555.51	-179.21	669.64	622.88	46.76	14.320		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,110.03	5,134.54	5,103.52	24.62	24.46	1.57	1,556.63	-181.79	651.11	603.49	47.62	13.673		
5,300.00	5,208.04	5,231.88	5,200.83	25.10	24.86	1.42	1,557.43	-184.04	632.28	583.79	48.49	13.040		
5,400.00	5,306.05	5,333.24	5,302.16	25.58	25.28	1.28	1,558.13	-186.13	613.32	563.98	49.34	12.430		
5,500.00	5,404.06	5,430.63	5,399.53	26.06	25.68	1.13	1,558.63	-188.10	594.18	543.97	50.21	11.834		
5,600.00	5,502.07	5,533.69	5,502.57	26.54	26.09	0.99	1,558.73	-189.90	574.61	523.56	51.04	11.257		
5,700.00	5,600.08	5,631.46	5,600.33	27.02	26.49	0.86	1,558.43	-191.51	554.64	502.73	51.91	10.685		
5,800.00	5,698.09	5,726.50	5,695.36	27.50	26.87	0.70	1,558.52	-193.25	535.07	482.28	52.79	10.136		
5,900.00	5,796.09	5,825.79	5,794.63	27.98	27.28	0.53	1,558.65	-195.03	515.56	461.91	53.65	9.610		
6,000.00	5,894.10	5,923.03	5,891.85	28.46	27.68	0.36	1,558.87	-196.71	496.12	441.60	54.52	9.100		
6,100.00	5,992.11	6,023.01	5,991.82	28.94	28.09	0.15	1,558.89	-198.56	476.51	421.14	55.37	8.606		
6,200.00	6,090.12	6,122.39	6,091.18	29.42	28.49	-0.07	1,558.59	-200.26	456.57	400.35	56.22	8.122		
6,300.00	6,188.13	6,221.11	6,189.90	29.90	28.89	-0.20	1,558.11	-201.20	436.36	379.30	57.07	7.647		
6,400.00	6,286.14	6,319.26	6,288.05	30.38	29.28	-0.36	1,557.58	-202.18	416.11	358.19	57.92	7.184		
6,500.00	6,384.15	6,426.26	6,395.03	30.87	29.70	-0.53	1,556.42	-203.01	395.36	336.73	58.63	6.743		
6,600.00	6,482.15	6,600.10	6,567.15	31.35	30.30	8.26	1,534.61	-203.16	363.82	307.05	56.76	6.409		
6,700.00	6,579.21	6,765.09	6,721.49	31.83	30.76	47.06	1,477.52	-205.81	310.93	259.55	51.38	6.052		
6,800.00	6,673.04	6,876.70	6,815.78	32.30	30.99	79.32	1,418.01	-206.19	242.23	195.65	46.58	5.201		
6,900.00	6,761.33	6,948.65	6,872.40	32.74	31.11	109.62	1,373.61	-206.02	176.50	130.54	45.97	3.840		
7,000.00	6,841.90	7,005.92	6,915.52	33.17	31.20	135.37	1,335.94	-206.05	140.19	86.38	53.81	2.605		
7,012.19	6,851.10	7,011.94	6,919.93	33.22	31.21	137.98	1,331.84	-206.02	139.67	84.30	55.37	2.523 CC, ES, SF		
7,100.00	6,912.77	7,050.26	6,947.26	33.60	31.27	153.75	1,304.99	-205.80	165.33	102.21	63.12	2.619		
7,200.00	6,972.19	7,081.02	6,968.29	34.09	31.31	166.28	1,282.55	-205.42	237.70	173.61	64.08	3.709		
7,300.00	7,018.70	7,103.73	6,983.42	34.73	31.34	178.88	1,265.62	-205.07	328.79	265.34	63.45	5.182		
7,400.00	7,051.15	7,119.14	6,993.55	35.55	31.36	-155.77	1,254.00	-204.83	426.50	363.32	63.17	6.751		
7,500.00	7,068.75	7,127.14	6,998.76	36.56	31.37	-67.98	1,247.94	-204.72	526.07	462.83	63.24	8.319		
7,600.00	7,071.91	7,127.90	6,999.26	37.71	31.38	-36.87	1,247.36	-204.71	625.17	561.71	63.46	9.851		
7,700.00	7,071.62	7,126.91	6,998.61	39.03	31.37	-36.26	1,248.12	-204.72	724.21	660.56	63.66	11.377		
7,800.00	7,071.34	7,125.89	6,997.95	40.51	31.37	-35.64	1,248.88	-204.74	823.48	759.69	63.80	12.908		
7,900.00	7,071.05	7,124.86	6,997.28	42.14	31.37	-35.01	1,249.67	-204.75	922.91	859.01	63.90	14.443		
8,000.00	7,070.77	7,123.79	6,996.58	43.89	31.37	-34.36	1,250.48	-204.77	1,022.45	958.47	63.98	15.980		
8,100.00	7,070.48	7,122.70	6,995.87	45.76	31.37	-33.69	1,251.31	-204.78	1,122.07	1,058.02	64.05	17.519		
8,200.00	7,070.20	7,121.57	6,995.14	47.72	31.37	-33.01	1,252.16	-204.80	1,221.75	1,157.64	64.11	19.058		
8,300.00	7,069.92	7,120.42	6,994.39	49.78	31.36	-32.31	1,253.04	-204.81	1,321.47	1,257.32	64.16	20.597		
8,400.00	7,069.63	7,119.23	6,993.61	51.90	31.36	-31.59	1,253.93	-204.83	1,421.24	1,357.04	64.20	22.137		
8,500.00	7,069.35	7,118.02	6,992.81	54.10	31.36	-30.86	1,254.86	-204.85	1,521.03	1,456.79	64.24	23.676		
8,600.00	7,069.06	7,116.76	6,991.99	56.36	31.36	-30.11	1,255.80	-204.87	1,620.85	1,556.57	64.28	25.215		
8,700.00	7,068.78	7,115.47	6,991.15	58.66	31.36	-29.35	1,256.78	-204.89	1,720.69	1,656.38	64.32	26.753		
8,800.00	7,068.49	7,114.15	6,990.28	61.02	31.36	-28.56	1,257.78	-204.91	1,820.55	1,756.20	64.35	28.290		
8,900.00	7,068.21	7,112.78	6,989.39	63.42	31.35	-27.76	1,258.81	-204.93	1,920.42	1,856.03	64.39	29.827		
9,000.00	7,067.92	7,111.38	6,988.46	65.85	31.35	-26.94	1,259.87	-204.95	2,020.30	1,955.88	64.42	31.362		
9,100.00	7,067.64	7,109.93	6,987.51	68.32	31.35	-26.10	1,260.96	-204.97	2,120.20	2,055.74	64.45	32.896		
9,200.00	7,067.35	7,108.44	6,986.53	70.81	31.35	-25.25	1,262.08	-204.99	2,220.10	2,155.61	64.48	34.429		
9,300.00	7,067.07	7,107.20	6,985.71	73.34	31.35	-24.54	1,263.01	-205.01	2,320.01	2,255.49	64.52	35.960		
9,400.00	7,066.78	7,106.08	6,984.98	75.88	31.35	-23.91	1,263.85	-205.03	2,419.92	2,355.37	64.55	37.489		
9,500.00	7,066.50	7,104.97	6,984.24	78.45	31.34	-23.28	1,264.69	-205.05	2,519.85	2,455.26	64.59	39.016		
9,600.00	7,066.21	7,103.85	6,983.50	81.04	31.34	-22.66	1,265.53	-205.07	2,619.77	2,555.15	64.62	40.541		
9,700.00	7,065.93	7,102.74	6,982.77	83.64	31.34	-22.04	1,266.36	-205.08	2,719.71	2,655.05	64.66	42.065		
9,800.00	7,065.64	7,101.62	6,982.03	86.26	31.34	-21.43	1,267.20	-205.10	2,819.64	2,754.95	64.69	43.586		
9,900.00	7,065.36	7,100.51	6,981.29	88.90	31.34	-20.83	1,268.03	-205.12	2,919.58	2,854.86	64.73	45.106		
10,000.00	7,065.07	7,099.40	6,980.55	91.55	31.34	-20.23	1,268.87	-205.14	3,019.53	2,954.77	64.76	46.624		
10,100.00	7,064.79	7,098.28	6,979.82	94.21	31.33	-19.63	1,269.70	-205.15	3,119.48	3,054.68	64.80	48.139		
10,200.00	7,064.50	7,097.17	6,979.08	96.88	31.33	-19.04	1,270.53	-205.17	3,219.43	3,154.59	64.84	49.652		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
10,300.00	7,064.22	7,096.06	6,978.34	99.57	31.33	-18.46	1,271.36	-205.19	3,319.38	3,254.50	64.88	51.163	
10,400.00	7,063.94	7,094.95	6,977.61	102.26	31.33	-17.88	1,272.19	-205.21	3,419.34	3,354.42	64.92	52.671	
10,500.00	7,063.65	7,093.85	6,976.87	104.96	31.33	-17.30	1,273.01	-205.22	3,519.29	3,454.33	64.96	54.177	
10,600.00	7,063.37	7,092.74	6,976.13	107.67	31.33	-16.74	1,273.84	-205.24	3,619.25	3,554.25	65.00	55.681	
10,700.00	7,063.08	7,091.63	6,975.39	110.39	31.32	-16.18	1,274.66	-205.26	3,719.21	3,654.17	65.04	57.182	
10,800.00	7,062.80	7,090.53	6,974.66	113.11	31.32	-15.62	1,275.49	-205.27	3,819.18	3,754.09	65.08	58.680	
10,900.00	7,062.51	7,089.42	6,973.92	115.84	31.32	-15.07	1,276.31	-205.29	3,919.14	3,854.01	65.13	60.175	
11,000.00	7,062.23	7,088.32	6,973.18	118.58	31.32	-14.53	1,277.13	-205.31	4,019.11	3,953.93	65.17	61.668	
11,100.00	7,061.94	7,087.22	6,972.45	121.32	31.32	-13.99	1,277.95	-205.33	4,119.07	4,053.86	65.22	63.158	
11,200.00	7,061.66	7,086.12	6,971.71	124.07	31.32	-13.46	1,278.77	-205.34	4,219.04	4,153.78	65.26	64.645	
11,300.00	7,061.37	7,085.02	6,970.97	126.82	31.32	-12.93	1,279.58	-205.36	4,319.01	4,253.70	65.31	66.129	
11,400.00	7,061.09	7,083.92	6,970.23	129.58	31.31	-12.42	1,280.40	-205.38	4,418.98	4,353.62	65.36	67.610	
11,500.00	7,060.80	7,082.82	6,969.50	132.34	31.31	-11.90	1,281.22	-205.39	4,518.96	4,453.55	65.41	69.088	
11,600.00	7,060.52	7,081.72	6,968.76	135.10	31.31	-11.39	1,282.03	-205.41	4,618.93	4,553.47	65.46	70.563	
11,700.00	7,060.23	7,080.62	6,968.02	137.87	31.31	-10.89	1,282.84	-205.43	4,718.90	4,653.39	65.51	72.035	
11,800.00	7,059.95	7,079.53	6,967.29	140.64	31.31	-10.40	1,283.65	-205.45	4,818.88	4,753.32	65.56	73.503	
11,900.00	7,059.66	7,078.43	6,966.55	143.42	31.31	-9.91	1,284.46	-205.46	4,918.85	4,853.24	65.61	74.968	
12,000.00	7,059.38	7,077.34	6,965.81	146.20	31.31	-9.42	1,285.27	-205.48	5,018.83	4,953.16	65.67	76.430	
12,100.00	7,059.09	7,076.24	6,965.08	148.98	31.30	-8.94	1,286.08	-205.50	5,118.80	5,053.08	65.72	77.888	
12,200.00	7,058.81	7,076.00	6,964.91	151.77	31.30	-8.84	1,286.26	-205.50	5,218.78	5,153.00	65.78	79.342	
12,300.00	7,058.52	7,076.00	6,964.91	154.55	31.30	-8.84	1,286.26	-205.50	5,318.76	5,252.93	65.83	80.791	
12,400.00	7,058.24	7,076.00	6,964.91	157.34	31.30	-8.84	1,286.26	-205.50	5,418.74	5,352.85	65.89	82.237	
12,500.00	7,057.96	7,076.00	6,964.91	160.14	31.30	-8.84	1,286.26	-205.50	5,518.72	5,452.77	65.95	83.679	
12,600.00	7,057.67	7,076.00	6,964.91	162.93	31.30	-8.84	1,286.26	-205.50	5,618.70	5,552.69	66.01	85.118	
12,700.00	7,057.39	7,076.00	6,964.91	165.73	31.30	-8.84	1,286.26	-205.50	5,718.68	5,652.61	66.07	86.553	
12,800.00	7,057.10	7,076.00	6,964.91	168.53	31.30	-8.84	1,286.26	-205.50	5,818.66	5,752.53	66.13	87.984	
12,900.00	7,056.82	7,076.00	6,964.91	171.33	31.30	-8.84	1,286.26	-205.50	5,918.64	5,852.45	66.20	89.411	
13,000.00	7,056.53	7,076.00	6,964.91	174.13	31.30	-8.84	1,286.26	-205.50	6,018.63	5,952.37	66.26	90.834	
13,100.00	7,056.25	7,076.00	6,964.91	176.94	31.30	-8.84	1,286.26	-205.50	6,118.61	6,052.29	66.32	92.254	
13,200.00	7,055.96	7,076.00	6,964.91	179.74	31.30	-8.84	1,286.26	-205.50	6,218.59	6,152.21	66.39	93.670	
13,300.00	7,055.68	7,076.00	6,964.91	182.55	31.30	-8.84	1,286.26	-205.50	6,318.58	6,252.12	66.45	95.081	
13,400.00	7,055.39	7,076.00	6,964.91	185.36	31.30	-8.84	1,286.26	-205.50	6,418.56	6,352.04	66.52	96.489	
13,500.00	7,055.11	7,076.00	6,964.91	188.17	31.30	-8.84	1,286.26	-205.50	6,518.55	6,451.96	66.59	97.893	
13,600.00	7,054.82	7,076.00	6,964.91	190.98	31.30	-8.84	1,286.26	-205.50	6,618.54	6,551.88	66.66	99.292	
13,700.00	7,054.54	7,076.00	6,964.91	193.80	31.30	-8.84	1,286.26	-205.50	6,718.52	6,651.80	66.73	100.688	
13,800.00	7,054.25	7,076.00	6,964.91	196.61	31.30	-8.84	1,286.26	-205.50	6,818.51	6,751.71	66.80	102.079	
13,900.00	7,053.97	7,076.00	6,964.91	199.43	31.30	-8.84	1,286.26	-205.50	6,918.50	6,851.63	66.87	103.466	
14,000.00	7,053.68	7,076.00	6,964.91	202.25	31.30	-8.84	1,286.26	-205.50	7,018.48	6,951.54	66.94	104.849	
14,100.00	7,053.40	7,076.00	6,964.91	205.06	31.30	-8.84	1,286.26	-205.50	7,118.47	7,051.46	67.01	106.228	
14,200.00	7,053.11	7,076.00	6,964.91	207.88	31.30	-8.84	1,286.26	-205.50	7,218.46	7,151.37	67.08	107.603	
14,300.00	7,052.83	7,076.00	6,964.91	210.70	31.30	-8.84	1,286.26	-205.50	7,318.45	7,251.29	67.16	108.973	
14,400.00	7,052.54	7,076.00	6,964.91	213.53	31.30	-8.84	1,286.26	-205.50	7,418.44	7,351.20	67.23	110.339	
14,500.00	7,052.26	7,076.00	6,964.91	216.35	31.30	-8.84	1,286.26	-205.50	7,518.43	7,451.12	67.31	111.700	
14,600.00	7,051.98	7,076.00	6,964.91	219.17	31.30	-8.84	1,286.26	-205.50	7,618.42	7,551.03	67.39	113.058	
14,700.00	7,051.69	7,076.00	6,964.91	222.00	31.30	-8.84	1,286.26	-205.50	7,718.40	7,650.94	67.46	114.410	
14,800.00	7,051.41	7,076.00	6,964.91	224.82	31.30	-8.84	1,286.26	-205.50	7,818.39	7,750.85	67.54	115.759	
14,900.00	7,051.12	7,076.00	6,964.91	227.65	31.30	-8.84	1,286.26	-205.50	7,918.39	7,850.77	67.62	117.103	
14,942.37	7,051.00	7,076.00	6,964.91	228.85	31.30	-8.84	1,286.26	-205.50	7,960.75	7,893.10	67.65	117.671	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2.00	3.28	3.28	12.00	1,291.83	274.51	1,320.67					
100.00	100.00	100.83	102.83	3.28	3.29	12.01	1,291.68	274.70	1,320.57	1,314.00	6.57	200.933		
200.00	200.00	207.18	209.17	3.34	3.33	12.03	1,291.13	275.20	1,320.17	1,313.50	6.67	197.934		
300.00	300.00	311.19	313.18	3.44	3.44	12.04	1,290.21	275.08	1,319.27	1,312.38	6.89	191.605		
400.00	399.98	413.81	415.80	3.60	3.60	19.35	1,289.27	274.09	1,316.53	1,309.33	7.20	182.795		
500.00	499.84	517.00	518.97	3.81	3.81	19.48	1,287.87	274.05	1,310.26	1,302.65	7.62	172.030		
600.00	599.45	609.97	611.93	4.06	4.03	19.68	1,286.70	274.28	1,300.87	1,292.79	8.08	160.940		
700.00	698.70	711.28	713.23	4.34	4.30	19.99	1,285.53	274.77	1,288.38	1,279.75	8.64	149.201		
800.00	797.47	813.20	815.14	4.64	4.60	20.39	1,284.00	275.40	1,272.36	1,263.12	9.25	137.627		
900.00	895.65	907.64	909.57	4.98	4.90	20.83	1,282.64	276.10	1,253.36	1,243.48	9.88	126.879		
1,000.00	993.66	1,000.73	1,002.64	5.32	5.21	21.20	1,281.44	277.22	1,233.82	1,223.29	10.53	117.161		
1,100.00	1,091.67	1,092.13	1,094.04	5.69	5.53	21.57	1,280.84	278.16	1,214.89	1,203.68	11.21	108.400		
1,200.00	1,189.68	1,189.21	1,191.12	6.09	5.87	21.95	1,280.52	278.85	1,196.25	1,184.33	11.93	100.287		
1,300.00	1,287.69	1,288.27	1,290.17	6.49	6.23	22.35	1,280.19	279.59	1,177.67	1,165.00	12.68	92.888		
1,400.00	1,385.69	1,385.20	1,387.10	6.90	6.60	22.75	1,279.78	280.15	1,159.03	1,145.59	13.44	86.238		
1,500.00	1,483.70	1,479.40	1,481.30	7.33	6.95	23.15	1,279.72	280.77	1,140.80	1,126.59	14.20	80.310		
1,600.00	1,581.71	1,577.09	1,578.98	7.76	7.33	23.58	1,279.74	281.47	1,122.72	1,107.73	14.99	74.883		
1,700.00	1,679.72	1,675.56	1,677.45	8.19	7.71	24.04	1,279.78	282.26	1,104.76	1,088.96	15.80	69.939		
1,800.00	1,777.73	1,777.26	1,779.15	8.63	8.11	24.51	1,279.67	282.88	1,086.66	1,070.04	16.62	65.379		
1,900.00	1,875.74	1,873.40	1,875.29	9.08	8.49	24.98	1,279.31	283.46	1,068.39	1,050.96	17.43	61.293		
2,000.00	1,973.75	1,963.78	1,965.66	9.53	8.83	25.36	1,279.86	282.88	1,050.74	1,032.52	18.22	57.679		
2,100.00	2,071.76	2,051.41	2,053.26	9.98	9.16	25.67	1,281.47	281.33	1,033.96	1,014.96	19.00	54.431		
2,200.00	2,169.77	2,135.55	2,137.33	10.44	9.48	25.91	1,284.33	279.19	1,018.44	998.67	19.77	51.512		
2,300.00	2,267.77	2,219.32	2,220.95	10.90	9.81	26.12	1,288.66	276.77	1,004.47	983.92	20.55	48.879		
2,400.00	2,365.78	2,309.42	2,310.83	11.36	10.16	26.34	1,294.36	274.27	991.65	970.30	21.36	46.435		
2,500.00	2,463.79	2,400.44	2,401.58	11.82	10.52	26.55	1,300.93	271.87	979.73	957.56	22.17	44.191		
2,600.00	2,561.80	2,495.67	2,496.45	12.28	10.91	26.74	1,308.56	268.82	968.40	945.39	23.01	42.093		
2,700.00	2,659.81	2,586.32	2,586.70	12.75	11.28	26.88	1,316.60	265.60	957.76	933.93	23.83	40.192		
2,800.00	2,757.82	2,678.94	2,678.81	13.21	11.66	27.01	1,325.62	262.25	947.94	923.27	24.67	38.432		
2,900.00	2,855.83	2,769.23	2,768.49	13.68	12.04	27.10	1,335.39	258.55	938.97	913.47	25.50	36.828		
3,000.00	2,953.84	2,871.31	2,869.79	14.15	12.48	27.15	1,347.06	253.78	930.39	904.01	26.38	35.266		
3,100.00	3,051.85	2,978.92	2,976.64	14.62	12.95	27.21	1,358.70	248.56	921.17	893.87	27.30	33.748		
3,200.00	3,149.85	3,080.64	3,077.64	15.09	13.39	27.23	1,369.38	243.00	911.45	883.26	28.19	32.333		
3,300.00	3,247.86	3,183.36	3,179.65	15.56	13.84	27.25	1,379.99	237.06	901.46	872.37	29.09	30.988		
3,400.00	3,345.87	3,284.23	3,279.90	16.04	14.29	27.30	1,389.77	231.76	891.05	861.07	29.99	29.714		
3,500.00	3,443.88	3,379.34	3,374.44	16.51	14.71	27.39	1,399.09	227.38	880.97	850.10	30.87	28.542		
3,600.00	3,541.89	3,475.77	3,470.27	16.98	15.15	27.48	1,408.97	222.95	871.30	839.55	31.75	27.442		
3,700.00	3,639.90	3,574.59	3,568.45	17.46	15.59	27.58	1,419.28	218.63	861.90	829.25	32.65	26.399		
3,800.00	3,737.91	3,676.88	3,670.08	17.93	16.06	27.67	1,429.88	213.92	852.35	818.78	33.56	25.395		
3,900.00	3,835.92	3,779.45	3,771.99	18.41	16.53	27.73	1,440.31	208.60	842.41	807.93	34.48	24.432		
4,000.00	3,933.93	3,875.52	3,867.42	18.88	16.97	27.78	1,450.05	203.41	832.38	797.01	35.38	23.529		
4,100.00	4,031.93	3,971.45	3,962.56	19.36	17.41	27.74	1,460.76	197.37	823.00	786.72	36.28	22.686		
4,200.00	4,129.94	4,066.96	4,057.22	19.84	17.86	27.68	1,471.83	191.08	813.93	776.75	37.18	21.892		
4,300.00	4,227.95	4,164.06	4,153.40	20.31	18.32	27.61	1,483.58	184.87	805.40	767.31	38.09	21.146		
4,400.00	4,325.96	4,267.31	4,255.78	20.79	18.81	27.61	1,495.69	179.15	796.82	757.80	39.02	20.419		
4,500.00	4,423.97	4,371.23	4,358.91	21.27	19.30	27.63	1,507.19	173.48	787.63	747.67	39.96	19.710		
4,600.00	4,521.98	4,467.86	4,454.87	21.75	19.76	27.71	1,517.48	168.91	778.31	737.44	40.87	19.044		
4,700.00	4,619.99	4,567.20	4,553.57	22.23	20.23	27.86	1,528.07	165.10	769.30	727.51	41.79	18.409		
4,800.00	4,718.00	4,668.46	4,654.22	22.70	20.70	28.03	1,538.62	161.48	760.17	717.46	42.71	17.796		
4,900.00	4,816.01	4,783.42	4,768.64	23.18	21.23	28.31	1,549.08	157.81	749.95	706.27	43.68	17.170		
5,000.00	4,914.01	4,891.19	4,876.07	23.66	21.72	28.67	1,557.00	154.76	738.24	693.63	44.61	16.549		
5,100.00	5,012.02	5,001.68	4,986.34	24.14	22.21	29.10	1,563.29	151.73	725.06	679.53	45.53	15.925		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15M-423(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,110.11	5,094.68	24.62	22.68	29.70	1,567.31	149.95	710.48	664.05	46.43	15.301		
5,300.00	5,208.04	5,215.19	5,199.74	25.10	23.12	30.48	1,569.31	149.59	694.82	647.49	47.33	14.681		
5,400.00	5,306.05	5,318.47	5,303.01	25.58	23.55	31.27	1,570.50	148.92	678.50	630.28	48.22	14.071		
5,500.00	5,404.06	5,422.06	5,406.59	26.06	23.98	32.09	1,571.11	147.65	661.55	612.45	49.10	13.472		
5,600.00	5,502.07	5,524.70	5,509.21	26.54	24.41	32.89	1,571.26	145.49	643.96	593.98	49.99	12.883		
5,700.00	5,600.08	5,630.12	5,614.60	27.02	24.83	33.85	1,570.08	143.75	625.58	574.73	50.84	12.304		
5,800.00	5,698.09	5,726.33	5,710.79	27.50	25.21	34.92	1,567.95	143.34	606.94	555.20	51.74	11.731		
5,900.00	5,796.09	5,820.92	5,805.36	27.98	25.58	36.05	1,566.11	143.17	588.86	536.21	52.65	11.185		
6,000.00	5,894.10	5,916.36	5,900.79	28.46	25.97	37.23	1,564.75	142.94	571.46	517.90	53.56	10.670		
6,100.00	5,992.11	6,013.48	5,997.90	28.94	26.36	38.46	1,563.78	142.48	554.57	500.11	54.46	10.183		
6,200.00	6,090.12	6,111.42	6,095.84	29.42	26.75	39.76	1,562.97	141.86	538.00	482.63	55.37	9.717		
6,300.00	6,188.13	6,210.03	6,194.44	29.90	27.15	41.13	1,562.07	141.15	521.62	465.34	56.27	9.269		
6,400.00	6,286.14	6,307.40	6,291.80	30.38	27.55	42.56	1,561.26	140.29	505.51	448.32	57.19	8.839		
6,500.00	6,384.15	6,403.95	6,388.35	30.87	27.95	44.00	1,560.94	139.10	489.94	431.82	58.12	8.430		
6,600.00	6,482.15	6,547.33	6,531.52	31.35	28.53	55.44	1,555.87	136.53	472.88	414.37	58.51	8.082		
6,700.00	6,579.21	6,701.66	6,682.61	31.83	29.08	94.41	1,525.84	131.16	449.77	391.76	58.01	7.754		
6,800.00	6,673.04	6,825.48	6,798.58	32.30	29.47	118.83	1,482.93	127.72	432.64	374.52	58.13	7.443		
6,853.96	6,721.51	6,880.55	6,847.88	32.53	29.63	128.45	1,458.39	126.92	429.70	370.97	58.73	7.317 CC, ES		
6,900.00	6,761.33	6,917.37	6,879.81	32.74	29.73	134.83	1,440.06	126.84	432.27	372.62	59.65	7.247 SF		
7,000.00	6,841.90	6,999.70	6,947.91	33.17	29.97	147.13	1,393.89	127.27	456.29	394.89	61.40	7.431		
7,100.00	6,912.77	7,050.38	6,987.13	33.60	30.12	154.53	1,361.80	127.39	505.05	441.98	63.06	8.008		
7,200.00	6,972.19	7,085.52	7,013.17	34.09	30.23	159.42	1,338.22	127.85	575.24	511.33	63.91	9.001		
7,300.00	7,018.70	7,111.26	7,031.67	34.73	30.32	162.99	1,320.33	128.30	660.19	595.97	64.22	10.281		
7,400.00	7,051.15	7,127.15	7,042.82	35.55	30.38	165.33	1,309.01	128.61	754.13	689.83	64.29	11.729		
7,500.00	7,068.75	7,134.54	7,047.92	36.56	30.41	165.74	1,303.67	128.76	852.68	788.37	64.30	13.260		
7,600.00	7,071.91	7,134.63	7,047.98	37.71	30.41	-4.47	1,303.60	128.76	952.61	888.30	64.31	14.812		
7,700.00	7,071.62	7,133.07	7,046.91	39.03	30.40	-1.96	1,304.74	128.73	1,052.58	988.25	64.33	16.363		
7,800.00	7,071.34	7,131.53	7,045.85	40.51	30.39	0.33	1,305.85	128.70	1,152.55	1,088.21	64.34	17.914		
7,900.00	7,071.05	7,130.02	7,044.81	42.14	30.39	2.41	1,306.94	128.67	1,252.52	1,188.16	64.35	19.464		
8,000.00	7,070.77	7,128.53	7,043.78	43.89	30.38	4.32	1,308.01	128.64	1,352.49	1,288.12	64.37	21.013		
8,100.00	7,070.48	7,127.07	7,042.76	45.76	30.38	6.06	1,309.06	128.61	1,452.46	1,388.08	64.38	22.561		
8,200.00	7,070.20	7,125.64	7,041.77	47.72	30.37	7.65	1,310.10	128.58	1,552.44	1,488.04	64.39	24.108		
8,300.00	7,069.92	7,124.22	7,040.78	49.78	30.37	9.11	1,311.11	128.55	1,652.42	1,588.01	64.41	25.654		
8,400.00	7,069.63	7,122.83	7,039.81	51.90	30.36	10.46	1,312.11	128.52	1,752.40	1,687.97	64.43	27.200		
8,500.00	7,069.35	7,121.46	7,038.86	54.10	30.36	11.69	1,313.09	128.49	1,852.38	1,787.93	64.45	28.743		
8,600.00	7,069.06	7,120.12	7,037.91	56.36	30.35	12.84	1,314.05	128.47	1,952.36	1,887.89	64.46	30.286		
8,700.00	7,068.78	7,118.79	7,036.98	58.66	30.35	13.89	1,314.99	128.44	2,052.34	1,987.86	64.48	31.827		
8,800.00	7,068.49	7,117.49	7,036.07	61.02	30.34	14.87	1,315.92	128.42	2,152.32	2,087.82	64.50	33.367		
8,900.00	7,068.21	7,116.20	7,035.16	63.42	30.34	15.78	1,316.83	128.39	2,252.30	2,187.78	64.53	34.906		
9,000.00	7,067.92	7,114.94	7,034.27	65.85	30.34	16.62	1,317.73	128.37	2,352.29	2,287.74	64.55	36.442		
9,100.00	7,067.64	7,113.69	7,033.39	68.32	30.33	17.41	1,318.61	128.34	2,452.27	2,387.70	64.57	37.977		
9,200.00	7,067.35	7,112.47	7,032.53	70.81	30.33	18.15	1,319.48	128.32	2,552.26	2,487.66	64.60	39.511		
9,300.00	7,067.07	7,111.26	7,031.67	73.34	30.32	18.83	1,320.33	128.30	2,652.24	2,587.62	64.62	41.042		
9,400.00	7,066.78	7,109.00	7,030.07	75.88	30.31	20.03	1,321.92	128.26	2,752.23	2,687.58	64.65	42.573		
9,500.00	7,066.50	7,109.00	7,030.07	78.45	30.31	20.03	1,321.92	128.26	2,852.21	2,787.54	64.68	44.100		
9,600.00	7,066.21	7,107.71	7,029.15	81.04	30.31	20.66	1,322.83	128.23	2,952.20	2,887.50	64.71	45.625		
9,700.00	7,065.93	7,106.54	7,028.32	83.64	30.31	21.21	1,323.65	128.21	3,052.19	2,987.45	64.73	47.149		
9,800.00	7,065.64	7,105.38	7,027.49	86.26	30.30	21.72	1,324.46	128.19	3,152.17	3,087.41	64.77	48.670		
9,900.00	7,065.36	7,104.24	7,026.68	88.90	30.30	22.21	1,325.26	128.17	3,252.16	3,187.36	64.80	50.190		
10,000.00	7,065.07	7,103.12	7,025.87	91.55	30.29	22.67	1,326.04	128.15	3,352.15	3,287.32	64.83	51.707		
10,100.00	7,064.79	7,102.01	7,025.08	94.21	30.29	23.11	1,326.82	128.13	3,452.14	3,387.27	64.86	53.221		
10,200.00	7,064.50	7,100.91	7,024.30	96.88	30.29	23.52	1,327.58	128.11	3,552.12	3,487.23	64.90	54.733		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,064.22	7,099.83	7,023.52	99.57	30.28	23.91	1,328.33	128.09	3,652.11	3,587.18	64.93	56.243		
10,400.00	7,063.94	7,098.77	7,022.75	102.26	30.28	24.28	1,329.08	128.07	3,752.10	3,687.13	64.97	57.750		
10,500.00	7,063.65	7,097.71	7,022.00	104.96	30.28	24.63	1,329.81	128.05	3,852.09	3,787.08	65.01	59.255		
10,600.00	7,063.37	7,096.67	7,021.25	107.67	30.27	24.97	1,330.53	128.04	3,952.08	3,887.03	65.05	60.756		
10,700.00	7,063.08	7,095.64	7,020.51	110.39	30.27	25.29	1,331.24	128.02	4,052.07	3,986.98	65.09	62.256		
10,800.00	7,062.80	7,094.63	7,019.77	113.11	30.27	25.59	1,331.95	128.00	4,152.06	4,086.93	65.13	63.752		
10,900.00	7,062.51	7,093.63	7,019.05	115.84	30.26	25.88	1,332.64	127.98	4,252.05	4,186.88	65.17	65.245		
11,000.00	7,062.23	7,092.64	7,018.34	118.58	30.26	26.16	1,333.32	127.97	4,352.04	4,286.82	65.21	66.736		
11,100.00	7,061.94	7,091.66	7,017.63	121.32	30.26	26.42	1,334.00	127.95	4,452.03	4,386.77	65.26	68.224		
11,200.00	7,061.66	7,090.70	7,016.93	124.07	30.25	26.67	1,334.66	127.94	4,552.01	4,486.71	65.30	69.708		
11,300.00	7,061.37	7,089.74	7,016.24	126.82	30.25	26.92	1,335.32	127.92	4,652.00	4,586.66	65.35	71.190		
11,400.00	7,061.09	7,088.80	7,015.55	129.58	30.25	27.15	1,335.97	127.90	4,752.00	4,686.60	65.39	72.668		
11,500.00	7,060.80	7,087.87	7,014.88	132.34	30.24	27.37	1,336.61	127.89	4,851.99	4,786.55	65.44	74.144		
11,600.00	7,060.52	7,086.95	7,014.21	135.10	30.24	27.58	1,337.24	127.87	4,951.98	4,886.49	65.49	75.616		
11,700.00	7,060.23	7,086.04	7,013.55	137.87	30.24	27.79	1,337.86	127.86	5,051.97	4,986.43	65.54	77.085		
11,800.00	7,059.95	7,085.14	7,012.89	140.64	30.23	27.98	1,338.47	127.84	5,151.96	5,086.37	65.59	78.550		
11,900.00	7,059.66	7,084.26	7,012.25	143.42	30.23	28.17	1,339.08	127.83	5,251.95	5,186.31	65.64	80.012		
12,000.00	7,059.38	7,083.38	7,011.61	146.20	30.23	28.35	1,339.68	127.82	5,351.94	5,286.25	65.69	81.471		
12,100.00	7,059.09	7,082.51	7,010.97	148.98	30.22	28.53	1,340.27	127.80	5,451.93	5,386.19	65.74	82.926		
12,200.00	7,058.81	7,081.65	7,010.35	151.77	30.22	28.69	1,340.86	127.79	5,551.92	5,486.12	65.80	84.377		
12,300.00	7,058.52	7,080.81	7,009.73	154.55	30.22	28.86	1,341.43	127.78	5,651.91	5,586.06	65.85	85.825		
12,400.00	7,058.24	7,077.00	7,006.93	157.34	30.21	29.53	1,344.02	127.72	5,751.91	5,686.00	65.91	87.273		
12,500.00	7,057.96	7,077.00	7,006.93	160.14	30.21	29.53	1,344.02	127.72	5,851.90	5,785.93	65.96	88.713		
12,600.00	7,057.67	7,077.00	7,006.93	162.93	30.21	29.53	1,344.02	127.72	5,951.89	5,885.87	66.02	90.149		
12,700.00	7,057.39	7,077.00	7,006.93	165.73	30.21	29.53	1,344.02	127.72	6,051.88	5,985.80	66.08	91.581		
12,800.00	7,057.10	7,077.00	7,006.93	168.53	30.21	29.53	1,344.02	127.72	6,151.87	6,085.73	66.14	93.010		
12,900.00	7,056.82	7,077.00	7,006.93	171.33	30.21	29.53	1,344.02	127.72	6,251.86	6,185.66	66.20	94.434		
13,000.00	7,056.53	7,077.00	7,006.93	174.13	30.21	29.53	1,344.02	127.72	6,351.86	6,285.59	66.27	95.855		
13,100.00	7,056.25	7,077.00	7,006.93	176.94	30.21	29.53	1,344.02	127.72	6,451.85	6,385.52	66.33	97.272		
13,200.00	7,055.96	7,077.00	7,006.93	179.74	30.21	29.53	1,344.02	127.72	6,551.84	6,485.45	66.39	98.685		
13,300.00	7,055.68	7,077.00	7,006.93	182.55	30.21	29.53	1,344.02	127.72	6,651.83	6,585.38	66.46	100.094		
13,400.00	7,055.39	7,077.00	7,006.93	185.36	30.21	29.53	1,344.02	127.72	6,751.83	6,685.31	66.52	101.499		
13,500.00	7,055.11	7,077.00	7,006.93	188.17	30.21	29.53	1,344.02	127.72	6,851.82	6,785.23	66.59	102.899		
13,600.00	7,054.82	7,077.00	7,006.93	190.98	30.21	29.53	1,344.02	127.72	6,951.81	6,885.16	66.65	104.296		
13,700.00	7,054.54	7,077.00	7,006.93	193.80	30.21	29.53	1,344.02	127.72	7,051.81	6,985.09	66.72	105.689		
13,800.00	7,054.25	7,077.00	7,006.93	196.61	30.21	29.53	1,344.02	127.72	7,151.80	7,085.01	66.79	107.077		
13,900.00	7,053.97	7,077.00	7,006.93	199.43	30.21	29.53	1,344.02	127.72	7,251.80	7,184.94	66.86	108.461		
14,000.00	7,053.68	7,077.00	7,006.93	202.25	30.21	29.53	1,344.02	127.72	7,351.79	7,284.86	66.93	109.841		
14,100.00	7,053.40	7,077.00	7,006.93	205.06	30.21	29.53	1,344.02	127.72	7,451.79	7,384.78	67.00	111.217		
14,200.00	7,053.11	7,077.00	7,006.93	207.88	30.21	29.53	1,344.02	127.72	7,551.78	7,484.71	67.07	112.588		
14,300.00	7,052.83	7,077.00	7,006.93	210.70	30.21	29.53	1,344.02	127.72	7,651.77	7,584.63	67.15	113.955		
14,400.00	7,052.54	7,077.00	7,006.93	213.53	30.21	29.53	1,344.02	127.72	7,751.77	7,684.55	67.22	115.318		
14,500.00	7,052.26	7,077.00	7,006.93	216.35	30.21	29.53	1,344.02	127.72	7,851.76	7,784.47	67.30	116.676		
14,600.00	7,051.98	7,077.00	7,006.93	219.17	30.21	29.53	1,344.02	127.72	7,951.76	7,884.39	67.37	118.030		
14,700.00	7,051.69	7,077.00	7,006.93	222.00	30.21	29.53	1,344.02	127.72	8,051.76	7,984.31	67.45	119.379		
14,800.00	7,051.41	7,077.00	7,006.93	224.82	30.21	29.53	1,344.02	127.72	8,151.75	8,084.23	67.52	120.724		
14,900.00	7,051.12	7,077.00	7,006.93	227.65	30.21	29.53	1,344.02	127.72	8,251.75	8,184.14	67.60	122.065		
14,942.37	7,051.00	7,067.61	7,000.00	228.85	30.18	30.91	1,350.36	127.58	8,294.10	8,226.47	67.63	122.643		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS RESOURCES 15R-243(PR_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 146-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	2.00	3.28	3.28	13.20	1,287.46	302.04	1,322.41					
100.00	100.00	79.68	81.68	3.28	3.29	13.23	1,287.88	302.67	1,323.09	1,316.52	6.57	201.376		
200.00	200.00	165.90	167.85	3.34	3.31	13.30	1,289.23	304.75	1,325.15	1,318.50	6.65	199.390		
300.00	300.00	280.93	282.82	3.44	3.41	13.43	1,290.78	308.23	1,327.18	1,320.33	6.85	193.687		
400.00	399.98	375.47	377.32	3.60	3.54	20.87	1,291.06	311.02	1,326.56	1,319.42	7.15	185.655		
500.00	499.84	474.02	475.84	3.81	3.72	20.99	1,293.25	311.89	1,324.03	1,316.50	7.53	175.803		
600.00	599.45	591.93	593.75	4.06	3.99	21.19	1,294.38	311.83	1,316.77	1,308.73	8.04	163.733		
700.00	698.70	682.29	684.10	4.34	4.23	21.45	1,294.93	312.17	1,306.09	1,297.54	8.56	152.624		
800.00	797.47	774.24	776.04	4.64	4.49	21.80	1,296.09	312.89	1,292.93	1,283.80	9.13	141.603		
900.00	895.65	881.92	883.71	4.98	4.82	22.26	1,297.42	313.72	1,276.69	1,266.89	9.80	130.263		
1,000.00	993.66	978.70	980.48	5.32	5.14	22.61	1,298.32	314.26	1,259.32	1,248.85	10.47	120.328		
1,100.00	1,091.67	1,066.24	1,068.02	5.69	5.44	22.93	1,299.58	314.75	1,242.46	1,231.33	11.13	111.614		
1,200.00	1,189.68	1,165.55	1,167.31	6.09	5.80	23.29	1,301.41	315.23	1,226.02	1,214.16	11.86	103.351		
1,300.00	1,287.69	1,270.79	1,272.53	6.49	6.18	23.65	1,303.10	314.91	1,209.19	1,196.56	12.63	95.724		
1,400.00	1,385.69	1,367.62	1,369.34	6.90	6.53	23.97	1,304.67	314.16	1,192.30	1,178.91	13.39	89.045		
1,500.00	1,483.70	1,462.84	1,464.55	7.33	6.89	24.29	1,306.20	313.41	1,175.42	1,161.26	14.16	83.018		
1,600.00	1,581.71	1,542.14	1,543.83	7.76	7.20	24.64	1,307.94	314.35	1,159.70	1,144.81	14.89	77.886		
1,700.00	1,679.72	1,620.33	1,621.92	8.19	7.51	25.06	1,310.49	317.09	1,145.74	1,130.11	15.63	73.307		
1,800.00	1,777.73	1,705.77	1,707.15	8.63	7.85	25.60	1,314.04	321.89	1,133.36	1,116.95	16.40	69.089		
1,900.00	1,875.74	1,787.10	1,788.15	9.08	8.18	26.20	1,317.90	328.11	1,122.34	1,105.17	17.17	65.358		
2,000.00	1,973.75	1,867.34	1,867.93	9.53	8.52	26.83	1,322.77	335.25	1,113.13	1,095.19	17.94	62.041		
2,100.00	2,071.76	1,952.93	1,952.91	9.98	8.89	27.50	1,329.28	343.05	1,105.62	1,086.88	18.74	59.003		
2,200.00	2,169.77	2,047.52	2,046.75	10.44	9.30	28.25	1,337.03	351.98	1,098.99	1,079.41	19.58	56.130		
2,300.00	2,267.77	2,144.79	2,143.32	10.90	9.73	28.95	1,345.74	359.78	1,092.75	1,072.31	20.44	53.468		
2,400.00	2,365.78	2,242.33	2,240.09	11.36	10.16	29.69	1,354.37	368.31	1,086.86	1,065.55	21.30	51.021		
2,500.00	2,463.79	2,350.40	2,347.28	11.82	10.65	30.60	1,363.21	378.92	1,081.00	1,058.78	22.22	48.647		
2,600.00	2,561.80	2,455.36	2,451.52	12.28	11.13	31.49	1,370.66	388.76	1,074.18	1,051.05	23.13	46.441		
2,700.00	2,659.81	2,548.66	2,544.18	12.75	11.56	32.27	1,377.55	397.16	1,067.72	1,043.73	23.99	44.508		
2,800.00	2,757.82	2,637.77	2,632.61	13.21	11.97	33.03	1,384.66	405.53	1,062.18	1,037.35	24.83	42.774		
2,900.00	2,855.83	2,733.86	2,727.86	13.68	12.42	33.86	1,392.93	415.06	1,057.66	1,031.95	25.71	41.137		
3,000.00	2,953.84	2,845.10	2,838.14	14.15	12.95	34.91	1,401.35	427.00	1,052.88	1,026.21	26.67	39.484		
3,100.00	3,051.85	2,951.27	2,943.45	14.62	13.45	35.98	1,407.68	438.89	1,047.20	1,019.60	27.60	37.944		
3,200.00	3,149.85	3,061.57	3,053.07	15.09	13.97	37.01	1,414.38	449.16	1,041.02	1,012.47	28.55	36.467		
3,300.00	3,247.86	3,148.00	3,138.98	15.56	14.37	37.80	1,419.87	456.79	1,035.09	1,005.70	29.39	35.218		
3,400.00	3,345.87	3,237.14	3,227.48	16.04	14.79	38.65	1,426.00	465.60	1,030.43	1,000.18	30.25	34.067		
3,500.00	3,443.88	3,355.92	3,345.49	16.51	15.36	39.76	1,433.98	476.33	1,025.46	994.22	31.24	32.825		
3,600.00	3,541.89	3,450.01	3,439.07	16.98	15.80	40.62	1,439.94	484.14	1,020.05	987.93	32.12	31.756		
3,700.00	3,639.90	3,544.85	3,533.34	17.46	16.25	41.52	1,446.04	492.55	1,015.29	982.28	33.01	30.760		
3,800.00	3,737.91	3,640.62	3,628.51	17.93	16.70	42.42	1,452.60	500.97	1,011.12	977.22	33.90	29.829		
3,900.00	3,835.92	3,736.38	3,723.62	18.41	17.16	43.35	1,459.09	509.95	1,007.50	972.71	34.79	28.960		
4,000.00	3,933.93	3,831.08	3,817.64	18.88	17.62	44.33	1,465.16	519.54	1,004.34	968.66	35.68	28.150		
4,100.00	4,031.93	3,909.08	3,894.93	19.36	18.00	45.16	1,470.64	528.49	1,002.83	966.35	36.48	27.493		
4,132.91	4,064.19	3,939.08	3,924.61	19.52	18.15	45.49	1,472.95	532.24	1,002.78	966.02	36.76	27.278		
4,200.00	4,129.94	4,001.39	3,986.22	19.84	18.47	46.18	1,477.85	540.14	1,002.98	965.63	37.35	26.854		
4,300.00	4,227.95	4,097.12	4,080.87	20.31	18.95	47.19	1,486.03	551.98	1,003.88	965.64	38.24	26.249		
4,400.00	4,325.96	4,213.34	4,195.92	20.79	19.53	48.31	1,496.59	564.46	1,004.46	965.20	39.26	25.585		
4,500.00	4,423.97	4,331.21	4,312.97	21.27	20.10	49.36	1,506.44	574.18	1,003.06	962.79	40.27	24.908		
4,600.00	4,521.98	4,432.13	4,413.28	21.75	20.59	50.21	1,514.96	581.26	1,001.16	959.97	41.19	24.306		
4,700.00	4,619.99	4,527.63	4,508.21	22.23	21.04	51.00	1,523.08	587.82	999.42	957.34	42.08	23.749		
4,800.00	4,718.00	4,626.63	4,606.57	22.70	21.52	51.85	1,531.65	595.21	998.43	955.43	43.00	23.222		
4,900.00	4,816.01	4,729.43	4,708.75	23.18	22.01	52.71	1,540.30	602.30	997.07	953.14	43.93	22.698		
5,000.00	4,914.01	4,838.67	4,817.40	23.66	22.53	53.68	1,548.64	610.10	995.59	950.70	44.89	22.178		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,012.02	4,944.91	4,923.18	24.14	23.03	54.63	1,555.84	616.78	993.14	947.30	45.84	21.666		
5,200.00	5,110.03	5,071.52	5,049.40	24.62	23.61	55.90	1,561.41	624.88	989.49	942.64	46.85	21.119		
5,300.00	5,208.04	5,195.30	5,173.05	25.10	24.15	57.08	1,565.21	628.88	982.79	934.96	47.82	20.550		
5,400.00	5,306.05	5,354.44	5,332.14	25.58	24.79	58.58	1,567.42	629.63	973.80	925.08	48.72	19.988		
5,500.00	5,404.06	5,439.46	5,417.15	26.06	25.09	59.45	1,566.60	628.75	961.90	912.31	49.60	19.394		
5,600.00	5,502.07	5,534.39	5,512.07	26.54	25.44	60.44	1,565.80	627.94	950.61	900.14	50.47	18.835		
5,700.00	5,600.08	5,634.43	5,612.11	27.02	25.81	61.51	1,565.02	627.10	939.67	888.33	51.34	18.303		
5,800.00	5,698.09	5,736.72	5,714.38	27.50	26.19	62.62	1,563.98	625.88	928.65	876.44	52.21	17.788		
5,900.00	5,796.09	5,835.85	5,813.50	27.98	26.56	63.70	1,563.23	624.22	917.71	864.63	53.08	17.288		
6,000.00	5,894.10	5,935.27	5,912.90	28.46	26.93	64.80	1,562.37	622.39	906.91	852.94	53.96	16.806		
6,100.00	5,992.11	6,033.74	6,011.34	28.94	27.30	65.92	1,561.61	620.46	896.39	841.55	54.85	16.344		
6,200.00	6,090.12	6,130.93	6,108.50	29.42	27.67	67.03	1,560.92	618.33	886.07	830.34	55.73	15.898		
6,300.00	6,188.13	6,224.32	6,201.88	29.90	28.03	68.15	1,560.01	617.00	876.62	819.99	56.63	15.480		
6,400.00	6,286.14	6,325.85	6,303.39	30.38	28.42	69.37	1,559.45	615.36	867.60	810.08	57.52	15.084		
6,500.00	6,384.15	6,492.93	6,469.61	30.87	29.01	72.12	1,545.64	609.94	853.63	795.50	58.13	14.686		
6,600.00	6,482.15	6,597.91	6,572.30	31.35	29.35	83.35	1,524.15	608.49	837.82	778.84	58.98	14.204		
6,689.32	6,568.96	6,697.62	6,667.40	31.78	29.65	115.60	1,494.31	608.85	831.55	771.80	59.75	13.918 CC, ES		
6,700.00	6,579.21	6,711.30	6,680.21	31.83	29.69	118.46	1,489.49	609.01	831.63	771.80	59.83	13.900 SF		
6,800.00	6,673.04	6,876.61	6,824.40	32.30	30.08	140.60	1,409.65	610.07	839.55	779.20	60.35	13.910		
6,900.00	6,761.33	6,938.65	6,872.34	32.74	30.20	151.06	1,370.33	609.67	864.41	802.74	61.67	14.017		
7,000.00	6,841.90	6,985.19	6,906.16	33.17	30.27	157.61	1,338.36	610.23	910.79	848.10	62.68	14.530		
7,100.00	6,912.77	7,039.63	6,943.98	33.60	30.35	163.52	1,299.21	610.52	975.06	911.70	63.36	15.390		
7,200.00	6,972.19	7,061.17	6,958.30	34.09	30.38	166.79	1,283.12	610.59	1,053.76	990.05	63.71	16.539		
7,300.00	7,018.70	7,072.57	6,965.69	34.73	30.39	169.33	1,274.45	610.76	1,143.15	1,079.30	63.84	17.905		
7,400.00	7,051.15	7,080.00	6,970.43	35.55	30.40	172.89	1,268.73	610.92	1,239.20	1,175.32	63.88	19.398		
7,500.00	7,068.75	7,083.61	6,972.72	36.56	30.41	-158.49	1,265.94	611.02	1,338.51	1,274.62	63.89	20.949		
7,600.00	7,071.91	7,083.19	6,972.45	37.71	30.41	-22.58	1,266.26	611.01	1,438.35	1,374.44	63.91	22.507		
7,700.00	7,071.62	7,080.00	6,970.43	39.03	30.40	-21.03	1,268.73	610.92	1,538.06	1,474.15	63.91	24.064		
7,800.00	7,071.34	7,080.00	6,970.43	40.51	30.40	-21.03	1,268.73	610.92	1,637.81	1,573.87	63.93	25.617		
7,900.00	7,071.05	7,080.00	6,970.43	42.14	30.40	-21.03	1,268.73	610.92	1,737.58	1,673.63	63.95	27.170		
8,000.00	7,070.77	7,080.00	6,970.43	43.89	30.40	-21.03	1,268.73	610.92	1,837.38	1,773.41	63.97	28.722		
8,100.00	7,070.48	7,080.00	6,970.43	45.76	30.40	-21.03	1,268.73	610.92	1,937.20	1,873.21	63.99	30.273		
8,200.00	7,070.20	7,080.00	6,970.43	47.72	30.40	-21.03	1,268.73	610.92	2,037.04	1,973.03	64.01	31.824		
8,300.00	7,069.92	7,080.00	6,970.43	49.78	30.40	-21.03	1,268.73	610.92	2,136.90	2,072.87	64.03	33.375		
8,400.00	7,069.63	7,080.00	6,970.43	51.90	30.40	-21.03	1,268.73	610.92	2,236.76	2,172.71	64.05	34.924		
8,500.00	7,069.35	7,080.00	6,970.43	54.10	30.40	-21.03	1,268.73	610.92	2,336.64	2,272.57	64.07	36.472		
8,600.00	7,069.06	7,080.00	6,970.43	56.36	30.40	-21.03	1,268.73	610.92	2,436.53	2,372.44	64.09	38.019		
8,700.00	7,068.78	7,080.00	6,970.43	58.66	30.40	-21.03	1,268.73	610.92	2,536.42	2,472.31	64.11	39.565		
8,800.00	7,068.49	7,080.00	6,970.43	61.02	30.40	-21.03	1,268.73	610.92	2,636.33	2,572.20	64.13	41.109		
8,900.00	7,068.21	7,080.00	6,970.43	63.42	30.40	-21.03	1,268.73	610.92	2,736.24	2,672.09	64.15	42.652		
9,000.00	7,067.92	7,080.00	6,970.43	65.85	30.40	-21.03	1,268.73	610.92	2,836.16	2,771.98	64.18	44.193		
9,100.00	7,067.64	7,080.00	6,970.43	68.32	30.40	-21.03	1,268.73	610.92	2,936.08	2,871.88	64.20	45.732		
9,200.00	7,067.35	7,080.00	6,970.43	70.81	30.40	-21.03	1,268.73	610.92	3,036.01	2,971.78	64.23	47.270		
9,300.00	7,067.07	7,080.00	6,970.43	73.34	30.40	-21.03	1,268.73	610.92	3,135.94	3,071.69	64.25	48.806		
9,400.00	7,066.78	7,080.00	6,970.43	75.88	30.40	-21.03	1,268.73	610.92	3,235.88	3,171.60	64.28	50.340		
9,500.00	7,066.50	7,080.00	6,970.43	78.45	30.40	-21.03	1,268.73	610.92	3,335.82	3,271.51	64.31	51.872		
9,600.00	7,066.21	7,080.00	6,970.43	81.04	30.40	-21.03	1,268.73	610.92	3,435.76	3,371.42	64.34	53.402		
9,700.00	7,065.93	7,080.00	6,970.43	83.64	30.40	-21.03	1,268.73	610.92	3,535.71	3,471.34	64.37	54.929		
9,800.00	7,065.64	7,080.00	6,970.43	86.26	30.40	-21.03	1,268.73	610.92	3,635.66	3,571.26	64.40	56.455		
9,900.00	7,065.36	7,080.00	6,970.43	88.90	30.40	-21.03	1,268.73	610.92	3,735.61	3,671.18	64.43	57.978		
10,000.00	7,065.07	7,080.00	6,970.43	91.55	30.40	-21.03	1,268.73	610.92	3,835.57	3,771.10	64.46	59.499		
10,100.00	7,064.79	7,068.66	6,963.17	94.21	30.39	-15.78	1,277.44	610.69	3,935.45	3,870.98	64.48	61.035		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,200.00	7,064.50	7,068.38	6,962.99	96.88	30.39	-15.65	1,277.65	610.68	4,035.41	3,970.90	64.51	62.551		
10,300.00	7,064.22	7,068.11	6,962.81	99.57	30.39	-15.53	1,277.85	610.68	4,135.37	4,070.82	64.55	64.065		
10,400.00	7,063.94	7,067.85	6,962.65	102.26	30.39	-15.42	1,278.05	610.67	4,235.33	4,170.74	64.59	65.576		
10,500.00	7,063.65	7,067.60	6,962.49	104.96	30.39	-15.31	1,278.24	610.67	4,335.29	4,270.67	64.62	67.084		
10,600.00	7,063.37	7,067.36	6,962.33	107.67	30.39	-15.20	1,278.42	610.66	4,435.26	4,370.59	64.66	68.590		
10,700.00	7,063.08	7,067.13	6,962.18	110.39	30.39	-15.10	1,278.60	610.66	4,535.22	4,470.52	64.70	70.092		
10,800.00	7,062.80	7,066.90	6,962.03	113.11	30.39	-15.00	1,278.77	610.66	4,635.19	4,570.44	64.74	71.592		
10,900.00	7,062.51	7,066.68	6,961.89	115.84	30.39	-14.90	1,278.94	610.65	4,735.16	4,670.37	64.79	73.089		
11,000.00	7,062.23	7,066.47	6,961.75	118.58	30.39	-14.81	1,279.10	610.65	4,835.13	4,770.30	64.83	74.583		
11,100.00	7,061.94	7,066.27	6,961.62	121.32	30.39	-14.72	1,279.26	610.65	4,935.10	4,870.22	64.87	76.073		
11,200.00	7,061.66	7,066.07	6,961.49	124.07	30.38	-14.64	1,279.41	610.65	5,035.07	4,970.15	64.92	77.561		
11,300.00	7,061.37	7,065.88	6,961.37	126.82	30.38	-14.55	1,279.55	610.64	5,135.04	5,070.08	64.96	79.045		
11,400.00	7,061.09	7,065.69	6,961.25	129.58	30.38	-14.47	1,279.69	610.64	5,235.02	5,170.01	65.01	80.526		
11,500.00	7,060.80	7,065.51	6,961.13	132.34	30.38	-14.39	1,279.83	610.64	5,334.99	5,269.93	65.06	82.004		
11,600.00	7,060.52	7,065.34	6,961.02	135.10	30.38	-14.32	1,279.96	610.64	5,434.97	5,369.86	65.11	83.478		
11,700.00	7,060.23	7,065.17	6,960.90	137.87	30.38	-14.24	1,280.09	610.63	5,534.94	5,469.79	65.16	84.949		
11,800.00	7,059.95	7,065.00	6,960.80	140.64	30.38	-14.17	1,280.22	610.63	5,634.92	5,569.71	65.21	86.416		
11,900.00	7,059.66	7,064.84	6,960.69	143.42	30.38	-14.10	1,280.34	610.63	5,734.90	5,669.64	65.26	87.880		
12,000.00	7,059.38	7,064.68	6,960.59	146.20	30.38	-14.04	1,280.46	610.63	5,834.88	5,769.57	65.31	89.340		
12,100.00	7,059.09	7,064.53	6,960.49	148.98	30.38	-13.97	1,280.58	610.63	5,934.86	5,869.49	65.36	90.797		
12,200.00	7,058.81	7,064.38	6,960.40	151.77	30.38	-13.91	1,280.69	610.62	6,034.84	5,969.42	65.42	92.250		
12,300.00	7,058.52	7,064.24	6,960.30	154.55	30.38	-13.84	1,280.80	610.62	6,134.82	6,069.34	65.47	93.699		
12,400.00	7,058.24	7,064.10	6,960.21	157.34	30.38	-13.78	1,280.90	610.62	6,234.80	6,169.27	65.53	95.144		
12,500.00	7,057.96	7,063.96	6,960.12	160.14	30.38	-13.73	1,281.01	610.62	6,334.78	6,269.19	65.59	96.586		
12,600.00	7,057.67	7,063.83	6,960.03	162.93	30.38	-13.67	1,281.11	610.62	6,434.76	6,369.12	65.65	98.023		
12,700.00	7,057.39	7,063.70	6,959.95	165.73	30.38	-13.61	1,281.21	610.61	6,534.75	6,469.04	65.70	99.457		
12,800.00	7,057.10	7,063.57	6,959.87	168.53	30.38	-13.56	1,281.30	610.61	6,634.73	6,568.97	65.76	100.887		
12,900.00	7,056.82	7,063.45	6,959.79	171.33	30.38	-13.51	1,281.40	610.61	6,734.71	6,668.89	65.82	102.313		
13,000.00	7,056.53	7,063.33	6,959.71	174.13	30.38	-13.46	1,281.49	610.61	6,834.70	6,768.81	65.89	103.734		
13,100.00	7,056.25	7,063.21	6,959.63	176.94	30.38	-13.41	1,281.58	610.61	6,934.68	6,868.74	65.95	105.152		
13,200.00	7,055.96	7,063.10	6,959.56	179.74	30.38	-13.36	1,281.66	610.61	7,034.67	6,968.66	66.01	106.565		
13,300.00	7,055.68	7,062.98	6,959.48	182.55	30.38	-13.31	1,281.75	610.61	7,134.66	7,068.58	66.08	107.975		
13,400.00	7,055.39	7,062.87	6,959.41	185.36	30.38	-13.26	1,281.83	610.61	7,234.64	7,168.50	66.14	109.380		
13,500.00	7,055.11	7,062.77	6,959.34	188.17	30.38	-13.22	1,281.91	610.60	7,334.63	7,268.42	66.21	110.781		
13,600.00	7,054.82	7,062.66	6,959.27	190.98	30.38	-13.17	1,281.99	610.60	7,434.61	7,368.34	66.28	112.178		
13,700.00	7,054.54	7,062.56	6,959.21	193.80	30.38	-13.13	1,282.07	610.60	7,534.60	7,468.26	66.34	113.570		
13,800.00	7,054.25	7,062.46	6,959.14	196.61	30.38	-13.09	1,282.15	610.60	7,634.59	7,568.18	66.41	114.958		
13,900.00	7,053.97	7,062.36	6,959.08	199.43	30.38	-13.05	1,282.22	610.60	7,734.58	7,668.10	66.48	116.342		
14,000.00	7,053.68	7,062.27	6,959.02	202.25	30.38	-13.01	1,282.29	610.60	7,834.57	7,768.01	66.55	117.721		
14,100.00	7,053.40	7,062.17	6,958.95	205.06	30.38	-12.97	1,282.36	610.60	7,934.55	7,867.93	66.62	119.096		
14,200.00	7,053.11	7,049.00	6,950.26	207.88	30.36	-7.72	1,292.26	610.53	8,034.62	7,967.95	66.68	120.499		
14,300.00	7,052.83	7,049.00	6,950.26	210.70	30.36	-7.72	1,292.26	610.53	8,134.61	8,067.86	66.75	121.865		
14,400.00	7,052.54	7,049.00	6,950.26	213.53	30.36	-7.72	1,292.26	610.53	8,234.60	8,167.78	66.82	123.226		
14,500.00	7,052.26	7,049.00	6,950.26	216.35	30.36	-7.72	1,292.26	610.53	8,334.59	8,267.69	66.90	124.583		
14,600.00	7,051.98	7,049.00	6,950.26	219.17	30.36	-7.72	1,292.26	610.53	8,434.58	8,367.60	66.98	125.936		
14,700.00	7,051.69	7,049.00	6,950.26	222.00	30.36	-7.72	1,292.26	610.53	8,534.57	8,467.51	67.05	127.284		
14,800.00	7,051.41	7,049.00	6,950.26	224.82	30.36	-7.72	1,292.26	610.53	8,634.55	8,567.43	67.13	128.627		
14,900.00	7,051.12	7,049.00	6,950.26	227.65	30.36	-7.72	1,292.26	610.53	8,734.54	8,667.34	67.21	129.965		
14,942.37	7,051.00	7,049.00	6,950.26	228.85	30.36	-7.72	1,292.26	610.53	8,776.91	8,709.67	67.24	130.531		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	10.46	2.46	3.28	3.28	52.82	1,283.86	1,692.64	2,124.46					
100.00	100.00	141.14	133.13	3.28	3.29	52.80	1,283.76	1,691.34	2,123.63	2,117.05	6.58	322.862		
200.00	200.00	256.81	248.76	3.34	3.37	52.75	1,284.01	1,688.34	2,121.68	2,114.97	6.71	316.206		
300.00	300.00	361.03	352.90	3.44	3.51	52.66	1,285.01	1,684.24	2,119.13	2,112.17	6.95	304.800		
400.00	399.98	452.13	443.89	3.60	3.67	59.95	1,286.86	1,680.30	2,116.04	2,108.77	7.27	290.978		
500.00	499.84	551.86	543.48	3.81	3.89	60.02	1,289.41	1,675.73	2,111.33	2,103.64	7.69	274.396		
600.00	599.45	650.03	641.47	4.06	4.15	60.18	1,292.64	1,670.76	2,104.94	2,096.75	8.19	257.029		
700.00	698.70	745.07	736.30	4.34	4.43	60.43	1,296.36	1,665.62	2,096.94	2,088.20	8.74	239.914		
800.00	797.47	847.39	838.35	4.64	4.75	60.79	1,301.01	1,659.84	2,087.41	2,078.04	9.37	222.759		
900.00	895.65	940.34	931.06	4.98	5.07	61.18	1,305.08	1,654.47	2,076.10	2,066.08	10.02	207.228		
1,000.00	993.66	1,035.24	1,025.64	5.32	5.41	61.43	1,310.22	1,648.85	2,064.87	2,054.16	10.71	192.749		
1,100.00	1,091.67	1,310.79	1,297.54	5.69	6.59	61.66	1,331.74	1,610.97	2,047.79	2,035.58	12.22	167.589		
1,200.00	1,189.68	1,420.43	1,405.10	6.09	7.12	61.70	1,339.37	1,591.07	2,027.76	2,014.66	13.10	154.799		
1,300.00	1,287.69	1,508.44	1,491.36	6.49	7.57	61.72	1,345.76	1,574.83	2,007.68	1,993.76	13.91	144.322		
1,400.00	1,385.69	1,681.66	1,661.01	6.90	8.47	61.79	1,355.49	1,541.35	1,985.82	1,970.71	15.12	131.343		
1,500.00	1,483.70	1,788.23	1,765.39	7.33	9.04	61.89	1,358.86	1,520.13	1,962.20	1,946.17	16.04	122.369		
1,600.00	1,581.71	1,867.66	1,843.24	7.76	9.47	61.98	1,360.89	1,504.53	1,938.50	1,921.66	16.84	115.085		
1,700.00	1,679.72	1,935.98	1,910.40	8.19	9.83	62.07	1,362.99	1,492.15	1,916.24	1,898.63	17.62	108.782		
1,800.00	1,777.73	2,011.00	1,984.31	8.63	10.23	62.18	1,365.61	1,479.59	1,895.32	1,876.90	18.42	102.894		
1,900.00	1,875.74	2,074.73	2,047.21	9.08	10.56	62.28	1,368.34	1,469.72	1,875.88	1,856.70	19.18	97.784		
2,000.00	1,973.75	2,156.74	2,128.23	9.53	10.98	62.40	1,372.84	1,457.85	1,857.93	1,837.90	20.03	92.750		
2,100.00	2,071.76	2,248.89	2,219.20	9.98	11.46	62.52	1,378.63	1,444.32	1,840.32	1,819.39	20.93	87.912		
2,200.00	2,169.77	2,337.47	2,306.57	10.44	11.93	62.61	1,385.09	1,431.23	1,823.22	1,801.38	21.83	83.510		
2,300.00	2,267.77	2,430.12	2,397.90	10.90	12.42	62.68	1,392.57	1,417.58	1,806.59	1,783.84	22.76	79.391		
2,400.00	2,365.78	2,523.09	2,489.72	11.36	12.91	62.80	1,399.30	1,404.62	1,790.15	1,766.47	23.68	75.602		
2,500.00	2,463.79	2,613.03	2,578.64	11.82	13.38	62.92	1,405.73	1,392.75	1,774.26	1,749.67	24.59	72.167		
2,600.00	2,561.80	2,713.09	2,677.66	12.28	13.89	63.08	1,412.54	1,380.03	1,758.58	1,733.04	25.53	68.872		
2,700.00	2,659.81	2,846.10	2,809.15	12.75	14.59	63.28	1,421.34	1,362.01	1,742.23	1,715.61	26.62	65.447		
2,800.00	2,757.82	2,975.67	2,936.65	13.21	15.30	63.41	1,429.89	1,340.71	1,723.36	1,695.65	27.71	62.201		
2,900.00	2,855.83	3,064.22	3,023.80	13.68	15.80	63.51	1,435.40	1,325.97	1,704.18	1,675.54	28.64	59.510		
3,000.00	2,953.84	3,164.40	3,122.51	14.15	16.35	63.64	1,441.15	1,309.84	1,685.18	1,655.58	29.60	56.923		
3,100.00	3,051.85	3,258.77	3,215.46	14.62	16.87	63.77	1,446.65	1,294.56	1,666.18	1,635.63	30.55	54.536		
3,200.00	3,149.85	3,337.53	3,293.28	15.09	17.29	63.92	1,450.55	1,283.02	1,647.95	1,616.51	31.43	52.426		
3,300.00	3,247.86	3,451.66	3,406.28	15.56	17.88	64.23	1,454.29	1,267.52	1,629.67	1,597.25	32.41	50.281		
3,400.00	3,345.87	3,531.00	3,484.93	16.04	18.28	64.47	1,456.49	1,257.29	1,611.73	1,578.45	33.27	48.439		
3,500.00	3,443.88	3,617.51	3,570.71	16.51	18.72	64.73	1,459.67	1,246.59	1,594.76	1,560.60	34.16	46.684		
3,600.00	3,541.89	3,708.77	3,661.11	16.98	19.19	64.95	1,464.47	1,234.96	1,578.36	1,543.28	35.08	44.996		
3,700.00	3,639.90	3,823.67	3,774.59	17.46	19.80	65.15	1,472.29	1,218.84	1,561.78	1,525.68	36.10	43.266		
3,800.00	3,737.91	3,937.49	3,886.60	17.93	20.45	65.27	1,481.16	1,200.68	1,544.12	1,506.99	37.13	41.582		
3,900.00	3,835.92	4,053.23	4,000.34	18.41	21.11	65.39	1,489.74	1,181.03	1,525.42	1,487.25	38.18	39.957		
4,000.00	3,933.93	4,169.83	4,114.84	18.88	21.79	65.52	1,497.28	1,160.29	1,505.54	1,466.33	39.21	38.396		
4,100.00	4,031.93	4,259.36	4,202.77	19.36	22.29	65.65	1,502.38	1,144.23	1,485.16	1,444.99	40.16	36.978		
4,200.00	4,129.94	4,341.76	4,283.91	19.84	22.76	65.80	1,506.77	1,130.62	1,465.76	1,424.66	41.09	35.670		
4,300.00	4,227.95	4,428.45	4,369.49	20.31	23.24	66.01	1,511.16	1,117.48	1,447.35	1,405.33	42.02	34.442		
4,400.00	4,325.96	4,520.00	4,459.93	20.79	23.73	66.23	1,515.90	1,104.11	1,429.51	1,386.55	42.96	33.276		
4,500.00	4,423.97	4,609.32	4,548.22	21.27	24.21	66.46	1,520.69	1,091.48	1,412.19	1,368.30	43.89	32.178		
4,600.00	4,521.98	4,695.09	4,633.10	21.75	24.66	66.70	1,525.41	1,080.11	1,395.69	1,350.89	44.80	31.155		
4,700.00	4,619.99	4,779.95	4,717.19	22.23	25.10	66.95	1,530.17	1,069.69	1,380.13	1,334.42	45.70	30.197		
4,800.00	4,718.00	4,859.82	4,796.43	22.70	25.50	67.20	1,534.90	1,060.87	1,365.79	1,319.21	46.58	29.320		
4,900.00	4,816.01	4,944.83	4,880.87	23.18	25.91	67.50	1,540.08	1,052.58	1,352.69	1,305.22	47.46	28.499		
5,000.00	4,914.01	5,038.80	4,974.31	23.66	26.36	67.86	1,545.70	1,044.27	1,340.36	1,291.99	48.37	27.711		
5,100.00	5,012.02	5,145.07	5,079.89	24.14	26.88	68.24	1,552.59	1,034.45	1,327.99	1,278.67	49.32	26.924		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,110.03	5,234.81	5,169.02	24.62	27.31	68.55	1,558.73	1,025.99	1,315.69	1,265.46	50.22	26.196		
5,300.00	5,208.04	5,334.99	5,268.67	25.10	27.79	68.96	1,564.61	1,017.48	1,303.77	1,252.62	51.15	25.491		
5,400.00	5,306.05	5,424.59	5,357.91	25.58	28.20	69.39	1,568.82	1,010.71	1,292.18	1,240.17	52.01	24.843		
5,500.00	5,404.06	5,510.99	5,444.09	26.06	28.58	69.87	1,572.09	1,005.43	1,281.52	1,228.66	52.85	24.247		
5,600.00	5,502.07	5,601.11	5,534.06	26.54	28.96	70.44	1,574.86	1,001.12	1,271.82	1,218.13	53.69	23.689		
5,700.00	5,600.08	5,695.81	5,628.65	27.02	29.36	71.06	1,577.36	997.34	1,262.77	1,208.23	54.53	23.157		
5,800.00	5,698.09	5,793.55	5,726.28	27.50	29.76	71.72	1,580.06	993.54	1,254.04	1,198.65	55.38	22.642		
5,900.00	5,796.09	5,891.52	5,824.16	27.98	30.17	72.41	1,582.39	989.96	1,245.52	1,189.29	56.23	22.149		
6,000.00	5,894.10	5,984.42	5,917.00	28.46	30.54	73.10	1,584.00	987.07	1,237.41	1,180.36	57.06	21.688		
6,100.00	5,992.11	6,083.61	6,016.15	28.94	30.94	73.89	1,585.11	984.55	1,229.78	1,171.88	57.89	21.242		
6,200.00	6,090.12	6,182.64	6,115.14	29.42	31.33	74.69	1,585.94	982.02	1,222.26	1,163.53	58.73	20.811		
6,300.00	6,188.13	6,277.62	6,210.10	29.90	31.70	75.52	1,585.83	980.06	1,215.08	1,155.55	59.54	20.409		
6,400.00	6,286.14	6,374.10	6,306.56	30.38	32.05	76.42	1,584.91	978.62	1,208.40	1,148.07	60.34	20.028		
6,500.00	6,384.15	6,482.92	6,415.36	30.87	32.47	77.42	1,584.20	976.67	1,201.90	1,140.71	61.19	19.642		
6,600.00	6,482.15	6,836.42	6,757.19	31.35	33.65	92.44	1,508.50	952.66	1,183.68	1,122.43	61.25	19.327		
6,700.00	6,579.21	6,947.45	6,853.94	31.83	33.94	127.18	1,455.32	942.13	1,168.57	1,106.72	61.86	18.891		
6,731.81	6,609.52	6,965.57	6,868.86	31.98	33.98	133.71	1,445.14	940.77	1,167.52	1,105.34	62.18	18.776 CC, ES		
6,800.00	6,673.04	7,015.25	6,908.73	32.30	34.08	144.18	1,415.67	937.72	1,172.27	1,109.48	62.79	18.670 SF		
6,900.00	6,761.33	7,092.63	6,967.56	32.74	34.22	154.40	1,365.65	933.14	1,195.41	1,131.80	63.61	18.793		
7,000.00	6,841.90	7,143.66	7,004.42	33.17	34.31	160.56	1,330.47	930.38	1,237.90	1,173.54	64.36	19.234		
7,100.00	6,912.77	7,189.07	7,035.91	33.60	34.39	165.22	1,297.83	928.12	1,297.87	1,232.95	64.92	19.991		
7,200.00	6,972.19	7,223.33	7,058.65	34.09	34.45	169.01	1,272.26	926.49	1,372.33	1,307.03	65.30	21.016		
7,300.00	7,018.70	7,246.80	7,073.58	34.73	34.49	172.65	1,254.19	925.45	1,457.98	1,392.47	65.51	22.256		
7,400.00	7,051.15	7,262.31	7,083.11	35.55	34.52	177.76	1,241.96	924.81	1,551.43	1,485.82	65.61	23.648		
7,500.00	7,068.75	7,271.26	7,088.46	36.56	34.54	-167.20	1,234.80	924.46	1,649.46	1,583.82	65.64	25.128		
7,600.00	7,071.91	7,275.02	7,090.68	37.71	34.55	-99.80	1,231.77	924.32	1,749.23	1,683.58	65.65	26.644		
7,700.00	7,071.62	7,277.71	7,092.25	39.03	34.55	-100.60	1,229.59	924.22	1,849.12	1,783.46	65.66	28.163		
7,800.00	7,071.34	7,280.30	7,093.75	40.51	34.55	-101.33	1,227.48	924.12	1,949.02	1,883.36	65.67	29.680		
7,900.00	7,071.05	7,282.81	7,095.20	42.14	34.56	-101.99	1,225.42	924.03	2,048.93	1,983.25	65.68	31.196		
8,000.00	7,070.77	7,285.25	7,096.59	43.89	34.56	-102.59	1,223.43	923.95	2,148.84	2,083.15	65.69	32.712		
8,100.00	7,070.48	7,287.60	7,097.92	45.76	34.57	-103.13	1,221.49	923.87	2,248.75	2,183.05	65.70	34.226		
8,200.00	7,070.20	7,289.88	7,099.21	47.72	34.57	-103.63	1,219.61	923.79	2,348.67	2,282.95	65.72	35.739		
8,300.00	7,069.92	7,292.10	7,100.45	49.78	34.58	-104.09	1,217.78	923.72	2,448.59	2,382.86	65.73	37.250		
8,400.00	7,069.63	7,299.00	7,104.26	51.90	34.59	-105.36	1,212.02	923.50	2,548.52	2,482.75	65.77	38.749		
8,500.00	7,069.35	7,299.00	7,104.26	54.10	34.59	-105.36	1,212.02	923.50	2,648.44	2,582.66	65.78	40.263		
8,600.00	7,069.06	7,299.00	7,104.26	56.36	34.59	-105.36	1,212.02	923.50	2,748.37	2,682.58	65.79	41.775		
8,700.00	7,068.78	7,299.00	7,104.26	58.66	34.59	-105.36	1,212.02	923.50	2,848.30	2,782.50	65.80	43.286		
8,800.00	7,068.49	7,299.00	7,104.26	61.02	34.59	-105.36	1,212.02	923.50	2,948.24	2,882.42	65.82	44.795		
8,900.00	7,068.21	7,299.00	7,104.26	63.42	34.59	-105.36	1,212.02	923.50	3,048.18	2,982.34	65.83	46.302		
9,000.00	7,067.92	7,299.00	7,104.26	65.85	34.59	-105.36	1,212.02	923.50	3,148.12	3,082.27	65.85	47.808		
9,100.00	7,067.64	7,299.00	7,104.26	68.32	34.59	-105.36	1,212.02	923.50	3,248.07	3,182.20	65.87	49.312		
9,200.00	7,067.35	7,299.00	7,104.26	70.81	34.59	-105.36	1,212.02	923.50	3,348.02	3,282.13	65.89	50.814		
9,300.00	7,067.07	7,299.00	7,104.26	73.34	34.59	-105.36	1,212.02	923.50	3,447.97	3,382.06	65.91	52.314		
9,400.00	7,066.78	7,299.00	7,104.26	75.88	34.59	-105.36	1,212.02	923.50	3,547.93	3,482.00	65.93	53.812		
9,500.00	7,066.50	7,299.00	7,104.26	78.45	34.59	-105.36	1,212.02	923.50	3,647.89	3,581.93	65.96	55.308		
9,600.00	7,066.21	7,299.00	7,104.26	81.04	34.59	-105.36	1,212.02	923.50	3,747.85	3,681.87	65.98	56.802		
9,700.00	7,065.93	7,299.00	7,104.26	83.64	34.59	-105.36	1,212.02	923.50	3,847.81	3,781.80	66.01	58.293		
9,800.00	7,065.64	7,299.00	7,104.26	86.26	34.59	-105.36	1,212.02	923.50	3,947.78	3,881.74	66.04	59.783		
9,900.00	7,065.36	7,299.00	7,104.26	88.90	34.59	-105.36	1,212.02	923.50	4,047.74	3,981.68	66.06	61.270		
10,000.00	7,065.07	7,299.00	7,104.26	91.55	34.59	-105.36	1,212.02	923.50	4,147.71	4,081.62	66.09	62.754		
10,100.00	7,064.79	7,299.00	7,104.26	94.21	34.59	-105.36	1,212.02	923.50	4,247.68	4,181.56	66.13	64.236		
10,200.00	7,064.50	7,311.17	7,110.80	96.88	34.61	-107.15	1,201.77	923.19	4,347.57	4,281.37	66.20	65.672		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,064.22	7,311.72	7,111.09	99.57	34.61	-107.22	1,201.30	923.18	4,447.54	4,381.30	66.24	67.147		
10,400.00	7,063.94	7,312.25	7,111.37	102.26	34.61	-107.29	1,200.85	923.17	4,547.51	4,481.23	66.27	68.618		
10,500.00	7,063.65	7,312.76	7,111.64	104.96	34.61	-107.35	1,200.41	923.16	4,647.48	4,581.17	66.31	70.087		
10,600.00	7,063.37	7,313.26	7,111.90	107.67	34.61	-107.41	1,199.99	923.15	4,747.44	4,681.10	66.35	71.553		
10,700.00	7,063.08	7,313.74	7,112.16	110.39	34.61	-107.47	1,199.58	923.14	4,847.41	4,781.03	66.39	73.016		
10,800.00	7,062.80	7,314.21	7,112.40	113.11	34.61	-107.53	1,199.18	923.13	4,947.39	4,880.96	66.43	74.477		
10,900.00	7,062.51	7,314.66	7,112.64	115.84	34.61	-107.58	1,198.80	923.12	5,047.36	4,980.89	66.47	75.934		
11,000.00	7,062.23	7,315.10	7,112.87	118.58	34.62	-107.63	1,198.42	923.11	5,147.33	5,080.82	66.51	77.389		
11,100.00	7,061.94	7,315.52	7,113.09	121.32	34.62	-107.68	1,198.06	923.11	5,247.30	5,180.75	66.56	78.840		
11,200.00	7,061.66	7,315.93	7,113.30	124.07	34.62	-107.73	1,197.71	923.10	5,347.28	5,280.68	66.60	80.289		
11,300.00	7,061.37	7,316.33	7,113.51	126.82	34.62	-107.77	1,197.37	923.09	5,447.25	5,380.61	66.65	81.734		
11,400.00	7,061.09	7,316.72	7,113.71	129.58	34.62	-107.82	1,197.04	923.09	5,547.23	5,480.54	66.69	83.176		
11,500.00	7,060.80	7,317.10	7,113.91	132.34	34.62	-107.86	1,196.72	923.08	5,647.21	5,580.47	66.74	84.614		
11,600.00	7,060.52	7,317.46	7,114.10	135.10	34.62	-107.90	1,196.41	923.08	5,747.18	5,680.40	66.79	86.050		
11,700.00	7,060.23	7,317.82	7,114.28	137.87	34.62	-107.94	1,196.10	923.07	5,847.16	5,780.32	66.84	87.482		
11,800.00	7,059.95	7,318.16	7,114.46	140.64	34.62	-107.97	1,195.81	923.06	5,947.14	5,880.25	66.89	88.910		
11,900.00	7,059.66	7,331.00	7,121.00	143.42	34.64	-109.17	1,184.76	922.94	6,047.20	5,980.21	66.98	90.278		
12,000.00	7,059.38	7,331.00	7,121.00	146.20	34.64	-109.17	1,184.76	922.94	6,147.17	6,080.14	67.04	91.700		
12,100.00	7,059.09	7,331.00	7,121.00	148.98	34.64	-109.17	1,184.76	922.94	6,247.15	6,180.06	67.09	93.119		
12,200.00	7,058.81	7,331.00	7,121.00	151.77	34.64	-109.17	1,184.76	922.94	6,347.13	6,279.99	67.14	94.534		
12,300.00	7,058.52	7,331.00	7,121.00	154.55	34.64	-109.17	1,184.76	922.94	6,447.10	6,379.91	67.20	95.946		
12,400.00	7,058.24	7,331.00	7,121.00	157.34	34.64	-109.17	1,184.76	922.94	6,547.08	6,479.83	67.25	97.354		
12,500.00	7,057.96	7,331.00	7,121.00	160.14	34.64	-109.17	1,184.76	922.94	6,647.06	6,579.76	67.31	98.758		
12,600.00	7,057.67	7,331.00	7,121.00	162.93	34.64	-109.17	1,184.76	922.94	6,747.04	6,679.68	67.36	100.158		
12,700.00	7,057.39	7,331.00	7,121.00	165.73	34.64	-109.17	1,184.76	922.94	6,847.02	6,779.60	67.42	101.555		
12,800.00	7,057.10	7,331.00	7,121.00	168.53	34.64	-109.17	1,184.76	922.94	6,947.00	6,879.52	67.48	102.947		
12,900.00	7,056.82	7,331.00	7,121.00	171.33	34.64	-109.17	1,184.76	922.94	7,046.99	6,979.44	67.54	104.336		
13,000.00	7,056.53	7,331.00	7,121.00	174.13	34.64	-109.17	1,184.76	922.94	7,146.97	7,079.37	67.60	105.721		
13,100.00	7,056.25	7,331.00	7,121.00	176.94	34.64	-109.17	1,184.76	922.94	7,246.95	7,179.29	67.66	107.102		
13,200.00	7,055.96	7,331.00	7,121.00	179.74	34.64	-109.17	1,184.76	922.94	7,346.93	7,279.21	67.73	108.479		
13,300.00	7,055.68	7,331.00	7,121.00	182.55	34.64	-109.17	1,184.76	922.94	7,446.92	7,379.13	67.79	109.852		
13,400.00	7,055.39	7,331.00	7,121.00	185.36	34.64	-109.17	1,184.76	922.94	7,546.90	7,479.05	67.86	111.221		
13,500.00	7,055.11	7,331.00	7,121.00	188.17	34.64	-109.17	1,184.76	922.94	7,646.88	7,578.96	67.92	112.585		
13,600.00	7,054.82	7,331.00	7,121.00	190.98	34.64	-109.17	1,184.76	922.94	7,746.87	7,678.88	67.99	113.946		
13,700.00	7,054.54	7,331.00	7,121.00	193.80	34.64	-109.17	1,184.76	922.94	7,846.85	7,778.80	68.05	115.302		
13,800.00	7,054.25	7,331.00	7,121.00	196.61	34.64	-109.17	1,184.76	922.94	7,946.84	7,878.72	68.12	116.655		
13,900.00	7,053.97	7,331.00	7,121.00	199.43	34.64	-109.17	1,184.76	922.94	8,046.83	7,978.63	68.19	118.003		
14,000.00	7,053.68	7,331.00	7,121.00	202.25	34.64	-109.17	1,184.76	922.94	8,146.81	8,078.55	68.26	119.346		
14,100.00	7,053.40	7,331.00	7,121.00	205.06	34.64	-109.17	1,184.76	922.94	8,246.80	8,178.47	68.33	120.686		
14,200.00	7,053.11	7,331.00	7,121.00	207.88	34.64	-109.17	1,184.76	922.94	8,346.79	8,278.38	68.40	122.021		
14,300.00	7,052.83	7,331.00	7,121.00	210.70	34.64	-109.17	1,184.76	922.94	8,446.77	8,378.30	68.48	123.352		
14,400.00	7,052.54	7,331.00	7,121.00	213.53	34.64	-109.17	1,184.76	922.94	8,546.76	8,478.21	68.55	124.678		
14,500.00	7,052.26	7,331.00	7,121.00	216.35	34.64	-109.17	1,184.76	922.94	8,646.75	8,578.12	68.62	126.001		
14,600.00	7,051.98	7,331.00	7,121.00	219.17	34.64	-109.17	1,184.76	922.94	8,746.74	8,678.04	68.70	127.318		
14,700.00	7,051.69	7,331.00	7,121.00	222.00	34.64	-109.17	1,184.76	922.94	8,846.72	8,777.95	68.78	128.631		
14,800.00	7,051.41	7,331.00	7,121.00	224.82	34.64	-109.17	1,184.76	922.94	8,946.71	8,877.86	68.85	129.940		
14,900.00	7,051.12	7,331.00	7,121.00	227.65	34.64	-109.17	1,184.76	922.94	9,046.70	8,977.77	68.93	131.245		
14,942.37	7,051.00	7,331.00	7,121.00	228.85	34.64	-109.17	1,184.76	922.94	9,089.07	9,020.11	68.96	131.796		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	3.28	0.00	19.67	0.00	19.67					
100.00	100.00	100.00	100.00	3.28	3.28	0.00	19.67	0.00	19.67	13.10	6.57	2.994		
200.00	200.00	200.00	200.00	3.34	3.34	0.00	19.67	0.00	19.67	12.99	6.67	2.947 CC		
300.00	300.00	299.28	299.26	3.44	3.44	-0.46	21.38	-0.17	21.39	14.49	6.90	3.100		
400.00	399.98	398.43	398.27	3.60	3.61	6.22	26.50	-0.69	24.84	17.59	7.24	3.429		
500.00	499.84	497.45	496.92	3.81	3.81	5.94	35.02	-1.54	28.26	20.57	7.68	3.678		
600.00	599.45	596.36	595.10	4.06	4.06	5.90	46.91	-2.73	31.65	23.45	8.20	3.859		
700.00	698.70	695.16	692.70	4.34	4.34	6.02	62.14	-4.26	35.01	26.23	8.79	3.985		
800.00	797.47	793.84	789.60	4.64	4.65	6.26	80.69	-6.13	38.34	28.92	9.43	4.068		
900.00	895.65	892.41	885.69	4.98	4.98	6.58	102.52	-8.32	41.76	31.66	10.11	4.132		
1,000.00	993.66	990.72	980.71	5.32	5.34	6.61	127.56	-10.83	47.69	36.86	10.82	4.406		
1,100.00	1,091.67	1,089.34	1,075.22	5.69	5.73	6.35	155.61	-13.65	56.70	45.14	11.56	4.905		
1,200.00	1,189.68	1,188.88	1,170.45	6.09	6.16	6.12	184.44	-16.54	66.25	53.94	12.31	5.380		
1,300.00	1,287.69	1,288.43	1,265.69	6.49	6.60	5.96	213.27	-19.44	75.80	62.70	13.10	5.788		
1,400.00	1,385.69	1,387.97	1,360.92	6.90	7.05	5.82	242.10	-22.33	85.36	71.45	13.91	6.138		
1,500.00	1,483.70	1,487.51	1,456.15	7.33	7.51	5.72	270.93	-25.23	94.91	80.18	14.73	6.442		
1,600.00	1,581.71	1,587.05	1,551.38	7.76	7.99	5.63	299.77	-28.12	104.47	88.89	15.58	6.706		
1,700.00	1,679.72	1,686.60	1,646.61	8.19	8.47	5.56	328.60	-31.02	114.02	97.58	16.44	6.936		
1,800.00	1,777.73	1,786.14	1,741.84	8.63	8.95	5.50	357.43	-33.91	123.58	106.27	17.31	7.139		
1,900.00	1,875.74	1,885.68	1,837.08	9.08	9.45	5.45	386.26	-36.80	133.13	114.94	18.19	7.318		
2,000.00	1,973.75	1,985.22	1,932.31	9.53	9.94	5.41	415.09	-39.70	142.69	123.60	19.08	7.477		
2,100.00	2,071.76	2,084.77	2,027.54	9.98	10.44	5.37	443.92	-42.59	152.24	132.26	19.98	7.619		
2,200.00	2,169.77	2,184.31	2,122.77	10.44	10.95	5.33	472.75	-45.49	161.80	140.91	20.89	7.746		
2,300.00	2,267.77	2,283.85	2,218.00	10.90	11.45	5.30	501.58	-48.38	171.35	149.55	21.80	7.861		
2,400.00	2,365.78	2,383.39	2,313.24	11.36	11.96	5.28	530.41	-51.28	180.91	158.19	22.71	7.964		
2,500.00	2,463.79	2,482.94	2,408.47	11.82	12.47	5.25	559.24	-54.17	190.46	166.83	23.64	8.058		
2,600.00	2,561.80	2,582.48	2,503.70	12.28	12.99	5.23	588.07	-57.07	200.02	175.46	24.56	8.144		
2,700.00	2,659.81	2,682.02	2,598.93	12.75	13.50	5.21	616.90	-59.96	209.57	184.08	25.49	8.222		
2,800.00	2,757.82	2,781.56	2,694.16	13.21	14.02	5.19	645.73	-62.85	219.13	192.71	26.42	8.293		
2,900.00	2,855.83	2,881.10	2,789.39	13.68	14.54	5.17	674.56	-65.75	228.68	201.33	27.36	8.359		
3,000.00	2,953.84	2,980.65	2,884.63	14.15	15.06	5.16	703.40	-68.64	238.24	209.95	28.30	8.420		
3,100.00	3,051.85	3,080.19	2,979.86	14.62	15.58	5.14	732.23	-71.54	247.80	218.56	29.24	8.476		
3,200.00	3,149.85	3,179.73	3,075.09	15.09	16.10	5.13	761.06	-74.43	257.35	227.17	30.18	8.528		
3,300.00	3,247.86	3,279.27	3,170.32	15.56	16.62	5.12	789.89	-77.33	266.91	235.79	31.12	8.576		
3,400.00	3,345.87	3,378.82	3,265.55	16.04	17.14	5.11	818.72	-80.22	276.46	244.39	32.07	8.621		
3,500.00	3,443.88	3,478.36	3,360.79	16.51	17.67	5.10	847.55	-83.12	286.02	253.00	33.02	8.663		
3,600.00	3,541.89	3,577.90	3,456.02	16.98	18.19	5.09	876.38	-86.01	295.57	261.61	33.96	8.702		
3,700.00	3,639.90	3,677.44	3,551.25	17.46	18.72	5.08	905.21	-88.90	305.13	270.21	34.92	8.739		
3,800.00	3,737.91	3,776.99	3,646.48	17.93	19.24	5.07	934.04	-91.80	314.69	278.82	35.87	8.774		
3,900.00	3,835.92	3,876.53	3,741.71	18.41	19.77	5.06	962.87	-94.69	324.24	287.42	36.82	8.806		
4,000.00	3,933.93	3,976.07	3,836.94	18.88	20.30	5.05	991.70	-97.59	333.80	296.02	37.77	8.837		
4,100.00	4,031.93	4,075.61	3,932.18	19.36	20.82	5.04	1,020.53	-100.48	343.35	304.62	38.73	8.865		
4,200.00	4,129.94	4,175.16	4,027.41	19.84	21.35	5.04	1,049.36	-103.38	352.91	313.22	39.69	8.893		
4,300.00	4,227.95	4,274.70	4,122.64	20.31	21.88	5.03	1,078.19	-106.27	362.46	321.82	40.64	8.918		
4,400.00	4,325.96	4,374.24	4,217.87	20.79	22.41	5.02	1,107.03	-109.17	372.02	330.42	41.60	8.943		
4,500.00	4,423.97	4,473.78	4,313.10	21.27	22.94	5.02	1,135.86	-112.06	381.58	339.02	42.56	8.966		
4,600.00	4,521.98	4,573.33	4,408.34	21.75	23.47	5.01	1,164.69	-114.96	391.13	347.61	43.52	8.988		
4,700.00	4,619.99	4,672.87	4,503.57	22.23	24.00	5.01	1,193.52	-117.85	400.69	356.21	44.48	9.009		
4,800.00	4,718.00	4,772.41	4,598.80	22.70	24.53	5.00	1,222.35	-120.74	410.24	364.81	45.44	9.029		
4,900.00	4,816.01	4,871.95	4,694.03	23.18	25.06	5.00	1,251.18	-123.64	419.80	373.40	46.40	9.048		
5,000.00	4,914.01	4,971.49	4,789.26	23.66	25.59	4.99	1,280.01	-126.53	429.35	381.99	47.36	9.066		
5,100.00	5,012.02	5,071.04	4,884.49	24.14	26.12	4.99	1,308.84	-129.43	438.91	390.59	48.32	9.083		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,110.03	5,170.58	4,979.73	24.62	26.65	4.98	1,337.67	-132.32	448.47	399.18	49.28	9.099	
5,300.00	5,208.04	5,270.12	5,074.96	25.10	27.18	4.98	1,366.50	-135.22	458.02	407.77	50.25	9.115	
5,400.00	5,306.05	5,369.66	5,170.19	25.58	27.71	4.97	1,395.33	-138.11	467.58	416.37	51.21	9.130	
5,500.00	5,404.06	5,484.79	5,280.77	26.06	28.31	4.98	1,427.21	-141.31	475.85	423.51	52.34	9.091	
5,600.00	5,502.07	5,604.68	5,397.16	26.54	28.91	5.02	1,455.75	-144.18	480.06	426.63	53.43	8.984	
5,700.00	5,600.08	5,724.77	5,514.85	27.02	29.48	5.10	1,479.46	-146.56	480.09	425.68	54.41	8.824	
5,800.00	5,698.09	5,844.65	5,633.23	27.50	30.02	5.22	1,498.21	-148.44	475.94	420.67	55.27	8.611	
5,900.00	5,796.09	5,963.90	5,751.68	27.98	30.53	5.38	1,511.96	-149.82	467.63	411.62	56.02	8.348	
6,000.00	5,894.10	6,082.13	5,869.56	28.46	31.00	5.58	1,520.74	-150.70	455.22	398.57	56.64	8.037	
6,100.00	5,992.11	6,198.94	5,986.29	28.94	31.44	5.85	1,524.66	-151.09	438.76	381.61	57.15	7.677	
6,200.00	6,090.12	6,302.76	6,090.12	29.42	31.81	6.14	1,524.91	-151.12	419.22	361.37	57.85	7.246	
6,300.00	6,188.13	6,400.77	6,188.13	29.90	32.15	6.44	1,524.91	-151.12	399.48	340.79	58.69	6.806	
6,400.00	6,286.14	6,501.22	6,286.14	30.38	32.51	6.78	1,524.91	-151.12	379.75	320.21	59.54	6.378	
6,500.00	6,384.15	6,603.21	6,384.15	30.87	32.88	7.15	1,524.91	-151.12	360.03	299.63	60.40	5.961	
6,600.00	6,482.15	6,705.21	6,482.15	31.35	33.25	16.47	1,524.91	-151.12	340.34	279.07	61.27	5.555	
6,700.00	6,579.21	6,791.85	6,579.21	31.83	33.56	51.67	1,524.91	-151.12	321.23	259.11	62.12	5.171	
6,800.00	6,673.04	6,889.31	6,676.61	32.30	33.91	72.89	1,524.89	-153.27	305.01	242.04	62.97	4.844	
6,900.00	6,761.33	6,992.96	6,778.76	32.74	34.28	87.56	1,524.76	-170.12	293.05	229.66	63.39	4.623	
7,000.00	6,841.90	7,102.46	6,882.20	33.17	34.66	99.13	1,524.48	-205.66	285.73	222.61	63.12	4.527	
7,100.00	6,912.77	7,218.55	6,983.48	33.60	35.03	108.81	1,524.04	-262.06	282.83	221.07	61.76	4.580	
7,128.43	6,930.89	7,252.84	7,011.25	33.73	35.13	111.26	1,523.88	-282.15	282.70	221.56	61.13	4.624	
7,200.00	6,972.19	7,341.67	7,077.82	34.09	35.38	116.86	1,523.42	-340.88	283.41	224.38	59.03	4.801	
7,300.00	7,018.70	7,471.74	7,159.05	34.73	35.73	123.22	1,522.63	-442.17	285.99	230.87	55.12	5.188	
7,400.00	7,051.15	7,607.88	7,220.20	35.55	36.21	127.69	1,521.68	-563.50	288.90	237.98	50.92	5.674	
7,500.00	7,068.75	7,748.29	7,254.83	36.56	37.21	130.11	1,520.62	-699.28	290.72	242.62	48.10	6.044	
7,600.00	7,071.91	7,875.29	7,260.86	37.71	38.57	130.51	1,519.63	-825.98	290.86	242.27	48.59	5.986	
7,700.00	7,071.62	7,975.29	7,260.48	39.03	39.85	130.50	1,518.85	-925.98	290.77	240.01	50.76	5.729	
7,800.00	7,071.34	8,075.29	7,260.10	40.51	41.30	130.49	1,518.07	-1,025.98	290.69	237.47	53.22	5.462	
7,900.00	7,071.05	8,175.29	7,259.72	42.14	42.90	130.48	1,517.28	-1,125.97	290.61	234.67	55.94	5.195	
8,000.00	7,070.77	8,275.29	7,259.34	43.89	44.62	130.47	1,516.50	-1,225.97	290.52	231.64	58.88	4.934	
8,100.00	7,070.48	8,375.29	7,258.96	45.76	46.45	130.46	1,515.72	-1,325.96	290.44	228.43	62.01	4.684	
8,200.00	7,070.20	8,475.29	7,258.58	47.72	48.39	130.45	1,514.94	-1,425.96	290.35	225.05	65.30	4.446	
8,300.00	7,069.92	8,575.29	7,258.20	49.78	50.41	130.44	1,514.16	-1,525.96	290.27	221.53	68.74	4.223	
8,400.00	7,069.63	8,675.29	7,257.82	51.90	52.51	130.43	1,513.37	-1,625.95	290.18	217.89	72.30	4.014	
8,500.00	7,069.35	8,775.29	7,257.44	54.10	54.69	130.42	1,512.59	-1,725.95	290.10	214.15	75.96	3.819	
8,600.00	7,069.06	8,875.29	7,257.06	56.36	56.92	130.41	1,511.81	-1,825.95	290.02	210.31	79.71	3.639	
8,700.00	7,068.78	8,975.29	7,256.68	58.66	59.20	130.40	1,511.03	-1,925.94	289.93	206.40	83.53	3.471	
8,800.00	7,068.49	9,075.29	7,256.31	61.02	61.54	130.39	1,510.25	-2,025.94	289.85	202.42	87.43	3.315	
8,900.00	7,068.21	9,175.29	7,255.93	63.42	63.91	130.38	1,509.46	-2,125.93	289.76	198.38	91.39	3.171	
9,000.00	7,067.92	9,275.29	7,255.55	65.85	66.33	130.37	1,508.68	-2,225.93	289.68	194.29	95.39	3.037	
9,100.00	7,067.64	9,375.29	7,255.17	68.32	68.78	130.36	1,507.90	-2,325.93	289.60	190.15	99.45	2.912	
9,200.00	7,067.35	9,475.29	7,254.79	70.81	71.25	130.35	1,507.12	-2,425.92	289.51	185.97	103.54	2.796	
9,300.00	7,067.07	9,575.29	7,254.41	73.34	73.76	130.34	1,506.34	-2,525.92	289.43	181.76	107.67	2.688	
9,400.00	7,066.78	9,675.29	7,254.03	75.88	76.29	130.33	1,505.55	-2,625.91	289.34	177.51	111.84	2.587	
9,500.00	7,066.50	9,775.29	7,253.65	78.45	78.85	130.32	1,504.77	-2,725.91	289.26	173.23	116.03	2.493	
9,600.00	7,066.21	9,875.29	7,253.27	81.04	81.42	130.31	1,503.99	-2,825.91	289.18	168.93	120.25	2.405	
9,700.00	7,065.93	9,975.29	7,252.89	83.64	84.01	130.29	1,503.21	-2,925.90	289.09	164.61	124.49	2.322	
9,800.00	7,065.64	10,075.29	7,252.51	86.26	86.62	130.28	1,502.43	-3,025.90	289.01	160.26	128.75	2.245	
9,900.00	7,065.36	10,175.29	7,252.13	88.90	89.24	130.27	1,501.64	-3,125.90	288.93	155.89	133.03	2.172	
10,000.00	7,065.07	10,275.29	7,251.75	91.55	91.88	130.26	1,500.86	-3,225.89	288.84	151.51	137.33	2.103	
10,100.00	7,064.79	10,375.29	7,251.37	94.21	94.53	130.25	1,500.08	-3,325.89	288.76	147.11	141.65	2.039	
10,200.00	7,064.50	10,475.29	7,250.99	96.88	97.20	130.24	1,499.30	-3,425.88	288.67	142.69	145.98	1.977	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 30C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,064.22	10,575.28	7,250.61	99.57	99.87	130.23	1,498.52	-3,525.88	288.59	138.26	150.33	1.920		
10,400.00	7,063.94	10,675.28	7,250.23	102.26	102.55	130.22	1,497.73	-3,625.88	288.51	133.82	154.69	1.865		
10,500.00	7,063.65	10,775.28	7,249.85	104.96	105.25	130.21	1,496.95	-3,725.87	288.42	129.37	159.06	1.813		
10,600.00	7,063.37	10,875.28	7,249.47	107.67	107.95	130.20	1,496.17	-3,825.87	288.34	124.90	163.44	1.764		
10,700.00	7,063.08	10,975.28	7,249.09	110.39	110.66	130.19	1,495.39	-3,925.86	288.25	120.43	167.83	1.718		
10,800.00	7,062.80	11,075.28	7,248.71	113.11	113.37	130.18	1,494.61	-4,025.86	288.17	115.94	172.23	1.673		
10,900.00	7,062.51	11,175.28	7,248.34	115.84	116.10	130.17	1,493.82	-4,125.86	288.09	111.45	176.64	1.631		
11,000.00	7,062.23	11,275.28	7,247.96	118.58	118.83	130.16	1,493.04	-4,225.85	288.00	106.95	181.05	1.591		
11,100.00	7,061.94	11,375.28	7,247.58	121.32	121.56	130.15	1,492.26	-4,325.85	287.92	102.44	185.48	1.552		
11,200.00	7,061.66	11,475.28	7,247.20	124.07	124.30	130.14	1,491.48	-4,425.85	287.84	97.93	189.91	1.516		
11,300.00	7,061.37	11,575.28	7,246.82	126.82	127.05	130.13	1,490.70	-4,525.84	287.75	93.40	194.35	1.481 Level 3		
11,400.00	7,061.09	11,675.28	7,246.44	129.58	129.80	130.12	1,489.91	-4,625.84	287.67	88.87	198.80	1.447 Level 3		
11,500.00	7,060.80	11,775.28	7,246.06	132.34	132.56	130.10	1,489.13	-4,725.83	287.58	84.34	203.25	1.415 Level 3		
11,600.00	7,060.52	11,875.28	7,245.68	135.10	135.31	130.09	1,488.35	-4,825.83	287.50	79.80	207.70	1.384 Level 3		
11,700.00	7,060.23	11,975.28	7,245.30	137.87	138.08	130.08	1,487.57	-4,925.83	287.42	75.25	212.17	1.355 Level 3		
11,800.00	7,059.95	12,075.28	7,244.92	140.64	140.85	130.07	1,486.79	-5,025.82	287.33	70.70	216.64	1.326 Level 3		
11,900.00	7,059.66	12,175.28	7,244.54	143.42	143.62	130.06	1,486.00	-5,125.82	287.25	66.14	221.11	1.299 Level 3		
12,000.00	7,059.38	12,275.28	7,244.16	146.20	146.39	130.05	1,485.22	-5,225.81	287.17	61.58	225.59	1.273 Level 3		
12,100.00	7,059.09	12,375.28	7,243.78	148.98	149.17	130.04	1,484.44	-5,325.81	287.08	57.01	230.07	1.248 Level 2		
12,200.00	7,058.81	12,475.28	7,243.40	151.77	151.95	130.03	1,483.66	-5,425.81	287.00	52.44	234.56	1.224 Level 2		
12,300.00	7,058.52	12,575.28	7,243.02	154.55	154.73	130.02	1,482.88	-5,525.80	286.91	47.86	239.05	1.200 Level 2		
12,400.00	7,058.24	12,675.28	7,242.64	157.34	157.52	130.01	1,482.09	-5,625.80	286.83	43.28	243.55	1.178 Level 2		
12,500.00	7,057.96	12,775.28	7,242.26	160.14	160.31	130.00	1,481.31	-5,725.80	286.75	38.70	248.05	1.156 Level 2		
12,600.00	7,057.67	12,875.28	7,241.88	162.93	163.10	129.99	1,480.53	-5,825.79	286.66	34.11	252.55	1.135 Level 2		
12,700.00	7,057.39	12,975.28	7,241.50	165.73	165.89	129.98	1,479.75	-5,925.79	286.58	29.52	257.06	1.115 Level 2		
12,800.00	7,057.10	13,075.28	7,241.12	168.53	168.69	129.97	1,478.97	-6,025.78	286.50	24.93	261.57	1.095 Level 2		
12,900.00	7,056.82	13,175.28	7,240.75	171.33	171.49	129.96	1,478.18	-6,125.78	286.41	20.33	266.08	1.076 Level 2		
13,000.00	7,056.53	13,275.28	7,240.37	174.13	174.29	129.94	1,477.40	-6,225.78	286.33	15.73	270.60	1.058 Level 2		
13,100.00	7,056.25	13,375.28	7,239.99	176.94	177.09	129.93	1,476.62	-6,325.77	286.25	11.12	275.12	1.040 Level 2		
13,200.00	7,055.96	13,475.28	7,239.61	179.74	179.89	129.92	1,475.84	-6,425.77	286.16	6.52	279.64	1.023 Level 2		
13,300.00	7,055.68	13,575.28	7,239.23	182.55	182.70	129.91	1,475.06	-6,525.77	286.08	1.91	284.17	1.007 Level 2		
13,400.00	7,055.39	13,675.28	7,238.85	185.36	185.50	129.90	1,474.27	-6,625.76	285.99	-2.71	288.70	0.991 Level 1		
13,500.00	7,055.11	13,775.28	7,238.47	188.17	188.31	129.89	1,473.49	-6,725.76	285.91	-7.32	293.23	0.975 Level 1		
13,600.00	7,054.82	13,875.28	7,238.09	190.98	191.12	129.88	1,472.71	-6,825.75	285.83	-11.94	297.77	0.960 Level 1		
13,700.00	7,054.54	13,975.28	7,237.71	193.80	193.93	129.87	1,471.93	-6,925.75	285.74	-16.56	302.31	0.945 Level 1		
13,800.00	7,054.25	14,075.28	7,237.33	196.61	196.74	129.86	1,471.15	-7,025.75	285.66	-21.19	306.85	0.931 Level 1		
13,900.00	7,053.97	14,175.28	7,236.95	199.43	199.56	129.85	1,470.36	-7,125.74	285.58	-25.81	311.39	0.917 Level 1		
14,000.00	7,053.68	14,275.28	7,236.57	202.25	202.37	129.84	1,469.58	-7,225.74	285.49	-30.44	315.94	0.904 Level 1		
14,100.00	7,053.40	14,375.28	7,236.19	205.06	205.19	129.83	1,468.80	-7,325.73	285.41	-35.07	320.48	0.891 Level 1		
14,200.00	7,053.11	14,475.28	7,235.81	207.88	208.01	129.82	1,468.02	-7,425.73	285.33	-39.71	325.03	0.878 Level 1		
14,300.00	7,052.83	14,575.28	7,235.43	210.70	210.82	129.80	1,467.24	-7,525.73	285.24	-44.34	329.59	0.865 Level 1		
14,400.00	7,052.54	14,675.28	7,235.05	213.53	213.64	129.79	1,466.45	-7,625.72	285.16	-48.98	334.14	0.853 Level 1		
14,500.00	7,052.26	14,775.28	7,234.67	216.35	216.46	129.78	1,465.67	-7,725.72	285.08	-53.62	338.70	0.842 Level 1		
14,600.00	7,051.98	14,875.28	7,234.29	219.17	219.28	129.77	1,464.89	-7,825.72	284.99	-58.27	343.26	0.830 Level 1		
14,700.00	7,051.69	14,975.28	7,233.91	222.00	222.11	129.76	1,464.11	-7,925.71	284.91	-62.91	347.82	0.819 Level 1		
14,800.00	7,051.41	15,075.28	7,233.53	224.82	224.93	129.75	1,463.33	-8,025.71	284.83	-67.56	352.38	0.808 Level 1		
14,900.00	7,051.12	15,175.28	7,233.15	227.65	227.75	129.74	1,462.54	-8,125.70	284.74	-72.21	356.95	0.798 Level 1		
14,939.26	7,051.01	15,214.55	7,233.01	228.76	228.86	129.74	1,462.24	-8,164.97	284.71	-74.03	358.74	0.794 Level 1		
14,942.37	7,051.00	15,216.01	7,233.00	228.85	228.91	129.74	1,462.23	-8,166.43	284.71	-74.21	358.92	0.793 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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	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	301.00	300.00	3.44	3.45	-179.40	-80.15	-0.83	80.16	73.26	6.89	11.632 CC, ES		
400.00	399.98	401.02	399.98	3.60	3.61	-172.26	-80.15	-0.83	81.88	74.68	7.21	11.359		
500.00	499.84	501.16	499.84	3.81	3.81	-172.71	-80.15	-0.83	87.07	79.45	7.62	11.429		
600.00	599.45	598.45	599.45	4.06	4.04	-173.36	-80.15	-0.83	95.72	87.63	8.10	11.820		
700.00	698.70	701.21	702.19	4.34	4.32	-173.75	-78.50	-1.53	106.23	97.58	8.66	12.269		
800.00	797.47	803.75	804.58	4.64	4.63	-173.60	-73.52	-3.64	116.92	107.64	9.28	12.600		
900.00	895.65	902.92	903.53	4.98	4.95	-173.43	-67.53	-6.17	129.75	119.82	9.93	13.064		
1,000.00	993.66	1,001.97	1,002.37	5.32	5.28	-173.36	-61.55	-8.69	143.48	132.87	10.61	13.521		
1,100.00	1,091.67	1,101.02	1,101.21	5.69	5.63	-173.29	-55.56	-11.22	157.22	145.89	11.32	13.883		
1,200.00	1,189.68	1,200.07	1,200.05	6.09	5.99	-173.24	-49.58	-13.75	170.95	158.89	12.06	14.171		
1,300.00	1,287.69	1,300.87	1,298.89	6.49	6.36	-173.19	-43.59	-16.28	184.69	171.86	12.83	14.394		
1,400.00	1,385.69	1,401.82	1,397.73	6.90	6.75	-173.15	-37.61	-18.80	198.43	184.81	13.62	14.572		
1,500.00	1,483.70	1,502.77	1,496.57	7.33	7.14	-173.12	-31.63	-21.33	212.16	197.74	14.42	14.715		
1,600.00	1,581.71	1,603.72	1,595.41	7.76	7.54	-173.09	-25.64	-23.86	225.90	210.67	15.23	14.831		
1,700.00	1,679.72	1,704.67	1,694.25	8.19	7.94	-173.06	-19.66	-26.39	239.63	223.58	16.06	14.924		
1,800.00	1,777.73	1,805.61	1,793.08	8.63	8.35	-173.04	-13.68	-28.91	253.37	236.48	16.89	15.001		
1,900.00	1,875.74	1,906.56	1,891.92	9.08	8.76	-173.02	-7.69	-31.44	267.10	249.37	17.73	15.063		
2,000.00	1,973.75	2,007.51	1,990.76	9.53	9.18	-173.00	-1.71	-33.97	280.84	262.26	18.58	15.114		
2,100.00	2,071.76	2,108.46	2,089.60	9.98	9.60	-172.98	4.28	-36.50	294.58	275.14	19.44	15.156		
2,200.00	2,169.77	2,209.41	2,188.44	10.44	10.02	-172.97	10.26	-39.02	308.31	288.02	20.30	15.190		
2,300.00	2,267.77	2,289.65	2,287.28	10.90	10.35	-172.95	16.24	-41.55	322.05	300.97	21.08	15.281		
2,400.00	2,365.78	2,388.70	2,386.12	11.36	10.77	-172.94	22.23	-44.08	335.78	313.85	21.94	15.308		
2,500.00	2,463.79	2,487.75	2,484.96	11.82	11.19	-172.92	28.21	-46.61	349.52	326.72	22.80	15.330		
2,600.00	2,561.80	2,586.80	2,583.80	12.28	11.61	-172.91	34.19	-49.13	363.26	339.59	23.67	15.348		
2,700.00	2,659.81	2,685.85	2,682.63	12.75	12.03	-172.90	40.18	-51.66	376.99	352.46	24.54	15.364		
2,800.00	2,757.82	2,784.91	2,781.47	13.21	12.45	-172.89	46.16	-54.19	390.73	365.32	25.41	15.377		
2,900.00	2,855.83	2,883.96	2,880.31	13.68	12.87	-172.88	52.14	-56.72	404.47	378.18	26.29	15.387		
3,000.00	2,953.84	2,983.01	2,979.15	14.15	13.30	-172.88	58.13	-59.24	418.20	391.04	27.16	15.396		
3,100.00	3,051.85	3,082.06	3,077.99	14.62	13.72	-172.87	64.11	-61.77	431.94	403.90	28.04	15.403		
3,200.00	3,149.85	3,181.11	3,176.83	15.09	14.15	-172.86	70.10	-64.30	445.67	416.75	28.92	15.409		
3,300.00	3,247.86	3,280.17	3,275.67	15.56	14.57	-172.85	76.08	-66.83	459.41	429.60	29.81	15.414		
3,400.00	3,345.87	3,379.22	3,374.51	16.04	15.00	-172.85	82.06	-69.35	473.15	442.46	30.69	15.418		
3,500.00	3,443.88	3,478.27	3,473.35	16.51	15.43	-172.84	88.05	-71.88	486.88	455.31	31.57	15.420		
3,600.00	3,541.89	3,577.32	3,572.18	16.98	15.86	-172.83	94.03	-74.41	500.62	468.16	32.46	15.423		
3,700.00	3,639.90	3,676.38	3,671.02	17.46	16.29	-172.83	100.01	-76.94	514.35	481.01	33.35	15.424		
3,800.00	3,737.91	3,775.43	3,769.86	17.93	16.72	-172.82	106.00	-79.46	528.09	493.85	34.24	15.425		
3,900.00	3,835.92	3,874.48	3,868.70	18.41	17.15	-172.82	111.98	-81.99	541.83	506.70	35.13	15.426		
4,000.00	3,933.93	3,973.53	3,967.54	18.88	17.58	-172.81	117.96	-84.52	555.56	519.55	36.02	15.426		
4,100.00	4,031.93	4,072.58	4,066.38	19.36	18.01	-172.81	123.95	-87.05	569.30	532.39	36.91	15.425		
4,200.00	4,129.94	4,171.64	4,165.22	19.84	18.44	-172.80	129.93	-89.57	583.04	545.24	37.80	15.425		
4,300.00	4,227.95	4,270.69	4,264.06	20.31	18.87	-172.80	135.92	-92.10	596.77	558.08	38.69	15.424		
4,400.00	4,325.96	4,369.74	4,362.90	20.79	19.30	-172.80	141.90	-94.63	610.51	570.92	39.58	15.423		
4,500.00	4,423.97	4,468.79	4,461.73	21.27	19.74	-172.79	147.88	-97.16	624.24	583.77	40.48	15.422		
4,600.00	4,521.98	4,567.84	4,560.57	21.75	20.17	-172.79	153.87	-99.68	637.98	596.61	41.37	15.421		
4,700.00	4,619.99	4,666.90	4,659.41	22.23	20.60	-172.79	159.85	-102.21	651.72	609.45	42.27	15.419		
4,800.00	4,718.00	4,765.95	4,758.25	22.70	21.03	-172.78	165.83	-104.74	665.45	622.29	43.16	15.417		
4,900.00	4,816.01	4,865.00	4,857.09	23.18	21.47	-172.78	171.82	-107.27	679.19	635.13	44.06	15.416		
5,000.00	4,914.01	4,964.05	4,955.93	23.66	21.90	-172.78	177.80	-109.79	692.93	647.97	44.95	15.414		
5,100.00	5,012.02	5,063.10	5,054.77	24.14	22.33	-172.77	183.79	-112.32	706.66	660.81	45.85	15.412		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,162.16	5,153.61	24.62	22.77	-172.77	189.77	-114.85	720.40	673.65	46.75	15.410		
5,300.00	5,208.04	5,261.21	5,252.44	25.10	23.20	-172.77	195.75	-117.38	734.13	686.49	47.65	15.408		
5,400.00	5,306.05	5,360.26	5,351.28	25.58	23.64	-172.77	201.74	-119.90	747.87	699.33	48.54	15.406		
5,500.00	5,404.06	5,459.31	5,450.31	26.06	24.07	-172.76	207.72	-122.43	761.61	712.16	49.44	15.404		
5,600.00	5,502.07	5,558.36	5,548.96	26.54	24.50	-172.76	213.70	-124.96	775.34	725.00	50.34	15.402		
5,700.00	5,600.08	5,657.42	5,647.80	27.02	24.94	-172.76	219.69	-127.48	789.08	737.84	51.24	15.400		
5,800.00	5,698.09	5,756.47	5,746.64	27.50	25.37	-172.76	225.67	-130.01	802.82	750.68	52.14	15.398		
5,900.00	5,796.09	5,855.52	5,845.48	27.98	25.81	-172.75	231.65	-132.54	816.55	763.51	53.04	15.396		
6,000.00	5,894.10	5,954.57	5,944.32	28.46	26.24	-172.75	237.64	-135.07	830.29	776.35	53.94	15.393		
6,100.00	5,992.11	6,053.63	6,043.16	28.94	26.68	-172.75	243.62	-137.59	844.02	789.19	54.84	15.391		
6,200.00	6,090.12	6,152.68	6,141.99	29.42	27.11	-172.75	249.61	-140.12	857.76	802.02	55.74	15.389		
6,300.00	6,188.13	6,251.73	6,240.83	29.90	27.55	-172.75	255.59	-142.65	871.50	814.86	56.64	15.387		
6,400.00	6,286.14	6,350.78	6,339.67	30.38	27.98	-172.74	261.57	-145.18	885.23	827.69	57.54	15.385		
6,500.00	6,384.15	6,449.83	6,438.51	30.87	28.42	-172.74	267.56	-147.70	898.97	840.53	58.44	15.383		
6,600.00	6,482.15	6,548.88	6,537.35	31.35	28.86	-164.01	273.54	-150.23	912.70	853.36	59.34	15.381		
6,700.00	6,579.21	6,647.27	6,635.52	31.83	29.29	-132.42	279.48	-152.74	926.32	866.08	60.24	15.378		
6,800.00	6,673.04	6,749.09	6,736.48	32.30	29.74	-117.81	285.64	-163.54	939.68	878.50	61.17	15.362		
6,900.00	6,761.33	6,854.33	6,837.61	32.74	30.20	-110.48	291.92	-191.47	952.39	890.26	62.14	15.327		
7,000.00	6,841.90	6,963.19	6,935.92	33.17	30.69	-106.36	298.12	-237.50	964.11	900.95	63.15	15.266		
7,100.00	6,912.77	7,075.75	7,027.81	33.60	31.23	-103.86	304.05	-301.99	974.44	910.18	64.25	15.166		
7,200.00	6,972.19	7,191.89	7,109.21	34.09	31.86	-102.29	309.45	-384.43	983.02	917.51	65.51	15.005		
7,300.00	7,018.70	7,311.21	7,175.86	34.73	32.65	-101.33	314.06	-483.08	989.53	922.48	67.06	14.757		
7,400.00	7,051.15	7,433.03	7,223.75	35.55	33.68	-100.78	317.61	-594.84	993.69	924.71	68.99	14.404		
7,500.00	7,068.75	7,556.42	7,249.73	36.56	34.97	-100.55	319.89	-715.24	995.32	923.97	71.35	13.950		
7,600.00	7,071.91	7,671.10	7,253.86	37.71	36.36	-100.54	320.81	-829.75	994.51	920.56	73.95	13.448		
7,700.00	7,071.62	7,771.09	7,253.49	39.03	37.75	-100.55	321.38	-929.73	993.20	916.53	76.67	12.954		
7,800.00	7,071.34	7,871.08	7,253.12	40.51	39.29	-100.56	321.95	-1,029.72	991.89	912.19	79.70	12.446		
7,900.00	7,071.05	7,971.07	7,252.76	42.14	40.97	-100.57	322.51	-1,129.71	990.58	907.58	82.99	11.936		
8,000.00	7,070.77	8,071.06	7,252.39	43.89	42.78	-100.58	323.08	-1,229.70	989.27	902.73	86.53	11.432		
8,100.00	7,070.48	8,171.05	7,252.03	45.76	44.69	-100.59	323.65	-1,329.69	987.96	897.67	90.28	10.943		
8,200.00	7,070.20	8,271.04	7,251.66	47.72	46.71	-100.60	324.21	-1,429.68	986.64	892.42	94.22	10.471		
8,300.00	7,069.92	8,371.03	7,251.29	49.78	48.81	-100.61	324.78	-1,529.67	985.33	887.00	98.33	10.021		
8,400.00	7,069.63	8,471.03	7,250.93	51.90	50.98	-100.62	325.35	-1,629.66	984.02	881.44	102.58	9.593		
8,500.00	7,069.35	8,571.02	7,250.56	54.10	53.22	-100.63	325.91	-1,729.65	982.71	875.75	106.96	9.188		
8,600.00	7,069.06	8,671.01	7,250.19	56.36	55.52	-100.64	326.48	-1,829.64	981.40	869.95	111.45	8.806		
8,700.00	7,068.78	8,771.00	7,249.83	58.66	57.87	-100.65	327.05	-1,929.62	980.09	864.05	116.04	8.446		
8,800.00	7,068.49	8,870.99	7,249.46	61.02	60.26	-100.66	327.61	-2,029.61	978.77	858.06	120.72	8.108		
8,900.00	7,068.21	8,970.98	7,249.10	63.42	62.69	-100.67	328.18	-2,129.60	977.46	851.99	125.47	7.790		
9,000.00	7,067.92	9,070.97	7,248.73	65.85	65.16	-100.68	328.75	-2,229.59	976.15	845.85	130.30	7.492		
9,100.00	7,067.64	9,170.97	7,248.36	68.32	67.65	-100.69	329.31	-2,329.58	974.84	839.65	135.19	7.211		
9,200.00	7,067.35	9,270.96	7,248.00	70.81	70.18	-100.70	329.88	-2,429.57	973.53	833.40	140.13	6.947		
9,300.00	7,067.07	9,370.95	7,247.63	73.34	72.73	-100.71	330.45	-2,529.56	972.22	827.09	145.13	6.699		
9,400.00	7,066.78	9,470.94	7,247.27	75.88	75.30	-100.72	331.01	-2,629.55	970.91	820.74	150.17	6.466		
9,500.00	7,066.50	9,570.93	7,246.90	78.45	77.89	-100.73	331.58	-2,729.54	969.59	814.35	155.25	6.246		
9,600.00	7,066.21	9,670.92	7,246.53	81.04	80.51	-100.74	332.15	-2,829.53	968.28	807.92	160.36	6.038		
9,700.00	7,065.93	9,770.91	7,246.17	83.64	83.13	-100.75	332.72	-2,929.51	966.97	801.46	165.51	5.842		
9,800.00	7,065.64	9,870.90	7,245.80	86.26	85.78	-100.76	333.28	-3,029.50	965.66	794.97	170.69	5.657		
9,900.00	7,065.36	9,970.90	7,245.43	88.90	88.43	-100.77	333.85	-3,129.49	964.35	788.45	175.90	5.482		
10,000.00	7,065.07	10,070.89	7,245.07	91.55	91.10	-100.78	334.42	-3,229.48	963.04	781.91	181.13	5.317		
10,100.00	7,064.79	10,170.88	7,244.70	94.21	93.78	-100.79	334.98	-3,329.47	961.73	775.34	186.38	5.160		
10,200.00	7,064.50	10,270.87	7,244.34	96.88	96.47	-100.80	335.55	-3,429.46	960.42	768.76	191.66	5.011		
10,300.00	7,064.22	10,370.86	7,243.97	99.57	99.17	-100.81	336.12	-3,529.45	959.11	762.15	196.96	4.870		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 31C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,470.85	7,243.60	102.26	101.88	-100.82	336.68	-3,629.44	957.79	755.53	202.27	4.735		
10,500.00	7,063.65	10,570.84	7,243.24	104.96	104.60	-100.83	337.25	-3,729.43	956.48	748.89	207.60	4.607		
10,600.00	7,063.37	10,670.83	7,242.87	107.67	107.32	-100.84	337.82	-3,829.42	955.17	742.23	212.94	4.486		
10,700.00	7,063.08	10,770.83	7,242.51	110.39	110.06	-100.85	338.38	-3,929.40	953.86	735.56	218.30	4.369		
10,800.00	7,062.80	10,870.82	7,242.14	113.11	112.79	-100.86	338.95	-4,029.39	952.55	728.88	223.67	4.259		
10,900.00	7,062.51	10,970.81	7,241.77	115.84	115.54	-100.87	339.52	-4,129.38	951.24	722.18	229.05	4.153		
11,000.00	7,062.23	11,070.80	7,241.41	118.58	118.29	-100.88	340.08	-4,229.37	949.93	715.48	234.45	4.052		
11,100.00	7,061.94	11,170.79	7,241.04	121.32	121.04	-100.89	340.65	-4,329.36	948.62	708.76	239.85	3.955		
11,200.00	7,061.66	11,270.78	7,240.67	124.07	123.80	-100.90	341.22	-4,429.35	947.31	702.04	245.27	3.862		
11,300.00	7,061.37	11,370.77	7,240.31	126.82	126.57	-100.91	341.78	-4,529.34	946.00	695.31	250.69	3.774		
11,400.00	7,061.09	11,470.76	7,239.94	129.58	129.34	-100.92	342.35	-4,629.33	944.69	688.56	256.12	3.688		
11,500.00	7,060.80	11,570.76	7,239.58	132.34	132.11	-100.93	342.92	-4,729.32	943.37	681.81	261.56	3.607		
11,600.00	7,060.52	11,670.75	7,239.21	135.10	134.89	-100.94	343.48	-4,829.31	942.06	675.06	267.01	3.528		
11,700.00	7,060.23	11,770.74	7,238.84	137.87	137.67	-100.95	344.05	-4,929.29	940.75	668.29	272.46	3.453		
11,800.00	7,059.95	11,870.73	7,238.48	140.64	140.45	-100.96	344.62	-5,029.28	939.44	661.52	277.92	3.380		
11,900.00	7,059.66	11,970.72	7,238.11	143.42	143.24	-100.97	345.19	-5,129.27	938.13	654.74	283.39	3.310		
12,000.00	7,059.38	12,070.71	7,237.75	146.20	146.03	-100.98	345.75	-5,229.26	936.82	647.96	288.86	3.243		
12,100.00	7,059.09	12,170.70	7,237.38	148.98	148.82	-100.99	346.32	-5,329.25	935.51	641.17	294.34	3.178		
12,200.00	7,058.81	12,270.69	7,237.01	151.77	151.61	-101.00	346.89	-5,429.24	934.20	634.38	299.82	3.116		
12,300.00	7,058.52	12,370.69	7,236.65	154.55	154.41	-101.01	347.45	-5,529.23	932.89	627.58	305.31	3.056		
12,400.00	7,058.24	12,470.68	7,236.28	157.34	157.21	-101.02	348.02	-5,629.22	931.58	620.78	310.80	2.997		
12,500.00	7,057.96	12,570.67	7,235.91	160.14	160.01	-101.03	348.59	-5,729.21	930.27	613.98	316.29	2.941		
12,600.00	7,057.67	12,670.66	7,235.55	162.93	162.81	-101.04	349.15	-5,829.20	928.96	607.17	321.79	2.887		
12,700.00	7,057.39	12,770.65	7,235.18	165.73	165.62	-101.05	349.72	-5,929.18	927.65	600.35	327.30	2.834		
12,800.00	7,057.10	12,870.64	7,234.82	168.53	168.43	-101.06	350.29	-6,029.17	926.34	593.54	332.80	2.783		
12,900.00	7,056.82	12,970.63	7,234.45	171.33	171.24	-101.07	350.85	-6,129.16	925.03	586.71	338.31	2.734		
13,000.00	7,056.53	13,070.62	7,234.08	174.13	174.05	-101.09	351.42	-6,229.15	923.72	579.89	343.83	2.687		
13,100.00	7,056.25	13,170.62	7,233.72	176.94	176.86	-101.10	351.99	-6,329.14	922.41	573.06	349.34	2.640		
13,200.00	7,055.96	13,270.61	7,233.35	179.74	179.68	-101.11	352.55	-6,429.13	921.10	566.24	354.86	2.596		
13,300.00	7,055.68	13,370.60	7,232.99	182.55	182.49	-101.12	353.12	-6,529.12	919.79	559.40	360.38	2.552		
13,400.00	7,055.39	13,470.59	7,232.62	185.36	185.31	-101.13	353.69	-6,629.11	918.48	552.57	365.91	2.510		
13,500.00	7,055.11	13,570.58	7,232.25	188.17	188.13	-101.14	354.25	-6,729.10	917.17	545.73	371.43	2.469		
13,600.00	7,054.82	13,670.57	7,231.89	190.98	190.95	-101.15	354.82	-6,829.09	915.86	538.89	376.96	2.430		
13,700.00	7,054.54	13,770.56	7,231.52	193.80	193.77	-101.16	355.39	-6,929.07	914.55	532.05	382.49	2.391		
13,800.00	7,054.25	13,870.55	7,231.15	196.61	196.59	-101.17	355.96	-7,029.06	913.24	525.21	388.03	2.354		
13,900.00	7,053.97	13,970.55	7,230.79	199.43	199.42	-101.18	356.52	-7,129.05	911.93	518.36	393.56	2.317		
14,000.00	7,053.68	14,070.54	7,230.42	202.25	202.24	-101.19	357.09	-7,229.04	910.62	511.52	399.10	2.282		
14,100.00	7,053.40	14,170.53	7,230.06	205.06	205.07	-101.21	357.66	-7,329.03	909.31	504.67	404.64	2.247		
14,200.00	7,053.11	14,270.52	7,229.69	207.88	207.89	-101.22	358.22	-7,429.02	908.00	497.82	410.18	2.214		
14,300.00	7,052.83	14,370.51	7,229.32	210.70	210.72	-101.23	358.79	-7,529.01	906.69	490.97	415.72	2.181		
14,400.00	7,052.54	14,470.50	7,228.96	213.53	213.55	-101.24	359.36	-7,629.00	905.38	484.11	421.26	2.149		
14,500.00	7,052.26	14,570.49	7,228.59	216.35	216.38	-101.25	359.92	-7,728.99	904.07	477.26	426.81	2.118		
14,600.00	7,051.98	14,670.48	7,228.23	219.17	219.21	-101.26	360.49	-7,828.98	902.76	470.40	432.35	2.088		
14,700.00	7,051.69	14,770.48	7,227.86	222.00	222.04	-101.27	361.06	-7,928.96	901.45	463.55	437.90	2.059		
14,800.00	7,051.41	14,870.47	7,227.49	224.82	224.87	-101.28	361.62	-8,028.95	900.14	456.69	443.45	2.030		
14,900.00	7,051.12	14,970.46	7,227.13	227.65	227.71	-101.30	362.19	-8,128.94	898.83	449.83	449.00	2.002		
14,942.37	7,051.00	15,012.83	7,226.97	228.85	228.91	-101.30	362.43	-8,171.31	898.27	446.92	451.35	1.990 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	-179.50	-379.98	-3.34	379.99					
100.00	100.00	102.00	100.00	3.28	3.29	-179.50	-379.98	-3.34	379.99	373.42	6.57	57.839		
200.00	200.00	198.00	200.00	3.34	3.34	-179.50	-379.98	-3.34	379.99	373.32	6.67	56.950	CC, ES	
300.00	300.00	286.52	288.51	3.44	3.42	-179.48	-381.28	-3.45	381.47	374.59	6.88	55.473		
400.00	399.98	374.54	376.43	3.60	3.55	-172.15	-385.28	-3.78	387.74	380.55	7.18	53.974		
500.00	499.84	461.76	463.40	3.81	3.71	-172.13	-391.89	-4.33	400.49	392.90	7.58	52.813		
600.00	599.45	547.65	548.80	4.06	3.90	-172.13	-400.97	-5.08	419.62	411.57	8.05	52.109		
700.00	698.70	631.72	632.09	4.34	4.12	-172.13	-412.34	-6.03	445.01	436.44	8.57	51.908		
800.00	797.47	713.52	712.77	4.64	4.36	-172.14	-425.72	-7.14	476.48	467.36	9.13	52.209		
900.00	895.65	792.69	790.47	4.98	4.61	-172.17	-440.86	-8.40	513.71	504.01	9.70	52.940		
1,000.00	993.66	869.76	865.68	5.32	4.89	-172.25	-457.65	-9.80	554.29	544.02	10.27	53.989		
1,100.00	1,091.67	944.99	938.62	5.69	5.17	-172.31	-475.97	-11.32	597.27	586.43	10.84	55.081		
1,200.00	1,189.68	1,024.27	1,014.99	6.09	5.50	-172.34	-497.16	-13.08	642.42	630.98	11.44	56.154		
1,300.00	1,287.69	1,113.26	1,100.61	6.49	5.88	-172.38	-521.36	-15.10	688.04	675.94	12.10	56.884		
1,400.00	1,385.69	1,202.25	1,186.22	6.90	6.28	-172.40	-545.56	-17.11	733.65	720.87	12.78	57.426		
1,500.00	1,483.70	1,308.76	1,271.83	7.33	6.77	-172.43	-569.76	-19.12	779.26	765.71	13.55	57.514		
1,600.00	1,581.71	1,380.23	1,357.45	7.76	7.11	-172.45	-593.96	-21.13	824.87	810.68	14.20	58.100		
1,700.00	1,679.72	1,469.22	1,443.06	8.19	7.54	-172.47	-618.16	-23.15	870.49	855.55	14.93	58.290		
1,800.00	1,777.73	1,558.21	1,528.68	8.63	7.97	-172.49	-642.36	-25.16	916.10	900.42	15.68	58.412		
1,900.00	1,875.74	1,647.20	1,614.29	9.08	8.42	-172.50	-666.56	-27.17	961.71	945.27	16.44	58.481		
2,000.00	1,973.75	1,736.20	1,699.90	9.53	8.86	-172.52	-690.76	-29.18	1,007.32	990.11	17.22	58.510		
2,100.00	2,071.76	1,825.19	1,785.52	9.98	9.32	-172.53	-714.95	-31.20	1,052.94	1,034.94	18.00	58.508		
2,200.00	2,169.77	1,914.18	1,871.13	10.44	9.77	-172.54	-739.15	-33.21	1,098.55	1,079.77	18.78	58.481		
2,300.00	2,267.77	2,003.17	1,956.75	10.90	10.23	-172.55	-763.35	-35.22	1,144.16	1,124.58	19.58	58.437		
2,400.00	2,365.78	2,107.84	2,042.36	11.36	10.78	-172.56	-787.55	-37.23	1,189.78	1,169.32	20.45	58.171		
2,500.00	2,463.79	2,181.15	2,127.98	11.82	11.16	-172.57	-811.75	-39.24	1,235.39	1,214.20	21.19	58.310		
2,600.00	2,561.80	2,270.14	2,213.59	12.28	11.63	-172.58	-835.95	-41.26	1,281.00	1,259.01	22.00	58.234		
2,700.00	2,659.81	2,359.13	2,299.20	12.75	12.10	-172.59	-860.15	-43.27	1,326.62	1,303.80	22.81	58.153		
2,800.00	2,757.82	2,448.12	2,384.82	13.21	12.57	-172.60	-884.35	-45.28	1,372.23	1,348.60	23.63	58.068		
2,900.00	2,855.83	2,537.12	2,470.43	13.68	13.04	-172.61	-908.55	-47.29	1,417.84	1,393.39	24.45	57.981		
3,000.00	2,953.84	2,626.11	2,556.05	14.15	13.51	-172.61	-932.75	-49.31	1,463.46	1,438.18	25.28	57.892		
3,100.00	3,051.85	2,715.10	2,641.66	14.62	13.99	-172.62	-956.95	-51.32	1,509.07	1,482.96	26.11	57.803		
3,200.00	3,149.85	2,804.09	2,727.27	15.09	14.46	-172.62	-981.15	-53.33	1,554.68	1,527.74	26.94	57.714		
3,300.00	3,247.86	2,906.92	2,812.89	15.56	15.02	-172.63	-1,005.34	-55.34	1,600.29	1,572.46	27.84	57.487		
3,400.00	3,345.87	2,982.07	2,898.50	16.04	15.42	-172.64	-1,029.54	-57.36	1,645.91	1,617.30	28.61	57.537		
3,500.00	3,443.88	3,071.06	2,984.12	16.51	15.90	-172.64	-1,053.74	-59.37	1,691.52	1,662.08	29.44	57.451		
3,600.00	3,541.89	3,160.05	3,069.73	16.98	16.38	-172.65	-1,077.94	-61.38	1,737.13	1,706.85	30.28	57.366		
3,700.00	3,639.90	3,249.04	3,155.34	17.46	16.86	-172.65	-1,102.14	-63.39	1,782.75	1,751.63	31.12	57.282		
3,800.00	3,737.91	3,338.04	3,240.96	17.93	17.34	-172.65	-1,126.34	-65.41	1,828.36	1,796.40	31.96	57.200		
3,900.00	3,835.92	3,427.03	3,326.57	18.41	17.82	-172.66	-1,150.54	-67.42	1,873.97	1,841.17	32.81	57.120		
4,000.00	3,933.93	3,516.02	3,412.19	18.88	18.31	-172.66	-1,174.74	-69.43	1,919.59	1,885.93	33.65	57.042		
4,100.00	4,031.93	3,605.01	3,497.80	19.36	18.79	-172.67	-1,198.94	-71.44	1,965.20	1,930.70	34.50	56.965		
4,200.00	4,129.94	3,706.00	3,583.41	19.84	19.34	-172.67	-1,223.14	-73.46	2,010.81	1,975.41	35.40	56.796		
4,300.00	4,227.95	3,782.99	3,669.03	20.31	19.76	-172.67	-1,247.34	-75.47	2,056.43	2,020.23	36.19	56.817		
4,400.00	4,325.96	3,871.98	3,754.64	20.79	20.24	-172.68	-1,271.54	-77.48	2,102.04	2,065.00	37.04	56.746		
4,500.00	4,423.97	3,960.97	3,840.26	21.27	20.73	-172.68	-1,295.74	-79.49	2,147.65	2,109.76	37.89	56.677		
4,600.00	4,521.98	4,049.96	3,925.87	21.75	21.21	-172.68	-1,319.93	-81.51	2,193.27	2,154.52	38.74	56.609		
4,700.00	4,619.99	4,138.96	4,011.48	22.23	21.70	-172.68	-1,344.13	-83.52	2,238.88	2,199.28	39.60	56.543		
4,800.00	4,718.00	4,227.95	4,097.10	22.70	22.18	-172.69	-1,368.33	-85.53	2,284.49	2,244.04	40.45	56.479		
4,900.00	4,816.01	4,316.94	4,182.71	23.18	22.67	-172.69	-1,392.53	-87.54	2,330.11	2,288.80	41.30	56.416		
5,000.00	4,914.01	4,405.93	4,268.33	23.66	23.15	-172.69	-1,416.73	-89.56	2,375.72	2,333.56	42.16	56.355		
5,100.00	5,012.02	4,505.08	4,353.94	24.14	23.70	-172.70	-1,440.93	-91.57	2,421.33	2,378.27	43.06	56.230		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	4,583.91	4,439.55	24.62	24.13	-172.70	-1,465.13	-93.58	2,466.95	2,423.08	43.87	56.238		
5,300.00	5,208.04	4,672.90	4,525.17	25.10	24.61	-172.70	-1,489.33	-95.59	2,512.56	2,467.84	44.72	56.181		
5,400.00	5,306.05	4,761.89	4,610.78	25.58	25.10	-172.70	-1,513.53	-97.61	2,558.17	2,512.59	45.58	56.126		
5,500.00	5,404.06	4,850.88	4,696.40	26.06	25.59	-172.70	-1,537.73	-99.62	2,603.79	2,557.35	46.44	56.072		
5,600.00	5,502.07	4,939.88	4,782.01	26.54	26.08	-172.71	-1,561.93	-101.63	2,649.40	2,602.11	47.29	56.019		
5,700.00	5,600.08	5,028.87	4,867.62	27.02	26.56	-172.71	-1,586.13	-103.64	2,695.01	2,646.86	48.15	55.967		
5,800.00	5,698.09	5,117.86	4,953.24	27.50	27.05	-172.71	-1,610.33	-105.66	2,740.63	2,691.61	49.01	55.917		
5,900.00	5,796.09	5,206.85	5,038.85	27.98	27.54	-172.71	-1,634.52	-107.67	2,786.24	2,736.37	49.87	55.868		
6,000.00	5,894.10	5,304.16	5,124.47	28.46	28.07	-172.71	-1,658.72	-109.68	2,831.85	2,781.08	50.77	55.775		
6,100.00	5,992.11	5,384.83	5,210.08	28.94	28.52	-172.72	-1,682.92	-111.69	2,877.47	2,825.87	51.59	55.773		
6,200.00	6,090.12	5,473.82	5,295.70	29.42	29.00	-172.72	-1,707.12	-113.71	2,923.08	2,870.63	52.45	55.727		
6,300.00	6,188.13	5,562.81	5,381.31	29.90	29.49	-172.72	-1,731.32	-115.72	2,968.69	2,915.38	53.31	55.683		
6,400.00	6,286.14	5,651.80	5,466.92	30.38	29.98	-172.72	-1,755.52	-117.73	3,014.31	2,960.13	54.18	55.639		
6,500.00	6,384.15	5,740.80	5,552.54	30.87	30.47	-172.72	-1,779.72	-119.74	3,059.92	3,004.88	55.04	55.596		
6,600.00	6,482.15	5,829.79	5,638.15	31.35	30.96	-163.32	-1,803.92	-121.76	3,105.53	3,049.63	55.90	55.553		
6,700.00	6,579.21	5,918.19	5,723.20	31.83	31.44	-127.96	-1,827.96	-123.75	3,150.76	3,093.99	56.76	55.506		
6,800.00	6,673.04	6,004.03	5,805.78	32.30	31.92	-109.53	-1,851.30	-125.70	3,194.71	3,137.10	57.61	55.454		
6,900.00	6,761.33	6,085.20	5,883.87	32.74	32.36	-98.84	-1,873.37	-127.53	3,236.66	3,178.23	58.43	55.396		
7,000.00	6,841.90	6,159.70	5,955.55	33.17	32.77	-91.78	-1,893.63	-129.22	3,276.09	3,216.87	59.22	55.321		
7,100.00	6,912.77	6,225.69	6,019.03	33.60	33.13	-86.71	-1,911.58	-130.71	3,312.64	3,252.64	60.00	55.208		
7,200.00	6,972.19	6,281.56	6,072.78	34.09	33.44	-82.87	-1,926.77	-131.97	3,346.07	3,285.27	60.81	55.028		
7,300.00	7,018.70	6,325.92	6,115.45	34.73	33.69	-79.87	-1,938.83	-132.98	3,376.20	3,314.54	61.66	54.757		
7,400.00	7,051.15	6,357.67	6,146.01	35.55	33.86	-77.46	-1,947.47	-133.69	3,402.84	3,340.26	62.57	54.382		
7,500.00	7,068.75	6,376.05	6,163.69	36.56	33.96	-75.52	-1,952.46	-134.11	3,425.78	3,362.23	63.55	53.909		
7,600.00	7,071.91	6,381.36	6,168.80	37.71	33.99	-74.47	-1,953.91	-134.23	3,445.15	3,380.59	64.56	53.363		
7,700.00	7,071.62	6,383.56	6,170.91	39.03	34.00	-74.51	-1,954.50	-134.28	3,465.76	3,400.07	65.69	52.757		
7,800.00	7,071.34	6,385.75	6,173.01	40.51	34.01	-74.55	-1,955.10	-134.33	3,489.12	3,422.17	66.95	52.117		
7,900.00	7,071.05	6,387.94	6,175.12	42.14	34.03	-74.59	-1,955.70	-134.38	3,515.16	3,446.86	68.30	51.466		
8,000.00	7,070.77	6,390.13	6,177.23	43.89	34.04	-74.62	-1,956.29	-134.43	3,543.84	3,474.11	69.73	50.822		
8,100.00	7,070.48	6,407.51	6,247.91	45.76	47.26	-92.85	-2,267.53	-1,303.78	3,566.76	3,475.29	91.47	38.993		
8,200.00	7,070.20	6,507.51	7,247.31	47.72	49.07	-92.85	-2,268.11	-1,403.78	3,566.57	3,471.22	95.36	37.403		
8,300.00	7,069.92	6,607.51	7,246.71	49.78	50.99	-92.84	-2,268.70	-1,503.77	3,566.39	3,466.97	99.42	35.873		
8,400.00	7,069.63	6,707.51	7,246.12	51.90	53.00	-92.84	-2,269.28	-1,603.77	3,566.21	3,462.57	103.64	34.411		
8,500.00	7,069.35	6,807.51	7,245.52	54.10	55.10	-92.83	-2,269.86	-1,703.77	3,566.02	3,458.03	107.99	33.022		
8,600.00	7,069.06	6,907.51	7,244.93	56.36	57.26	-92.83	-2,270.45	-1,803.76	3,565.84	3,453.37	112.47	31.706		
8,700.00	7,068.78	7,007.51	7,244.33	58.66	59.49	-92.82	-2,271.03	-1,903.76	3,565.66	3,448.60	117.05	30.462		
8,800.00	7,068.49	7,107.51	7,243.73	61.02	61.77	-92.82	-2,271.62	-2,003.75	3,565.47	3,443.74	121.73	29.290		
8,900.00	7,068.21	7,207.51	7,243.14	63.42	64.10	-92.81	-2,272.20	-2,103.75	3,565.29	3,438.79	126.50	28.185		
9,000.00	7,067.92	7,307.51	7,242.54	65.85	66.47	-92.81	-2,272.78	-2,203.74	3,565.10	3,433.77	131.34	27.145		
9,100.00	7,067.64	7,407.51	7,241.95	68.32	68.88	-92.80	-2,273.37	-2,303.74	3,564.92	3,428.68	136.24	26.166		
9,200.00	7,067.35	7,507.51	7,241.35	70.81	71.33	-92.80	-2,273.95	-2,403.74	3,564.74	3,423.53	141.21	25.244		
9,300.00	7,067.07	7,607.51	7,240.76	73.34	73.80	-92.79	-2,274.53	-2,503.73	3,564.55	3,418.32	146.23	24.376		
9,400.00	7,066.78	7,707.51	7,240.16	75.88	76.30	-92.79	-2,275.12	-2,603.73	3,564.37	3,413.06	151.31	23.557		
9,500.00	7,066.50	7,807.51	7,239.56	78.45	78.83	-92.78	-2,275.70	-2,703.72	3,564.19	3,407.77	156.42	22.786		
9,600.00	7,066.21	7,892.49	7,238.97	81.04	81.00	-92.78	-2,276.29	-2,803.72	3,564.00	3,402.81	161.19	22.110		
9,700.00	7,065.93	7,987.51	7,238.37	83.64	83.95	-92.77	-2,276.87	-2,903.72	3,563.82	3,397.05	166.77	21.370		
9,800.00	7,065.64	8,082.49	7,237.78	86.26	86.54	-92.77	-2,277.45	-3,003.71	3,563.64	3,391.64	172.00	20.719		
9,900.00	7,065.36	8,177.51	7,237.18	88.90	89.14	-92.76	-2,278.04	-3,103.71	3,563.45	3,386.20	177.25	20.104		
10,000.00	7,065.07	8,272.49	7,236.58	91.55	91.76	-92.76	-2,278.62	-3,203.70	3,563.27	3,380.74	182.53	19.521		
10,100.00	7,064.79	8,367.49	7,235.99	94.21	94.39	-92.75	-2,279.20	-3,303.70	3,563.09	3,375.24	187.84	18.968		
10,200.00	7,064.50	8,462.49	7,235.39	96.88	97.04	-92.75	-2,279.79	-3,403.70	3,562.90	3,369.73	193.17	18.444		
10,300.00	7,064.22	8,557.49	7,234.80	99.57	99.70	-92.74	-2,280.37	-3,503.69	3,562.72	3,364.19	198.53	17.946		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 33C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,707.52	7,234.20	102.26	102.37	-92.74	-2,280.96	-3,603.69	3,562.54	3,358.64	203.90	17.472		
10,500.00	7,063.65	10,792.48	7,233.61	104.96	104.64	-92.73	-2,281.54	-3,703.68	3,562.35	3,353.47	208.88	17.054		
10,600.00	7,063.37	10,907.52	7,233.01	107.67	107.74	-92.73	-2,282.12	-3,803.68	3,562.17	3,347.48	214.70	16.592		
10,700.00	7,063.08	11,007.52	7,232.41	110.39	110.43	-92.73	-2,282.71	-3,903.68	3,561.99	3,341.87	220.12	16.182		
10,800.00	7,062.80	11,107.52	7,231.82	113.11	113.14	-92.72	-2,283.29	-4,003.67	3,561.80	3,336.25	225.56	15.791		
10,900.00	7,062.51	11,192.48	7,231.22	115.84	115.44	-92.72	-2,283.87	-4,103.67	3,561.62	3,331.03	230.60	15.445		
11,000.00	7,062.23	11,307.52	7,230.63	118.58	118.57	-92.71	-2,284.46	-4,203.66	3,561.44	3,324.97	236.47	15.061		
11,100.00	7,061.94	11,407.52	7,230.03	121.32	121.30	-92.71	-2,285.04	-4,303.66	3,561.26	3,319.31	241.94	14.719		
11,200.00	7,061.66	11,507.53	7,229.43	124.07	124.03	-92.70	-2,285.63	-4,403.65	3,561.07	3,313.64	247.43	14.392		
11,300.00	7,061.37	11,607.53	7,228.84	126.82	126.77	-92.70	-2,286.21	-4,503.65	3,560.89	3,307.97	252.92	14.079		
11,400.00	7,061.09	11,707.53	7,228.24	129.58	129.51	-92.69	-2,286.79	-4,603.65	3,560.71	3,302.28	258.43	13.778		
11,500.00	7,060.80	11,807.53	7,227.65	132.34	132.26	-92.69	-2,287.38	-4,703.64	3,560.52	3,296.58	263.94	13.490		
11,600.00	7,060.52	11,907.53	7,227.05	135.10	135.01	-92.68	-2,287.96	-4,803.64	3,560.34	3,290.88	269.46	13.213		
11,700.00	7,060.23	12,007.53	7,226.45	137.87	137.77	-92.68	-2,288.54	-4,903.63	3,560.16	3,285.16	274.99	12.946		
11,800.00	7,059.95	12,107.53	7,225.86	140.64	140.53	-92.67	-2,289.13	-5,003.63	3,559.97	3,279.44	280.53	12.690		
11,900.00	7,059.66	12,207.53	7,225.26	143.42	143.29	-92.67	-2,289.71	-5,103.63	3,559.79	3,273.72	286.07	12.444		
12,000.00	7,059.38	12,307.53	7,224.67	146.20	146.06	-92.66	-2,290.30	-5,203.62	3,559.61	3,267.98	291.63	12.206		
12,100.00	7,059.09	12,407.53	7,224.07	148.98	148.83	-92.66	-2,290.88	-5,303.62	3,559.43	3,262.24	297.18	11.977		
12,200.00	7,058.81	12,492.47	7,223.48	151.77	151.19	-92.65	-2,291.46	-5,403.61	3,559.24	3,256.92	302.33	11.773		
12,300.00	7,058.52	12,607.53	7,222.88	154.55	154.39	-92.65	-2,292.05	-5,503.61	3,559.06	3,250.75	308.31	11.544		
12,400.00	7,058.24	12,707.53	7,222.28	157.34	157.17	-92.64	-2,292.63	-5,603.61	3,558.88	3,244.99	313.89	11.338		
12,500.00	7,057.96	12,792.47	7,221.69	160.14	159.53	-92.64	-2,293.21	-5,703.60	3,558.69	3,239.65	319.05	11.154		
12,600.00	7,057.67	12,907.53	7,221.09	162.93	162.74	-92.63	-2,293.80	-5,803.60	3,558.51	3,233.46	325.05	10.948		
12,700.00	7,057.39	13,007.53	7,220.50	165.73	165.53	-92.63	-2,294.38	-5,903.59	3,558.33	3,227.69	330.64	10.762		
12,800.00	7,057.10	13,092.47	7,219.90	168.53	167.90	-92.62	-2,294.97	-6,003.59	3,558.15	3,222.34	335.81	10.596		
12,900.00	7,056.82	13,207.54	7,219.30	171.33	171.11	-92.62	-2,295.55	-6,103.58	3,557.96	3,216.14	341.83	10.409		
13,000.00	7,056.53	13,307.54	7,218.71	174.13	173.91	-92.61	-2,296.13	-6,203.58	3,557.78	3,210.36	347.43	10.240		
13,100.00	7,056.25	13,407.54	7,218.11	176.94	176.70	-92.61	-2,296.72	-6,303.58	3,557.60	3,204.57	353.03	10.077		
13,200.00	7,055.96	13,507.54	7,217.52	179.74	179.50	-92.60	-2,297.30	-6,403.57	3,557.42	3,198.78	358.64	9.919		
13,300.00	7,055.68	13,607.54	7,216.92	182.55	182.31	-92.60	-2,297.89	-6,503.57	3,557.23	3,192.99	364.25	9.766		
13,400.00	7,055.39	13,707.54	7,216.33	185.36	185.11	-92.59	-2,298.47	-6,603.56	3,557.05	3,187.19	369.86	9.617		
13,500.00	7,055.11	13,807.54	7,215.73	188.17	187.91	-92.59	-2,299.05	-6,703.56	3,556.87	3,181.39	375.48	9.473		
13,600.00	7,054.82	13,907.54	7,215.13	190.98	190.72	-92.58	-2,299.64	-6,803.56	3,556.69	3,175.59	381.10	9.333		
13,700.00	7,054.54	14,007.54	7,214.54	193.80	193.53	-92.58	-2,300.22	-6,903.55	3,556.50	3,169.78	386.72	9.197		
13,800.00	7,054.25	14,107.54	7,213.94	196.61	196.34	-92.57	-2,300.80	-7,003.55	3,556.32	3,163.98	392.34	9.064		
13,900.00	7,053.97	14,207.54	7,213.35	199.43	199.15	-92.57	-2,301.39	-7,103.54	3,556.14	3,158.17	397.97	8.936		
14,000.00	7,053.68	14,307.54	7,212.75	202.25	201.96	-92.56	-2,301.97	-7,203.54	3,555.96	3,152.35	403.60	8.811		
14,100.00	7,053.40	14,407.54	7,212.15	205.06	204.77	-92.56	-2,302.56	-7,303.54	3,555.78	3,146.54	409.24	8.689		
14,200.00	7,053.11	14,507.54	7,211.56	207.88	207.59	-92.55	-2,303.14	-7,403.53	3,555.59	3,140.72	414.87	8.570		
14,300.00	7,052.83	14,607.54	7,210.96	210.70	210.40	-92.55	-2,303.72	-7,503.53	3,555.41	3,134.90	420.51	8.455		
14,400.00	7,052.54	14,707.55	7,210.37	213.53	213.22	-92.54	-2,304.31	-7,603.52	3,555.23	3,129.08	426.15	8.343		
14,500.00	7,052.26	14,807.55	7,209.77	216.35	216.04	-92.54	-2,304.89	-7,703.52	3,555.05	3,123.26	431.79	8.233		
14,600.00	7,051.98	14,907.55	7,209.18	219.17	218.86	-92.53	-2,305.47	-7,803.52	3,554.86	3,117.43	437.43	8.127		
14,700.00	7,051.69	15,007.55	7,208.58	222.00	221.68	-92.53	-2,306.06	-7,903.51	3,554.68	3,111.61	443.08	8.023		
14,800.00	7,051.41	15,107.55	7,207.98	224.82	224.50	-92.53	-2,306.64	-8,003.51	3,554.50	3,105.78	448.72	7.921		
14,900.00	7,051.12	15,192.45	7,207.39	227.65	226.90	-92.52	-2,307.23	-8,103.50	3,554.32	3,100.37	453.94	7.830		
14,942.37	7,051.00	15,234.82	7,207.14	228.85	228.09	-92.52	-2,307.47	-8,145.87	3,554.24	3,097.90	456.34	7.789 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	3.00	0.00	3.28	3.28	-179.52	-500.19	-4.17	500.21					
100.00	100.00	103.00	100.00	3.28	3.29	-179.52	-500.19	-4.17	500.21	493.64	6.57	76.134		
200.00	200.00	197.00	200.00	3.34	3.33	-179.52	-500.19	-4.17	500.21	493.54	6.67	74.975 CC, ES		
300.00	300.00	282.57	285.56	3.44	3.42	-179.52	-501.38	-4.23	501.61	494.73	6.87	73.001		
400.00	399.98	367.44	370.34	3.60	3.54	-172.21	-505.08	-4.40	507.69	500.52	7.17	70.806		
500.00	499.84	451.58	454.25	3.81	3.69	-172.21	-511.22	-4.68	520.16	512.60	7.56	68.817		
600.00	599.45	534.48	536.72	4.06	3.87	-172.23	-519.67	-5.07	538.91	530.90	8.02	67.232		
700.00	698.70	615.70	617.24	4.34	4.08	-172.26	-530.27	-5.56	563.84	555.32	8.52	66.155		
800.00	797.47	694.80	695.35	4.64	4.30	-172.29	-542.77	-6.14	594.77	585.71	9.06	65.620		
900.00	895.65	771.46	770.67	4.98	4.54	-172.35	-556.94	-6.80	631.40	621.77	9.63	65.559		
1,000.00	993.66	846.17	843.70	5.32	4.80	-172.46	-572.68	-7.52	671.31	661.13	10.18	65.916		
1,100.00	1,091.67	919.17	914.64	5.69	5.07	-172.56	-589.89	-8.32	713.57	702.82	10.75	66.378		
1,200.00	1,189.68	990.43	983.44	6.09	5.36	-172.64	-608.43	-9.18	758.10	746.78	11.32	66.980		
1,300.00	1,287.69	1,059.92	1,050.06	6.49	5.65	-172.70	-628.15	-10.09	804.82	792.93	11.89	67.712		
1,400.00	1,385.69	1,127.63	1,114.50	6.90	5.95	-172.75	-648.91	-11.05	853.63	841.18	12.45	68.570		
1,500.00	1,483.70	1,193.55	1,176.75	7.33	6.26	-172.78	-670.58	-12.05	904.46	891.46	13.00	69.549		
1,600.00	1,581.71	1,257.68	1,236.82	7.76	6.58	-172.81	-693.03	-13.09	957.24	943.68	13.55	70.631		
1,700.00	1,679.72	1,320.05	1,294.73	8.19	6.90	-172.83	-716.14	-14.16	1,011.87	997.78	14.09	71.818		
1,800.00	1,777.73	1,380.65	1,350.51	8.63	7.22	-172.84	-739.80	-15.25	1,068.28	1,053.67	14.62	73.095		
1,900.00	1,875.74	1,439.52	1,404.20	9.08	7.55	-172.84	-763.90	-16.37	1,126.41	1,111.28	15.13	74.453		
2,000.00	1,973.75	1,500.00	1,458.84	9.53	7.89	-172.85	-789.82	-17.57	1,186.17	1,170.51	15.66	75.763		
2,100.00	2,071.76	1,552.15	1,505.50	9.98	8.21	-172.84	-813.07	-18.64	1,247.48	1,231.36	16.12	77.399		
2,200.00	2,169.77	1,600.00	1,547.94	10.44	8.50	-172.84	-835.16	-19.66	1,310.31	1,293.77	16.54	79.242		
2,300.00	2,267.77	1,658.19	1,599.03	10.90	8.86	-172.83	-862.97	-20.95	1,374.52	1,357.47	17.05	80.605		
2,400.00	2,365.78	1,700.00	1,635.39	11.36	9.13	-172.82	-883.59	-21.90	1,440.16	1,422.75	17.41	82.715		
2,500.00	2,463.79	1,757.94	1,685.27	11.82	9.52	-172.81	-913.03	-23.27	1,507.02	1,489.09	17.93	84.032		
2,600.00	2,561.80	1,805.55	1,725.81	12.28	9.84	-172.80	-937.98	-24.42	1,575.17	1,556.82	18.35	85.824		
2,700.00	2,659.81	1,864.12	1,775.21	12.75	10.24	-172.78	-969.42	-25.87	1,644.37	1,625.48	18.89	87.030		
2,800.00	2,757.82	1,936.15	1,835.89	13.21	10.75	-172.76	-1,008.18	-27.67	1,713.74	1,694.15	19.59	87.490		
2,900.00	2,855.83	2,008.18	1,896.57	13.68	11.26	-172.74	-1,046.95	-29.46	1,783.10	1,762.81	20.29	87.882		
3,000.00	2,953.84	2,080.21	1,957.25	14.15	11.78	-172.72	-1,085.72	-31.25	1,852.47	1,831.47	21.00	88.211		
3,100.00	3,051.85	2,152.24	2,017.93	14.62	12.31	-172.71	-1,124.48	-33.05	1,921.84	1,900.12	21.72	88.488		
3,200.00	3,149.85	2,224.27	2,078.61	15.09	12.84	-172.69	-1,163.25	-34.84	1,991.20	1,968.76	22.44	88.723		
3,300.00	3,247.86	2,303.70	2,139.29	15.56	13.42	-172.68	-1,202.02	-36.63	2,060.57	2,037.35	23.22	88.757		
3,400.00	3,345.87	2,388.33	2,199.98	16.04	13.90	-172.67	-1,240.79	-38.43	2,129.93	2,106.02	23.91	89.083		
3,500.00	3,443.88	2,440.36	2,260.66	16.51	14.44	-172.65	-1,279.55	-40.22	2,199.30	2,174.65	24.65	89.219		
3,600.00	3,541.89	2,512.39	2,321.34	16.98	14.99	-172.64	-1,318.32	-42.01	2,268.67	2,243.27	25.40	89.332		
3,700.00	3,639.90	2,584.42	2,382.02	17.46	15.53	-172.63	-1,357.09	-43.80	2,338.03	2,311.89	26.15	89.424		
3,800.00	3,737.91	2,656.45	2,442.70	17.93	16.08	-172.62	-1,395.86	-45.60	2,407.40	2,380.50	26.90	89.498		
3,900.00	3,835.92	2,728.48	2,503.38	18.41	16.62	-172.61	-1,434.62	-47.39	2,476.76	2,449.11	27.66	89.556		
4,000.00	3,933.93	2,800.51	2,564.06	18.88	17.17	-172.60	-1,473.39	-49.18	2,546.13	2,517.71	28.42	89.602		
4,100.00	4,031.93	2,872.54	2,624.74	19.36	17.72	-172.60	-1,512.16	-50.98	2,615.50	2,586.32	29.18	89.635		
4,200.00	4,129.94	2,944.57	2,685.42	19.84	18.28	-172.59	-1,550.92	-52.77	2,684.86	2,654.92	29.95	89.659		
4,300.00	4,227.95	3,016.59	2,746.10	20.31	18.83	-172.58	-1,589.69	-54.56	2,754.23	2,723.52	30.71	89.674		
4,400.00	4,325.96	3,088.62	2,806.78	20.79	19.39	-172.57	-1,628.46	-56.36	2,823.60	2,792.11	31.49	89.681		
4,500.00	4,423.97	3,160.65	2,867.46	21.27	19.94	-172.57	-1,667.23	-58.15	2,892.96	2,860.70	32.26	89.681		
4,600.00	4,521.98	3,232.68	2,928.14	21.75	20.50	-172.56	-1,705.99	-59.94	2,962.33	2,929.29	33.03	89.675		
4,700.00	4,619.99	3,304.71	2,988.82	22.23	21.06	-172.55	-1,744.76	-61.73	3,031.70	2,997.88	33.81	89.665		
4,800.00	4,718.00	3,376.74	3,049.50	22.70	21.62	-172.55	-1,783.53	-63.53	3,101.06	3,066.47	34.59	89.650		
4,900.00	4,816.01	3,448.77	3,110.18	23.18	22.18	-172.54	-1,822.30	-65.32	3,170.43	3,135.06	35.37	89.630		
5,000.00	4,914.01	3,520.80	3,170.86	23.66	22.74	-172.54	-1,861.06	-67.11	3,239.79	3,203.64	36.16	89.608		
5,100.00	5,012.02	3,607.17	3,231.54	24.14	23.41	-172.53	-1,899.83	-68.91	3,309.16	3,272.13	37.03	89.368		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,110.03	3,664.86	3,292.23	24.62	23.86	-172.53	-1,938.60	-70.70	3,378.53	3,340.80	37.73	89.554	
5,300.00	5,208.04	3,736.89	3,352.91	25.10	24.42	-172.52	-1,977.36	-72.49	3,447.89	3,409.38	38.51	89.524	
5,400.00	5,306.05	3,808.92	3,413.59	25.58	24.99	-172.52	-2,016.13	-74.29	3,517.26	3,477.96	39.30	89.491	
5,500.00	5,404.06	3,880.95	3,474.27	26.06	25.55	-172.51	-2,054.90	-76.08	3,586.63	3,546.53	40.09	89.457	
5,600.00	5,502.07	3,952.98	3,534.95	26.54	26.11	-172.51	-2,093.67	-77.87	3,655.99	3,615.11	40.89	89.421	
5,700.00	5,600.08	4,025.01	3,595.63	27.02	26.68	-172.50	-2,132.43	-79.66	3,725.36	3,683.68	41.68	89.383	
5,800.00	5,698.09	4,102.96	3,656.31	27.50	27.29	-172.50	-2,171.20	-81.46	3,794.73	3,752.22	42.51	89.267	
5,900.00	5,796.09	4,169.07	3,716.99	27.98	27.81	-172.50	-2,209.97	-83.25	3,864.09	3,820.82	43.27	89.305	
6,000.00	5,894.10	4,241.10	3,777.67	28.46	28.37	-172.49	-2,248.74	-85.04	3,933.46	3,889.39	44.07	89.264	
6,100.00	5,992.11	4,313.13	3,838.35	28.94	28.94	-172.49	-2,287.50	-86.84	4,002.83	3,957.96	44.86	89.222	
6,200.00	6,090.12	4,385.15	3,899.03	29.42	29.51	-172.49	-2,326.27	-88.63	4,072.19	4,026.53	45.66	89.180	
6,300.00	6,188.13	4,457.18	3,959.71	29.90	30.07	-172.48	-2,365.04	-90.42	4,141.56	4,095.10	46.46	89.137	
6,400.00	6,286.14	4,529.21	4,020.39	30.38	30.64	-172.48	-2,403.80	-92.22	4,210.93	4,163.66	47.26	89.093	
6,500.00	6,384.15	4,601.24	4,081.07	30.87	31.21	-172.48	-2,442.57	-94.01	4,280.29	4,232.23	48.07	89.049	
6,600.00	6,482.15	4,673.27	4,141.75	31.35	31.77	-162.27	-2,481.34	-95.80	4,349.65	4,300.78	48.87	89.004	
6,700.00	6,579.21	4,744.92	4,202.11	31.83	32.34	-122.96	-2,519.90	-97.58	4,418.44	4,368.77	49.67	88.952	
6,800.00	6,673.04	4,814.64	4,260.84	32.30	32.89	-101.01	-2,557.42	-99.32	4,485.18	4,434.73	50.45	88.899	
6,900.00	6,761.33	4,880.70	4,316.50	32.74	33.41	-87.40	-2,592.98	-100.96	4,548.47	4,497.27	51.20	88.842	
7,000.00	6,841.90	4,941.48	4,367.70	33.17	33.89	-78.05	-2,625.69	-102.48	4,607.12	4,555.21	51.91	88.756	
7,100.00	6,912.77	5,004.51	4,413.20	33.60	34.39	-71.31	-2,654.76	-103.82	4,660.13	4,607.47	52.66	88.496	
7,200.00	6,972.19	5,041.39	4,451.87	34.09	34.68	-66.35	-2,679.46	-104.96	4,706.64	4,653.33	53.31	88.286	
7,300.00	7,018.70	5,078.05	4,482.76	34.73	34.97	-62.71	-2,699.20	-105.88	4,745.98	4,691.91	54.07	87.777	
7,400.00	7,051.15	5,104.58	4,505.11	35.55	35.18	-60.11	-2,713.48	-106.54	4,777.57	4,722.67	54.90	87.026	
7,500.00	7,068.75	5,120.32	4,518.36	36.56	35.30	-58.37	-2,721.95	-106.93	4,800.98	4,745.18	55.80	86.036	
7,600.00	7,071.91	5,125.50	4,522.72	37.71	35.34	-57.66	-2,724.73	-107.06	4,816.46	4,759.69	56.77	84.848	
7,700.00	7,071.62	8,510.94	7,242.55	39.03	50.70	-92.03	-3,525.31	-894.69	4,826.19	4,745.63	80.56	59.907	
7,800.00	7,071.34	8,610.94	7,242.15	40.51	50.76	-92.03	-3,525.92	-994.68	4,826.05	4,742.69	83.36	57.893	
7,900.00	7,071.05	8,710.94	7,241.74	42.14	50.87	-92.03	-3,526.53	-1,094.68	4,825.90	4,739.46	86.45	55.825	
8,000.00	7,070.77	8,810.94	7,241.33	43.89	51.04	-92.03	-3,527.15	-1,194.68	4,825.76	4,735.97	89.79	53.745	
8,100.00	7,070.48	8,910.94	7,240.93	45.76	51.37	-92.02	-3,527.76	-1,294.68	4,825.62	4,732.25	93.36	51.686	
8,200.00	7,070.20	9,010.94	7,240.52	47.72	52.05	-92.02	-3,528.37	-1,394.67	4,825.47	4,728.33	97.14	49.675	
8,300.00	7,069.92	9,110.94	7,240.12	49.78	53.26	-92.02	-3,528.98	-1,494.67	4,825.33	4,724.23	101.10	47.728	
8,400.00	7,069.63	9,210.94	7,239.71	51.90	54.88	-92.02	-3,529.60	-1,594.67	4,825.18	4,719.96	105.22	45.858	
8,500.00	7,069.35	9,310.94	7,239.31	54.10	56.75	-92.02	-3,530.21	-1,694.66	4,825.04	4,715.56	109.48	44.071	
8,600.00	7,069.06	9,410.94	7,238.90	56.36	58.75	-92.02	-3,530.82	-1,794.66	4,824.90	4,711.02	113.87	42.371	
8,700.00	7,068.78	9,510.94	7,238.49	58.66	60.86	-92.02	-3,531.43	-1,894.66	4,824.75	4,706.38	118.38	40.758	
8,800.00	7,068.49	9,610.94	7,238.09	61.02	63.04	-92.01	-3,532.05	-1,994.66	4,824.61	4,701.63	122.98	39.231	
8,900.00	7,068.21	9,710.94	7,237.68	63.42	65.28	-92.01	-3,532.66	-2,094.65	4,824.46	4,696.79	127.67	37.788	
9,000.00	7,067.92	9,810.94	7,237.28	65.85	67.58	-92.01	-3,533.27	-2,194.65	4,824.32	4,691.88	132.44	36.425	
9,100.00	7,067.64	9,910.94	7,236.87	68.32	69.92	-92.01	-3,533.88	-2,294.65	4,824.18	4,686.89	137.29	35.139	
9,200.00	7,067.35	10,010.94	7,236.47	70.81	72.30	-92.01	-3,534.50	-2,394.64	4,824.03	4,681.83	142.20	33.925	
9,300.00	7,067.07	10,110.94	7,236.06	73.34	74.71	-92.01	-3,535.11	-2,494.64	4,823.89	4,676.72	147.17	32.778	
9,400.00	7,066.78	10,210.94	7,235.65	75.88	77.16	-92.01	-3,535.72	-2,594.64	4,823.74	4,671.56	152.19	31.696	
9,500.00	7,066.50	10,310.94	7,235.25	78.45	79.64	-92.01	-3,536.33	-2,694.64	4,823.60	4,666.35	157.25	30.674	
9,600.00	7,066.21	10,410.94	7,234.84	81.04	82.14	-92.00	-3,536.95	-2,794.63	4,823.46	4,661.09	162.36	29.708	
9,700.00	7,065.93	10,510.94	7,234.44	83.64	84.66	-92.00	-3,537.56	-2,894.63	4,823.31	4,655.80	167.51	28.794	
9,800.00	7,065.64	10,610.94	7,234.03	86.26	87.21	-92.00	-3,538.17	-2,994.63	4,823.17	4,650.47	172.70	27.928	
9,900.00	7,065.36	10,710.94	7,233.63	88.90	89.77	-92.00	-3,538.78	-3,094.62	4,823.02	4,645.11	177.92	27.109	
10,000.00	7,065.07	10,810.94	7,233.22	91.55	92.35	-92.00	-3,539.40	-3,194.62	4,822.88	4,639.72	183.16	26.331	
10,100.00	7,064.79	10,910.94	7,232.81	94.21	94.95	-92.00	-3,540.01	-3,294.62	4,822.74	4,634.30	188.44	25.593	
10,200.00	7,064.50	11,010.94	7,232.41	96.88	97.57	-92.00	-3,540.62	-3,394.62	4,822.59	4,628.86	193.74	24.893	
10,300.00	7,064.22	11,110.94	7,232.00	99.57	100.19	-91.99	-3,541.23	-3,494.61	4,822.45	4,623.39	199.06	24.226	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 34C-16-M - OH - PLAN #1													Offset Site Error: 0.00 ft	
Survey Program: 0-MWD+IFR1													Offset Well Error: 3.28 ft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	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	7,063.94	11,210.93	7,231.60	102.26	102.83	-91.99	-3,541.85	-3,594.61	4,822.30	4,617.90	204.40	23.592		
10,500.00	7,063.65	11,310.93	7,231.19	104.96	105.48	-91.99	-3,542.46	-3,694.61	4,822.16	4,612.40	209.76	22.989		
10,600.00	7,063.37	11,410.93	7,230.79	107.67	108.14	-91.99	-3,543.07	-3,794.60	4,822.02	4,606.87	215.14	22.413		
10,700.00	7,063.08	11,510.93	7,230.38	110.39	110.82	-91.99	-3,543.68	-3,894.60	4,821.87	4,601.33	220.54	21.864		
10,800.00	7,062.80	11,610.93	7,229.97	113.11	113.50	-91.99	-3,544.30	-3,994.60	4,821.73	4,595.77	225.96	21.339		
10,900.00	7,062.51	11,710.93	7,229.57	115.84	116.19	-91.99	-3,544.91	-4,094.60	4,821.58	4,590.20	231.38	20.838		
11,000.00	7,062.23	11,810.93	7,229.16	118.58	118.88	-91.98	-3,545.52	-4,194.59	4,821.44	4,584.61	236.83	20.359		
11,100.00	7,061.94	11,910.93	7,228.76	121.32	121.59	-91.98	-3,546.13	-4,294.59	4,821.30	4,579.02	242.28	19.900		
11,200.00	7,061.66	12,010.93	7,228.35	124.07	124.30	-91.98	-3,546.75	-4,394.59	4,821.15	4,573.41	247.75	19.460		
11,300.00	7,061.37	12,110.93	7,227.95	126.82	127.02	-91.98	-3,547.36	-4,494.58	4,821.01	4,567.79	253.22	19.039		
11,400.00	7,061.09	12,210.93	7,227.54	129.58	129.74	-91.98	-3,547.97	-4,594.58	4,820.86	4,562.15	258.71	18.634		
11,500.00	7,060.80	12,310.93	7,227.13	132.34	132.47	-91.98	-3,548.58	-4,694.58	4,820.72	4,556.51	264.21	18.246		
11,600.00	7,060.52	12,410.93	7,226.73	135.10	135.21	-91.98	-3,549.20	-4,794.58	4,820.58	4,550.86	269.71	17.873		
11,700.00	7,060.23	12,510.93	7,226.32	137.87	137.95	-91.97	-3,549.81	-4,894.57	4,820.43	4,545.21	275.23	17.514		
11,800.00	7,059.95	12,610.93	7,225.92	140.64	140.69	-91.97	-3,550.42	-4,994.57	4,820.29	4,539.54	280.75	17.169		
11,900.00	7,059.66	12,710.93	7,225.51	143.42	143.44	-91.97	-3,551.03	-5,094.57	4,820.14	4,533.87	286.28	16.837		
12,000.00	7,059.38	12,810.93	7,225.10	146.20	146.19	-91.97	-3,551.65	-5,194.56	4,820.00	4,528.18	291.82	16.517		
12,100.00	7,059.09	12,910.93	7,224.70	148.98	148.95	-91.97	-3,552.26	-5,294.56	4,819.86	4,522.50	297.36	16.209		
12,200.00	7,058.81	13,010.93	7,224.29	151.77	151.71	-91.97	-3,552.87	-5,394.56	4,819.71	4,516.80	302.91	15.911		
12,300.00	7,058.52	13,110.93	7,223.89	154.55	154.48	-91.97	-3,553.48	-5,494.56	4,819.57	4,511.10	308.47	15.624		
12,400.00	7,058.24	13,210.93	7,223.48	157.34	157.25	-91.97	-3,554.10	-5,594.55	4,819.42	4,505.40	314.03	15.347		
12,500.00	7,057.96	13,310.93	7,223.08	160.14	160.02	-91.96	-3,554.71	-5,694.55	4,819.28	4,499.69	319.59	15.079		
12,600.00	7,057.67	13,410.93	7,222.67	162.93	162.79	-91.96	-3,555.32	-5,794.55	4,819.14	4,493.97	325.17	14.820		
12,700.00	7,057.39	13,510.93	7,222.26	165.73	165.57	-91.96	-3,555.93	-5,894.54	4,818.99	4,488.25	330.74	14.570		
12,800.00	7,057.10	13,610.93	7,221.86	168.53	168.35	-91.96	-3,556.55	-5,994.54	4,818.85	4,482.52	336.33	14.328		
12,900.00	7,056.82	13,710.93	7,221.45	171.33	171.13	-91.96	-3,557.16	-6,094.54	4,818.70	4,476.79	341.91	14.093		
13,000.00	7,056.53	13,810.93	7,221.05	174.13	173.92	-91.96	-3,557.77	-6,194.54	4,818.56	4,471.06	347.50	13.866		
13,100.00	7,056.25	13,910.93	7,220.64	176.94	176.71	-91.96	-3,558.38	-6,294.53	4,818.42	4,465.32	353.10	13.646		
13,200.00	7,055.96	14,010.93	7,220.24	179.74	179.50	-91.95	-3,559.00	-6,394.53	4,818.27	4,459.58	358.70	13.433		
13,300.00	7,055.68	14,110.93	7,219.83	182.55	182.29	-91.95	-3,559.61	-6,494.53	4,818.13	4,453.83	364.30	13.226		
13,400.00	7,055.39	14,210.93	7,219.42	185.36	185.08	-91.95	-3,560.22	-6,594.52	4,817.98	4,448.08	369.90	13.025		
13,500.00	7,055.11	14,310.93	7,219.02	188.17	187.88	-91.95	-3,560.83	-6,694.52	4,817.84	4,442.33	375.51	12.830		
13,600.00	7,054.82	14,410.93	7,218.61	190.98	190.68	-91.95	-3,561.44	-6,794.52	4,817.70	4,436.57	381.12	12.641		
13,700.00	7,054.54	14,510.93	7,218.21	193.80	193.47	-91.95	-3,562.06	-6,894.51	4,817.55	4,430.81	386.74	12.457		
13,800.00	7,054.25	14,610.93	7,217.80	196.61	196.28	-91.95	-3,562.67	-6,994.51	4,817.41	4,425.05	392.36	12.278		
13,900.00	7,053.97	14,710.93	7,217.40	199.43	199.08	-91.94	-3,563.28	-7,094.51	4,817.27	4,419.29	397.98	12.104		
14,000.00	7,053.68	14,810.93	7,216.99	202.25	201.88	-91.94	-3,563.89	-7,194.51	4,817.12	4,413.52	403.60	11.935		
14,100.00	7,053.40	14,910.93	7,216.58	205.06	204.69	-91.94	-3,564.51	-7,294.50	4,816.98	4,407.75	409.23	11.771		
14,200.00	7,053.11	15,010.93	7,216.18	207.88	207.50	-91.94	-3,565.12	-7,394.50	4,816.83	4,401.98	414.85	11.611		
14,300.00	7,052.83	15,110.93	7,215.77	210.70	210.31	-91.94	-3,565.73	-7,494.50	4,816.69	4,396.20	420.49	11.455		
14,400.00	7,052.54	15,210.93	7,215.37	213.53	213.12	-91.94	-3,566.34	-7,594.49	4,816.55	4,390.43	426.12	11.303		
14,500.00	7,052.26	15,310.93	7,214.96	216.35	215.93	-91.94	-3,566.96	-7,694.49	4,816.40	4,384.65	431.75	11.155		
14,600.00	7,051.98	15,410.93	7,214.56	219.17	218.74	-91.93	-3,567.57	-7,794.49	4,816.26	4,378.87	437.39	11.011		
14,700.00	7,051.69	15,510.93	7,214.15	222.00	221.55	-91.93	-3,568.18	-7,894.49	4,816.11	4,373.08	443.03	10.871		
14,800.00	7,051.41	15,610.93	7,213.74	224.82	224.37	-91.93	-3,568.79	-7,994.48	4,815.97	4,367.30	448.67	10.734		
14,900.00	7,051.12	15,710.93	7,213.34	227.65	227.18	-91.93	-3,569.41	-8,094.48	4,815.83	4,361.51	454.31	10.600		
14,942.37	7,051.00	15,753.30	7,213.17	228.85	228.38	-91.93	-3,569.67	-8,136.85	4,815.77	4,359.06	456.70	10.545 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	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	201.00	200.00	3.34	3.34	-179.47	-120.22	-1.11	120.23	113.56	6.67	18.012		
300.00	300.00	301.00	300.00	3.44	3.45	-179.47	-120.22	-1.11	120.23	113.34	6.89	17.447 CC, ES		
400.00	399.98	401.02	399.98	3.60	3.61	-172.27	-120.22	-1.11	121.96	114.75	7.21	16.917		
500.00	499.84	501.16	499.84	3.81	3.81	-172.58	-120.22	-1.11	127.15	119.53	7.62	16.689		
600.00	599.45	598.45	599.45	4.06	4.04	-173.03	-120.22	-1.11	135.79	127.70	8.10	16.768		
700.00	698.70	700.06	701.04	4.34	4.32	-173.03	-119.32	-2.56	147.00	138.35	8.65	16.993		
800.00	797.47	800.93	800.01	4.64	4.61	-172.78	-117.76	-5.05	160.95	151.70	9.25	17.392		
900.00	895.65	902.43	898.46	4.98	4.93	-172.71	-116.21	-7.53	178.20	168.30	9.91	17.983		
1,000.00	993.66	1,004.09	996.76	5.32	5.27	-172.71	-114.67	-10.00	196.36	185.76	10.59	18.537		
1,100.00	1,091.67	1,105.75	1,095.05	5.69	5.62	-172.71	-113.12	-12.48	214.51	203.20	11.31	18.969		
1,200.00	1,189.68	1,207.41	1,193.35	6.09	5.99	-172.71	-111.58	-14.95	232.66	220.61	12.05	19.308		
1,300.00	1,287.69	1,309.08	1,291.64	6.49	6.37	-172.72	-110.03	-17.43	250.81	238.00	12.81	19.573		
1,400.00	1,385.69	1,389.26	1,389.94	6.90	6.67	-172.72	-108.48	-19.90	268.96	255.45	13.51	19.902		
1,500.00	1,483.70	1,487.60	1,488.24	7.33	7.05	-172.72	-106.94	-22.38	287.11	272.81	14.30	20.081		
1,600.00	1,581.71	1,585.94	1,586.53	7.76	7.43	-172.72	-105.39	-24.85	305.26	290.17	15.09	20.224		
1,700.00	1,679.72	1,684.28	1,684.83	8.19	7.82	-172.72	-103.85	-27.33	323.41	307.51	15.90	20.340		
1,800.00	1,777.73	1,782.62	1,783.12	8.63	8.21	-172.72	-102.30	-29.80	341.56	324.85	16.72	20.432		
1,900.00	1,875.74	1,880.96	1,881.42	9.08	8.61	-172.72	-100.75	-32.27	359.72	342.17	17.54	20.507		
2,000.00	1,973.75	1,979.30	1,979.71	9.53	9.01	-172.72	-99.21	-34.75	377.87	359.49	18.37	20.568		
2,100.00	2,071.76	2,077.64	2,078.01	9.98	9.42	-172.72	-97.66	-37.22	396.02	376.81	19.21	20.616		
2,200.00	2,169.77	2,175.97	2,176.31	10.44	9.82	-172.72	-96.11	-39.70	414.17	394.12	20.05	20.656		
2,300.00	2,267.77	2,274.31	2,274.60	10.90	10.23	-172.72	-94.57	-42.17	432.32	411.42	20.90	20.687		
2,400.00	2,365.78	2,372.65	2,372.90	11.36	10.64	-172.72	-93.02	-44.65	450.47	428.72	21.75	20.712		
2,500.00	2,463.79	2,470.99	2,471.19	11.82	11.05	-172.72	-91.48	-47.12	468.62	446.02	22.60	20.732		
2,600.00	2,561.80	2,569.33	2,569.49	12.28	11.47	-172.72	-89.93	-49.59	486.77	463.31	23.46	20.748		
2,700.00	2,659.81	2,667.67	2,667.78	12.75	11.88	-172.72	-88.38	-52.07	504.92	480.60	24.32	20.760		
2,800.00	2,757.82	2,766.01	2,766.08	13.21	12.30	-172.72	-86.84	-54.54	523.07	497.89	25.19	20.769		
2,900.00	2,855.83	2,864.35	2,864.37	13.68	12.71	-172.73	-85.29	-57.02	541.23	515.18	26.05	20.776		
3,000.00	2,953.84	2,962.69	2,962.67	14.15	13.13	-172.73	-83.75	-59.49	559.38	532.46	26.92	20.781		
3,100.00	3,051.85	3,061.02	3,060.97	14.62	13.55	-172.73	-82.20	-61.97	577.53	549.74	27.79	20.783		
3,200.00	3,149.85	3,159.36	3,159.26	15.09	13.97	-172.73	-80.65	-64.44	595.68	567.02	28.66	20.785		
3,300.00	3,247.86	3,257.70	3,257.56	15.56	14.39	-172.73	-79.11	-66.91	613.83	584.30	29.53	20.785		
3,400.00	3,345.87	3,356.04	3,355.85	16.04	14.81	-172.73	-77.56	-69.39	631.98	601.57	30.41	20.785		
3,500.00	3,443.88	3,454.38	3,454.15	16.51	15.24	-172.73	-76.01	-71.86	650.13	618.85	31.28	20.783		
3,600.00	3,541.89	3,552.72	3,552.44	16.98	15.66	-172.73	-74.47	-74.34	668.28	636.12	32.16	20.781		
3,700.00	3,639.90	3,651.06	3,650.74	17.46	16.08	-172.73	-72.92	-76.81	686.43	653.40	33.04	20.778		
3,800.00	3,737.91	3,749.40	3,749.04	17.93	16.50	-172.73	-71.38	-79.29	704.59	670.67	33.92	20.775		
3,900.00	3,835.92	3,847.74	3,847.33	18.41	16.93	-172.73	-69.83	-81.76	722.74	687.94	34.80	20.771		
4,000.00	3,933.93	3,946.07	3,945.63	18.88	17.35	-172.73	-68.28	-84.23	740.89	705.21	35.68	20.767		
4,100.00	4,031.93	4,044.41	4,043.92	19.36	17.78	-172.73	-66.74	-86.71	759.04	722.48	36.56	20.762		
4,200.00	4,129.94	4,142.75	4,142.22	19.84	18.20	-172.73	-65.19	-89.18	777.19	739.75	37.44	20.758		
4,300.00	4,227.95	4,241.09	4,240.51	20.31	18.63	-172.73	-63.65	-91.66	795.34	757.02	38.32	20.753		
4,400.00	4,325.96	4,339.43	4,338.81	20.79	19.06	-172.73	-62.10	-94.13	813.49	774.28	39.21	20.748		
4,500.00	4,423.97	4,437.77	4,437.10	21.27	19.48	-172.73	-60.55	-96.61	831.64	791.55	40.09	20.743		
4,600.00	4,521.98	4,536.11	4,535.40	21.75	19.91	-172.73	-59.01	-99.08	849.79	808.82	40.98	20.738		
4,700.00	4,619.99	4,634.45	4,633.70	22.23	20.33	-172.73	-57.46	-101.56	867.94	826.08	41.86	20.733		
4,800.00	4,718.00	4,732.79	4,731.99	22.70	20.76	-172.73	-55.92	-104.03	886.10	843.35	42.75	20.728		
4,900.00	4,816.01	4,831.12	4,830.29	23.18	21.19	-172.73	-54.37	-106.50	904.25	860.61	43.64	20.723		
5,000.00	4,914.01	4,929.46	4,928.58	23.66	21.62	-172.73	-52.82	-108.98	922.40	877.88	44.52	20.718		
5,100.00	5,012.02	5,027.80	5,026.88	24.14	22.04	-172.73	-51.28	-111.45	940.55	895.14	45.41	20.712		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+HFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	5,110.03	5,126.14	5,125.17	24.62	22.47	-172.73	-49.73	-113.93	958.70	912.40	46.30	20.707		
5,300.00	5,208.04	5,224.48	5,223.47	25.10	22.90	-172.73	-48.18	-116.40	976.85	929.66	47.19	20.702		
5,400.00	5,306.05	5,322.82	5,321.77	25.58	23.33	-172.73	-46.64	-118.88	995.00	946.93	48.07	20.697		
5,500.00	5,404.06	5,421.16	5,420.06	26.06	23.76	-172.73	-45.09	-121.35	1,013.15	964.19	48.96	20.692		
5,600.00	5,502.07	5,519.50	5,518.36	26.54	24.19	-172.73	-43.55	-123.82	1,031.30	981.45	49.85	20.687		
5,700.00	5,600.08	5,617.84	5,616.65	27.02	24.61	-172.73	-42.00	-126.30	1,049.45	998.71	50.74	20.682		
5,800.00	5,698.09	5,716.17	5,714.95	27.50	25.04	-172.73	-40.45	-128.77	1,067.61	1,015.97	51.63	20.677		
5,900.00	5,796.09	5,814.51	5,813.24	27.98	25.47	-172.73	-38.91	-131.25	1,085.76	1,033.23	52.52	20.672		
6,000.00	5,894.10	5,912.85	5,911.54	28.46	25.90	-172.73	-37.36	-133.72	1,103.91	1,050.49	53.41	20.667		
6,100.00	5,992.11	6,011.19	6,009.83	28.94	26.33	-172.73	-35.82	-136.20	1,122.06	1,067.75	54.30	20.662		
6,200.00	6,090.12	6,109.53	6,108.13	29.42	26.76	-172.73	-34.27	-138.67	1,140.21	1,085.01	55.20	20.658		
6,300.00	6,188.13	6,207.87	6,206.43	29.90	27.19	-172.73	-32.72	-141.14	1,158.36	1,102.27	56.09	20.653		
6,400.00	6,286.14	6,306.21	6,304.72	30.38	27.62	-172.73	-31.18	-143.62	1,176.51	1,119.53	56.98	20.649		
6,500.00	6,384.15	6,404.55	6,403.02	30.87	28.05	-172.73	-29.63	-146.09	1,194.66	1,136.79	57.87	20.644		
6,600.00	6,482.15	6,502.88	6,501.31	31.35	28.48	-163.92	-28.08	-148.57	1,212.81	1,154.05	58.76	20.639		
6,700.00	6,579.21	6,600.55	6,598.93	31.83	28.91	-131.76	-26.55	-151.03	1,230.79	1,171.14	59.65	20.633		
6,800.00	6,673.04	6,698.55	6,696.65	32.30	29.34	-116.62	-25.04	-153.39	1,248.48	1,187.93	60.55	20.617		
6,900.00	6,761.33	6,800.73	6,796.33	32.74	29.79	-108.84	-23.62	-155.28	1,265.58	1,204.07	61.51	20.575		
7,000.00	6,841.90	6,907.41	6,895.27	33.17	30.27	-104.31	-22.35	-156.83	1,281.64	1,219.11	62.53	20.497		
7,100.00	6,912.77	7,019.02	6,990.20	33.60	30.79	-101.47	-21.28	-157.25	1,296.19	1,232.55	63.64	20.368		
7,200.00	6,972.19	7,135.81	7,077.02	34.09	31.40	-99.65	-20.49	-155.11	1,308.78	1,243.87	64.91	20.163		
7,300.00	7,018.70	7,257.66	7,150.87	34.73	32.15	-98.50	-20.06	-151.79	1,318.94	1,252.49	66.45	19.849		
7,400.00	7,051.15	7,384.02	7,206.59	35.55	33.15	-97.84	-20.03	-154.98	1,326.28	1,257.91	68.37	19.398		
7,500.00	7,068.75	7,513.80	7,239.43	36.56	34.44	-97.56	-20.46	-160.30	1,330.46	1,259.71	70.75	18.806		
7,600.00	7,071.91	7,637.85	7,246.92	37.71	35.91	-97.55	-21.29	-163.95	1,331.40	1,257.96	73.43	18.131		
7,700.00	7,071.62	7,737.85	7,246.61	39.03	37.27	-97.55	-22.06	-163.95	1,331.41	1,255.27	76.14	17.486		
7,800.00	7,071.34	7,837.85	7,246.30	40.51	38.79	-97.55	-22.82	-1,013.95	1,331.42	1,252.27	79.15	16.821		
7,900.00	7,071.05	7,937.85	7,245.99	42.14	40.46	-97.55	-23.59	-1,113.94	1,331.43	1,248.98	82.45	16.149		
8,000.00	7,070.77	8,037.85	7,245.67	43.89	42.25	-97.55	-24.36	-1,213.94	1,331.44	1,245.45	85.99	15.483		
8,100.00	7,070.48	8,137.85	7,245.36	45.76	44.15	-97.55	-25.13	-1,313.93	1,331.45	1,241.70	89.76	14.834		
8,200.00	7,070.20	8,237.85	7,245.05	47.72	46.16	-97.55	-25.89	-1,413.93	1,331.47	1,237.75	93.71	14.208		
8,300.00	7,069.92	8,337.85	7,244.74	49.78	48.25	-97.54	-26.66	-1,513.93	1,331.48	1,233.64	97.84	13.609		
8,400.00	7,069.63	8,437.85	7,244.43	51.90	50.41	-97.54	-27.43	-1,613.92	1,331.49	1,229.38	102.11	13.039		
8,500.00	7,069.35	8,537.85	7,244.12	54.10	52.64	-97.54	-28.20	-1,713.92	1,331.50	1,224.98	106.52	12.500		
8,600.00	7,069.06	8,637.85	7,243.80	56.36	54.93	-97.54	-28.96	-1,813.92	1,331.51	1,220.47	111.04	11.991		
8,700.00	7,068.78	8,737.85	7,243.49	58.66	57.27	-97.54	-29.73	-1,913.91	1,331.52	1,215.86	115.66	11.512		
8,800.00	7,068.49	8,837.85	7,243.18	61.02	59.66	-97.54	-30.50	-2,013.91	1,331.53	1,211.16	120.38	11.062		
8,900.00	7,068.21	8,937.85	7,242.87	63.42	62.08	-97.54	-31.27	-2,113.91	1,331.55	1,206.38	125.17	10.638		
9,000.00	7,067.92	9,037.85	7,242.56	65.85	64.54	-97.54	-32.03	-2,213.90	1,331.56	1,201.53	130.03	10.240		
9,100.00	7,067.64	9,137.85	7,242.24	68.32	67.04	-97.53	-32.80	-2,313.90	1,331.57	1,196.61	134.96	9.866		
9,200.00	7,067.35	9,237.85	7,241.93	70.81	69.56	-97.53	-33.57	-2,413.90	1,331.58	1,191.64	139.94	9.515		
9,300.00	7,067.07	9,337.85	7,241.62	73.34	72.10	-97.53	-34.34	-2,513.89	1,331.59	1,186.61	144.98	9.185		
9,400.00	7,066.78	9,437.85	7,241.31	75.88	74.67	-97.53	-35.10	-2,613.89	1,331.60	1,181.55	150.06	8.874		
9,500.00	7,066.50	9,537.85	7,241.00	78.45	77.26	-97.53	-35.87	-2,713.89	1,331.62	1,176.44	155.18	8.581		
9,600.00	7,066.21	9,637.85	7,240.68	81.04	79.87	-97.53	-36.64	-2,813.88	1,331.63	1,171.29	160.34	8.305		
9,700.00	7,065.93	9,737.85	7,240.37	83.64	82.49	-97.53	-37.41	-2,913.88	1,331.64	1,166.11	165.53	8.045		
9,800.00	7,065.64	9,837.85	7,240.06	86.26	85.13	-97.53	-38.17	-3,013.88	1,331.65	1,160.89	170.76	7.799		
9,900.00	7,065.36	9,937.85	7,239.75	88.90	87.79	-97.52	-38.94	-3,113.87	1,331.66	1,155.65	176.01	7.566		
10,000.00	7,065.07	10,037.85	7,239.44	91.55	90.45	-97.52	-39.71	-3,213.87	1,331.67	1,150.39	181.29	7.346		
10,100.00	7,064.79	10,137.85	7,239.12	94.21	93.13	-97.52	-40.48	-3,313.87	1,331.69	1,145.10	186.59	7.137		
10,200.00	7,064.50	10,237.85	7,238.81	96.88	95.81	-97.52	-41.24	-3,413.86	1,331.70	1,139.79	191.91	6.939		
10,300.00	7,064.22	10,337.85	7,238.50	99.57	98.51	-97.52	-42.01	-3,513.86	1,331.71	1,134.46	197.25	6.751		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,437.85	7,238.19	102.26	101.22	-97.52	-42.78	-3,613.86	1,331.72	1,129.11	202.61	6.573		
10,500.00	7,063.65	10,537.85	7,237.88	104.96	103.93	-97.52	-43.55	-3,713.85	1,331.73	1,123.74	207.99	6.403		
10,600.00	7,063.37	10,637.85	7,237.56	107.67	106.65	-97.52	-44.32	-3,813.85	1,331.74	1,118.36	213.38	6.241		
10,700.00	7,063.08	10,737.85	7,237.25	110.39	109.38	-97.51	-45.08	-3,913.85	1,331.75	1,112.97	218.79	6.087		
10,800.00	7,062.80	10,837.85	7,236.94	113.11	112.12	-97.51	-45.85	-4,013.84	1,331.77	1,107.56	224.21	5.940		
10,900.00	7,062.51	10,937.85	7,236.63	115.84	114.86	-97.51	-46.62	-4,113.84	1,331.78	1,102.14	229.64	5.799		
11,000.00	7,062.23	11,037.85	7,236.32	118.58	117.60	-97.51	-47.39	-4,213.84	1,331.79	1,096.71	235.08	5.665		
11,100.00	7,061.94	11,137.85	7,236.01	121.32	120.36	-97.51	-48.15	-4,313.83	1,331.80	1,091.26	240.54	5.537		
11,200.00	7,061.66	11,237.85	7,235.69	124.07	123.11	-97.51	-48.92	-4,413.83	1,331.81	1,085.81	246.00	5.414		
11,300.00	7,061.37	11,337.85	7,235.38	126.82	125.87	-97.51	-49.69	-4,513.82	1,331.82	1,080.35	251.47	5.296		
11,400.00	7,061.09	11,437.85	7,235.07	129.58	128.64	-97.51	-50.46	-4,613.82	1,331.84	1,074.88	256.96	5.183		
11,500.00	7,060.80	11,537.85	7,234.76	132.34	131.41	-97.50	-51.22	-4,713.82	1,331.85	1,069.40	262.45	5.075		
11,600.00	7,060.52	11,637.85	7,234.45	135.10	134.18	-97.50	-51.99	-4,813.81	1,331.86	1,063.91	267.95	4.971		
11,700.00	7,060.23	11,737.85	7,234.13	137.87	136.96	-97.50	-52.76	-4,913.81	1,331.87	1,058.42	273.45	4.871		
11,800.00	7,059.95	11,837.85	7,233.82	140.64	139.74	-97.50	-53.53	-5,013.81	1,331.88	1,052.92	278.97	4.774		
11,900.00	7,059.66	11,937.85	7,233.51	143.42	142.52	-97.50	-54.29	-5,113.80	1,331.89	1,047.41	284.49	4.682		
12,000.00	7,059.38	12,037.85	7,233.20	146.20	145.31	-97.50	-55.06	-5,213.80	1,331.90	1,041.89	290.01	4.593		
12,100.00	7,059.09	12,137.85	7,232.89	148.98	148.10	-97.50	-55.83	-5,313.80	1,331.92	1,036.37	295.54	4.507		
12,200.00	7,058.81	12,237.85	7,232.57	151.77	150.89	-97.50	-56.60	-5,413.79	1,331.93	1,030.85	301.08	4.424		
12,300.00	7,058.52	12,337.85	7,232.26	154.55	153.68	-97.50	-57.36	-5,513.79	1,331.94	1,025.32	306.62	4.344		
12,400.00	7,058.24	12,437.85	7,231.95	157.34	156.48	-97.49	-58.13	-5,613.79	1,331.95	1,019.78	312.17	4.267		
12,500.00	7,057.96	12,537.85	7,231.64	160.14	159.27	-97.49	-58.90	-5,713.78	1,331.96	1,014.25	317.72	4.192		
12,600.00	7,057.67	12,637.85	7,231.33	162.93	162.08	-97.49	-59.67	-5,813.78	1,331.97	1,008.70	323.27	4.120		
12,700.00	7,057.39	12,737.85	7,231.01	165.73	164.88	-97.49	-60.43	-5,913.78	1,331.99	1,003.15	328.83	4.051		
12,800.00	7,057.10	12,837.85	7,230.70	168.53	167.68	-97.49	-61.20	-6,013.77	1,332.00	997.60	334.40	3.983		
12,900.00	7,056.82	12,937.85	7,230.39	171.33	170.49	-97.49	-61.97	-6,113.77	1,332.01	992.05	339.96	3.918		
13,000.00	7,056.53	13,037.85	7,230.08	174.13	173.30	-97.49	-62.74	-6,213.77	1,332.02	986.49	345.53	3.855		
13,100.00	7,056.25	13,137.85	7,229.77	176.94	176.10	-97.49	-63.50	-6,313.76	1,332.03	980.92	351.11	3.794		
13,200.00	7,055.96	13,237.85	7,229.46	179.74	178.92	-97.48	-64.27	-6,413.76	1,332.04	975.36	356.69	3.734		
13,300.00	7,055.68	13,337.85	7,229.14	182.55	181.73	-97.48	-65.04	-6,513.76	1,332.06	969.79	362.27	3.677		
13,400.00	7,055.39	13,437.85	7,228.83	185.36	184.54	-97.48	-65.81	-6,613.75	1,332.07	964.22	367.85	3.621		
13,500.00	7,055.11	13,537.85	7,228.52	188.17	187.36	-97.48	-66.57	-6,713.75	1,332.08	958.64	373.44	3.567		
13,600.00	7,054.82	13,637.85	7,228.21	190.98	190.17	-97.48	-67.34	-6,813.75	1,332.09	953.06	379.03	3.515		
13,700.00	7,054.54	13,737.85	7,227.90	193.80	192.99	-97.48	-68.11	-6,913.74	1,332.10	947.48	384.62	3.463		
13,800.00	7,054.25	13,837.85	7,227.58	196.61	195.81	-97.48	-68.88	-7,013.74	1,332.11	941.90	390.21	3.414		
13,900.00	7,053.97	13,937.85	7,227.27	199.43	198.63	-97.48	-69.65	-7,113.74	1,332.12	936.32	395.81	3.366		
14,000.00	7,053.68	14,037.85	7,226.96	202.25	201.45	-97.47	-70.41	-7,213.73	1,332.14	930.73	401.41	3.319		
14,100.00	7,053.40	14,137.85	7,226.65	205.06	204.27	-97.47	-71.18	-7,313.73	1,332.15	925.14	407.01	3.273		
14,200.00	7,053.11	14,237.85	7,226.34	207.88	207.10	-97.47	-71.95	-7,413.73	1,332.16	919.55	412.61	3.229		
14,300.00	7,052.83	14,337.85	7,226.02	210.70	209.92	-97.47	-72.72	-7,513.72	1,332.17	913.96	418.22	3.185		
14,400.00	7,052.54	14,437.85	7,225.71	213.53	212.75	-97.47	-73.48	-7,613.72	1,332.18	908.36	423.82	3.143		
14,500.00	7,052.26	14,537.85	7,225.40	216.35	215.57	-97.47	-74.25	-7,713.71	1,332.19	902.76	429.43	3.102		
14,600.00	7,051.98	14,637.85	7,225.09	219.17	218.40	-97.47	-75.02	-7,813.71	1,332.21	897.16	435.04	3.062		
14,700.00	7,051.69	14,737.85	7,224.78	222.00	221.23	-97.47	-75.79	-7,913.71	1,332.22	891.56	440.65	3.023		
14,800.00	7,051.41	14,837.85	7,224.46	224.82	224.05	-97.46	-76.55	-8,013.70	1,332.23	885.96	446.27	2.985		
14,900.00	7,051.12	14,937.85	7,224.15	227.65	226.88	-97.46	-77.32	-8,113.70	1,332.24	880.36	451.88	2.948		
14,942.37	7,051.00	14,980.22	7,224.02	228.85	228.08	-97.46	-77.65	-8,156.07	1,332.25	877.98	454.26	2.933 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2.00	0.00	3.28	3.28	-179.51	-360.30	-3.06	360.31					
100.00	100.00	102.00	100.00	3.28	3.29	-179.51	-360.30	-3.06	360.31	353.74	6.57	54.843		
200.00	200.00	198.00	200.00	3.34	3.34	-179.51	-360.30	-3.06	360.31	353.64	6.67	54.000 CC, ES		
300.00	300.00	287.06	289.05	3.44	3.42	-179.50	-361.61	-3.18	361.79	354.92	6.88	52.607		
400.00	399.98	375.62	377.51	3.60	3.55	-172.16	-365.66	-3.56	368.09	360.90	7.19	51.225		
500.00	499.84	463.37	465.00	3.81	3.71	-172.13	-372.34	-4.19	380.88	373.29	7.59	50.202		
600.00	599.45	549.77	550.91	4.06	3.91	-172.11	-381.53	-5.06	400.06	392.01	8.06	49.644		
700.00	698.70	634.34	634.68	4.34	4.13	-172.10	-393.02	-6.14	425.52	416.94	8.58	49.588		
800.00	797.47	716.60	715.81	4.64	4.37	-172.09	-406.55	-7.42	457.07	447.94	9.14	50.025		
900.00	895.65	796.21	793.91	4.98	4.63	-172.11	-421.84	-8.86	494.39	484.68	9.72	50.887		
1,000.00	993.66	873.70	869.51	5.32	4.90	-172.18	-438.80	-10.45	535.07	524.79	10.28	52.045		
1,100.00	1,091.67	950.17	943.63	5.69	5.19	-172.22	-457.52	-12.22	578.15	567.29	10.86	53.230		
1,200.00	1,189.68	1,039.91	1,030.35	6.09	5.56	-172.25	-480.50	-14.38	622.29	610.80	11.50	54.131		
1,300.00	1,287.69	1,129.64	1,117.06	6.49	5.94	-172.27	-503.47	-16.55	666.43	654.27	12.16	54.801		
1,400.00	1,385.69	1,219.37	1,203.78	6.90	6.34	-172.30	-526.44	-18.71	710.57	697.72	12.85	55.297		
1,500.00	1,483.70	1,309.10	1,290.49	7.33	6.75	-172.32	-549.41	-20.87	754.70	741.14	13.56	55.657		
1,600.00	1,581.71	1,401.16	1,377.21	7.76	7.18	-172.34	-572.38	-23.04	798.84	784.54	14.30	55.874		
1,700.00	1,679.72	1,488.57	1,463.92	8.19	7.59	-172.35	-595.35	-25.20	842.98	827.95	15.03	56.086		
1,800.00	1,777.73	1,578.30	1,550.64	8.63	8.03	-172.37	-618.33	-27.37	887.11	871.33	15.79	56.197		
1,900.00	1,875.74	1,668.03	1,637.35	9.08	8.47	-172.38	-641.30	-29.53	931.25	914.70	16.55	56.260		
2,000.00	1,973.75	1,757.76	1,724.07	9.53	8.91	-172.39	-664.27	-31.69	975.39	958.06	17.33	56.286		
2,100.00	2,071.76	1,847.50	1,810.78	9.98	9.36	-172.40	-687.24	-33.86	1,019.53	1,001.41	18.11	56.283		
2,200.00	2,169.77	1,937.23	1,897.50	10.44	9.81	-172.41	-710.21	-36.02	1,063.66	1,044.76	18.91	56.258		
2,300.00	2,267.77	2,026.96	1,984.21	10.90	10.26	-172.42	-733.19	-38.19	1,107.80	1,088.09	19.71	56.217		
2,400.00	2,365.78	2,116.69	2,070.93	11.36	10.72	-172.43	-756.16	-40.35	1,151.94	1,131.43	20.51	56.164		
2,500.00	2,463.79	2,206.43	2,157.64	11.82	11.18	-172.44	-779.13	-42.51	1,196.07	1,174.75	21.32	56.101		
2,600.00	2,561.80	2,303.84	2,244.36	12.28	11.68	-172.45	-802.10	-44.68	1,240.21	1,218.04	22.17	55.941		
2,700.00	2,659.81	2,385.89	2,331.07	12.75	12.11	-172.45	-825.07	-46.84	1,284.35	1,261.40	22.95	55.956		
2,800.00	2,757.82	2,475.62	2,417.79	13.21	12.57	-172.46	-848.05	-49.00	1,328.49	1,304.71	23.77	55.878		
2,900.00	2,855.83	2,565.35	2,504.50	13.68	13.04	-172.47	-871.02	-51.17	1,372.62	1,348.02	24.60	55.798		
3,000.00	2,953.84	2,655.09	2,591.22	14.15	13.51	-172.47	-893.99	-53.33	1,416.76	1,391.33	25.43	55.716		
3,100.00	3,051.85	2,744.82	2,677.93	14.62	13.98	-172.48	-916.96	-55.50	1,460.90	1,434.64	26.26	55.634		
3,200.00	3,149.85	2,834.55	2,764.65	15.09	14.45	-172.48	-939.93	-57.66	1,505.04	1,477.94	27.09	55.552		
3,300.00	3,247.86	2,924.28	2,851.36	15.56	14.92	-172.49	-962.90	-59.82	1,549.17	1,521.25	27.93	55.470		
3,400.00	3,345.87	3,014.02	2,938.08	16.04	15.40	-172.49	-985.88	-61.99	1,593.31	1,564.55	28.77	55.390		
3,500.00	3,443.88	3,103.75	3,024.79	16.51	15.87	-172.50	-1,008.85	-64.15	1,637.45	1,607.84	29.60	55.310		
3,600.00	3,541.89	3,206.52	3,111.51	16.98	16.41	-172.50	-1,031.82	-66.32	1,681.59	1,651.08	30.51	55.119		
3,700.00	3,639.90	3,283.21	3,198.22	17.46	16.82	-172.50	-1,054.79	-68.48	1,725.72	1,694.44	31.29	55.155		
3,800.00	3,737.91	3,372.94	3,284.94	17.93	17.30	-172.51	-1,077.76	-70.64	1,769.86	1,737.73	32.13	55.079		
3,900.00	3,835.92	3,462.68	3,371.65	18.41	17.77	-172.51	-1,100.74	-72.81	1,814.00	1,781.02	32.98	55.005		
4,000.00	3,933.93	3,552.41	3,458.37	18.88	18.25	-172.52	-1,123.71	-74.97	1,858.14	1,824.31	33.83	54.933		
4,100.00	4,031.93	3,642.14	3,545.08	19.36	18.73	-172.52	-1,146.68	-77.14	1,902.27	1,867.60	34.67	54.863		
4,200.00	4,129.94	3,731.87	3,631.80	19.84	19.20	-172.52	-1,169.65	-79.30	1,946.41	1,910.89	35.52	54.794		
4,300.00	4,227.95	3,821.61	3,718.51	20.31	19.68	-172.52	-1,192.62	-81.46	1,990.55	1,954.18	36.37	54.727		
4,400.00	4,325.96	3,911.34	3,805.23	20.79	20.16	-172.53	-1,215.59	-83.63	2,034.69	1,997.46	37.22	54.661		
4,500.00	4,423.97	4,001.07	3,891.94	21.27	20.64	-172.53	-1,238.57	-85.79	2,078.82	2,040.75	38.08	54.597		
4,600.00	4,521.98	4,109.20	3,978.66	21.75	21.22	-172.53	-1,261.54	-87.96	2,122.96	2,083.94	39.02	54.410		
4,700.00	4,619.99	4,180.53	4,065.37	22.23	21.60	-172.53	-1,284.51	-90.12	2,167.10	2,127.32	39.78	54.474		
4,800.00	4,718.00	4,270.27	4,152.08	22.70	22.08	-172.54	-1,307.48	-92.28	2,211.24	2,170.60	40.64	54.415		
4,900.00	4,816.01	4,360.00	4,238.80	23.18	22.56	-172.54	-1,330.45	-94.45	2,255.37	2,213.88	41.49	54.357		
5,000.00	4,914.01	4,449.73	4,325.51	23.66	23.04	-172.54	-1,353.43	-96.61	2,299.51	2,257.16	42.35	54.301		
5,100.00	5,012.02	4,539.46	4,412.23	24.14	23.52	-172.54	-1,376.40	-98.77	2,343.65	2,300.45	43.20	54.246		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	4,629.20	4,498.94	24.62	24.00	-172.55	-1,399.37	-100.94	2,387.79	2,343.73	44.06	54.192		
5,300.00	5,208.04	4,718.93	4,585.66	25.10	24.48	-172.55	-1,422.34	-103.10	2,431.93	2,387.01	44.92	54.140		
5,400.00	5,306.05	4,808.66	4,672.37	25.58	24.96	-172.55	-1,445.31	-105.27	2,476.06	2,430.28	45.78	54.089		
5,500.00	5,404.06	4,901.61	4,759.09	26.06	25.46	-172.55	-1,468.29	-107.43	2,520.20	2,473.55	46.65	54.021		
5,600.00	5,502.07	4,988.12	4,845.80	26.54	25.92	-172.55	-1,491.26	-109.59	2,564.34	2,516.84	47.50	53.991		
5,700.00	5,600.08	5,077.86	4,932.52	27.02	26.41	-172.55	-1,514.23	-111.76	2,608.48	2,560.12	48.36	53.943		
5,800.00	5,698.09	5,167.59	5,019.23	27.50	26.89	-172.56	-1,537.20	-113.92	2,652.61	2,603.40	49.22	53.897		
5,900.00	5,796.09	5,257.32	5,105.95	27.98	27.37	-172.56	-1,560.17	-116.09	2,696.75	2,646.67	50.08	53.851		
6,000.00	5,894.10	5,347.05	5,192.66	28.46	27.85	-172.56	-1,583.14	-118.25	2,740.89	2,689.95	50.94	53.807		
6,100.00	5,992.11	5,436.79	5,279.38	28.94	28.33	-172.56	-1,606.12	-120.41	2,785.03	2,733.22	51.80	53.764		
6,200.00	6,090.12	5,526.52	5,366.09	29.42	28.82	-172.56	-1,629.09	-122.58	2,829.16	2,776.50	52.66	53.722		
6,300.00	6,188.13	5,616.25	5,452.81	29.90	29.30	-172.56	-1,652.06	-124.74	2,873.30	2,819.77	53.53	53.680		
6,400.00	6,286.14	5,705.98	5,539.52	30.38	29.78	-172.56	-1,675.03	-126.91	2,917.44	2,863.05	54.39	53.640		
6,500.00	6,384.15	5,804.29	5,626.24	30.87	30.31	-172.57	-1,698.00	-129.07	2,961.58	2,906.28	55.30	53.560		
6,600.00	6,482.15	5,885.45	5,712.95	31.35	30.75	-163.20	-1,720.98	-131.23	3,005.71	2,949.59	56.12	53.561		
6,700.00	6,579.21	5,974.60	5,799.11	31.83	31.23	-128.03	-1,743.80	-133.38	3,049.44	2,992.46	56.98	53.516		
6,800.00	6,673.04	6,061.19	5,882.78	32.30	31.69	-109.79	-1,765.97	-135.47	3,091.91	3,034.08	57.83	53.466		
6,900.00	6,761.33	6,143.08	5,961.93	32.74	32.14	-99.29	-1,786.93	-137.45	3,132.44	3,073.79	58.65	53.409		
7,000.00	6,841.90	6,218.27	6,034.58	33.17	32.54	-92.39	-1,806.18	-139.26	3,170.56	3,111.11	59.45	53.335		
7,100.00	6,912.77	6,284.89	6,098.97	33.60	32.90	-87.46	-1,823.23	-140.87	3,205.96	3,145.73	60.23	53.225		
7,200.00	6,972.19	6,341.31	6,153.49	34.09	33.20	-83.73	-1,837.68	-142.23	3,238.46	3,177.42	61.04	53.053		
7,300.00	7,018.70	6,386.14	6,196.81	34.73	33.45	-80.80	-1,849.16	-143.31	3,267.91	3,206.01	61.90	52.795		
7,400.00	7,051.15	6,418.27	6,227.86	35.55	33.62	-78.43	-1,857.38	-144.08	3,294.16	3,231.34	62.82	52.440		
7,500.00	7,068.75	6,436.92	6,245.89	36.56	33.72	-76.50	-1,862.16	-144.53	3,317.04	3,253.24	63.79	51.995		
7,600.00	7,071.91	6,442.40	6,251.18	37.71	33.75	-75.44	-1,863.56	-144.66	3,336.65	3,271.84	64.81	51.485		
7,700.00	7,071.62	7,651.32	6,951.56	39.03	39.52	-87.95	-2,054.28	-903.01	3,354.26	3,277.56	76.69	43.736		
7,800.00	7,071.34	7,751.32	6,951.18	40.51	40.70	-87.95	-2,054.87	-1,003.01	3,354.11	3,274.46	79.64	42.115		
7,900.00	7,071.05	7,851.32	6,950.80	42.14	42.11	-87.95	-2,055.47	-1,103.01	3,353.96	3,271.08	82.88	40.468		
8,000.00	7,070.77	7,951.32	6,950.42	43.89	43.71	-87.94	-2,056.07	-1,203.00	3,353.81	3,267.43	86.37	38.829		
8,100.00	7,070.48	8,051.32	6,950.04	45.76	45.46	-87.94	-2,056.67	-1,303.00	3,353.66	3,263.56	90.10	37.223		
8,200.00	7,070.20	8,151.32	6,949.66	47.72	47.32	-87.94	-2,057.27	-1,403.00	3,353.51	3,259.49	94.02	35.669		
8,300.00	7,069.92	8,251.32	6,949.28	49.78	49.30	-87.94	-2,057.87	-1,503.00	3,353.36	3,255.24	98.12	34.178		
8,400.00	7,069.63	8,351.32	6,948.90	51.90	51.36	-87.94	-2,058.47	-1,602.99	3,353.21	3,250.84	102.37	32.756		
8,500.00	7,069.35	8,451.32	6,948.52	54.10	53.50	-87.94	-2,059.06	-1,702.99	3,353.05	3,246.30	106.76	31.408		
8,600.00	7,069.06	8,551.32	6,948.14	56.36	55.71	-87.93	-2,059.66	-1,802.99	3,352.90	3,241.64	111.27	30.134		
8,700.00	7,068.78	8,651.32	6,947.76	58.66	57.98	-87.93	-2,060.26	-1,902.98	3,352.75	3,236.87	115.88	28.932		
8,800.00	7,068.49	8,751.32	6,947.38	61.02	60.30	-87.93	-2,060.86	-2,002.98	3,352.60	3,232.01	120.59	27.801		
8,900.00	7,068.21	8,851.32	6,947.00	63.42	62.67	-87.93	-2,061.46	-2,102.98	3,352.45	3,227.07	125.39	26.737		
9,000.00	7,067.92	8,951.32	6,946.62	65.85	65.07	-87.93	-2,062.06	-2,202.98	3,352.30	3,222.05	130.26	25.736		
9,100.00	7,067.64	9,051.32	6,946.24	68.32	67.51	-87.92	-2,062.66	-2,302.97	3,352.15	3,216.96	135.19	24.796		
9,200.00	7,067.35	9,151.32	6,945.87	70.81	69.99	-87.92	-2,063.26	-2,402.97	3,352.00	3,211.82	140.18	23.912		
9,300.00	7,067.07	9,251.32	6,945.49	73.34	72.49	-87.92	-2,063.85	-2,502.97	3,351.85	3,206.63	145.23	23.080		
9,400.00	7,066.78	9,351.32	6,945.11	75.88	75.02	-87.92	-2,064.45	-2,602.97	3,351.70	3,201.38	150.32	22.297		
9,500.00	7,066.50	9,451.32	6,944.73	78.45	77.57	-87.92	-2,065.05	-2,702.96	3,351.55	3,196.09	155.46	21.559		
9,600.00	7,066.21	9,551.32	6,944.35	81.04	80.15	-87.92	-2,065.65	-2,802.96	3,351.40	3,190.77	160.64	20.863		
9,700.00	7,065.93	9,651.32	6,943.97	83.64	82.74	-87.91	-2,066.25	-2,902.96	3,351.25	3,185.41	165.85	20.207		
9,800.00	7,065.64	9,751.32	6,943.59	86.26	85.35	-87.91	-2,066.85	-3,002.96	3,351.10	3,180.01	171.09	19.587		
9,900.00	7,065.36	9,851.32	6,943.21	88.90	87.97	-87.91	-2,067.45	-3,102.95	3,350.95	3,174.59	176.36	19.000		
10,000.00	7,065.07	9,951.32	6,942.83	91.55	90.61	-87.91	-2,068.04	-3,202.95	3,350.80	3,169.14	181.66	18.445		
10,100.00	7,064.79	10,051.32	6,942.45	94.21	93.26	-87.91	-2,068.64	-3,302.95	3,350.65	3,163.67	186.98	17.919		
10,200.00	7,064.50	10,151.32	6,942.07	96.88	95.93	-87.91	-2,069.24	-3,402.94	3,350.50	3,158.17	192.33	17.421		
10,300.00	7,064.22	10,251.32	6,941.69	99.57	98.60	-87.90	-2,069.84	-3,502.94	3,350.35	3,152.66	197.70	16.947		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	10,351.32	6,941.31	102.26	101.29	-87.90	-2,070.44	-3,602.94	3,350.20	3,147.12	203.08	16.497		
10,500.00	7,063.65	10,451.32	6,940.93	104.96	103.98	-87.90	-2,071.04	-3,702.94	3,350.05	3,141.57	208.48	16.069		
10,600.00	7,063.37	10,551.32	6,940.55	107.67	106.69	-87.90	-2,071.64	-3,802.93	3,349.90	3,136.00	213.90	15.661		
10,700.00	7,063.08	10,651.32	6,940.18	110.39	109.40	-87.90	-2,072.23	-3,902.93	3,349.75	3,130.41	219.34	15.272		
10,800.00	7,062.80	10,751.32	6,939.80	113.11	112.12	-87.90	-2,072.83	-4,002.93	3,349.60	3,124.82	224.78	14.901		
10,900.00	7,062.51	10,851.32	6,939.42	115.84	114.84	-87.89	-2,073.43	-4,102.93	3,349.45	3,119.21	230.25	14.547		
11,000.00	7,062.23	10,951.32	6,939.04	118.58	117.57	-87.89	-2,074.03	-4,202.92	3,349.30	3,113.58	235.72	14.209		
11,100.00	7,061.94	11,051.32	6,938.66	121.32	120.31	-87.89	-2,074.63	-4,302.92	3,349.15	3,107.95	241.20	13.885		
11,200.00	7,061.66	11,151.32	6,938.28	124.07	123.05	-87.89	-2,075.23	-4,402.92	3,349.00	3,102.31	246.70	13.575		
11,300.00	7,061.37	11,251.32	6,937.90	126.82	125.80	-87.89	-2,075.83	-4,502.92	3,348.85	3,096.65	252.20	13.279		
11,400.00	7,061.09	11,351.32	6,937.52	129.58	128.56	-87.89	-2,076.43	-4,602.91	3,348.70	3,090.99	257.71	12.994		
11,500.00	7,060.80	11,451.32	6,937.14	132.34	131.31	-87.88	-2,077.02	-4,702.91	3,348.55	3,085.32	263.23	12.721		
11,600.00	7,060.52	11,551.32	6,936.76	135.10	134.08	-87.88	-2,077.62	-4,802.91	3,348.40	3,079.64	268.76	12.459		
11,700.00	7,060.23	11,651.32	6,936.38	137.87	136.84	-87.88	-2,078.22	-4,902.90	3,348.25	3,073.95	274.30	12.207		
11,800.00	7,059.95	11,751.32	6,936.00	140.64	139.61	-87.88	-2,078.82	-5,002.90	3,348.10	3,068.26	279.84	11.964		
11,900.00	7,059.66	11,851.32	6,935.62	143.42	142.38	-87.88	-2,079.42	-5,102.90	3,347.95	3,062.56	285.39	11.731		
12,000.00	7,059.38	11,951.32	6,935.24	146.20	145.16	-87.88	-2,080.02	-5,202.90	3,347.80	3,056.85	290.95	11.506		
12,100.00	7,059.09	12,051.32	6,934.86	148.98	147.94	-87.87	-2,080.62	-5,302.89	3,347.65	3,051.14	296.51	11.290		
12,200.00	7,058.81	12,151.32	6,934.49	151.77	150.72	-87.87	-2,081.21	-5,402.89	3,347.50	3,045.42	302.08	11.081		
12,300.00	7,058.52	12,251.32	6,934.11	154.55	153.51	-87.87	-2,081.81	-5,502.89	3,347.35	3,039.70	307.65	10.880		
12,400.00	7,058.24	12,351.32	6,933.73	157.34	156.30	-87.87	-2,082.41	-5,602.89	3,347.20	3,033.97	313.23	10.686		
12,500.00	7,057.96	12,451.32	6,933.35	160.14	159.09	-87.87	-2,083.01	-5,702.88	3,347.05	3,028.23	318.82	10.498		
12,600.00	7,057.67	12,551.32	6,932.97	162.93	161.88	-87.86	-2,083.61	-5,802.88	3,346.90	3,022.50	324.40	10.317		
12,700.00	7,057.39	12,651.32	6,932.59	165.73	164.68	-87.86	-2,084.21	-5,902.88	3,346.75	3,016.75	330.00	10.142		
12,800.00	7,057.10	12,751.32	6,932.21	168.53	167.47	-87.86	-2,084.81	-6,002.88	3,346.60	3,011.01	335.59	9.972		
12,900.00	7,056.82	12,851.31	6,931.83	171.33	170.27	-87.86	-2,085.40	-6,102.87	3,346.45	3,005.26	341.19	9.808		
13,000.00	7,056.53	12,951.31	6,931.45	174.13	173.08	-87.86	-2,086.00	-6,202.87	3,346.30	2,999.50	346.80	9.649		
13,100.00	7,056.25	13,051.31	6,931.07	176.94	175.88	-87.86	-2,086.60	-6,302.87	3,346.15	2,993.75	352.40	9.495		
13,200.00	7,055.96	13,151.31	6,930.69	179.74	178.68	-87.85	-2,087.20	-6,402.86	3,346.00	2,987.99	358.01	9.346		
13,300.00	7,055.68	13,251.31	6,930.31	182.55	181.49	-87.85	-2,087.80	-6,502.86	3,345.85	2,982.22	363.63	9.201		
13,400.00	7,055.39	13,351.31	6,929.93	185.36	184.30	-87.85	-2,088.40	-6,602.86	3,345.70	2,976.46	369.24	9.061		
13,500.00	7,055.11	13,451.31	6,929.55	188.17	187.11	-87.85	-2,089.00	-6,702.86	3,345.55	2,970.69	374.86	8.925		
13,600.00	7,054.82	13,551.31	6,929.18	190.98	189.92	-87.85	-2,089.59	-6,802.85	3,345.40	2,964.91	380.49	8.792		
13,700.00	7,054.54	13,651.31	6,928.80	193.80	192.73	-87.85	-2,090.19	-6,902.85	3,345.25	2,959.14	386.11	8.664		
13,800.00	7,054.25	13,751.31	6,928.42	196.61	195.55	-87.84	-2,090.79	-7,002.85	3,345.10	2,953.36	391.74	8.539		
13,900.00	7,053.97	13,851.31	6,928.04	199.43	198.36	-87.84	-2,091.39	-7,102.85	3,344.95	2,947.58	397.37	8.418		
14,000.00	7,053.68	13,951.31	6,927.66	202.25	201.18	-87.84	-2,091.99	-7,202.84	3,344.80	2,941.80	403.00	8.300		
14,100.00	7,053.40	14,051.31	6,927.28	205.06	204.00	-87.84	-2,092.59	-7,302.84	3,344.65	2,936.01	408.63	8.185		
14,200.00	7,053.11	14,151.31	6,926.90	207.88	206.82	-87.84	-2,093.19	-7,402.84	3,344.50	2,930.23	414.27	8.073		
14,300.00	7,052.83	14,251.31	6,926.52	210.70	209.64	-87.84	-2,093.79	-7,502.83	3,344.35	2,924.44	419.91	7.964		
14,400.00	7,052.54	14,351.31	6,926.14	213.53	212.46	-87.83	-2,094.38	-7,602.83	3,344.20	2,918.65	425.55	7.859		
14,500.00	7,052.26	14,451.31	6,925.76	216.35	215.28	-87.83	-2,094.98	-7,702.83	3,344.05	2,912.86	431.19	7.755		
14,600.00	7,051.98	14,551.31	6,925.38	219.17	218.10	-87.83	-2,095.58	-7,802.83	3,343.90	2,907.06	436.84	7.655		
14,700.00	7,051.69	14,651.31	6,925.00	222.00	220.93	-87.83	-2,096.18	-7,902.82	3,343.75	2,901.27	442.48	7.557		
14,800.00	7,051.41	14,751.31	6,924.62	224.82	223.75	-87.83	-2,096.78	-8,002.82	3,343.60	2,895.47	448.13	7.461		
14,900.00	7,051.12	14,851.31	6,924.24	227.65	226.58	-87.83	-2,097.38	-8,102.82	3,343.45	2,889.67	453.78	7.368		
14,942.37	7,051.00	14,893.68	6,924.08	228.85	227.77	-87.82	-2,097.63	-8,145.19	3,343.38	2,887.21	456.17	7.329 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	2.00	0.00	3.28	3.28	-179.48	-340.27	-3.06	340.28					
100.00	100.00	102.00	100.00	3.28	3.29	-179.48	-340.27	-3.06	340.28	333.71	6.57	51.795		
200.00	200.00	198.00	200.00	3.34	3.34	-179.48	-340.27	-3.06	340.28	333.61	6.67	50.998 CC, ES		
300.00	300.00	287.61	289.60	3.44	3.42	-179.46	-341.60	-3.20	341.77	334.90	6.88	49.690		
400.00	399.98	376.73	378.62	3.60	3.55	-172.11	-345.69	-3.64	348.09	340.90	7.19	48.428		
500.00	499.84	465.03	466.65	3.81	3.72	-172.07	-352.45	-4.36	360.92	353.33	7.59	47.546		
600.00	599.45	551.97	553.08	4.06	3.91	-172.04	-361.74	-5.35	380.16	372.10	8.06	47.138		
700.00	698.70	637.04	637.34	4.34	4.13	-172.02	-373.35	-6.59	405.69	397.10	8.59	47.230		
800.00	797.47	719.79	718.94	4.64	4.38	-171.99	-387.03	-8.05	437.31	428.17	9.15	47.807		
900.00	895.65	799.84	797.47	4.98	4.64	-171.99	-402.49	-9.69	474.72	464.99	9.73	48.800		
1,000.00	993.66	882.80	878.40	5.32	4.93	-172.05	-420.61	-11.63	515.33	505.03	10.30	50.018		
1,100.00	1,091.67	973.96	967.22	5.69	5.28	-172.10	-440.99	-13.80	556.44	545.52	10.93	50.927		
1,200.00	1,189.68	1,065.12	1,056.05	6.09	5.65	-172.14	-461.37	-15.97	597.55	585.97	11.58	51.598		
1,300.00	1,287.69	1,156.27	1,144.87	6.49	6.03	-172.18	-481.75	-18.15	638.67	626.40	12.26	52.084		
1,400.00	1,385.69	1,247.43	1,233.69	6.90	6.42	-172.21	-502.12	-20.32	679.78	666.81	12.97	52.426		
1,500.00	1,483.70	1,338.59	1,322.52	7.33	6.83	-172.24	-522.50	-22.49	720.89	707.20	13.69	52.659		
1,600.00	1,581.71	1,429.74	1,411.34	7.76	7.24	-172.27	-542.88	-24.67	762.00	747.57	14.43	52.808		
1,700.00	1,679.72	1,520.90	1,500.17	8.19	7.66	-172.29	-563.26	-26.84	803.11	787.93	15.18	52.894		
1,800.00	1,777.73	1,612.06	1,588.99	8.63	8.09	-172.31	-583.64	-29.01	844.23	828.28	15.95	52.932		
1,900.00	1,875.74	1,703.22	1,677.81	9.08	8.52	-172.33	-604.01	-31.19	885.34	868.61	16.73	52.933		
2,000.00	1,973.75	1,805.63	1,766.64	9.53	9.01	-172.35	-624.39	-33.36	926.45	908.89	17.56	52.759		
2,100.00	2,071.76	1,885.53	1,855.46	9.98	9.39	-172.36	-644.77	-35.53	967.57	949.26	18.30	52.861		
2,200.00	2,169.77	1,976.69	1,944.29	10.44	9.83	-172.38	-665.15	-37.70	1,008.68	989.57	19.10	52.799		
2,300.00	2,267.77	2,067.85	2,033.11	10.90	10.28	-172.39	-685.53	-39.88	1,049.79	1,029.88	19.91	52.727		
2,400.00	2,365.78	2,159.00	2,121.93	11.36	10.73	-172.41	-705.90	-42.05	1,090.90	1,070.18	20.72	52.646		
2,500.00	2,463.79	2,250.16	2,210.76	11.82	11.18	-172.42	-726.28	-44.22	1,132.02	1,110.48	21.54	52.560		
2,600.00	2,561.80	2,341.32	2,299.58	12.28	11.63	-172.43	-746.66	-46.40	1,173.13	1,150.77	22.36	52.471		
2,700.00	2,659.81	2,432.48	2,388.41	12.75	12.08	-172.44	-767.04	-48.57	1,214.24	1,191.06	23.18	52.379		
2,800.00	2,757.82	2,523.63	2,477.23	13.21	12.54	-172.45	-787.42	-50.74	1,255.36	1,231.35	24.01	52.287		
2,900.00	2,855.83	2,614.79	2,566.05	13.68	12.99	-172.46	-807.79	-52.92	1,296.47	1,271.63	24.84	52.194		
3,000.00	2,953.84	2,705.95	2,654.88	14.15	13.45	-172.46	-828.17	-55.09	1,337.58	1,311.91	25.67	52.102		
3,100.00	3,051.85	2,802.89	2,743.70	14.62	13.94	-172.47	-848.55	-57.26	1,378.70	1,352.16	26.53	51.958		
3,200.00	3,149.85	2,888.26	2,832.52	15.09	14.37	-172.48	-868.93	-59.44	1,419.81	1,392.46	27.35	51.920		
3,300.00	3,247.86	2,979.42	2,921.35	15.56	14.83	-172.49	-889.31	-61.61	1,460.92	1,432.74	28.19	51.831		
3,400.00	3,345.87	3,070.58	3,010.17	16.04	15.29	-172.49	-909.68	-63.78	1,502.04	1,473.01	29.03	51.745		
3,500.00	3,443.88	3,161.74	3,099.00	16.51	15.76	-172.50	-930.06	-65.95	1,543.15	1,513.28	29.87	51.660		
3,600.00	3,541.89	3,252.89	3,187.82	16.98	16.22	-172.50	-950.44	-68.13	1,584.26	1,553.55	30.72	51.577		
3,700.00	3,639.90	3,344.05	3,276.64	17.46	16.68	-172.51	-970.82	-70.30	1,625.38	1,593.81	31.56	51.496		
3,800.00	3,737.91	3,435.21	3,365.47	17.93	17.15	-172.52	-991.20	-72.47	1,666.49	1,634.08	32.41	51.417		
3,900.00	3,835.92	3,526.37	3,454.29	18.41	17.61	-172.52	-1,011.57	-74.65	1,707.60	1,674.34	33.26	51.340		
4,000.00	3,933.93	3,617.52	3,543.12	18.88	18.08	-172.53	-1,031.95	-76.82	1,748.72	1,714.60	34.11	51.265		
4,100.00	4,031.93	3,708.68	3,631.94	19.36	18.54	-172.53	-1,052.33	-78.99	1,789.83	1,754.87	34.96	51.193		
4,200.00	4,129.94	3,800.16	3,720.76	19.84	19.01	-172.53	-1,072.71	-81.17	1,830.94	1,795.13	35.82	51.120		
4,300.00	4,227.95	3,909.00	3,809.59	20.31	19.57	-172.54	-1,093.09	-83.34	1,872.06	1,835.30	36.75	50.935		
4,400.00	4,325.96	3,982.15	3,898.41	20.79	19.94	-172.54	-1,113.46	-85.51	1,913.17	1,875.65	37.52	50.986		
4,500.00	4,423.97	4,073.31	3,987.24	21.27	20.41	-172.55	-1,133.84	-87.69	1,954.28	1,915.90	38.38	50.921		
4,600.00	4,521.98	4,164.47	4,076.06	21.75	20.88	-172.55	-1,154.22	-89.86	1,995.40	1,956.16	39.23	50.858		
4,700.00	4,619.99	4,255.63	4,164.88	22.23	21.34	-172.55	-1,174.60	-92.03	2,036.51	1,996.42	40.09	50.797		
4,800.00	4,718.00	4,346.78	4,253.71	22.70	21.81	-172.56	-1,194.98	-94.21	2,077.62	2,036.67	40.95	50.737		
4,900.00	4,816.01	4,437.94	4,342.53	23.18	22.28	-172.56	-1,215.35	-96.38	2,118.74	2,076.93	41.81	50.679		
5,000.00	4,914.01	4,529.10	4,431.36	23.66	22.75	-172.56	-1,235.73	-98.55	2,159.85	2,117.18	42.67	50.622		
5,100.00	5,012.02	4,620.26	4,520.18	24.14	23.22	-172.57	-1,256.11	-100.72	2,200.96	2,157.44	43.53	50.567		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	4,711.41	4,609.00	24.62	23.69	-172.57	-1,276.49	-102.90	2,242.08	2,197.69	44.39	50.514		
5,300.00	5,208.04	4,802.57	4,697.83	25.10	24.16	-172.57	-1,296.87	-105.07	2,283.19	2,237.94	45.25	50.461		
5,400.00	5,306.05	4,906.27	4,786.65	25.58	24.69	-172.58	-1,317.24	-107.24	2,324.30	2,278.14	46.17	50.345		
5,500.00	5,404.06	4,984.89	4,875.48	26.06	25.10	-172.58	-1,337.62	-109.42	2,365.42	2,318.45	46.97	50.361		
5,600.00	5,502.07	5,076.04	4,964.30	26.54	25.57	-172.58	-1,358.00	-111.59	2,406.53	2,358.70	47.83	50.313		
5,700.00	5,600.08	5,167.20	5,053.12	27.02	26.04	-172.58	-1,378.38	-113.76	2,447.64	2,398.95	48.69	50.266		
5,800.00	5,698.09	5,258.36	5,141.95	27.50	26.51	-172.59	-1,398.76	-115.94	2,488.76	2,439.20	49.56	50.220		
5,900.00	5,796.09	5,349.52	5,230.77	27.98	26.98	-172.59	-1,419.13	-118.11	2,529.87	2,479.45	50.42	50.175		
6,000.00	5,894.10	5,440.67	5,319.60	28.46	27.45	-172.59	-1,439.51	-120.28	2,570.98	2,519.70	51.28	50.131		
6,100.00	5,992.11	5,531.83	5,408.42	28.94	27.92	-172.59	-1,459.89	-122.46	2,612.10	2,559.95	52.15	50.089		
6,200.00	6,090.12	5,622.99	5,497.24	29.42	28.39	-172.59	-1,480.27	-124.63	2,653.21	2,600.20	53.01	50.047		
6,300.00	6,188.13	5,714.14	5,586.07	29.90	28.86	-172.60	-1,500.65	-126.80	2,694.32	2,640.44	53.88	50.007		
6,400.00	6,286.14	5,805.30	5,674.89	30.38	29.33	-172.60	-1,521.03	-128.98	2,735.44	2,680.69	54.74	49.967		
6,500.00	6,384.15	5,903.54	5,763.72	30.87	29.84	-172.60	-1,541.40	-131.15	2,776.55	2,720.91	55.64	49.898		
6,600.00	6,482.15	5,987.62	5,852.54	31.35	30.27	-163.31	-1,561.78	-133.32	2,817.66	2,761.18	56.48	49.890		
6,700.00	6,579.21	6,078.17	5,940.78	31.83	30.74	-128.51	-1,582.02	-135.48	2,858.40	2,801.05	57.34	49.846		
6,800.00	6,673.04	6,166.11	6,026.47	32.30	31.19	-110.63	-1,601.68	-137.58	2,897.97	2,839.78	58.20	49.797		
6,900.00	6,761.33	6,249.27	6,107.50	32.74	31.62	-100.46	-1,620.27	-139.56	2,935.82	2,876.80	59.02	49.743		
7,000.00	6,841.90	6,325.60	6,181.87	33.17	32.02	-93.86	-1,637.34	-141.38	2,971.55	2,911.73	59.82	49.675		
7,100.00	6,912.77	6,406.78	6,247.76	33.60	32.44	-89.17	-1,652.45	-142.99	3,004.98	2,944.31	60.68	49.524		
7,200.00	6,972.19	6,450.47	6,303.54	34.09	32.66	-85.62	-1,665.25	-144.36	3,036.01	2,974.58	61.42	49.427		
7,300.00	7,018.70	6,504.07	6,347.84	34.73	32.94	-82.80	-1,675.41	-145.44	3,064.56	3,002.24	62.32	49.172		
7,400.00	7,051.15	6,528.49	6,379.56	35.55	33.07	-80.47	-1,682.69	-146.22	3,090.56	3,027.36	63.20	48.899		
7,500.00	7,068.75	6,547.34	6,397.94	36.56	33.17	-78.50	-1,686.91	-146.66	3,113.85	3,049.67	64.18	48.520		
7,600.00	7,071.91	6,552.81	6,403.27	37.71	33.19	-77.37	-1,688.13	-146.80	3,134.51	3,069.33	65.18	48.091		
7,700.00	7,071.62	7,718.14	7,066.73	39.03	39.03	-89.91	-1,845.17	-904.70	3,143.00	3,066.42	76.58	41.040		
7,800.00	7,071.34	7,818.14	7,066.50	40.51	40.32	-89.91	-1,845.77	-1,004.70	3,142.85	3,063.31	79.54	39.512		
7,900.00	7,071.05	7,918.14	7,066.27	42.14	41.81	-89.91	-1,846.37	-1,104.70	3,142.70	3,059.90	82.79	37.960		
8,000.00	7,070.77	8,018.14	7,066.04	43.89	43.45	-89.91	-1,846.97	-1,204.69	3,142.54	3,056.25	86.30	36.416		
8,100.00	7,070.48	8,118.14	7,065.81	45.76	45.24	-89.91	-1,847.57	-1,304.69	3,142.39	3,052.36	90.03	34.905		
8,200.00	7,070.20	8,218.14	7,065.58	47.72	47.14	-89.92	-1,848.17	-1,404.69	3,142.23	3,048.27	93.96	33.442		
8,300.00	7,069.92	8,318.14	7,065.35	49.78	49.13	-89.92	-1,848.77	-1,504.69	3,142.08	3,044.01	98.07	32.040		
8,400.00	7,069.63	8,418.14	7,065.12	51.90	51.22	-89.92	-1,849.37	-1,604.69	3,141.93	3,039.60	102.33	30.704		
8,500.00	7,069.35	8,518.14	7,064.89	54.10	53.37	-89.92	-1,849.96	-1,704.68	3,141.77	3,035.04	106.73	29.437		
8,600.00	7,069.06	8,618.14	7,064.66	56.36	55.60	-89.92	-1,850.56	-1,804.68	3,141.62	3,030.37	111.25	28.240		
8,700.00	7,068.78	8,718.14	7,064.42	58.66	57.88	-89.92	-1,851.16	-1,904.68	3,141.47	3,025.59	115.87	27.111		
8,800.00	7,068.49	8,818.14	7,064.19	61.02	60.21	-89.92	-1,851.76	-2,004.68	3,141.31	3,020.72	120.59	26.049		
8,900.00	7,068.21	8,918.14	7,063.96	63.42	62.58	-89.92	-1,852.36	-2,104.68	3,141.16	3,015.77	125.39	25.051		
9,000.00	7,067.92	9,018.14	7,063.73	65.85	65.00	-89.92	-1,852.96	-2,204.67	3,141.01	3,010.74	130.27	24.112		
9,100.00	7,067.64	9,118.14	7,063.50	68.32	67.45	-89.92	-1,853.56	-2,304.67	3,140.85	3,005.64	135.21	23.230		
9,200.00	7,067.35	9,218.14	7,063.27	70.81	69.93	-89.93	-1,854.16	-2,404.67	3,140.70	3,000.49	140.21	22.400		
9,300.00	7,067.07	9,318.14	7,063.04	73.34	72.44	-89.93	-1,854.76	-2,504.67	3,140.55	2,995.28	145.26	21.620		
9,400.00	7,066.78	9,418.14	7,062.81	75.88	74.97	-89.93	-1,855.35	-2,604.66	3,140.39	2,990.03	150.36	20.885		
9,500.00	7,066.50	9,518.14	7,062.58	78.45	77.53	-89.93	-1,855.95	-2,704.66	3,140.24	2,984.73	155.51	20.193		
9,600.00	7,066.21	9,618.13	7,062.35	81.04	80.11	-89.93	-1,856.55	-2,804.66	3,140.08	2,979.39	160.69	19.541		
9,700.00	7,065.93	9,718.13	7,062.12	83.64	82.70	-89.93	-1,857.15	-2,904.66	3,139.93	2,974.02	165.91	18.926		
9,800.00	7,065.64	9,818.13	7,061.89	86.26	85.32	-89.93	-1,857.75	-3,004.66	3,139.78	2,968.62	171.16	18.344		
9,900.00	7,065.36	9,918.13	7,061.66	88.90	87.94	-89.93	-1,858.35	-3,104.65	3,139.62	2,963.19	176.44	17.795		
10,000.00	7,065.07	10,018.13	7,061.43	91.55	90.59	-89.93	-1,858.95	-3,204.65	3,139.47	2,957.73	181.74	17.274		
10,100.00	7,064.79	10,118.13	7,061.20	94.21	93.24	-89.93	-1,859.55	-3,304.65	3,139.32	2,952.25	187.07	16.781		
10,200.00	7,064.50	10,218.13	7,060.97	96.88	95.91	-89.94	-1,860.14	-3,404.65	3,139.16	2,946.74	192.42	16.314		
10,300.00	7,064.22	10,318.13	7,060.74	99.57	98.59	-89.94	-1,860.74	-3,504.64	3,139.01	2,941.21	197.80	15.870		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 12N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,418.13	7,060.51	102.26	101.28	-89.94	-1,861.34	-3,604.64	3,138.86	2,935.67	203.19	15.448		
10,500.00	7,063.65	10,518.13	7,060.28	104.96	103.97	-89.94	-1,861.94	-3,704.64	3,138.70	2,930.11	208.60	15.047		
10,600.00	7,063.37	10,618.13	7,060.05	107.67	106.68	-89.94	-1,862.54	-3,804.64	3,138.55	2,924.53	214.02	14.665		
10,700.00	7,063.08	10,718.13	7,059.82	110.39	109.39	-89.94	-1,863.14	-3,904.64	3,138.40	2,918.94	219.46	14.301		
10,800.00	7,062.80	10,818.13	7,059.59	113.11	112.11	-89.94	-1,863.74	-4,004.63	3,138.24	2,913.33	224.91	13.953		
10,900.00	7,062.51	10,918.13	7,059.36	115.84	114.84	-89.94	-1,864.34	-4,104.63	3,138.09	2,907.71	230.38	13.621		
11,000.00	7,062.23	11,018.13	7,059.13	118.58	117.57	-89.94	-1,864.94	-4,204.63	3,137.93	2,902.08	235.86	13.304		
11,100.00	7,061.94	11,118.13	7,058.90	121.32	120.31	-89.94	-1,865.53	-4,304.63	3,137.78	2,896.44	241.34	13.001		
11,200.00	7,061.66	11,218.13	7,058.67	124.07	123.06	-89.95	-1,866.13	-4,404.62	3,137.63	2,890.78	246.84	12.711		
11,300.00	7,061.37	11,318.13	7,058.43	126.82	125.81	-89.95	-1,866.73	-4,504.62	3,137.47	2,885.12	252.35	12.433		
11,400.00	7,061.09	11,418.13	7,058.20	129.58	128.56	-89.95	-1,867.33	-4,604.62	3,137.32	2,879.45	257.87	12.166		
11,500.00	7,060.80	11,518.13	7,057.97	132.34	131.32	-89.95	-1,867.93	-4,704.62	3,137.17	2,873.77	263.40	11.910		
11,600.00	7,060.52	11,618.13	7,057.74	135.10	134.09	-89.95	-1,868.53	-4,804.62	3,137.01	2,868.08	268.93	11.665		
11,700.00	7,060.23	11,718.13	7,057.51	137.87	136.85	-89.95	-1,869.13	-4,904.61	3,136.86	2,862.39	274.47	11.429		
11,800.00	7,059.95	11,818.13	7,057.28	140.64	139.63	-89.95	-1,869.73	-5,004.61	3,136.71	2,856.68	280.02	11.202		
11,900.00	7,059.66	11,918.13	7,057.05	143.42	142.40	-89.95	-1,870.32	-5,104.61	3,136.55	2,850.97	285.58	10.983		
12,000.00	7,059.38	12,018.13	7,056.82	146.20	145.18	-89.95	-1,870.92	-5,204.61	3,136.40	2,845.26	291.14	10.773		
12,100.00	7,059.09	12,118.13	7,056.59	148.98	147.96	-89.95	-1,871.52	-5,304.60	3,136.25	2,839.54	296.71	10.570		
12,200.00	7,058.81	12,218.13	7,056.36	151.77	150.74	-89.96	-1,872.12	-5,404.60	3,136.09	2,833.81	302.28	10.375		
12,300.00	7,058.52	12,318.13	7,056.13	154.55	153.53	-89.96	-1,872.72	-5,504.60	3,135.94	2,828.08	307.86	10.186		
12,400.00	7,058.24	12,418.13	7,055.90	157.34	156.32	-89.96	-1,873.32	-5,604.60	3,135.78	2,822.34	313.44	10.004		
12,500.00	7,057.96	12,518.13	7,055.67	160.14	159.11	-89.96	-1,873.92	-5,704.60	3,135.63	2,816.60	319.03	9.829		
12,600.00	7,057.67	12,618.13	7,055.44	162.93	161.90	-89.96	-1,874.52	-5,804.59	3,135.48	2,810.85	324.63	9.659		
12,700.00	7,057.39	12,718.13	7,055.21	165.73	164.70	-89.96	-1,875.12	-5,904.59	3,135.32	2,805.10	330.22	9.495		
12,800.00	7,057.10	12,818.13	7,054.98	168.53	167.50	-89.96	-1,875.71	-6,004.59	3,135.17	2,799.35	335.82	9.336		
12,900.00	7,056.82	12,918.13	7,054.75	171.33	170.30	-89.96	-1,876.31	-6,104.59	3,135.02	2,793.59	341.43	9.182		
13,000.00	7,056.53	13,018.13	7,054.52	174.13	173.10	-89.96	-1,876.91	-6,204.59	3,134.86	2,787.83	347.04	9.033		
13,100.00	7,056.25	13,118.13	7,054.29	176.94	175.91	-89.96	-1,877.51	-6,304.58	3,134.71	2,782.06	352.65	8.889		
13,200.00	7,055.96	13,218.13	7,054.06	179.74	178.71	-89.97	-1,878.11	-6,404.58	3,134.56	2,776.29	358.26	8.749		
13,300.00	7,055.68	13,318.13	7,053.83	182.55	181.52	-89.97	-1,878.71	-6,504.58	3,134.40	2,770.52	363.88	8.614		
13,400.00	7,055.39	13,418.13	7,053.60	185.36	184.33	-89.97	-1,879.31	-6,604.58	3,134.25	2,764.74	369.51	8.482		
13,500.00	7,055.11	13,518.13	7,053.37	188.17	187.14	-89.97	-1,879.91	-6,704.57	3,134.10	2,758.97	375.13	8.355		
13,600.00	7,054.82	13,618.13	7,053.14	190.98	189.95	-89.97	-1,880.50	-6,804.57	3,133.94	2,753.19	380.76	8.231		
13,700.00	7,054.54	13,718.13	7,052.91	193.80	192.76	-89.97	-1,881.10	-6,904.57	3,133.79	2,747.40	386.39	8.110		
13,800.00	7,054.25	13,818.13	7,052.68	196.61	195.58	-89.97	-1,881.70	-7,004.57	3,133.64	2,741.62	392.02	7.994		
13,900.00	7,053.97	13,918.13	7,052.44	199.43	198.40	-89.97	-1,882.30	-7,104.57	3,133.48	2,735.83	397.65	7.880		
14,000.00	7,053.68	14,018.13	7,052.21	202.25	201.21	-89.97	-1,882.90	-7,204.56	3,133.33	2,730.04	403.29	7.769		
14,100.00	7,053.40	14,118.13	7,051.98	205.06	204.03	-89.97	-1,883.50	-7,304.56	3,133.17	2,724.24	408.93	7.662		
14,200.00	7,053.11	14,218.13	7,051.75	207.88	206.85	-89.98	-1,884.10	-7,404.56	3,133.02	2,718.45	414.57	7.557		
14,300.00	7,052.83	14,318.13	7,051.52	210.70	209.67	-89.98	-1,884.70	-7,504.56	3,132.87	2,712.65	420.22	7.455		
14,400.00	7,052.54	14,418.13	7,051.29	213.53	212.49	-89.98	-1,885.30	-7,604.55	3,132.71	2,706.85	425.86	7.356		
14,500.00	7,052.26	14,518.13	7,051.06	216.35	215.31	-89.98	-1,885.89	-7,704.55	3,132.56	2,701.05	431.51	7.260		
14,600.00	7,051.98	14,618.13	7,050.83	219.17	218.14	-89.98	-1,886.49	-7,804.55	3,132.41	2,695.25	437.16	7.165		
14,700.00	7,051.69	14,718.13	7,050.60	222.00	220.96	-89.98	-1,887.09	-7,904.55	3,132.25	2,689.44	442.81	7.074		
14,800.00	7,051.41	14,818.13	7,050.37	224.82	223.79	-89.98	-1,887.69	-8,004.55	3,132.10	2,683.64	448.46	6.984		
14,900.00	7,051.12	14,918.13	7,050.14	227.65	226.61	-89.98	-1,888.29	-8,104.54	3,131.95	2,677.83	454.12	6.897		
14,942.37	7,051.00	14,960.50	7,050.04	228.85	227.81	-89.98	-1,888.54	-8,146.91	3,131.88	2,675.37	456.51	6.860 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2.00	0.00	3.28	3.28	-179.50	-320.22	-2.78	320.23					
100.00	100.00	102.00	100.00	3.28	3.29	-179.50	-320.22	-2.78	320.23	313.66	6.57	48.743		
200.00	200.00	198.00	200.00	3.34	3.34	-179.50	-320.22	-2.78	320.23	313.56	6.67	47.993 CC, ES		
300.00	300.00	288.18	290.17	3.44	3.43	-179.47	-321.57	-2.96	321.73	314.85	6.88	46.771		
400.00	399.98	377.88	379.76	3.60	3.55	-172.10	-325.70	-3.49	328.07	320.88	7.19	45.628		
500.00	499.84	466.74	468.36	3.81	3.72	-172.04	-332.53	-4.37	340.92	333.33	7.59	44.889		
600.00	599.45	554.23	555.33	4.06	3.92	-171.98	-341.91	-5.58	360.21	352.14	8.07	44.630		
700.00	698.70	639.84	640.11	4.34	4.14	-171.91	-353.64	-7.09	385.79	377.19	8.60	44.870		
800.00	797.47	732.55	721.56	4.64	4.41	-171.85	-367.33	-8.86	417.47	408.29	9.19	45.441		
900.00	895.65	815.62	813.15	4.98	4.69	-171.84	-384.25	-11.04	453.79	444.05	9.75	46.560		
1,000.00	993.66	908.45	904.42	5.32	5.02	-171.92	-401.11	-13.22	490.96	480.61	10.35	47.420		
1,100.00	1,091.67	1,001.29	995.68	5.69	5.37	-171.98	-417.97	-15.39	528.13	517.13	11.00	48.027		
1,200.00	1,189.68	1,105.88	1,086.95	6.09	5.78	-172.04	-434.83	-17.56	565.29	553.58	11.71	48.262		
1,300.00	1,287.69	1,186.96	1,178.22	6.49	6.11	-172.09	-451.68	-19.74	602.46	590.09	12.37	48.711		
1,400.00	1,385.69	1,279.79	1,269.48	6.90	6.49	-172.13	-468.54	-21.91	639.63	626.54	13.09	48.872		
1,500.00	1,483.70	1,372.63	1,360.75	7.33	6.89	-172.17	-485.40	-24.09	676.80	662.97	13.83	48.953		
1,600.00	1,581.71	1,465.46	1,452.01	7.76	7.29	-172.21	-502.26	-26.26	713.97	699.39	14.58	48.975		
1,700.00	1,679.72	1,558.30	1,543.28	8.19	7.70	-172.24	-519.11	-28.44	751.14	735.79	15.34	48.953		
1,800.00	1,777.73	1,651.13	1,634.54	8.63	8.12	-172.27	-535.97	-30.61	788.31	772.19	16.12	48.900		
1,900.00	1,875.74	1,743.97	1,725.81	9.08	8.54	-172.29	-552.83	-32.79	825.48	808.57	16.91	48.824		
2,000.00	1,973.75	1,836.80	1,817.07	9.53	8.96	-172.32	-569.69	-34.96	862.65	844.94	17.70	48.732		
2,100.00	2,071.76	1,929.64	1,908.34	9.98	9.39	-172.34	-586.55	-37.13	899.82	881.31	18.50	48.629		
2,200.00	2,169.77	2,022.47	1,999.61	10.44	9.82	-172.36	-603.40	-39.31	936.99	917.67	19.31	48.518		
2,300.00	2,267.77	2,115.31	2,090.87	10.90	10.26	-172.38	-620.26	-41.48	974.16	954.03	20.13	48.404		
2,400.00	2,365.78	2,208.14	2,182.14	11.36	10.69	-172.39	-637.12	-43.66	1,011.33	990.38	20.94	48.287		
2,500.00	2,463.79	2,300.98	2,273.40	11.82	11.13	-172.41	-653.98	-45.83	1,048.50	1,026.73	21.77	48.169		
2,600.00	2,561.80	2,406.19	2,364.67	12.28	11.63	-172.42	-670.83	-48.01	1,085.67	1,063.02	22.65	47.934		
2,700.00	2,659.81	2,486.65	2,455.93	12.75	12.01	-172.44	-687.69	-50.18	1,122.84	1,099.41	23.42	47.935		
2,800.00	2,757.82	2,579.48	2,547.20	13.21	12.45	-172.45	-704.55	-52.36	1,160.01	1,135.75	24.26	47.820		
2,900.00	2,855.83	2,672.32	2,638.46	13.68	12.89	-172.46	-721.41	-54.53	1,197.18	1,172.08	25.09	47.708		
3,000.00	2,953.84	2,765.15	2,729.73	14.15	13.34	-172.47	-738.27	-56.71	1,234.35	1,208.41	25.93	47.598		
3,100.00	3,051.85	2,857.99	2,821.00	14.62	13.78	-172.48	-755.12	-58.88	1,271.52	1,244.74	26.77	47.491		
3,200.00	3,149.85	2,950.82	2,912.26	15.09	14.23	-172.50	-771.98	-61.05	1,308.69	1,281.07	27.62	47.387		
3,300.00	3,247.86	3,043.66	3,003.53	15.56	14.68	-172.50	-788.84	-63.23	1,345.86	1,317.40	28.46	47.286		
3,400.00	3,345.87	3,136.49	3,094.79	16.04	15.12	-172.51	-805.70	-65.40	1,383.03	1,353.72	29.31	47.188		
3,500.00	3,443.88	3,229.33	3,186.06	16.51	15.57	-172.52	-822.55	-67.58	1,420.20	1,390.04	30.16	47.093		
3,600.00	3,541.89	3,322.16	3,277.32	16.98	16.02	-172.53	-839.41	-69.75	1,457.37	1,426.36	31.01	47.001		
3,700.00	3,639.90	3,414.99	3,368.59	17.46	16.47	-172.54	-856.27	-71.93	1,494.54	1,462.68	31.86	46.912		
3,800.00	3,737.91	3,507.83	3,459.85	17.93	16.92	-172.55	-873.13	-74.10	1,531.71	1,499.00	32.71	46.826		
3,900.00	3,835.92	3,600.66	3,551.12	18.41	17.37	-172.55	-889.99	-76.28	1,568.88	1,535.32	33.56	46.743		
4,000.00	3,933.93	3,693.50	3,642.39	18.88	17.83	-172.56	-906.84	-78.45	1,606.05	1,571.63	34.42	46.662		
4,100.00	4,031.93	3,786.33	3,733.65	19.36	18.28	-172.57	-923.70	-80.62	1,643.22	1,607.95	35.27	46.584		
4,200.00	4,129.94	3,879.17	3,824.92	19.84	18.73	-172.57	-940.56	-82.80	1,680.39	1,644.26	36.13	46.508		
4,300.00	4,227.95	3,972.00	3,916.18	20.31	19.18	-172.58	-957.42	-84.97	1,717.57	1,680.58	36.99	46.435		
4,400.00	4,325.96	4,064.84	4,007.45	20.79	19.64	-172.58	-974.27	-87.15	1,754.74	1,716.89	37.85	46.364		
4,500.00	4,423.97	4,157.67	4,098.71	21.27	20.09	-172.59	-991.13	-89.32	1,791.91	1,753.20	38.71	46.295		
4,600.00	4,521.98	4,250.51	4,189.98	21.75	20.54	-172.59	-1,007.99	-91.50	1,829.08	1,789.51	39.57	46.228		
4,700.00	4,619.99	4,343.34	4,281.24	22.23	21.00	-172.60	-1,024.85	-93.67	1,866.25	1,825.82	40.43	46.163		
4,800.00	4,718.00	4,436.18	4,372.51	22.70	21.45	-172.60	-1,041.71	-95.85	1,903.42	1,862.13	41.29	46.101		
4,900.00	4,816.01	4,529.01	4,463.77	23.18	21.91	-172.61	-1,058.56	-98.02	1,940.59	1,898.44	42.15	46.040		
5,000.00	4,914.01	4,621.85	4,555.04	23.66	22.36	-172.61	-1,075.42	-100.19	1,977.76	1,934.75	43.01	45.981		
5,100.00	5,012.02	4,714.68	4,646.31	24.14	22.81	-172.62	-1,092.28	-102.37	2,014.93	1,971.06	43.88	45.924		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	4,807.52	4,737.57	24.62	23.27	-172.62	-1,109.14	-104.54	2,052.10	2,007.36	44.74	45.868		
5,300.00	5,208.04	4,900.35	4,828.84	25.10	23.72	-172.62	-1,125.99	-106.72	2,089.27	2,043.67	45.60	45.814		
5,400.00	5,306.05	5,006.81	4,920.10	25.58	24.25	-172.63	-1,142.85	-108.89	2,126.44	2,079.91	46.53	45.700		
5,500.00	5,404.06	5,086.02	5,011.37	26.06	24.64	-172.63	-1,159.71	-111.07	2,163.62	2,116.28	47.33	45.711		
5,600.00	5,502.07	5,178.86	5,102.63	26.54	25.09	-172.64	-1,176.57	-113.24	2,200.79	2,152.59	48.20	45.661		
5,700.00	5,600.08	5,271.69	5,193.90	27.02	25.55	-172.64	-1,193.43	-115.42	2,237.96	2,188.89	49.06	45.613		
5,800.00	5,698.09	5,364.53	5,285.16	27.50	26.00	-172.64	-1,210.28	-117.59	2,275.13	2,225.20	49.93	45.566		
5,900.00	5,796.09	5,457.36	5,376.43	27.98	26.46	-172.65	-1,227.14	-119.77	2,312.30	2,261.50	50.80	45.520		
6,000.00	5,894.10	5,550.20	5,467.70	28.46	26.92	-172.65	-1,244.00	-121.94	2,349.47	2,297.81	51.66	45.476		
6,100.00	5,992.11	5,643.03	5,558.96	28.94	27.37	-172.65	-1,260.86	-124.11	2,386.64	2,334.11	52.53	45.432		
6,200.00	6,090.12	5,735.87	5,650.23	29.42	27.83	-172.65	-1,277.71	-126.29	2,423.81	2,370.41	53.40	45.390		
6,300.00	6,188.13	5,828.70	5,741.49	29.90	28.29	-172.66	-1,294.57	-128.46	2,460.98	2,406.71	54.27	45.349		
6,400.00	6,286.14	5,921.54	5,832.76	30.38	28.74	-172.66	-1,311.43	-130.64	2,498.15	2,443.02	55.14	45.309		
6,500.00	6,384.15	6,014.37	5,924.02	30.87	29.20	-172.66	-1,328.29	-132.81	2,535.32	2,479.32	56.01	45.269		
6,600.00	6,482.15	6,107.20	6,015.29	31.35	29.66	-163.46	-1,345.15	-134.99	2,572.49	2,515.62	56.87	45.231		
6,700.00	6,579.21	6,200.59	6,105.94	31.83	30.12	-129.13	-1,361.89	-137.15	2,609.33	2,551.58	57.75	45.183		
6,800.00	6,673.04	6,288.94	6,193.95	32.30	30.55	-111.71	-1,378.15	-139.24	2,645.15	2,586.55	58.60	45.140		
6,900.00	6,761.33	6,373.58	6,277.16	32.74	30.97	-101.98	-1,393.52	-141.23	2,679.51	2,620.09	59.43	45.089		
7,000.00	6,841.90	6,451.25	6,353.52	33.17	31.35	-95.76	-1,407.62	-143.05	2,712.20	2,651.96	60.23	45.029		
7,100.00	6,912.77	6,520.04	6,421.14	33.60	31.69	-91.39	-1,420.11	-144.66	2,743.13	2,682.10	61.03	44.948		
7,200.00	6,972.19	6,578.25	6,478.37	34.09	31.98	-88.08	-1,430.68	-146.02	2,772.35	2,710.50	61.85	44.827		
7,300.00	7,018.70	6,624.44	6,523.78	34.73	32.20	-85.41	-1,439.07	-147.10	2,799.89	2,737.18	62.71	44.651		
7,400.00	7,051.15	6,708.14	6,605.78	35.55	32.62	-84.11	-1,454.29	-153.45	2,825.53	2,761.44	64.09	44.089		
7,500.00	7,068.75	6,877.85	6,765.83	36.56	33.39	-84.95	-1,484.55	-199.27	2,848.26	2,781.94	66.31	42.952		
7,600.00	7,071.91	7,538.66	7,137.34	37.71	36.22	-91.30	-1,561.46	-704.17	2,863.22	2,790.80	72.42	39.535		
7,700.00	7,071.62	7,713.69	7,141.49	39.03	38.03	-91.40	-1,565.15	-878.96	2,864.11	2,788.23	75.88	37.744		
7,800.00	7,071.34	7,813.68	7,140.95	40.51	39.37	-91.39	-1,566.72	-978.94	2,864.92	2,786.11	78.82	36.349		
7,900.00	7,071.05	7,913.68	7,140.40	42.14	40.89	-91.39	-1,568.29	-1,078.92	2,865.74	2,783.69	82.05	34.928		
8,000.00	7,070.77	8,013.68	7,139.86	43.89	42.55	-91.38	-1,569.86	-1,178.91	2,866.55	2,781.01	85.53	33.513		
8,100.00	7,070.48	8,113.67	7,139.32	45.76	44.35	-91.37	-1,571.43	-1,278.89	2,867.36	2,778.11	89.25	32.126		
8,200.00	7,070.20	8,213.67	7,138.78	47.72	46.26	-91.37	-1,573.00	-1,378.87	2,868.17	2,775.00	93.17	30.783		
8,300.00	7,069.92	8,313.67	7,138.24	49.78	48.26	-91.36	-1,574.57	-1,478.85	2,868.98	2,771.71	97.27	29.494		
8,400.00	7,069.63	8,413.66	7,137.70	51.90	50.35	-91.36	-1,576.14	-1,578.84	2,869.79	2,768.27	101.53	28.266		
8,500.00	7,069.35	8,513.66	7,137.15	54.10	52.51	-91.35	-1,577.71	-1,678.82	2,870.60	2,764.68	105.92	27.102		
8,600.00	7,069.06	8,613.65	7,136.61	56.36	54.74	-91.35	-1,579.28	-1,778.80	2,871.42	2,760.98	110.43	26.002		
8,700.00	7,068.78	8,713.65	7,136.07	58.66	57.02	-91.34	-1,580.85	-1,878.78	2,872.23	2,757.17	115.05	24.965		
8,800.00	7,068.49	8,813.65	7,135.53	61.02	59.36	-91.34	-1,582.42	-1,978.77	2,873.04	2,753.27	119.77	23.989		
8,900.00	7,068.21	8,913.64	7,134.99	63.42	61.73	-91.33	-1,583.98	-2,078.75	2,873.85	2,749.29	124.56	23.071		
9,000.00	7,067.92	9,013.64	7,134.44	65.85	64.15	-91.32	-1,585.55	-2,178.73	2,874.66	2,745.22	129.44	22.209		
9,100.00	7,067.64	9,113.64	7,133.90	68.32	66.60	-91.32	-1,587.12	-2,278.71	2,875.47	2,741.10	134.37	21.399		
9,200.00	7,067.35	9,213.63	7,133.36	70.81	69.09	-91.31	-1,588.69	-2,378.70	2,876.28	2,736.91	139.37	20.637		
9,300.00	7,067.07	9,313.63	7,132.82	73.34	71.60	-91.31	-1,590.26	-2,478.68	2,877.10	2,732.67	144.42	19.921		
9,400.00	7,066.78	9,413.62	7,132.28	75.88	74.14	-91.30	-1,591.83	-2,578.66	2,877.91	2,728.39	149.52	19.247		
9,500.00	7,066.50	9,513.62	7,131.73	78.45	76.69	-91.30	-1,593.40	-2,678.64	2,878.72	2,724.06	154.66	18.613		
9,600.00	7,066.21	9,613.62	7,131.19	81.04	79.27	-91.29	-1,594.97	-2,778.63	2,879.53	2,719.69	159.84	18.015		
9,700.00	7,065.93	9,713.61	7,130.65	83.64	81.87	-91.29	-1,596.54	-2,878.61	2,880.34	2,715.28	165.06	17.450		
9,800.00	7,065.64	9,813.61	7,130.11	86.26	84.49	-91.28	-1,598.11	-2,978.59	2,881.15	2,710.85	170.31	16.917		
9,900.00	7,065.36	9,913.61	7,129.57	88.90	87.11	-91.28	-1,599.68	-3,078.57	2,881.97	2,706.38	175.58	16.414		
10,000.00	7,065.07	10,013.60	7,129.02	91.55	89.76	-91.27	-1,601.25	-3,178.56	2,882.78	2,701.89	180.89	15.937		
10,100.00	7,064.79	10,113.60	7,128.48	94.21	92.41	-91.26	-1,602.82	-3,278.54	2,883.59	2,697.38	186.21	15.485		
10,200.00	7,064.50	10,213.60	7,127.94	96.88	95.08	-91.26	-1,604.39	-3,378.52	2,884.40	2,692.84	191.56	15.057		
10,300.00	7,064.22	10,313.59	7,127.40	99.57	97.76	-91.25	-1,605.96	-3,478.50	2,885.21	2,688.28	196.93	14.651		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	10,413.59	7,126.86	102.26	100.45	-91.25	-1,607.53	-3,578.49	2,886.03	2,683.70	202.32	14.264		
10,500.00	7,063.65	10,513.58	7,126.31	104.96	103.15	-91.24	-1,609.10	-3,678.47	2,886.84	2,679.11	207.73	13.897		
10,600.00	7,063.37	10,613.58	7,125.77	107.67	105.85	-91.24	-1,610.67	-3,778.45	2,887.65	2,674.50	213.15	13.547		
10,700.00	7,063.08	10,713.58	7,125.23	110.39	108.56	-91.23	-1,612.24	-3,878.43	2,888.46	2,669.87	218.59	13.214		
10,800.00	7,062.80	10,813.57	7,124.69	113.11	111.28	-91.23	-1,613.81	-3,978.42	2,889.27	2,665.23	224.04	12.896		
10,900.00	7,062.51	10,913.57	7,124.15	115.84	114.01	-91.22	-1,615.38	-4,078.40	2,890.09	2,660.58	229.50	12.593		
11,000.00	7,062.23	11,013.57	7,123.60	118.58	116.74	-91.22	-1,616.95	-4,178.38	2,890.90	2,655.92	234.98	12.303		
11,100.00	7,061.94	11,113.56	7,123.06	121.32	119.48	-91.21	-1,618.52	-4,278.36	2,891.71	2,651.24	240.47	12.025		
11,200.00	7,061.66	11,213.56	7,122.52	124.07	122.23	-91.20	-1,620.09	-4,378.35	2,892.52	2,646.56	245.96	11.760		
11,300.00	7,061.37	11,313.56	7,121.98	126.82	124.98	-91.20	-1,621.66	-4,478.33	2,893.33	2,641.87	251.47	11.506		
11,400.00	7,061.09	11,413.55	7,121.44	129.58	127.73	-91.19	-1,623.23	-4,578.31	2,894.15	2,637.16	256.98	11.262		
11,500.00	7,060.80	11,513.55	7,120.89	132.34	130.49	-91.19	-1,624.80	-4,678.29	2,894.96	2,632.45	262.51	11.028		
11,600.00	7,060.52	11,613.54	7,120.35	135.10	133.25	-91.18	-1,626.37	-4,778.28	2,895.77	2,627.73	268.04	10.803		
11,700.00	7,060.23	11,713.54	7,119.81	137.87	136.02	-91.18	-1,627.94	-4,878.26	2,896.58	2,623.00	273.58	10.588		
11,800.00	7,059.95	11,813.54	7,119.27	140.64	138.79	-91.17	-1,629.51	-4,978.24	2,897.40	2,618.27	279.13	10.380		
11,900.00	7,059.66	11,913.53	7,118.73	143.42	141.56	-91.17	-1,631.08	-5,078.22	2,898.21	2,613.53	284.68	10.181		
12,000.00	7,059.38	12,013.53	7,118.19	146.20	144.34	-91.16	-1,632.65	-5,178.21	2,899.02	2,608.78	290.24	9.988		
12,100.00	7,059.09	12,113.53	7,117.64	148.98	147.12	-91.16	-1,634.22	-5,278.19	2,899.83	2,604.03	295.80	9.803		
12,200.00	7,058.81	12,213.52	7,117.10	151.77	149.90	-91.15	-1,635.79	-5,378.17	2,900.65	2,599.27	301.38	9.625		
12,300.00	7,058.52	12,313.52	7,116.56	154.55	152.68	-91.14	-1,637.36	-5,478.15	2,901.46	2,594.51	306.95	9.452		
12,400.00	7,058.24	12,413.51	7,116.02	157.34	155.47	-91.14	-1,638.93	-5,578.14	2,902.27	2,589.74	312.53	9.286		
12,500.00	7,057.96	12,513.51	7,115.48	160.14	158.26	-91.13	-1,640.50	-5,678.12	2,903.08	2,584.96	318.12	9.126		
12,600.00	7,057.67	12,613.51	7,114.93	162.93	161.05	-91.13	-1,642.07	-5,778.10	2,903.90	2,580.19	323.71	8.971		
12,700.00	7,057.39	12,713.50	7,114.39	165.73	163.85	-91.12	-1,643.64	-5,878.08	2,904.71	2,575.41	329.30	8.821		
12,800.00	7,057.10	12,813.50	7,113.85	168.53	166.64	-91.12	-1,645.21	-5,978.07	2,905.52	2,570.62	334.90	8.676		
12,900.00	7,056.82	12,913.50	7,113.31	171.33	169.44	-91.11	-1,646.78	-6,078.05	2,906.33	2,565.83	340.50	8.535		
13,000.00	7,056.53	13,013.49	7,112.77	174.13	172.24	-91.11	-1,648.35	-6,178.03	2,907.15	2,561.04	346.11	8.399		
13,100.00	7,056.25	13,113.49	7,112.22	176.94	175.05	-91.10	-1,649.92	-6,278.01	2,907.96	2,556.24	351.72	8.268		
13,200.00	7,055.96	13,213.49	7,111.68	179.74	177.85	-91.10	-1,651.49	-6,378.00	2,908.77	2,551.44	357.33	8.140		
13,300.00	7,055.68	13,313.48	7,111.14	182.55	180.65	-91.09	-1,653.06	-6,477.98	2,909.58	2,546.64	362.95	8.017		
13,400.00	7,055.39	13,413.48	7,110.60	185.36	183.46	-91.09	-1,654.63	-6,577.96	2,910.40	2,541.83	368.57	7.897		
13,500.00	7,055.11	13,513.47	7,110.06	188.17	186.27	-91.08	-1,656.20	-6,677.94	2,911.21	2,537.02	374.19	7.780		
13,600.00	7,054.82	13,613.47	7,109.51	190.98	189.08	-91.07	-1,657.77	-6,777.93	2,912.02	2,532.21	379.81	7.667		
13,700.00	7,054.54	13,713.47	7,108.97	193.80	191.89	-91.07	-1,659.34	-6,877.91	2,912.83	2,527.39	385.44	7.557		
13,800.00	7,054.25	13,813.46	7,108.43	196.61	194.70	-91.06	-1,660.91	-6,977.89	2,913.65	2,522.58	391.07	7.450		
13,900.00	7,053.97	13,913.46	7,107.89	199.43	197.52	-91.06	-1,662.48	-7,077.87	2,914.46	2,517.76	396.70	7.347		
14,000.00	7,053.68	14,013.46	7,107.35	202.25	200.33	-91.05	-1,664.05	-7,177.86	2,915.27	2,512.94	402.34	7.246		
14,100.00	7,053.40	14,113.45	7,106.80	205.06	203.15	-91.05	-1,665.62	-7,277.84	2,916.09	2,508.11	407.97	7.148		
14,200.00	7,053.11	14,213.45	7,106.26	207.88	205.97	-91.04	-1,667.19	-7,377.82	2,916.90	2,503.29	413.61	7.052		
14,300.00	7,052.83	14,313.45	7,105.72	210.70	208.78	-91.04	-1,668.76	-7,477.80	2,917.71	2,498.46	419.25	6.959		
14,400.00	7,052.54	14,413.44	7,105.18	213.53	211.60	-91.03	-1,670.33	-7,577.79	2,918.53	2,493.63	424.90	6.869		
14,500.00	7,052.26	14,513.44	7,104.64	216.35	214.42	-91.03	-1,671.90	-7,677.77	2,919.34	2,488.80	430.54	6.781		
14,600.00	7,051.98	14,613.43	7,104.09	219.17	217.24	-91.02	-1,673.47	-7,777.75	2,920.15	2,483.97	436.19	6.695		
14,700.00	7,051.69	14,713.43	7,103.55	222.00	220.07	-91.02	-1,675.04	-7,877.73	2,920.96	2,479.13	441.83	6.611		
14,800.00	7,051.41	14,813.43	7,103.01	224.82	222.89	-91.01	-1,676.61	-7,977.72	2,921.78	2,474.29	447.48	6.529		
14,900.00	7,051.12	14,913.42	7,102.47	227.65	225.71	-91.01	-1,678.18	-8,077.70	2,922.59	2,469.46	453.14	6.450		
14,942.37	7,051.00	14,955.79	7,102.24	228.85	226.91	-91.00	-1,678.85	-8,120.06	2,922.94	2,467.40	455.53	6.417 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13C-16-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	3.00	0.00	3.28	3.28	-179.49	-440.09	-3.89	440.11				
100.00	100.00	103.00	100.00	3.28	3.29	-179.49	-440.09	-3.89	440.11	433.54	6.57	66.986	
200.00	200.00	197.00	200.00	3.34	3.33	-179.49	-440.09	-3.89	440.11	433.43	6.67	65.967	CC, ES
300.00	300.00	284.08	287.06	3.44	3.42	-179.48	-441.32	-3.97	441.53	434.65	6.87	64.239	
400.00	399.98	370.49	373.39	3.60	3.54	-172.16	-445.15	-4.22	447.69	440.51	7.18	62.387	
500.00	499.84	456.14	458.80	3.81	3.70	-172.16	-451.51	-4.62	460.28	452.71	7.57	60.808	
600.00	599.45	540.52	542.72	4.06	3.89	-172.18	-460.26	-5.18	479.21	471.18	8.03	59.658	
700.00	698.70	623.14	624.60	4.34	4.10	-172.19	-471.22	-5.87	504.35	495.81	8.55	59.015	
800.00	797.47	703.57	703.98	4.64	4.32	-172.22	-484.15	-6.69	535.54	526.45	9.09	58.897	
900.00	895.65	781.47	780.48	4.98	4.58	-172.26	-498.78	-7.62	572.45	562.79	9.67	59.228	
1,000.00	993.66	857.35	854.60	5.32	4.84	-172.37	-515.02	-8.66	612.68	602.46	10.22	59.933	
1,100.00	1,091.67	931.45	926.53	5.69	5.12	-172.45	-532.77	-9.78	655.29	644.49	10.79	60.707	
1,200.00	1,189.68	1,003.74	996.24	6.09	5.41	-172.51	-551.87	-11.00	700.19	688.82	11.37	61.600	
1,300.00	1,287.69	1,074.19	1,063.69	6.49	5.71	-172.55	-572.17	-12.29	747.30	735.36	11.94	62.600	
1,400.00	1,385.69	1,142.80	1,128.87	6.90	6.03	-172.58	-593.52	-13.65	796.53	784.03	12.50	63.703	
1,500.00	1,483.70	1,209.55	1,191.78	7.33	6.34	-172.59	-615.78	-15.06	847.80	834.74	13.06	64.906	
1,600.00	1,581.71	1,287.98	1,265.22	7.76	6.73	-172.60	-643.28	-16.81	900.60	886.90	13.70	65.752	
1,700.00	1,679.72	1,372.84	1,344.64	8.19	7.16	-172.61	-673.11	-18.70	953.51	939.12	14.39	66.262	
1,800.00	1,777.73	1,457.70	1,424.06	8.63	7.61	-172.61	-702.95	-20.60	1,006.41	991.31	15.10	66.647	
1,900.00	1,875.74	1,542.56	1,503.48	9.08	8.06	-172.62	-732.78	-22.50	1,059.32	1,043.49	15.83	66.934	
2,000.00	1,973.75	1,627.42	1,582.90	9.53	8.53	-172.63	-762.61	-24.39	1,112.22	1,095.66	16.56	67.143	
2,100.00	2,071.76	1,712.28	1,662.31	9.98	9.00	-172.63	-792.44	-26.29	1,165.13	1,147.81	17.31	67.291	
2,200.00	2,169.77	1,797.14	1,741.73	10.44	9.47	-172.64	-822.28	-28.19	1,218.03	1,199.96	18.07	67.389	
2,300.00	2,267.77	1,881.99	1,821.15	10.90	9.95	-172.64	-852.11	-30.08	1,270.94	1,252.09	18.84	67.448	
2,400.00	2,365.78	1,966.85	1,900.57	11.36	10.43	-172.64	-881.94	-31.98	1,323.84	1,304.22	19.62	67.476	
2,500.00	2,463.79	2,051.71	1,979.99	11.82	10.92	-172.65	-911.78	-33.87	1,376.75	1,356.35	20.40	67.480	
2,600.00	2,561.80	2,136.57	2,059.41	12.28	11.41	-172.65	-941.61	-35.77	1,429.65	1,408.46	21.19	67.464	
2,700.00	2,659.81	2,221.43	2,138.83	12.75	11.91	-172.66	-971.44	-37.67	1,482.56	1,460.57	21.99	67.433	
2,800.00	2,757.82	2,306.29	2,218.25	13.21	12.40	-172.66	-1,001.27	-39.56	1,535.46	1,512.68	22.78	67.390	
2,900.00	2,855.83	2,408.85	2,297.67	13.68	13.00	-172.66	-1,031.11	-41.46	1,588.37	1,564.69	23.68	67.085	
3,000.00	2,953.84	2,476.01	2,377.09	14.15	13.40	-172.66	-1,060.94	-43.35	1,641.27	1,616.88	24.40	67.278	
3,100.00	3,051.85	2,560.87	2,456.51	14.62	13.90	-172.67	-1,090.77	-45.25	1,694.18	1,668.97	25.21	67.213	
3,200.00	3,149.85	2,645.73	2,535.93	15.09	14.41	-172.67	-1,120.61	-47.15	1,747.08	1,721.06	26.02	67.143	
3,300.00	3,247.86	2,730.58	2,615.35	15.56	14.91	-172.67	-1,150.44	-49.04	1,799.99	1,773.15	26.84	67.071	
3,400.00	3,345.87	2,815.44	2,694.77	16.04	15.42	-172.67	-1,180.27	-50.94	1,852.89	1,825.24	27.66	66.996	
3,500.00	3,443.88	2,900.30	2,774.19	16.51	15.92	-172.67	-1,210.10	-52.83	1,905.80	1,877.32	28.48	66.920	
3,600.00	3,541.89	2,985.16	2,853.61	16.98	16.43	-172.68	-1,239.94	-54.73	1,958.70	1,929.40	29.30	66.843	
3,700.00	3,639.90	3,070.02	2,933.03	17.46	16.94	-172.68	-1,269.77	-56.63	2,011.61	1,981.48	30.13	66.766	
3,800.00	3,737.91	3,154.88	3,012.44	17.93	17.45	-172.68	-1,299.60	-58.52	2,064.51	2,033.56	30.96	66.688	
3,900.00	3,835.92	3,239.74	3,091.86	18.41	17.96	-172.68	-1,329.44	-60.42	2,117.42	2,085.63	31.79	66.611	
4,000.00	3,933.93	3,324.60	3,171.28	18.88	18.47	-172.68	-1,359.27	-62.32	2,170.33	2,137.71	32.62	66.535	
4,100.00	4,031.93	3,409.46	3,250.70	19.36	18.98	-172.68	-1,389.10	-64.21	2,223.23	2,189.78	33.45	66.459	
4,200.00	4,129.94	3,505.69	3,330.12	19.84	19.56	-172.69	-1,418.94	-66.11	2,276.14	2,241.79	34.35	66.270	
4,300.00	4,227.95	3,579.17	3,409.54	20.31	20.01	-172.69	-1,448.77	-68.00	2,329.04	2,293.92	35.12	66.311	
4,400.00	4,325.96	3,664.03	3,488.96	20.79	20.52	-172.69	-1,478.60	-69.90	2,381.95	2,345.99	35.96	66.238	
4,500.00	4,423.97	3,748.89	3,568.38	21.27	21.03	-172.69	-1,508.43	-71.80	2,434.85	2,398.05	36.80	66.167	
4,600.00	4,521.98	3,833.75	3,647.80	21.75	21.55	-172.69	-1,538.27	-73.69	2,487.76	2,450.12	37.64	66.097	
4,700.00	4,619.99	3,918.61	3,727.22	22.23	22.06	-172.69	-1,568.10	-75.59	2,540.66	2,502.18	38.48	66.028	
4,800.00	4,718.00	4,003.47	3,806.64	22.70	22.58	-172.69	-1,597.93	-77.48	2,593.57	2,554.25	39.32	65.960	
4,900.00	4,816.01	4,088.33	3,886.06	23.18	23.09	-172.69	-1,627.77	-79.38	2,646.47	2,606.31	40.16	65.894	
5,000.00	4,914.01	4,173.19	3,965.48	23.66	23.61	-172.69	-1,657.60	-81.28	2,699.38	2,658.37	41.01	65.829	
5,100.00	5,012.02	4,258.05	4,044.90	24.14	24.13	-172.69	-1,687.43	-83.17	2,752.28	2,710.43	41.85	65.765	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	4,342.90	4,124.32	24.62	24.64	-172.70	-1,717.26	-85.07	2,805.19	2,762.49	42.70	65.702		
5,300.00	5,208.04	4,427.76	4,203.74	25.10	25.16	-172.70	-1,747.10	-86.96	2,858.09	2,814.55	43.54	65.641		
5,400.00	5,306.05	4,512.62	4,283.16	25.58	25.68	-172.70	-1,776.93	-88.86	2,911.00	2,866.61	44.39	65.580		
5,500.00	5,404.06	4,602.52	4,362.57	26.06	26.22	-172.70	-1,806.76	-90.76	2,963.90	2,918.64	45.26	65.483		
5,600.00	5,502.07	4,682.34	4,441.99	26.54	26.71	-172.70	-1,836.60	-92.65	3,016.81	2,970.72	46.08	65.464		
5,700.00	5,600.08	4,767.20	4,521.41	27.02	27.23	-172.70	-1,866.43	-94.55	3,069.71	3,022.78	46.93	65.407		
5,800.00	5,698.09	4,852.06	4,600.83	27.50	27.75	-172.70	-1,896.26	-96.45	3,122.62	3,074.84	47.78	65.351		
5,900.00	5,796.09	4,936.92	4,680.25	27.98	28.26	-172.70	-1,926.09	-98.34	3,175.52	3,126.89	48.63	65.297		
6,000.00	5,894.10	5,021.78	4,759.67	28.46	28.78	-172.70	-1,955.93	-100.24	3,228.43	3,178.95	49.48	65.243		
6,100.00	5,992.11	5,106.63	4,839.09	28.94	29.30	-172.70	-1,985.76	-102.13	3,281.33	3,231.00	50.33	65.191		
6,200.00	6,090.12	5,191.49	4,918.51	29.42	29.82	-172.70	-2,015.59	-104.03	3,334.24	3,283.05	51.19	65.139		
6,300.00	6,188.13	5,276.35	4,997.93	29.90	30.34	-172.70	-2,045.43	-105.93	3,387.14	3,335.11	52.04	65.088		
6,400.00	6,286.14	5,361.21	5,077.35	30.38	30.86	-172.70	-2,075.26	-107.82	3,440.05	3,387.16	52.89	65.039		
6,500.00	6,384.15	5,446.07	5,156.77	30.87	31.38	-172.70	-2,105.09	-109.72	3,492.95	3,439.21	53.75	64.990		
6,600.00	6,482.15	5,530.93	5,236.19	31.35	31.89	-163.10	-2,134.92	-111.61	3,545.86	3,491.26	54.60	64.942		
6,700.00	6,579.21	5,615.24	5,315.10	31.83	32.41	-126.75	-2,164.57	-113.50	3,598.32	3,542.87	55.45	64.888		
6,800.00	6,673.04	5,702.86	5,391.74	32.30	32.95	-107.38	-2,193.36	-115.33	3,649.28	3,592.96	56.32	64.795		
6,900.00	6,761.33	5,774.60	5,464.24	32.74	33.39	-95.85	-2,220.59	-117.06	3,697.78	3,640.68	57.09	64.766		
7,000.00	6,841.90	5,845.71	5,530.79	33.17	33.82	-88.08	-2,245.59	-118.65	3,743.08	3,685.21	57.87	64.680		
7,100.00	6,912.77	5,908.74	5,589.78	33.60	34.21	-82.45	-2,267.75	-120.06	3,784.60	3,725.96	58.64	64.544		
7,200.00	6,972.19	5,962.12	5,639.74	34.09	34.53	-78.20	-2,286.51	-121.25	3,821.90	3,762.48	59.42	64.319		
7,300.00	7,018.70	6,004.54	5,679.44	34.73	34.79	-74.94	-2,301.43	-122.20	3,854.61	3,794.36	60.25	63.972		
7,400.00	7,051.15	6,034.96	5,707.91	35.55	34.98	-72.45	-2,312.12	-122.88	3,882.44	3,821.28	61.16	63.484		
7,500.00	7,068.75	6,052.62	5,724.44	36.56	35.09	-70.57	-2,318.33	-123.27	3,905.08	3,842.96	62.12	62.859		
7,600.00	7,071.91	6,057.83	5,729.31	37.71	35.12	-69.64	-2,320.16	-123.39	3,922.71	3,859.57	63.14	62.129		
7,700.00	7,071.62	6,060.06	5,731.40	39.03	35.13	-69.68	-2,320.95	-123.44	3,940.99	3,876.71	64.28	61.307		
7,800.00	7,071.34	6,062.29	5,733.49	40.51	35.15	-69.71	-2,321.73	-123.49	3,961.72	3,896.16	65.56	60.431		
7,900.00	7,071.05	6,064.53	5,735.58	42.14	35.16	-69.74	-2,322.51	-123.54	3,984.85	3,917.91	66.94	59.526		
8,000.00	7,070.77	6,066.76	5,737.67	43.89	35.17	-69.78	-2,323.30	-123.59	4,010.34	3,941.92	68.42	58.617		
8,100.00	7,070.48	6,068.99	5,739.76	45.76	35.19	-69.81	-2,324.08	-123.64	4,038.14	3,968.18	69.96	57.723		
8,200.00	7,070.20	6,071.22	5,741.85	47.72	35.20	-69.84	-2,324.87	-123.69	4,068.21	3,996.66	71.55	56.857		
8,300.00	7,069.92	6,073.45	5,743.94	49.78	35.22	-69.88	-2,325.65	-123.74	4,100.50	4,027.32	73.18	56.030		
8,400.00	7,069.63	6,075.69	5,746.03	51.90	35.23	-69.91	-2,326.44	-123.79	4,134.95	4,060.11	74.84	55.251		
8,500.00	7,069.35	6,077.92	5,748.12	54.10	35.24	-69.94	-2,327.22	-123.84	4,171.52	4,095.01	76.51	54.524		
8,600.00	7,069.06	6,080.15	5,750.21	56.36	35.25	-69.97	-2,328.01	-123.89	4,208.19	4,130.00	78.18	53.797		
8,700.00	7,068.78	6,082.38	5,752.30	58.66	35.26	-69.99	-2,328.80	-123.94	4,245.96	4,165.09	79.85	53.070		
8,800.00	7,068.49	6,084.61	5,754.39	61.02	35.27	-69.99	-2,329.59	-123.99	4,283.83	4,200.28	81.52	52.343		
8,900.00	7,068.21	6,086.84	5,756.48	63.42	35.28	-69.99	-2,330.38	-124.04	4,321.80	4,235.47	83.19	51.616		
9,000.00	7,067.92	6,089.07	5,758.57	65.85	35.29	-69.99	-2,331.17	-124.09	4,359.87	4,270.66	84.86	50.889		
9,100.00	7,067.64	6,091.30	5,760.66	68.32	35.30	-69.99	-2,331.96	-124.14	4,398.04	4,305.85	86.53	50.162		
9,200.00	7,067.35	6,093.53	5,762.75	70.81	35.31	-69.99	-2,332.75	-124.19	4,436.31	4,341.04	88.20	49.435		
9,300.00	7,067.07	6,095.76	5,764.84	73.34	35.32	-69.99	-2,333.54	-124.24	4,474.68	4,376.23	89.87	48.708		
9,400.00	7,066.78	6,097.99	5,766.93	75.88	35.33	-69.99	-2,334.33	-124.29	4,513.15	4,411.42	91.54	47.981		
9,500.00	7,066.50	6,100.22	5,769.02	78.45	35.34	-69.99	-2,335.12	-124.34	4,551.62	4,446.61	93.21	47.254		
9,600.00	7,066.21	6,102.45	5,771.11	81.04	35.35	-69.99	-2,335.91	-124.39	4,590.19	4,481.80	94.88	46.527		
9,700.00	7,065.93	6,104.68	5,773.20	83.64	35.36	-69.99	-2,336.70	-124.44	4,628.76	4,516.99	96.55	45.800		
9,800.00	7,065.64	6,106.91	5,775.29	86.26	35.37	-69.99	-2,337.49	-124.49	4,667.33	4,552.18	98.22	45.073		
9,900.00	7,065.36	6,109.14	5,777.38	88.90	35.38	-69.99	-2,338.28	-124.54	4,705.90	4,587.37	99.89	44.346		
10,000.00	7,065.07	6,111.37	5,779.47	91.55	35.39	-69.99	-2,339.07	-124.59	4,744.47	4,622.56	101.56	43.619		
10,100.00	7,064.79	6,113.60	5,781.56	94.21	35.40	-69.99	-2,339.86	-124.64	4,783.04	4,657.75	103.23	42.892		
10,200.00	7,064.50	6,115.83	5,783.65	96.88	35.41	-69.99	-2,340.65	-124.69	4,821.61	4,692.94	104.90	42.165		
10,300.00	7,064.22	6,118.06	5,785.74	99.57	35.42	-69.99	-2,341.44	-124.74	4,860.18	4,728.13	106.57	41.438		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,862.98	7,233.90	102.26	102.56	-92.32	-2,912.04	-3,599.66	4,193.01	3,989.09	203.92	20.562		
10,500.00	7,063.65	10,962.98	7,233.40	104.96	105.21	-92.32	-2,912.63	-3,699.65	4,192.84	3,983.55	209.29	20.033		
10,600.00	7,063.37	11,062.98	7,232.90	107.67	107.88	-92.32	-2,913.22	-3,799.65	4,192.67	3,977.98	214.68	19.530		
10,700.00	7,063.08	11,162.98	7,232.40	110.39	110.55	-92.31	-2,913.81	-3,899.65	4,192.49	3,972.41	220.09	19.049		
10,800.00	7,062.80	11,262.98	7,231.90	113.11	113.23	-92.31	-2,914.40	-3,999.64	4,192.32	3,966.81	225.51	18.590		
10,900.00	7,062.51	11,362.98	7,231.40	115.84	115.93	-92.31	-2,914.98	-4,099.64	4,192.15	3,961.20	230.94	18.152		
11,000.00	7,062.23	11,462.98	7,230.90	118.58	118.63	-92.31	-2,915.57	-4,199.64	4,191.98	3,955.58	236.39	17.733		
11,100.00	7,061.94	11,562.98	7,230.39	121.32	121.33	-92.30	-2,916.16	-4,299.63	4,191.80	3,949.95	241.85	17.332		
11,200.00	7,061.66	11,662.98	7,229.89	124.07	124.05	-92.30	-2,916.75	-4,399.63	4,191.63	3,944.31	247.32	16.948		
11,300.00	7,061.37	11,762.98	7,229.39	126.82	126.77	-92.30	-2,917.34	-4,499.63	4,191.46	3,938.65	252.81	16.580		
11,400.00	7,061.09	11,862.98	7,228.89	129.58	129.50	-92.29	-2,917.92	-4,599.62	4,191.28	3,932.98	258.30	16.226		
11,500.00	7,060.80	11,962.98	7,228.39	132.34	132.23	-92.29	-2,918.51	-4,699.62	4,191.11	3,927.31	263.80	15.887		
11,600.00	7,060.52	12,062.98	7,227.89	135.10	134.97	-92.29	-2,919.10	-4,799.62	4,190.94	3,921.63	269.31	15.562		
11,700.00	7,060.23	12,162.98	7,227.39	137.87	137.71	-92.29	-2,919.69	-4,899.61	4,190.77	3,915.93	274.83	15.248		
11,800.00	7,059.95	12,262.98	7,226.89	140.64	140.46	-92.28	-2,920.28	-4,999.61	4,190.59	3,910.23	280.36	14.947		
11,900.00	7,059.66	12,362.98	7,226.39	143.42	143.21	-92.28	-2,920.87	-5,099.61	4,190.42	3,904.53	285.89	14.657		
12,000.00	7,059.38	12,462.98	7,225.89	146.20	145.96	-92.28	-2,921.45	-5,199.60	4,190.25	3,898.81	291.44	14.378		
12,100.00	7,059.09	12,562.98	7,225.39	148.98	148.72	-92.27	-2,922.04	-5,299.60	4,190.08	3,893.09	296.98	14.109		
12,200.00	7,058.81	12,662.97	7,224.89	151.77	151.49	-92.27	-2,922.63	-5,399.60	4,189.90	3,887.37	302.54	13.849		
12,300.00	7,058.52	12,762.97	7,224.39	154.55	154.25	-92.27	-2,923.22	-5,499.59	4,189.73	3,881.63	308.10	13.599		
12,400.00	7,058.24	12,862.97	7,223.89	157.34	157.02	-92.27	-2,923.81	-5,599.59	4,189.56	3,875.89	313.66	13.357		
12,500.00	7,057.96	12,962.97	7,223.39	160.14	159.80	-92.26	-2,924.39	-5,699.59	4,189.39	3,870.15	319.24	13.123		
12,600.00	7,057.67	13,062.97	7,222.88	162.93	162.57	-92.26	-2,924.98	-5,799.58	4,189.21	3,864.40	324.81	12.897		
12,700.00	7,057.39	13,162.97	7,222.38	165.73	165.35	-92.26	-2,925.57	-5,899.58	4,189.04	3,858.65	330.39	12.679		
12,800.00	7,057.10	13,262.97	7,221.88	168.53	168.13	-92.25	-2,926.16	-5,999.57	4,188.87	3,852.89	335.98	12.468		
12,900.00	7,056.82	13,362.97	7,221.38	171.33	170.92	-92.25	-2,926.75	-6,099.57	4,188.70	3,847.13	341.57	12.263		
13,000.00	7,056.53	13,462.97	7,220.88	174.13	173.71	-92.25	-2,927.33	-6,199.57	4,188.52	3,841.36	347.16	12.065		
13,100.00	7,056.25	13,562.97	7,220.38	176.94	176.49	-92.25	-2,927.92	-6,299.56	4,188.35	3,835.59	352.76	11.873		
13,200.00	7,055.96	13,662.97	7,219.88	179.74	179.29	-92.24	-2,928.51	-6,399.56	4,188.18	3,829.82	358.36	11.687		
13,300.00	7,055.68	13,762.97	7,219.38	182.55	182.08	-92.24	-2,929.10	-6,499.56	4,188.01	3,824.04	363.96	11.507		
13,400.00	7,055.39	13,862.97	7,218.88	185.36	184.87	-92.24	-2,929.69	-6,599.55	4,187.83	3,818.26	369.57	11.332		
13,500.00	7,055.11	13,962.97	7,218.38	188.17	187.67	-92.23	-2,930.28	-6,699.55	4,187.66	3,812.48	375.18	11.162		
13,600.00	7,054.82	14,062.97	7,217.88	190.98	190.47	-92.23	-2,930.86	-6,799.55	4,187.49	3,806.69	380.80	10.997		
13,700.00	7,054.54	14,162.97	7,217.38	193.80	193.27	-92.23	-2,931.45	-6,899.54	4,187.32	3,800.90	386.42	10.836		
13,800.00	7,054.25	14,262.97	7,216.88	196.61	196.08	-92.23	-2,932.04	-6,999.54	4,187.14	3,795.11	392.04	10.681		
13,900.00	7,053.97	14,362.97	7,216.38	199.43	198.88	-92.22	-2,932.63	-7,099.54	4,186.97	3,789.31	397.66	10.529		
14,000.00	7,053.68	14,462.97	7,215.88	202.25	201.69	-92.22	-2,933.22	-7,199.53	4,186.80	3,783.51	403.28	10.382		
14,100.00	7,053.40	14,562.97	7,215.37	205.06	204.49	-92.22	-2,933.80	-7,299.53	4,186.63	3,777.71	408.91	10.238		
14,200.00	7,053.11	14,662.97	7,214.87	207.88	207.30	-92.21	-2,934.39	-7,399.53	4,186.45	3,771.91	414.54	10.099		
14,300.00	7,052.83	14,762.97	7,214.37	210.70	210.11	-92.21	-2,934.98	-7,499.52	4,186.28	3,766.11	420.18	9.963		
14,400.00	7,052.54	14,862.97	7,213.87	213.53	212.92	-92.21	-2,935.57	-7,599.52	4,186.11	3,760.30	425.81	9.831		
14,500.00	7,052.26	14,962.97	7,213.37	216.35	215.74	-92.21	-2,936.16	-7,699.52	4,185.94	3,754.49	431.45	9.702		
14,600.00	7,051.98	15,062.97	7,212.87	219.17	218.55	-92.20	-2,936.75	-7,799.51	4,185.76	3,748.68	437.09	9.577		
14,700.00	7,051.69	15,162.97	7,212.37	222.00	221.36	-92.20	-2,937.33	-7,899.51	4,185.59	3,742.86	442.73	9.454		
14,800.00	7,051.41	15,262.97	7,211.87	224.82	224.18	-92.20	-2,937.92	-7,999.51	4,185.42	3,737.05	448.37	9.335		
14,900.00	7,051.12	15,362.96	7,211.37	227.65	227.00	-92.19	-2,938.51	-8,099.50	4,185.25	3,731.23	454.02	9.218		
14,942.37	7,051.00	15,405.34	7,211.16	228.85	228.19	-92.19	-2,938.76	-8,141.88	4,185.17	3,728.77	456.41	9.170 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	3.00	0.00	3.28	3.28	-179.52	-460.11	-3.89	460.13					
100.00	100.00	103.00	100.00	3.28	3.29	-179.52	-460.11	-3.89	460.13	453.56	6.57	70.034		
200.00	200.00	197.00	200.00	3.34	3.33	-179.52	-460.11	-3.89	460.13	453.46	6.67	68.968 CC, ES		
300.00	300.00	283.57	286.56	3.44	3.42	-179.51	-461.33	-3.97	461.54	454.67	6.87	67.158		
400.00	399.98	369.47	372.37	3.60	3.54	-172.19	-465.12	-4.19	467.68	460.51	7.17	65.191		
500.00	499.84	454.61	457.27	3.81	3.70	-172.19	-471.40	-4.57	480.23	472.66	7.57	63.474		
600.00	599.45	538.49	540.70	4.06	3.88	-172.20	-480.05	-5.08	499.10	491.07	8.03	62.178		
700.00	698.70	620.64	622.13	4.34	4.09	-172.22	-490.88	-5.73	524.17	515.63	8.54	61.390		
800.00	797.47	700.63	701.08	4.64	4.32	-172.24	-503.67	-6.49	555.27	546.18	9.08	61.134		
900.00	895.65	778.10	777.19	4.98	4.56	-172.29	-518.14	-7.35	592.08	582.43	9.65	61.333		
1,000.00	993.66	853.60	850.94	5.32	4.83	-172.40	-534.22	-8.31	632.20	621.99	10.21	61.921		
1,100.00	1,091.67	927.33	922.54	5.69	5.11	-172.48	-551.79	-9.36	674.69	663.91	10.78	62.591		
1,200.00	1,189.68	1,000.00	992.64	6.09	5.40	-172.55	-570.89	-10.49	719.47	708.12	11.35	63.372		
1,300.00	1,287.69	1,069.41	1,059.12	6.49	5.69	-172.59	-590.80	-11.68	766.44	754.52	11.92	64.297		
1,400.00	1,385.69	1,137.71	1,124.06	6.90	6.00	-172.62	-611.95	-12.94	815.53	803.05	12.49	65.318		
1,500.00	1,483.70	1,204.19	1,186.75	7.33	6.31	-172.64	-634.01	-14.26	866.66	853.61	13.04	66.447		
1,600.00	1,581.71	1,268.83	1,247.21	7.76	6.64	-172.65	-656.85	-15.62	919.73	906.13	13.59	67.666		
1,700.00	1,679.72	1,331.67	1,305.46	8.19	6.96	-172.66	-680.35	-17.02	974.66	960.53	14.13	68.981		
1,800.00	1,777.73	1,411.63	1,379.18	8.63	7.38	-172.65	-711.27	-18.86	1,030.74	1,015.94	14.80	69.664		
1,900.00	1,875.74	1,505.58	1,455.50	9.08	7.90	-172.65	-743.30	-20.77	1,086.82	1,071.27	15.55	69.891		
2,000.00	1,973.75	1,577.21	1,531.82	9.53	8.31	-172.65	-775.32	-22.67	1,142.91	1,126.69	16.22	70.474		
2,100.00	2,071.76	1,660.00	1,608.14	9.98	8.78	-172.65	-807.35	-24.58	1,199.00	1,182.05	16.95	70.743		
2,200.00	2,169.77	1,742.79	1,684.47	10.44	9.26	-172.65	-839.37	-26.49	1,255.08	1,237.39	17.69	70.944		
2,300.00	2,267.77	1,825.58	1,760.79	10.90	9.74	-172.65	-871.40	-28.40	1,311.17	1,292.73	18.44	71.092		
2,400.00	2,365.78	1,908.37	1,837.11	11.36	10.23	-172.65	-903.43	-30.31	1,367.26	1,348.05	19.20	71.196		
2,500.00	2,463.79	2,008.84	1,913.43	11.82	10.84	-172.64	-935.45	-32.22	1,423.34	1,403.28	20.06	70.950		
2,600.00	2,561.80	2,073.95	1,989.75	12.28	11.23	-172.64	-967.48	-34.12	1,479.43	1,458.68	20.75	71.303		
2,700.00	2,659.81	2,156.74	2,066.07	12.75	11.73	-172.64	-999.50	-36.03	1,535.52	1,513.99	21.53	71.320		
2,800.00	2,757.82	2,239.53	2,142.39	13.21	12.24	-172.64	-1,031.53	-37.94	1,591.61	1,569.29	22.32	71.319		
2,900.00	2,855.83	2,322.32	2,218.71	13.68	12.74	-172.64	-1,063.55	-39.85	1,647.69	1,624.58	23.11	71.302		
3,000.00	2,953.84	2,405.11	2,295.04	14.15	13.25	-172.64	-1,095.58	-41.76	1,703.78	1,679.88	23.90	71.274		
3,100.00	3,051.85	2,487.90	2,371.36	14.62	13.76	-172.64	-1,127.61	-43.67	1,759.87	1,735.16	24.70	71.235		
3,200.00	3,149.85	2,570.69	2,447.68	15.09	14.28	-172.64	-1,159.63	-45.57	1,815.95	1,790.45	25.51	71.189		
3,300.00	3,247.86	2,653.48	2,524.00	15.56	14.79	-172.64	-1,191.66	-47.48	1,872.04	1,845.73	26.32	71.138		
3,400.00	3,345.87	2,736.27	2,600.32	16.04	15.31	-172.64	-1,223.68	-49.39	1,928.13	1,901.00	27.13	71.081		
3,500.00	3,443.88	2,819.06	2,676.64	16.51	15.83	-172.64	-1,255.71	-51.30	1,984.22	1,956.28	27.94	71.021		
3,600.00	3,541.89	2,901.85	2,752.96	16.98	16.35	-172.64	-1,287.74	-53.21	2,040.30	2,011.55	28.75	70.958		
3,700.00	3,639.90	2,984.64	2,829.28	17.46	16.87	-172.64	-1,319.76	-55.11	2,096.39	2,066.82	29.57	70.893		
3,800.00	3,737.91	3,067.43	2,905.61	17.93	17.39	-172.64	-1,351.79	-57.02	2,152.48	2,122.09	30.39	70.826		
3,900.00	3,835.92	3,150.22	2,981.93	18.41	17.91	-172.64	-1,383.81	-58.93	2,208.56	2,177.35	31.21	70.758		
4,000.00	3,933.93	3,233.01	3,058.25	18.88	18.43	-172.64	-1,415.84	-60.84	2,264.65	2,232.62	32.04	70.690		
4,100.00	4,031.93	3,315.80	3,134.57	19.36	18.96	-172.64	-1,447.87	-62.75	2,320.74	2,287.88	32.86	70.622		
4,200.00	4,129.94	3,401.41	3,210.89	19.84	19.50	-172.64	-1,479.89	-64.66	2,376.83	2,343.12	33.70	70.522		
4,300.00	4,227.95	3,481.38	3,287.21	20.31	20.00	-172.64	-1,511.92	-66.56	2,432.91	2,398.40	34.52	70.485		
4,400.00	4,325.96	3,564.17	3,363.53	20.79	20.53	-172.63	-1,543.94	-68.47	2,489.00	2,453.65	35.35	70.417		
4,500.00	4,423.97	3,646.96	3,439.85	21.27	21.06	-172.63	-1,575.97	-70.38	2,545.09	2,508.91	36.18	70.350		
4,600.00	4,521.98	3,729.76	3,516.18	21.75	21.58	-172.63	-1,607.99	-72.29	2,601.17	2,564.16	37.01	70.284		
4,700.00	4,619.99	3,812.55	3,592.50	22.23	22.11	-172.63	-1,640.02	-74.20	2,657.26	2,619.42	37.84	70.218		
4,800.00	4,718.00	3,904.66	3,668.82	22.70	22.70	-172.63	-1,672.05	-76.10	2,713.35	2,674.62	38.73	70.061		
4,900.00	4,816.01	3,978.13	3,745.14	23.18	23.16	-172.63	-1,704.07	-78.01	2,769.44	2,729.92	39.51	70.089		
5,000.00	4,914.01	4,060.92	3,821.46	23.66	23.69	-172.63	-1,736.10	-79.92	2,825.52	2,785.17	40.35	70.025		
5,100.00	5,012.02	4,143.71	3,897.78	24.14	24.22	-172.63	-1,768.12	-81.83	2,881.61	2,840.42	41.19	69.963		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	4,226.50	3,974.10	24.62	24.75	-172.63	-1,800.15	-83.74	2,937.70	2,895.67	42.03	69.901		
5,300.00	5,208.04	4,309.29	4,050.42	25.10	25.28	-172.63	-1,832.18	-85.65	2,993.78	2,950.92	42.87	69.841		
5,400.00	5,306.05	4,407.92	4,126.75	25.58	25.91	-172.63	-1,864.20	-87.55	3,049.87	3,006.08	43.79	69.644		
5,500.00	5,404.06	4,474.87	4,203.07	26.06	26.34	-172.63	-1,896.23	-89.46	3,105.96	3,061.41	44.55	69.723		
5,600.00	5,502.07	4,557.66	4,279.39	26.54	26.87	-172.63	-1,928.25	-91.37	3,162.05	3,116.66	45.39	69.665		
5,700.00	5,600.08	4,640.45	4,355.71	27.02	27.40	-172.63	-1,960.28	-93.28	3,218.13	3,171.90	46.23	69.609		
5,800.00	5,698.09	4,723.24	4,432.03	27.50	27.93	-172.63	-1,992.31	-95.19	3,274.22	3,227.14	47.08	69.553		
5,900.00	5,796.09	4,806.03	4,508.35	27.98	28.46	-172.63	-2,024.33	-97.09	3,330.31	3,282.39	47.92	69.498		
6,000.00	5,894.10	4,888.82	4,584.67	28.46	28.99	-172.63	-2,056.36	-99.00	3,386.39	3,337.63	48.76	69.444		
6,100.00	5,992.11	4,971.61	4,661.00	28.94	29.52	-172.63	-2,088.38	-100.91	3,442.48	3,392.87	49.61	69.391		
6,200.00	6,090.12	5,054.40	4,737.32	29.42	30.05	-172.63	-2,120.41	-102.82	3,498.57	3,448.11	50.46	69.339		
6,300.00	6,188.13	5,137.19	4,813.64	29.90	30.58	-172.63	-2,152.43	-104.73	3,554.66	3,503.35	51.30	69.287		
6,400.00	6,286.14	5,219.98	4,889.96	30.38	31.11	-172.63	-2,184.46	-106.64	3,610.74	3,558.59	52.15	69.237		
6,500.00	6,384.15	5,302.77	4,966.28	30.87	31.64	-172.63	-2,216.49	-108.54	3,666.83	3,613.83	53.00	69.187		
6,600.00	6,482.15	5,385.56	5,042.60	31.35	32.18	-162.93	-2,248.51	-110.45	3,722.91	3,669.06	53.85	69.138		
6,700.00	6,579.21	5,467.84	5,118.45	31.83	32.70	-126.10	-2,280.34	-112.35	3,778.53	3,723.83	54.70	69.082		
6,800.00	6,673.04	5,547.77	5,192.14	32.30	33.22	-106.30	-2,311.26	-114.19	3,832.51	3,776.99	55.53	69.023		
6,900.00	6,761.33	5,623.41	5,261.87	32.74	33.70	-94.40	-2,340.52	-115.93	3,883.84	3,827.52	56.32	68.957		
7,000.00	6,841.90	5,707.12	5,325.91	33.17	34.24	-86.33	-2,367.39	-117.53	3,931.68	3,874.51	57.17	68.773		
7,100.00	6,912.77	5,754.47	5,382.69	33.60	34.55	-80.46	-2,391.22	-118.95	3,975.35	3,917.50	57.85	68.721		
7,200.00	6,972.19	5,806.67	5,430.81	34.09	34.88	-76.06	-2,411.41	-120.16	4,014.33	3,955.71	58.62	68.478		
7,300.00	7,018.70	5,848.19	5,469.09	34.73	35.15	-72.72	-2,427.47	-121.11	4,048.19	3,988.74	59.45	68.099		
7,400.00	7,051.15	5,878.02	5,496.58	35.55	35.34	-70.19	-2,439.01	-121.80	4,076.58	4,016.24	60.34	67.561		
7,500.00	7,068.75	5,904.60	5,512.60	36.56	35.51	-68.35	-2,445.73	-122.20	4,099.17	4,037.82	61.35	66.814		
7,600.00	7,071.91	5,900.64	5,517.43	37.71	35.49	-67.47	-2,447.76	-122.32	4,116.15	4,053.84	62.31	66.057		
7,700.00	7,071.62	5,902.97	5,519.58	39.03	35.50	-67.50	-2,448.66	-122.38	4,133.57	4,070.12	63.46	65.141		
7,800.00	7,071.34	5,905.30	5,521.73	40.51	35.52	-67.53	-2,449.56	-122.43	4,153.33	4,088.59	64.73	64.160		
7,900.00	7,071.05	5,907.64	5,523.88	42.14	35.53	-67.57	-2,450.47	-122.48	4,175.38	4,109.26	66.12	63.144		
8,000.00	7,070.77	5,909.97	5,526.03	43.89	35.55	-67.60	-2,451.37	-122.54	4,199.70	4,132.09	67.61	62.120		
8,100.00	7,070.48	5,912.30	5,528.18	45.76	35.56	-67.63	-2,452.27	-122.59	4,226.25	4,157.09	69.16	61.107		
8,200.00	7,070.20	5,914.64	5,530.34	47.72	35.58	-67.67	-2,453.17	-122.65	4,254.98	4,184.20	70.77	60.122		
8,300.00	7,069.92	5,916.97	5,532.49	49.78	35.59	-67.70	-2,454.08	-122.70	4,285.84	4,213.42	72.42	59.177		
8,400.00	7,069.63	5,919.30	5,534.64	51.90	35.61	-67.73	-2,454.98	-122.75	4,318.81	4,244.70	74.10	58.280		
8,500.00	7,069.35	5,921.64	5,536.79	54.10	35.62	-67.76	-2,455.88	-122.81	4,353.82	4,278.02	75.80	57.437		
8,600.00	7,069.06	5,923.97	5,538.94	56.36	35.64	-67.80	-2,456.78	-122.86	4,390.82	4,313.32	77.51	56.652		
8,700.00	7,068.78	5,926.30	5,541.09	58.66	35.66	-67.84	-2,457.68	-122.91	4,428.82	4,348.62	79.22	55.922		
8,800.00	7,068.49	5,928.63	5,543.24	61.02	35.68	-67.88	-2,458.58	-122.96	4,467.82	4,384.92	80.93	55.232		
8,900.00	7,068.21	5,930.96	5,545.39	63.42	35.70	-67.92	-2,459.48	-123.01	4,507.82	4,421.22	82.64	54.582		
9,000.00	7,067.92	5,933.29	5,547.54	65.85	35.72	-67.96	-2,460.38	-123.06	4,548.82	4,457.52	84.35	53.972		
9,100.00	7,067.64	5,935.62	5,549.69	68.32	35.74	-68.00	-2,461.28	-123.11	4,590.82	4,493.82	86.06	53.402		
9,200.00	7,067.35	5,937.95	5,551.84	70.81	35.76	-68.04	-2,462.18	-123.16	4,633.82	4,530.12	87.77	52.872		
9,300.00	7,067.07	5,940.28	5,553.99	73.34	35.78	-68.08	-2,463.08	-123.21	4,677.82	4,566.42	89.48	52.382		
9,400.00	7,066.78	5,942.61	5,556.14	75.88	35.80	-68.12	-2,463.98	-123.26	4,722.82	4,602.72	91.19	51.932		
9,500.00	7,066.50	5,944.94	5,558.29	78.45	35.82	-68.16	-2,464.88	-123.31	4,768.82	4,639.02	92.90	51.522		
9,600.00	7,066.21	5,947.27	5,560.44	81.04	35.84	-68.20	-2,465.78	-123.36	4,815.82	4,675.32	94.61	51.152		
9,700.00	7,065.93	5,949.60	5,562.59	83.64	35.86	-68.24	-2,466.68	-123.41	4,863.82	4,711.62	96.32	50.822		
9,800.00	7,065.64	5,951.93	5,564.74	86.26	35.88	-68.28	-2,467.58	-123.46	4,912.82	4,747.92	98.03	50.532		
9,900.00	7,065.36	5,954.26	5,566.89	88.90	35.90	-68.32	-2,468.48	-123.51	4,962.82	4,784.22	99.74	50.282		
10,000.00	7,065.07	5,956.59	5,569.04	91.55	35.92	-68.36	-2,469.38	-123.56	5,013.82	4,820.52	101.45	50.072		
10,100.00	7,064.79	5,958.92	5,571.19	94.21	35.94	-68.40	-2,470.28	-123.61	5,065.82	4,856.82	103.16	49.902		
10,200.00	7,064.50	5,961.25	5,573.34	96.88	35.96	-68.44	-2,471.18	-123.66	5,118.82	4,893.12	104.87	49.772		
10,300.00	7,064.22	5,963.58	5,575.49	99.57	35.98	-68.48	-2,472.08	-123.71	5,172.82	4,929.42	106.58	49.682		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 13N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,765.80	7,063.62	102.26	102.46	-90.00	-3,121.41	-3,597.14	4,398.94	4,194.82	204.12	21.551		
10,500.00	7,063.65	10,865.80	7,063.33	104.96	105.11	-90.00	-3,122.00	-3,697.14	4,398.79	4,189.29	209.49	20.997		
10,600.00	7,063.37	10,965.80	7,063.03	107.67	107.77	-90.00	-3,122.60	-3,797.14	4,398.63	4,183.75	214.88	20.470		
10,700.00	7,063.08	11,065.80	7,062.73	110.39	110.45	-90.00	-3,123.20	-3,897.14	4,398.48	4,178.19	220.29	19.967		
10,800.00	7,062.80	11,165.80	7,062.43	113.11	113.13	-90.00	-3,123.80	-3,997.13	4,398.32	4,172.62	225.71	19.487		
10,900.00	7,062.51	11,265.80	7,062.14	115.84	115.82	-90.00	-3,124.40	-4,097.13	4,398.17	4,167.03	231.14	19.028		
11,000.00	7,062.23	11,365.80	7,061.84	118.58	118.51	-90.00	-3,124.99	-4,197.13	4,398.01	4,161.42	236.59	18.589		
11,100.00	7,061.94	11,465.80	7,061.54	121.32	121.22	-90.00	-3,125.59	-4,297.13	4,397.86	4,155.81	242.05	18.169		
11,200.00	7,061.66	11,565.80	7,061.24	124.07	123.93	-89.99	-3,126.19	-4,397.12	4,397.71	4,150.18	247.52	17.767		
11,300.00	7,061.37	11,665.80	7,060.95	126.82	126.65	-89.99	-3,126.79	-4,497.12	4,397.55	4,144.54	253.01	17.381		
11,400.00	7,061.09	11,765.80	7,060.65	129.58	129.38	-89.99	-3,127.39	-4,597.12	4,397.40	4,138.90	258.50	17.011		
11,500.00	7,060.80	11,865.80	7,060.35	132.34	132.11	-89.99	-3,127.98	-4,697.12	4,397.24	4,133.24	264.00	16.656		
11,600.00	7,060.52	11,965.80	7,060.05	135.10	134.84	-89.99	-3,128.58	-4,797.12	4,397.09	4,127.57	269.52	16.315		
11,700.00	7,060.23	12,065.80	7,059.76	137.87	137.58	-89.99	-3,129.18	-4,897.11	4,396.93	4,121.90	275.04	15.987		
11,800.00	7,059.95	12,165.80	7,059.46	140.64	140.33	-89.99	-3,129.78	-4,997.11	4,396.78	4,116.22	280.56	15.671		
11,900.00	7,059.66	12,265.80	7,059.16	143.42	143.08	-89.99	-3,130.38	-5,097.11	4,396.62	4,110.53	286.10	15.368		
12,000.00	7,059.38	12,365.80	7,058.86	146.20	145.84	-89.99	-3,130.97	-5,197.11	4,396.47	4,104.83	291.64	15.075		
12,100.00	7,059.09	12,465.80	7,058.56	148.98	148.59	-89.99	-3,131.57	-5,297.10	4,396.32	4,099.13	297.19	14.793		
12,200.00	7,058.81	12,565.80	7,058.27	151.77	151.36	-89.99	-3,132.17	-5,397.10	4,396.16	4,093.42	302.75	14.521		
12,300.00	7,058.52	12,665.80	7,057.97	154.55	154.12	-89.99	-3,132.77	-5,497.10	4,396.01	4,087.70	308.31	14.259		
12,400.00	7,058.24	12,765.80	7,057.67	157.34	156.89	-89.99	-3,133.36	-5,597.10	4,395.85	4,081.98	313.87	14.005		
12,500.00	7,057.96	12,865.80	7,057.37	160.14	159.66	-89.99	-3,133.96	-5,697.09	4,395.70	4,076.25	319.45	13.760		
12,600.00	7,057.67	12,965.80	7,057.08	162.93	162.44	-89.99	-3,134.56	-5,797.09	4,395.54	4,070.52	325.02	13.524		
12,700.00	7,057.39	13,065.80	7,056.78	165.73	165.22	-89.99	-3,135.16	-5,897.09	4,395.39	4,064.78	330.61	13.295		
12,800.00	7,057.10	13,165.80	7,056.48	168.53	168.00	-89.99	-3,135.76	-5,997.09	4,395.23	4,059.04	336.19	13.074		
12,900.00	7,056.82	13,265.80	7,056.18	171.33	170.78	-89.99	-3,136.35	-6,097.08	4,395.08	4,053.30	341.78	12.859		
13,000.00	7,056.53	13,365.80	7,055.89	174.13	173.57	-89.99	-3,136.95	-6,197.08	4,394.93	4,047.55	347.38	12.652		
13,100.00	7,056.25	13,465.80	7,055.59	176.94	176.36	-89.99	-3,137.55	-6,297.08	4,394.77	4,041.79	352.98	12.451		
13,200.00	7,055.96	13,565.80	7,055.29	179.74	179.15	-89.99	-3,138.15	-6,397.08	4,394.62	4,036.04	358.58	12.256		
13,300.00	7,055.68	13,665.80	7,054.99	182.55	181.94	-89.99	-3,138.75	-6,497.08	4,394.46	4,030.28	364.18	12.067		
13,400.00	7,055.39	13,765.80	7,054.70	185.36	184.74	-89.99	-3,139.34	-6,597.07	4,394.31	4,024.51	369.79	11.883		
13,500.00	7,055.11	13,865.80	7,054.40	188.17	187.53	-89.99	-3,139.94	-6,697.07	4,394.15	4,018.75	375.41	11.705		
13,600.00	7,054.82	13,965.80	7,054.10	190.98	190.33	-89.99	-3,140.54	-6,797.07	4,394.00	4,012.98	381.02	11.532		
13,700.00	7,054.54	14,065.80	7,053.80	193.80	193.13	-89.99	-3,141.14	-6,897.07	4,393.84	4,007.20	386.64	11.364		
13,800.00	7,054.25	14,165.80	7,053.51	196.61	195.93	-89.99	-3,141.74	-6,997.06	4,393.69	4,001.43	392.26	11.201		
13,900.00	7,053.97	14,265.80	7,053.21	199.43	198.74	-89.99	-3,142.33	-7,097.06	4,393.54	3,995.65	397.89	11.042		
14,000.00	7,053.68	14,365.80	7,052.91	202.25	201.54	-89.99	-3,142.93	-7,197.06	4,393.38	3,989.87	403.52	10.888		
14,100.00	7,053.40	14,465.80	7,052.61	205.06	204.35	-89.99	-3,143.53	-7,297.06	4,393.23	3,984.08	409.14	10.738		
14,200.00	7,053.11	14,565.80	7,052.32	207.88	207.16	-89.99	-3,144.13	-7,397.05	4,393.07	3,978.30	414.78	10.591		
14,300.00	7,052.83	14,665.80	7,052.02	210.70	209.97	-89.99	-3,144.73	-7,497.05	4,392.92	3,972.51	420.41	10.449		
14,400.00	7,052.54	14,765.80	7,051.72	213.53	212.78	-89.99	-3,145.32	-7,597.05	4,392.76	3,966.72	426.05	10.311		
14,500.00	7,052.26	14,865.80	7,051.42	216.35	215.59	-89.99	-3,145.92	-7,697.05	4,392.61	3,960.92	431.69	10.175		
14,600.00	7,051.98	14,965.80	7,051.12	219.17	214.80	-89.99	-3,146.52	-7,797.04	4,392.45	3,955.13	437.33	10.044		
14,700.00	7,051.69	15,065.80	7,050.83	222.00	221.22	-89.99	-3,147.12	-7,897.04	4,392.30	3,949.33	442.97	9.916		
14,800.00	7,051.41	15,165.80	7,050.53	224.82	224.03	-89.99	-3,147.71	-7,997.04	4,392.15	3,943.53	448.61	9.790		
14,900.00	7,051.12	15,265.80	7,050.23	227.65	226.85	-89.99	-3,148.31	-8,097.04	4,391.99	3,937.73	454.26	9.668		
14,942.37	7,051.00	15,308.17	7,050.11	228.85	228.04	-89.99	-3,148.57	-8,139.41	4,391.93	3,935.27	456.65	9.618 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	-179.52	-100.18	-0.83	100.18					
100.00	100.00	101.00	100.00	3.28	3.28	-179.52	-100.18	-0.83	100.18	93.61	6.57	15.249		
200.00	200.00	201.00	200.00	3.34	3.34	-179.52	-100.18	-0.83	100.18	93.50	6.67	15.008		
300.00	300.00	301.00	300.00	3.44	3.45	-179.52	-100.18	-0.83	100.18	93.29	6.89	14.537 CC, ES		
400.00	399.98	401.02	399.98	3.60	3.61	-172.35	-100.18	-0.83	101.91	94.70	7.21	14.136		
500.00	499.84	498.84	499.84	3.81	3.80	-172.71	-100.18	-0.83	107.10	99.48	7.61	14.067		
600.00	599.45	602.09	603.07	4.06	4.05	-172.85	-98.56	-1.67	114.18	106.07	8.11	14.079		
700.00	698.70	703.55	704.40	4.34	4.33	-172.49	-94.18	-3.94	121.97	113.30	8.67	14.070		
800.00	797.47	802.95	803.67	4.64	4.63	-172.29	-89.53	-6.35	132.85	123.57	9.27	14.325		
900.00	895.65	901.93	902.52	4.98	4.94	-172.30	-84.89	-8.75	147.02	137.10	9.93	14.813		
1,000.00	993.66	1,000.79	1,001.23	5.32	5.27	-172.38	-80.27	-11.15	162.11	151.50	10.60	15.286		
1,100.00	1,091.67	1,100.35	1,099.95	5.69	5.62	-172.44	-75.64	-13.54	177.19	165.87	11.32	15.655		
1,200.00	1,189.68	1,201.50	1,198.67	6.09	5.99	-172.49	-71.01	-15.94	192.27	180.21	12.06	15.938		
1,300.00	1,287.69	1,302.64	1,297.39	6.49	6.37	-172.54	-66.38	-18.34	207.35	194.52	12.83	16.160		
1,400.00	1,385.69	1,403.79	1,396.11	6.90	6.75	-172.58	-61.75	-20.73	222.44	208.82	13.62	16.336		
1,500.00	1,483.70	1,504.93	1,494.83	7.33	7.15	-172.61	-57.12	-23.13	237.52	223.10	14.42	16.475		
1,600.00	1,581.71	1,606.07	1,593.54	7.76	7.54	-172.64	-52.49	-25.53	252.60	237.37	15.23	16.585		
1,700.00	1,679.72	1,707.22	1,692.26	8.19	7.95	-172.67	-47.86	-27.93	267.69	251.63	16.05	16.674		
1,800.00	1,777.73	1,808.36	1,790.98	8.63	8.36	-172.69	-43.24	-30.32	282.77	265.88	16.89	16.744		
1,900.00	1,875.74	1,909.51	1,889.70	9.08	8.77	-172.71	-38.61	-32.72	297.85	280.12	17.73	16.800		
2,000.00	1,973.75	1,989.35	1,988.42	9.53	9.10	-172.73	-33.98	-35.12	312.93	294.45	18.49	16.925		
2,100.00	2,071.76	2,088.21	2,087.14	9.98	9.50	-172.75	-29.35	-37.51	328.02	308.68	19.33	16.966		
2,200.00	2,169.77	2,187.06	2,185.85	10.44	9.91	-172.76	-24.72	-39.91	343.10	322.92	20.18	17.000		
2,300.00	2,267.77	2,285.92	2,284.57	10.90	10.33	-172.78	-20.09	-42.31	358.18	337.15	21.04	17.027		
2,400.00	2,365.78	2,384.77	2,383.29	11.36	10.74	-172.79	-15.46	-44.71	373.27	351.37	21.89	17.049		
2,500.00	2,463.79	2,483.63	2,482.01	11.82	11.16	-172.80	-10.84	-47.10	388.35	365.60	22.76	17.066		
2,600.00	2,561.80	2,582.49	2,580.73	12.28	11.57	-172.81	-6.21	-49.50	403.43	379.81	23.62	17.080		
2,700.00	2,659.81	2,681.34	2,679.45	12.75	11.99	-172.82	-1.58	-51.90	418.52	394.03	24.49	17.091		
2,800.00	2,757.82	2,780.20	2,778.17	13.21	12.41	-172.83	3.05	-54.29	433.60	408.24	25.36	17.100		
2,900.00	2,855.83	2,879.05	2,876.88	13.68	12.83	-172.84	7.68	-56.69	448.68	422.45	26.23	17.106		
3,000.00	2,953.84	2,977.91	2,975.60	14.15	13.26	-172.85	12.31	-59.09	463.77	436.66	27.10	17.111		
3,100.00	3,051.85	3,076.76	3,074.32	14.62	13.68	-172.86	16.94	-61.48	478.85	450.87	27.98	17.114		
3,200.00	3,149.85	3,175.62	3,173.04	15.09	14.10	-172.87	21.56	-63.88	493.93	465.08	28.86	17.116		
3,300.00	3,247.86	3,274.48	3,271.76	15.56	14.53	-172.88	26.19	-66.28	509.02	479.28	29.74	17.117		
3,400.00	3,345.87	3,373.33	3,370.48	16.04	14.95	-172.88	30.82	-68.68	524.10	493.48	30.62	17.117		
3,500.00	3,443.88	3,472.19	3,469.19	16.51	15.38	-172.89	35.45	-71.07	539.18	507.68	31.50	17.117		
3,600.00	3,541.89	3,571.04	3,567.91	16.98	15.81	-172.89	40.08	-73.47	554.27	521.88	32.38	17.116		
3,700.00	3,639.90	3,669.90	3,666.63	17.46	16.23	-172.90	44.71	-75.87	569.35	536.08	33.27	17.114		
3,800.00	3,737.91	3,768.76	3,765.35	17.93	16.66	-172.91	49.34	-78.26	584.43	550.28	34.15	17.112		
3,900.00	3,835.92	3,867.61	3,864.07	18.41	17.09	-172.91	53.96	-80.66	599.52	564.48	35.04	17.110		
4,000.00	3,933.93	3,966.47	3,962.79	18.88	17.52	-172.92	58.59	-83.06	614.60	578.67	35.93	17.107		
4,100.00	4,031.93	4,065.32	4,061.50	19.36	17.95	-172.92	63.22	-85.46	629.68	592.87	36.81	17.104		
4,200.00	4,129.94	4,164.18	4,160.22	19.84	18.37	-172.92	67.85	-87.85	644.77	607.06	37.70	17.101		
4,300.00	4,227.95	4,263.04	4,258.94	20.31	18.80	-172.93	72.48	-90.25	659.85	621.26	38.59	17.098		
4,400.00	4,325.96	4,361.89	4,357.66	20.79	19.23	-172.93	77.11	-92.65	674.93	635.45	39.48	17.094		
4,500.00	4,423.97	4,460.75	4,456.38	21.27	19.66	-172.94	81.74	-95.04	690.02	649.64	40.37	17.091		
4,600.00	4,521.98	4,559.60	4,555.10	21.75	20.09	-172.94	86.36	-97.44	705.10	663.84	41.26	17.087		
4,700.00	4,619.99	4,658.46	4,653.81	22.23	20.52	-172.94	90.99	-99.84	720.18	678.03	42.16	17.084		
4,800.00	4,718.00	4,757.31	4,752.53	22.70	20.96	-172.95	95.62	-102.24	735.27	692.22	43.05	17.080		
4,900.00	4,816.01	4,856.17	4,851.25	23.18	21.39	-172.95	100.25	-104.63	750.35	706.41	43.94	17.076		
5,000.00	4,914.01	4,955.03	4,949.97	23.66	21.82	-172.95	104.88	-107.03	765.43	720.60	44.83	17.072		
5,100.00	5,012.02	5,053.88	5,048.69	24.14	22.25	-172.96	109.51	-109.43	780.52	734.79	45.73	17.068		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,152.74	5,147.41	24.62	22.68	-172.96	114.14	-111.82	795.60	748.98	46.62	17.065		
5,300.00	5,208.04	5,251.59	5,246.12	25.10	23.11	-172.96	118.76	-114.22	810.69	763.17	47.52	17.061		
5,400.00	5,306.05	5,350.45	5,344.84	25.58	23.54	-172.96	123.39	-116.62	825.77	777.36	48.41	17.057		
5,500.00	5,404.06	5,449.31	5,443.56	26.06	23.98	-172.97	128.02	-119.01	840.85	791.54	49.31	17.053		
5,600.00	5,502.07	5,548.16	5,542.28	26.54	24.41	-172.97	132.65	-121.41	855.94	805.73	50.20	17.050		
5,700.00	5,600.08	5,647.02	5,641.00	27.02	24.84	-172.97	137.28	-123.81	871.02	819.92	51.10	17.046		
5,800.00	5,698.09	5,745.87	5,739.72	27.50	25.27	-172.97	141.91	-126.21	886.10	834.11	51.99	17.042		
5,900.00	5,796.09	5,844.73	5,838.43	27.98	25.71	-172.98	146.54	-128.60	901.19	848.30	52.89	17.039		
6,000.00	5,894.10	5,943.59	5,937.15	28.46	26.14	-172.98	151.17	-131.00	916.27	862.48	53.79	17.035		
6,100.00	5,992.11	6,042.44	6,035.87	28.94	26.57	-172.98	155.79	-133.40	931.35	876.67	54.68	17.031		
6,200.00	6,090.12	6,141.30	6,134.59	29.42	27.01	-172.98	160.42	-135.79	946.44	890.85	55.58	17.028		
6,300.00	6,188.13	6,240.15	6,233.31	29.90	27.44	-172.98	165.05	-138.19	961.52	905.04	56.48	17.024		
6,400.00	6,286.14	6,339.01	6,332.03	30.38	27.87	-172.99	169.68	-140.59	976.60	919.23	57.38	17.021		
6,500.00	6,384.15	6,437.87	6,430.75	30.87	28.31	-172.99	174.31	-142.99	991.69	933.41	58.27	17.018		
6,600.00	6,482.15	6,536.16	6,528.48	31.35	28.74	-163.89	178.85	-151.38	1,006.79	947.62	59.17	17.015		
6,700.00	6,579.21	6,632.81	6,622.23	31.83	29.16	-130.94	183.11	-174.13	1,021.83	961.78	60.05	17.015		
6,800.00	6,673.04	6,728.18	6,710.32	32.30	29.59	-114.55	187.01	-210.23	1,036.45	975.53	60.93	17.011		
6,900.00	6,761.33	6,822.47	6,791.16	32.74	30.02	-105.56	190.49	-258.46	1,050.27	988.46	61.80	16.994		
7,000.00	6,841.90	6,915.87	6,863.37	33.17	30.49	-99.91	193.49	-317.50	1,062.91	1,000.19	62.72	16.947		
7,100.00	6,912.77	7,008.57	6,925.75	33.60	31.01	-96.06	195.97	-385.92	1,074.05	1,010.31	63.74	16.851		
7,200.00	6,972.19	7,100.73	6,977.28	34.09	31.63	-93.35	197.88	-462.20	1,083.41	1,018.48	64.93	16.685		
7,300.00	7,018.70	7,192.48	7,017.14	34.73	32.37	-91.46	199.20	-544.74	1,090.73	1,024.35	66.38	16.431		
7,400.00	7,051.15	7,283.93	7,044.67	35.55	33.25	-90.24	199.92	-631.86	1,095.85	1,027.72	68.12	16.086		
7,500.00	7,068.75	7,375.21	7,059.45	36.56	34.26	-89.60	200.01	-721.86	1,098.61	1,028.46	70.15	15.660		
7,600.00	7,071.91	7,468.52	7,061.58	37.71	35.42	-89.46	199.48	-815.08	1,099.12	1,026.65	72.47	15.167		
7,700.00	7,071.62	7,568.51	7,059.83	39.03	36.82	-89.39	198.73	-915.05	1,099.13	1,023.92	75.21	14.614		
7,800.00	7,071.34	7,668.50	7,058.08	40.51	38.38	-89.31	197.98	-1,015.03	1,099.15	1,020.89	78.27	14.044		
7,900.00	7,071.05	7,768.49	7,056.33	42.14	40.08	-89.23	197.23	-1,115.00	1,099.17	1,017.57	81.60	13.469		
8,000.00	7,070.77	7,868.48	7,054.58	43.89	41.91	-89.16	196.47	-1,214.97	1,099.19	1,014.00	85.20	12.902		
8,100.00	7,070.48	7,968.47	7,052.83	45.76	43.84	-89.08	195.72	-1,314.94	1,099.21	1,010.21	89.01	12.350		
8,200.00	7,070.20	8,068.46	7,051.08	47.72	45.88	-89.00	194.97	-1,414.91	1,099.24	1,006.22	93.01	11.818		
8,300.00	7,069.92	8,168.45	7,049.33	49.78	48.00	-88.93	194.21	-1,514.88	1,099.27	1,002.08	97.19	11.310		
8,400.00	7,069.63	8,268.44	7,047.58	51.90	50.19	-88.85	193.46	-1,614.85	1,099.29	997.78	101.52	10.829		
8,500.00	7,069.35	8,368.43	7,045.83	54.10	52.44	-88.77	192.71	-1,714.82	1,099.33	993.36	105.97	10.374		
8,600.00	7,069.06	8,468.41	7,044.08	56.36	54.75	-88.70	191.96	-1,814.79	1,099.36	988.82	110.54	9.945		
8,700.00	7,068.78	8,568.40	7,042.33	58.66	57.11	-88.62	191.20	-1,914.77	1,099.39	984.18	115.21	9.542		
8,800.00	7,068.49	8,668.39	7,040.59	61.02	59.52	-88.55	190.45	-2,014.74	1,099.43	979.46	119.97	9.164		
8,900.00	7,068.21	8,768.38	7,038.84	63.42	61.96	-88.47	189.70	-2,114.71	1,099.47	974.66	124.81	8.809		
9,000.00	7,067.92	8,868.37	7,037.09	65.85	64.44	-88.39	188.95	-2,214.68	1,099.51	969.79	129.72	8.476		
9,100.00	7,067.64	8,968.36	7,035.34	68.32	66.95	-88.32	188.19	-2,314.65	1,099.55	964.86	134.69	8.164		
9,200.00	7,067.35	9,068.35	7,033.59	70.81	69.48	-88.24	187.44	-2,414.62	1,099.60	959.88	139.71	7.870		
9,300.00	7,067.07	9,168.34	7,031.84	73.34	72.04	-88.16	186.69	-2,514.59	1,099.64	954.86	144.79	7.595		
9,400.00	7,066.78	9,268.33	7,030.09	75.88	74.62	-88.09	185.94	-2,614.56	1,099.69	949.78	149.91	7.336		
9,500.00	7,066.50	9,368.32	7,028.34	78.45	77.22	-88.01	185.18	-2,714.53	1,099.74	944.68	155.07	7.092		
9,600.00	7,066.21	9,468.31	7,026.59	81.04	79.84	-87.94	184.43	-2,814.51	1,099.79	939.53	160.26	6.863		
9,700.00	7,065.93	9,568.30	7,024.84	83.64	82.47	-87.86	183.68	-2,914.48	1,099.85	934.36	165.49	6.646		
9,800.00	7,065.64	9,668.29	7,023.09	86.26	85.12	-87.78	182.93	-3,014.45	1,099.90	929.16	170.74	6.442		
9,900.00	7,065.36	9,768.28	7,021.34	88.90	87.78	-87.71	182.17	-3,114.42	1,099.96	923.93	176.03	6.249		
10,000.00	7,065.07	9,868.26	7,019.59	91.55	90.46	-87.63	181.42	-3,214.39	1,100.02	918.69	181.34	6.066		
10,100.00	7,064.79	9,968.25	7,017.84	94.21	93.14	-87.55	180.67	-3,314.36	1,100.08	913.42	186.67	5.893		
10,200.00	7,064.50	10,068.24	7,016.09	96.88	95.83	-87.48	179.92	-3,414.33	1,100.15	908.13	192.01	5.729		
10,300.00	7,064.22	10,168.23	7,014.35	99.57	98.54	-87.40	179.16	-3,514.30	1,100.21	902.83	197.38	5.574		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	10,268.22	7,012.60	102.26	101.25	-87.33	178.41	-3,614.27	1,100.28	897.51	202.77	5.426		
10,500.00	7,063.65	10,368.21	7,010.85	104.96	103.97	-87.25	177.66	-3,714.25	1,100.35	892.18	208.17	5.286		
10,600.00	7,063.37	10,468.20	7,009.10	107.67	106.70	-87.17	176.91	-3,814.22	1,100.42	886.84	213.58	5.152		
10,700.00	7,063.08	10,568.19	7,007.35	110.39	109.43	-87.10	176.15	-3,914.19	1,100.50	881.49	219.01	5.025		
10,800.00	7,062.80	10,668.18	7,005.60	113.11	112.17	-87.02	175.40	-4,014.16	1,100.57	876.12	224.45	4.903		
10,900.00	7,062.51	10,768.17	7,003.85	115.84	114.91	-86.94	174.65	-4,114.13	1,100.65	870.75	229.90	4.788		
11,000.00	7,062.23	10,868.16	7,002.10	118.58	117.67	-86.87	173.90	-4,214.10	1,100.73	865.37	235.36	4.677		
11,100.00	7,061.94	10,968.15	7,000.35	121.32	120.42	-86.79	173.14	-4,314.07	1,100.81	859.98	240.83	4.571		
11,200.00	7,061.66	11,068.14	6,998.60	124.07	123.18	-86.72	172.39	-4,414.04	1,100.89	854.58	246.31	4.470		
11,300.00	7,061.37	11,168.12	6,996.85	126.82	125.95	-86.64	171.64	-4,514.02	1,100.98	849.18	251.79	4.373		
11,400.00	7,061.09	11,268.11	6,995.10	129.58	128.72	-86.56	170.89	-4,613.99	1,101.07	843.78	257.29	4.280		
11,500.00	7,060.80	11,368.10	6,993.35	132.34	131.49	-86.49	170.13	-4,713.96	1,101.15	838.37	262.79	4.190		
11,600.00	7,060.52	11,468.09	6,991.60	135.10	134.26	-86.41	169.38	-4,813.93	1,101.25	832.95	268.29	4.105		
11,700.00	7,060.23	11,568.08	6,989.85	137.87	137.04	-86.34	168.63	-4,913.90	1,101.34	827.53	273.81	4.022		
11,800.00	7,059.95	11,668.07	6,988.11	140.64	139.83	-86.26	167.88	-5,013.87	1,101.43	822.11	279.32	3.943		
11,900.00	7,059.66	11,768.06	6,986.36	143.42	142.61	-86.18	167.12	-5,113.84	1,101.53	816.68	284.85	3.867		
12,000.00	7,059.38	11,868.05	6,984.61	146.20	145.40	-86.11	166.37	-5,213.81	1,101.63	811.25	290.37	3.794		
12,100.00	7,059.09	11,968.04	6,982.86	148.98	148.19	-86.03	165.62	-5,313.78	1,101.73	805.82	295.91	3.723		
12,200.00	7,058.81	12,068.03	6,981.11	151.77	150.99	-85.96	164.87	-5,413.76	1,101.83	800.39	301.44	3.655		
12,300.00	7,058.52	12,168.02	6,979.36	154.55	153.78	-85.88	164.11	-5,513.73	1,101.94	794.96	306.98	3.590		
12,400.00	7,058.24	12,268.01	6,977.61	157.34	156.58	-85.80	163.36	-5,613.70	1,102.04	789.52	312.52	3.526		
12,500.00	7,057.96	12,368.00	6,975.86	160.14	159.38	-85.73	162.61	-5,713.67	1,102.15	784.09	318.07	3.465		
12,600.00	7,057.67	12,467.99	6,974.11	162.93	162.18	-85.65	161.86	-5,813.64	1,102.26	778.65	323.61	3.406		
12,700.00	7,057.39	12,567.97	6,972.36	165.73	164.99	-85.58	161.10	-5,913.61	1,102.38	773.21	329.16	3.349		
12,800.00	7,057.10	12,667.96	6,970.61	168.53	167.79	-85.50	160.35	-6,013.58	1,102.49	767.77	334.72	3.294		
12,900.00	7,056.82	12,767.95	6,968.86	171.33	170.60	-85.42	159.60	-6,113.55	1,102.61	762.34	340.27	3.240		
13,000.00	7,056.53	12,867.94	6,967.11	174.13	173.41	-85.35	158.85	-6,213.52	1,102.72	756.90	345.83	3.189		
13,100.00	7,056.25	12,967.93	6,965.36	176.94	176.22	-85.27	158.09	-6,313.50	1,102.84	751.46	351.38	3.139		
13,200.00	7,055.96	13,067.92	6,963.61	179.74	179.03	-85.20	157.34	-6,413.47	1,102.97	746.02	356.94	3.090		
13,300.00	7,055.68	13,167.91	6,961.86	182.55	181.85	-85.12	156.59	-6,513.44	1,103.09	740.59	362.50	3.043		
13,400.00	7,055.39	13,267.90	6,960.12	185.36	184.66	-85.05	155.84	-6,613.41	1,103.22	735.15	368.06	2.997		
13,500.00	7,055.11	13,367.89	6,958.37	188.17	187.48	-84.97	155.08	-6,713.38	1,103.34	729.72	373.63	2.953		
13,600.00	7,054.82	13,467.88	6,956.62	190.98	190.30	-84.89	154.33	-6,813.35	1,103.47	724.28	379.19	2.910		
13,700.00	7,054.54	13,567.87	6,954.87	193.80	193.12	-84.82	153.58	-6,913.32	1,103.61	718.85	384.75	2.868		
13,800.00	7,054.25	13,667.86	6,953.12	196.61	195.94	-84.74	152.83	-7,013.29	1,103.74	713.42	390.32	2.828		
13,900.00	7,053.97	13,767.85	6,951.37	199.43	198.76	-84.67	152.07	-7,113.26	1,103.88	707.99	395.88	2.788		
14,000.00	7,053.68	13,867.84	6,949.62	202.25	201.58	-84.59	151.32	-7,213.24	1,104.01	702.56	401.45	2.750		
14,100.00	7,053.40	13,967.82	6,947.87	205.06	204.40	-84.52	150.57	-7,313.21	1,104.15	697.14	407.01	2.713		
14,200.00	7,053.11	14,067.81	6,946.12	207.88	207.23	-84.44	149.81	-7,413.18	1,104.29	691.71	412.58	2.677		
14,300.00	7,052.83	14,167.80	6,944.37	210.70	210.05	-84.36	149.06	-7,513.15	1,104.44	686.29	418.15	2.641		
14,400.00	7,052.54	14,267.79	6,942.62	213.53	212.88	-84.29	148.31	-7,613.12	1,104.58	680.87	423.71	2.607		
14,500.00	7,052.26	14,367.78	6,940.87	216.35	215.70	-84.21	147.56	-7,713.09	1,104.73	675.45	429.28	2.573		
14,600.00	7,051.98	14,467.77	6,939.12	219.17	218.53	-84.14	146.80	-7,813.06	1,104.88	670.04	434.84	2.541		
14,700.00	7,051.69	14,567.76	6,937.37	222.00	221.36	-84.06	146.05	-7,913.03	1,105.03	664.63	440.40	2.509		
14,800.00	7,051.41	14,667.75	6,935.62	224.82	224.19	-83.99	145.30	-8,013.00	1,105.18	659.21	445.97	2.478		
14,900.00	7,051.12	14,767.74	6,933.88	227.65	227.02	-83.91	144.55	-8,112.98	1,105.34	653.81	451.53	2.448		
14,942.37	7,051.00	14,810.11	6,933.13	228.85	228.22	-83.88	144.23	-8,155.34	1,105.40	651.52	453.89	2.435 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2.00	0.00	3.28	3.28	-179.52	-300.18	-2.50	300.19					
100.00	100.00	102.00	100.00	3.28	3.29	-179.52	-300.18	-2.50	300.19	293.62	6.57	45.693		
200.00	200.00	198.00	200.00	3.34	3.34	-179.52	-300.18	-2.50	300.19	293.52	6.67	44.990 CC, ES		
300.00	300.00	288.75	290.74	3.44	3.43	-179.49	-301.54	-2.70	301.70	294.82	6.88	43.854		
400.00	399.98	379.02	380.90	3.60	3.56	-172.11	-305.72	-3.29	308.06	300.87	7.19	42.832		
500.00	499.84	468.45	470.06	3.81	3.73	-172.02	-312.63	-4.26	320.95	313.35	7.60	42.236		
600.00	599.45	556.48	557.57	4.06	3.94	-171.94	-322.12	-5.60	340.29	332.21	8.08	42.128		
700.00	698.70	642.61	642.85	4.34	4.19	-171.85	-333.97	-7.28	365.93	357.33	8.61	42.517		
800.00	797.47	733.84	732.87	4.64	4.50	-171.78	-348.64	-9.35	397.12	387.95	9.17	43.309		
900.00	895.65	827.69	825.45	4.98	4.85	-171.79	-363.88	-11.50	431.61	421.85	9.76	44.213		
1,000.00	993.66	921.24	917.73	5.32	5.24	-171.88	-379.08	-13.65	466.96	456.58	10.38	44.981		
1,100.00	1,091.67	1,014.78	1,010.00	5.69	5.64	-171.95	-394.27	-15.79	502.32	491.28	11.03	45.523		
1,200.00	1,189.68	1,108.32	1,102.27	6.09	6.07	-172.02	-409.46	-17.94	537.67	525.95	11.72	45.890		
1,300.00	1,287.69	1,201.86	1,194.55	6.49	6.51	-172.08	-424.65	-20.09	573.02	560.60	12.42	46.125		
1,400.00	1,385.69	1,304.60	1,286.82	6.90	7.00	-172.13	-439.84	-22.23	608.38	595.19	13.19	46.135		
1,500.00	1,483.70	1,388.94	1,379.10	7.33	7.42	-172.17	-455.04	-24.38	643.73	629.84	13.90	46.326		
1,600.00	1,581.71	1,482.48	1,471.37	7.76	7.89	-172.21	-470.23	-26.53	679.09	664.43	14.66	46.338		
1,700.00	1,679.72	1,576.02	1,563.64	8.19	8.36	-172.25	-485.42	-28.67	714.44	699.01	15.43	46.310		
1,800.00	1,777.73	1,669.56	1,655.92	8.63	8.84	-172.28	-500.61	-30.82	749.80	733.59	16.21	46.255		
1,900.00	1,875.74	1,763.10	1,748.19	9.08	9.33	-172.31	-515.81	-32.96	785.15	768.15	17.00	46.179		
2,000.00	1,973.75	1,856.64	1,840.47	9.53	9.82	-172.34	-531.00	-35.11	820.51	802.70	17.80	46.090		
2,100.00	2,071.76	1,950.18	1,932.74	9.98	10.31	-172.36	-546.19	-37.26	855.86	837.25	18.61	45.991		
2,200.00	2,169.77	2,043.72	2,025.01	10.44	10.81	-172.39	-561.38	-39.40	891.22	871.80	19.42	45.886		
2,300.00	2,267.77	2,137.26	2,117.29	10.90	11.31	-172.41	-576.57	-41.55	926.57	906.33	20.24	45.777		
2,400.00	2,365.78	2,230.81	2,209.56	11.36	11.81	-172.43	-591.77	-43.70	961.93	940.87	21.06	45.666		
2,500.00	2,463.79	2,324.35	2,301.83	11.82	12.31	-172.45	-606.96	-45.84	997.29	975.39	21.89	45.554		
2,600.00	2,561.80	2,417.89	2,394.11	12.28	12.82	-172.46	-622.15	-47.99	1,032.64	1,009.92	22.72	45.444		
2,700.00	2,659.81	2,511.43	2,486.38	12.75	13.32	-172.48	-637.34	-50.13	1,068.00	1,044.44	23.56	45.334		
2,800.00	2,757.82	2,604.97	2,578.66	13.21	13.83	-172.50	-652.54	-52.28	1,103.35	1,078.96	24.40	45.227		
2,900.00	2,855.83	2,701.49	2,670.93	13.68	14.35	-172.51	-667.73	-54.43	1,138.71	1,113.46	25.25	45.098		
3,000.00	2,953.84	2,807.95	2,763.20	14.15	14.94	-172.52	-682.92	-56.57	1,174.07	1,147.92	26.15	44.897		
3,100.00	3,051.85	2,885.59	2,855.48	14.62	15.36	-172.54	-698.11	-58.72	1,209.42	1,182.50	26.92	44.920		
3,200.00	3,149.85	2,979.13	2,947.75	15.09	15.87	-172.55	-713.30	-60.87	1,244.78	1,217.01	27.77	44.822		
3,300.00	3,247.86	3,072.67	3,040.02	15.56	16.38	-172.56	-728.50	-63.01	1,280.14	1,251.52	28.62	44.728		
3,400.00	3,345.87	3,166.21	3,132.30	16.04	16.90	-172.57	-743.69	-65.16	1,315.49	1,286.02	29.47	44.637		
3,500.00	3,443.88	3,259.75	3,224.57	16.51	17.41	-172.58	-758.88	-67.30	1,350.85	1,320.53	30.32	44.548		
3,600.00	3,541.89	3,353.29	3,316.85	16.98	17.93	-172.59	-774.07	-69.45	1,386.21	1,355.03	31.18	44.463		
3,700.00	3,639.90	3,446.83	3,409.12	17.46	18.44	-172.60	-789.26	-71.60	1,421.56	1,389.53	32.03	44.380		
3,800.00	3,737.91	3,540.38	3,501.39	17.93	18.96	-172.61	-804.46	-73.74	1,456.92	1,424.03	32.89	44.300		
3,900.00	3,835.92	3,633.92	3,593.67	18.41	19.47	-172.61	-819.65	-75.89	1,492.28	1,458.53	33.75	44.222		
4,000.00	3,933.93	3,727.46	3,685.94	18.88	19.99	-172.62	-834.84	-78.03	1,527.63	1,493.03	34.60	44.147		
4,100.00	4,031.93	3,821.00	3,778.22	19.36	20.51	-172.63	-850.03	-80.18	1,562.99	1,527.53	35.46	44.074		
4,200.00	4,129.94	3,914.54	3,870.49	19.84	21.03	-172.64	-865.23	-82.33	1,598.35	1,562.02	36.32	44.004		
4,300.00	4,227.95	4,008.08	3,962.76	20.31	21.54	-172.64	-880.42	-84.47	1,633.70	1,596.52	37.18	43.935		
4,400.00	4,325.96	4,101.62	4,055.04	20.79	22.06	-172.65	-895.61	-86.62	1,669.06	1,631.01	38.05	43.869		
4,500.00	4,423.97	4,204.84	4,147.31	21.27	22.64	-172.66	-910.80	-88.77	1,704.42	1,665.46	38.95	43.756		
4,600.00	4,521.98	4,288.70	4,239.58	21.75	23.10	-172.66	-925.99	-90.91	1,739.77	1,700.00	39.77	43.744		
4,700.00	4,619.99	4,382.24	4,331.86	22.23	23.62	-172.67	-941.19	-93.06	1,775.13	1,734.50	40.64	43.684		
4,800.00	4,718.00	4,475.78	4,424.13	22.70	24.14	-172.67	-956.38	-95.20	1,810.49	1,768.99	41.50	43.625		
4,900.00	4,816.01	4,569.32	4,516.41	23.18	24.66	-172.68	-971.57	-97.35	1,845.85	1,803.48	42.37	43.569		
5,000.00	4,914.01	4,662.86	4,608.68	23.66	25.18	-172.68	-986.76	-99.50	1,881.20	1,837.97	43.23	43.514		
5,100.00	5,012.02	4,756.40	4,700.95	24.14	25.70	-172.69	-1,001.96	-101.64	1,916.56	1,872.46	44.10	43.461		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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-MWID													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	5,110.03	4,849.94	4,793.23	24.62	26.22	-172.69	-1,017.15	-103.79	1,951.92	1,906.95	44.97	43.410		
5,300.00	5,208.04	4,943.49	4,885.50	25.10	26.74	-172.70	-1,032.34	-105.94	1,987.27	1,941.44	45.83	43.359		
5,400.00	5,306.05	5,037.03	4,977.77	25.58	27.26	-172.70	-1,047.53	-108.08	2,022.63	1,975.93	46.70	43.311		
5,500.00	5,404.06	5,130.57	5,070.05	26.06	27.78	-172.71	-1,062.72	-110.23	2,057.99	2,010.42	47.57	43.264		
5,600.00	5,502.07	5,224.11	5,162.32	26.54	28.30	-172.71	-1,077.92	-112.37	2,093.34	2,044.91	48.44	43.218		
5,700.00	5,600.08	5,317.65	5,254.60	27.02	28.82	-172.71	-1,093.11	-114.52	2,128.70	2,079.39	49.31	43.173		
5,800.00	5,698.09	5,411.19	5,346.87	27.50	29.34	-172.72	-1,108.30	-116.67	2,164.06	2,113.88	50.18	43.129		
5,900.00	5,796.09	5,504.73	5,439.14	27.98	29.87	-172.72	-1,123.49	-118.81	2,199.42	2,148.37	51.05	43.087		
6,000.00	5,894.10	5,601.73	5,531.42	28.46	30.41	-172.73	-1,138.68	-120.96	2,234.77	2,182.84	51.93	43.032		
6,100.00	5,992.11	5,708.19	5,623.69	28.94	31.00	-172.73	-1,153.88	-123.11	2,270.13	2,217.27	52.86	42.944		
6,200.00	6,090.12	5,785.35	5,715.97	29.42	31.43	-172.73	-1,169.07	-125.25	2,305.49	2,251.83	53.66	42.966		
6,300.00	6,188.13	5,878.89	5,808.24	29.90	31.95	-172.74	-1,184.26	-127.40	2,340.84	2,286.31	54.53	42.928		
6,400.00	6,286.14	5,972.43	5,900.51	30.38	32.47	-172.74	-1,199.45	-129.54	2,376.20	2,320.80	55.40	42.891		
6,500.00	6,384.15	6,065.97	5,992.79	30.87	33.00	-172.74	-1,214.65	-131.69	2,411.56	2,355.28	56.27	42.855		
6,600.00	6,482.15	6,159.51	6,085.06	31.35	33.52	-163.58	-1,229.84	-133.84	2,446.91	2,389.77	57.15	42.819		
6,700.00	6,579.21	6,252.42	6,176.70	31.83	34.04	-129.46	-1,244.93	-135.97	2,481.96	2,423.93	58.02	42.774		
6,800.00	6,673.04	6,342.60	6,265.67	32.30	34.54	-112.25	-1,259.57	-138.04	2,516.08	2,457.18	58.90	42.720		
6,900.00	6,761.33	6,427.85	6,349.77	32.74	35.02	-102.71	-1,273.42	-139.99	2,548.89	2,489.13	59.75	42.656		
7,000.00	6,841.90	6,506.07	6,426.92	33.17	35.45	-96.67	-1,286.12	-141.79	2,580.23	2,519.63	60.60	42.578		
7,100.00	6,912.77	6,575.32	6,495.24	33.60	35.84	-92.45	-1,297.37	-143.38	2,610.12	2,548.67	61.45	42.474		
7,200.00	6,972.19	6,633.91	6,553.03	34.09	36.17	-89.25	-1,306.89	-144.72	2,638.64	2,576.30	62.34	42.329		
7,300.00	7,018.70	6,680.39	6,598.88	34.73	36.43	-86.64	-1,314.43	-145.79	2,665.89	2,602.61	63.28	42.129		
7,400.00	7,051.15	6,713.62	6,631.66	35.55	36.61	-84.36	-1,319.83	-146.55	2,691.90	2,627.62	64.29	41.873		
7,500.00	7,068.75	6,845.39	6,760.48	36.56	37.35	-84.64	-1,341.13	-162.47	2,716.25	2,649.86	66.39	40.914		
7,600.00	7,071.91	7,727.81	7,247.88	37.71	43.67	-93.70	-1,425.64	-808.55	2,729.87	2,653.57	76.31	35.774		
7,700.00	7,071.62	7,827.81	7,247.35	39.03	45.06	-93.69	-1,426.22	-908.54	2,729.69	2,650.18	79.51	34.331		
7,800.00	7,071.34	7,927.81	7,246.82	40.51	46.69	-93.69	-1,426.80	-1,008.54	2,729.51	2,646.46	83.04	32.868		
7,900.00	7,071.05	8,027.81	7,246.30	42.14	48.53	-93.68	-1,427.39	-1,108.54	2,729.32	2,642.45	86.87	31.417		
8,000.00	7,070.77	8,127.81	7,245.77	43.89	50.55	-93.68	-1,427.97	-1,208.53	2,729.14	2,638.18	90.96	30.003		
8,100.00	7,070.48	8,227.81	7,245.24	45.76	52.73	-93.67	-1,428.56	-1,308.53	2,728.96	2,633.68	95.28	28.643		
8,200.00	7,070.20	8,327.81	7,244.71	47.72	55.04	-93.67	-1,429.14	-1,408.53	2,728.78	2,628.99	99.79	27.347		
8,300.00	7,069.92	8,427.81	7,244.18	49.78	57.47	-93.66	-1,429.73	-1,508.52	2,728.59	2,624.13	104.46	26.120		
8,400.00	7,069.63	8,527.81	7,243.65	51.90	60.00	-93.66	-1,430.31	-1,608.52	2,728.41	2,619.11	109.29	24.964		
8,500.00	7,069.35	8,627.81	7,243.12	54.10	62.61	-93.65	-1,430.89	-1,708.52	2,728.23	2,613.97	114.25	23.879		
8,600.00	7,069.06	8,727.81	7,242.60	56.36	65.30	-93.65	-1,431.48	-1,808.51	2,728.04	2,608.72	119.33	22.862		
8,700.00	7,068.78	8,827.81	7,242.07	58.66	68.04	-93.64	-1,432.06	-1,908.51	2,727.86	2,603.36	124.50	21.911		
8,800.00	7,068.49	8,927.81	7,241.54	61.02	70.85	-93.64	-1,432.65	-2,008.51	2,727.68	2,597.92	129.76	21.021		
8,900.00	7,068.21	9,027.81	7,241.01	63.42	73.69	-93.63	-1,433.23	-2,108.50	2,727.49	2,592.40	135.10	20.189		
9,000.00	7,067.92	9,127.81	7,240.48	65.85	76.58	-93.63	-1,433.82	-2,208.50	2,727.31	2,586.81	140.50	19.411		
9,100.00	7,067.64	9,227.80	7,239.95	68.32	79.51	-93.62	-1,434.40	-2,308.50	2,727.13	2,581.15	145.97	18.682		
9,200.00	7,067.35	9,327.80	7,239.42	70.81	82.47	-93.62	-1,434.98	-2,408.49	2,726.94	2,575.45	151.50	18.000		
9,300.00	7,067.07	9,427.80	7,238.89	73.34	85.46	-93.61	-1,435.57	-2,508.49	2,726.76	2,569.69	157.07	17.360		
9,400.00	7,066.78	9,527.80	7,238.37	75.88	88.47	-93.61	-1,436.15	-2,608.48	2,726.58	2,563.89	162.69	16.760		
9,500.00	7,066.50	9,627.80	7,237.84	78.45	91.51	-93.60	-1,436.74	-2,708.48	2,726.39	2,558.05	168.34	16.196		
9,600.00	7,066.21	9,727.80	7,237.31	81.04	94.57	-93.60	-1,437.32	-2,808.48	2,726.21	2,552.18	174.03	15.665		
9,700.00	7,065.93	9,827.80	7,236.78	83.64	97.65	-93.59	-1,437.91	-2,908.47	2,726.03	2,546.27	179.76	15.165		
9,800.00	7,065.64	9,927.80	7,236.25	86.26	100.74	-93.59	-1,438.49	-3,008.47	2,725.85	2,540.33	185.51	14.694		
9,900.00	7,065.36	10,027.80	7,235.72	88.90	103.85	-93.58	-1,439.08	-3,108.47	2,725.66	2,534.37	191.29	14.249		
10,000.00	7,065.07	10,127.80	7,235.19	91.55	106.97	-93.58	-1,439.66	-3,208.46	2,725.48	2,528.38	197.10	13.828		
10,100.00	7,064.79	10,227.80	7,234.66	94.21	110.11	-93.57	-1,440.24	-3,308.46	2,725.30	2,522.37	202.93	13.430		
10,200.00	7,064.50	10,327.80	7,234.14	96.88	113.25	-93.57	-1,440.83	-3,408.46	2,725.11	2,516.34	208.77	13.053		
10,300.00	7,064.22	10,427.80	7,233.61	99.57	116.41	-93.56	-1,441.41	-3,508.45	2,724.93	2,510.29	214.64	12.695		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,527.80	7,233.08	102.26	119.58	-93.56	-1,442.00	-3,608.45	2,724.75	2,504.22	220.52	12.356		
10,500.00	7,063.65	10,627.80	7,232.55	104.96	122.76	-93.55	-1,442.58	-3,708.45	2,724.57	2,498.14	226.42	12.033		
10,600.00	7,063.37	10,727.80	7,232.02	107.67	125.94	-93.55	-1,443.17	-3,808.44	2,724.38	2,492.04	232.34	11.726		
10,700.00	7,063.08	10,827.80	7,231.49	110.39	129.13	-93.54	-1,443.75	-3,908.44	2,724.20	2,485.93	238.27	11.433		
10,800.00	7,062.80	10,927.80	7,230.96	113.11	132.33	-93.54	-1,444.33	-4,008.43	2,724.02	2,479.81	244.21	11.155		
10,900.00	7,062.51	11,027.80	7,230.43	115.84	135.54	-93.53	-1,444.92	-4,108.43	2,723.83	2,473.67	250.16	10.888		
11,000.00	7,062.23	11,127.80	7,229.91	118.58	138.75	-93.53	-1,445.50	-4,208.43	2,723.65	2,467.53	256.12	10.634		
11,100.00	7,061.94	11,227.80	7,229.38	121.32	141.97	-93.53	-1,446.09	-4,308.42	2,723.47	2,461.37	262.10	10.391		
11,200.00	7,061.66	11,327.80	7,228.85	124.07	145.19	-93.52	-1,446.67	-4,408.42	2,723.29	2,455.21	268.08	10.158		
11,300.00	7,061.37	11,427.80	7,228.32	126.82	148.42	-93.52	-1,447.26	-4,508.42	2,723.10	2,449.03	274.07	9.936		
11,400.00	7,061.09	11,527.79	7,227.79	129.58	151.66	-93.51	-1,447.84	-4,608.41	2,722.92	2,442.85	280.07	9.722		
11,500.00	7,060.80	11,627.79	7,227.26	132.34	154.89	-93.51	-1,448.42	-4,708.41	2,722.74	2,436.66	286.08	9.517		
11,600.00	7,060.52	11,727.79	7,226.73	135.10	158.13	-93.50	-1,449.01	-4,808.41	2,722.56	2,430.46	292.10	9.321		
11,700.00	7,060.23	11,827.79	7,226.20	137.87	161.38	-93.50	-1,449.59	-4,908.40	2,722.37	2,424.25	298.12	9.132		
11,800.00	7,059.95	11,927.79	7,225.68	140.64	164.63	-93.49	-1,450.18	-5,008.40	2,722.19	2,418.04	304.15	8.950		
11,900.00	7,059.66	12,027.79	7,225.15	143.42	167.88	-93.49	-1,450.76	-5,108.40	2,722.01	2,411.82	310.19	8.775		
12,000.00	7,059.38	12,127.79	7,224.62	146.20	171.14	-93.48	-1,451.35	-5,208.39	2,721.83	2,405.60	316.23	8.607		
12,100.00	7,059.09	12,227.79	7,224.09	148.98	174.39	-93.48	-1,451.93	-5,308.39	2,721.64	2,399.37	322.27	8.445		
12,200.00	7,058.81	12,327.79	7,223.56	151.77	177.65	-93.47	-1,452.52	-5,408.39	2,721.46	2,393.14	328.33	8.289		
12,300.00	7,058.52	12,427.79	7,223.03	154.55	180.92	-93.47	-1,453.10	-5,508.38	2,721.28	2,386.90	334.38	8.138		
12,400.00	7,058.24	12,527.79	7,222.50	157.34	184.18	-93.46	-1,453.68	-5,608.38	2,721.10	2,380.65	340.44	7.993		
12,500.00	7,057.96	12,627.79	7,221.98	160.14	187.45	-93.46	-1,454.27	-5,708.37	2,720.91	2,374.41	346.51	7.852		
12,600.00	7,057.67	12,727.79	7,221.45	162.93	190.72	-93.45	-1,454.85	-5,808.37	2,720.73	2,368.15	352.58	7.717		
12,700.00	7,057.39	12,827.79	7,220.92	165.73	194.00	-93.45	-1,455.44	-5,908.37	2,720.55	2,361.90	358.65	7.585		
12,800.00	7,057.10	12,927.79	7,220.39	168.53	197.27	-93.44	-1,456.02	-6,008.36	2,720.37	2,355.64	364.73	7.459		
12,900.00	7,056.82	13,027.79	7,219.86	171.33	200.55	-93.44	-1,456.61	-6,108.36	2,720.18	2,349.37	370.81	7.336		
13,000.00	7,056.53	13,127.79	7,219.33	174.13	203.83	-93.43	-1,457.19	-6,208.36	2,720.00	2,343.11	376.90	7.217		
13,100.00	7,056.25	13,227.79	7,218.80	176.94	207.11	-93.43	-1,457.77	-6,308.35	2,719.82	2,336.84	382.98	7.102		
13,200.00	7,055.96	13,327.79	7,218.27	179.74	210.39	-93.42	-1,458.36	-6,408.35	2,719.64	2,330.56	389.07	6.990		
13,300.00	7,055.68	13,427.79	7,217.75	182.55	213.68	-93.42	-1,458.94	-6,508.35	2,719.46	2,324.29	395.17	6.882		
13,400.00	7,055.39	13,527.79	7,217.22	185.36	216.96	-93.41	-1,459.53	-6,608.34	2,719.27	2,318.01	401.26	6.777		
13,500.00	7,055.11	13,627.79	7,216.69	188.17	220.25	-93.41	-1,460.11	-6,708.34	2,719.09	2,311.73	407.36	6.675		
13,600.00	7,054.82	13,727.78	7,216.16	190.98	223.54	-93.40	-1,460.70	-6,808.34	2,718.91	2,305.44	413.47	6.576		
13,700.00	7,054.54	13,827.78	7,215.63	193.80	226.83	-93.40	-1,461.28	-6,908.33	2,718.73	2,299.16	419.57	6.480		
13,800.00	7,054.25	13,927.78	7,215.10	196.61	230.12	-93.39	-1,461.86	-7,008.33	2,718.54	2,292.87	425.68	6.386		
13,900.00	7,053.97	14,027.78	7,214.57	199.43	233.41	-93.39	-1,462.45	-7,108.33	2,718.36	2,286.58	431.79	6.296		
14,000.00	7,053.68	14,127.78	7,214.04	202.25	236.70	-93.38	-1,463.03	-7,208.32	2,718.18	2,280.28	437.90	6.207		
14,100.00	7,053.40	14,227.78	7,213.52	205.06	240.00	-93.38	-1,463.62	-7,308.32	2,718.00	2,273.99	444.01	6.121		
14,200.00	7,053.11	14,327.78	7,212.99	207.88	243.29	-93.37	-1,464.20	-7,408.31	2,717.82	2,267.69	450.13	6.038		
14,300.00	7,052.83	14,427.78	7,212.46	210.70	246.59	-93.37	-1,464.79	-7,508.31	2,717.63	2,261.39	456.24	5.957		
14,400.00	7,052.54	14,527.78	7,211.93	213.53	249.89	-93.36	-1,465.37	-7,608.31	2,717.45	2,255.09	462.36	5.877		
14,500.00	7,052.26	14,627.78	7,211.40	216.35	253.18	-93.36	-1,465.96	-7,708.30	2,717.27	2,248.79	468.48	5.800		
14,600.00	7,051.98	14,727.78	7,210.87	219.17	256.48	-93.35	-1,466.54	-7,808.30	2,717.09	2,242.48	474.60	5.725		
14,700.00	7,051.69	14,827.78	7,210.34	222.00	259.78	-93.35	-1,467.12	-7,908.30	2,716.91	2,236.18	480.73	5.652		
14,800.00	7,051.41	14,927.78	7,209.81	224.82	263.09	-93.34	-1,467.71	-8,008.29	2,716.72	2,229.87	486.85	5.580		
14,900.00	7,051.12	15,027.78	7,209.29	227.65	266.39	-93.34	-1,468.29	-8,108.29	2,716.54	2,223.56	492.98	5.510		
14,942.37	7,051.00	15,070.15	7,209.06	228.85	267.79	-93.34	-1,468.54	-8,150.66	2,716.47	2,220.89	495.58	5.481 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	-179.47	-180.33	-1.67	180.33					
100.00	100.00	101.00	100.00	3.28	3.28	-179.47	-180.33	-1.67	180.33	173.77	6.57	27.450		
200.00	200.00	201.00	200.00	3.34	3.34	-179.47	-180.33	-1.67	180.33	173.66	6.67	27.017		
300.00	300.00	301.00	300.00	3.44	3.45	-179.47	-180.33	-1.67	180.33	173.44	6.89	26.169 CC, ES		
400.00	399.98	401.02	399.98	3.60	3.61	-172.24	-180.33	-1.67	182.06	174.85	7.21	25.255		
500.00	499.84	498.84	499.84	3.81	3.80	-172.44	-180.33	-1.67	187.25	179.64	7.61	24.594		
600.00	599.45	592.42	593.40	4.06	4.02	-172.59	-181.74	-2.13	197.40	189.32	8.08	24.428		
700.00	698.70	684.72	685.59	4.34	4.25	-172.57	-185.98	-3.52	214.04	205.43	8.60	24.874		
800.00	797.47	779.21	779.82	4.64	4.51	-172.43	-192.76	-5.75	236.59	227.41	9.17	25.787		
900.00	895.65	875.75	876.06	4.98	4.80	-172.40	-199.96	-8.11	262.66	252.87	9.79	26.826		
1,000.00	993.66	972.05	972.06	5.32	5.11	-172.44	-207.14	-10.46	289.61	279.18	10.43	27.772		
1,100.00	1,091.67	1,068.35	1,068.06	5.69	5.43	-172.47	-214.32	-12.82	316.55	305.46	11.10	28.519		
1,200.00	1,189.68	1,164.65	1,164.07	6.09	5.78	-172.50	-221.50	-15.18	343.50	331.70	11.80	29.112		
1,300.00	1,287.69	1,260.95	1,260.07	6.49	6.13	-172.52	-228.68	-17.53	370.45	357.93	12.52	29.583		
1,400.00	1,385.69	1,357.25	1,356.07	6.90	6.49	-172.54	-235.85	-19.89	397.40	384.14	13.26	29.959		
1,500.00	1,483.70	1,453.55	1,452.08	7.33	6.86	-172.55	-243.03	-22.24	424.35	410.33	14.02	30.259		
1,600.00	1,581.71	1,549.85	1,548.08	7.76	7.24	-172.57	-250.21	-24.60	451.30	436.50	14.80	30.500		
1,700.00	1,679.72	1,646.16	1,644.08	8.19	7.63	-172.58	-257.39	-26.95	478.25	462.67	15.58	30.694		
1,800.00	1,777.73	1,742.46	1,740.09	8.63	8.02	-172.60	-264.57	-29.31	505.20	488.82	16.38	30.850		
1,900.00	1,875.74	1,838.76	1,836.09	9.08	8.41	-172.61	-271.75	-31.66	532.15	514.97	17.18	30.975		
2,000.00	1,973.75	1,935.06	1,932.09	9.53	8.81	-172.62	-278.93	-34.02	559.10	541.11	17.99	31.077		
2,100.00	2,071.76	2,031.36	2,028.10	9.98	9.21	-172.62	-286.11	-36.38	586.05	567.24	18.81	31.159		
2,200.00	2,169.77	2,127.66	2,124.10	10.44	9.62	-172.63	-293.29	-38.73	613.00	593.37	19.63	31.224		
2,300.00	2,267.77	2,223.96	2,220.10	10.90	10.02	-172.64	-300.47	-41.09	639.95	619.49	20.46	31.277		
2,400.00	2,365.78	2,320.26	2,316.11	11.36	10.43	-172.65	-307.65	-43.44	666.90	645.60	21.29	31.319		
2,500.00	2,463.79	2,416.56	2,412.11	11.82	10.85	-172.65	-314.83	-45.80	693.85	671.72	22.13	31.353		
2,600.00	2,561.80	2,512.86	2,508.11	12.28	11.26	-172.66	-322.01	-48.15	720.80	697.82	22.97	31.379		
2,700.00	2,659.81	2,609.16	2,604.12	12.75	11.67	-172.66	-329.19	-50.51	747.74	723.93	23.81	31.399		
2,800.00	2,757.82	2,705.46	2,700.12	13.21	12.09	-172.67	-336.37	-52.86	774.69	750.03	24.66	31.414		
2,900.00	2,855.83	2,801.76	2,796.12	13.68	12.51	-172.67	-343.55	-55.22	801.64	776.13	25.51	31.425		
3,000.00	2,953.84	2,901.94	2,892.13	14.15	12.94	-172.68	-350.73	-57.57	828.59	802.22	26.38	31.413		
3,100.00	3,051.85	3,005.64	2,988.13	14.62	13.40	-172.68	-357.90	-59.93	855.54	828.28	27.26	31.381		
3,200.00	3,149.85	3,109.34	3,084.13	15.09	13.85	-172.69	-365.08	-62.29	882.49	854.34	28.15	31.349		
3,300.00	3,247.86	3,186.96	3,180.14	15.56	14.19	-172.69	-372.26	-64.64	909.44	880.51	28.93	31.439		
3,400.00	3,345.87	3,283.26	3,276.14	16.04	14.61	-172.69	-379.44	-67.00	936.39	906.61	29.79	31.438		
3,500.00	3,443.88	3,379.56	3,372.14	16.51	15.03	-172.70	-386.62	-69.35	963.34	932.69	30.65	31.435		
3,600.00	3,541.89	3,475.86	3,468.15	16.98	15.46	-172.70	-393.80	-71.71	990.29	958.78	31.51	31.431		
3,700.00	3,639.90	3,572.16	3,564.15	17.46	15.88	-172.70	-400.98	-74.06	1,017.24	984.87	32.37	31.426		
3,800.00	3,737.91	3,668.46	3,660.15	17.93	16.31	-172.71	-408.16	-76.42	1,044.19	1,010.96	33.23	31.420		
3,900.00	3,835.92	3,764.76	3,756.16	18.41	16.73	-172.71	-415.34	-78.77	1,071.14	1,037.04	34.10	31.413		
4,000.00	3,933.93	3,861.06	3,852.16	18.88	17.16	-172.71	-422.52	-81.13	1,098.09	1,063.12	34.96	31.406		
4,100.00	4,031.93	3,957.36	3,948.16	19.36	17.58	-172.71	-429.70	-83.48	1,125.04	1,089.21	35.83	31.399		
4,200.00	4,129.94	4,053.66	4,044.17	19.84	18.01	-172.71	-436.88	-85.84	1,151.99	1,115.29	36.70	31.391		
4,300.00	4,227.95	4,149.96	4,140.17	20.31	18.44	-172.72	-444.06	-88.20	1,178.94	1,141.37	37.57	31.383		
4,400.00	4,325.96	4,246.26	4,236.17	20.79	18.87	-172.72	-451.24	-90.55	1,205.89	1,167.45	38.44	31.374		
4,500.00	4,423.97	4,342.56	4,332.18	21.27	19.29	-172.72	-458.42	-92.91	1,232.84	1,193.53	39.31	31.365		
4,600.00	4,521.98	4,438.86	4,428.18	21.75	19.72	-172.72	-465.60	-95.26	1,259.78	1,219.61	40.18	31.357		
4,700.00	4,619.99	4,535.16	4,524.18	22.23	20.15	-172.72	-472.78	-97.62	1,286.73	1,245.69	41.05	31.348		
4,800.00	4,718.00	4,631.46	4,620.19	22.70	20.58	-172.73	-479.96	-99.97	1,313.68	1,271.77	41.92	31.339		
4,900.00	4,816.01	4,727.76	4,716.19	23.18	21.01	-172.73	-487.13	-102.33	1,340.63	1,297.84	42.79	31.330		
5,000.00	4,914.01	4,824.06	4,812.19	23.66	21.44	-172.73	-494.31	-104.68	1,367.58	1,323.92	43.66	31.321		
5,100.00	5,012.02	4,920.36	4,908.20	24.14	21.87	-172.73	-501.49	-107.04	1,394.53	1,350.00	44.54	31.312		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,016.66	5,004.20	24.62	22.30	-172.73	-508.67	-109.39	1,421.48	1,376.07	45.41	31.303		
5,300.00	5,208.04	5,112.96	5,100.20	25.10	22.73	-172.73	-515.85	-111.75	1,448.43	1,402.15	46.28	31.294		
5,400.00	5,306.05	5,209.26	5,196.21	25.58	23.16	-172.74	-523.03	-114.11	1,475.38	1,428.22	47.16	31.285		
5,500.00	5,404.06	5,305.56	5,292.21	26.06	23.59	-172.74	-530.21	-116.46	1,502.33	1,454.30	48.03	31.277		
5,600.00	5,502.07	5,401.86	5,388.21	26.54	24.02	-172.74	-537.39	-118.82	1,529.28	1,480.37	48.91	31.268		
5,700.00	5,600.08	5,501.84	5,484.22	27.02	24.47	-172.74	-544.57	-121.17	1,556.23	1,506.43	49.80	31.249		
5,800.00	5,698.09	5,605.54	5,580.22	27.50	24.93	-172.74	-551.75	-123.53	1,583.18	1,532.47	50.71	31.221		
5,900.00	5,796.09	5,709.24	5,676.22	27.98	25.39	-172.74	-558.93	-125.88	1,610.13	1,558.51	51.62	31.193		
6,000.00	5,894.10	5,787.06	5,772.23	28.46	25.74	-172.74	-566.11	-128.24	1,637.08	1,584.66	52.41	31.234		
6,100.00	5,992.11	5,883.36	5,868.23	28.94	26.17	-172.74	-573.29	-130.59	1,664.03	1,610.74	53.29	31.225		
6,200.00	6,090.12	5,979.66	5,964.23	29.42	26.60	-172.74	-580.47	-132.95	1,690.98	1,636.81	54.17	31.217		
6,300.00	6,188.13	6,075.96	6,060.24	29.90	27.04	-172.75	-587.65	-135.31	1,717.93	1,662.88	55.05	31.209		
6,400.00	6,286.14	6,172.26	6,156.24	30.38	27.47	-172.75	-594.83	-137.66	1,744.88	1,688.95	55.92	31.201		
6,500.00	6,384.15	6,268.56	6,252.24	30.87	27.90	-172.75	-602.01	-140.02	1,771.83	1,715.02	56.80	31.193		
6,600.00	6,482.15	6,364.86	6,348.24	31.35	28.33	-163.76	-609.18	-142.37	1,798.77	1,741.09	57.68	31.185		
6,700.00	6,579.21	6,460.51	6,443.59	31.83	28.76	-130.60	-616.32	-144.71	1,825.48	1,766.92	58.56	31.174		
6,800.00	6,673.04	6,553.36	6,536.16	32.30	29.18	-114.41	-623.24	-146.98	1,851.58	1,792.16	59.42	31.160		
6,900.00	6,761.33	6,641.13	6,623.66	32.74	29.57	-105.89	-629.78	-149.13	1,877.06	1,816.80	60.26	31.149		
7,000.00	6,841.90	6,740.82	6,722.46	33.17	30.02	-100.99	-637.23	-159.13	1,901.76	1,840.52	61.24	31.055		
7,100.00	6,912.77	6,851.69	6,828.99	33.60	30.50	-97.93	-645.41	-188.23	1,924.96	1,862.61	62.35	30.872		
7,200.00	6,972.19	6,977.13	6,941.33	34.09	31.01	-96.09	-654.23	-242.87	1,945.92	1,882.28	63.63	30.580		
7,300.00	7,018.70	7,121.09	7,054.17	34.73	31.56	-95.13	-663.37	-331.29	1,963.73	1,898.58	65.15	30.143		
7,400.00	7,051.15	7,286.56	7,155.59	35.55	32.33	-94.81	-671.99	-461.17	1,977.31	1,910.24	67.06	29.484		
7,500.00	7,068.75	7,472.63	7,225.53	36.56	33.78	-94.85	-678.60	-632.76	1,985.46	1,915.77	69.69	28.490		
7,600.00	7,071.91	7,650.12	7,243.92	37.71	35.75	-94.97	-681.40	-808.73	1,987.43	1,914.52	72.91	27.259		
7,700.00	7,071.62	7,750.12	7,243.52	39.03	37.10	-94.96	-682.18	-908.72	1,987.45	1,911.83	75.62	26.282		
7,800.00	7,071.34	7,850.12	7,243.13	40.51	38.61	-94.96	-682.96	-1,008.72	1,987.47	1,908.83	78.64	25.273		
7,900.00	7,071.05	7,950.12	7,242.74	42.14	40.26	-94.96	-683.74	-1,108.71	1,987.49	1,905.55	81.94	24.254		
8,000.00	7,070.77	8,050.12	7,242.34	43.89	42.05	-94.95	-684.52	-1,208.71	1,987.51	1,902.01	85.50	23.245		
8,100.00	7,070.48	8,150.12	7,241.95	45.76	43.95	-94.95	-685.31	-1,308.71	1,987.53	1,898.25	89.28	22.261		
8,200.00	7,070.20	8,250.12	7,241.56	47.72	45.95	-94.95	-686.09	-1,408.70	1,987.55	1,894.29	93.26	21.312		
8,300.00	7,069.92	8,350.12	7,241.16	49.78	48.04	-94.94	-686.87	-1,508.70	1,987.57	1,890.16	97.41	20.405		
8,400.00	7,069.63	8,450.12	7,240.77	51.90	50.20	-94.94	-687.65	-1,608.69	1,987.59	1,885.89	101.71	19.543		
8,500.00	7,069.35	8,550.12	7,240.38	54.10	52.43	-94.94	-688.44	-1,708.69	1,987.61	1,881.48	106.14	18.727		
8,600.00	7,069.06	8,650.12	7,239.98	56.36	54.72	-94.93	-689.22	-1,808.69	1,987.63	1,876.95	110.68	17.958		
8,700.00	7,068.78	8,750.12	7,239.59	58.66	57.06	-94.93	-690.00	-1,908.68	1,987.65	1,872.32	115.33	17.234		
8,800.00	7,068.49	8,850.12	7,239.20	61.02	59.44	-94.93	-690.78	-2,008.68	1,987.67	1,867.60	120.07	16.554		
8,900.00	7,068.21	8,950.12	7,238.80	63.42	61.87	-94.92	-691.56	-2,108.68	1,987.69	1,862.80	124.89	15.915		
9,000.00	7,067.92	9,050.12	7,238.41	65.85	64.33	-94.92	-692.35	-2,208.67	1,987.72	1,857.93	129.78	15.316		
9,100.00	7,067.64	9,150.12	7,238.02	68.32	66.82	-94.92	-693.13	-2,308.67	1,987.74	1,853.00	134.74	14.753		
9,200.00	7,067.35	9,250.12	7,237.62	70.81	69.34	-94.91	-693.91	-2,408.66	1,987.76	1,848.01	139.75	14.224		
9,300.00	7,067.07	9,350.12	7,237.23	73.34	71.89	-94.91	-694.69	-2,508.66	1,987.78	1,842.96	144.81	13.726		
9,400.00	7,066.78	9,450.12	7,236.84	75.88	74.46	-94.91	-695.48	-2,608.66	1,987.80	1,837.88	149.92	13.259		
9,500.00	7,066.50	9,550.11	7,236.44	78.45	77.05	-94.90	-696.26	-2,708.65	1,987.82	1,832.75	155.07	12.819		
9,600.00	7,066.21	9,650.11	7,236.05	81.04	79.65	-94.90	-697.04	-2,808.65	1,987.84	1,827.58	160.26	12.404		
9,700.00	7,065.93	9,750.11	7,235.66	83.64	82.28	-94.90	-697.82	-2,908.64	1,987.86	1,822.38	165.48	12.013		
9,800.00	7,065.64	9,850.11	7,235.26	86.26	84.92	-94.89	-698.60	-3,008.64	1,987.88	1,817.15	170.73	11.643		
9,900.00	7,065.36	9,950.11	7,234.87	88.90	87.57	-94.89	-699.39	-3,108.64	1,987.90	1,811.89	176.01	11.294		
10,000.00	7,065.07	10,050.11	7,234.48	91.55	90.24	-94.89	-700.17	-3,208.63	1,987.92	1,806.60	181.32	10.964		
10,100.00	7,064.79	10,150.11	7,234.08	94.21	92.91	-94.89	-700.95	-3,308.63	1,987.94	1,801.30	186.64	10.651		
10,200.00	7,064.50	10,250.11	7,233.69	96.88	95.60	-94.88	-701.73	-3,408.62	1,987.96	1,795.97	191.99	10.354		
10,300.00	7,064.22	10,350.11	7,233.30	99.57	98.30	-94.88	-702.52	-3,508.62	1,987.98	1,790.62	197.36	10.073		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32C-16-M2 - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,450.11	7,232.90	102.26	101.01	-94.88	-703.30	-3,608.62	1,988.00	1,785.25	202.75	9.805		
10,500.00	7,063.65	10,550.11	7,232.51	104.96	103.72	-94.87	-704.08	-3,708.61	1,988.02	1,779.87	208.15	9.551		
10,600.00	7,063.37	10,650.11	7,232.12	107.67	106.44	-94.87	-704.86	-3,808.61	1,988.04	1,774.47	213.57	9.308		
10,700.00	7,063.08	10,750.11	7,231.72	110.39	109.17	-94.87	-705.64	-3,908.61	1,988.06	1,769.06	219.01	9.078		
10,800.00	7,062.80	10,850.11	7,231.33	113.11	111.91	-94.86	-706.43	-4,008.60	1,988.08	1,763.63	224.46	8.857		
10,900.00	7,062.51	10,950.11	7,230.94	115.84	114.65	-94.86	-707.21	-4,108.60	1,988.10	1,758.19	229.91	8.647		
11,000.00	7,062.23	11,050.11	7,230.54	118.58	117.40	-94.86	-707.99	-4,208.59	1,988.13	1,752.74	235.39	8.446		
11,100.00	7,061.94	11,150.11	7,230.15	121.32	120.15	-94.85	-708.77	-4,308.59	1,988.15	1,747.28	240.87	8.254		
11,200.00	7,061.66	11,250.11	7,229.76	124.07	122.90	-94.85	-709.56	-4,408.59	1,988.17	1,741.81	246.36	8.070		
11,300.00	7,061.37	11,350.11	7,229.36	126.82	125.67	-94.85	-710.34	-4,508.58	1,988.19	1,736.33	251.86	7.894		
11,400.00	7,061.09	11,450.11	7,228.97	129.58	128.43	-94.84	-711.12	-4,608.58	1,988.21	1,730.84	257.37	7.725		
11,500.00	7,060.80	11,550.11	7,228.58	132.34	131.20	-94.84	-711.90	-4,708.57	1,988.23	1,725.34	262.89	7.563		
11,600.00	7,060.52	11,650.11	7,228.18	135.10	133.97	-94.84	-712.68	-4,808.57	1,988.25	1,719.84	268.41	7.407		
11,700.00	7,060.23	11,750.11	7,227.79	137.87	136.75	-94.83	-713.47	-4,908.57	1,988.27	1,714.32	273.95	7.258		
11,800.00	7,059.95	11,850.11	7,227.40	140.64	139.53	-94.83	-714.25	-5,008.56	1,988.29	1,708.81	279.49	7.114		
11,900.00	7,059.66	11,950.11	7,227.01	143.42	142.32	-94.83	-715.03	-5,108.56	1,988.31	1,703.28	285.03	6.976		
12,000.00	7,059.38	12,050.11	7,226.61	146.20	145.10	-94.82	-715.81	-5,208.55	1,988.33	1,697.75	290.58	6.843		
12,100.00	7,059.09	12,150.11	7,226.22	148.98	147.89	-94.82	-716.59	-5,308.55	1,988.35	1,692.21	296.14	6.714		
12,200.00	7,058.81	12,250.11	7,225.83	151.77	150.68	-94.82	-717.38	-5,408.55	1,988.37	1,686.67	301.70	6.590		
12,300.00	7,058.52	12,350.11	7,225.43	154.55	153.48	-94.82	-718.16	-5,508.54	1,988.39	1,681.12	307.27	6.471		
12,400.00	7,058.24	12,450.11	7,225.04	157.34	156.27	-94.81	-718.94	-5,608.54	1,988.41	1,675.57	312.85	6.356		
12,500.00	7,057.96	12,550.11	7,224.65	160.14	159.07	-94.81	-719.72	-5,708.54	1,988.43	1,670.01	318.42	6.245		
12,600.00	7,057.67	12,650.11	7,224.25	162.93	161.87	-94.81	-720.51	-5,808.53	1,988.46	1,664.45	324.00	6.137		
12,700.00	7,057.39	12,750.11	7,223.86	165.73	164.67	-94.80	-721.29	-5,908.53	1,988.48	1,658.89	329.59	6.033		
12,800.00	7,057.10	12,850.11	7,223.47	168.53	167.48	-94.80	-722.07	-6,008.52	1,988.50	1,653.32	335.18	5.933		
12,900.00	7,056.82	12,950.11	7,223.07	171.33	170.28	-94.80	-722.85	-6,108.52	1,988.52	1,647.74	340.77	5.835		
13,000.00	7,056.53	13,050.11	7,222.68	174.13	173.09	-94.79	-723.63	-6,208.52	1,988.54	1,642.17	346.37	5.741		
13,100.00	7,056.25	13,150.11	7,222.29	176.94	175.90	-94.79	-724.42	-6,308.51	1,988.56	1,636.59	351.97	5.650		
13,200.00	7,055.96	13,250.11	7,221.89	179.74	178.71	-94.79	-725.20	-6,408.51	1,988.58	1,631.00	357.58	5.561		
13,300.00	7,055.68	13,350.11	7,221.50	182.55	181.53	-94.78	-725.98	-6,508.50	1,988.60	1,625.42	363.18	5.475		
13,400.00	7,055.39	13,450.11	7,221.11	185.36	184.34	-94.78	-726.76	-6,608.50	1,988.62	1,619.83	368.79	5.392		
13,500.00	7,055.11	13,550.11	7,220.71	188.17	187.16	-94.78	-727.55	-6,708.50	1,988.64	1,614.24	374.41	5.311		
13,600.00	7,054.82	13,650.11	7,220.32	190.98	189.97	-94.77	-728.33	-6,808.49	1,988.66	1,608.64	380.02	5.233		
13,700.00	7,054.54	13,750.11	7,219.93	193.80	192.79	-94.77	-729.11	-6,908.49	1,988.68	1,603.04	385.64	5.157		
13,800.00	7,054.25	13,850.11	7,219.53	196.61	195.61	-94.77	-729.89	-7,008.48	1,988.70	1,597.44	391.26	5.083		
13,900.00	7,053.97	13,950.11	7,219.14	199.43	198.43	-94.76	-730.67	-7,108.48	1,988.72	1,591.84	396.88	5.011		
14,000.00	7,053.68	14,050.11	7,218.75	202.25	201.25	-94.76	-731.46	-7,208.48	1,988.75	1,586.24	402.51	4.941		
14,100.00	7,053.40	14,150.11	7,218.35	205.06	204.07	-94.76	-732.24	-7,308.47	1,988.77	1,580.63	408.13	4.873		
14,200.00	7,053.11	14,250.11	7,217.96	207.88	206.90	-94.75	-733.02	-7,408.47	1,988.79	1,575.02	413.76	4.807		
14,300.00	7,052.83	14,350.11	7,217.57	210.70	209.72	-94.75	-733.80	-7,508.46	1,988.81	1,569.41	419.40	4.742		
14,400.00	7,052.54	14,450.11	7,217.17	213.53	212.55	-94.75	-734.59	-7,608.46	1,988.83	1,563.80	425.03	4.679		
14,500.00	7,052.26	14,550.11	7,216.78	216.35	215.37	-94.74	-735.37	-7,708.46	1,988.85	1,558.19	430.66	4.618		
14,600.00	7,051.98	14,650.11	7,216.39	219.17	218.20	-94.74	-736.15	-7,808.45	1,988.87	1,552.57	436.30	4.558		
14,700.00	7,051.69	14,750.11	7,215.99	222.00	221.03	-94.74	-736.93	-7,908.45	1,988.89	1,546.95	441.94	4.500		
14,800.00	7,051.41	14,850.11	7,215.60	224.82	223.85	-94.74	-737.71	-8,008.45	1,988.91	1,541.33	447.58	4.444		
14,900.00	7,051.12	14,950.11	7,215.21	227.65	226.68	-94.73	-738.50	-8,108.44	1,988.93	1,535.71	453.22	4.388		
14,942.37	7,051.00	14,992.48	7,215.04	228.85	227.88	-94.73	-738.83	-8,150.81	1,988.94	1,533.33	455.61	4.365 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2.00	0.00	3.28	3.28	-179.49	-280.15	-2.50	280.16					
100.00	100.00	102.00	100.00	3.28	3.29	-179.49	-280.15	-2.50	280.16	273.59	6.57	42.643		
200.00	200.00	202.00	200.00	3.34	3.34	-179.49	-280.15	-2.50	280.16	273.48	6.68	41.967		
300.00	300.00	298.00	300.00	3.44	3.44	-179.49	-280.15	-2.50	280.16	273.27	6.89	40.679 CC, ES		
400.00	399.98	389.28	391.27	3.60	3.58	-172.18	-281.52	-2.74	283.39	276.20	7.19	39.414		
500.00	499.84	479.81	481.69	3.81	3.75	-172.14	-285.70	-3.47	293.20	285.61	7.59	38.650		
600.00	599.45	569.19	570.79	4.06	3.95	-172.08	-292.60	-4.67	309.51	301.45	8.06	38.414		
700.00	698.70	656.89	657.97	4.34	4.17	-172.00	-302.02	-6.30	332.19	323.61	8.58	38.699		
800.00	797.47	746.85	747.08	4.64	4.43	-171.92	-314.14	-8.40	360.85	351.71	9.15	39.453		
900.00	895.65	841.48	840.76	4.98	4.72	-171.91	-327.33	-10.69	393.16	383.41	9.75	40.323		
1,000.00	993.66	935.82	934.15	5.32	5.04	-171.97	-340.48	-12.98	426.32	415.96	10.37	41.114		
1,100.00	1,091.67	1,030.16	1,027.54	5.69	5.38	-172.03	-353.63	-15.26	459.49	448.47	11.03	41.673		
1,200.00	1,189.68	1,124.50	1,120.93	6.09	5.74	-172.08	-366.78	-17.54	492.66	480.95	11.71	42.066		
1,300.00	1,287.69	1,218.84	1,214.32	6.49	6.10	-172.13	-379.93	-19.83	525.83	513.40	12.42	42.333		
1,400.00	1,385.69	1,313.18	1,307.71	6.90	6.48	-172.16	-393.08	-22.11	558.99	545.84	13.15	42.505		
1,500.00	1,483.70	1,407.52	1,401.10	7.33	6.86	-172.20	-406.23	-24.39	592.16	578.26	13.90	42.607		
1,600.00	1,581.71	1,501.86	1,494.49	7.76	7.26	-172.23	-419.38	-26.68	625.33	610.67	14.66	42.655		
1,700.00	1,679.72	1,603.81	1,587.88	8.19	7.69	-172.26	-432.53	-28.96	658.50	643.03	15.46	42.580		
1,800.00	1,777.73	1,690.53	1,681.27	8.63	8.06	-172.28	-445.69	-31.24	691.67	675.45	16.22	42.646		
1,900.00	1,875.74	1,784.87	1,774.66	9.08	8.47	-172.30	-458.84	-33.53	724.83	707.82	17.01	42.606		
2,000.00	1,973.75	1,879.21	1,868.05	9.53	8.88	-172.32	-471.99	-35.81	758.00	740.19	17.81	42.551		
2,100.00	2,071.76	1,973.55	1,961.44	9.98	9.29	-172.34	-485.14	-38.09	791.17	772.55	18.62	42.485		
2,200.00	2,169.77	2,067.89	2,054.83	10.44	9.71	-172.36	-498.29	-40.37	824.34	804.90	19.44	42.411		
2,300.00	2,267.77	2,162.23	2,148.22	10.90	10.13	-172.38	-511.44	-42.66	857.51	837.25	20.26	42.332		
2,400.00	2,365.78	2,256.56	2,241.61	11.36	10.56	-172.39	-524.59	-44.94	890.68	869.60	21.08	42.250		
2,500.00	2,463.79	2,350.90	2,335.00	11.82	10.98	-172.41	-537.74	-47.22	923.85	901.94	21.91	42.166		
2,600.00	2,561.80	2,445.24	2,428.39	12.28	11.41	-172.42	-550.89	-49.51	957.01	934.27	22.74	42.082		
2,700.00	2,659.81	2,539.58	2,521.78	12.75	11.84	-172.43	-564.04	-51.79	990.18	966.61	23.58	41.997		
2,800.00	2,757.82	2,633.92	2,615.17	13.21	12.27	-172.44	-577.19	-54.07	1,023.35	998.94	24.42	41.913		
2,900.00	2,855.83	2,728.26	2,708.56	13.68	12.70	-172.45	-590.34	-56.36	1,056.52	1,031.26	25.26	41.831		
3,000.00	2,953.84	2,822.60	2,801.95	14.15	13.13	-172.46	-603.49	-58.64	1,089.69	1,063.59	26.10	41.750		
3,100.00	3,051.85	2,916.94	2,895.34	14.62	13.56	-172.47	-616.64	-60.92	1,122.86	1,095.91	26.95	41.670		
3,200.00	3,149.85	3,011.27	2,988.73	15.09	14.00	-172.48	-629.79	-63.21	1,156.03	1,128.23	27.79	41.592		
3,300.00	3,247.86	3,105.61	3,082.12	15.56	14.43	-172.49	-642.94	-65.49	1,189.20	1,160.55	28.64	41.517		
3,400.00	3,345.87	3,200.05	3,175.51	16.04	14.87	-172.50	-656.09	-67.77	1,222.37	1,192.87	29.50	41.443		
3,500.00	3,443.88	3,305.71	3,268.90	16.51	15.36	-172.50	-669.24	-70.05	1,255.54	1,225.14	30.40	41.303		
3,600.00	3,541.89	3,388.63	3,362.29	16.98	15.74	-172.51	-682.39	-72.34	1,288.70	1,257.50	31.20	41.302		
3,700.00	3,639.90	3,482.97	3,455.68	17.46	16.18	-172.52	-695.54	-74.62	1,321.87	1,289.82	32.06	41.235		
3,800.00	3,737.91	3,577.31	3,549.07	17.93	16.62	-172.52	-708.69	-76.90	1,355.04	1,322.13	32.91	41.169		
3,900.00	3,835.92	3,671.65	3,642.46	18.41	17.05	-172.53	-721.85	-79.19	1,388.21	1,354.44	33.77	41.106		
4,000.00	3,933.93	3,765.98	3,735.85	18.88	17.49	-172.53	-735.00	-81.47	1,421.38	1,386.75	34.63	41.044		
4,100.00	4,031.93	3,860.32	3,829.24	19.36	17.93	-172.54	-748.15	-83.75	1,454.55	1,419.06	35.49	40.985		
4,200.00	4,129.94	3,954.66	3,922.62	19.84	18.37	-172.54	-761.30	-86.04	1,487.72	1,451.37	36.35	40.927		
4,300.00	4,227.95	4,049.00	4,016.01	20.31	18.81	-172.55	-774.45	-88.32	1,520.89	1,483.68	37.21	40.871		
4,400.00	4,325.96	4,143.34	4,109.40	20.79	19.26	-172.55	-787.60	-90.60	1,554.06	1,515.98	38.07	40.816		
4,500.00	4,423.97	4,237.68	4,202.79	21.27	19.70	-172.56	-800.75	-92.89	1,587.23	1,548.29	38.94	40.763		
4,600.00	4,521.98	4,332.02	4,296.18	21.75	20.14	-172.56	-813.90	-95.17	1,620.40	1,580.60	39.80	40.712		
4,700.00	4,619.99	4,426.35	4,389.57	22.23	20.58	-172.57	-827.05	-97.45	1,653.57	1,612.90	40.67	40.663		
4,800.00	4,718.00	4,520.69	4,482.96	22.70	21.02	-172.57	-840.20	-99.73	1,686.74	1,645.20	41.53	40.614		
4,900.00	4,816.01	4,615.03	4,576.35	23.18	21.46	-172.58	-853.35	-102.02	1,719.90	1,677.51	42.40	40.568		
5,000.00	4,914.01	4,709.37	4,669.74	23.66	21.91	-172.58	-866.50	-104.30	1,753.07	1,709.81	43.26	40.522		
5,100.00	5,012.02	4,803.71	4,763.13	24.14	22.35	-172.58	-879.65	-106.58	1,786.24	1,742.11	44.13	40.478		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	4,901.95	4,856.52	24.62	22.81	-172.59	-892.80	-108.87	1,819.41	1,774.40	45.01	40.419		
5,300.00	5,208.04	5,007.61	4,949.91	25.10	23.31	-172.59	-905.95	-111.15	1,852.58	1,806.65	45.93	40.333		
5,400.00	5,306.05	5,086.73	5,043.30	25.58	23.68	-172.59	-919.10	-113.43	1,885.75	1,839.02	46.73	40.353		
5,500.00	5,404.06	5,181.06	5,136.69	26.06	24.12	-172.60	-932.25	-115.72	1,918.92	1,871.32	47.60	40.314		
5,600.00	5,502.07	5,275.40	5,230.08	26.54	24.56	-172.60	-945.40	-118.00	1,952.09	1,903.62	48.47	40.275		
5,700.00	5,600.08	5,369.74	5,323.47	27.02	25.01	-172.60	-958.55	-120.28	1,985.26	1,935.92	49.34	40.238		
5,800.00	5,698.09	5,464.08	5,416.86	27.50	25.45	-172.61	-971.70	-122.57	2,018.43	1,968.22	50.21	40.202		
5,900.00	5,796.09	5,558.42	5,510.25	27.98	25.90	-172.61	-984.86	-124.85	2,051.60	2,000.52	51.08	40.166		
6,000.00	5,894.10	5,652.76	5,603.64	28.46	26.34	-172.61	-998.01	-127.13	2,084.77	2,032.82	51.95	40.132		
6,100.00	5,992.11	5,747.10	5,697.03	28.94	26.79	-172.61	-1,011.16	-129.41	2,117.94	2,065.12	52.82	40.098		
6,200.00	6,090.12	5,841.44	5,790.42	29.42	27.23	-172.62	-1,024.31	-131.70	2,151.11	2,097.42	53.69	40.065		
6,300.00	6,188.13	5,935.77	5,883.81	29.90	27.67	-172.62	-1,037.46	-133.98	2,184.27	2,129.71	54.56	40.033		
6,400.00	6,286.14	6,030.11	5,977.20	30.38	28.12	-172.62	-1,050.61	-136.26	2,217.44	2,162.01	55.43	40.002		
6,500.00	6,384.15	6,124.45	6,070.59	30.87	28.56	-172.62	-1,063.76	-138.55	2,250.61	2,194.31	56.31	39.972		
6,600.00	6,482.15	6,218.79	6,163.98	31.35	29.01	-163.51	-1,076.91	-140.83	2,283.78	2,226.60	57.18	39.942		
6,700.00	6,579.21	6,312.49	6,256.74	31.83	29.45	-129.64	-1,089.97	-143.10	2,316.63	2,258.58	58.05	39.907		
6,800.00	6,673.04	6,403.47	6,346.80	32.30	29.88	-112.70	-1,102.65	-145.30	2,348.61	2,289.70	58.91	39.869		
6,900.00	6,761.33	6,489.49	6,431.95	32.74	30.29	-103.42	-1,114.64	-147.38	2,379.41	2,319.67	59.74	39.829		
7,000.00	6,841.90	6,582.25	6,523.53	33.17	30.72	-97.76	-1,127.57	-153.68	2,408.80	2,348.13	60.67	39.702		
7,100.00	6,912.77	6,688.70	6,626.23	33.60	31.20	-94.08	-1,142.22	-176.96	2,436.05	2,374.27	61.78	39.634		
7,200.00	6,972.19	6,810.61	6,737.20	34.09	31.72	-91.71	-1,158.23	-224.37	2,460.37	2,397.30	63.07	39.011		
7,300.00	7,018.70	6,953.46	6,852.96	34.73	32.26	-90.35	-1,175.21	-305.80	2,480.87	2,416.26	64.62	38.393		
7,400.00	7,051.15	7,122.55	6,962.61	35.55	32.86	-89.79	-1,191.73	-432.80	2,496.46	2,429.89	66.58	37.498		
7,500.00	7,068.75	7,319.08	7,043.31	36.56	33.91	-89.75	-1,204.62	-610.67	2,505.87	2,436.61	69.26	36.181		
7,600.00	7,071.91	7,513.80	7,066.93	37.71	35.85	-89.89	-1,209.61	-803.16	2,508.22	2,435.58	72.64	34.530		
7,700.00	7,071.62	7,613.80	7,066.54	39.03	37.14	-89.88	-1,210.42	-903.15	2,508.28	2,432.95	75.33	33.298		
7,800.00	7,071.34	7,713.80	7,066.14	40.51	38.62	-89.88	-1,211.23	-1,003.15	2,508.34	2,429.99	78.34	32.017		
7,900.00	7,071.05	7,813.80	7,065.75	42.14	40.24	-89.88	-1,212.04	-1,103.15	2,508.39	2,426.75	81.65	30.722		
8,000.00	7,070.77	7,913.80	7,065.36	43.89	42.01	-89.88	-1,212.85	-1,203.14	2,508.45	2,423.25	85.21	29.439		
8,100.00	7,070.48	8,013.80	7,064.96	45.76	43.89	-89.87	-1,213.67	-1,303.14	2,508.51	2,419.52	88.99	28.188		
8,200.00	7,070.20	8,113.80	7,064.57	47.72	45.87	-89.87	-1,214.48	-1,403.13	2,508.57	2,415.60	92.98	26.981		
8,300.00	7,069.92	8,213.80	7,064.18	49.78	47.94	-89.87	-1,215.29	-1,503.13	2,508.63	2,411.50	97.13	25.827		
8,400.00	7,069.63	8,313.80	7,063.78	51.90	50.09	-89.87	-1,216.10	-1,603.12	2,508.69	2,407.25	101.44	24.730		
8,500.00	7,069.35	8,413.80	7,063.39	54.10	52.31	-89.86	-1,216.91	-1,703.12	2,508.75	2,402.87	105.88	23.694		
8,600.00	7,069.06	8,513.80	7,063.00	56.36	54.59	-89.86	-1,217.72	-1,803.12	2,508.81	2,398.37	110.44	22.716		
8,700.00	7,068.78	8,613.80	7,062.60	58.66	56.92	-89.86	-1,218.54	-1,903.11	2,508.87	2,393.77	115.10	21.796		
8,800.00	7,068.49	8,713.80	7,062.21	61.02	59.30	-89.86	-1,219.35	-2,003.11	2,508.93	2,389.07	119.86	20.932		
8,900.00	7,068.21	8,813.80	7,061.82	63.42	61.72	-89.85	-1,220.16	-2,103.10	2,508.99	2,384.30	124.69	20.121		
9,000.00	7,067.92	8,913.80	7,061.43	65.85	64.17	-89.85	-1,220.97	-2,203.10	2,509.05	2,379.45	129.60	19.360		
9,100.00	7,067.64	9,013.80	7,061.03	68.32	66.66	-89.85	-1,221.78	-2,303.10	2,509.11	2,374.54	134.57	18.645		
9,200.00	7,067.35	9,113.80	7,060.64	70.81	69.18	-89.85	-1,222.59	-2,403.09	2,509.17	2,369.57	139.60	17.974		
9,300.00	7,067.07	9,213.80	7,060.25	73.34	71.72	-89.84	-1,223.41	-2,503.09	2,509.23	2,364.55	144.68	17.344		
9,400.00	7,066.78	9,313.80	7,059.85	75.88	74.28	-89.84	-1,224.22	-2,603.08	2,509.29	2,359.49	149.80	16.751		
9,500.00	7,066.50	9,413.80	7,059.46	78.45	76.87	-89.84	-1,225.03	-2,703.08	2,509.35	2,354.38	154.97	16.193		
9,600.00	7,066.21	9,513.80	7,059.07	81.04	79.47	-89.84	-1,225.84	-2,803.07	2,509.41	2,349.24	160.17	15.667		
9,700.00	7,065.93	9,613.80	7,058.67	83.64	82.09	-89.83	-1,226.65	-2,903.07	2,509.47	2,344.06	165.41	15.171		
9,800.00	7,065.64	9,713.80	7,058.28	86.26	84.73	-89.83	-1,227.47	-3,003.07	2,509.53	2,338.85	170.67	14.704		
9,900.00	7,065.36	9,813.80	7,057.89	88.90	87.38	-89.83	-1,228.28	-3,103.06	2,509.59	2,333.62	175.97	14.261		
10,000.00	7,065.07	9,913.80	7,057.49	91.55	90.05	-89.83	-1,229.09	-3,203.06	2,509.65	2,328.36	181.29	13.843		
10,100.00	7,064.79	10,013.80	7,057.10	94.21	92.72	-89.82	-1,229.90	-3,303.05	2,509.71	2,323.07	186.64	13.447		
10,200.00	7,064.50	10,113.80	7,056.71	96.88	95.41	-89.82	-1,230.71	-3,403.05	2,509.77	2,317.76	192.00	13.071		
10,300.00	7,064.22	10,213.80	7,056.31	99.57	98.10	-89.82	-1,231.52	-3,503.05	2,509.83	2,312.44	197.39	12.715		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,313.80	7,055.92	102.26	100.80	-89.82	-1,232.34	-3,603.04	2,509.89	2,307.09	202.79	12.377		
10,500.00	7,063.65	10,413.80	7,055.53	104.96	103.52	-89.81	-1,233.15	-3,703.04	2,509.95	2,301.73	208.21	12.055		
10,600.00	7,063.37	10,513.80	7,055.13	107.67	106.24	-89.81	-1,233.96	-3,803.03	2,510.01	2,296.36	213.65	11.748		
10,700.00	7,063.08	10,613.80	7,054.74	110.39	108.96	-89.81	-1,234.77	-3,903.03	2,510.07	2,290.97	219.10	11.456		
10,800.00	7,062.80	10,713.80	7,054.35	113.11	111.70	-89.81	-1,235.58	-4,003.03	2,510.13	2,285.56	224.56	11.178		
10,900.00	7,062.51	10,813.80	7,053.96	115.84	114.44	-89.80	-1,236.39	-4,103.02	2,510.19	2,280.15	230.04	10.912		
11,000.00	7,062.23	10,913.80	7,053.56	118.58	117.18	-89.80	-1,237.21	-4,203.02	2,510.25	2,274.72	235.53	10.658		
11,100.00	7,061.94	11,013.80	7,053.17	121.32	119.93	-89.80	-1,238.02	-4,303.01	2,510.30	2,269.28	241.02	10.415		
11,200.00	7,061.66	11,113.80	7,052.78	124.07	122.69	-89.80	-1,238.83	-4,403.01	2,510.36	2,263.83	246.53	10.183		
11,300.00	7,061.37	11,213.80	7,052.38	126.82	125.45	-89.79	-1,239.64	-4,503.00	2,510.42	2,258.37	252.05	9.960		
11,400.00	7,061.09	11,313.80	7,051.99	129.58	128.22	-89.79	-1,240.45	-4,603.00	2,510.48	2,252.91	257.58	9.747		
11,500.00	7,060.80	11,413.80	7,051.60	132.34	130.98	-89.79	-1,241.26	-4,703.00	2,510.54	2,247.43	263.11	9.542		
11,600.00	7,060.52	11,513.80	7,051.20	135.10	133.76	-89.79	-1,242.08	-4,802.99	2,510.60	2,241.95	268.65	9.345		
11,700.00	7,060.23	11,613.80	7,050.81	137.87	136.53	-89.78	-1,242.89	-4,902.99	2,510.66	2,236.46	274.20	9.156		
11,800.00	7,059.95	11,713.80	7,050.42	140.64	139.31	-89.78	-1,243.70	-5,002.98	2,510.72	2,230.97	279.75	8.975		
11,900.00	7,059.66	11,813.80	7,050.02	143.42	142.09	-89.78	-1,244.51	-5,102.98	2,510.78	2,225.47	285.32	8.800		
12,000.00	7,059.38	11,913.80	7,049.63	146.20	144.88	-89.78	-1,245.32	-5,202.98	2,510.84	2,219.96	290.88	8.632		
12,100.00	7,059.09	12,013.80	7,049.24	148.98	147.67	-89.77	-1,246.13	-5,302.97	2,510.90	2,214.44	296.46	8.470		
12,200.00	7,058.81	12,113.80	7,048.84	151.77	150.46	-89.77	-1,246.95	-5,402.97	2,510.96	2,208.93	302.04	8.313		
12,300.00	7,058.52	12,213.80	7,048.45	154.55	153.25	-89.77	-1,247.76	-5,502.96	2,511.02	2,203.40	307.62	8.163		
12,400.00	7,058.24	12,313.80	7,048.06	157.34	156.05	-89.77	-1,248.57	-5,602.96	2,511.08	2,197.87	313.21	8.017		
12,500.00	7,057.96	12,413.79	7,047.66	160.14	158.84	-89.77	-1,249.38	-5,702.95	2,511.14	2,192.34	318.80	7.877		
12,600.00	7,057.67	12,513.79	7,047.27	162.93	161.64	-89.76	-1,250.19	-5,802.95	2,511.20	2,186.80	324.40	7.741		
12,700.00	7,057.39	12,613.79	7,046.88	165.73	164.45	-89.76	-1,251.00	-5,902.95	2,511.26	2,181.26	330.00	7.610		
12,800.00	7,057.10	12,713.79	7,046.48	168.53	167.25	-89.76	-1,251.82	-6,002.94	2,511.32	2,175.72	335.61	7.483		
12,900.00	7,056.82	12,813.79	7,046.09	171.33	170.06	-89.76	-1,252.63	-6,102.94	2,511.38	2,170.17	341.22	7.360		
13,000.00	7,056.53	12,913.79	7,045.70	174.13	172.86	-89.75	-1,253.44	-6,202.93	2,511.44	2,164.61	346.83	7.241		
13,100.00	7,056.25	13,013.79	7,045.31	176.94	175.67	-89.75	-1,254.25	-6,302.93	2,511.50	2,159.06	352.44	7.126		
13,200.00	7,055.96	13,113.79	7,044.91	179.74	178.48	-89.75	-1,255.06	-6,402.93	2,511.56	2,153.50	358.06	7.014		
13,300.00	7,055.68	13,213.79	7,044.52	182.55	181.29	-89.75	-1,255.88	-6,502.92	2,511.62	2,147.94	363.68	6.906		
13,400.00	7,055.39	13,313.79	7,044.13	185.36	184.11	-89.74	-1,256.69	-6,602.92	2,511.68	2,142.37	369.31	6.801		
13,500.00	7,055.11	13,413.79	7,043.73	188.17	186.92	-89.74	-1,257.50	-6,702.91	2,511.74	2,136.80	374.94	6.699		
13,600.00	7,054.82	13,513.79	7,043.34	190.98	189.74	-89.74	-1,258.31	-6,802.91	2,511.80	2,131.23	380.57	6.600		
13,700.00	7,054.54	13,613.79	7,042.95	193.80	192.56	-89.74	-1,259.12	-6,902.91	2,511.86	2,125.66	386.20	6.504		
13,800.00	7,054.25	13,713.79	7,042.55	196.61	195.37	-89.73	-1,259.93	-7,002.90	2,511.92	2,120.08	391.84	6.411		
13,900.00	7,053.97	13,813.79	7,042.16	199.43	198.19	-89.73	-1,260.75	-7,102.90	2,511.98	2,114.51	397.47	6.320		
14,000.00	7,053.68	13,913.79	7,041.77	202.25	201.02	-89.73	-1,261.56	-7,202.89	2,512.04	2,108.93	403.11	6.232		
14,100.00	7,053.40	14,013.79	7,041.37	205.06	203.84	-89.73	-1,262.37	-7,302.89	2,512.10	2,103.35	408.75	6.146		
14,200.00	7,053.11	14,113.79	7,040.98	207.88	206.66	-89.72	-1,263.18	-7,402.88	2,512.16	2,097.76	414.40	6.062		
14,300.00	7,052.83	14,213.79	7,040.59	210.70	209.48	-89.72	-1,263.99	-7,502.88	2,512.22	2,092.18	420.04	5.981		
14,400.00	7,052.54	14,313.79	7,040.19	213.53	212.31	-89.72	-1,264.80	-7,602.88	2,512.28	2,086.59	425.69	5.902		
14,500.00	7,052.26	14,413.79	7,039.80	216.35	215.13	-89.72	-1,265.62	-7,702.87	2,512.34	2,081.00	431.34	5.824		
14,600.00	7,051.98	14,513.79	7,039.41	219.17	217.96	-89.71	-1,266.43	-7,802.87	2,512.40	2,075.41	436.99	5.749		
14,700.00	7,051.69	14,613.79	7,039.01	222.00	220.79	-89.71	-1,267.24	-7,902.86	2,512.46	2,069.81	442.65	5.676		
14,800.00	7,051.41	14,713.79	7,038.62	224.82	223.62	-89.71	-1,268.05	-8,002.86	2,512.52	2,064.22	448.30	5.605		
14,900.00	7,051.12	14,813.79	7,038.23	227.65	226.44	-89.71	-1,268.86	-8,102.86	2,512.58	2,058.62	453.96	5.535		
14,942.37	7,051.00	14,856.17	7,038.06	228.85	227.64	-89.70	-1,269.21	-8,145.23	2,512.60	2,056.25	456.35	5.506 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	1.00	0.00	3.28	3.28	-179.52	-200.00	-1.67	200.00					
100.00	100.00	101.00	100.00	3.28	3.28	-179.52	-200.00	-1.67	200.00	193.43	6.57	30.444		
200.00	200.00	201.00	200.00	3.34	3.34	-179.52	-200.00	-1.67	200.00	193.33	6.67	29.964		
300.00	300.00	301.00	300.00	3.44	3.45	-179.52	-200.00	-1.67	200.00	193.11	6.89	29.023 CC, ES		
400.00	399.98	401.02	399.98	3.60	3.61	-172.28	-200.00	-1.67	201.73	194.52	7.21	27.983		
500.00	499.84	501.16	499.84	3.81	3.81	-172.46	-200.00	-1.67	206.92	199.30	7.62	27.159		
600.00	599.45	597.19	598.19	4.06	4.04	-172.74	-200.05	-1.68	215.62	207.52	8.09	26.640		
700.00	698.70	689.21	690.18	4.34	4.26	-172.94	-202.02	-2.14	229.84	221.23	8.61	26.697		
800.00	797.47	779.67	780.51	4.64	4.51	-173.03	-206.77	-3.25	250.52	241.35	9.18	27.304		
900.00	895.65	868.08	868.59	4.98	4.78	-173.04	-214.09	-4.96	277.39	267.62	9.78	28.371		
1,000.00	993.66	960.58	960.55	5.32	5.07	-173.01	-223.92	-7.26	307.39	296.99	10.40	29.568		
1,100.00	1,091.67	1,055.93	1,055.30	5.69	5.39	-172.98	-234.21	-9.66	337.55	326.50	11.05	30.540		
1,200.00	1,189.68	1,151.27	1,150.05	6.09	5.73	-172.95	-244.51	-12.07	367.72	355.98	11.74	31.324		
1,300.00	1,287.69	1,246.61	1,244.81	6.49	6.08	-172.92	-254.80	-14.48	397.88	385.43	12.45	31.957		
1,400.00	1,385.69	1,341.95	1,339.56	6.90	6.44	-172.90	-265.09	-16.88	428.04	414.86	13.18	32.472		
1,500.00	1,483.70	1,437.29	1,434.32	7.33	6.81	-172.88	-275.38	-19.29	458.21	444.28	13.93	32.892		
1,600.00	1,581.71	1,532.64	1,529.07	7.76	7.19	-172.87	-285.68	-21.69	488.37	473.68	14.69	33.235		
1,700.00	1,679.72	1,627.98	1,623.83	8.19	7.58	-172.85	-295.97	-24.10	518.53	503.06	15.47	33.518		
1,800.00	1,777.73	1,723.32	1,718.58	8.63	7.97	-172.84	-306.26	-26.50	548.70	532.44	16.26	33.752		
1,900.00	1,875.74	1,818.66	1,813.34	9.08	8.36	-172.83	-316.56	-28.91	578.86	561.81	17.05	33.945		
2,000.00	1,973.75	1,914.01	1,908.09	9.53	8.76	-172.82	-326.85	-31.31	609.03	591.17	17.86	34.107		
2,100.00	2,071.76	2,009.35	2,002.84	9.98	9.17	-172.81	-337.14	-33.72	639.19	620.52	18.67	34.241		
2,200.00	2,169.77	2,104.69	2,097.60	10.44	9.58	-172.80	-347.44	-36.12	669.35	649.87	19.48	34.354		
2,300.00	2,267.77	2,200.03	2,192.35	10.90	9.99	-172.79	-357.73	-38.53	699.52	679.21	20.31	34.449		
2,400.00	2,365.78	2,304.63	2,287.11	11.36	10.44	-172.78	-368.02	-40.93	729.68	708.51	21.17	34.464		
2,500.00	2,463.79	2,390.72	2,381.86	11.82	10.82	-172.78	-378.31	-43.34	759.85	737.88	21.96	34.595		
2,600.00	2,561.80	2,486.06	2,476.62	12.28	11.23	-172.77	-388.61	-45.74	790.01	767.21	22.80	34.652		
2,700.00	2,659.81	2,581.40	2,571.37	12.75	11.65	-172.77	-398.90	-48.15	820.17	796.54	23.64	34.699		
2,800.00	2,757.82	2,676.74	2,666.13	13.21	12.07	-172.76	-409.19	-50.55	850.34	825.86	24.48	34.739		
2,900.00	2,855.83	2,772.09	2,760.88	13.68	12.49	-172.76	-419.49	-52.96	880.50	855.18	25.32	34.773		
3,000.00	2,953.84	2,867.43	2,855.63	14.15	12.92	-172.75	-429.78	-55.36	910.66	884.50	26.17	34.801		
3,100.00	3,051.85	2,962.77	2,950.39	14.62	13.34	-172.75	-440.07	-57.77	940.83	913.81	27.02	34.825		
3,200.00	3,149.85	3,058.11	3,045.14	15.09	13.77	-172.74	-450.36	-60.17	970.99	943.13	27.87	34.845		
3,300.00	3,247.86	3,153.45	3,139.90	15.56	14.19	-172.74	-460.66	-62.58	1,001.16	972.44	28.72	34.861		
3,400.00	3,345.87	3,248.80	3,234.65	16.04	14.62	-172.74	-470.95	-64.98	1,031.32	1,001.75	29.57	34.874		
3,500.00	3,443.88	3,344.14	3,329.41	16.51	15.05	-172.73	-481.24	-67.39	1,061.48	1,031.06	30.43	34.885		
3,600.00	3,541.89	3,439.48	3,424.16	16.98	15.48	-172.73	-491.54	-69.79	1,091.65	1,060.36	31.28	34.894		
3,700.00	3,639.90	3,534.82	3,518.92	17.46	15.91	-172.73	-501.83	-72.20	1,121.81	1,089.67	32.14	34.901		
3,800.00	3,737.91	3,630.16	3,613.67	17.93	16.34	-172.72	-512.12	-74.60	1,151.98	1,118.97	33.00	34.906		
3,900.00	3,835.92	3,725.51	3,708.42	18.41	16.77	-172.72	-522.41	-77.01	1,182.14	1,148.28	33.86	34.910		
4,000.00	3,933.93	3,820.85	3,803.18	18.88	17.20	-172.72	-532.71	-79.42	1,212.30	1,177.58	34.72	34.913		
4,100.00	4,031.93	3,916.19	3,897.93	19.36	17.63	-172.72	-543.00	-81.82	1,242.47	1,206.88	35.59	34.914		
4,200.00	4,129.94	4,011.53	3,992.69	19.84	18.06	-172.71	-553.29	-84.23	1,272.63	1,236.18	36.45	34.915		
4,300.00	4,227.95	4,106.88	4,087.44	20.31	18.49	-172.71	-563.59	-86.63	1,302.80	1,265.48	37.31	34.915		
4,400.00	4,325.96	4,202.22	4,182.20	20.79	18.93	-172.71	-573.88	-89.04	1,332.96	1,294.78	38.18	34.914		
4,500.00	4,423.97	4,302.44	4,276.95	21.27	19.38	-172.71	-584.17	-91.44	1,363.12	1,324.06	39.07	34.893		
4,600.00	4,521.98	4,392.90	4,371.71	21.75	19.79	-172.71	-594.46	-93.85	1,393.29	1,353.38	39.91	34.910		
4,700.00	4,619.99	4,488.24	4,466.46	22.23	20.23	-172.70	-604.76	-96.25	1,423.45	1,382.67	40.78	34.908		
4,800.00	4,718.00	4,583.59	4,561.21	22.70	20.66	-172.70	-615.05	-98.66	1,453.62	1,411.97	41.65	34.905		
4,900.00	4,816.01	4,678.93	4,655.97	23.18	21.10	-172.70	-625.34	-101.06	1,483.78	1,441.27	42.51	34.901		
5,000.00	4,914.01	4,774.27	4,750.72	23.66	21.53	-172.70	-635.64	-103.47	1,513.94	1,470.56	43.38	34.898		
5,100.00	5,012.02	4,869.61	4,845.48	24.14	21.97	-172.70	-645.93	-105.87	1,544.11	1,499.86	44.25	34.894		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	5,110.03	4,964.96	4,940.23	24.62	22.40	-172.70	-656.22	-108.28	1,574.27	1,529.15	45.12	34.890		
5,300.00	5,208.04	5,060.30	5,034.99	25.10	22.84	-172.70	-666.51	-110.68	1,604.44	1,558.44	45.99	34.885		
5,400.00	5,306.05	5,155.64	5,129.74	25.58	23.27	-172.69	-676.81	-113.09	1,634.60	1,587.74	46.86	34.881		
5,500.00	5,404.06	5,250.98	5,224.50	26.06	23.71	-172.69	-687.10	-115.49	1,664.76	1,617.03	47.73	34.876		
5,600.00	5,502.07	5,346.32	5,319.25	26.54	24.14	-172.69	-697.39	-117.90	1,694.93	1,646.32	48.60	34.872		
5,700.00	5,600.08	5,441.67	5,414.00	27.02	24.58	-172.69	-707.69	-120.30	1,725.09	1,675.62	49.48	34.867		
5,800.00	5,698.09	5,537.01	5,508.76	27.50	25.02	-172.69	-717.98	-122.71	1,755.26	1,704.91	50.35	34.862		
5,900.00	5,796.09	5,632.35	5,603.51	27.98	25.45	-172.69	-728.27	-125.11	1,785.42	1,734.20	51.22	34.857		
6,000.00	5,894.10	5,727.69	5,698.27	28.46	25.89	-172.69	-738.56	-127.52	1,815.58	1,763.49	52.09	34.852		
6,100.00	5,992.11	5,823.04	5,793.02	28.94	26.33	-172.69	-748.86	-129.92	1,845.75	1,792.78	52.97	34.846		
6,200.00	6,090.12	5,918.38	5,887.78	29.42	26.76	-172.68	-759.15	-132.33	1,875.91	1,822.07	53.84	34.841		
6,300.00	6,188.13	6,013.72	5,982.53	29.90	27.20	-172.68	-769.44	-134.73	1,906.08	1,851.36	54.72	34.836		
6,400.00	6,286.14	6,109.06	6,077.29	30.38	27.64	-172.68	-779.74	-137.14	1,936.24	1,880.65	55.59	34.831		
6,500.00	6,384.15	6,204.40	6,172.04	30.87	28.07	-172.68	-790.03	-139.54	1,966.40	1,909.94	56.46	34.825		
6,600.00	6,482.15	6,300.26	6,266.79	31.35	28.51	-163.63	-800.32	-141.95	1,996.56	1,939.22	57.34	34.819		
6,700.00	6,579.21	6,394.45	6,360.92	31.83	28.95	-130.10	-810.55	-144.34	2,026.45	1,968.23	58.21	34.810		
6,800.00	6,673.04	6,486.41	6,452.31	32.30	29.37	-113.54	-820.47	-146.66	2,055.58	1,996.51	59.08	34.796		
6,900.00	6,761.33	6,576.31	6,541.63	32.74	29.78	-104.67	-830.18	-149.47	2,083.80	2,023.86	59.94	34.766		
7,000.00	6,841.90	6,677.00	6,640.56	33.17	30.24	-99.33	-841.03	-164.04	2,110.64	2,049.72	60.93	34.642		
7,100.00	6,912.77	6,788.02	6,745.46	33.60	30.72	-95.87	-852.68	-198.05	2,135.40	2,073.35	62.05	34.416		
7,200.00	6,972.19	6,912.35	6,853.90	34.09	31.22	-93.64	-864.92	-257.19	2,157.31	2,093.98	63.34	34.062		
7,300.00	7,018.70	7,053.02	6,960.15	34.73	31.74	-92.33	-877.19	-348.13	2,175.54	2,110.67	64.87	33.536		
7,400.00	7,051.15	7,211.92	7,052.96	35.55	32.42	-91.69	-888.31	-476.11	2,189.13	2,122.30	66.83	32.757		
7,500.00	7,068.75	7,387.63	7,115.46	36.56	33.72	-91.51	-896.43	-639.53	2,197.12	2,127.67	69.45	31.637		
7,600.00	7,071.91	7,556.10	7,131.91	37.71	35.58	-91.56	-899.60	-806.71	2,199.00	2,126.41	72.59	30.293		
7,700.00	7,071.62	7,656.10	7,131.48	39.03	36.92	-91.56	-900.37	-906.71	2,199.02	2,123.71	75.31	29.200		
7,800.00	7,071.34	7,756.10	7,131.04	40.51	38.43	-91.56	-901.15	-1,006.70	2,199.04	2,120.70	78.34	28.071		
7,900.00	7,071.05	7,856.10	7,130.61	42.14	40.08	-91.55	-901.93	-1,106.70	2,199.06	2,117.41	81.66	26.931		
8,000.00	7,070.77	7,956.10	7,130.17	43.89	41.86	-91.55	-902.70	-1,206.69	2,199.08	2,113.85	85.23	25.802		
8,100.00	7,070.48	8,056.10	7,129.74	45.76	43.76	-91.54	-903.48	-1,306.69	2,199.10	2,110.08	89.03	24.702		
8,200.00	7,070.20	8,156.10	7,129.31	47.72	45.77	-91.54	-904.26	-1,406.69	2,199.12	2,106.11	93.02	23.642		
8,300.00	7,069.92	8,256.10	7,128.87	49.78	47.85	-91.54	-905.04	-1,506.68	2,199.15	2,101.96	97.18	22.629		
8,400.00	7,069.63	8,356.10	7,128.44	51.90	50.02	-91.53	-905.81	-1,606.68	2,199.17	2,097.67	101.50	21.667		
8,500.00	7,069.35	8,456.10	7,128.00	54.10	52.25	-91.53	-906.59	-1,706.67	2,199.19	2,093.24	105.95	20.757		
8,600.00	7,069.06	8,556.10	7,127.57	56.36	54.54	-91.52	-907.37	-1,806.67	2,199.21	2,088.69	110.51	19.900		
8,700.00	7,068.78	8,656.10	7,127.14	58.66	56.88	-91.52	-908.15	-1,906.66	2,199.23	2,084.05	115.18	19.093		
8,800.00	7,068.49	8,756.10	7,126.70	61.02	59.27	-91.52	-908.92	-2,006.66	2,199.25	2,079.31	119.94	18.336		
8,900.00	7,068.21	8,856.10	7,126.27	63.42	61.70	-91.51	-909.70	-2,106.66	2,199.27	2,074.49	124.78	17.625		
9,000.00	7,067.92	8,956.10	7,125.84	65.85	64.16	-91.51	-910.48	-2,206.65	2,199.29	2,069.60	129.69	16.958		
9,100.00	7,067.64	9,056.10	7,125.40	68.32	66.66	-91.51	-911.26	-2,306.65	2,199.31	2,064.65	134.67	16.332		
9,200.00	7,067.35	9,156.10	7,124.97	70.81	69.18	-91.50	-912.03	-2,406.64	2,199.34	2,059.64	139.70	15.744		
9,300.00	7,067.07	9,256.10	7,124.53	73.34	71.73	-91.50	-912.81	-2,506.64	2,199.36	2,054.58	144.78	15.191		
9,400.00	7,066.78	9,356.10	7,124.10	75.88	74.30	-91.49	-913.59	-2,606.64	2,199.38	2,049.47	149.91	14.672		
9,500.00	7,066.50	9,456.10	7,123.67	78.45	76.89	-91.49	-914.36	-2,706.63	2,199.40	2,044.32	155.07	14.183		
9,600.00	7,066.21	9,556.10	7,123.23	81.04	79.50	-91.49	-915.14	-2,806.63	2,199.42	2,039.14	160.28	13.722		
9,700.00	7,065.93	9,656.10	7,122.80	83.64	82.12	-91.48	-915.92	-2,906.62	2,199.44	2,033.92	165.52	13.288		
9,800.00	7,065.64	9,756.10	7,122.36	86.26	84.77	-91.48	-916.70	-3,006.62	2,199.46	2,028.67	170.79	12.878		
9,900.00	7,065.36	9,856.10	7,121.93	88.90	87.42	-91.47	-917.47	-3,106.62	2,199.48	2,023.40	176.09	12.491		
10,000.00	7,065.07	9,956.10	7,121.50	91.55	90.09	-91.47	-918.25	-3,206.61	2,199.50	2,018.09	181.41	12.125		
10,100.00	7,064.79	10,056.10	7,121.06	94.21	92.77	-91.47	-919.03	-3,306.61	2,199.53	2,012.77	186.76	11.778		
10,200.00	7,064.50	10,156.10	7,120.63	96.88	95.46	-91.46	-919.81	-3,406.60	2,199.55	2,007.42	192.12	11.449		
10,300.00	7,064.22	10,256.10	7,120.19	99.57	98.15	-91.46	-920.58	-3,506.60	2,199.57	2,002.06	197.51	11.136		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 32N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,356.10	7,119.76	102.26	100.86	-91.45	-921.36	-3,606.60	2,199.59	1,996.67	202.92	10.840		
10,500.00	7,063.65	10,456.10	7,119.33	104.96	103.58	-91.45	-922.14	-3,706.59	2,199.61	1,991.27	208.34	10.558		
10,600.00	7,063.37	10,556.10	7,118.89	107.67	106.30	-91.45	-922.92	-3,806.59	2,199.63	1,985.86	213.77	10.290		
10,700.00	7,063.08	10,656.10	7,118.46	110.39	109.03	-91.44	-923.69	-3,906.58	2,199.65	1,980.43	219.23	10.034		
10,800.00	7,062.80	10,756.10	7,118.02	113.11	111.77	-91.44	-924.47	-4,006.58	2,199.67	1,974.99	224.69	9.790		
10,900.00	7,062.51	10,856.10	7,117.59	115.84	114.51	-91.43	-925.25	-4,106.58	2,199.70	1,969.53	230.17	9.557		
11,000.00	7,062.23	10,956.10	7,117.16	118.58	117.26	-91.43	-926.03	-4,206.57	2,199.72	1,964.06	235.65	9.335		
11,100.00	7,061.94	11,056.10	7,116.72	121.32	120.01	-91.43	-926.80	-4,306.57	2,199.74	1,958.59	241.15	9.122		
11,200.00	7,061.66	11,156.10	7,116.29	124.07	122.77	-91.42	-927.58	-4,406.56	2,199.76	1,953.10	246.66	8.918		
11,300.00	7,061.37	11,256.10	7,115.86	126.82	125.53	-91.42	-928.36	-4,506.56	2,199.78	1,947.60	252.18	8.723		
11,400.00	7,061.09	11,356.10	7,115.42	129.58	128.30	-91.42	-929.13	-4,606.55	2,199.80	1,942.10	257.70	8.536		
11,500.00	7,060.80	11,456.10	7,114.99	132.34	131.07	-91.41	-929.91	-4,706.55	2,199.82	1,936.59	263.24	8.357		
11,600.00	7,060.52	11,556.10	7,114.55	135.10	133.84	-91.41	-930.69	-4,806.55	2,199.84	1,931.06	268.78	8.185		
11,700.00	7,060.23	11,656.10	7,114.12	137.87	136.62	-91.40	-931.47	-4,906.54	2,199.87	1,925.54	274.33	8.019		
11,800.00	7,059.95	11,756.10	7,113.69	140.64	139.40	-91.40	-932.24	-5,006.54	2,199.89	1,920.00	279.89	7.860		
11,900.00	7,059.66	11,856.10	7,113.25	143.42	142.19	-91.40	-933.02	-5,106.53	2,199.91	1,914.46	285.45	7.707		
12,000.00	7,059.38	11,956.10	7,112.82	146.20	144.97	-91.39	-933.80	-5,206.53	2,199.93	1,908.92	291.02	7.559		
12,100.00	7,059.09	12,056.10	7,112.38	148.98	147.76	-91.39	-934.58	-5,306.53	2,199.95	1,903.36	296.59	7.418		
12,200.00	7,058.81	12,156.10	7,111.95	151.77	150.55	-91.38	-935.35	-5,406.52	2,199.97	1,897.81	302.17	7.281		
12,300.00	7,058.52	12,256.10	7,111.52	154.55	153.35	-91.38	-936.13	-5,506.52	2,199.99	1,892.24	307.75	7.149		
12,400.00	7,058.24	12,356.10	7,111.08	157.34	156.15	-91.38	-936.91	-5,606.51	2,200.02	1,886.68	313.34	7.021		
12,500.00	7,057.96	12,456.10	7,110.65	160.14	158.94	-91.37	-937.69	-5,706.51	2,200.04	1,881.10	318.93	6.898		
12,600.00	7,057.67	12,556.10	7,110.21	162.93	161.75	-91.37	-938.46	-5,806.51	2,200.06	1,875.53	324.53	6.779		
12,700.00	7,057.39	12,656.10	7,109.78	165.73	164.55	-91.36	-939.24	-5,906.50	2,200.08	1,869.95	330.13	6.664		
12,800.00	7,057.10	12,756.10	7,109.35	168.53	167.35	-91.36	-940.02	-6,006.50	2,200.10	1,864.36	335.74	6.553		
12,900.00	7,056.82	12,856.10	7,108.91	171.33	170.16	-91.36	-940.79	-6,106.49	2,200.12	1,858.78	341.35	6.445		
13,000.00	7,056.53	12,956.10	7,108.48	174.13	172.97	-91.35	-941.57	-6,206.49	2,200.14	1,853.18	346.96	6.341		
13,100.00	7,056.25	13,056.10	7,108.04	176.94	175.78	-91.35	-942.35	-6,306.49	2,200.17	1,847.59	352.58	6.240		
13,200.00	7,055.96	13,156.10	7,107.61	179.74	178.59	-91.35	-943.13	-6,406.48	2,200.19	1,841.99	358.20	6.142		
13,300.00	7,055.68	13,256.10	7,107.18	182.55	181.40	-91.34	-943.90	-6,506.48	2,200.21	1,836.39	363.82	6.048		
13,400.00	7,055.39	13,356.10	7,106.74	185.36	184.22	-91.34	-944.68	-6,606.47	2,200.23	1,830.79	369.44	5.956		
13,500.00	7,055.11	13,456.10	7,106.31	188.17	187.03	-91.33	-945.46	-6,706.47	2,200.25	1,825.18	375.07	5.866		
13,600.00	7,054.82	13,556.10	7,105.87	190.98	189.85	-91.33	-946.24	-6,806.46	2,200.27	1,819.57	380.70	5.780		
13,700.00	7,054.54	13,656.10	7,105.44	193.80	192.67	-91.33	-947.01	-6,906.46	2,200.30	1,813.96	386.33	5.695		
13,800.00	7,054.25	13,756.09	7,105.01	196.61	195.49	-91.32	-947.79	-7,006.46	2,200.32	1,808.35	391.97	5.613		
13,900.00	7,053.97	13,856.09	7,104.57	199.43	198.31	-91.32	-948.57	-7,106.45	2,200.34	1,802.73	397.61	5.534		
14,000.00	7,053.68	13,956.09	7,104.14	202.25	201.13	-91.31	-949.35	-7,206.45	2,200.36	1,797.11	403.25	5.457		
14,100.00	7,053.40	14,056.09	7,103.71	205.06	203.95	-91.31	-950.12	-7,306.44	2,200.38	1,791.49	408.89	5.381		
14,200.00	7,053.11	14,156.09	7,103.27	207.88	206.78	-91.31	-950.90	-7,406.44	2,200.40	1,785.87	414.53	5.308		
14,300.00	7,052.83	14,256.09	7,102.84	210.70	209.60	-91.30	-951.68	-7,506.44	2,200.43	1,780.25	420.18	5.237		
14,400.00	7,052.54	14,356.09	7,102.40	213.53	212.43	-91.30	-952.46	-7,606.43	2,200.45	1,774.62	425.83	5.167		
14,500.00	7,052.26	14,456.09	7,101.97	216.35	215.25	-91.29	-953.23	-7,706.43	2,200.47	1,768.99	431.48	5.100		
14,600.00	7,051.98	14,556.09	7,101.54	219.17	218.08	-91.29	-954.01	-7,806.42	2,200.49	1,763.36	437.13	5.034		
14,700.00	7,051.69	14,656.09	7,101.10	222.00	220.91	-91.29	-954.79	-7,906.42	2,200.51	1,757.73	442.78	4.970		
14,800.00	7,051.41	14,756.09	7,100.67	224.82	223.74	-91.28	-955.56	-8,006.42	2,200.53	1,752.10	448.44	4.907		
14,900.00	7,051.12	14,856.09	7,100.23	227.65	226.57	-91.28	-956.34	-8,106.41	2,200.56	1,746.46	454.09	4.846		
14,942.37	7,051.00	14,898.47	7,100.05	228.85	227.77	-91.28	-956.67	-8,148.78	2,200.56	1,744.07	456.49	4.821 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	2.00	0.00	3.28	3.28	-179.52	-400.00	-3.34	400.01					
100.00	100.00	102.00	100.00	3.28	3.29	-179.52	-400.00	-3.34	400.01	393.44	6.57	60.886		
200.00	200.00	198.00	200.00	3.34	3.34	-179.52	-400.00	-3.34	400.01	393.34	6.67	59.950	CC, ES	
300.00	300.00	285.99	287.98	3.44	3.42	-179.51	-401.29	-3.44	401.48	394.60	6.88	58.390		
400.00	399.98	373.47	375.36	3.60	3.55	-172.18	-405.23	-3.74	407.72	400.54	7.18	56.773		
500.00	499.84	460.16	461.80	3.81	3.71	-172.17	-411.77	-4.24	420.43	412.85	7.58	55.472		
600.00	599.45	545.53	546.70	4.06	3.90	-172.17	-420.75	-4.93	439.50	431.46	8.05	54.619		
700.00	698.70	629.11	629.51	4.34	4.11	-172.18	-431.98	-5.79	464.82	456.26	8.56	54.271		
800.00	797.47	710.45	709.75	4.64	4.35	-172.19	-445.22	-6.81	496.21	487.09	9.12	54.432		
900.00	895.65	789.18	787.04	4.98	4.60	-172.22	-460.20	-7.96	533.34	523.65	9.69	55.031		
1,000.00	993.66	865.85	861.88	5.32	4.87	-172.31	-476.81	-9.23	573.81	563.56	10.25	55.966		
1,100.00	1,091.67	940.70	934.47	5.69	5.16	-172.38	-494.94	-10.62	616.68	605.85	10.83	56.953		
1,200.00	1,189.68	1,013.68	1,004.78	6.09	5.45	-172.42	-514.44	-12.12	661.85	650.45	11.40	58.041		
1,300.00	1,287.69	1,084.77	1,072.78	6.49	5.76	-172.44	-535.15	-13.71	709.25	697.28	11.98	59.221		
1,400.00	1,385.69	1,169.78	1,153.68	6.90	6.15	-172.45	-561.16	-15.70	758.00	745.37	12.62	60.043		
1,500.00	1,483.70	1,257.09	1,236.77	7.33	6.56	-172.47	-587.89	-17.75	806.76	793.46	13.31	60.627		
1,600.00	1,581.71	1,344.39	1,319.86	7.76	6.98	-172.48	-614.62	-19.81	855.53	841.52	14.01	61.064		
1,700.00	1,679.72	1,431.70	1,402.94	8.19	7.41	-172.49	-641.34	-21.86	904.29	889.56	14.73	61.388		
1,800.00	1,777.73	1,519.00	1,486.03	8.63	7.86	-172.50	-668.07	-23.91	953.05	937.59	15.47	61.622		
1,900.00	1,875.74	1,606.31	1,569.12	9.08	8.31	-172.51	-694.80	-25.96	1,001.82	985.60	16.21	61.786		
2,000.00	1,973.75	1,706.39	1,652.21	9.53	8.83	-172.51	-721.53	-28.01	1,050.58	1,033.55	17.03	61.683		
2,100.00	2,071.76	1,780.91	1,735.29	9.98	9.22	-172.52	-748.26	-30.06	1,099.35	1,081.60	17.74	61.959		
2,200.00	2,169.77	1,868.22	1,818.38	10.44	9.69	-172.53	-774.98	-32.11	1,148.11	1,129.59	18.52	61.990		
2,300.00	2,267.77	1,955.52	1,901.47	10.90	10.16	-172.53	-801.71	-34.16	1,196.88	1,177.57	19.31	61.995		
2,400.00	2,365.78	2,042.83	1,984.55	11.36	10.63	-172.54	-828.44	-36.21	1,245.64	1,225.54	20.10	61.979		
2,500.00	2,463.79	2,130.13	2,067.64	11.82	11.11	-172.54	-855.17	-38.26	1,294.41	1,273.51	20.90	61.947		
2,600.00	2,561.80	2,217.44	2,150.73	12.28	11.58	-172.55	-881.90	-40.31	1,343.17	1,321.47	21.70	61.902		
2,700.00	2,659.81	2,304.74	2,233.81	12.75	12.06	-172.55	-908.62	-42.36	1,391.93	1,369.43	22.51	61.848		
2,800.00	2,757.82	2,407.96	2,316.90	13.21	12.64	-172.56	-935.35	-44.42	1,440.70	1,417.30	23.39	61.583		
2,900.00	2,855.83	2,479.35	2,399.99	13.68	13.03	-172.56	-962.08	-46.47	1,489.46	1,465.33	24.13	61.720		
3,000.00	2,953.84	2,566.65	2,483.07	14.15	13.52	-172.56	-988.81	-48.52	1,538.23	1,513.28	24.95	61.649		
3,100.00	3,051.85	2,653.96	2,566.16	14.62	14.00	-172.57	-1,015.54	-50.57	1,586.99	1,561.22	25.77	61.576		
3,200.00	3,149.85	2,741.26	2,649.25	15.09	14.49	-172.57	-1,042.26	-52.62	1,635.76	1,609.16	26.60	61.500		
3,300.00	3,247.86	2,828.57	2,732.34	15.56	14.98	-172.57	-1,068.99	-54.67	1,684.52	1,657.10	27.42	61.424		
3,400.00	3,345.87	2,915.87	2,815.42	16.04	15.47	-172.58	-1,095.72	-56.72	1,733.28	1,705.03	28.25	61.346		
3,500.00	3,443.88	3,003.17	2,898.51	16.51	15.96	-172.58	-1,122.45	-58.77	1,782.05	1,752.96	29.09	61.269		
3,600.00	3,541.89	3,090.48	2,981.60	16.98	16.46	-172.58	-1,149.18	-60.82	1,830.81	1,800.89	29.92	61.192		
3,700.00	3,639.90	3,177.78	3,064.68	17.46	16.95	-172.58	-1,175.90	-62.87	1,879.58	1,848.82	30.75	61.116		
3,800.00	3,737.91	3,265.09	3,147.77	17.93	17.44	-172.59	-1,202.63	-64.92	1,928.34	1,896.75	31.59	61.040		
3,900.00	3,835.92	3,352.39	3,230.86	18.41	17.94	-172.59	-1,229.36	-66.97	1,977.11	1,944.68	32.43	60.966		
4,000.00	3,933.93	3,439.69	3,313.94	18.88	18.43	-172.59	-1,256.09	-69.03	2,025.87	1,992.60	33.27	60.892		
4,100.00	4,031.93	3,527.00	3,397.03	19.36	18.93	-172.59	-1,282.82	-71.08	2,074.63	2,040.52	34.11	60.820		
4,200.00	4,129.94	3,614.30	3,480.12	19.84	19.42	-172.59	-1,309.54	-73.13	2,123.40	2,088.45	34.95	60.749		
4,300.00	4,227.95	3,701.61	3,563.21	20.31	19.92	-172.59	-1,336.27	-75.18	2,172.16	2,136.37	35.80	60.680		
4,400.00	4,325.96	3,788.91	3,646.29	20.79	20.42	-172.60	-1,363.00	-77.23	2,220.93	2,184.29	36.64	60.612		
4,500.00	4,423.97	3,876.22	3,729.38	21.27	20.91	-172.60	-1,389.73	-79.28	2,269.69	2,232.20	37.49	60.545		
4,600.00	4,521.98	3,963.52	3,812.47	21.75	21.41	-172.60	-1,416.46	-81.33	2,318.46	2,280.12	38.33	60.480		
4,700.00	4,619.99	4,050.82	3,895.55	22.23	21.91	-172.60	-1,443.18	-83.38	2,367.22	2,328.04	39.18	60.416		
4,800.00	4,718.00	4,138.13	3,978.64	22.70	22.41	-172.60	-1,469.91	-85.43	2,415.99	2,375.95	40.03	60.353		
4,900.00	4,816.01	4,225.43	4,061.73	23.18	22.91	-172.60	-1,496.64	-87.48	2,464.75	2,423.87	40.88	60.292		
5,000.00	4,914.01	4,312.74	4,144.81	23.66	23.41	-172.61	-1,523.37	-89.53	2,513.51	2,471.78	41.73	60.232		
5,100.00	5,012.02	4,400.04	4,227.90	24.14	23.91	-172.61	-1,550.10	-91.58	2,562.28	2,519.70	42.58	60.173		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	5,110.03	4,487.35	4,310.99	24.62	24.41	-172.61	-1,576.82	-93.64	2,611.04	2,567.61	43.43	60.116		
5,300.00	5,208.04	4,574.65	4,394.07	25.10	24.91	-172.61	-1,603.55	-95.69	2,659.81	2,615.52	44.29	60.060		
5,400.00	5,306.05	4,661.95	4,477.16	25.58	25.41	-172.61	-1,630.28	-97.74	2,708.57	2,663.43	45.14	60.005		
5,500.00	5,404.06	4,749.26	4,560.25	26.06	25.91	-172.61	-1,657.01	-99.79	2,757.34	2,711.34	45.99	59.952		
5,600.00	5,502.07	4,836.56	4,643.34	26.54	26.41	-172.61	-1,683.74	-101.84	2,806.10	2,759.25	46.85	59.899		
5,700.00	5,600.08	4,923.87	4,726.42	27.02	26.91	-172.61	-1,710.46	-103.89	2,854.87	2,807.16	47.70	59.848		
5,800.00	5,698.09	5,011.17	4,809.51	27.50	27.41	-172.61	-1,737.19	-105.94	2,903.63	2,855.07	48.56	59.798		
5,900.00	5,796.09	5,101.52	4,892.60	27.98	27.93	-172.61	-1,763.92	-107.99	2,952.39	2,902.97	49.43	59.730		
6,000.00	5,894.10	5,185.78	4,975.68	28.46	28.41	-172.62	-1,790.65	-110.04	3,001.16	2,950.89	50.27	59.701		
6,100.00	5,992.11	5,273.08	5,058.77	28.94	28.91	-172.62	-1,817.38	-112.09	3,049.92	2,998.80	51.13	59.653		
6,200.00	6,090.12	5,360.39	5,141.86	29.42	29.41	-172.62	-1,844.10	-114.14	3,098.69	3,046.70	51.99	59.607		
6,300.00	6,188.13	5,447.69	5,224.94	29.90	29.91	-172.62	-1,870.83	-116.19	3,147.45	3,094.61	52.84	59.562		
6,400.00	6,286.14	5,535.00	5,308.03	30.38	30.42	-172.62	-1,897.56	-118.25	3,196.22	3,142.51	53.70	59.518		
6,500.00	6,384.15	5,622.30	5,391.12	30.87	30.92	-172.62	-1,924.29	-120.30	3,244.98	3,190.42	54.56	59.474		
6,600.00	6,482.15	5,709.60	5,474.20	31.35	31.42	-163.13	-1,951.02	-122.35	3,293.74	3,238.32	55.42	59.431		
6,700.00	6,579.21	5,803.65	5,556.76	31.83	31.96	-127.36	-1,977.57	-124.38	3,342.08	3,285.76	56.32	59.343		
6,800.00	6,673.04	5,880.61	5,636.94	32.30	32.40	-108.54	-2,003.37	-126.36	3,389.02	3,331.89	57.12	59.328		
6,900.00	6,761.33	5,960.30	5,712.79	32.74	32.86	-97.51	-2,027.77	-128.24	3,433.73	3,375.80	57.94	59.267		
7,000.00	6,841.90	6,033.48	5,782.43	33.17	33.28	-90.15	-2,050.17	-129.96	3,475.61	3,416.89	58.72	59.187		
7,100.00	6,912.77	6,098.33	5,844.15	33.60	33.66	-84.84	-2,070.02	-131.48	3,514.20	3,454.70	59.50	59.062		
7,200.00	6,972.19	6,153.25	5,896.42	34.09	33.97	-80.84	-2,086.84	-132.77	3,549.17	3,488.87	60.30	58.860		
7,300.00	7,018.70	6,203.09	5,937.97	34.73	34.26	-77.73	-2,100.20	-133.79	3,580.26	3,519.08	61.18	58.524		
7,400.00	7,051.15	6,228.21	5,967.76	35.55	34.40	-75.30	-2,109.79	-134.53	3,607.23	3,545.18	62.06	58.127		
7,500.00	7,068.75	6,246.39	5,985.06	36.56	34.51	-73.41	-2,115.35	-134.96	3,629.86	3,566.83	63.03	57.586		
7,600.00	7,071.91	6,251.76	5,990.17	37.71	34.54	-72.42	-2,117.00	-135.08	3,648.27	3,584.22	64.05	56.959		
7,700.00	7,071.62	6,254.07	5,992.37	39.03	34.55	-72.46	-2,117.70	-135.14	3,667.67	3,602.48	65.19	56.258		
7,800.00	7,071.34	6,256.38	5,994.57	40.51	34.57	-72.50	-2,118.41	-135.19	3,689.68	3,623.21	66.46	55.515		
7,900.00	7,071.05	6,258.69	5,996.76	42.14	34.58	-72.53	-2,119.12	-135.25	3,714.25	3,646.41	67.84	54.754		
8,000.00	7,070.77	6,261.00	5,998.96	43.89	34.59	-72.57	-2,119.82	-135.30	3,741.33	3,672.03	69.29	53.994		
8,100.00	7,070.48	8,273.06	7,075.33	45.76	47.09	-90.07	-2,474.85	-1,298.37	3,769.70	3,678.43	91.26	41.306		
8,200.00	7,070.20	8,373.06	7,075.00	47.72	48.82	-90.07	-2,475.52	-1,398.37	3,769.61	3,674.49	95.13	39.628		
8,300.00	7,069.92	8,473.06	7,074.68	49.78	50.68	-90.07	-2,476.18	-1,498.37	3,769.53	3,670.36	99.17	38.012		
8,400.00	7,069.63	8,573.06	7,074.35	51.90	52.65	-90.07	-2,476.85	-1,598.37	3,769.44	3,666.07	103.37	36.466		
8,500.00	7,069.35	8,673.06	7,074.03	54.10	54.71	-90.07	-2,477.52	-1,698.36	3,769.36	3,661.65	107.71	34.996		
8,600.00	7,069.06	8,773.06	7,073.70	56.36	56.84	-90.07	-2,478.19	-1,798.36	3,769.27	3,657.10	112.17	33.603		
8,700.00	7,068.78	8,873.06	7,073.38	58.66	59.04	-90.07	-2,478.85	-1,898.36	3,769.19	3,652.44	116.74	32.286		
8,800.00	7,068.49	8,973.06	7,073.05	61.02	61.30	-90.07	-2,479.52	-1,998.36	3,769.10	3,647.69	121.41	31.044		
8,900.00	7,068.21	9,073.06	7,072.73	63.42	63.61	-90.07	-2,480.19	-2,098.35	3,769.02	3,642.85	126.17	29.873		
9,000.00	7,067.92	9,173.06	7,072.40	65.85	65.97	-90.07	-2,480.86	-2,198.35	3,768.93	3,637.93	131.00	28.770		
9,100.00	7,067.64	9,273.06	7,072.08	68.32	68.36	-90.07	-2,481.52	-2,298.35	3,768.85	3,632.94	135.90	27.732		
9,200.00	7,067.35	9,373.06	7,071.75	70.81	70.79	-90.07	-2,482.19	-2,398.34	3,768.76	3,627.90	140.87	26.754		
9,300.00	7,067.07	9,473.06	7,071.43	73.34	73.26	-90.07	-2,482.86	-2,498.34	3,768.68	3,622.79	145.88	25.833		
9,400.00	7,066.78	9,573.06	7,071.10	75.88	75.75	-90.07	-2,483.53	-2,598.34	3,768.59	3,617.64	150.95	24.965		
9,500.00	7,066.50	9,673.06	7,070.78	78.45	78.27	-90.07	-2,484.19	-2,698.34	3,768.51	3,612.44	156.07	24.147		
9,600.00	7,066.21	9,773.06	7,070.45	81.04	80.81	-90.06	-2,484.86	-2,798.33	3,768.42	3,607.20	161.22	23.375		
9,700.00	7,065.93	9,873.06	7,070.13	83.64	83.37	-90.06	-2,485.53	-2,898.33	3,768.34	3,601.93	166.41	22.645		
9,800.00	7,065.64	9,973.06	7,069.80	86.26	85.95	-90.06	-2,486.20	-2,998.33	3,768.25	3,596.62	171.63	21.955		
9,900.00	7,065.36	10,073.06	7,069.48	88.90	88.55	-90.06	-2,486.86	-3,098.32	3,768.17	3,591.28	176.89	21.303		
10,000.00	7,065.07	10,173.06	7,069.15	91.55	91.16	-90.06	-2,487.53	-3,198.32	3,768.08	3,585.91	182.17	20.685		
10,100.00	7,064.79	10,273.06	7,068.83	94.21	93.79	-90.06	-2,488.20	-3,298.32	3,768.00	3,580.52	187.48	20.099		
10,200.00	7,064.50	10,373.06	7,068.50	96.88	96.43	-90.06	-2,488.87	-3,398.32	3,767.91	3,575.11	192.81	19.542		
10,300.00	7,064.22	10,473.06	7,068.18	99.57	99.08	-90.06	-2,489.53	-3,498.31	3,767.83	3,569.67	198.16	19.014		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	10,573.06	7,067.85	102.26	101.75	-90.06	-2,490.20	-3,598.31	3,767.74	3,564.21	203.53	18.512		
10,500.00	7,063.65	10,673.06	7,067.53	104.96	104.42	-90.06	-2,490.87	-3,698.31	3,767.66	3,558.74	208.92	18.034		
10,600.00	7,063.37	10,773.06	7,067.21	107.67	107.11	-90.06	-2,491.54	-3,798.30	3,767.57	3,553.24	214.33	17.578		
10,700.00	7,063.08	10,873.06	7,066.88	110.39	109.80	-90.06	-2,492.20	-3,898.30	3,767.49	3,547.73	219.75	17.144		
10,800.00	7,062.80	10,973.06	7,066.56	113.11	112.50	-90.06	-2,492.87	-3,998.30	3,767.40	3,542.21	225.19	16.730		
10,900.00	7,062.51	11,073.06	7,066.23	115.84	115.21	-90.06	-2,493.54	-4,098.30	3,767.32	3,536.68	230.64	16.334		
11,000.00	7,062.23	11,173.06	7,065.91	118.58	117.93	-90.06	-2,494.21	-4,198.29	3,767.23	3,531.13	236.11	15.956		
11,100.00	7,061.94	11,273.06	7,065.58	121.32	120.65	-90.06	-2,494.87	-4,298.29	3,767.15	3,525.57	241.58	15.594		
11,200.00	7,061.66	11,373.06	7,065.26	124.07	123.38	-90.05	-2,495.54	-4,398.29	3,767.06	3,520.00	247.07	15.247		
11,300.00	7,061.37	11,473.06	7,064.93	126.82	126.12	-90.05	-2,496.21	-4,498.29	3,766.98	3,514.41	252.56	14.915		
11,400.00	7,061.09	11,573.06	7,064.61	129.58	128.86	-90.05	-2,496.88	-4,598.28	3,766.89	3,508.82	258.07	14.596		
11,500.00	7,060.80	11,673.06	7,064.28	132.34	131.61	-90.05	-2,497.54	-4,698.28	3,766.81	3,503.22	263.59	14.291		
11,600.00	7,060.52	11,773.06	7,063.96	135.10	134.36	-90.05	-2,498.21	-4,798.28	3,766.72	3,497.61	269.11	13.997		
11,700.00	7,060.23	11,873.06	7,063.63	137.87	137.11	-90.05	-2,498.88	-4,898.27	3,766.64	3,492.00	274.64	13.715		
11,800.00	7,059.95	11,973.06	7,063.31	140.64	139.87	-90.05	-2,499.55	-4,998.27	3,766.55	3,486.37	280.18	13.443		
11,900.00	7,059.66	12,073.06	7,062.98	143.42	142.63	-90.05	-2,500.21	-5,098.27	3,766.47	3,480.74	285.73	13.182		
12,000.00	7,059.38	12,173.06	7,062.66	146.20	145.40	-90.05	-2,500.88	-5,198.27	3,766.38	3,475.10	291.28	12.930		
12,100.00	7,059.09	12,273.06	7,062.33	148.98	148.17	-90.05	-2,501.55	-5,298.26	3,766.30	3,469.46	296.84	12.688		
12,200.00	7,058.81	12,373.06	7,062.01	151.77	150.94	-90.05	-2,502.22	-5,398.26	3,766.21	3,463.81	302.40	12.454		
12,300.00	7,058.52	12,473.06	7,061.68	154.55	153.72	-90.05	-2,502.88	-5,498.26	3,766.13	3,458.16	307.97	12.229		
12,400.00	7,058.24	12,573.06	7,061.36	157.34	156.50	-90.05	-2,503.55	-5,598.25	3,766.04	3,452.50	313.55	12.011		
12,500.00	7,057.96	12,673.06	7,061.03	160.14	159.28	-90.05	-2,504.22	-5,698.25	3,765.96	3,446.83	319.13	11.801		
12,600.00	7,057.67	12,773.06	7,060.71	162.93	162.07	-90.05	-2,504.89	-5,798.25	3,765.87	3,441.16	324.71	11.597		
12,700.00	7,057.39	12,873.06	7,060.38	165.73	164.86	-90.05	-2,505.55	-5,898.25	3,765.79	3,435.49	330.30	11.401		
12,800.00	7,057.10	12,973.06	7,060.06	168.53	167.65	-90.05	-2,506.22	-5,998.24	3,765.70	3,429.81	335.90	11.211		
12,900.00	7,056.82	13,073.06	7,059.73	171.33	170.44	-90.04	-2,506.89	-6,098.24	3,765.62	3,424.12	341.50	11.027		
13,000.00	7,056.53	13,173.06	7,059.41	174.13	173.23	-90.04	-2,507.56	-6,198.24	3,765.54	3,418.44	347.10	10.849		
13,100.00	7,056.25	13,273.06	7,059.08	176.94	176.03	-90.04	-2,508.22	-6,298.23	3,765.45	3,412.75	352.70	10.676		
13,200.00	7,055.96	13,373.06	7,058.76	179.74	178.83	-90.04	-2,508.89	-6,398.23	3,765.37	3,407.05	358.31	10.509		
13,300.00	7,055.68	13,473.06	7,058.43	182.55	181.63	-90.04	-2,509.56	-6,498.23	3,765.28	3,401.35	363.93	10.346		
13,400.00	7,055.39	13,573.06	7,058.11	185.36	184.43	-90.04	-2,510.23	-6,598.23	3,765.20	3,395.65	369.54	10.189		
13,500.00	7,055.11	13,673.06	7,057.78	188.17	187.23	-90.04	-2,510.89	-6,698.22	3,765.11	3,389.95	375.16	10.036		
13,600.00	7,054.82	13,773.06	7,057.46	190.98	190.04	-90.04	-2,511.56	-6,798.22	3,765.03	3,384.24	380.78	9.888		
13,700.00	7,054.54	13,873.06	7,057.13	193.80	192.85	-90.04	-2,512.23	-6,898.22	3,764.94	3,378.53	386.41	9.743		
13,800.00	7,054.25	13,973.06	7,056.81	196.61	195.66	-90.04	-2,512.90	-6,998.22	3,764.86	3,372.82	392.04	9.603		
13,900.00	7,053.97	14,073.06	7,056.48	199.43	198.47	-90.04	-2,513.56	-7,098.21	3,764.77	3,367.11	397.66	9.467		
14,000.00	7,053.68	14,173.06	7,056.16	202.25	201.28	-90.04	-2,514.23	-7,198.21	3,764.69	3,361.39	403.30	9.335		
14,100.00	7,053.40	14,273.06	7,055.83	205.06	204.09	-90.04	-2,514.90	-7,298.21	3,764.60	3,355.67	408.93	9.206		
14,200.00	7,053.11	14,373.06	7,055.51	207.88	206.90	-90.04	-2,515.57	-7,398.20	3,764.52	3,349.95	414.57	9.081		
14,300.00	7,052.83	14,473.06	7,055.18	210.70	209.72	-90.04	-2,516.23	-7,498.20	3,764.43	3,344.22	420.21	8.959		
14,400.00	7,052.54	14,573.06	7,054.86	213.53	212.53	-90.04	-2,516.90	-7,598.20	3,764.35	3,338.50	425.85	8.840		
14,500.00	7,052.26	14,673.06	7,054.53	216.35	215.35	-90.03	-2,517.57	-7,698.20	3,764.26	3,332.77	431.49	8.724		
14,600.00	7,051.98	14,773.06	7,054.21	219.17	218.17	-90.03	-2,518.24	-7,798.19	3,764.18	3,327.04	437.14	8.611		
14,700.00	7,051.69	14,873.06	7,053.88	222.00	220.99	-90.03	-2,518.90	-7,898.19	3,764.09	3,321.31	442.78	8.501		
14,800.00	7,051.41	14,973.06	7,053.56	224.82	223.81	-90.03	-2,519.57	-7,998.19	3,764.01	3,315.57	448.43	8.394		
14,900.00	7,051.12	15,073.06	7,053.23	227.65	226.63	-90.03	-2,520.24	-8,098.18	3,763.92	3,309.84	454.08	8.289		
14,942.37	7,051.00	15,115.43	7,053.10	228.85	227.83	-90.03	-2,520.52	-8,140.56	3,763.89	3,307.41	456.48	8.246 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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-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	3.00	0.00	3.28	3.28	-179.51	-420.05	-3.62	420.07					
100.00	100.00	103.00	100.00	3.28	3.29	-179.51	-420.05	-3.62	420.07	413.50	6.57	63.936		
200.00	200.00	197.00	200.00	3.34	3.33	-179.51	-420.05	-3.62	420.07	413.40	6.67	62.963 CC, ES		
300.00	300.00	284.59	287.58	3.44	3.42	-179.50	-421.30	-3.70	421.50	414.62	6.87	61.318		
400.00	399.98	371.54	374.43	3.60	3.54	-172.17	-425.17	-3.97	427.68	420.51	7.18	59.583		
500.00	499.84	457.70	460.36	3.81	3.70	-172.17	-431.61	-4.42	440.32	432.74	7.57	58.141		
600.00	599.45	542.58	544.76	4.06	3.89	-172.18	-440.46	-5.03	459.31	451.27	8.04	57.139		
700.00	698.70	625.68	627.12	4.34	4.10	-172.19	-451.54	-5.79	484.52	475.97	8.55	56.642		
800.00	797.47	706.57	706.93	4.64	4.33	-172.21	-464.62	-6.70	515.79	506.69	9.10	56.663		
900.00	895.65	784.88	783.83	4.98	4.59	-172.25	-479.41	-7.72	552.80	543.13	9.68	57.127		
1,000.00	993.66	861.16	858.31	5.32	4.86	-172.35	-495.83	-8.86	593.14	582.91	10.24	57.946		
1,100.00	1,091.67	935.64	930.58	5.69	5.14	-172.42	-513.76	-10.10	635.87	625.06	10.81	58.825		
1,200.00	1,189.68	1,008.28	1,000.60	6.09	5.43	-172.48	-533.05	-11.43	680.90	669.51	11.38	59.815		
1,300.00	1,287.69	1,079.06	1,068.33	6.49	5.74	-172.51	-553.55	-12.85	728.14	716.19	11.96	60.905		
1,400.00	1,385.69	1,147.97	1,133.76	6.90	6.05	-172.53	-575.10	-14.34	777.51	764.99	12.52	62.090		
1,500.00	1,483.70	1,229.24	1,210.48	7.33	6.43	-172.54	-601.86	-16.19	828.38	815.22	13.16	62.932		
1,600.00	1,581.71	1,315.29	1,291.69	7.76	6.86	-172.55	-630.25	-18.16	879.32	865.47	13.85	63.481		
1,700.00	1,679.72	1,401.35	1,372.90	8.19	7.29	-172.56	-658.65	-20.12	930.26	915.70	14.56	63.897		
1,800.00	1,777.73	1,487.40	1,454.11	8.63	7.74	-172.57	-687.04	-22.08	981.20	965.92	15.28	64.206		
1,900.00	1,875.74	1,573.45	1,535.32	9.08	8.19	-172.57	-715.43	-24.05	1,032.14	1,016.12	16.02	64.431		
2,000.00	1,973.75	1,659.51	1,616.53	9.53	8.65	-172.58	-743.82	-26.01	1,083.08	1,066.31	16.77	64.590		
2,100.00	2,071.76	1,745.56	1,697.75	9.98	9.12	-172.59	-772.21	-27.98	1,134.02	1,116.49	17.53	64.696		
2,200.00	2,169.77	1,831.61	1,778.96	10.44	9.59	-172.59	-800.60	-29.94	1,184.96	1,166.66	18.30	64.761		
2,300.00	2,267.77	1,917.67	1,860.17	10.90	10.06	-172.60	-829.00	-31.90	1,235.90	1,216.82	19.07	64.794		
2,400.00	2,365.78	2,003.72	1,941.38	11.36	10.54	-172.60	-857.39	-33.87	1,286.84	1,266.98	19.86	64.801		
2,500.00	2,463.79	2,089.77	2,022.59	11.82	11.02	-172.61	-885.78	-35.83	1,337.77	1,317.13	20.65	64.787		
2,600.00	2,561.80	2,175.83	2,103.80	12.28	11.51	-172.61	-914.17	-37.80	1,388.71	1,367.27	21.44	64.757		
2,700.00	2,659.81	2,261.88	2,185.01	12.75	11.99	-172.61	-942.56	-39.76	1,439.65	1,417.41	22.25	64.715		
2,800.00	2,757.82	2,347.94	2,266.22	13.21	12.48	-172.62	-970.95	-41.72	1,490.59	1,467.54	23.05	64.664		
2,900.00	2,855.83	2,433.99	2,347.44	13.68	12.98	-172.62	-999.35	-43.69	1,541.53	1,517.67	23.86	64.605		
3,000.00	2,953.84	2,520.04	2,428.65	14.15	13.47	-172.62	-1,027.74	-45.65	1,592.47	1,567.80	24.67	64.540		
3,100.00	3,051.85	2,606.10	2,509.86	14.62	13.96	-172.63	-1,056.13	-47.62	1,643.41	1,617.92	25.49	64.472		
3,200.00	3,149.85	2,707.85	2,591.07	15.09	14.55	-172.63	-1,084.52	-49.58	1,694.35	1,667.96	26.39	64.208		
3,300.00	3,247.86	2,778.20	2,672.28	15.56	14.96	-172.63	-1,112.91	-51.54	1,745.29	1,718.16	27.13	64.326		
3,400.00	3,345.87	2,864.26	2,753.49	16.04	15.46	-172.64	-1,141.31	-53.51	1,796.23	1,768.27	27.96	64.251		
3,500.00	3,443.88	2,950.31	2,834.70	16.51	15.96	-172.64	-1,169.70	-55.47	1,847.17	1,818.38	28.78	64.175		
3,600.00	3,541.89	3,036.36	2,915.91	16.98	16.46	-172.64	-1,198.09	-57.43	1,898.11	1,868.49	29.61	64.098		
3,700.00	3,639.90	3,122.42	2,997.12	17.46	16.96	-172.64	-1,226.48	-59.40	1,949.04	1,918.60	30.44	64.022		
3,800.00	3,737.91	3,208.47	3,078.34	17.93	17.46	-172.64	-1,254.87	-61.36	1,999.98	1,968.71	31.28	63.946		
3,900.00	3,835.92	3,305.48	3,159.55	18.41	18.03	-172.65	-1,283.26	-63.33	2,050.92	2,018.76	32.17	63.761		
4,000.00	3,933.93	3,380.58	3,240.76	18.88	18.47	-172.65	-1,311.66	-65.29	2,101.86	2,068.92	32.95	63.797		
4,100.00	4,031.93	3,466.63	3,321.97	19.36	18.97	-172.65	-1,340.05	-67.25	2,152.80	2,119.02	33.78	63.724		
4,200.00	4,129.94	3,552.68	3,403.18	19.84	19.48	-172.65	-1,368.44	-69.22	2,203.74	2,169.12	34.62	63.651		
4,300.00	4,227.95	3,638.74	3,484.39	20.31	19.98	-172.65	-1,396.83	-71.18	2,254.68	2,219.22	35.46	63.580		
4,400.00	4,325.96	3,724.79	3,565.60	20.79	20.49	-172.65	-1,425.22	-73.15	2,305.62	2,269.32	36.30	63.510		
4,500.00	4,423.97	3,810.84	3,646.81	21.27	20.99	-172.65	-1,453.61	-75.11	2,356.56	2,319.41	37.15	63.442		
4,600.00	4,521.98	3,903.10	3,728.02	21.75	21.54	-172.66	-1,482.01	-77.07	2,407.50	2,369.48	38.02	63.321		
4,700.00	4,619.99	3,982.95	3,809.24	22.23	22.01	-172.66	-1,510.40	-79.04	2,458.44	2,419.60	38.83	63.308		
4,800.00	4,718.00	4,069.00	3,890.45	22.70	22.51	-172.66	-1,538.79	-81.00	2,509.38	2,469.70	39.68	63.244		
4,900.00	4,816.01	4,155.06	3,971.66	23.18	23.02	-172.66	-1,567.18	-82.97	2,560.31	2,519.79	40.52	63.180		
5,000.00	4,914.01	4,241.11	4,052.87	23.66	23.53	-172.66	-1,595.57	-84.93	2,611.25	2,569.88	41.37	63.118		
5,100.00	5,012.02	4,327.16	4,134.08	24.14	24.04	-172.66	-1,623.97	-86.89	2,662.19	2,619.97	42.22	63.057		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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-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	5,110.03	4,413.22	4,215.29	24.62	24.55	-172.66	-1,652.36	-88.86	2,713.13	2,670.07	43.07	62.998		
5,300.00	5,208.04	4,500.73	4,296.50	25.10	25.06	-172.66	-1,680.75	-90.82	2,764.07	2,720.15	43.92	62.929		
5,400.00	5,306.05	4,585.33	4,377.71	25.58	25.56	-172.66	-1,709.14	-92.79	2,815.01	2,770.24	44.77	62.882		
5,500.00	5,404.06	4,671.38	4,458.92	26.06	26.07	-172.67	-1,737.53	-94.75	2,865.95	2,820.33	45.62	62.826		
5,600.00	5,502.07	4,757.43	4,540.14	26.54	26.58	-172.67	-1,765.92	-96.71	2,916.89	2,870.42	46.47	62.772		
5,700.00	5,600.08	4,843.49	4,621.35	27.02	27.09	-172.67	-1,794.32	-98.68	2,967.83	2,920.51	47.32	62.718		
5,800.00	5,698.09	4,929.54	4,702.56	27.50	27.60	-172.67	-1,822.71	-100.64	3,018.77	2,970.59	48.17	62.665		
5,900.00	5,796.09	5,015.59	4,783.77	27.98	28.11	-172.67	-1,851.10	-102.61	3,069.71	3,020.68	49.03	62.614		
6,000.00	5,894.10	5,101.65	4,864.98	28.46	28.62	-172.67	-1,879.49	-104.57	3,120.65	3,070.77	49.88	62.563		
6,100.00	5,992.11	5,187.70	4,946.19	28.94	29.13	-172.67	-1,907.88	-106.53	3,171.59	3,120.85	50.73	62.514		
6,200.00	6,090.12	5,273.75	5,027.40	29.42	29.64	-172.67	-1,936.28	-108.50	3,222.52	3,170.94	51.59	62.465		
6,300.00	6,188.13	5,359.81	5,108.61	29.90	30.15	-172.67	-1,964.67	-110.46	3,273.46	3,221.02	52.44	62.417		
6,400.00	6,286.14	5,445.86	5,189.82	30.38	30.66	-172.67	-1,993.06	-112.43	3,324.40	3,271.10	53.30	62.371		
6,500.00	6,384.15	5,531.91	5,271.04	30.87	31.17	-172.67	-2,021.45	-114.39	3,375.34	3,321.18	54.16	62.325		
6,600.00	6,482.15	5,617.97	5,352.25	31.35	31.69	-163.13	-2,049.84	-116.35	3,426.28	3,371.26	55.01	62.279		
6,700.00	6,579.21	5,703.46	5,432.93	31.83	32.19	-127.06	-2,078.05	-118.30	3,476.79	3,420.91	55.87	62.228		
6,800.00	6,673.04	5,786.51	5,511.31	32.30	32.69	-107.95	-2,105.45	-120.20	3,525.84	3,469.12	56.71	62.173		
6,900.00	6,761.33	5,865.06	5,585.44	32.74	33.15	-96.66	-2,131.37	-121.99	3,572.54	3,515.02	57.52	62.110		
7,000.00	6,841.90	5,937.18	5,653.50	33.17	33.58	-89.08	-2,155.16	-123.64	3,616.23	3,557.93	58.30	62.027		
7,100.00	6,912.77	6,001.09	5,713.81	33.60	33.96	-83.60	-2,176.25	-125.10	3,656.36	3,597.29	59.07	61.897		
7,200.00	6,972.19	6,055.22	5,764.90	34.09	34.28	-79.47	-2,194.11	-126.33	3,692.56	3,632.70	59.86	61.684		
7,300.00	7,018.70	6,101.76	5,805.49	34.73	34.56	-76.28	-2,208.30	-127.31	3,724.50	3,663.78	60.72	61.338		
7,400.00	7,051.15	6,129.08	5,834.60	35.55	34.72	-73.81	-2,218.47	-128.02	3,751.92	3,690.31	61.61	60.897		
7,500.00	7,068.75	6,146.99	5,851.50	36.56	34.83	-71.93	-2,224.38	-128.43	3,774.55	3,711.97	62.58	60.313		
7,600.00	7,071.91	6,152.27	5,856.48	37.71	34.86	-70.97	-2,226.13	-128.55	3,792.55	3,728.95	63.60	59.632		
7,700.00	7,071.62	6,154.53	5,858.62	39.03	34.87	-71.01	-2,226.87	-128.60	3,811.35	3,746.61	64.74	58.869		
7,800.00	7,071.34	6,156.79	5,860.75	40.51	34.89	-71.04	-2,227.62	-128.65	3,832.67	3,766.66	66.02	58.056		
7,900.00	7,071.05	6,159.05	5,862.89	42.14	34.90	-71.08	-2,228.36	-128.70	3,856.47	3,789.07	67.40	57.221		
8,000.00	7,070.77	6,161.32	5,865.02	43.89	34.91	-71.11	-2,229.11	-128.75	3,882.69	3,813.83	68.86	56.384		
8,100.00	7,070.48	6,163.58	5,867.15	45.76	34.93	-71.15	-2,229.86	-128.81	3,911.30	3,840.90	70.39	55.563		
8,200.00	7,070.20	6,165.84	5,869.29	47.72	34.94	-71.18	-2,230.60	-128.86	3,942.23	3,870.26	71.98	54.771		
8,300.00	7,069.92	6,168.10	5,871.42	49.78	34.95	-71.21	-2,231.35	-128.91	3,975.44	3,901.85	73.59	54.019		
8,400.00	7,069.63	6,170.25	5,873.56	51.90	34.96	-91.05	-2,232.10	-128.96	3,980.60	3,876.67	103.93	38.300		
8,500.00	7,069.35	6,172.40	5,875.70	54.10	34.97	-91.04	-2,232.85	-129.01	3,985.76	3,851.49	108.25	36.771		
8,600.00	7,069.06	6,174.55	5,877.84	56.36	34.98	-91.04	-2,233.60	-129.06	3,990.91	3,826.31	112.69	35.320		
8,700.00	7,068.78	6,176.70	5,879.98	58.66	34.99	-91.04	-2,234.35	-129.11	3,996.06	3,801.13	117.25	33.947		
8,800.00	7,068.49	6,178.85	5,882.12	61.02	35.00	-91.03	-2,235.10	-129.16	4,001.21	3,775.95	121.90	32.651		
8,900.00	7,068.21	6,180.99	5,884.26	63.42	35.01	-91.03	-2,235.85	-129.21	4,006.36	3,750.77	126.63	31.428		
9,000.00	7,067.92	6,183.14	5,886.40	65.85	35.02	-91.02	-2,236.60	-129.26	4,011.51	3,725.59	131.45	30.276		
9,100.00	7,067.64	6,185.28	5,888.54	68.32	35.03	-91.02	-2,237.35	-129.31	4,016.66	3,700.41	136.33	29.190		
9,200.00	7,067.35	6,187.43	5,890.68	70.81	35.04	-91.01	-2,238.10	-129.36	4,021.81	3,675.23	141.28	28.167		
9,300.00	7,067.07	6,189.57	5,892.82	73.34	35.05	-91.01	-2,238.85	-129.41	4,026.96	3,650.05	146.29	27.202		
9,400.00	7,066.78	6,191.71	5,894.96	75.88	35.06	-91.01	-2,239.60	-129.46	4,032.11	3,624.87	151.34	26.293		
9,500.00	7,066.50	6,193.85	5,897.10	78.45	35.07	-91.00	-2,240.35	-129.51	4,037.26	3,599.69	156.44	25.435		
9,600.00	7,066.21	6,195.99	5,899.24	81.04	35.08	-91.00	-2,241.10	-129.56	4,042.41	3,574.51	161.58	24.625		
9,700.00	7,065.93	6,198.13	5,901.38	83.64	35.09	-90.99	-2,241.85	-129.61	4,047.56	3,549.33	166.76	23.859		
9,800.00	7,065.64	6,200.27	5,903.52	86.26	35.10	-90.99	-2,242.60	-129.66	4,052.71	3,524.15	171.97	23.135		
9,900.00	7,065.36	6,202.41	5,905.66	88.90	35.11	-90.99	-2,243.35	-129.71	4,057.86	3,498.97	177.22	22.449		
10,000.00	7,065.07	6,204.55	5,907.80	91.55	35.12	-90.98	-2,244.10	-129.76	4,063.01	3,473.79	182.49	21.800		
10,100.00	7,064.79	6,206.69	5,909.94	94.21	35.13	-90.98	-2,244.85	-129.81	4,068.16	3,448.61	187.79	21.184		
10,200.00	7,064.50	6,208.83	5,912.08	96.88	35.14	-90.97	-2,245.60	-129.86	4,073.31	3,423.43	193.11	20.600		
10,300.00	7,064.22	6,210.97	5,914.22	99.57	35.15	-90.97	-2,246.35	-129.91	4,078.46	3,398.25	198.45	20.044		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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-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	7,063.94	10,702.14	7,130.99	102.26	102.16	-90.97	-2,699.62	-3,599.45	3,977.71	3,773.89	203.82	19.516		
10,500.00	7,063.65	10,802.14	7,130.42	104.96	104.83	-90.96	-2,700.23	-3,699.44	3,977.57	3,768.37	209.20	19.013		
10,600.00	7,063.37	10,902.14	7,129.86	107.67	107.50	-90.96	-2,700.85	-3,799.44	3,977.42	3,762.82	214.60	18.534		
10,700.00	7,063.08	11,002.14	7,129.29	110.39	110.19	-90.95	-2,701.46	-3,899.44	3,977.28	3,757.26	220.02	18.077		
10,800.00	7,062.80	11,102.14	7,128.72	113.11	112.88	-90.95	-2,702.07	-3,999.43	3,977.14	3,751.69	225.45	17.641		
10,900.00	7,062.51	11,202.14	7,128.15	115.84	115.58	-90.95	-2,702.68	-4,099.43	3,976.99	3,746.10	230.90	17.224		
11,000.00	7,062.23	11,302.14	7,127.58	118.58	118.29	-90.94	-2,703.30	-4,199.42	3,976.85	3,740.50	236.35	16.826		
11,100.00	7,061.94	11,402.14	7,127.01	121.32	121.01	-90.94	-2,703.91	-4,299.42	3,976.70	3,734.88	241.82	16.445		
11,200.00	7,061.66	11,502.14	7,126.44	124.07	123.73	-90.93	-2,704.52	-4,399.42	3,976.56	3,729.26	247.30	16.080		
11,300.00	7,061.37	11,602.14	7,125.88	126.82	126.46	-90.93	-2,705.14	-4,499.41	3,976.42	3,723.62	252.80	15.730		
11,400.00	7,061.09	11,702.14	7,125.31	129.58	129.20	-90.93	-2,705.75	-4,599.41	3,976.27	3,717.98	258.30	15.394		
11,500.00	7,060.80	11,802.14	7,124.74	132.34	131.94	-90.92	-2,706.36	-4,699.40	3,976.13	3,712.32	263.81	15.072		
11,600.00	7,060.52	11,902.14	7,124.17	135.10	134.68	-90.92	-2,706.98	-4,799.40	3,975.98	3,706.66	269.33	14.763		
11,700.00	7,060.23	12,002.14	7,123.60	137.87	137.43	-90.91	-2,707.59	-4,899.40	3,975.84	3,700.99	274.85	14.465		
11,800.00	7,059.95	12,102.14	7,123.03	140.64	140.18	-90.91	-2,708.20	-4,999.39	3,975.70	3,695.31	280.39	14.179		
11,900.00	7,059.66	12,202.13	7,122.47	143.42	142.94	-90.91	-2,708.81	-5,099.39	3,975.55	3,689.62	285.93	13.904		
12,000.00	7,059.38	12,302.13	7,121.90	146.20	145.70	-90.90	-2,709.43	-5,199.38	3,975.41	3,683.93	291.48	13.639		
12,100.00	7,059.09	12,402.13	7,121.33	148.98	148.47	-90.90	-2,710.04	-5,299.38	3,975.27	3,678.23	297.04	13.383		
12,200.00	7,058.81	12,502.13	7,120.76	151.77	151.24	-90.89	-2,710.65	-5,399.38	3,975.12	3,672.53	302.60	13.137		
12,300.00	7,058.52	12,602.13	7,120.19	154.55	154.01	-90.89	-2,711.27	-5,499.37	3,974.98	3,666.81	308.16	12.899		
12,400.00	7,058.24	12,702.13	7,119.62	157.34	156.79	-90.89	-2,711.88	-5,599.37	3,974.83	3,661.10	313.74	12.669		
12,500.00	7,057.96	12,802.13	7,119.05	160.14	159.56	-90.88	-2,712.49	-5,699.36	3,974.69	3,655.38	319.31	12.448		
12,600.00	7,057.67	12,902.13	7,118.49	162.93	162.35	-90.88	-2,713.11	-5,799.36	3,974.55	3,649.65	324.90	12.233		
12,700.00	7,057.39	13,002.13	7,117.92	165.73	165.13	-90.87	-2,713.72	-5,899.36	3,974.40	3,643.92	330.48	12.026		
12,800.00	7,057.10	13,102.13	7,117.35	168.53	167.92	-90.87	-2,714.33	-5,999.35	3,974.26	3,638.19	336.07	11.826		
12,900.00	7,056.82	13,202.13	7,116.78	171.33	170.70	-90.86	-2,714.94	-6,099.35	3,974.12	3,632.45	341.67	11.631		
13,000.00	7,056.53	13,302.13	7,116.21	174.13	173.50	-90.86	-2,715.56	-6,199.35	3,973.97	3,626.70	347.27	11.443		
13,100.00	7,056.25	13,402.13	7,115.64	176.94	176.29	-90.86	-2,716.17	-6,299.34	3,973.83	3,620.96	352.87	11.261		
13,200.00	7,055.96	13,502.13	7,115.08	179.74	179.08	-90.85	-2,716.78	-6,399.34	3,973.69	3,615.21	358.48	11.085		
13,300.00	7,055.68	13,602.13	7,114.51	182.55	181.88	-90.85	-2,717.40	-6,499.33	3,973.54	3,609.45	364.09	10.914		
13,400.00	7,055.39	13,702.13	7,113.94	185.36	184.68	-90.84	-2,718.01	-6,599.33	3,973.40	3,603.69	369.70	10.748		
13,500.00	7,055.11	13,802.13	7,113.37	188.17	187.48	-90.84	-2,718.62	-6,699.33	3,973.25	3,597.93	375.32	10.586		
13,600.00	7,054.82	13,902.13	7,112.80	190.98	190.28	-90.84	-2,719.23	-6,799.32	3,973.11	3,592.17	380.94	10.430		
13,700.00	7,054.54	14,002.13	7,112.23	193.80	193.09	-90.83	-2,719.85	-6,899.32	3,972.97	3,586.40	386.56	10.278		
13,800.00	7,054.25	14,102.13	7,111.66	196.61	195.89	-90.83	-2,720.46	-6,999.31	3,972.82	3,580.64	392.19	10.130		
13,900.00	7,053.97	14,202.12	7,111.10	199.43	198.70	-90.82	-2,721.07	-7,099.31	3,972.68	3,574.86	397.82	9.986		
14,000.00	7,053.68	14,302.12	7,110.53	202.25	201.51	-90.82	-2,721.69	-7,199.31	3,972.54	3,569.09	403.45	9.847		
14,100.00	7,053.40	14,402.12	7,109.96	205.06	204.32	-90.82	-2,722.30	-7,299.30	3,972.39	3,563.31	409.08	9.711		
14,200.00	7,053.11	14,502.12	7,109.39	207.88	207.13	-90.81	-2,722.91	-7,399.30	3,972.25	3,557.54	414.71	9.578		
14,300.00	7,052.83	14,602.12	7,108.82	210.70	209.95	-90.81	-2,723.53	-7,499.29	3,972.11	3,551.75	420.35	9.449		
14,400.00	7,052.54	14,702.12	7,108.25	213.53	212.76	-90.80	-2,724.14	-7,599.29	3,971.96	3,545.97	425.99	9.324		
14,500.00	7,052.26	14,802.12	7,107.69	216.35	215.58	-90.80	-2,724.75	-7,699.29	3,971.82	3,540.19	431.63	9.202		
14,600.00	7,051.98	14,902.12	7,107.12	219.17	218.39	-90.80	-2,725.36	-7,799.28	3,971.68	3,534.40	437.28	9.083		
14,700.00	7,051.69	15,002.12	7,106.55	222.00	221.21	-90.79	-2,725.98	-7,899.28	3,971.53	3,528.61	442.92	8.967		
14,800.00	7,051.41	15,102.12	7,105.98	224.82	224.03	-90.79	-2,726.59	-7,999.27	3,971.39	3,522.82	448.57	8.853		
14,900.00	7,051.12	15,202.12	7,105.41	227.65	226.85	-90.78	-2,727.20	-8,099.27	3,971.25	3,517.03	454.22	8.743		
14,942.37	7,051.00	15,244.49	7,105.17	228.85	228.04	-90.78	-2,727.46	-8,141.64	3,971.19	3,514.57	456.61	8.697 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	3.00	0.00	3.28	3.28	-179.50	-480.15	-4.17	480.17					
100.00	100.00	103.00	100.00	3.28	3.29	-179.50	-480.15	-4.17	480.17	473.60	6.57	73.084		
200.00	200.00	197.00	200.00	3.34	3.33	-179.50	-480.15	-4.17	480.17	473.50	6.67	71.971 CC, ES		
300.00	300.00	283.06	286.05	3.44	3.42	-179.50	-481.35	-4.24	481.57	474.70	6.87	70.079		
400.00	399.98	368.45	371.35	3.60	3.54	-172.18	-485.09	-4.44	487.68	480.51	7.17	67.997		
500.00	499.84	453.08	455.75	3.81	3.69	-172.18	-491.31	-4.78	500.19	492.63	7.56	66.144		
600.00	599.45	536.48	538.70	4.06	3.88	-172.20	-499.86	-5.25	519.00	510.98	8.02	64.703		
700.00	698.70	618.16	619.68	4.34	4.08	-172.22	-510.57	-5.84	544.00	535.47	8.53	63.770		
800.00	797.47	697.70	698.20	4.64	4.31	-172.24	-523.21	-6.53	575.01	565.94	9.07	63.374		
900.00	895.65	774.77	773.92	4.98	4.55	-172.30	-537.53	-7.31	611.73	602.09	9.64	63.443		
1,000.00	993.66	849.87	847.31	5.32	4.81	-172.41	-553.44	-8.18	651.75	641.55	10.20	63.916		
1,100.00	1,091.67	923.24	918.58	5.69	5.09	-172.50	-570.82	-9.14	694.12	683.36	10.76	64.481		
1,200.00	1,189.68	994.84	987.68	6.09	5.37	-172.56	-589.55	-10.16	738.77	727.43	11.33	65.179		
1,300.00	1,287.69	1,064.66	1,054.59	6.49	5.67	-172.62	-609.45	-11.25	785.61	773.71	11.90	66.000		
1,400.00	1,385.69	1,132.66	1,119.27	6.90	5.98	-172.65	-630.41	-12.40	834.56	822.09	12.47	66.940		
1,500.00	1,483.70	1,200.00	1,182.82	7.33	6.29	-172.68	-652.66	-13.62	885.54	872.51	13.03	67.961		
1,600.00	1,581.71	1,263.26	1,242.01	7.76	6.61	-172.70	-674.92	-14.84	938.45	924.88	13.57	69.144		
1,700.00	1,679.72	1,325.86	1,300.10	8.19	6.93	-172.71	-698.22	-16.11	993.24	979.13	14.11	70.392		
1,800.00	1,777.73	1,386.68	1,356.03	8.63	7.26	-172.71	-722.07	-17.42	1,049.80	1,035.17	14.64	71.728		
1,900.00	1,875.74	1,461.18	1,424.06	9.08	7.67	-172.71	-752.41	-19.08	1,107.70	1,092.43	15.27	72.539		
2,000.00	1,973.75	1,542.66	1,498.43	9.53	8.13	-172.71	-785.65	-20.90	1,165.67	1,149.70	15.97	72.975		
2,100.00	2,071.76	1,624.14	1,572.80	9.98	8.60	-172.70	-818.89	-22.72	1,223.65	1,206.96	16.69	73.312		
2,200.00	2,169.77	1,705.62	1,647.16	10.44	9.08	-172.70	-852.13	-24.54	1,281.63	1,264.21	17.42	73.570		
2,300.00	2,267.77	1,787.09	1,721.53	10.90	9.57	-172.70	-885.36	-26.36	1,339.61	1,321.45	18.16	73.763		
2,400.00	2,365.78	1,868.57	1,795.90	11.36	10.07	-172.70	-918.60	-28.18	1,397.59	1,378.67	18.91	73.904		
2,500.00	2,463.79	1,950.05	1,870.26	11.82	10.56	-172.70	-951.84	-30.00	1,455.56	1,435.89	19.67	74.002		
2,600.00	2,561.80	2,031.53	1,944.63	12.28	11.07	-172.70	-985.08	-31.82	1,513.54	1,493.11	20.43	74.067		
2,700.00	2,659.81	2,113.00	2,019.00	12.75	11.57	-172.70	-1,018.32	-33.64	1,571.52	1,550.31	21.21	74.104		
2,800.00	2,757.82	2,205.52	2,093.36	13.21	12.15	-172.69	-1,051.56	-35.46	1,629.50	1,607.45	22.04	73.926		
2,900.00	2,855.83	2,275.96	2,167.73	13.68	12.59	-172.69	-1,084.80	-37.28	1,687.47	1,664.71	22.77	74.115		
3,000.00	2,953.84	2,357.44	2,242.10	14.15	13.11	-172.69	-1,118.04	-39.10	1,745.45	1,721.90	23.56	74.096		
3,100.00	3,051.85	2,438.91	2,316.46	14.62	13.62	-172.69	-1,151.28	-40.92	1,803.43	1,779.08	24.35	74.066		
3,200.00	3,149.85	2,520.39	2,390.83	15.09	14.14	-172.69	-1,184.52	-42.74	1,861.41	1,836.26	25.15	74.026		
3,300.00	3,247.86	2,601.87	2,465.20	15.56	14.66	-172.69	-1,217.75	-44.56	1,919.39	1,893.44	25.95	73.979		
3,400.00	3,345.87	2,683.34	2,539.56	16.04	15.18	-172.69	-1,250.99	-46.38	1,977.36	1,950.62	26.75	73.925		
3,500.00	3,443.88	2,764.82	2,613.93	16.51	15.71	-172.69	-1,284.23	-48.20	2,035.34	2,007.79	27.55	73.867		
3,600.00	3,541.89	2,846.30	2,688.30	16.98	16.23	-172.69	-1,317.47	-50.02	2,093.32	2,064.96	28.36	73.805		
3,700.00	3,639.90	2,927.78	2,762.66	17.46	16.76	-172.69	-1,350.71	-51.84	2,151.30	2,122.12	29.17	73.740		
3,800.00	3,737.91	3,009.25	2,837.03	17.93	17.29	-172.69	-1,383.95	-53.66	2,209.28	2,179.29	29.99	73.673		
3,900.00	3,835.92	3,090.73	2,911.40	18.41	17.81	-172.69	-1,417.19	-55.48	2,267.25	2,236.45	30.80	73.604		
4,000.00	3,933.93	3,172.21	2,985.76	18.88	18.34	-172.69	-1,450.43	-57.30	2,325.23	2,293.61	31.62	73.534		
4,100.00	4,031.93	3,253.69	3,060.13	19.36	18.87	-172.69	-1,483.67	-59.12	2,383.21	2,350.77	32.44	73.464		
4,200.00	4,129.94	3,335.16	3,134.50	19.84	19.40	-172.69	-1,516.91	-60.94	2,441.19	2,407.93	33.26	73.394		
4,300.00	4,227.95	3,416.64	3,208.86	20.31	19.93	-172.68	-1,550.14	-62.76	2,499.16	2,465.08	34.08	73.323		
4,400.00	4,325.96	3,498.12	3,283.23	20.79	20.47	-172.68	-1,583.38	-64.58	2,557.14	2,522.23	34.91	73.252		
4,500.00	4,423.97	3,579.60	3,357.60	21.27	21.00	-172.68	-1,616.62	-66.40	2,615.12	2,579.39	35.73	73.182		
4,600.00	4,521.98	3,661.07	3,431.97	21.75	21.53	-172.68	-1,649.86	-68.22	2,673.10	2,636.54	36.56	73.113		
4,700.00	4,619.99	3,742.55	3,506.33	22.23	22.07	-172.68	-1,683.10	-70.04	2,731.08	2,693.69	37.39	73.044		
4,800.00	4,718.00	3,824.03	3,580.70	22.70	22.60	-172.68	-1,716.34	-71.86	2,789.05	2,750.84	38.22	72.975		
4,900.00	4,816.01	3,905.51	3,655.07	23.18	23.13	-172.68	-1,749.58	-73.68	2,847.03	2,807.98	39.05	72.908		
5,000.00	4,914.01	3,986.98	3,729.43	23.66	23.67	-172.68	-1,782.82	-75.50	2,905.01	2,865.13	39.88	72.841		
5,100.00	5,012.02	4,068.46	3,803.80	24.14	24.20	-172.68	-1,816.06	-77.32	2,962.99	2,922.27	40.71	72.775		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	4,149.94	3,878.17	24.62	24.74	-172.68	-1,849.30	-79.14	3,020.97	2,979.42	41.55	72.710		
5,300.00	5,208.04	4,231.42	3,952.53	25.10	25.27	-172.68	-1,882.53	-80.96	3,078.94	3,036.56	42.38	72.646		
5,400.00	5,306.05	4,312.89	4,026.90	25.58	25.81	-172.68	-1,915.77	-82.77	3,136.92	3,093.70	43.22	72.583		
5,500.00	5,404.06	4,394.37	4,101.27	26.06	26.35	-172.68	-1,949.01	-84.59	3,194.90	3,150.84	44.05	72.521		
5,600.00	5,502.07	4,475.85	4,175.63	26.54	26.88	-172.68	-1,982.25	-86.41	3,252.88	3,207.99	44.89	72.459		
5,700.00	5,600.08	4,557.32	4,250.00	27.02	27.42	-172.68	-2,015.49	-88.23	3,310.86	3,265.12	45.73	72.399		
5,800.00	5,698.09	4,638.80	4,324.37	27.50	27.96	-172.68	-2,048.73	-90.05	3,368.83	3,322.26	46.57	72.340		
5,900.00	5,796.09	4,720.28	4,398.73	27.98	28.50	-172.68	-2,081.97	-91.87	3,426.81	3,379.40	47.41	72.281		
6,000.00	5,894.10	4,801.76	4,473.10	28.46	29.03	-172.68	-2,115.21	-93.69	3,484.79	3,436.54	48.25	72.224		
6,100.00	5,992.11	4,883.23	4,547.47	28.94	29.57	-172.68	-2,148.45	-95.51	3,542.77	3,493.68	49.09	72.167		
6,200.00	6,090.12	4,964.71	4,621.83	29.42	30.11	-172.68	-2,181.69	-97.33	3,600.74	3,550.81	49.93	72.111		
6,300.00	6,188.13	5,046.19	4,696.20	29.90	30.65	-172.68	-2,214.92	-99.15	3,658.72	3,607.95	50.78	72.056		
6,400.00	6,286.14	5,127.67	4,770.57	30.38	31.19	-172.68	-2,248.16	-100.97	3,716.70	3,665.08	51.62	72.002		
6,500.00	6,384.15	5,209.14	4,844.93	30.87	31.72	-172.68	-2,281.40	-102.79	3,774.68	3,722.21	52.46	71.949		
6,600.00	6,482.15	5,309.38	4,919.30	31.35	32.39	-162.92	-2,314.64	-104.61	3,832.65	3,779.24	53.41	71.755		
6,700.00	6,579.21	5,371.59	4,993.20	31.83	32.80	-125.79	-2,347.67	-106.42	3,890.15	3,836.00	54.15	71.837		
6,800.00	6,673.04	5,450.26	5,065.00	32.30	33.32	-105.70	-2,379.77	-108.18	3,945.98	3,891.00	54.98	71.776		
6,900.00	6,761.33	5,524.69	5,132.94	32.74	33.81	-93.57	-2,410.13	-109.84	3,999.05	3,943.28	55.77	71.708		
7,000.00	6,841.90	5,606.96	5,195.33	33.17	34.36	-85.31	-2,438.02	-111.37	4,048.46	3,991.85	56.61	71.518		
7,100.00	6,912.77	5,653.65	5,250.65	33.60	34.66	-79.30	-2,462.74	-112.72	4,093.50	4,036.22	57.28	71.466		
7,200.00	6,972.19	5,705.01	5,297.53	34.09	35.00	-74.79	-2,483.69	-113.87	4,133.59	4,075.55	58.05	71.213		
7,300.00	7,018.70	5,745.86	5,334.81	34.73	35.28	-71.39	-2,500.36	-114.78	4,168.27	4,109.41	58.86	70.815		
7,400.00	7,051.15	5,775.19	5,361.58	35.55	35.47	-68.83	-2,512.32	-115.44	4,197.13	4,137.38	59.75	70.249		
7,500.00	7,068.75	5,807.71	5,377.19	36.56	35.68	-67.00	-2,519.30	-115.82	4,219.84	4,159.05	60.79	69.419		
7,600.00	7,071.91	5,802.58	5,381.88	37.71	35.65	-66.14	-2,521.39	-115.93	4,236.59	4,174.85	61.74	68.625		
7,700.00	7,071.62	5,800.30	5,383.96	39.03	35.64	-66.17	-2,522.32	-115.98	4,253.64	4,190.79	62.85	67.679		
7,800.00	7,071.34	5,801.99	5,386.04	40.51	35.65	-66.20	-2,523.25	-116.04	4,272.97	4,208.85	64.12	66.638		
7,900.00	7,071.05	5,804.27	5,388.12	42.14	35.66	-66.23	-2,524.18	-116.09	4,294.54	4,229.02	65.51	65.554		
8,000.00	7,070.77	5,806.55	5,390.20	43.89	35.68	-66.26	-2,525.12	-116.14	4,318.31	4,251.32	66.99	64.459		
8,100.00	7,070.48	5,808.83	5,392.28	45.76	35.69	-66.30	-2,526.05	-116.19	4,344.26	4,275.71	68.55	63.373		
8,200.00	7,070.20	5,811.11	5,394.36	47.72	35.71	-66.33	-2,526.98	-116.24	4,372.33	4,302.17	70.17	62.315		
8,300.00	7,069.92	5,813.39	5,396.45	49.78	35.72	-66.36	-2,527.91	-116.29	4,402.50	4,330.68	71.82	61.297		
8,400.00	7,069.63	5,815.67	5,398.53	51.90	35.74	-66.39	-2,528.84	-116.34	4,434.72	4,361.21	73.51	60.327		
8,500.00	7,069.35	5,817.95	5,400.61	54.10	35.75	-66.42	-2,529.77	-116.39	4,468.95	4,393.73	75.22	59.413		
8,600.00	7,069.06	5,820.23	5,402.69	56.36	35.77	-66.45	-2,530.70	-116.44	4,505.13	4,428.20	76.93	58.559		
8,700.00	7,068.78	5,822.51	5,404.77	58.66	35.78	-66.48	-2,531.63	-116.49	4,543.23	4,464.57	78.65	57.765		
8,800.00	7,068.49	5,824.79	5,406.85	61.02	35.80	-66.51	-2,532.56	-116.54	4,583.18	4,502.82	80.36	57.032		
8,900.00	7,068.21	9,411.76	7,139.90	63.42	65.70	-90.89	-3,323.24	-2,096.77	4,612.61	4,484.95	127.66	36.131		
9,000.00	7,067.92	9,511.76	7,139.36	65.85	67.95	-90.89	-3,323.83	-2,196.76	4,612.44	4,480.01	132.43	34.828		
9,100.00	7,067.64	9,611.76	7,138.81	68.32	70.25	-90.88	-3,324.41	-2,296.76	4,612.28	4,475.00	137.28	33.599		
9,200.00	7,067.35	9,711.76	7,138.27	70.81	72.59	-90.88	-3,325.00	-2,396.76	4,612.11	4,469.93	142.18	32.438		
9,300.00	7,067.07	9,811.76	7,137.73	73.34	74.97	-90.88	-3,325.59	-2,496.75	4,611.94	4,464.79	147.15	31.343		
9,400.00	7,066.78	9,911.76	7,137.19	75.88	77.39	-90.88	-3,326.18	-2,596.75	4,611.77	4,459.61	152.16	30.308		
9,500.00	7,066.50	10,011.76	7,136.65	78.45	79.83	-90.87	-3,326.76	-2,696.75	4,611.60	4,454.37	157.23	29.330		
9,600.00	7,066.21	10,111.76	7,136.11	81.04	82.31	-90.87	-3,327.35	-2,796.74	4,611.43	4,449.10	162.34	28.406		
9,700.00	7,065.93	10,211.76	7,135.57	83.64	84.81	-90.87	-3,327.94	-2,896.74	4,611.27	4,443.78	167.49	27.532		
9,800.00	7,065.64	10,311.76	7,135.03	86.26	87.34	-90.86	-3,328.53	-2,996.73	4,611.10	4,438.43	172.67	26.705		
9,900.00	7,065.36	10,411.76	7,134.49	88.90	89.89	-90.86	-3,329.12	-3,096.73	4,610.93	4,433.04	177.89	25.921		
10,000.00	7,065.07	10,511.75	7,133.95	91.55	92.45	-90.86	-3,329.70	-3,196.73	4,610.76	4,427.63	183.13	25.177		
10,100.00	7,064.79	10,611.75	7,133.40	94.21	95.03	-90.85	-3,330.29	-3,296.72	4,610.59	4,422.19	188.41	24.472		
10,200.00	7,064.50	10,711.75	7,132.86	96.88	97.63	-90.85	-3,330.88	-3,396.72	4,610.42	4,416.72	193.70	23.801		
10,300.00	7,064.22	10,811.75	7,132.32	99.57	100.25	-90.85	-3,331.47	-3,496.72	4,610.26	4,411.23	199.03	23.164		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	10,911.75	7,131.78	102.26	102.87	-90.84	-3,332.06	-3,596.71	4,610.09	4,405.72	204.37	22.558		
10,500.00	7,063.65	11,011.75	7,131.24	104.96	105.51	-90.84	-3,332.64	-3,696.71	4,609.92	4,400.19	209.73	21.980		
10,600.00	7,063.37	11,111.75	7,130.70	107.67	108.16	-90.84	-3,333.23	-3,796.71	4,609.75	4,394.64	215.11	21.429		
10,700.00	7,063.08	11,211.75	7,130.16	110.39	110.83	-90.83	-3,333.82	-3,896.70	4,609.58	4,389.07	220.51	20.904		
10,800.00	7,062.80	11,311.75	7,129.62	113.11	113.50	-90.83	-3,334.41	-3,996.70	4,609.42	4,383.49	225.93	20.402		
10,900.00	7,062.51	11,411.75	7,129.08	115.84	116.18	-90.83	-3,335.00	-4,096.69	4,609.25	4,377.89	231.35	19.923		
11,000.00	7,062.23	11,511.75	7,128.53	118.58	118.87	-90.82	-3,335.58	-4,196.69	4,609.08	4,372.28	236.80	19.464		
11,100.00	7,061.94	11,611.75	7,127.99	121.32	121.56	-90.82	-3,336.17	-4,296.69	4,608.91	4,366.66	242.25	19.025		
11,200.00	7,061.66	11,711.75	7,127.45	124.07	124.27	-90.82	-3,336.76	-4,396.68	4,608.74	4,361.03	247.72	18.605		
11,300.00	7,061.37	11,811.75	7,126.91	126.82	126.98	-90.82	-3,337.35	-4,496.68	4,608.58	4,355.38	253.20	18.202		
11,400.00	7,061.09	11,911.75	7,126.37	129.58	129.70	-90.81	-3,337.94	-4,596.68	4,608.41	4,349.72	258.68	17.815		
11,500.00	7,060.80	12,011.75	7,125.83	132.34	132.42	-90.81	-3,338.52	-4,696.67	4,608.24	4,344.06	264.18	17.443		
11,600.00	7,060.52	12,111.75	7,125.29	135.10	135.15	-90.81	-3,339.11	-4,796.67	4,608.07	4,338.38	269.69	17.087		
11,700.00	7,060.23	12,211.75	7,124.75	137.87	137.89	-90.80	-3,339.70	-4,896.66	4,607.90	4,332.70	275.20	16.744		
11,800.00	7,059.95	12,311.75	7,124.21	140.64	140.63	-90.80	-3,340.29	-4,996.66	4,607.74	4,327.01	280.73	16.414		
11,900.00	7,059.66	12,411.75	7,123.66	143.42	143.37	-90.80	-3,340.87	-5,096.66	4,607.57	4,321.31	286.26	16.096		
12,000.00	7,059.38	12,511.75	7,123.12	146.20	146.12	-90.79	-3,341.46	-5,196.65	4,607.40	4,315.60	291.80	15.790		
12,100.00	7,059.09	12,611.74	7,122.58	148.98	148.87	-90.79	-3,342.05	-5,296.65	4,607.23	4,309.89	297.34	15.495		
12,200.00	7,058.81	12,711.74	7,122.04	151.77	151.63	-90.79	-3,342.64	-5,396.65	4,607.06	4,304.17	302.89	15.210		
12,300.00	7,058.52	12,811.74	7,121.50	154.55	154.39	-90.78	-3,343.23	-5,496.64	4,606.90	4,298.45	308.45	14.936		
12,400.00	7,058.24	12,911.74	7,120.96	157.34	157.15	-90.78	-3,343.81	-5,596.64	4,606.73	4,292.71	314.01	14.670		
12,500.00	7,057.96	13,011.74	7,120.42	160.14	159.92	-90.78	-3,344.40	-5,696.64	4,606.56	4,286.98	319.58	14.414		
12,600.00	7,057.67	13,111.74	7,119.88	162.93	162.69	-90.77	-3,344.99	-5,796.63	4,606.39	4,281.24	325.16	14.167		
12,700.00	7,057.39	13,211.74	7,119.34	165.73	165.47	-90.77	-3,345.58	-5,896.63	4,606.22	4,275.49	330.73	13.927		
12,800.00	7,057.10	13,311.74	7,118.79	168.53	168.24	-90.77	-3,346.17	-5,996.62	4,606.06	4,269.74	336.32	13.696		
12,900.00	7,056.82	13,411.74	7,118.25	171.33	171.02	-90.76	-3,346.75	-6,096.62	4,605.89	4,263.98	341.91	13.471		
13,000.00	7,056.53	13,511.74	7,117.71	174.13	173.81	-90.76	-3,347.34	-6,196.62	4,605.72	4,258.22	347.50	13.254		
13,100.00	7,056.25	13,611.74	7,117.17	176.94	176.59	-90.76	-3,347.93	-6,296.61	4,605.55	4,252.46	353.09	13.043		
13,200.00	7,055.96	13,711.74	7,116.63	179.74	179.38	-90.76	-3,348.52	-6,396.61	4,605.38	4,246.69	358.69	12.839		
13,300.00	7,055.68	13,811.74	7,116.09	182.55	182.17	-90.75	-3,349.11	-6,496.61	4,605.22	4,240.92	364.30	12.641		
13,400.00	7,055.39	13,911.74	7,115.55	185.36	184.96	-90.75	-3,349.69	-6,596.60	4,605.05	4,235.14	369.90	12.449		
13,500.00	7,055.11	14,011.74	7,115.01	188.17	187.75	-90.75	-3,350.28	-6,696.60	4,604.88	4,229.37	375.52	12.263		
13,600.00	7,054.82	14,111.74	7,114.47	190.98	190.55	-90.74	-3,350.87	-6,796.60	4,604.71	4,223.58	381.13	12.082		
13,700.00	7,054.54	14,211.74	7,113.93	193.80	193.34	-90.74	-3,351.46	-6,896.59	4,604.55	4,217.80	386.75	11.906		
13,800.00	7,054.25	14,311.74	7,113.38	196.61	196.14	-90.74	-3,352.05	-6,996.59	4,604.38	4,212.01	392.36	11.735		
13,900.00	7,053.97	14,411.74	7,112.84	199.43	198.94	-90.73	-3,352.63	-7,096.58	4,604.21	4,206.22	397.99	11.569		
14,000.00	7,053.68	14,511.74	7,112.30	202.25	201.75	-90.73	-3,353.22	-7,196.58	4,604.04	4,200.43	403.61	11.407		
14,100.00	7,053.40	14,611.74	7,111.76	205.06	204.55	-90.73	-3,353.81	-7,296.58	4,603.88	4,194.64	409.24	11.250		
14,200.00	7,053.11	14,711.74	7,111.22	207.88	207.35	-90.72	-3,354.40	-7,396.57	4,603.71	4,188.84	414.87	11.097		
14,300.00	7,052.83	14,811.73	7,110.68	210.70	210.16	-90.72	-3,354.98	-7,496.57	4,603.54	4,183.04	420.50	10.948		
14,400.00	7,052.54	14,911.73	7,110.14	213.53	212.97	-90.72	-3,355.57	-7,596.57	4,603.37	4,177.24	426.14	10.803		
14,500.00	7,052.26	15,011.73	7,109.60	216.35	215.78	-90.71	-3,356.16	-7,696.56	4,603.20	4,171.43	431.77	10.661		
14,600.00	7,051.98	15,111.73	7,109.06	219.17	218.59	-90.71	-3,356.75	-7,796.56	4,603.04	4,165.62	437.41	10.523		
14,700.00	7,051.69	15,211.73	7,108.51	222.00	221.40	-90.71	-3,357.34	-7,896.56	4,602.87	4,159.82	443.05	10.389		
14,800.00	7,051.41	15,311.73	7,107.97	224.82	224.22	-90.70	-3,357.92	-7,996.55	4,602.70	4,154.01	448.70	10.258		
14,900.00	7,051.12	15,411.73	7,107.43	227.65	227.03	-90.70	-3,358.51	-8,096.55	4,602.53	4,148.19	454.34	10.130		
14,942.37	7,051.00	15,454.10	7,107.20	228.85	228.22	-90.70	-3,358.76	-8,138.92	4,602.46	4,145.73	456.73	10.077 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	0.00	3.28	0.00	-179.20	-20.04	-0.28	20.04					
100.00	100.00	100.00	100.00	3.28	0.18	-179.20	-20.04	-0.28	20.04	16.58	3.46	5.792		
200.00	200.00	200.00	200.00	3.34	0.61	-179.20	-20.04	-0.28	20.04	16.09	3.95	5.072		
300.00	300.00	300.00	300.00	3.44	1.05	-179.20	-20.04	-0.28	20.04	15.54	4.50	4.456 CC		
400.00	399.98	400.02	399.98	3.60	1.49	-172.54	-20.04	-0.28	21.77	16.68	5.10	4.273		
500.00	499.84	499.84	499.84	3.81	1.93	-173.98	-20.04	-0.28	26.97	21.23	5.74	4.699		
600.00	599.45	600.66	600.64	4.06	2.37	-175.19	-18.29	-0.52	33.91	27.47	6.44	5.267		
700.00	698.70	701.73	701.57	4.34	2.82	-175.95	-13.01	-1.24	40.83	33.64	7.18	5.683		
800.00	797.47	803.06	802.49	4.64	3.27	-176.45	-4.17	-2.44	47.71	39.74	7.97	5.989		
900.00	895.65	904.64	903.29	4.98	3.72	-176.79	8.23	-4.12	54.41	45.64	8.78	6.200		
1,000.00	993.66	1,006.56	1,003.93	5.32	4.18	-176.89	24.22	-6.30	58.50	48.90	9.60	6.091		
1,100.00	1,091.67	1,107.08	1,102.74	5.69	4.63	-176.84	42.51	-8.79	60.02	49.61	10.42	5.762		
1,200.00	1,189.68	1,207.07	1,201.01	6.09	5.08	-176.77	60.82	-11.28	61.43	50.19	11.24	5.466		
1,300.00	1,287.69	1,307.06	1,299.27	6.49	5.53	-176.72	79.14	-13.77	62.84	50.76	12.08	5.204		
1,400.00	1,385.69	1,407.05	1,397.54	6.90	6.00	-176.66	97.45	-16.26	64.24	51.32	12.93	4.970		
1,500.00	1,483.70	1,507.04	1,495.81	7.33	6.46	-176.61	115.76	-18.75	65.65	51.86	13.79	4.762		
1,600.00	1,581.71	1,607.03	1,594.08	7.76	6.93	-176.55	134.07	-21.24	67.06	52.40	14.66	4.575		
1,700.00	1,679.72	1,707.02	1,692.34	8.19	7.40	-176.50	152.38	-23.73	68.47	52.93	15.54	4.407		
1,800.00	1,777.73	1,807.01	1,790.61	8.63	7.86	-176.46	170.69	-26.22	69.88	53.45	16.42	4.255		
1,900.00	1,875.74	1,907.00	1,888.88	9.08	8.33	-176.41	189.00	-28.72	71.28	53.97	17.31	4.118		
2,000.00	1,973.75	2,006.99	1,987.15	9.53	8.81	-176.37	207.31	-31.21	72.69	54.48	18.21	3.992		
2,100.00	2,071.76	2,106.98	2,085.42	9.98	9.28	-176.33	225.62	-33.70	74.10	54.99	19.11	3.878		
2,200.00	2,169.77	2,206.97	2,183.68	10.44	9.75	-176.29	243.93	-36.19	75.51	55.50	20.01	3.774		
2,300.00	2,267.77	2,306.96	2,281.95	10.90	10.22	-176.25	262.24	-38.68	76.91	56.00	20.92	3.677		
2,400.00	2,365.78	2,406.95	2,380.22	11.36	10.70	-176.21	280.55	-41.17	78.32	56.50	21.82	3.589		
2,500.00	2,463.79	2,506.95	2,478.49	11.82	11.17	-176.17	298.86	-43.66	79.73	56.99	22.74	3.507		
2,600.00	2,561.80	2,606.94	2,576.75	12.28	11.64	-176.14	317.17	-46.15	81.14	57.49	23.65	3.431		
2,700.00	2,659.81	2,706.93	2,675.02	12.75	12.12	-176.10	335.48	-48.64	82.55	57.98	24.56	3.360		
2,800.00	2,757.82	2,806.92	2,773.29	13.21	12.59	-176.07	353.79	-51.13	83.95	58.47	25.48	3.295		
2,900.00	2,855.83	2,906.91	2,871.56	13.68	13.07	-176.04	372.10	-53.63	85.36	58.96	26.40	3.233		
3,000.00	2,953.84	3,006.90	2,969.82	14.15	13.54	-176.01	390.41	-56.12	86.77	59.45	27.32	3.176		
3,100.00	3,051.85	3,106.89	3,068.09	14.62	14.02	-175.98	408.72	-58.61	88.18	59.94	28.24	3.122		
3,200.00	3,149.85	3,206.88	3,166.36	15.09	14.49	-175.95	427.03	-61.10	89.59	60.42	29.16	3.072		
3,300.00	3,247.86	3,306.87	3,264.63	15.56	14.97	-175.92	445.34	-63.59	90.99	60.91	30.09	3.024		
3,400.00	3,345.87	3,406.86	3,362.90	16.04	15.45	-175.90	463.65	-66.08	92.40	61.39	31.01	2.980		
3,500.00	3,443.88	3,506.85	3,461.16	16.51	15.92	-175.87	481.96	-68.57	93.81	61.87	31.94	2.937		
3,600.00	3,541.89	3,606.84	3,559.43	16.98	16.40	-175.84	500.27	-71.06	95.22	62.36	32.86	2.897		
3,700.00	3,639.90	3,706.83	3,657.70	17.46	16.87	-175.82	518.59	-73.55	96.63	62.84	33.79	2.860		
3,800.00	3,737.91	3,806.82	3,755.97	17.93	17.35	-175.80	536.90	-76.04	98.03	63.32	34.72	2.824		
3,900.00	3,835.92	3,906.81	3,854.23	18.41	17.83	-175.77	555.21	-78.54	99.44	63.80	35.64	2.790		
4,000.00	3,933.93	4,006.80	3,952.50	18.88	18.30	-175.75	573.52	-81.03	100.85	64.28	36.57	2.758		
4,100.00	4,031.93	4,106.79	4,050.77	19.36	18.78	-175.73	591.83	-83.52	102.26	64.76	37.50	2.727		
4,200.00	4,129.94	4,206.78	4,149.04	19.84	19.26	-175.71	610.14	-86.01	103.67	65.24	38.43	2.697		
4,300.00	4,227.95	4,306.77	4,247.30	20.31	19.73	-175.69	628.45	-88.50	105.08	65.71	39.36	2.669		
4,400.00	4,325.96	4,406.76	4,345.57	20.79	20.21	-175.67	646.76	-90.99	106.48	66.19	40.29	2.643		
4,500.00	4,423.97	4,506.75	4,443.84	21.27	20.68	-175.65	665.07	-93.48	107.89	66.67	41.22	2.617		
4,600.00	4,521.98	4,606.74	4,542.11	21.75	21.16	-175.63	683.38	-95.97	109.30	67.15	42.16	2.593		
4,700.00	4,619.99	4,706.73	4,640.38	22.23	21.64	-175.61	701.69	-98.46	110.71	67.62	43.09	2.569		
4,800.00	4,718.00	4,806.72	4,738.64	22.70	22.12	-175.59	720.00	-100.95	112.12	68.10	44.02	2.547		
4,900.00	4,816.01	4,906.71	4,836.91	23.18	22.59	-175.57	738.31	-103.44	113.53	68.57	44.95	2.526		
5,000.00	4,914.01	5,006.70	4,935.18	23.66	23.07	-175.56	756.62	-105.94	114.93	69.05	45.88	2.505		
5,100.00	5,012.02	5,106.69	5,033.45	24.14	23.55	-175.54	774.93	-108.43	116.34	69.53	46.82	2.485		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,206.68	5,131.71	24.62	24.02	-175.52	793.24	-110.92	117.75	70.00	47.75	2.466		
5,300.00	5,208.04	5,306.67	5,229.98	25.10	24.50	-175.51	811.55	-113.41	119.16	70.48	48.68	2.448		
5,400.00	5,306.05	5,406.66	5,328.25	25.58	24.98	-175.49	829.86	-115.90	120.57	70.95	49.62	2.430		
5,500.00	5,404.06	5,506.65	5,426.52	26.06	25.45	-175.47	848.17	-118.39	121.98	71.43	50.55	2.413		
5,600.00	5,502.07	5,606.64	5,524.78	26.54	25.93	-175.46	866.48	-120.88	123.38	71.90	51.48	2.397		
5,700.00	5,600.08	5,706.63	5,623.05	27.02	26.41	-175.44	884.79	-123.37	124.79	72.37	52.42	2.381		
5,800.00	5,698.09	5,806.62	5,721.32	27.50	26.88	-175.43	903.10	-125.86	126.20	72.85	53.35	2.365		
5,900.00	5,796.09	5,906.61	5,819.59	27.98	27.36	-175.42	921.41	-128.35	127.61	73.32	54.29	2.351		
6,000.00	5,894.10	6,006.60	5,917.86	28.46	27.84	-175.40	939.72	-130.85	129.02	73.80	55.22	2.336		
6,100.00	5,992.11	6,106.59	6,016.12	28.94	28.32	-175.39	958.03	-133.34	130.43	74.27	56.16	2.323		
6,200.00	6,090.12	6,206.58	6,114.39	29.42	28.79	-175.38	976.35	-135.83	131.84	74.74	57.09	2.309		
6,300.00	6,188.13	6,306.57	6,212.66	29.90	29.27	-175.36	994.66	-138.32	133.24	75.22	58.03	2.296		
6,400.00	6,286.14	6,406.56	6,310.93	30.38	29.75	-175.35	1,012.97	-140.81	134.65	75.69	58.96	2.284		
6,500.00	6,384.15	6,506.55	6,409.19	30.87	30.23	-175.34	1,031.28	-143.30	136.06	76.16	59.90	2.272		
6,600.00	6,482.15	6,606.53	6,507.46	31.35	30.70	-166.93	1,049.59	-145.79	137.48	76.65	60.83	2.260		
6,700.00	6,579.21	6,705.82	6,605.03	31.83	31.18	-140.13	1,067.77	-148.26	139.73	78.00	61.73	2.263		
6,800.00	6,673.04	6,805.57	6,702.95	32.30	31.65	-134.46	1,085.98	-153.04	145.88	83.28	62.60	2.330		
6,900.00	6,761.33	6,910.90	6,804.52	32.74	32.15	-135.69	1,104.63	-173.16	156.15	92.94	63.21	2.470		
7,000.00	6,841.90	7,021.27	6,905.97	33.17	32.65	-138.65	1,122.95	-212.18	169.04	106.02	63.01	2.683		
7,100.00	6,912.77	7,136.99	7,003.60	33.60	33.14	-141.71	1,140.25	-271.54	182.99	121.38	61.61	2.970		
7,200.00	6,972.19	7,258.14	7,092.80	34.09	33.66	-144.32	1,155.63	-351.79	196.53	137.53	59.00	3.331		
7,300.00	7,018.70	7,384.41	7,168.18	34.73	34.29	-146.27	1,168.12	-452.07	208.33	152.66	55.67	3.742		
7,400.00	7,051.15	7,515.02	7,224.17	35.55	35.21	-147.53	1,176.72	-569.49	217.29	164.67	52.62	4.130		
7,500.00	7,068.75	7,648.63	7,255.92	36.56	36.48	-148.08	1,180.61	-698.97	222.61	171.37	51.25	4.344		
7,600.00	7,071.91	7,772.31	7,261.87	37.71	37.89	-147.99	1,179.77	-822.37	224.03	171.49	52.53	4.264		
7,700.00	7,071.62	7,872.31	7,261.45	39.03	39.21	-147.77	1,178.11	-922.35	224.39	169.79	54.60	4.110		
7,800.00	7,071.34	7,972.31	7,261.03	40.51	40.68	-147.56	1,176.45	-1,022.33	224.77	167.94	56.83	3.955		
7,900.00	7,071.05	8,072.30	7,260.61	42.14	42.29	-147.35	1,174.79	-1,122.31	225.14	165.93	59.20	3.803		
8,000.00	7,070.77	8,172.30	7,260.19	43.89	44.04	-147.13	1,173.13	-1,222.29	225.51	163.80	61.71	3.654		
8,100.00	7,070.48	8,272.29	7,259.77	45.76	45.89	-146.92	1,171.47	-1,322.27	225.89	161.55	64.35	3.511		
8,200.00	7,070.20	8,372.29	7,259.35	47.72	47.84	-146.71	1,169.82	-1,422.25	226.28	159.18	67.09	3.373		
8,300.00	7,069.92	8,472.28	7,258.93	49.78	49.88	-146.50	1,168.16	-1,522.23	226.66	156.72	69.94	3.241		
8,400.00	7,069.63	8,572.28	7,258.51	51.90	52.00	-146.29	1,166.50	-1,622.21	227.05	154.16	72.89	3.115		
8,500.00	7,069.35	8,672.28	7,258.09	54.10	54.18	-146.08	1,164.84	-1,722.20	227.44	151.52	75.93	2.996		
8,600.00	7,069.06	8,772.27	7,257.66	56.36	56.43	-145.87	1,163.18	-1,822.18	227.84	148.79	79.05	2.882		
8,700.00	7,068.78	8,872.27	7,257.24	58.66	58.72	-145.67	1,161.52	-1,922.16	228.24	146.00	82.24	2.775		
8,800.00	7,068.49	8,972.26	7,256.82	61.02	61.07	-145.46	1,159.86	-2,022.14	228.64	143.13	85.51	2.674		
8,900.00	7,068.21	9,072.26	7,256.40	63.42	63.46	-145.25	1,158.21	-2,122.12	229.04	140.20	88.84	2.578		
9,000.00	7,067.92	9,172.26	7,255.98	65.85	65.88	-145.05	1,156.55	-2,222.10	229.45	137.22	92.23	2.488		
9,100.00	7,067.64	9,272.25	7,255.56	68.32	68.34	-144.84	1,154.89	-2,322.08	229.86	134.17	95.68	2.402		
9,200.00	7,067.35	9,372.25	7,255.14	70.81	70.82	-144.64	1,153.23	-2,422.06	230.27	131.08	99.19	2.321		
9,300.00	7,067.07	9,472.24	7,254.72	73.34	73.34	-144.44	1,151.57	-2,522.05	230.68	127.93	102.75	2.245		
9,400.00	7,066.78	9,572.24	7,254.30	75.88	75.88	-144.23	1,149.91	-2,622.03	231.10	124.74	106.36	2.173		
9,500.00	7,066.50	9,672.23	7,253.88	78.45	78.44	-144.03	1,148.25	-2,722.01	231.52	121.51	110.02	2.104		
9,600.00	7,066.21	9,772.23	7,253.46	81.04	81.02	-143.83	1,146.60	-2,821.99	231.95	118.23	113.72	2.040		
9,700.00	7,065.93	9,872.23	7,253.04	83.64	83.62	-143.63	1,144.94	-2,921.97	232.37	114.91	117.47	1.978		
9,800.00	7,065.64	9,972.22	7,252.62	86.26	86.23	-143.43	1,143.28	-3,021.95	232.80	111.55	121.25	1.920		
9,900.00	7,065.36	10,072.22	7,252.20	88.90	88.86	-143.23	1,141.62	-3,121.93	233.24	108.16	125.08	1.865		
10,000.00	7,065.07	10,172.21	7,251.78	91.55	91.50	-143.04	1,139.96	-3,221.91	233.67	104.73	128.94	1.812		
10,100.00	7,064.79	10,272.21	7,251.36	94.21	94.16	-142.84	1,138.30	-3,321.89	234.11	101.26	132.85	1.762		
10,200.00	7,064.50	10,372.20	7,250.94	96.88	96.82	-142.64	1,136.64	-3,421.88	234.55	97.77	136.79	1.715		
10,300.00	7,064.22	10,472.20	7,250.52	99.57	99.50	-142.45	1,134.99	-3,521.86	234.99	94.24	140.76	1.669		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4C-16-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,572.20	7,250.10	102.26	102.19	-142.25	1,133.33	-3,621.84	235.44	90.68	144.76	1.626		
10,500.00	7,063.65	10,672.19	7,249.68	104.96	104.88	-142.06	1,131.67	-3,721.82	235.89	87.09	148.80	1.585		
10,600.00	7,063.37	10,772.19	7,249.26	107.67	107.59	-141.86	1,130.01	-3,821.80	236.34	83.47	152.87	1.546		
10,700.00	7,063.08	10,872.18	7,248.84	110.39	110.30	-141.67	1,128.35	-3,921.78	236.80	79.82	156.98	1.508		
10,800.00	7,062.80	10,972.18	7,248.42	113.11	113.02	-141.48	1,126.69	-4,021.76	237.25	76.15	161.11	1.473	Level 3	
10,900.00	7,062.51	11,072.18	7,248.00	115.84	115.74	-141.29	1,125.03	-4,121.74	237.71	72.44	165.27	1.438	Level 3	
11,000.00	7,062.23	11,172.17	7,247.58	118.58	118.47	-141.10	1,123.38	-4,221.73	238.18	68.72	169.46	1.406	Level 3	
11,100.00	7,061.94	11,272.17	7,247.16	121.32	121.21	-140.91	1,121.72	-4,321.71	238.64	64.96	173.68	1.374	Level 3	
11,200.00	7,061.66	11,372.16	7,246.74	124.07	123.95	-140.72	1,120.06	-4,421.69	239.11	61.19	177.92	1.344	Level 3	
11,300.00	7,061.37	11,472.16	7,246.32	126.82	126.70	-140.53	1,118.40	-4,521.67	239.58	57.38	182.19	1.315	Level 3	
11,400.00	7,061.09	11,572.15	7,245.90	129.58	129.45	-140.34	1,116.74	-4,621.65	240.05	53.56	186.49	1.287	Level 3	
11,500.00	7,060.80	11,672.15	7,245.48	132.34	132.21	-140.16	1,115.08	-4,721.63	240.53	49.71	190.82	1.261	Level 3	
11,600.00	7,060.52	11,772.15	7,245.06	135.10	134.97	-139.97	1,113.42	-4,821.61	241.00	45.84	195.17	1.235	Level 2	
11,700.00	7,060.23	11,872.14	7,244.64	137.87	137.73	-139.78	1,111.77	-4,921.59	241.49	41.94	199.54	1.210	Level 2	
11,800.00	7,059.95	11,972.14	7,244.22	140.64	140.50	-139.60	1,110.11	-5,021.57	241.97	38.03	203.94	1.186	Level 2	
11,900.00	7,059.66	12,072.13	7,243.79	143.42	143.27	-139.42	1,108.45	-5,121.56	242.45	34.09	208.36	1.164	Level 2	
12,000.00	7,059.38	12,172.13	7,243.37	146.20	146.05	-139.23	1,106.79	-5,221.54	242.94	30.13	212.81	1.142	Level 2	
12,100.00	7,059.09	12,272.12	7,242.95	148.98	148.82	-139.05	1,105.13	-5,321.52	243.43	26.15	217.28	1.120	Level 2	
12,200.00	7,058.81	12,372.12	7,242.53	151.77	151.60	-138.87	1,103.47	-5,421.50	243.92	22.15	221.77	1.100	Level 2	
12,300.00	7,058.52	12,472.12	7,242.11	154.55	154.39	-138.69	1,101.81	-5,521.48	244.42	18.13	226.29	1.080	Level 2	
12,400.00	7,058.24	12,572.11	7,241.69	157.34	157.17	-138.51	1,100.16	-5,621.46	244.92	14.10	230.82	1.061	Level 2	
12,500.00	7,057.96	12,672.11	7,241.27	160.14	159.96	-138.33	1,098.50	-5,721.44	245.42	10.04	235.38	1.043	Level 2	
12,600.00	7,057.67	12,772.10	7,240.85	162.93	162.75	-138.15	1,096.84	-5,821.42	245.92	5.96	239.96	1.025	Level 2	
12,700.00	7,057.39	12,872.10	7,240.43	165.73	165.54	-137.97	1,095.18	-5,921.40	246.43	1.87	244.56	1.008	Level 2	
12,800.00	7,057.10	12,972.10	7,240.01	168.53	168.34	-137.79	1,093.52	-6,021.39	246.93	-2.25	249.18	0.991	Level 1	
12,900.00	7,056.82	13,072.09	7,239.59	171.33	171.14	-137.62	1,091.86	-6,121.37	247.44	-6.38	253.82	0.975	Level 1	
13,000.00	7,056.53	13,172.09	7,239.17	174.13	173.94	-137.44	1,090.20	-6,221.35	247.95	-10.53	258.48	0.959	Level 1	
13,100.00	7,056.25	13,272.08	7,238.75	176.94	176.74	-137.27	1,088.55	-6,321.33	248.47	-14.69	263.16	0.944	Level 1	
13,200.00	7,055.96	13,372.08	7,238.33	179.74	179.54	-137.09	1,086.89	-6,421.31	248.99	-18.88	267.86	0.930	Level 1	
13,300.00	7,055.68	13,472.07	7,237.91	182.55	182.34	-136.92	1,085.23	-6,521.29	249.50	-23.08	272.58	0.915	Level 1	
13,400.00	7,055.39	13,572.07	7,237.49	185.36	185.15	-136.75	1,083.57	-6,621.27	250.03	-27.29	277.32	0.902	Level 1	
13,500.00	7,055.11	13,672.07	7,237.07	188.17	187.95	-136.57	1,081.91	-6,721.25	250.55	-31.53	282.08	0.888	Level 1	
13,600.00	7,054.82	13,772.06	7,236.65	190.98	190.76	-136.40	1,080.25	-6,821.24	251.07	-35.78	286.85	0.875	Level 1	
13,700.00	7,054.54	13,872.06	7,236.23	193.80	193.57	-136.23	1,078.60	-6,921.22	251.60	-40.04	291.64	0.863	Level 1	
13,800.00	7,054.25	13,972.05	7,235.81	196.61	196.38	-136.06	1,076.94	-7,021.20	252.13	-44.32	296.45	0.850	Level 1	
13,900.00	7,053.97	14,072.05	7,235.39	199.43	199.20	-135.89	1,075.28	-7,121.18	252.67	-48.62	301.28	0.839	Level 1	
14,000.00	7,053.68	14,172.05	7,234.97	202.25	202.01	-135.72	1,073.62	-7,221.16	253.20	-52.93	306.13	0.827	Level 1	
14,100.00	7,053.40	14,272.04	7,234.55	205.06	204.82	-135.56	1,071.96	-7,321.14	253.74	-57.25	310.99	0.816	Level 1	
14,200.00	7,053.11	14,372.04	7,234.13	207.88	207.64	-135.39	1,070.30	-7,421.12	254.28	-61.59	315.87	0.805	Level 1	
14,300.00	7,052.83	14,472.03	7,233.71	210.70	210.46	-135.22	1,068.64	-7,521.10	254.82	-65.95	320.77	0.794	Level 1	
14,400.00	7,052.54	14,572.03	7,233.29	213.53	213.28	-135.06	1,066.99	-7,621.08	255.36	-70.32	325.68	0.784	Level 1	
14,500.00	7,052.26	14,672.02	7,232.87	216.35	216.09	-134.89	1,065.33	-7,721.07	255.91	-74.70	330.61	0.774	Level 1	
14,600.00	7,051.98	14,772.02	7,232.45	219.17	218.91	-134.73	1,063.67	-7,821.05	256.45	-79.10	335.55	0.764	Level 1	
14,700.00	7,051.69	14,872.02	7,232.03	222.00	221.73	-134.56	1,062.01	-7,921.03	257.00	-83.51	340.51	0.755	Level 1	
14,800.00	7,051.41	14,972.01	7,231.61	224.82	224.56	-134.40	1,060.35	-8,021.01	257.55	-87.93	345.48	0.745	Level 1	
14,900.00	7,051.12	15,072.01	7,231.19	227.65	227.38	-134.24	1,058.69	-8,120.99	258.11	-92.37	350.48	0.736	Level 1	
14,942.37	7,051.00	15,114.38	7,231.01	228.85	228.57	-134.17	1,057.99	-8,163.35	258.34	-94.25	352.59	0.733	Level 1, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	-179.47	-60.11	-0.56	60.11					
100.00	100.00	101.00	100.00	3.28	3.28	-179.47	-60.11	-0.56	60.11	53.54	6.57	9.150		
200.00	200.00	201.00	200.00	3.34	3.34	-179.47	-60.11	-0.56	60.11	53.44	6.67	9.006		
300.00	300.00	301.00	300.00	3.44	3.45	-179.47	-60.11	-0.56	60.11	53.22	6.89	8.723 CC, ES		
400.00	399.98	401.02	399.98	3.60	3.61	-172.38	-60.11	-0.56	61.84	54.63	7.21	8.578		
500.00	499.84	501.16	499.84	3.81	3.81	-172.96	-60.11	-0.56	67.03	59.41	7.62	8.798		
600.00	599.45	598.45	599.45	4.06	4.04	-173.75	-60.11	-0.56	75.69	67.59	8.10	9.346		
700.00	698.70	700.69	701.66	4.34	4.32	-174.38	-58.39	-0.97	86.13	77.48	8.66	9.948		
800.00	797.47	803.35	804.18	4.64	4.63	-174.64	-53.09	-2.24	96.55	87.27	9.28	10.402		
900.00	895.65	906.41	906.82	4.98	4.96	-174.63	-44.19	-4.37	106.80	96.84	9.96	10.723		
1,000.00	993.66	1,007.03	1,006.78	5.32	5.30	-174.41	-32.95	-7.06	115.41	104.76	10.65	10.834		
1,100.00	1,091.67	1,106.67	1,105.75	5.69	5.65	-174.22	-21.70	-9.76	123.90	112.53	11.37	10.898		
1,200.00	1,189.68	1,206.31	1,204.71	6.09	6.02	-174.05	-10.44	-12.45	132.39	120.27	12.11	10.928		
1,300.00	1,287.69	1,305.95	1,303.68	6.49	6.39	-173.90	0.81	-15.15	140.88	128.00	12.88	10.936		
1,400.00	1,385.69	1,405.59	1,402.64	6.90	6.78	-173.76	12.06	-17.84	149.37	135.70	13.67	10.928		
1,500.00	1,483.70	1,505.22	1,501.60	7.33	7.17	-173.65	23.31	-20.54	157.86	143.39	14.47	10.909		
1,600.00	1,581.71	1,604.86	1,600.57	7.76	7.57	-173.54	34.56	-23.23	166.36	151.07	15.29	10.883		
1,700.00	1,679.72	1,704.50	1,699.53	8.19	7.98	-173.44	45.82	-25.93	174.85	158.74	16.11	10.852		
1,800.00	1,777.73	1,804.14	1,798.50	8.63	8.38	-173.36	57.07	-28.62	183.34	166.39	16.95	10.817		
1,900.00	1,875.74	1,903.78	1,897.46	9.08	8.80	-173.28	68.32	-31.32	191.84	174.04	17.79	10.781		
2,000.00	1,973.75	2,003.42	1,996.42	9.53	9.22	-173.20	79.57	-34.02	200.33	181.69	18.65	10.744		
2,100.00	2,071.76	2,103.05	2,095.39	9.98	9.64	-173.14	90.83	-36.71	208.83	189.32	19.50	10.707		
2,200.00	2,169.77	2,202.69	2,194.35	10.44	10.06	-173.07	102.08	-39.41	217.32	196.96	20.37	10.671		
2,300.00	2,267.77	2,302.33	2,293.32	10.90	10.49	-173.02	113.33	-42.10	225.82	204.58	21.23	10.634		
2,400.00	2,365.78	2,401.97	2,392.28	11.36	10.91	-172.96	124.58	-44.80	234.31	212.21	22.11	10.599		
2,500.00	2,463.79	2,501.61	2,491.24	11.82	11.34	-172.91	135.84	-47.49	242.81	219.83	22.98	10.565		
2,600.00	2,561.80	2,601.24	2,590.21	12.28	11.77	-172.87	147.09	-50.19	251.30	227.44	23.86	10.532		
2,700.00	2,659.81	2,700.88	2,689.17	12.75	12.21	-172.83	158.34	-52.88	259.80	235.06	24.74	10.499		
2,800.00	2,757.82	2,800.52	2,788.14	13.21	12.64	-172.79	169.59	-55.58	268.30	242.67	25.63	10.468		
2,900.00	2,855.83	2,900.16	2,887.10	13.68	13.07	-172.75	180.84	-58.27	276.79	250.28	26.52	10.439		
3,000.00	2,953.84	3,000.20	2,986.07	14.15	13.51	-172.71	192.10	-60.97	285.29	257.88	27.41	10.409		
3,100.00	3,051.85	3,100.56	3,085.03	14.62	13.95	-172.68	203.35	-63.66	293.79	265.48	28.30	10.380		
3,200.00	3,149.85	3,200.93	3,183.99	15.09	14.39	-172.65	214.60	-66.36	302.28	273.08	29.20	10.353		
3,300.00	3,247.86	3,301.29	3,282.96	15.56	14.84	-172.62	225.85	-69.05	310.78	280.68	30.10	10.326		
3,400.00	3,345.87	3,401.65	3,381.92	16.04	15.28	-172.59	237.11	-71.75	319.28	288.28	31.00	10.301		
3,500.00	3,443.88	3,497.99	3,480.89	16.51	15.70	-172.56	248.36	-74.45	327.77	295.89	31.88	10.282		
3,600.00	3,541.89	3,597.63	3,579.85	16.98	16.14	-172.54	259.61	-77.14	336.27	303.49	32.78	10.259		
3,700.00	3,639.90	3,702.73	3,678.81	17.46	16.61	-172.51	270.86	-79.84	344.77	311.06	33.70	10.230		
3,800.00	3,737.91	3,803.10	3,777.78	17.93	17.06	-172.49	282.12	-82.53	353.26	318.66	34.61	10.208		
3,900.00	3,835.92	3,903.46	3,876.74	18.41	17.50	-172.47	293.37	-85.23	361.76	326.25	35.51	10.187		
4,000.00	3,933.93	4,003.82	3,975.71	18.88	17.95	-172.45	304.62	-87.92	370.26	333.84	36.42	10.167		
4,100.00	4,031.93	4,104.18	4,074.67	19.36	18.39	-172.43	315.87	-90.62	378.75	341.43	37.32	10.148		
4,200.00	4,129.94	4,204.54	4,173.64	19.84	18.84	-172.41	327.12	-93.31	387.25	349.02	38.23	10.129		
4,300.00	4,227.95	4,295.10	4,272.60	20.31	19.24	-172.39	338.38	-96.01	395.75	356.65	39.10	10.122		
4,400.00	4,325.96	4,394.73	4,371.56	20.79	19.69	-172.37	349.63	-98.70	404.25	364.24	40.00	10.105		
4,500.00	4,423.97	4,505.63	4,470.53	21.27	20.18	-172.36	360.88	-101.40	412.74	371.78	40.96	10.077		
4,600.00	4,521.98	4,594.01	4,569.49	21.75	20.58	-172.34	372.13	-104.09	421.24	379.42	41.82	10.074		
4,700.00	4,619.99	4,706.35	4,686.46	22.23	21.08	-172.32	383.39	-106.79	429.74	386.96	42.78	10.045		
4,800.00	4,718.00	4,806.71	4,787.42	22.70	21.53	-172.31	394.64	-109.48	438.23	394.54	43.69	10.030		
4,900.00	4,816.01	4,907.08	4,886.38	23.18	21.98	-172.29	405.89	-112.18	446.73	402.13	44.60	10.015		
5,000.00	4,914.01	4,992.56	4,965.35	23.66	22.36	-172.28	417.14	-114.87	455.23	409.78	45.45	10.016		
5,100.00	5,012.02	5,107.80	5,064.31	24.14	22.87	-172.27	428.40	-117.57	463.73	417.30	46.43	9.988		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16A-M - OH - PLAN #1												Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,110.03	5,208.16	5,163.28	24.62	23.32	-172.26	439.65	-120.27	472.22	424.88	47.34	9.975	
5,300.00	5,208.04	5,291.48	5,262.24	25.10	23.70	-172.24	450.90	-122.96	480.72	432.54	48.18	9.978	
5,400.00	5,306.05	5,408.88	5,361.21	25.58	24.22	-172.23	462.15	-125.66	489.22	440.05	49.17	9.950	
5,500.00	5,404.06	5,509.25	5,460.17	26.06	24.67	-172.22	473.41	-128.35	497.72	447.63	50.08	9.938	
5,600.00	5,502.07	5,609.61	5,559.13	26.54	25.12	-172.21	484.66	-131.05	506.21	455.22	51.00	9.926	
5,700.00	5,600.08	5,709.97	5,658.10	27.02	25.57	-172.20	495.91	-133.74	514.71	462.80	51.91	9.915	
5,800.00	5,698.09	5,789.67	5,757.06	27.50	25.93	-172.19	507.16	-136.44	523.21	470.47	52.74	9.921	
5,900.00	5,796.09	5,889.31	5,856.03	27.98	26.38	-172.18	518.41	-139.13	531.71	478.06	53.65	9.911	
6,000.00	5,894.10	5,988.95	5,954.99	28.46	26.83	-172.17	529.67	-141.83	540.21	485.64	54.56	9.901	
6,100.00	5,992.11	6,088.58	6,053.95	28.94	27.27	-172.16	540.92	-144.52	548.70	493.23	55.47	9.891	
6,200.00	6,090.12	6,188.22	6,152.92	29.42	27.72	-172.15	552.17	-147.22	557.20	500.81	56.39	9.882	
6,300.00	6,188.13	6,287.86	6,251.88	29.90	28.17	-172.14	563.42	-149.91	565.70	508.40	57.30	9.872	
6,400.00	6,286.14	6,387.27	6,350.61	30.38	28.62	-172.11	574.65	-152.77	574.20	515.99	58.21	9.864	
6,500.00	6,384.15	6,484.19	6,446.06	30.87	29.05	-171.16	585.43	-164.96	582.96	523.84	59.12	9.861	
6,600.00	6,482.15	6,576.21	6,534.01	31.35	29.46	-160.32	595.28	-189.88	592.78	532.80	59.98	9.883	
6,700.00	6,579.21	6,663.89	6,613.67	31.83	29.84	-126.02	604.10	-225.26	603.85	543.08	60.77	9.937	
6,800.00	6,673.04	6,748.86	6,685.57	32.30	30.22	-108.46	611.97	-269.73	615.47	554.01	61.46	10.015	
6,900.00	6,761.33	6,831.62	6,749.35	32.74	30.61	-98.46	618.87	-321.93	627.06	565.01	62.05	10.106	
7,000.00	6,841.90	6,912.60	6,804.74	33.17	31.05	-91.98	624.77	-380.63	638.10	575.51	62.59	10.195	
7,100.00	6,912.77	6,992.16	6,851.53	33.60	31.55	-87.45	629.64	-444.73	648.09	584.94	63.15	10.263	
7,200.00	6,972.19	7,070.62	6,889.55	34.09	32.15	-84.22	633.49	-513.21	656.62	592.78	63.84	10.285	
7,300.00	7,018.70	7,148.27	6,918.66	34.73	32.83	-81.97	636.30	-585.08	663.37	598.62	64.75	10.245	
7,400.00	7,051.15	7,225.36	6,938.75	35.55	33.61	-80.53	638.07	-659.43	668.06	602.09	65.97	10.127	
7,500.00	7,068.75	7,302.11	6,949.75	36.56	34.48	-79.80	638.79	-735.35	670.54	603.02	67.52	9.931	
7,600.00	7,071.91	7,385.14	6,951.92	37.71	35.51	-79.70	638.45	-818.31	670.91	601.37	69.54	9.648	
7,700.00	7,071.62	7,485.14	6,951.62	39.03	36.91	-79.70	637.71	-918.31	670.90	598.66	72.24	9.288	
7,800.00	7,071.34	7,585.14	6,951.32	40.51	38.46	-79.69	636.97	-1,018.30	670.89	595.64	75.25	8.915	
7,900.00	7,071.05	7,685.14	6,951.02	42.14	40.16	-79.69	636.24	-1,118.30	670.87	592.32	78.55	8.540	
8,000.00	7,070.77	7,785.14	6,950.73	43.89	41.98	-79.69	635.50	-1,218.30	670.86	588.75	82.11	8.170	
8,100.00	7,070.48	7,885.14	6,950.43	45.76	43.91	-79.69	634.76	-1,318.29	670.85	584.96	85.89	7.811	
8,200.00	7,070.20	7,985.14	6,950.13	47.72	45.94	-79.69	634.02	-1,418.29	670.84	580.97	89.86	7.465	
8,300.00	7,069.92	8,085.14	6,949.83	49.78	48.05	-79.69	633.28	-1,518.29	670.83	576.82	94.01	7.136	
8,400.00	7,069.63	8,185.14	6,949.53	51.90	50.24	-79.69	632.55	-1,618.28	670.81	572.52	98.30	6.824	
8,500.00	7,069.35	8,285.14	6,949.23	54.10	52.49	-79.69	631.81	-1,718.28	670.80	568.08	102.72	6.530	
8,600.00	7,069.06	8,385.14	6,948.94	56.36	54.79	-79.68	631.07	-1,818.28	670.79	563.54	107.25	6.254	
8,700.00	7,068.78	8,485.14	6,948.64	58.66	57.15	-79.68	630.33	-1,918.27	670.78	558.89	111.89	5.995	
8,800.00	7,068.49	8,585.14	6,948.34	61.02	59.55	-79.68	629.60	-2,018.27	670.77	554.16	116.61	5.752	
8,900.00	7,068.21	8,685.14	6,948.04	63.42	61.99	-79.68	628.86	-2,118.27	670.75	549.35	121.41	5.525	
9,000.00	7,067.92	8,785.14	6,947.74	65.85	64.47	-79.68	628.12	-2,218.26	670.74	544.47	126.28	5.312	
9,100.00	7,067.64	8,885.14	6,947.44	68.32	66.97	-79.68	627.38	-2,318.26	670.73	539.53	131.21	5.112	
9,200.00	7,067.35	8,985.14	6,947.15	70.81	69.51	-79.68	626.64	-2,418.26	670.72	534.53	136.19	4.925	
9,300.00	7,067.07	9,085.14	6,946.85	73.34	72.06	-79.67	625.91	-2,518.26	670.71	529.49	141.22	4.749	
9,400.00	7,066.78	9,185.14	6,946.55	75.88	74.64	-79.67	625.17	-2,618.25	670.70	524.40	146.30	4.584	
9,500.00	7,066.50	9,285.14	6,946.25	78.45	77.24	-79.67	624.43	-2,718.25	670.68	519.27	151.41	4.430	
9,600.00	7,066.21	9,385.14	6,945.95	81.04	79.86	-79.67	623.69	-2,818.25	670.67	514.11	156.56	4.284	
9,700.00	7,065.93	9,485.14	6,945.65	83.64	82.49	-79.67	622.96	-2,918.24	670.66	508.92	161.74	4.146	
9,800.00	7,065.64	9,585.14	6,945.35	86.26	85.13	-79.67	622.22	-3,018.24	670.65	503.69	166.96	4.017	
9,900.00	7,065.36	9,685.14	6,945.06	88.90	87.79	-79.67	621.48	-3,118.24	670.64	498.44	172.19	3.895	
10,000.00	7,065.07	9,785.14	6,944.76	91.55	90.47	-79.66	620.74	-3,218.23	670.62	493.17	177.46	3.779	
10,100.00	7,064.79	9,885.14	6,944.46	94.21	93.15	-79.66	620.00	-3,318.23	670.61	487.87	182.74	3.670	
10,200.00	7,064.50	9,985.14	6,944.16	96.88	95.84	-79.66	619.27	-3,418.23	670.60	482.56	188.04	3.566	
10,300.00	7,064.22	10,085.14	6,943.86	99.57	98.55	-79.66	618.53	-3,518.22	670.59	477.22	193.37	3.468	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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)			
10,400.00	7,063.94	10,185.14	6,943.56	102.26	101.26	-79.66	617.79	-3,618.22	670.58	471.87	198.70	3.375		
10,500.00	7,063.65	10,285.14	6,943.27	104.96	103.98	-79.66	617.05	-3,718.22	670.56	466.50	204.06	3.286		
10,600.00	7,063.37	10,385.14	6,942.97	107.67	106.70	-79.66	616.32	-3,818.21	670.55	461.12	209.43	3.202		
10,700.00	7,063.08	10,485.14	6,942.67	110.39	109.44	-79.66	615.58	-3,918.21	670.54	455.73	214.81	3.122		
10,800.00	7,062.80	10,585.14	6,942.37	113.11	112.18	-79.65	614.84	-4,018.21	670.53	450.32	220.21	3.045		
10,900.00	7,062.51	10,685.14	6,942.07	115.84	114.92	-79.65	614.10	-4,118.20	670.52	444.90	225.61	2.972		
11,000.00	7,062.23	10,785.14	6,941.77	118.58	117.67	-79.65	613.37	-4,218.20	670.50	439.47	231.03	2.902		
11,100.00	7,061.94	10,885.14	6,941.48	121.32	120.43	-79.65	612.63	-4,318.20	670.49	434.04	236.46	2.836		
11,200.00	7,061.66	10,985.14	6,941.18	124.07	123.19	-79.65	611.89	-4,418.20	670.48	428.59	241.89	2.772		
11,300.00	7,061.37	11,085.14	6,940.88	126.82	125.95	-79.65	611.15	-4,518.19	670.47	423.13	247.34	2.711		
11,400.00	7,061.09	11,185.14	6,940.58	129.58	128.72	-79.65	610.41	-4,618.19	670.46	417.67	252.79	2.652		
11,500.00	7,060.80	11,285.14	6,940.28	132.34	131.49	-79.64	609.68	-4,718.19	670.45	412.19	258.25	2.596		
11,600.00	7,060.52	11,385.14	6,939.98	135.10	134.27	-79.64	608.94	-4,818.18	670.43	406.71	263.72	2.542		
11,700.00	7,060.23	11,485.14	6,939.69	137.87	137.05	-79.64	608.20	-4,918.18	670.42	401.23	269.19	2.490		
11,800.00	7,059.95	11,585.14	6,939.39	140.64	139.83	-79.64	607.46	-5,018.18	670.41	395.74	274.67	2.441		
11,900.00	7,059.66	11,685.14	6,939.09	143.42	142.62	-79.64	606.73	-5,118.17	670.40	390.24	280.16	2.393		
12,000.00	7,059.38	11,785.14	6,938.79	146.20	145.41	-79.64	605.99	-5,218.17	670.39	384.73	285.65	2.347		
12,100.00	7,059.09	11,885.14	6,938.49	148.98	148.20	-79.64	605.25	-5,318.17	670.37	379.22	291.15	2.303		
12,200.00	7,058.81	11,985.14	6,938.19	151.77	150.99	-79.63	604.51	-5,418.16	670.36	373.71	296.65	2.260		
12,300.00	7,058.52	12,085.14	6,937.90	154.55	153.79	-79.63	603.77	-5,518.16	670.35	368.19	302.16	2.219		
12,400.00	7,058.24	12,185.14	6,937.60	157.34	156.59	-79.63	603.04	-5,618.16	670.34	362.67	307.67	2.179		
12,500.00	7,057.96	12,285.14	6,937.30	160.14	159.39	-79.63	602.30	-5,718.15	670.33	357.14	313.19	2.140		
12,600.00	7,057.67	12,385.14	6,937.00	162.93	162.19	-79.63	601.56	-5,818.15	670.31	351.61	318.71	2.103		
12,700.00	7,057.39	12,485.14	6,936.70	165.73	164.99	-79.63	600.82	-5,918.15	670.30	346.07	324.23	2.067		
12,800.00	7,057.10	12,585.14	6,936.40	168.53	167.80	-79.63	600.09	-6,018.14	670.29	340.54	329.75	2.033		
12,900.00	7,056.82	12,685.14	6,936.11	171.33	170.61	-79.62	599.35	-6,118.14	670.28	334.99	335.29	1.999		
13,000.00	7,056.53	12,785.14	6,935.81	174.13	173.42	-79.62	598.61	-6,218.14	670.27	329.45	340.82	1.967		
13,100.00	7,056.25	12,885.14	6,935.51	176.94	176.23	-79.62	597.87	-6,318.13	670.26	323.90	346.35	1.935		
13,200.00	7,055.96	12,985.14	6,935.21	179.74	179.04	-79.62	597.13	-6,418.13	670.24	318.35	351.89	1.905		
13,300.00	7,055.68	13,085.14	6,934.91	182.55	181.85	-79.62	596.40	-6,518.13	670.23	312.80	357.44	1.875		
13,400.00	7,055.39	13,185.14	6,934.61	185.36	184.67	-79.62	595.66	-6,618.13	670.22	307.24	362.98	1.846		
13,500.00	7,055.11	13,285.14	6,934.32	188.17	187.49	-79.62	594.92	-6,718.12	670.21	301.68	368.53	1.819		
13,600.00	7,054.82	13,385.14	6,934.02	190.98	190.31	-79.62	594.18	-6,818.12	670.20	296.12	374.08	1.792		
13,700.00	7,054.54	13,485.14	6,933.72	193.80	193.12	-79.61	593.45	-6,918.12	670.18	290.55	379.63	1.765		
13,800.00	7,054.25	13,585.14	6,933.42	196.61	195.94	-79.61	592.71	-7,018.11	670.17	284.99	385.18	1.740		
13,900.00	7,053.97	13,685.14	6,933.12	199.43	198.77	-79.61	591.97	-7,118.11	670.16	279.42	390.74	1.715		
14,000.00	7,053.68	13,785.14	6,932.82	202.25	201.59	-79.61	591.23	-7,218.11	670.15	273.85	396.30	1.691		
14,100.00	7,053.40	13,885.14	6,932.52	205.06	204.41	-79.61	590.49	-7,318.10	670.14	268.28	401.86	1.668		
14,200.00	7,053.11	13,985.14	6,932.23	207.88	207.24	-79.61	589.76	-7,418.10	670.12	262.70	407.42	1.645		
14,300.00	7,052.83	14,085.14	6,931.93	210.70	210.06	-79.61	589.02	-7,518.10	670.11	257.13	412.98	1.623		
14,400.00	7,052.54	14,185.14	6,931.63	213.53	212.89	-79.60	588.28	-7,618.09	670.10	251.55	418.55	1.601		
14,500.00	7,052.26	14,285.14	6,931.33	216.35	215.72	-79.60	587.54	-7,718.09	670.09	245.97	424.12	1.580		
14,600.00	7,051.98	14,385.14	6,931.03	219.17	218.54	-79.60	586.81	-7,818.09	670.08	240.39	429.68	1.559		
14,700.00	7,051.69	14,485.14	6,930.73	222.00	221.37	-79.60	586.07	-7,918.08	670.06	234.81	435.25	1.539		
14,800.00	7,051.41	14,585.14	6,930.44	224.82	224.20	-79.60	585.33	-8,018.08	670.05	229.23	440.83	1.520		
14,900.00	7,051.12	14,685.14	6,930.14	227.65	227.03	-79.60	584.59	-8,118.08	670.04	223.64	446.40	1.501		
14,942.37	7,051.00	14,727.51	6,930.01	228.85	228.23	-79.60	584.28	-8,160.45	670.04	221.28	448.76	1.493 Level 3, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	-179.20	-40.07	-0.56	40.07					
100.00	100.00	101.00	100.00	3.28	3.28	-179.20	-40.07	-0.56	40.07	33.50	6.57	6.099		
200.00	200.00	201.00	200.00	3.34	3.34	-179.20	-40.07	-0.56	40.07	33.39	6.67	6.003		
300.00	300.00	301.00	300.00	3.44	3.45	-179.20	-40.07	-0.56	40.07	33.18	6.89	5.815 CC, ES		
400.00	399.98	401.02	399.98	3.60	3.61	-172.23	-40.07	-0.56	41.80	34.59	7.21	5.798		
500.00	499.84	501.16	499.84	3.81	3.81	-173.08	-40.07	-0.56	46.99	39.37	7.62	6.168		
600.00	599.45	598.45	599.45	4.06	4.04	-174.15	-40.07	-0.56	55.65	47.55	8.10	6.872		
700.00	698.70	700.01	700.99	4.34	4.32	-175.02	-38.34	-0.83	66.09	57.44	8.66	7.635		
800.00	797.47	801.99	802.82	4.64	4.62	-175.57	-33.04	-1.69	76.49	67.21	9.28	8.244		
900.00	895.65	904.37	904.79	4.98	4.96	-175.90	-24.12	-3.12	86.70	76.75	9.95	8.710		
1,000.00	993.66	1,007.32	1,006.95	5.32	5.31	-175.99	-11.53	-5.15	94.28	83.62	10.66	8.840		
1,100.00	1,091.67	1,109.16	1,107.54	5.69	5.67	-175.88	4.16	-7.68	98.62	87.23	11.40	8.653		
1,200.00	1,189.68	1,209.09	1,206.15	6.09	6.04	-175.73	20.12	-10.25	102.40	90.25	12.14	8.431		
1,300.00	1,287.69	1,309.01	1,304.76	6.49	6.41	-175.60	36.08	-12.82	106.17	93.26	12.91	8.222		
1,400.00	1,385.69	1,408.94	1,403.37	6.90	6.81	-175.48	52.04	-15.39	109.95	96.25	13.70	8.023		
1,500.00	1,483.70	1,508.87	1,501.98	7.33	7.21	-175.37	68.00	-17.96	113.73	99.22	14.51	7.837		
1,600.00	1,581.71	1,608.80	1,600.60	7.76	7.62	-175.26	83.97	-20.53	117.51	102.17	15.33	7.664		
1,700.00	1,679.72	1,708.73	1,699.21	8.19	8.03	-175.16	99.93	-23.10	121.28	105.12	16.17	7.502		
1,800.00	1,777.73	1,808.66	1,797.82	8.63	8.45	-175.07	115.89	-25.68	125.06	108.05	17.01	7.352		
1,900.00	1,875.74	1,908.58	1,896.43	9.08	8.88	-174.98	131.85	-28.25	128.84	110.98	17.86	7.213		
2,000.00	1,973.75	2,008.51	1,995.05	9.53	9.31	-174.90	147.81	-30.82	132.62	113.89	18.72	7.083		
2,100.00	2,071.76	2,108.44	2,093.66	9.98	9.75	-174.82	163.77	-33.39	136.40	116.81	19.59	6.963		
2,200.00	2,169.77	2,208.37	2,192.27	10.44	10.18	-174.75	179.73	-35.96	140.17	119.71	20.46	6.850		
2,300.00	2,267.77	2,308.30	2,290.88	10.90	10.62	-174.68	195.69	-38.53	143.95	122.61	21.34	6.746		
2,400.00	2,365.78	2,408.23	2,389.49	11.36	11.06	-174.61	211.65	-41.10	147.73	125.51	22.22	6.648		
2,500.00	2,463.79	2,508.16	2,488.11	11.82	11.51	-174.55	227.61	-43.67	151.51	128.40	23.11	6.556		
2,600.00	2,561.80	2,608.08	2,586.72	12.28	11.95	-174.49	243.57	-46.24	155.29	131.29	24.00	6.471		
2,700.00	2,659.81	2,708.01	2,685.33	12.75	12.40	-174.43	259.53	-48.81	159.07	134.18	24.89	6.391		
2,800.00	2,757.82	2,807.94	2,783.94	13.21	12.85	-174.38	275.49	-51.38	162.85	137.07	25.79	6.315		
2,900.00	2,855.83	2,907.87	2,882.55	13.68	13.30	-174.32	291.45	-53.95	166.63	139.95	26.69	6.244		
3,000.00	2,953.84	3,007.80	2,981.17	14.15	13.75	-174.27	307.41	-56.52	170.41	142.83	27.59	6.177		
3,100.00	3,051.85	3,107.73	3,079.78	14.62	14.20	-174.23	323.37	-59.09	174.19	145.71	28.49	6.114		
3,200.00	3,149.85	3,207.65	3,178.39	15.09	14.66	-174.18	339.33	-61.67	177.97	148.58	29.39	6.055		
3,300.00	3,247.86	3,307.58	3,277.00	15.56	15.11	-174.14	355.29	-64.24	181.76	151.46	30.30	5.999		
3,400.00	3,345.87	3,407.51	3,375.61	16.04	15.57	-174.09	371.25	-66.81	185.54	154.33	31.21	5.945		
3,500.00	3,443.88	3,507.44	3,474.23	16.51	16.02	-174.05	387.21	-69.38	189.32	157.20	32.12	5.895		
3,600.00	3,541.89	3,607.37	3,572.84	16.98	16.48	-174.01	403.17	-71.95	193.10	160.07	33.03	5.847		
3,700.00	3,639.90	3,707.30	3,671.45	17.46	16.93	-173.98	419.13	-74.52	196.88	162.94	33.94	5.801		
3,800.00	3,737.91	3,807.22	3,770.06	17.93	17.39	-173.94	435.09	-77.09	200.66	165.81	34.85	5.757		
3,900.00	3,835.92	3,907.15	3,868.68	18.41	17.85	-173.91	451.05	-79.66	204.44	168.68	35.77	5.716		
4,000.00	3,933.93	4,007.08	3,967.29	18.88	18.31	-173.87	467.01	-82.23	208.22	171.54	36.68	5.677		
4,100.00	4,031.93	4,107.01	4,065.90	19.36	18.77	-173.84	482.97	-84.80	212.00	174.41	37.60	5.639		
4,200.00	4,129.94	4,206.94	4,164.51	19.84	19.23	-173.81	498.93	-87.37	215.79	177.27	38.51	5.603		
4,300.00	4,227.95	4,306.87	4,263.12	20.31	19.69	-173.78	514.89	-89.94	219.57	180.14	39.43	5.568		
4,400.00	4,325.96	4,406.79	4,361.74	20.79	20.15	-173.75	530.85	-92.51	223.35	183.00	40.35	5.535		
4,500.00	4,423.97	4,506.72	4,460.35	21.27	20.61	-173.72	546.81	-95.08	227.13	185.86	41.27	5.504		
4,600.00	4,521.98	4,606.65	4,558.96	21.75	21.07	-173.70	562.77	-97.66	230.91	188.73	42.19	5.474		
4,700.00	4,619.99	4,706.58	4,657.57	22.23	21.53	-173.67	578.74	-100.23	234.69	191.59	43.11	5.445		
4,800.00	4,718.00	4,806.51	4,756.18	22.70	21.99	-173.65	594.70	-102.80	238.48	194.45	44.03	5.417		
4,900.00	4,816.01	4,906.44	4,854.80	23.18	22.45	-173.62	610.66	-105.37	242.26	197.31	44.95	5.390		
5,000.00	4,914.01	5,006.37	4,953.41	23.66	22.92	-173.60	626.62	-107.94	246.04	200.17	45.87	5.364		
5,100.00	5,012.02	5,106.29	5,052.02	24.14	23.38	-173.57	642.58	-110.51	249.82	203.03	46.79	5.339		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,206.22	5,150.63	24.62	23.84	-173.55	658.54	-113.08	253.60	205.89	47.71	5.315		
5,300.00	5,208.04	5,306.15	5,249.24	25.10	24.30	-173.53	674.50	-115.65	257.39	208.75	48.64	5.292		
5,400.00	5,306.05	5,406.08	5,347.86	25.58	24.77	-173.51	690.46	-118.22	261.17	211.61	49.56	5.270		
5,500.00	5,404.06	5,506.01	5,446.47	26.06	25.23	-173.49	706.42	-120.79	264.95	214.47	50.48	5.248		
5,600.00	5,502.07	5,605.94	5,545.08	26.54	25.69	-173.47	722.38	-123.36	268.73	217.32	51.41	5.228		
5,700.00	5,600.08	5,705.86	5,643.69	27.02	26.16	-173.45	738.34	-125.93	272.51	220.18	52.33	5.208		
5,800.00	5,698.09	5,805.79	5,742.31	27.50	26.62	-173.43	754.30	-128.50	276.30	223.04	53.26	5.188		
5,900.00	5,796.09	5,905.72	5,840.92	27.98	27.08	-173.41	770.26	-131.07	280.08	225.90	54.18	5.169		
6,000.00	5,894.10	6,005.65	5,939.53	28.46	27.55	-173.39	786.22	-133.65	283.86	228.76	55.11	5.151		
6,100.00	5,992.11	6,105.58	6,038.14	28.94	28.01	-173.38	802.18	-136.22	287.64	231.61	56.03	5.134		
6,200.00	6,090.12	6,205.51	6,136.75	29.42	28.47	-173.36	818.14	-138.79	291.42	234.47	56.96	5.117		
6,300.00	6,188.13	6,305.43	6,235.37	29.90	28.94	-173.34	834.10	-141.36	295.21	237.33	57.88	5.100		
6,400.00	6,286.14	6,405.36	6,333.98	30.38	29.40	-173.33	850.06	-143.93	298.99	240.18	58.81	5.084		
6,500.00	6,384.15	6,505.29	6,432.59	30.87	29.87	-173.31	866.02	-146.50	302.77	243.04	59.73	5.069		
6,600.00	6,482.15	6,605.22	6,531.20	31.35	30.33	-164.79	881.98	-149.07	306.55	245.89	60.66	5.054		
6,700.00	6,579.21	6,704.10	6,628.16	31.83	30.79	-133.83	897.39	-160.03	310.54	248.96	61.58	5.043		
6,800.00	6,673.04	6,803.39	6,722.74	32.30	31.24	-119.33	911.89	-186.15	314.83	252.32	62.51	5.036		
6,900.00	6,761.33	6,903.05	6,812.57	32.74	31.67	-112.07	925.13	-227.00	319.32	255.86	63.46	5.032		
7,000.00	6,841.90	7,003.11	6,895.40	33.17	32.09	-107.95	936.75	-281.73	323.89	259.45	64.44	5.026		
7,100.00	6,912.77	7,103.57	6,969.09	33.60	32.52	-105.42	946.45	-349.16	328.44	262.92	65.52	5.013		
7,200.00	6,972.19	7,204.44	7,031.69	34.09	33.04	-103.79	953.97	-427.76	332.85	266.07	66.78	4.984		
7,300.00	7,018.70	7,305.70	7,081.48	34.73	33.72	-102.73	959.10	-515.66	337.01	268.72	68.29	4.935		
7,400.00	7,051.15	7,407.34	7,117.03	35.55	34.59	-102.07	961.66	-610.72	340.81	270.71	70.11	4.861		
7,500.00	7,068.75	7,509.31	7,137.28	36.56	35.64	-101.73	961.57	-710.55	344.16	271.93	72.24	4.764		
7,600.00	7,071.91	7,611.07	7,141.91	37.71	36.83	-101.64	958.88	-812.08	346.97	272.35	74.62	4.650		
7,700.00	7,071.62	7,711.03	7,141.48	39.03	38.15	-101.53	955.42	-911.98	349.60	272.31	77.28	4.524		
7,800.00	7,071.34	7,810.99	7,141.05	40.51	39.63	-101.41	951.96	-1,011.89	352.22	271.97	80.25	4.389		
7,900.00	7,071.05	7,910.96	7,140.61	42.14	41.25	-101.30	948.50	-1,111.79	354.85	271.36	83.49	4.250		
8,000.00	7,070.77	8,010.92	7,140.18	43.89	43.00	-101.20	945.04	-1,211.69	357.47	270.50	86.97	4.110		
8,100.00	7,070.48	8,110.88	7,139.75	45.76	44.86	-101.09	941.58	-1,311.59	360.10	269.43	90.67	3.972		
8,200.00	7,070.20	8,210.84	7,139.31	47.72	46.83	-100.98	938.12	-1,411.50	362.73	268.17	94.56	3.836		
8,300.00	7,069.92	8,310.81	7,138.88	49.78	48.88	-100.88	934.66	-1,511.40	365.36	266.74	98.62	3.705		
8,400.00	7,069.63	8,410.77	7,138.44	51.90	51.00	-100.78	931.20	-1,611.30	368.00	265.17	102.83	3.579		
8,500.00	7,069.35	8,510.73	7,138.01	54.10	53.20	-100.68	927.74	-1,711.20	370.63	263.46	107.17	3.458		
8,600.00	7,069.06	8,610.70	7,137.58	56.36	55.45	-100.58	924.29	-1,811.10	373.26	261.63	111.63	3.344		
8,700.00	7,068.78	8,710.66	7,137.14	58.66	57.76	-100.48	920.83	-1,911.01	375.90	259.71	116.19	3.235		
8,800.00	7,068.49	8,810.62	7,136.71	61.02	60.11	-100.38	917.37	-2,010.91	378.54	257.69	120.85	3.132		
8,900.00	7,068.21	8,910.59	7,136.28	63.42	62.50	-100.29	913.91	-2,110.81	381.17	255.59	125.58	3.035		
9,000.00	7,067.92	9,010.55	7,135.84	65.85	64.93	-100.19	910.45	-2,210.71	383.81	253.42	130.40	2.943		
9,100.00	7,067.64	9,110.51	7,135.41	68.32	67.39	-100.10	906.99	-2,310.62	386.45	251.18	135.27	2.857		
9,200.00	7,067.35	9,210.48	7,134.98	70.81	69.89	-100.01	903.53	-2,410.52	389.09	248.88	140.21	2.775		
9,300.00	7,067.07	9,310.44	7,134.54	73.34	72.41	-99.92	900.07	-2,510.42	391.74	246.53	145.20	2.698		
9,400.00	7,066.78	9,410.40	7,134.11	75.88	74.95	-99.83	896.61	-2,610.32	394.38	244.14	150.24	2.625		
9,500.00	7,066.50	9,510.37	7,133.67	78.45	77.51	-99.74	893.15	-2,710.23	397.02	241.70	155.33	2.556		
9,600.00	7,066.21	9,610.33	7,133.24	81.04	80.09	-99.65	889.69	-2,810.13	399.67	239.22	160.45	2.491		
9,700.00	7,065.93	9,710.29	7,132.81	83.64	82.69	-99.57	886.24	-2,910.03	402.31	236.70	165.61	2.429		
9,800.00	7,065.64	9,810.26	7,132.37	86.26	85.31	-99.48	882.78	-3,009.93	404.96	234.16	170.80	2.371		
9,900.00	7,065.36	9,910.22	7,131.94	88.90	87.94	-99.40	879.32	-3,109.84	407.61	231.58	176.02	2.316		
10,000.00	7,065.07	10,010.18	7,131.51	91.55	90.58	-99.32	875.86	-3,209.74	410.25	228.98	181.28	2.263		
10,100.00	7,064.79	10,110.15	7,131.07	94.21	93.24	-99.24	872.40	-3,309.64	412.90	226.35	186.55	2.213		
10,200.00	7,064.50	10,210.11	7,130.64	96.88	95.90	-99.16	868.94	-3,409.54	415.55	223.70	191.85	2.166		
10,300.00	7,064.22	10,310.07	7,130.21	99.57	98.58	-99.08	865.48	-3,509.45	418.20	221.03	197.17	2.121		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 4N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,410.04	7,129.77	102.26	101.27	-99.00	862.02	-3,609.35	420.85	218.34	202.52	2.078		
10,500.00	7,063.65	10,510.00	7,129.34	104.96	103.96	-98.92	858.56	-3,709.25	423.51	215.63	207.88	2.037		
10,600.00	7,063.37	10,609.96	7,128.90	107.67	106.66	-98.85	855.10	-3,809.15	426.16	212.90	213.26	1.998		
10,700.00	7,063.08	10,709.92	7,128.47	110.39	109.37	-98.77	851.64	-3,909.06	428.81	210.16	218.65	1.961		
10,800.00	7,062.80	10,809.89	7,128.04	113.11	112.09	-98.70	848.19	-4,008.96	431.47	207.41	224.06	1.926		
10,900.00	7,062.51	10,909.85	7,127.60	115.84	114.81	-98.62	844.73	-4,108.86	434.12	204.64	229.48	1.892		
11,000.00	7,062.23	11,009.81	7,127.17	118.58	117.54	-98.55	841.27	-4,208.76	436.78	201.86	234.92	1.859		
11,100.00	7,061.94	11,109.78	7,126.74	121.32	120.28	-98.48	837.81	-4,308.66	439.43	199.06	240.37	1.828		
11,200.00	7,061.66	11,209.74	7,126.30	124.07	123.02	-98.41	834.35	-4,408.57	442.09	196.26	245.83	1.798		
11,300.00	7,061.37	11,309.70	7,125.87	126.82	125.76	-98.34	830.89	-4,508.47	444.75	193.45	251.30	1.770		
11,400.00	7,061.09	11,409.67	7,125.44	129.58	128.51	-98.27	827.43	-4,608.37	447.41	190.63	256.78	1.742		
11,500.00	7,060.80	11,509.63	7,125.00	132.34	131.26	-98.20	823.97	-4,708.27	450.07	187.79	262.27	1.716		
11,600.00	7,060.52	11,609.59	7,124.57	135.10	134.02	-98.13	820.51	-4,808.18	452.73	184.95	267.77	1.691		
11,700.00	7,060.23	11,709.56	7,124.14	137.87	136.78	-98.07	817.05	-4,908.08	455.39	182.10	273.28	1.666		
11,800.00	7,059.95	11,809.52	7,123.70	140.64	139.54	-98.00	813.59	-5,007.98	458.05	179.25	278.80	1.643		
11,900.00	7,059.66	11,909.48	7,123.27	143.42	142.31	-97.93	810.14	-5,107.88	460.71	176.39	284.32	1.620		
12,000.00	7,059.38	12,009.45	7,122.83	146.20	145.08	-97.87	806.68	-5,207.79	463.37	173.52	289.85	1.599		
12,100.00	7,059.09	12,109.41	7,122.40	148.98	147.86	-97.81	803.22	-5,307.69	466.03	170.64	295.39	1.578		
12,200.00	7,058.81	12,209.37	7,121.97	151.77	150.63	-97.74	799.76	-5,407.59	468.70	167.76	300.94	1.557		
12,300.00	7,058.52	12,309.34	7,121.53	154.55	153.41	-97.68	796.30	-5,507.49	471.36	164.88	306.49	1.538		
12,400.00	7,058.24	12,409.30	7,121.10	157.34	156.19	-97.62	792.84	-5,607.40	474.03	161.98	312.04	1.519		
12,500.00	7,057.96	12,509.26	7,120.67	160.14	158.98	-97.56	789.38	-5,707.30	476.69	159.09	317.60	1.501		
12,600.00	7,057.67	12,609.23	7,120.23	162.93	161.76	-97.50	785.92	-5,807.20	479.36	156.19	323.17	1.483 Level 3		
12,700.00	7,057.39	12,709.19	7,119.80	165.73	164.55	-97.44	782.46	-5,907.10	482.02	153.28	328.74	1.466 Level 3		
12,800.00	7,057.10	12,809.15	7,119.37	168.53	167.34	-97.38	779.00	-6,007.01	484.69	150.37	334.32	1.450 Level 3		
12,900.00	7,056.82	12,909.12	7,118.93	171.33	170.13	-97.32	775.55	-6,106.91	487.36	147.45	339.90	1.434 Level 3		
13,000.00	7,056.53	13,009.08	7,118.50	174.13	172.93	-97.26	772.09	-6,206.81	490.02	144.54	345.49	1.418 Level 3		
13,100.00	7,056.25	13,109.04	7,118.06	176.94	175.72	-97.21	768.63	-6,306.71	492.69	141.61	351.08	1.403 Level 3		
13,200.00	7,055.96	13,209.01	7,117.63	179.74	178.52	-97.15	765.17	-6,406.62	495.36	138.69	356.67	1.389 Level 3		
13,300.00	7,055.68	13,308.97	7,117.20	182.55	181.32	-97.09	761.71	-6,506.52	498.03	135.76	362.27	1.375 Level 3		
13,400.00	7,055.39	13,408.93	7,116.76	185.36	184.12	-97.04	758.25	-6,606.42	500.70	132.83	367.87	1.361 Level 3		
13,500.00	7,055.11	13,508.89	7,116.33	188.17	186.92	-96.98	754.79	-6,706.32	503.37	129.89	373.48	1.348 Level 3		
13,600.00	7,054.82	13,608.86	7,115.90	190.98	189.72	-96.93	751.33	-6,806.22	506.04	126.96	379.08	1.335 Level 3		
13,700.00	7,054.54	13,708.82	7,115.46	193.80	192.53	-96.88	747.87	-6,906.13	508.71	124.02	384.69	1.322 Level 3		
13,800.00	7,054.25	13,808.78	7,115.03	196.61	195.33	-96.82	744.41	-7,006.03	511.38	121.07	390.31	1.310 Level 3		
13,900.00	7,053.97	13,908.75	7,114.60	199.43	198.14	-96.77	740.95	-7,105.93	514.05	118.13	395.93	1.298 Level 3		
14,000.00	7,053.68	14,008.71	7,114.16	202.25	200.95	-96.72	737.50	-7,205.83	516.73	115.18	401.55	1.287 Level 3		
14,100.00	7,053.40	14,108.67	7,113.73	205.06	203.76	-96.67	734.04	-7,305.74	519.40	112.23	407.17	1.276 Level 3		
14,200.00	7,053.11	14,208.64	7,113.29	207.88	206.57	-96.62	730.58	-7,405.64	522.07	109.28	412.79	1.265 Level 3		
14,300.00	7,052.83	14,308.60	7,112.86	210.70	209.38	-96.57	727.12	-7,505.54	524.74	106.32	418.42	1.254 Level 3		
14,400.00	7,052.54	14,408.56	7,112.43	213.53	212.19	-96.52	723.66	-7,605.44	527.42	103.37	424.05	1.244 Level 2		
14,500.00	7,052.26	14,508.53	7,111.99	216.35	215.00	-96.47	720.20	-7,705.35	530.09	100.41	429.68	1.234 Level 2		
14,600.00	7,051.98	14,608.49	7,111.56	219.17	217.82	-96.42	716.74	-7,805.25	532.77	97.45	435.32	1.224 Level 2		
14,700.00	7,051.69	14,708.45	7,111.13	222.00	220.63	-96.37	713.28	-7,905.15	535.44	94.49	440.95	1.214 Level 2		
14,800.00	7,051.41	14,808.42	7,110.69	224.82	223.45	-96.32	709.82	-8,005.05	538.12	91.52	446.59	1.205 Level 2		
14,900.00	7,051.12	14,908.38	7,110.26	227.65	226.26	-96.28	706.36	-8,104.96	540.79	88.56	452.23	1.196 Level 2		
14,942.37	7,051.00	14,950.74	7,110.08	228.85	227.46	-96.26	704.90	-8,147.29	541.93	87.30	454.62	1.192 Level 2, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	-179.50	-160.29	-1.39	160.29					
100.00	100.00	101.00	100.00	3.28	3.28	-179.50	-160.29	-1.39	160.29	153.72	6.57	24.399		
200.00	200.00	201.00	200.00	3.34	3.34	-179.50	-160.29	-1.39	160.29	153.62	6.67	24.014		
300.00	300.00	301.00	300.00	3.44	3.45	-179.50	-160.29	-1.39	160.29	153.40	6.89	23.261 CC, ES		
400.00	399.98	398.98	399.98	3.60	3.60	-172.28	-160.29	-1.39	162.02	154.82	7.21	22.486		
500.00	499.84	494.46	495.44	3.81	3.79	-172.17	-161.51	-2.35	168.50	160.89	7.60	22.164		
600.00	599.45	592.79	593.70	4.06	4.01	-171.75	-164.55	-4.75	180.23	172.16	8.07	22.335		
700.00	698.70	708.38	692.45	4.34	4.30	-171.51	-167.67	-7.20	195.46	186.81	8.65	22.606		
800.00	797.47	789.86	790.61	4.64	4.54	-171.42	-170.77	-9.64	214.09	204.90	9.19	23.306		
900.00	895.65	887.44	888.10	4.98	4.84	-171.48	-173.85	-12.06	235.97	226.15	9.82	24.035		
1,000.00	993.66	984.81	985.40	5.32	5.15	-171.59	-176.92	-14.48	258.74	248.27	10.47	24.705		
1,100.00	1,091.67	1,082.18	1,082.69	5.69	5.49	-171.69	-179.99	-16.89	281.52	270.35	11.16	25.223		
1,200.00	1,189.68	1,179.55	1,179.98	6.09	5.84	-171.77	-183.06	-19.31	304.29	292.41	11.88	25.623		
1,300.00	1,287.69	1,276.92	1,277.28	6.49	6.19	-171.84	-186.13	-21.73	327.06	314.45	12.61	25.932		
1,400.00	1,385.69	1,374.29	1,374.57	6.90	6.56	-171.90	-189.20	-24.14	349.84	336.47	13.37	26.169		
1,500.00	1,483.70	1,471.66	1,471.86	7.33	6.93	-171.95	-192.27	-26.56	372.61	358.47	14.14	26.353		
1,600.00	1,581.71	1,569.04	1,569.16	7.76	7.31	-172.00	-195.34	-28.98	395.39	380.46	14.92	26.494		
1,700.00	1,679.72	1,666.41	1,666.45	8.19	7.70	-172.04	-198.41	-31.39	418.16	402.44	15.72	26.601		
1,800.00	1,777.73	1,763.78	1,763.74	8.63	8.09	-172.08	-201.48	-33.81	440.94	424.41	16.52	26.683		
1,900.00	1,875.74	1,861.15	1,861.03	9.08	8.48	-172.12	-204.55	-36.23	463.71	446.38	17.34	26.745		
2,000.00	1,973.75	1,958.52	1,958.33	9.53	8.88	-172.15	-207.63	-38.64	486.49	468.33	18.16	26.790		
2,100.00	2,071.76	2,055.89	2,055.62	9.98	9.28	-172.18	-210.70	-41.06	509.27	490.28	18.99	26.823		
2,200.00	2,169.77	2,153.26	2,152.91	10.44	9.68	-172.20	-213.77	-43.48	532.04	512.22	19.82	26.846		
2,300.00	2,267.77	2,250.64	2,250.21	10.90	10.09	-172.23	-216.84	-45.89	554.82	534.16	20.66	26.860		
2,400.00	2,365.78	2,348.01	2,347.50	11.36	10.50	-172.25	-219.91	-48.31	577.59	556.10	21.50	26.869		
2,500.00	2,463.79	2,445.38	2,444.79	11.82	10.91	-172.27	-222.98	-50.73	600.37	578.03	22.34	26.872		
2,600.00	2,561.80	2,542.75	2,542.09	12.28	11.32	-172.29	-226.05	-53.14	623.15	599.96	23.19	26.871		
2,700.00	2,659.81	2,640.12	2,639.38	12.75	11.73	-172.30	-229.12	-55.56	645.92	621.88	24.04	26.867		
2,800.00	2,757.82	2,737.49	2,736.67	13.21	12.14	-172.32	-232.19	-57.98	668.70	643.80	24.90	26.860		
2,900.00	2,855.83	2,834.86	2,833.96	13.68	12.56	-172.34	-235.26	-60.39	691.48	665.72	25.75	26.851		
3,000.00	2,953.84	2,932.24	2,931.26	14.15	12.98	-172.35	-238.33	-62.81	714.25	687.64	26.61	26.840		
3,100.00	3,051.85	3,029.61	3,028.55	14.62	13.39	-172.36	-241.41	-65.23	737.03	709.56	27.47	26.828		
3,200.00	3,149.85	3,126.98	3,125.84	15.09	13.81	-172.38	-244.48	-67.64	759.81	731.47	28.33	26.816		
3,300.00	3,247.86	3,224.35	3,223.14	15.56	14.23	-172.39	-247.55	-70.06	782.58	753.38	29.20	26.802		
3,400.00	3,345.87	3,321.72	3,320.43	16.04	14.65	-172.40	-250.62	-72.47	805.36	775.30	30.06	26.788		
3,500.00	3,443.88	3,419.09	3,417.72	16.51	15.07	-172.41	-253.69	-74.89	828.14	797.21	30.93	26.774		
3,600.00	3,541.89	3,516.46	3,515.02	16.98	15.49	-172.42	-256.76	-77.31	850.91	819.11	31.80	26.759		
3,700.00	3,639.90	3,613.84	3,612.31	17.46	15.91	-172.43	-259.83	-79.72	873.69	841.02	32.67	26.744		
3,800.00	3,737.91	3,711.21	3,709.60	17.93	16.33	-172.44	-262.90	-82.14	896.47	862.93	33.54	26.729		
3,900.00	3,835.92	3,808.58	3,806.89	18.41	16.76	-172.45	-265.97	-84.56	919.24	884.83	34.41	26.714		
4,000.00	3,933.93	3,905.95	3,904.19	18.88	17.18	-172.45	-269.04	-86.97	942.02	906.74	35.28	26.699		
4,100.00	4,031.93	4,003.32	4,001.48	19.36	17.60	-172.46	-272.11	-89.39	964.80	928.64	36.16	26.684		
4,200.00	4,129.94	4,100.69	4,098.77	19.84	18.03	-172.47	-275.18	-91.81	987.57	950.54	37.03	26.669		
4,300.00	4,227.95	4,201.94	4,196.07	20.31	18.47	-172.48	-278.26	-94.22	1,010.35	972.43	37.92	26.643		
4,400.00	4,325.96	4,295.44	4,293.36	20.79	18.87	-172.48	-281.33	-96.64	1,033.13	994.35	38.78	26.640		
4,500.00	4,423.97	4,407.19	4,390.65	21.27	19.36	-172.49	-284.40	-99.06	1,055.91	1,016.19	39.72	26.584		
4,600.00	4,521.98	4,509.82	4,487.95	21.75	19.81	-172.49	-287.47	-101.47	1,078.68	1,038.06	40.62	26.556		
4,700.00	4,619.99	4,587.55	4,585.24	22.23	20.15	-172.50	-290.54	-103.89	1,101.46	1,060.05	41.41	26.598		
4,800.00	4,718.00	4,684.92	4,682.53	22.70	20.57	-172.51	-293.61	-106.31	1,124.24	1,081.95	42.29	26.585		
4,900.00	4,816.01	4,782.29	4,779.82	23.18	21.00	-172.51	-296.68	-108.72	1,147.01	1,103.85	43.17	26.571		
5,000.00	4,914.01	4,879.66	4,877.12	23.66	21.43	-172.52	-299.75	-111.14	1,169.79	1,125.74	44.05	26.558		
5,100.00	5,012.02	4,977.04	4,974.41	24.14	21.85	-172.52	-302.82	-113.56	1,192.57	1,147.64	44.93	26.545		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16B-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,074.41	5,071.70	24.62	22.28	-172.53	-305.89	-115.97	1,215.34	1,169.54	45.81	26.533		
5,300.00	5,208.04	5,171.78	5,169.00	25.10	22.71	-172.53	-308.96	-118.39	1,238.12	1,191.44	46.69	26.521		
5,400.00	5,306.05	5,269.15	5,266.29	25.58	23.13	-172.54	-312.04	-120.81	1,260.90	1,213.33	47.57	26.508		
5,500.00	5,404.06	5,366.52	5,363.58	26.06	23.56	-172.54	-315.11	-123.22	1,283.68	1,235.23	48.45	26.497		
5,600.00	5,502.07	5,463.89	5,460.88	26.54	23.99	-172.54	-318.18	-125.64	1,306.45	1,257.12	49.33	26.485		
5,700.00	5,600.08	5,561.26	5,558.17	27.02	24.41	-172.55	-321.25	-128.06	1,329.23	1,279.02	50.21	26.474		
5,800.00	5,698.09	5,658.64	5,655.46	27.50	24.84	-172.55	-324.32	-130.47	1,352.01	1,300.92	51.09	26.462		
5,900.00	5,796.09	5,756.01	5,752.75	27.98	25.27	-172.56	-327.39	-132.89	1,374.78	1,322.81	51.97	26.451		
6,000.00	5,894.10	5,853.38	5,850.05	28.46	25.70	-172.56	-330.46	-135.30	1,397.56	1,344.70	52.86	26.441		
6,100.00	5,992.11	5,950.75	5,947.34	28.94	26.12	-172.56	-333.53	-137.72	1,420.34	1,366.60	53.74	26.430		
6,200.00	6,090.12	6,048.12	6,044.63	29.42	26.55	-172.57	-336.60	-140.14	1,443.12	1,388.49	54.62	26.420		
6,300.00	6,188.13	6,145.49	6,141.93	29.90	26.98	-172.57	-339.67	-142.55	1,465.89	1,410.39	55.51	26.410		
6,400.00	6,286.14	6,242.86	6,239.22	30.38	27.41	-172.57	-342.74	-144.97	1,488.67	1,432.28	56.39	26.400		
6,500.00	6,384.15	6,340.24	6,336.51	30.87	27.84	-172.58	-345.82	-147.39	1,511.45	1,454.17	57.27	26.390		
6,600.00	6,482.15	6,437.60	6,433.80	31.35	28.26	-163.68	-348.89	-149.80	1,534.22	1,476.06	58.16	26.380		
6,700.00	6,579.21	6,534.26	6,529.94	31.83	28.69	-130.75	-351.96	-158.38	1,556.75	1,497.71	59.04	26.368		
6,800.00	6,673.04	6,631.75	6,624.47	32.30	29.12	-114.39	-355.07	-181.62	1,578.54	1,518.61	59.93	26.341		
6,900.00	6,761.33	6,730.40	6,715.38	32.74	29.54	-105.42	-358.16	-219.54	1,599.05	1,538.22	60.82	26.290		
7,000.00	6,841.90	6,830.39	6,800.43	33.17	29.96	-99.80	-361.15	-271.84	1,617.78	1,556.01	61.76	26.193		
7,100.00	6,912.77	6,931.87	6,877.31	33.60	30.41	-95.98	-363.97	-337.85	1,634.27	1,571.47	62.80	26.023		
7,200.00	6,972.19	7,034.84	6,943.60	34.09	30.96	-93.31	-366.53	-416.46	1,648.10	1,584.08	64.02	25.742		
7,300.00	7,018.70	7,139.23	6,997.00	34.73	31.67	-91.48	-368.76	-506.00	1,658.94	1,593.41	65.53	25.317		
7,400.00	7,051.15	7,244.85	7,035.42	35.55	32.58	-90.31	-370.57	-604.23	1,666.50	1,599.12	67.37	24.735		
7,500.00	7,068.75	7,351.38	7,057.22	36.56	33.70	-89.73	-371.89	-708.37	1,670.58	1,601.00	69.58	24.010		
7,600.00	7,071.91	7,456.69	7,061.89	37.71	34.99	-89.66	-372.68	-813.49	1,671.26	1,599.19	72.07	23.189		
7,700.00	7,071.62	7,556.69	7,061.46	39.03	36.39	-89.65	-373.28	-913.48	1,671.11	1,596.28	74.83	22.333		
7,800.00	7,071.34	7,656.69	7,061.02	40.51	37.94	-89.65	-373.88	-1,013.48	1,670.96	1,593.06	77.89	21.451		
7,900.00	7,071.05	7,756.69	7,060.59	42.14	39.64	-89.64	-374.48	-1,113.48	1,670.80	1,589.55	81.25	20.564		
8,000.00	7,070.77	7,856.69	7,060.15	43.89	41.47	-89.64	-375.07	-1,213.47	1,670.65	1,585.79	84.86	19.688		
8,100.00	7,070.48	7,956.69	7,059.72	45.76	43.41	-89.63	-375.67	-1,313.47	1,670.50	1,581.81	88.69	18.836		
8,200.00	7,070.20	8,056.69	7,059.29	47.72	45.45	-89.63	-376.27	-1,413.47	1,670.34	1,577.63	92.71	18.017		
8,300.00	7,069.92	8,156.69	7,058.85	49.78	47.57	-89.62	-376.87	-1,513.47	1,670.19	1,573.29	96.91	17.235		
8,400.00	7,069.63	8,256.69	7,058.42	51.90	49.76	-89.62	-377.47	-1,613.46	1,670.04	1,568.79	101.25	16.494		
8,500.00	7,069.35	8,356.69	7,057.98	54.10	52.02	-89.61	-378.07	-1,713.46	1,669.89	1,564.16	105.72	15.795		
8,600.00	7,069.06	8,456.69	7,057.55	56.36	54.34	-89.61	-378.67	-1,813.46	1,669.73	1,559.42	110.31	15.136		
8,700.00	7,068.78	8,556.69	7,057.12	58.66	56.71	-89.60	-379.27	-1,913.45	1,669.58	1,554.58	115.00	14.518		
8,800.00	7,068.49	8,656.69	7,056.68	61.02	59.12	-89.59	-379.86	-2,013.45	1,669.43	1,549.65	119.78	13.937		
8,900.00	7,068.21	8,756.69	7,056.25	63.42	61.57	-89.59	-380.46	-2,113.45	1,669.28	1,544.64	124.64	13.393		
9,000.00	7,067.92	8,856.69	7,055.81	65.85	64.05	-89.58	-381.06	-2,213.45	1,669.12	1,539.56	129.57	12.882		
9,100.00	7,067.64	8,956.69	7,055.38	68.32	66.56	-89.58	-381.66	-2,313.44	1,668.97	1,534.41	134.56	12.403		
9,200.00	7,067.35	9,056.69	7,054.95	70.81	69.10	-89.57	-382.26	-2,413.44	1,668.82	1,529.21	139.61	11.954		
9,300.00	7,067.07	9,156.69	7,054.51	73.34	71.67	-89.57	-382.86	-2,513.44	1,668.67	1,523.96	144.70	11.532		
9,400.00	7,066.78	9,256.69	7,054.08	75.88	74.25	-89.56	-383.46	-2,613.43	1,668.51	1,518.67	149.84	11.135		
9,500.00	7,066.50	9,356.69	7,053.64	78.45	76.86	-89.56	-384.06	-2,713.43	1,668.36	1,513.34	155.02	10.762		
9,600.00	7,066.21	9,456.69	7,053.21	81.04	79.48	-89.55	-384.65	-2,813.43	1,668.21	1,507.97	160.24	10.411		
9,700.00	7,065.93	9,556.69	7,052.78	83.64	82.12	-89.55	-385.25	-2,913.42	1,668.06	1,502.56	165.49	10.079		
9,800.00	7,065.64	9,656.69	7,052.34	86.26	84.77	-89.54	-385.85	-3,013.42	1,667.90	1,497.13	170.77	9.767		
9,900.00	7,065.36	9,756.69	7,051.91	88.90	87.44	-89.54	-386.45	-3,113.42	1,667.75	1,491.67	176.08	9.471		
10,000.00	7,065.07	9,856.69	7,051.47	91.55	90.11	-89.53	-387.05	-3,213.42	1,667.60	1,486.19	181.41	9.192		
10,100.00	7,064.79	9,956.69	7,051.04	94.21	92.80	-89.53	-387.65	-3,313.41	1,667.45	1,480.68	186.77	8.928		
10,200.00	7,064.50	10,056.69	7,050.61	96.88	95.50	-89.52	-388.25	-3,413.41	1,667.30	1,475.15	192.15	8.677		
10,300.00	7,064.22	10,156.69	7,050.17	99.57	98.21	-89.52	-388.85	-3,513.41	1,667.14	1,469.60	197.54	8.440		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	Offset Wellbore Centre +E/-W (ft)	Distance		Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)				Between Centres (ft)	Between Ellipses (ft)				
10,400.00	7,063.94	10,256.69	7,049.74	102.26	100.92	-89.51	-389.44	-3,613.40	1,666.99	1,464.04	202.95	8.214		
10,500.00	7,063.65	10,356.69	7,049.30	104.96	103.65	-89.51	-390.04	-3,713.40	1,666.84	1,458.46	208.38	7.999		
10,600.00	7,063.37	10,456.69	7,048.87	107.67	106.38	-89.50	-390.64	-3,813.40	1,666.69	1,452.86	213.83	7.795		
10,700.00	7,063.08	10,556.69	7,048.44	110.39	109.11	-89.50	-391.24	-3,913.40	1,666.53	1,447.25	219.28	7.600		
10,800.00	7,062.80	10,656.69	7,048.00	113.11	111.86	-89.49	-391.84	-4,013.39	1,666.38	1,441.63	224.75	7.414		
10,900.00	7,062.51	10,756.69	7,047.57	115.84	114.61	-89.49	-392.44	-4,113.39	1,666.23	1,435.99	230.24	7.237		
11,000.00	7,062.23	10,856.69	7,047.13	118.58	117.36	-89.48	-393.04	-4,213.39	1,666.08	1,430.35	235.73	7.068		
11,100.00	7,061.94	10,956.69	7,046.70	121.32	120.12	-89.48	-393.64	-4,313.38	1,665.92	1,424.69	241.23	6.906		
11,200.00	7,061.66	11,056.69	7,046.27	124.07	122.88	-89.47	-394.23	-4,413.38	1,665.77	1,419.02	246.75	6.751		
11,300.00	7,061.37	11,156.69	7,045.83	126.82	125.65	-89.47	-394.83	-4,513.38	1,665.62	1,413.35	252.27	6.603		
11,400.00	7,061.09	11,256.69	7,045.40	129.58	128.42	-89.46	-395.43	-4,613.37	1,665.47	1,407.67	257.80	6.460		
11,500.00	7,060.80	11,356.69	7,044.96	132.34	131.20	-89.46	-396.03	-4,713.37	1,665.32	1,401.98	263.34	6.324		
11,600.00	7,060.52	11,456.69	7,044.53	135.10	133.98	-89.45	-396.63	-4,813.37	1,665.16	1,396.28	268.89	6.193		
11,700.00	7,060.23	11,556.69	7,044.10	137.87	136.76	-89.44	-397.23	-4,913.37	1,665.01	1,390.57	274.44	6.067		
11,800.00	7,059.95	11,656.69	7,043.66	140.64	139.54	-89.44	-397.83	-5,013.36	1,664.86	1,384.86	280.00	5.946		
11,900.00	7,059.66	11,756.69	7,043.23	143.42	142.33	-89.43	-398.43	-5,113.36	1,664.71	1,379.14	285.57	5.830		
12,000.00	7,059.38	11,856.68	7,042.79	146.20	145.12	-89.43	-399.02	-5,213.36	1,664.56	1,373.42	291.14	5.717		
12,100.00	7,059.09	11,956.68	7,042.36	148.98	147.92	-89.42	-399.62	-5,313.35	1,664.40	1,367.69	296.71	5.609		
12,200.00	7,058.81	12,056.68	7,041.93	151.77	150.71	-89.42	-400.22	-5,413.35	1,664.25	1,361.95	302.30	5.505		
12,300.00	7,058.52	12,156.68	7,041.49	154.55	153.51	-89.41	-400.82	-5,513.35	1,664.10	1,356.22	307.88	5.405		
12,400.00	7,058.24	12,256.68	7,041.06	157.34	156.31	-89.41	-401.42	-5,613.34	1,663.95	1,350.47	313.48	5.308		
12,500.00	7,057.96	12,356.68	7,040.62	160.14	159.11	-89.40	-402.02	-5,713.34	1,663.80	1,344.72	319.07	5.214		
12,600.00	7,057.67	12,456.68	7,040.19	162.93	161.92	-89.40	-402.62	-5,813.34	1,663.64	1,338.97	324.67	5.124		
12,700.00	7,057.39	12,556.68	7,039.76	165.73	164.73	-89.39	-403.22	-5,913.34	1,663.49	1,333.21	330.28	5.037		
12,800.00	7,057.10	12,656.68	7,039.32	168.53	167.53	-89.39	-403.81	-6,013.33	1,663.34	1,327.45	335.89	4.952		
12,900.00	7,056.82	12,756.68	7,038.89	171.33	170.34	-89.38	-404.41	-6,113.33	1,663.19	1,321.69	341.50	4.870		
13,000.00	7,056.53	12,856.68	7,038.45	174.13	173.15	-89.38	-405.01	-6,213.33	1,663.04	1,315.92	347.11	4.791		
13,100.00	7,056.25	12,956.68	7,038.02	176.94	175.97	-89.37	-405.61	-6,313.32	1,662.88	1,310.15	352.73	4.714		
13,200.00	7,055.96	13,056.68	7,037.59	179.74	178.78	-89.37	-406.21	-6,413.32	1,662.73	1,304.38	358.35	4.640		
13,300.00	7,055.68	13,156.68	7,037.15	182.55	181.60	-89.36	-406.81	-6,513.32	1,662.58	1,298.60	363.98	4.568		
13,400.00	7,055.39	13,256.68	7,036.72	185.36	184.42	-89.36	-407.41	-6,613.32	1,662.43	1,292.82	369.60	4.498		
13,500.00	7,055.11	13,356.68	7,036.28	188.17	187.23	-89.35	-408.01	-6,713.31	1,662.28	1,287.04	375.23	4.430		
13,600.00	7,054.82	13,456.68	7,035.85	190.98	190.05	-89.35	-408.60	-6,813.31	1,662.12	1,281.26	380.87	4.364		
13,700.00	7,054.54	13,556.68	7,035.42	193.80	192.87	-89.34	-409.20	-6,913.31	1,661.97	1,275.47	386.50	4.300		
13,800.00	7,054.25	13,656.68	7,034.98	196.61	195.70	-89.34	-409.80	-7,013.30	1,661.82	1,269.68	392.14	4.238		
13,900.00	7,053.97	13,756.68	7,034.55	199.43	198.52	-89.33	-410.40	-7,113.30	1,661.67	1,263.89	397.78	4.177		
14,000.00	7,053.68	13,856.68	7,034.11	202.25	201.34	-89.33	-411.00	-7,213.30	1,661.52	1,258.10	403.42	4.119		
14,100.00	7,053.40	13,956.68	7,033.68	205.06	204.17	-89.32	-411.60	-7,313.29	1,661.36	1,252.30	409.06	4.061		
14,200.00	7,053.11	14,056.68	7,033.25	207.88	206.99	-89.31	-412.20	-7,413.29	1,661.21	1,246.51	414.71	4.006		
14,300.00	7,052.83	14,156.68	7,032.81	210.70	209.82	-89.31	-412.80	-7,513.29	1,661.06	1,240.71	420.35	3.952		
14,400.00	7,052.54	14,256.68	7,032.38	213.53	212.65	-89.30	-413.39	-7,613.29	1,660.91	1,234.91	426.00	3.899		
14,500.00	7,052.26	14,356.68	7,031.94	216.35	215.48	-89.30	-413.99	-7,713.28	1,660.76	1,229.10	431.65	3.847		
14,600.00	7,051.98	14,456.68	7,031.51	219.17	218.31	-89.29	-414.59	-7,813.28	1,660.61	1,223.30	437.31	3.797		
14,700.00	7,051.69	14,556.68	7,031.08	222.00	221.14	-89.29	-415.19	-7,913.28	1,660.45	1,217.49	442.96	3.749		
14,800.00	7,051.41	14,656.68	7,030.64	224.82	223.97	-89.28	-415.79	-8,013.27	1,660.30	1,211.69	448.62	3.701		
14,900.00	7,051.12	14,756.68	7,030.21	227.65	226.80	-89.28	-416.39	-8,113.27	1,660.15	1,205.88	454.27	3.655		
14,942.37	7,051.00	14,799.05	7,030.02	228.85	228.00	-89.28	-416.64	-8,155.64	1,660.09	1,203.41	456.67	3.635 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	1.00	0.00	3.28	3.28	-179.43	-140.25	-1.39	140.26					
100.00	100.00	101.00	100.00	3.28	3.28	-179.43	-140.25	-1.39	140.26	133.69	6.57	21.350		
200.00	200.00	201.00	200.00	3.34	3.34	-179.43	-140.25	-1.39	140.26	133.59	6.67	21.013		
300.00	300.00	301.00	300.00	3.44	3.45	-179.43	-140.25	-1.39	140.26	133.37	6.89	20.354 CC, ES		
400.00	399.98	401.02	399.98	3.60	3.61	-172.22	-140.25	-1.39	141.99	134.78	7.21	19.696		
500.00	499.84	498.84	499.84	3.81	3.80	-172.48	-140.25	-1.39	147.18	139.56	7.61	19.331		
600.00	599.45	601.56	599.43	4.06	4.04	-172.30	-140.25	-2.96	155.82	147.72	8.10	19.239		
700.00	698.70	702.30	698.65	4.34	4.31	-171.97	-140.25	-5.44	167.92	159.27	8.64	19.427		
800.00	797.47	803.52	797.41	4.64	4.60	-171.83	-140.25	-7.90	183.44	174.19	9.25	19.841		
900.00	895.65	905.30	895.59	4.98	4.92	-171.85	-140.25	-10.36	202.24	192.34	9.90	20.431		
1,000.00	993.66	1,007.26	993.60	5.32	5.26	-171.93	-140.25	-12.81	221.93	211.35	10.58	20.979		
1,100.00	1,091.67	1,109.22	1,091.61	5.69	5.61	-172.00	-140.25	-15.26	241.62	230.33	11.29	21.398		
1,200.00	1,189.68	1,188.82	1,189.62	6.09	5.90	-172.06	-140.25	-17.71	261.32	249.36	11.95	21.866		
1,300.00	1,287.69	1,286.86	1,287.63	6.49	6.26	-172.11	-140.25	-20.16	281.01	268.31	12.70	22.134		
1,400.00	1,385.69	1,384.90	1,385.64	6.90	6.62	-172.15	-140.25	-22.61	300.70	287.24	13.46	22.341		
1,500.00	1,483.70	1,482.95	1,483.65	7.33	7.00	-172.19	-140.25	-25.06	320.40	306.16	14.24	22.502		
1,600.00	1,581.71	1,580.99	1,581.66	7.76	7.38	-172.22	-140.25	-27.51	340.09	325.06	15.03	22.627		
1,700.00	1,679.72	1,679.03	1,679.68	8.19	7.77	-172.25	-140.25	-29.96	359.78	343.95	15.83	22.723		
1,800.00	1,777.73	1,777.07	1,777.69	8.63	8.16	-172.28	-140.25	-32.41	379.48	362.83	16.65	22.798		
1,900.00	1,875.74	1,875.11	1,875.70	9.08	8.56	-172.31	-140.25	-34.86	399.17	381.71	17.47	22.854		
2,000.00	1,973.75	1,973.15	1,973.71	9.53	8.95	-172.33	-140.25	-37.31	418.87	400.57	18.29	22.897		
2,100.00	2,071.76	2,071.19	2,071.72	9.98	9.36	-172.35	-140.25	-39.76	438.56	419.44	19.13	22.929		
2,200.00	2,169.77	2,169.24	2,169.73	10.44	9.76	-172.37	-140.25	-42.21	458.26	438.29	19.97	22.953		
2,300.00	2,267.77	2,267.28	2,267.74	10.90	10.17	-172.38	-140.25	-44.66	477.95	457.14	20.81	22.969		
2,400.00	2,365.78	2,365.32	2,365.75	11.36	10.58	-172.40	-140.25	-47.11	497.65	475.99	21.66	22.979		
2,500.00	2,463.79	2,463.36	2,463.76	11.82	10.99	-172.41	-140.25	-49.55	517.34	494.83	22.51	22.985		
2,600.00	2,561.80	2,561.40	2,561.77	12.28	11.40	-172.42	-140.25	-52.00	537.03	513.67	23.36	22.988		
2,700.00	2,659.81	2,659.44	2,659.78	12.75	11.81	-172.44	-140.25	-54.45	556.73	532.51	24.22	22.987		
2,800.00	2,757.82	2,757.48	2,757.79	13.21	12.23	-172.45	-140.25	-56.90	576.42	551.35	25.08	22.984		
2,900.00	2,855.83	2,855.52	2,855.80	13.68	12.64	-172.46	-140.25	-59.35	596.12	570.18	25.94	22.979		
3,000.00	2,953.84	2,953.57	2,953.81	14.15	13.06	-172.47	-140.25	-61.80	615.81	589.01	26.81	22.973		
3,100.00	3,051.85	3,051.61	3,051.83	14.62	13.48	-172.48	-140.25	-64.25	635.51	607.84	27.67	22.966		
3,200.00	3,149.85	3,149.65	3,149.84	15.09	13.89	-172.49	-140.25	-66.70	655.20	626.66	28.54	22.957		
3,300.00	3,247.86	3,247.69	3,247.85	15.56	14.31	-172.50	-140.25	-69.15	674.90	645.49	29.41	22.948		
3,400.00	3,345.87	3,345.73	3,345.86	16.04	14.73	-172.50	-140.25	-71.60	694.59	664.31	30.28	22.938		
3,500.00	3,443.88	3,443.77	3,443.87	16.51	15.15	-172.51	-140.25	-74.05	714.29	683.13	31.15	22.928		
3,600.00	3,541.89	3,541.81	3,541.88	16.98	15.58	-172.52	-140.25	-76.50	733.98	701.95	32.03	22.917		
3,700.00	3,639.90	3,639.86	3,639.89	17.46	16.00	-172.52	-140.25	-78.95	753.68	720.77	32.90	22.906		
3,800.00	3,737.91	3,737.90	3,737.90	17.93	16.42	-172.53	-140.25	-81.40	773.37	739.59	33.78	22.896		
3,900.00	3,835.92	3,835.94	3,835.91	18.41	16.84	-172.54	-140.25	-83.85	793.07	758.41	34.66	22.884		
4,000.00	3,933.93	3,933.98	3,933.92	18.88	17.27	-172.54	-140.25	-86.30	812.76	777.23	35.53	22.873		
4,100.00	4,031.93	4,032.02	4,031.93	19.36	17.69	-172.55	-140.25	-88.75	832.46	796.04	36.41	22.862		
4,200.00	4,129.94	4,130.06	4,129.94	19.84	18.11	-172.55	-140.25	-91.20	852.15	814.86	37.29	22.851		
4,300.00	4,227.95	4,228.10	4,227.95	20.31	18.54	-172.56	-140.25	-93.65	871.85	833.67	38.17	22.840		
4,400.00	4,325.96	4,326.14	4,325.97	20.79	18.96	-172.56	-140.25	-96.10	891.54	852.49	39.05	22.830		
4,500.00	4,423.97	4,424.19	4,423.98	21.27	19.39	-172.57	-140.25	-98.55	911.24	871.30	39.93	22.819		
4,600.00	4,521.98	4,522.23	4,521.99	21.75	19.81	-172.57	-140.25	-101.00	930.93	890.12	40.82	22.808		
4,700.00	4,619.99	4,620.27	4,620.00	22.23	20.24	-172.58	-140.25	-103.45	950.63	908.93	41.70	22.798		
4,800.00	4,718.00	4,718.31	4,718.01	22.70	20.66	-172.58	-140.25	-105.90	970.32	927.74	42.58	22.787		
4,900.00	4,816.01	4,816.35	4,816.02	23.18	21.09	-172.58	-140.25	-108.35	990.02	946.55	43.46	22.777		
5,000.00	4,914.01	4,914.39	4,914.03	23.66	21.52	-172.59	-140.25	-110.80	1,009.71	965.36	44.35	22.767		
5,100.00	5,012.02	5,012.43	5,012.04	24.14	21.94	-172.59	-140.25	-113.25	1,029.41	984.17	45.23	22.758		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,110.48	5,110.05	24.62	22.37	-172.59	-140.25	-115.70	1,049.10	1,002.98	46.12	22.748		
5,300.00	5,208.04	5,208.52	5,208.06	25.10	22.80	-172.60	-140.25	-118.15	1,068.79	1,021.79	47.00	22.738		
5,400.00	5,306.05	5,306.56	5,306.07	25.58	23.22	-172.60	-140.25	-120.60	1,088.49	1,040.60	47.89	22.729		
5,500.00	5,404.06	5,404.60	5,404.08	26.06	23.65	-172.60	-140.25	-123.05	1,108.18	1,059.41	48.78	22.720		
5,600.00	5,502.07	5,502.64	5,502.09	26.54	24.08	-172.61	-140.25	-125.50	1,127.88	1,078.22	49.66	22.711		
5,700.00	5,600.08	5,600.68	5,600.10	27.02	24.51	-172.61	-140.25	-127.95	1,147.57	1,097.03	50.55	22.702		
5,800.00	5,698.09	5,701.28	5,698.12	27.50	24.94	-172.61	-140.25	-130.40	1,167.27	1,115.82	51.45	22.689		
5,900.00	5,796.09	5,803.23	5,796.13	27.98	25.39	-172.61	-140.25	-132.85	1,186.96	1,134.61	52.35	22.673		
6,000.00	5,894.10	5,905.19	5,894.14	28.46	25.83	-172.62	-140.25	-135.30	1,206.66	1,153.40	53.26	22.658		
6,100.00	5,992.11	6,007.15	5,992.15	28.94	26.28	-172.62	-140.25	-137.75	1,226.35	1,172.19	54.16	22.643		
6,200.00	6,090.12	6,109.11	6,090.16	29.42	26.73	-172.62	-140.25	-140.20	1,246.05	1,190.98	55.07	22.628		
6,300.00	6,188.13	6,188.93	6,188.17	29.90	27.07	-172.62	-140.25	-142.65	1,265.74	1,209.87	55.88	22.653		
6,400.00	6,286.14	6,286.97	6,286.18	30.38	27.50	-172.63	-140.25	-145.10	1,285.44	1,228.67	56.76	22.645		
6,500.00	6,384.15	6,385.01	6,384.19	30.87	27.93	-172.63	-140.25	-147.55	1,305.13	1,247.48	57.65	22.638		
6,600.00	6,482.15	6,483.05	6,482.20	31.35	28.36	-163.79	-140.25	-149.99	1,324.82	1,266.28	58.54	22.630		
6,700.00	6,579.21	6,578.79	6,577.70	31.83	28.78	-131.28	-140.32	-155.87	1,344.36	1,284.94	59.42	22.625		
6,800.00	6,673.04	6,674.67	6,671.48	32.30	29.21	-115.34	-140.66	-175.36	1,363.46	1,303.15	60.31	22.608		
6,900.00	6,761.33	6,772.01	6,762.61	32.74	29.65	-106.76	-141.28	-209.31	1,381.69	1,320.47	61.22	22.569		
7,000.00	6,841.90	6,871.07	6,848.93	33.17	30.10	-101.49	-142.18	-257.70	1,398.62	1,336.44	62.18	22.493		
7,100.00	6,912.77	6,972.02	6,928.09	33.60	30.59	-97.97	-143.36	-320.16	1,413.82	1,350.59	63.24	22.357		
7,200.00	6,972.19	7,074.98	6,997.64	34.09	31.17	-95.55	-144.81	-395.91	1,426.93	1,362.45	64.47	22.132		
7,300.00	7,018.70	7,179.95	7,055.04	34.73	31.88	-93.91	-146.50	-483.64	1,437.59	1,371.62	65.97	21.791		
7,400.00	7,051.15	7,286.83	7,097.87	35.55	32.77	-92.89	-148.39	-581.40	1,445.54	1,377.73	67.81	21.318		
7,500.00	7,068.75	7,395.37	7,124.03	36.56	33.88	-92.40	-150.43	-686.59	1,450.54	1,380.54	70.00	20.721		
7,600.00	7,071.91	7,504.60	7,131.98	37.71	35.16	-92.37	-152.56	-795.37	1,452.59	1,380.09	72.50	20.034		
7,700.00	7,071.62	7,604.59	7,131.61	39.03	36.51	-92.36	-154.51	-895.35	1,453.79	1,378.60	75.20	19.333		
7,800.00	7,071.34	7,704.58	7,131.25	40.51	38.02	-92.36	-156.47	-995.32	1,454.99	1,376.78	78.21	18.603		
7,900.00	7,071.05	7,804.57	7,130.88	42.14	39.67	-92.35	-158.42	-1,095.29	1,456.19	1,374.68	81.51	17.865		
8,000.00	7,070.77	7,904.57	7,130.51	43.89	41.46	-92.35	-160.38	-1,195.27	1,457.39	1,372.31	85.08	17.130		
8,100.00	7,070.48	8,004.56	7,130.15	45.76	43.36	-92.34	-162.33	-1,295.24	1,458.59	1,369.73	88.86	16.414		
8,200.00	7,070.20	8,104.55	7,129.78	47.72	45.37	-92.34	-164.29	-1,395.21	1,459.79	1,366.94	92.84	15.723		
8,300.00	7,069.92	8,204.54	7,129.42	49.78	47.46	-92.33	-166.25	-1,495.19	1,460.99	1,363.99	97.00	15.062		
8,400.00	7,069.63	8,304.54	7,129.05	51.90	49.62	-92.33	-168.20	-1,595.16	1,462.19	1,360.88	101.30	14.434		
8,500.00	7,069.35	8,404.53	7,128.68	54.10	51.85	-92.32	-170.16	-1,695.13	1,463.39	1,357.64	105.74	13.839		
8,600.00	7,069.06	8,504.52	7,128.32	56.36	54.15	-92.32	-172.11	-1,795.10	1,464.58	1,354.29	110.30	13.278		
8,700.00	7,068.78	8,604.52	7,127.95	58.66	56.49	-92.31	-174.07	-1,895.08	1,465.78	1,350.83	114.96	12.751		
8,800.00	7,068.49	8,704.51	7,127.59	61.02	58.88	-92.31	-176.02	-1,995.05	1,466.98	1,347.28	119.71	12.255		
8,900.00	7,068.21	8,804.50	7,127.22	63.42	61.30	-92.30	-177.98	-2,095.02	1,468.18	1,343.64	124.54	11.789		
9,000.00	7,067.92	8,904.49	7,126.85	65.85	63.77	-92.30	-179.93	-2,195.00	1,469.38	1,339.94	129.44	11.352		
9,100.00	7,067.64	9,004.49	7,126.49	68.32	66.26	-92.29	-181.89	-2,294.97	1,470.58	1,336.17	134.40	10.941		
9,200.00	7,067.35	9,104.48	7,126.12	70.81	68.78	-92.29	-183.84	-2,394.94	1,471.78	1,332.35	139.43	10.556		
9,300.00	7,067.07	9,204.47	7,125.75	73.34	71.33	-92.28	-185.80	-2,494.91	1,472.98	1,328.48	144.50	10.194		
9,400.00	7,066.78	9,304.46	7,125.39	75.88	73.90	-92.28	-187.76	-2,594.89	1,474.18	1,324.56	149.62	9.853		
9,500.00	7,066.50	9,404.46	7,125.02	78.45	76.49	-92.27	-189.71	-2,694.86	1,475.38	1,320.60	154.78	9.532		
9,600.00	7,066.21	9,504.45	7,124.66	81.04	79.10	-92.27	-191.67	-2,794.83	1,476.58	1,316.60	159.98	9.230		
9,700.00	7,065.93	9,604.44	7,124.29	83.64	81.72	-92.26	-193.62	-2,894.81	1,477.77	1,312.56	165.21	8.945		
9,800.00	7,065.64	9,704.44	7,123.92	86.26	84.36	-92.26	-195.58	-2,994.78	1,478.97	1,308.50	170.47	8.676		
9,900.00	7,065.36	9,804.43	7,123.56	88.90	87.01	-92.25	-197.53	-3,094.75	1,480.17	1,304.41	175.76	8.421		
10,000.00	7,065.07	9,904.42	7,123.19	91.55	89.68	-92.25	-199.49	-3,194.73	1,481.37	1,300.29	181.08	8.181		
10,100.00	7,064.79	10,004.41	7,122.83	94.21	92.35	-92.24	-201.44	-3,294.70	1,482.57	1,296.15	186.42	7.953		
10,200.00	7,064.50	10,104.41	7,122.46	96.88	95.04	-92.24	-203.40	-3,394.67	1,483.77	1,291.99	191.78	7.737		
10,300.00	7,064.22	10,204.40	7,122.09	99.57	97.74	-92.23	-205.35	-3,494.64	1,484.97	1,287.81	197.16	7.532		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - HARVESTERS STATE 5N-16C-M - OH - PLAN #1													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	10,304.39	7,121.73	102.26	100.44	-92.23	-207.31	-3,594.62	1,486.17	1,283.61	202.55	7.337		
10,500.00	7,063.65	10,404.38	7,121.36	104.96	103.16	-92.22	-209.26	-3,694.59	1,487.37	1,279.40	207.97	7.152		
10,600.00	7,063.37	10,504.38	7,120.99	107.67	105.88	-92.22	-211.22	-3,794.56	1,488.57	1,275.17	213.40	6.976		
10,700.00	7,063.08	10,604.37	7,120.63	110.39	108.60	-92.21	-213.18	-3,894.54	1,489.77	1,270.92	218.84	6.807		
10,800.00	7,062.80	10,704.36	7,120.26	113.11	111.34	-92.21	-215.13	-3,994.51	1,490.97	1,266.67	224.30	6.647		
10,900.00	7,062.51	10,804.36	7,119.90	115.84	114.08	-92.20	-217.09	-4,094.48	1,492.16	1,262.40	229.77	6.494		
11,000.00	7,062.23	10,904.35	7,119.53	118.58	116.82	-92.20	-219.04	-4,194.45	1,493.36	1,258.11	235.25	6.348		
11,100.00	7,061.94	11,004.34	7,119.16	121.32	119.57	-92.19	-221.00	-4,294.43	1,494.56	1,253.82	240.74	6.208		
11,200.00	7,061.66	11,104.33	7,118.80	124.07	122.33	-92.19	-222.95	-4,394.40	1,495.76	1,249.52	246.24	6.074		
11,300.00	7,061.37	11,204.33	7,118.43	126.82	125.09	-92.18	-224.91	-4,494.37	1,496.96	1,245.21	251.75	5.946		
11,400.00	7,061.09	11,304.32	7,118.07	129.58	127.85	-92.18	-226.86	-4,594.35	1,498.16	1,240.89	257.27	5.823		
11,500.00	7,060.80	11,404.31	7,117.70	132.34	130.62	-92.17	-228.82	-4,694.32	1,499.36	1,236.56	262.80	5.705		
11,600.00	7,060.52	11,504.30	7,117.33	135.10	133.39	-92.17	-230.77	-4,794.29	1,500.56	1,232.22	268.34	5.592		
11,700.00	7,060.23	11,604.30	7,116.97	137.87	136.16	-92.16	-232.73	-4,894.27	1,501.76	1,227.88	273.88	5.483		
11,800.00	7,059.95	11,704.29	7,116.60	140.64	138.94	-92.16	-234.69	-4,994.24	1,502.96	1,223.53	279.43	5.379		
11,900.00	7,059.66	11,804.28	7,116.23	143.42	141.72	-92.15	-236.64	-5,094.21	1,504.16	1,219.17	284.98	5.278		
12,000.00	7,059.38	11,904.28	7,115.87	146.20	144.51	-92.15	-238.60	-5,194.18	1,505.36	1,214.81	290.55	5.181		
12,100.00	7,059.09	12,004.27	7,115.50	148.98	147.29	-92.14	-240.55	-5,294.16	1,506.56	1,210.44	296.11	5.088		
12,200.00	7,058.81	12,104.26	7,115.14	151.77	150.08	-92.14	-242.51	-5,394.13	1,507.76	1,206.07	301.69	4.998		
12,300.00	7,058.52	12,204.25	7,114.77	154.55	152.87	-92.13	-244.46	-5,494.10	1,508.96	1,201.69	307.26	4.911		
12,400.00	7,058.24	12,304.25	7,114.40	157.34	155.66	-92.13	-246.42	-5,594.08	1,510.16	1,197.31	312.85	4.827		
12,500.00	7,057.96	12,404.24	7,114.04	160.14	158.46	-92.12	-248.37	-5,694.05	1,511.35	1,192.92	318.43	4.746		
12,600.00	7,057.67	12,504.23	7,113.67	162.93	161.26	-92.12	-250.33	-5,794.02	1,512.55	1,188.53	324.02	4.668		
12,700.00	7,057.39	12,604.22	7,113.31	165.73	164.06	-92.12	-252.28	-5,893.99	1,513.75	1,184.13	329.62	4.592		
12,800.00	7,057.10	12,704.22	7,112.94	168.53	166.86	-92.11	-254.24	-5,993.97	1,514.95	1,179.74	335.22	4.519		
12,900.00	7,056.82	12,804.21	7,112.57	171.33	169.66	-92.11	-256.19	-6,093.94	1,516.15	1,175.33	340.82	4.449		
13,000.00	7,056.53	12,904.20	7,112.21	174.13	172.47	-92.10	-258.15	-6,193.91	1,517.35	1,170.92	346.43	4.380		
13,100.00	7,056.25	13,004.20	7,111.84	176.94	175.27	-92.10	-260.11	-6,293.89	1,518.55	1,166.51	352.04	4.314		
13,200.00	7,055.96	13,104.19	7,111.47	179.74	178.08	-92.09	-262.06	-6,393.86	1,519.75	1,162.10	357.65	4.249		
13,300.00	7,055.68	13,204.18	7,111.11	182.55	180.89	-92.09	-264.02	-6,493.83	1,520.95	1,157.68	363.27	4.187		
13,400.00	7,055.39	13,304.17	7,110.74	185.36	183.70	-92.08	-265.97	-6,593.81	1,522.15	1,153.27	368.88	4.126		
13,500.00	7,055.11	13,404.17	7,110.38	188.17	186.51	-92.08	-267.93	-6,693.78	1,523.35	1,148.84	374.51	4.068		
13,600.00	7,054.82	13,504.16	7,110.01	190.98	189.33	-92.07	-269.88	-6,793.75	1,524.55	1,144.42	380.13	4.011		
13,700.00	7,054.54	13,604.15	7,109.64	193.80	192.14	-92.07	-271.84	-6,893.72	1,525.75	1,139.99	385.76	3.955		
13,800.00	7,054.25	13,704.14	7,109.28	196.61	194.96	-92.06	-273.79	-6,993.70	1,526.95	1,135.56	391.39	3.901		
13,900.00	7,053.97	13,804.14	7,108.91	199.43	197.77	-92.06	-275.75	-7,093.67	1,528.15	1,131.13	397.02	3.849		
14,000.00	7,053.68	13,904.13	7,108.55	202.25	200.59	-92.05	-277.70	-7,193.64	1,529.35	1,126.70	402.65	3.798		
14,100.00	7,053.40	14,004.12	7,108.18	205.06	203.41	-92.05	-279.66	-7,293.62	1,530.55	1,122.26	408.29	3.749		
14,200.00	7,053.11	14,104.12	7,107.81	207.88	206.23	-92.04	-281.61	-7,393.59	1,531.75	1,117.82	413.93	3.701		
14,300.00	7,052.83	14,204.11	7,107.45	210.70	209.05	-92.04	-283.57	-7,493.56	1,532.95	1,113.38	419.57	3.654		
14,400.00	7,052.54	14,304.10	7,107.08	213.53	211.87	-92.04	-285.53	-7,593.53	1,534.15	1,108.94	425.21	3.608		
14,500.00	7,052.26	14,404.09	7,106.72	216.35	214.70	-92.03	-287.48	-7,693.51	1,535.35	1,104.49	430.85	3.564		
14,600.00	7,051.98	14,504.09	7,106.35	219.17	217.52	-92.03	-289.44	-7,793.48	1,536.55	1,100.05	436.50	3.520		
14,700.00	7,051.69	14,604.08	7,105.98	222.00	220.34	-92.02	-291.39	-7,893.45	1,537.75	1,095.60	442.14	3.478		
14,800.00	7,051.41	14,704.07	7,105.62	224.82	223.17	-92.02	-293.35	-7,993.43	1,538.95	1,091.15	447.79	3.437		
14,900.00	7,051.12	14,804.06	7,105.25	227.65	225.99	-92.01	-295.30	-8,093.40	1,540.14	1,086.70	453.44	3.397		
14,942.37	7,051.00	14,846.43	7,105.10	228.85	227.19	-92.01	-296.13	-8,135.76	1,540.65	1,084.82	455.84	3.380 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
7,600.00	7,071.91	7,009.91	7,071.91	37.71	242.99	-90.24	-4,415.92	-8,996.26	9,972.38	9,692.94	279.43	35.688		
7,700.00	7,071.62	7,009.62	7,071.62	39.03	242.98	-90.23	-4,415.92	-8,996.26	9,890.16	9,610.03	280.12	35.307		
7,800.00	7,071.34	7,009.34	7,071.34	40.51	242.97	-90.23	-4,415.92	-8,996.26	9,808.27	9,527.38	280.89	34.919		
7,900.00	7,071.05	7,009.05	7,071.05	42.14	242.96	-90.23	-4,415.92	-8,996.26	9,726.72	9,444.99	281.73	34.525		
8,000.00	7,070.77	7,008.77	7,070.77	43.89	242.95	-90.23	-4,415.92	-8,996.26	9,645.51	9,362.87	282.64	34.126		
8,100.00	7,070.48	7,008.48	7,070.48	45.76	242.94	-90.22	-4,415.92	-8,996.26	9,564.66	9,281.04	283.63	33.722		
8,200.00	7,070.20	7,008.20	7,070.20	47.72	242.93	-90.22	-4,415.92	-8,996.26	9,484.18	9,199.49	284.69	33.314		
8,300.00	7,069.92	7,007.92	7,069.92	49.78	242.92	-90.22	-4,415.92	-8,996.26	9,404.08	9,118.25	285.82	32.902		
8,400.00	7,069.63	7,007.63	7,069.63	51.90	242.91	-90.21	-4,415.92	-8,996.26	9,324.35	9,037.33	287.02	32.486		
8,500.00	7,069.35	7,007.35	7,069.35	54.10	242.90	-90.21	-4,415.92	-8,996.26	9,245.02	8,956.73	288.29	32.068		
8,600.00	7,069.06	7,007.06	7,069.06	56.36	242.89	-90.21	-4,415.92	-8,996.26	9,166.10	8,876.47	289.63	31.648		
8,700.00	7,068.78	7,006.78	7,068.78	58.66	242.88	-90.21	-4,415.92	-8,996.26	9,087.59	8,796.55	291.03	31.225		
8,800.00	7,068.49	7,006.49	7,068.49	61.02	242.87	-90.20	-4,415.92	-8,996.26	9,009.50	8,717.00	292.50	30.802		
8,900.00	7,068.21	7,006.21	7,068.21	63.42	242.86	-90.20	-4,415.92	-8,996.26	8,931.86	8,637.83	294.03	30.377		
9,000.00	7,067.92	7,005.92	7,067.92	65.85	242.85	-90.20	-4,415.92	-8,996.26	8,854.66	8,559.04	295.62	29.953		
9,100.00	7,067.64	7,005.64	7,067.64	68.32	242.84	-90.19	-4,415.92	-8,996.26	8,777.92	8,480.64	297.28	29.528		
9,200.00	7,067.35	7,005.35	7,067.35	70.81	242.83	-90.19	-4,415.92	-8,996.26	8,701.65	8,402.67	298.99	29.104		
9,300.00	7,067.07	7,005.07	7,067.07	73.34	242.82	-90.19	-4,415.92	-8,996.26	8,625.87	8,325.11	300.76	28.680		
9,400.00	7,066.78	7,004.78	7,066.78	75.88	242.81	-90.19	-4,415.92	-8,996.26	8,550.59	8,248.00	302.59	28.258		
9,500.00	7,066.50	7,004.50	7,066.50	78.45	242.80	-90.18	-4,415.92	-8,996.26	8,475.82	8,171.35	304.47	27.838		
9,600.00	7,066.21	7,004.21	7,066.21	81.04	242.79	-90.18	-4,415.92	-8,996.26	8,401.57	8,095.16	306.42	27.419		
9,700.00	7,065.93	7,003.93	7,065.93	83.64	242.78	-90.18	-4,415.92	-8,996.26	8,327.86	8,019.45	308.41	27.002		
9,800.00	7,065.64	7,003.64	7,065.64	86.26	242.77	-90.17	-4,415.92	-8,996.26	8,254.71	7,944.25	310.46	26.588		
9,900.00	7,065.36	7,003.36	7,065.36	88.90	242.76	-90.17	-4,415.92	-8,996.26	8,182.12	7,869.55	312.57	26.177		
10,000.00	7,065.07	7,003.07	7,065.07	91.55	242.75	-90.17	-4,415.92	-8,996.26	8,110.12	7,795.39	314.73	25.769		
10,100.00	7,064.79	7,002.79	7,064.79	94.21	242.74	-90.16	-4,415.92	-8,996.26	8,038.72	7,721.77	316.94	25.363		
10,200.00	7,064.50	7,002.50	7,064.50	96.88	242.73	-90.16	-4,415.92	-8,996.26	7,967.93	7,648.72	319.21	24.962		
10,300.00	7,064.22	7,002.22	7,064.22	99.57	242.72	-90.16	-4,415.92	-8,996.26	7,897.77	7,576.25	321.52	24.564		
10,400.00	7,063.94	7,001.94	7,063.94	102.26	242.71	-90.16	-4,415.92	-8,996.26	7,828.26	7,504.37	323.89	24.169		
10,500.00	7,063.65	7,001.65	7,063.65	104.96	242.70	-90.15	-4,415.92	-8,996.26	7,759.42	7,433.11	326.31	23.779		
10,600.00	7,063.37	7,001.37	7,063.37	107.67	242.69	-90.15	-4,415.92	-8,996.26	7,691.26	7,362.48	328.78	23.393		
10,700.00	7,063.08	7,001.08	7,063.08	110.39	242.68	-90.15	-4,415.92	-8,996.26	7,623.80	7,292.50	331.30	23.011		
10,800.00	7,062.80	7,000.80	7,062.80	113.11	242.67	-90.14	-4,415.92	-8,996.26	7,557.07	7,223.19	333.88	22.634		
10,900.00	7,062.51	7,000.51	7,062.51	115.84	242.66	-90.14	-4,415.92	-8,996.26	7,491.07	7,154.58	336.50	22.262		
11,000.00	7,062.23	7,000.23	7,062.23	118.58	242.66	-90.14	-4,415.92	-8,996.26	7,425.84	7,086.67	339.17	21.894		
11,100.00	7,061.94	7,000.06	7,061.94	121.32	242.65	-90.14	-4,415.92	-8,996.26	7,361.39	7,019.50	341.89	21.532		
11,200.00	7,061.66	7,000.34	7,061.66	124.07	242.66	-90.13	-4,415.92	-8,996.26	7,297.73	6,953.06	344.67	21.173		
11,300.00	7,061.37	7,000.63	7,061.37	126.82	242.67	-90.13	-4,415.92	-8,996.26	7,234.90	6,887.40	347.51	20.819		
11,400.00	7,061.09	7,000.91	7,061.09	129.58	242.68	-90.13	-4,415.92	-8,996.26	7,172.91	6,822.53	350.39	20.471		
11,500.00	7,060.80	7,001.20	7,060.80	132.34	242.69	-90.12	-4,415.92	-8,996.26	7,111.79	6,758.48	353.31	20.129		
11,600.00	7,060.52	7,001.48	7,060.52	135.10	242.70	-90.12	-4,415.92	-8,996.26	7,051.56	6,695.28	356.29	19.792		
11,700.00	7,060.23	7,001.77	7,060.23	137.87	242.71	-90.12	-4,415.92	-8,996.26	6,992.24	6,632.94	359.30	19.461		
11,800.00	7,059.95	7,002.05	7,059.95	140.64	242.72	-90.12	-4,415.92	-8,996.26	6,933.85	6,571.49	362.36	19.135		
11,900.00	7,059.66	7,002.34	7,059.66	143.42	242.73	-90.11	-4,415.92	-8,996.26	6,876.43	6,510.96	365.46	18.816		
12,000.00	7,059.38	7,002.62	7,059.38	146.20	242.74	-90.11	-4,415.92	-8,996.26	6,819.98	6,451.37	368.61	18.502		
12,100.00	7,059.09	7,002.91	7,059.09	148.98	242.75	-90.11	-4,415.92	-8,996.26	6,764.54	6,392.75	371.79	18.194		
12,200.00	7,058.81	7,003.19	7,058.81	151.77	242.76	-90.10	-4,415.92	-8,996.26	6,710.14	6,335.12	375.02	17.893		
12,300.00	7,058.52	7,003.48	7,058.52	154.55	242.77	-90.10	-4,415.92	-8,996.26	6,656.79	6,278.51	378.28	17.598		
12,400.00	7,058.24	7,003.76	7,058.24	157.34	242.78	-90.10	-4,415.92	-8,996.26	6,604.52	6,222.95	381.58	17.309		
12,500.00	7,057.96	7,004.05	7,057.96	160.14	242.79	-90.10	-4,415.92	-8,996.26	6,553.37	6,168.46	384.91	17.026		
12,600.00	7,057.67	7,004.33	7,057.67	162.93	242.80	-90.09	-4,415.92	-8,996.26	6,503.35	6,115.07	388.27	16.749		
12,700.00	7,057.39	7,004.61	7,057.39	165.73	242.81	-90.09	-4,415.92	-8,996.26	6,454.49	6,062.82	391.67	16.479		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
12,800.00	7,057.10	7,004.90	7,057.10	168.53	242.82	-90.09	-4,415.92	-8,996.26	6,406.82	6,011.72	395.09	16.216		
12,900.00	7,056.82	7,005.18	7,056.82	171.33	242.83	-90.08	-4,415.92	-8,996.26	6,360.36	5,961.82	398.55	15.959		
13,000.00	7,056.53	7,005.47	7,056.53	174.13	242.84	-90.08	-4,415.92	-8,996.26	6,315.15	5,913.13	402.02	15.708		
13,100.00	7,056.25	7,005.75	7,056.25	176.94	242.85	-90.08	-4,415.92	-8,996.26	6,271.21	5,865.69	405.52	15.465		
13,200.00	7,055.96	7,006.04	7,055.96	179.74	242.86	-90.08	-4,415.92	-8,996.26	6,228.56	5,819.52	409.04	15.227		
13,300.00	7,055.68	7,006.32	7,055.68	182.55	242.87	-90.07	-4,415.92	-8,996.26	6,187.23	5,774.66	412.58	14.997		
13,400.00	7,055.39	7,006.61	7,055.39	185.36	242.88	-90.07	-4,415.92	-8,996.26	6,147.25	5,731.13	416.12	14.773		
13,500.00	7,055.11	7,006.89	7,055.11	188.17	242.89	-90.07	-4,415.92	-8,996.26	6,108.65	5,688.97	419.68	14.555		
13,600.00	7,054.82	7,007.18	7,054.82	190.98	242.90	-90.06	-4,415.92	-8,996.26	6,071.45	5,648.20	423.25	14.345		
13,700.00	7,054.54	7,007.46	7,054.54	193.80	242.91	-90.06	-4,415.92	-8,996.26	6,035.68	5,608.86	426.82	14.141		
13,800.00	7,054.25	7,007.75	7,054.25	196.61	242.92	-90.06	-4,415.92	-8,996.26	6,001.36	5,570.97	430.40	13.944		
13,900.00	7,053.97	7,008.03	7,053.97	199.43	242.93	-90.06	-4,415.92	-8,996.26	5,968.52	5,534.55	433.97	13.753		
14,000.00	7,053.68	7,008.32	7,053.68	202.25	242.94	-90.05	-4,415.92	-8,996.26	5,937.18	5,499.65	437.53	13.570		
14,100.00	7,053.40	7,008.60	7,053.40	205.06	242.95	-90.05	-4,415.92	-8,996.26	5,907.37	5,466.29	441.08	13.393		
14,200.00	7,053.11	7,008.89	7,053.11	207.88	242.96	-90.05	-4,415.92	-8,996.26	5,879.11	5,434.48	444.63	13.223		
14,300.00	7,052.83	7,009.17	7,052.83	210.70	242.97	-90.04	-4,415.92	-8,996.26	5,852.42	5,404.27	448.15	13.059		
14,400.00	7,052.54	7,009.46	7,052.54	213.53	242.98	-90.04	-4,415.92	-8,996.26	5,827.33	5,375.68	451.65	12.902		
14,500.00	7,052.26	7,009.74	7,052.26	216.35	242.99	-90.04	-4,415.92	-8,996.26	5,803.85	5,348.72	455.13	12.752		
14,600.00	7,051.98	6,989.98	7,051.98	219.17	242.30	-90.04	-4,415.92	-8,996.26	5,782.00	5,324.13	457.87	12.628		
14,700.00	7,051.69	6,989.69	7,051.69	222.00	242.29	-90.03	-4,415.92	-8,996.26	5,761.81	5,300.54	461.26	12.491		
14,800.00	7,051.41	6,989.41	7,051.41	224.82	242.28	-90.03	-4,415.92	-8,996.26	5,743.29	5,278.67	464.62	12.361		
14,900.00	7,051.12	6,989.12	7,051.12	227.65	242.27	-90.03	-4,415.92	-8,996.26	5,726.45	5,258.52	467.93	12.238		
14,942.37	7,051.00	6,989.00	7,051.00	228.85	242.26	-90.03	-4,415.92	-8,996.26	5,719.83	5,250.51	469.32	12.187	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	666.39	701.31	3.28	4.31	-109.06	-3,088.55	-8,938.80	9,483.31					
100.00	100.00	724.00	758.32	3.28	4.49	-109.11	-3,094.12	-8,932.67	9,476.26	9,468.52	7.75	1,222.947		
200.00	200.00	724.00	758.32	3.34	4.49	-109.11	-3,094.12	-8,932.67	9,469.84	9,462.05	7.79	1,215.684		
300.00	300.00	724.00	758.32	3.44	4.49	-109.11	-3,094.12	-8,932.67	9,464.47	9,456.58	7.89	1,199.756		
400.00	399.98	724.00	758.32	3.60	4.49	-101.88	-3,094.12	-8,932.67	9,460.52	9,452.48	8.04	1,176.657		
500.00	499.84	774.72	808.43	3.81	4.66	-101.99	-3,100.31	-8,927.93	9,457.39	9,448.98	8.40	1,125.391		
600.00	599.45	818.00	851.05	4.06	4.81	-102.08	-3,107.12	-8,924.71	9,456.71	9,447.91	8.79	1,075.754		
626.62	625.91	818.00	851.05	4.13	4.81	-102.08	-3,107.12	-8,924.71	9,456.64	9,447.78	8.86	1,067.294		
700.00	698.70	818.00	851.05	4.34	4.81	-102.07	-3,107.12	-8,924.71	9,457.12	9,448.06	9.06	1,043.401		
800.00	797.47	818.00	851.05	4.64	4.81	-102.03	-3,107.12	-8,924.71	9,459.33	9,449.96	9.37	1,009.644		
900.00	895.65	818.00	851.05	4.98	4.81	-101.97	-3,107.12	-8,924.71	9,463.29	9,453.59	9.70	975.318		
1,000.00	993.66	818.00	851.05	5.32	4.81	-101.97	-3,107.12	-8,924.71	9,468.50	9,458.43	10.06	941.153		
1,100.00	1,091.67	856.99	889.35	5.69	4.95	-102.06	-3,114.09	-8,922.57	9,474.21	9,463.63	10.58	895.648		
1,200.00	1,189.68	870.67	902.78	6.09	5.00	-102.09	-3,116.62	-8,922.02	9,481.07	9,470.06	11.02	860.434		
1,300.00	1,287.69	912.00	943.33	6.49	5.15	-102.19	-3,124.56	-8,921.00	9,489.13	9,477.55	11.58	819.680		
1,400.00	1,385.69	912.00	943.33	6.90	5.15	-102.19	-3,124.56	-8,921.00	9,497.61	9,485.63	11.99	792.328		
1,500.00	1,483.70	912.00	943.33	7.33	5.15	-102.19	-3,124.56	-8,921.00	9,507.15	9,494.74	12.40	766.426		
1,600.00	1,581.71	912.00	943.33	7.76	5.15	-102.19	-3,124.56	-8,921.00	9,517.72	9,504.90	12.83	741.968		
1,700.00	1,679.72	912.00	943.33	8.19	5.15	-102.19	-3,124.56	-8,921.00	9,529.34	9,516.08	13.26	718.917		
1,800.00	1,777.73	951.73	982.28	8.63	5.30	-102.28	-3,132.34	-8,921.01	9,541.41	9,527.57	13.84	689.410		
1,900.00	1,875.74	965.14	995.44	9.08	5.35	-102.31	-3,134.95	-8,921.26	9,554.64	9,540.32	14.33	666.960		
2,000.00	1,973.75	1,006.00	1,035.51	9.53	5.50	-102.39	-3,142.81	-8,922.77	9,569.04	9,554.11	14.92	641.218		
2,100.00	2,071.76	1,006.00	1,035.51	9.98	5.50	-102.39	-3,142.81	-8,922.77	9,583.86	9,568.50	15.36	624.014		
2,200.00	2,169.77	1,006.00	1,035.51	10.44	5.50	-102.39	-3,142.81	-8,922.77	9,599.69	9,583.90	15.79	607.810		
2,300.00	2,267.77	1,006.00	1,035.51	10.90	5.50	-102.39	-3,142.81	-8,922.77	9,616.54	9,600.32	16.23	592.543		
2,400.00	2,365.78	1,042.19	1,070.99	11.36	5.63	-102.47	-3,149.55	-8,924.99	9,634.06	9,617.26	16.81	573.223		
2,500.00	2,463.79	1,060.75	1,089.20	11.82	5.70	-102.51	-3,152.87	-8,926.41	9,652.49	9,635.18	17.31	557.464		
2,600.00	2,561.80	1,101.00	1,128.68	12.28	5.85	-102.58	-3,159.77	-8,930.15	9,671.86	9,653.95	17.91	539.997		
2,700.00	2,659.81	1,101.00	1,128.68	12.75	5.85	-102.58	-3,159.77	-8,930.15	9,691.80	9,673.46	18.34	528.385		
2,800.00	2,757.82	1,101.00	1,128.68	13.21	5.85	-102.58	-3,159.77	-8,930.15	9,712.74	9,693.97	18.77	517.411		
2,900.00	2,855.83	1,101.00	1,128.68	13.68	5.85	-102.58	-3,159.77	-8,930.15	9,734.65	9,715.45	19.20	507.033		
3,000.00	2,953.84	1,145.54	1,172.24	14.15	6.02	-102.67	-3,167.53	-8,935.15	9,756.94	9,737.13	19.81	492.568		
3,100.00	3,051.85	1,197.00	1,222.30	14.62	6.23	-102.77	-3,177.39	-8,941.89	9,780.70	9,760.25	20.45	478.308		
3,200.00	3,149.85	1,197.00	1,222.30	15.09	6.23	-102.77	-3,177.39	-8,941.89	9,804.62	9,783.75	20.87	469.811		
3,300.00	3,247.86	1,197.00	1,222.30	15.56	6.23	-102.77	-3,177.39	-8,941.89	9,829.50	9,808.21	21.29	461.756		
3,400.00	3,345.87	1,197.00	1,222.30	16.04	6.23	-102.77	-3,177.39	-8,941.89	9,855.33	9,833.63	21.70	454.118		
3,500.00	3,443.88	1,197.00	1,222.30	16.51	6.23	-102.77	-3,177.39	-8,941.89	9,882.10	9,859.99	22.11	446.872		
3,600.00	3,541.89	1,242.00	1,265.81	16.98	6.42	-102.85	-3,186.74	-8,948.57	9,909.26	9,886.54	22.72	436.055		
3,700.00	3,639.90	1,292.00	1,313.86	17.46	6.64	-102.96	-3,197.85	-8,956.78	9,937.72	9,914.36	23.36	425.394		
3,800.00	3,737.91	1,292.00	1,313.86	17.93	6.64	-102.96	-3,197.85	-8,956.78	9,966.42	9,942.66	23.76	419.393		
3,900.00	3,835.92	1,292.00	1,313.86	18.41	6.64	-102.96	-3,197.85	-8,956.78	9,996.04	9,971.87	24.16	413.692		
8,500.00	7,069.35	3,831.00	3,608.48	54.10	29.69	-57.70	-4,206.31	-9,321.12	9,996.49	9,932.21	64.28	155.517		
8,600.00	7,069.06	3,831.00	3,608.48	56.36	29.69	-57.70	-4,206.31	-9,321.12	9,920.19	9,854.84	65.35	151.798		
8,700.00	7,068.78	3,831.00	3,608.48	58.66	29.69	-57.70	-4,206.31	-9,321.12	9,844.31	9,777.83	66.48	148.078		
8,800.00	7,068.49	3,831.00	3,608.48	61.02	29.69	-57.70	-4,206.31	-9,321.12	9,768.86	9,701.20	67.66	144.372		
8,900.00	7,068.21	3,831.00	3,608.48	63.42	29.69	-57.70	-4,206.31	-9,321.12	9,693.86	9,624.96	68.90	140.689		
9,000.00	7,067.92	3,831.00	3,608.48	65.85	29.69	-57.70	-4,206.31	-9,321.12	9,619.32	9,549.12	70.19	137.040		
9,100.00	7,067.64	3,831.00	3,608.48	68.32	29.69	-57.70	-4,206.31	-9,321.12	9,545.24	9,473.70	71.54	133.434		
9,200.00	7,067.35	3,831.00	3,608.48	70.81	29.69	-57.70	-4,206.31	-9,321.12	9,471.63	9,398.71	72.93	129.877		
9,300.00	7,067.07	3,831.00	3,608.48	73.34	29.69	-57.70	-4,206.31	-9,321.12	9,398.52	9,324.15	74.37	126.377		
9,400.00	7,066.78	3,854.95	3,630.14	75.88	29.93	-57.91	-4,216.07	-9,324.17	9,325.84	9,249.74	76.10	122.547		
9,500.00	7,066.50	3,861.36	3,635.94	78.45	29.99	-57.97	-4,218.69	-9,324.99	9,253.69	9,175.99	77.70	119.088		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
9,600.00	7,066.21	3,867.81	3,641.76	81.04	30.05	-58.03	-4,221.33	-9,325.82	9,182.06	9,102.71	79.36	115.705		
9,700.00	7,065.93	3,874.30	3,647.62	83.64	30.12	-58.08	-4,223.99	-9,326.66	9,110.96	9,029.90	81.06	112.402		
9,800.00	7,065.64	3,880.82	3,653.51	86.26	30.18	-58.14	-4,226.67	-9,327.50	9,040.39	8,957.58	82.80	109.179		
9,900.00	7,065.36	3,887.38	3,659.42	88.90	30.25	-58.20	-4,229.37	-9,328.35	8,970.37	8,885.77	84.60	106.038		
10,000.00	7,065.07	3,893.97	3,665.37	91.55	30.31	-58.25	-4,232.08	-9,329.20	8,900.91	8,814.48	86.43	102.980		
10,100.00	7,064.79	3,900.60	3,671.35	94.21	30.38	-58.31	-4,234.81	-9,330.07	8,832.04	8,743.72	88.32	100.006		
10,200.00	7,064.50	3,925.00	3,693.33	96.88	30.62	-58.53	-4,244.91	-9,333.27	8,763.78	8,673.35	90.44	96.905		
10,300.00	7,064.22	3,925.00	3,693.33	99.57	30.62	-58.53	-4,244.91	-9,333.27	8,696.07	8,603.74	92.33	94.181		
10,400.00	7,063.94	3,925.00	3,693.33	102.26	30.62	-58.53	-4,244.91	-9,333.27	8,629.00	8,534.72	94.27	91.532		
10,500.00	7,063.65	3,925.00	3,693.33	104.96	30.62	-58.53	-4,244.91	-9,333.27	8,562.56	8,466.31	96.25	88.960		
10,600.00	7,063.37	3,925.00	3,693.33	107.67	30.62	-58.53	-4,244.91	-9,333.27	8,496.78	8,398.51	98.27	86.463		
10,700.00	7,063.08	3,925.00	3,693.33	110.39	30.62	-58.53	-4,244.91	-9,333.27	8,431.67	8,331.34	100.33	84.040		
10,800.00	7,062.80	3,925.00	3,693.33	113.11	30.62	-58.53	-4,244.91	-9,333.27	8,367.25	8,264.83	102.43	81.690		
10,900.00	7,062.51	3,925.00	3,693.33	115.84	30.62	-58.53	-4,244.91	-9,333.27	8,303.54	8,198.98	104.56	79.412		
11,000.00	7,062.23	3,925.00	3,693.33	118.58	30.62	-58.53	-4,244.91	-9,333.27	8,240.55	8,133.81	106.74	77.204		
11,100.00	7,061.94	3,925.00	3,693.33	121.32	30.62	-58.53	-4,244.91	-9,333.27	8,178.29	8,069.34	108.95	75.065		
11,200.00	7,061.66	3,925.00	3,693.33	124.07	30.62	-58.53	-4,244.91	-9,333.27	8,116.79	8,005.59	111.20	72.993		
11,300.00	7,061.37	3,925.00	3,693.33	126.82	30.62	-58.53	-4,244.91	-9,333.27	8,056.06	7,942.58	113.49	70.988		
11,400.00	7,061.09	3,925.00	3,693.33	129.58	30.62	-58.53	-4,244.91	-9,333.27	7,996.12	7,880.32	115.81	69.047		
11,500.00	7,060.80	3,925.00	3,693.33	132.34	30.62	-58.53	-4,244.91	-9,333.27	7,936.99	7,818.83	118.17	67.168		
11,600.00	7,060.52	3,925.00	3,693.33	135.10	30.62	-58.53	-4,244.91	-9,333.27	7,878.69	7,758.13	120.56	65.351		
11,700.00	7,060.23	3,925.00	3,693.33	137.87	30.62	-58.53	-4,244.91	-9,333.27	7,821.22	7,698.24	122.99	63.594		
11,800.00	7,059.95	3,925.00	3,693.33	140.64	30.62	-58.53	-4,244.91	-9,333.27	7,764.62	7,639.17	125.45	61.895		
11,900.00	7,059.66	3,925.00	3,693.33	143.42	30.62	-58.53	-4,244.91	-9,333.27	7,708.90	7,580.96	127.94	60.253		
12,000.00	7,059.38	3,925.00	3,693.33	146.20	30.62	-58.53	-4,244.91	-9,333.27	7,654.09	7,523.62	130.47	58.665		
12,100.00	7,059.09	3,963.87	3,728.11	148.98	31.03	-58.87	-4,261.43	-9,338.52	7,599.64	7,466.05	133.58	56.891		
12,200.00	7,058.81	3,966.38	3,730.34	151.77	31.06	-58.89	-4,262.53	-9,338.87	7,546.60	7,410.39	136.22	55.401		
12,300.00	7,058.52	7,293.39	6,883.26	154.55	53.33	-88.51	-5,050.90	-9,554.09	7,492.97	7,323.45	169.52	44.202		
12,400.00	7,058.24	7,295.63	6,885.49	157.34	53.33	-88.53	-5,050.93	-9,554.14	7,439.01	7,266.46	172.55	43.111		
12,500.00	7,057.96	7,297.86	6,887.73	160.14	53.34	-88.55	-5,050.96	-9,554.18	7,386.01	7,210.39	175.63	42.055		
12,600.00	7,057.67	7,300.10	6,889.97	162.93	53.35	-88.57	-5,051.00	-9,554.23	7,333.99	7,155.26	178.74	41.032		
12,700.00	7,057.39	7,302.34	6,892.21	165.73	53.35	-88.59	-5,051.03	-9,554.27	7,282.97	7,101.09	181.88	40.042		
12,800.00	7,057.10	7,304.59	6,894.45	168.53	53.36	-88.61	-5,051.06	-9,554.32	7,232.98	7,047.92	185.06	39.084		
12,900.00	7,056.82	7,306.84	6,896.70	171.33	53.36	-88.63	-5,051.10	-9,554.36	7,184.02	6,995.75	188.27	38.158		
13,000.00	7,056.53	7,309.09	6,898.95	174.13	53.37	-88.65	-5,051.13	-9,554.41	7,136.14	6,944.62	191.51	37.262		
13,100.00	7,056.25	7,311.34	6,901.21	176.94	53.38	-88.67	-5,051.16	-9,554.45	7,089.33	6,894.55	194.79	36.395		
13,200.00	7,055.96	7,313.60	6,903.46	179.74	53.38	-88.69	-5,051.19	-9,554.50	7,043.64	6,845.55	198.09	35.558		
13,300.00	7,055.68	7,315.86	6,905.72	182.55	53.39	-88.71	-5,051.22	-9,554.54	6,999.08	6,797.66	201.42	34.749		
13,400.00	7,055.39	7,318.12	6,907.98	185.36	53.40	-88.73	-5,051.26	-9,554.59	6,955.67	6,750.89	204.77	33.968		
13,500.00	7,055.11	7,320.39	6,910.25	188.17	53.40	-88.75	-5,051.29	-9,554.63	6,913.43	6,705.27	208.15	33.213		
13,600.00	7,054.82	7,322.66	6,912.52	190.98	53.41	-88.77	-5,051.32	-9,554.68	6,872.39	6,660.83	211.56	32.485		
13,700.00	7,054.54	7,324.93	6,914.79	193.80	53.42	-88.80	-5,051.35	-9,554.72	6,832.56	6,617.58	214.98	31.782		
13,800.00	7,054.25	7,327.21	6,917.07	196.61	53.42	-88.82	-5,051.38	-9,554.77	6,793.97	6,575.55	218.42	31.105		
13,900.00	7,053.97	7,329.49	6,919.34	199.43	53.43	-88.84	-5,051.41	-9,554.81	6,756.64	6,534.76	221.88	30.451		
14,000.00	7,053.68	7,331.77	6,921.62	202.25	53.44	-88.86	-5,051.44	-9,554.86	6,720.59	6,495.24	225.36	29.822		
14,100.00	7,053.40	7,334.05	6,923.91	205.06	53.44	-88.88	-5,051.48	-9,554.91	6,685.84	6,457.00	228.84	29.216		
14,200.00	7,053.11	7,336.34	6,926.19	207.88	53.45	-88.90	-5,051.51	-9,554.95	6,652.42	6,420.08	232.34	28.632		
14,300.00	7,052.83	7,338.63	6,928.48	210.70	53.46	-88.92	-5,051.54	-9,555.00	6,620.33	6,384.49	235.84	28.071		
14,400.00	7,052.54	7,340.92	6,930.78	213.53	53.46	-88.94	-5,051.57	-9,555.04	6,589.61	6,350.25	239.35	27.531		
14,500.00	7,052.26	7,343.22	6,933.07	216.35	53.47	-88.96	-5,051.60	-9,555.09	6,560.26	6,317.39	242.87	27.012		
14,600.00	7,051.98	7,345.52	6,935.37	219.17	53.48	-88.98	-5,051.63	-9,555.14	6,532.31	6,285.94	246.38	26.513		
14,700.00	7,051.69	7,347.82	6,937.68	222.00	53.48	-89.00	-5,051.66	-9,555.18	6,505.78	6,255.90	249.89	26.035		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)		
14,800.00	7,051.41	7,350.13	6,939.98	224.82	53.49	-89.03	-5,051.69	-9,555.23	6,480.69	6,227.30	253.39	25.576	
14,900.00	7,051.12	7,352.44	6,942.29	227.65	53.50	-89.05	-5,051.72	-9,555.28	6,457.04	6,200.16	256.88	25.136	
14,942.37	7,051.00	7,353.42	6,943.27	228.85	53.50	-89.06	-5,051.73	-9,555.30	6,447.47	6,189.11	258.36	24.955 CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	65.00	3.28	3.28	-131.45	-4,343.12	-4,918.04	6,561.55					
100.00	100.00	48.08	113.08	3.28	3.28	-131.45	-4,342.96	-4,918.11	6,561.20	6,554.63	6.57	999.196		
200.00	200.00	184.10	249.09	3.34	3.33	-131.43	-4,341.05	-4,918.93	6,560.72	6,554.05	6.67	983.503		
300.00	300.00	278.55	343.51	3.44	3.43	-131.41	-4,339.24	-4,919.60	6,559.98	6,553.10	6.88	954.163		
331.84	331.84	307.76	372.72	3.49	3.47	-124.11	-4,338.74	-4,919.78	6,559.87	6,552.91	6.96	942.626		
400.00	399.98	376.12	441.07	3.60	3.58	-124.10	-4,337.68	-4,920.15	6,560.33	6,553.15	7.18	913.995		
500.00	499.84	479.38	544.31	3.81	3.77	-124.09	-4,336.24	-4,920.53	6,562.62	6,555.04	7.58	866.100		
600.00	599.45	598.11	663.04	4.06	4.04	-124.09	-4,334.63	-4,920.68	6,566.71	6,558.62	8.09	811.398		
700.00	698.70	685.31	750.23	4.34	4.27	-124.06	-4,333.53	-4,920.63	6,572.69	6,564.10	8.60	764.470		
800.00	797.47	785.99	850.91	4.64	4.56	-124.03	-4,332.47	-4,920.52	6,580.74	6,571.55	9.19	715.927		
900.00	895.65	873.85	938.75	4.98	4.83	-124.03	-4,331.55	-4,920.45	6,590.73	6,580.93	9.79	672.885		
1,000.00	993.66	965.61	1,030.52	5.32	5.12	-124.16	-4,330.68	-4,920.51	6,601.41	6,590.97	10.44	632.123		
1,100.00	1,091.67	1,071.10	1,136.01	5.69	5.48	-124.30	-4,329.65	-4,920.60	6,612.15	6,600.98	11.17	591.982		
1,200.00	1,189.68	1,164.28	1,229.18	6.09	5.80	-124.43	-4,328.70	-4,920.62	6,622.83	6,610.95	11.88	557.458		
1,300.00	1,287.69	1,248.68	1,313.57	6.49	6.10	-124.54	-4,327.87	-4,920.80	6,633.73	6,621.15	12.58	527.313		
1,400.00	1,385.69	1,332.96	1,397.85	6.90	6.41	-124.66	-4,327.30	-4,921.00	6,644.87	6,631.58	13.30	499.800		
1,500.00	1,483.70	1,425.60	1,490.49	7.33	6.75	-124.78	-4,326.92	-4,921.22	6,656.23	6,642.17	14.05	473.592		
1,600.00	1,581.71	1,531.10	1,595.99	7.76	7.15	-124.93	-4,326.43	-4,921.40	6,667.54	6,652.66	14.88	448.186		
1,700.00	1,679.72	1,626.48	1,691.37	8.19	7.52	-125.06	-4,326.16	-4,921.43	6,678.90	6,663.23	15.67	426.184		
1,800.00	1,777.73	1,728.26	1,793.15	8.63	7.91	-125.20	-4,325.79	-4,921.45	6,690.25	6,673.75	16.50	405.449		
1,900.00	1,875.74	1,815.32	1,880.21	9.08	8.26	-125.32	-4,325.56	-4,921.47	6,701.70	6,684.42	17.28	387.845		
2,000.00	1,973.75	1,888.90	1,953.79	9.53	8.54	-125.42	-4,325.52	-4,921.62	6,713.46	6,695.45	18.01	372.797		
2,100.00	2,071.76	1,973.67	2,038.56	9.98	8.88	-125.54	-4,325.61	-4,922.01	6,725.55	6,706.77	18.79	358.001		
2,200.00	2,169.77	2,064.57	2,129.45	10.44	9.24	-125.66	-4,325.79	-4,922.53	6,737.82	6,718.23	19.59	343.869		
2,300.00	2,267.77	2,161.21	2,226.09	10.90	9.63	-125.79	-4,326.07	-4,923.09	6,750.19	6,729.76	20.43	330.403		
2,400.00	2,365.78	2,254.07	2,318.95	11.36	10.00	-125.92	-4,326.24	-4,923.75	6,762.62	6,741.36	21.25	318.168		
2,500.00	2,463.79	2,349.03	2,413.91	11.82	10.38	-126.05	-4,326.42	-4,924.55	6,775.18	6,753.09	22.09	306.679		
2,600.00	2,561.80	2,445.20	2,510.07	12.28	10.77	-126.17	-4,326.58	-4,925.38	6,787.77	6,764.83	22.94	295.921		
2,700.00	2,659.81	2,536.74	2,601.61	12.75	11.15	-126.29	-4,326.77	-4,926.22	6,800.48	6,776.71	23.77	286.133		
2,800.00	2,757.82	2,625.84	2,690.70	13.21	11.51	-126.41	-4,326.85	-4,927.27	6,813.31	6,788.72	24.59	277.101		
2,900.00	2,855.83	2,707.53	2,772.38	13.68	11.85	-126.51	-4,326.98	-4,928.41	6,826.37	6,801.00	25.38	268.978		
3,000.00	2,953.84	2,795.63	2,860.47	14.15	12.21	-126.63	-4,327.25	-4,929.74	6,839.66	6,813.46	26.20	261.063		
3,100.00	3,051.85	2,883.34	2,948.17	14.62	12.57	-126.74	-4,327.70	-4,931.07	6,853.12	6,826.10	27.02	253.636		
3,200.00	3,149.85	2,973.60	3,038.42	15.09	12.95	-126.86	-4,328.33	-4,932.44	6,866.74	6,838.89	27.85	246.541		
3,300.00	3,247.86	3,078.98	3,143.78	15.56	13.38	-126.99	-4,329.02	-4,934.13	6,880.43	6,851.68	28.75	239.291		
3,400.00	3,345.87	3,245.37	3,310.17	16.04	14.07	-127.21	-4,329.65	-4,935.58	6,893.36	6,863.43	29.93	230.351		
3,500.00	3,443.88	3,344.01	3,408.80	16.51	14.48	-127.34	-4,329.82	-4,936.22	6,906.12	6,875.32	30.80	224.218		
3,600.00	3,541.89	3,448.20	3,512.99	16.98	14.92	-127.47	-4,329.85	-4,936.78	6,918.73	6,887.03	31.70	218.242		
3,700.00	3,639.90	3,531.19	3,595.98	17.46	15.27	-127.58	-4,330.03	-4,937.20	6,931.49	6,898.98	32.51	213.208		
3,800.00	3,737.91	3,608.24	3,673.03	17.93	15.59	-127.68	-4,330.20	-4,937.88	6,944.55	6,911.26	33.29	208.591		
3,900.00	3,835.92	3,686.44	3,751.22	18.41	15.92	-127.77	-4,330.37	-4,938.92	6,957.93	6,923.85	34.08	204.163		
4,000.00	3,933.93	3,770.78	3,835.55	18.88	16.27	-127.88	-4,330.59	-4,940.29	6,971.59	6,936.69	34.90	199.782		
4,100.00	4,031.93	3,856.03	3,920.79	19.36	16.63	-127.98	-4,330.97	-4,941.73	6,985.45	6,949.74	35.72	195.583		
4,200.00	4,129.94	3,930.98	3,995.72	19.84	16.94	-128.07	-4,331.54	-4,942.99	6,999.56	6,963.07	36.49	191.826		
4,300.00	4,227.95	4,000.01	4,064.73	20.31	17.23	-128.16	-4,332.32	-4,944.35	7,014.14	6,976.90	37.23	188.376		
4,400.00	4,325.96	4,062.32	4,127.02	20.79	17.49	-128.24	-4,333.27	-4,945.72	7,029.19	6,991.24	37.95	185.230		
4,500.00	4,423.97	4,129.15	4,193.82	21.27	17.78	-128.32	-4,334.60	-4,947.28	7,044.69	7,006.01	38.68	182.118		
4,600.00	4,521.98	4,200.01	4,264.63	21.75	18.08	-128.41	-4,336.27	-4,949.13	7,060.67	7,021.24	39.43	179.051		
4,700.00	4,619.99	4,343.48	4,408.02	22.23	18.68	-128.59	-4,339.39	-4,952.78	7,076.52	7,036.00	40.53	174.608		
4,800.00	4,718.00	4,464.79	4,529.29	22.70	19.19	-128.73	-4,341.25	-4,955.79	7,091.89	7,050.37	41.52	170.812		
4,900.00	4,816.01	4,619.89	4,684.33	23.18	19.85	-128.92	-4,342.91	-4,959.25	7,106.84	7,064.17	42.67	166.561		
5,000.00	4,914.01	4,760.23	4,824.65	23.66	20.44	-129.09	-4,343.84	-4,961.39	7,121.01	7,077.26	43.75	162.773		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,012.02	4,865.51	4,929.92	24.14	20.89	-129.22	-4,344.53	-4,962.45	7,134.86	7,090.19	44.67	159.740		
5,200.00	5,110.03	4,973.18	5,037.59	24.62	21.34	-129.35	-4,345.09	-4,963.60	7,148.69	7,103.10	45.59	156.788		
5,300.00	5,208.04	5,094.01	5,158.41	25.10	21.85	-129.49	-4,345.32	-4,964.89	7,162.32	7,115.74	46.58	153.748		
5,400.00	5,306.05	5,202.14	5,266.53	25.58	22.31	-129.62	-4,345.06	-4,966.16	7,175.73	7,128.22	47.52	151.015		
5,500.00	5,404.06	5,313.37	5,377.75	26.06	22.78	-129.74	-4,344.45	-4,967.58	7,189.02	7,140.56	48.46	148.341		
5,600.00	5,502.07	5,379.14	5,443.52	26.54	23.06	-129.82	-4,344.23	-4,968.45	7,202.51	7,153.31	49.20	146.397		
5,700.00	5,600.08	5,511.38	5,575.75	27.02	23.62	-129.96	-4,343.82	-4,970.11	7,216.01	7,165.77	50.24	143.621		
5,800.00	5,698.09	5,574.76	5,639.12	27.50	23.89	-130.04	-4,343.69	-4,970.79	7,229.50	7,178.53	50.97	141.846		
5,900.00	5,796.09	5,649.84	5,714.20	27.98	24.21	-130.12	-4,343.89	-4,971.71	7,243.44	7,191.70	51.75	139.983		
6,000.00	5,894.10	5,736.40	5,800.75	28.46	24.58	-130.22	-4,344.15	-4,973.01	7,257.63	7,205.05	52.58	138.037		
6,100.00	5,992.11	5,825.50	5,889.84	28.94	24.96	-130.32	-4,344.56	-4,974.33	7,271.95	7,218.53	53.42	136.125		
6,200.00	6,090.12	5,909.87	5,974.19	29.42	25.32	-130.42	-4,344.81	-4,975.97	7,286.47	7,232.23	54.24	134.332		
6,300.00	6,188.13	6,011.20	6,075.49	29.90	25.75	-130.53	-4,344.89	-4,978.28	7,301.09	7,245.94	55.15	132.398		
6,400.00	6,286.14	6,114.75	6,179.02	30.38	26.19	-130.64	-4,345.08	-4,980.39	7,315.64	7,259.58	56.06	130.500		
6,500.00	6,384.15	6,202.83	6,267.08	30.87	26.56	-130.73	-4,345.04	-4,982.48	7,330.27	7,273.37	56.90	128.832		
6,600.00	6,482.15	6,269.77	6,333.99	31.35	26.85	-122.12	-4,345.07	-4,984.28	7,344.99	7,287.36	57.63	127.440		
6,700.00	6,579.21	6,372.81	6,436.99	31.83	27.29	-90.75	-4,345.52	-4,987.04	7,352.84	7,294.29	58.56	125.571		
6,800.00	6,673.04	6,470.13	6,534.27	32.30	27.70	-76.61	-4,345.54	-4,989.78	7,349.91	7,290.45	59.45	123.624		
6,900.00	6,761.33	6,545.97	6,610.08	32.74	28.03	-70.45	-4,345.67	-4,991.91	7,336.70	7,276.44	60.25	121.762		
7,000.00	6,841.90	6,612.45	6,676.54	33.17	28.31	-68.20	-4,346.10	-4,993.63	7,313.80	7,252.77	61.03	119.839		
7,100.00	6,912.77	6,677.17	6,741.23	33.60	28.58	-68.36	-4,346.45	-4,995.55	7,281.88	7,220.03	61.84	117.748		
7,200.00	6,972.19	6,731.31	6,795.34	34.09	28.81	-70.28	-4,346.55	-4,997.48	7,241.85	7,179.17	62.68	115.541		
7,300.00	7,018.70	6,774.38	6,838.37	34.73	29.00	-73.65	-4,346.50	-4,999.25	7,194.84	7,131.28	63.56	113.201		
7,400.00	7,051.15	6,800.01	6,863.98	35.55	29.11	-78.23	-4,346.43	-5,000.39	7,142.11	7,077.65	64.47	110.788		
7,500.00	7,068.75	6,818.23	6,882.17	36.56	29.19	-83.93	-4,346.37	-5,001.23	7,085.05	7,019.60	65.45	108.251		
7,600.00	7,071.91	6,823.15	6,887.09	37.71	29.21	-88.24	-4,346.36	-5,001.47	7,025.23	6,958.77	66.46	105.703		
7,700.00	7,071.62	6,825.95	6,889.88	39.03	29.22	-88.27	-4,346.35	-5,001.60	6,965.61	6,898.02	67.58	103.066		
7,800.00	7,071.34	6,828.77	6,892.70	40.51	29.23	-88.29	-4,346.34	-5,001.73	6,906.92	6,838.08	68.84	100.337		
7,900.00	7,071.05	6,831.61	6,895.54	42.14	29.24	-88.32	-4,346.34	-5,001.87	6,849.18	6,778.97	70.21	97.546		
8,000.00	7,070.77	6,834.48	6,898.41	43.89	29.25	-88.35	-4,346.33	-5,002.01	6,792.43	6,720.71	71.71	94.718		
8,100.00	7,070.48	6,837.37	6,901.29	45.76	29.27	-88.38	-4,346.33	-5,002.15	6,736.67	6,663.35	73.32	91.877		
8,200.00	7,070.20	6,840.29	6,904.21	47.72	29.28	-88.41	-4,346.32	-5,002.29	6,681.95	6,606.91	75.04	89.044		
8,300.00	7,069.92	6,843.22	6,907.14	49.78	29.29	-88.44	-4,346.32	-5,002.43	6,628.28	6,551.42	76.86	86.237		
8,400.00	7,069.63	6,846.19	6,910.10	51.90	29.30	-88.47	-4,346.32	-5,002.57	6,575.70	6,496.92	78.78	83.473		
8,500.00	7,069.35	6,849.17	6,913.08	54.10	29.32	-88.50	-4,346.31	-5,002.72	6,524.22	6,443.43	80.78	80.762		
8,600.00	7,069.06	6,852.19	6,916.09	56.36	29.33	-88.53	-4,346.31	-5,002.87	6,473.87	6,391.00	82.87	78.117		
8,700.00	7,068.78	6,855.22	6,919.13	58.66	29.34	-88.56	-4,346.31	-5,003.02	6,424.68	6,339.64	85.05	75.544		
8,800.00	7,068.49	6,858.29	6,922.19	61.02	29.36	-88.59	-4,346.31	-5,003.17	6,376.68	6,289.39	87.29	73.050		
8,900.00	7,068.21	6,861.38	6,925.27	63.42	29.37	-88.63	-4,346.31	-5,003.32	6,329.90	6,240.29	89.61	70.639		
9,000.00	7,067.92	6,864.49	6,928.38	65.85	29.38	-88.66	-4,346.31	-5,003.48	6,284.35	6,192.36	91.99	68.314		
9,100.00	7,067.64	6,867.63	6,931.52	68.32	29.40	-88.69	-4,346.31	-5,003.64	6,240.08	6,145.64	94.44	66.076		
9,200.00	7,067.35	6,870.80	6,934.68	70.81	29.41	-88.72	-4,346.31	-5,003.80	6,197.09	6,100.15	96.94	63.927		
9,300.00	7,067.07	6,874.00	6,937.87	73.34	29.42	-88.75	-4,346.31	-5,003.96	6,155.43	6,055.94	99.50	61.866		
9,400.00	7,066.78	6,877.22	6,941.09	75.88	29.44	-88.79	-4,346.31	-5,004.12	6,115.12	6,013.02	102.10	59.891		
9,500.00	7,066.50	6,880.47	6,944.34	78.45	29.45	-88.82	-4,346.32	-5,004.29	6,076.19	5,971.43	104.76	58.003		
9,600.00	7,066.21	6,883.75	6,947.61	81.04	29.47	-88.85	-4,346.32	-5,004.45	6,038.65	5,931.20	107.45	56.199		
9,700.00	7,065.93	6,887.06	6,950.92	83.64	29.48	-88.89	-4,346.32	-5,004.62	6,002.55	5,892.36	110.19	54.476		
9,800.00	7,065.64	6,890.39	6,954.25	86.26	29.49	-88.92	-4,346.33	-5,004.79	5,967.90	5,854.94	112.96	52.833		
9,900.00	7,065.36	6,900.01	6,963.86	88.90	29.53	-89.02	-4,346.35	-5,005.29	5,934.73	5,818.94	115.79	51.253		
10,000.00	7,065.07	6,900.01	6,963.86	91.55	29.53	-89.02	-4,346.35	-5,005.29	5,903.07	5,784.46	118.60	49.771		
10,100.00	7,064.79	6,900.01	6,963.86	94.21	29.53	-89.02	-4,346.35	-5,005.29	5,872.93	5,751.49	121.44	48.361		
10,200.00	7,064.50	6,900.01	6,963.86	96.88	29.53	-89.02	-4,346.35	-5,005.29	5,844.35	5,720.05	124.30	47.019		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,064.22	6,900.01	6,963.86	99.57	29.53	-89.02	-4,346.35	-5,005.29	5,817.35	5,690.18	127.17	45.744		
10,400.00	7,063.94	6,900.01	6,963.86	102.26	29.53	-89.02	-4,346.35	-5,005.29	5,791.95	5,661.89	130.06	44.533		
10,500.00	7,063.65	6,912.87	6,976.69	104.96	29.59	-89.15	-4,346.38	-5,005.97	5,768.15	5,635.12	133.03	43.360		
10,600.00	7,063.37	6,916.06	6,979.88	107.67	29.60	-89.18	-4,346.39	-5,006.15	5,746.00	5,610.05	135.95	42.266		
10,700.00	7,063.08	6,919.30	6,983.12	110.39	29.62	-89.22	-4,346.40	-5,006.32	5,725.51	5,586.63	138.87	41.228		
10,800.00	7,062.80	6,922.59	6,986.40	113.11	29.63	-89.25	-4,346.42	-5,006.50	5,706.69	5,564.90	141.80	40.245		
10,900.00	7,062.51	6,925.92	6,989.72	115.84	29.65	-89.28	-4,346.43	-5,006.68	5,689.57	5,544.85	144.72	39.315		
11,000.00	7,062.23	6,929.30	6,993.10	118.58	29.66	-89.32	-4,346.45	-5,006.87	5,674.16	5,526.53	147.63	38.435		
11,100.00	7,061.94	6,932.72	6,996.52	121.32	29.67	-89.35	-4,346.46	-5,007.06	5,660.47	5,509.93	150.53	37.603		
11,200.00	7,061.66	6,936.20	6,999.99	124.07	29.69	-89.39	-4,346.48	-5,007.26	5,648.51	5,495.09	153.42	36.818		
11,300.00	7,061.37	6,939.72	7,003.51	126.82	29.70	-89.42	-4,346.50	-5,007.45	5,638.30	5,482.01	156.28	36.077		
11,400.00	7,061.09	6,943.30	7,007.08	129.58	29.72	-89.46	-4,346.52	-5,007.66	5,629.84	5,470.71	159.13	35.379		
11,500.00	7,060.80	6,946.93	7,010.70	132.34	29.73	-89.50	-4,346.54	-5,007.86	5,623.14	5,461.19	161.95	34.722		
11,600.00	7,060.52	6,950.61	7,014.37	135.10	29.75	-89.54	-4,346.56	-5,008.08	5,618.21	5,453.47	164.74	34.104		
11,700.00	7,060.23	6,954.34	7,018.10	137.87	29.77	-89.57	-4,346.59	-5,008.29	5,615.06	5,447.56	167.50	33.523		
11,800.00	7,059.95	6,958.14	7,021.89	140.64	29.78	-89.61	-4,346.61	-5,008.51	5,613.68	5,443.46	170.22	32.978		
11,827.51	7,059.87	6,959.19	7,022.94	141.41	29.79	-89.62	-4,346.62	-5,008.58	5,613.62	5,442.65	170.97	32.835 CC		
11,900.00	7,059.66	6,961.99	7,025.73	143.42	29.80	-89.65	-4,346.64	-5,008.74	5,614.08	5,441.17	172.91	32.468		
12,000.00	7,059.38	6,965.89	7,029.63	146.20	29.82	-89.69	-4,346.67	-5,008.97	5,616.26	5,440.70	175.56	31.991 ES		
12,100.00	7,059.09	6,969.86	7,033.59	148.98	29.83	-89.73	-4,346.70	-5,009.21	5,620.21	5,442.05	178.16	31.546		
12,200.00	7,058.81	6,973.89	7,037.61	151.77	29.85	-89.77	-4,346.73	-5,009.45	5,625.93	5,445.22	180.72	31.131		
12,300.00	7,058.52	6,977.98	7,041.70	154.55	29.87	-89.81	-4,346.76	-5,009.70	5,633.42	5,450.19	183.23	30.746		
12,400.00	7,058.24	6,982.14	7,045.85	157.34	29.88	-89.86	-4,346.80	-5,009.95	5,642.67	5,456.98	185.68	30.388		
12,500.00	7,057.96	6,986.36	7,050.06	160.14	29.90	-89.90	-4,346.84	-5,010.21	5,653.66	5,465.57	188.09	30.058		
12,600.00	7,057.67	6,990.64	7,054.34	162.93	29.92	-89.94	-4,346.88	-5,010.47	5,666.40	5,475.95	190.44	29.754		
12,700.00	7,057.39	7,000.01	7,063.69	165.73	29.96	-90.04	-4,346.97	-5,011.06	5,680.86	5,488.09	192.77	29.470		
12,800.00	7,057.10	7,000.01	7,063.69	168.53	29.96	-90.04	-4,346.97	-5,011.06	5,697.04	5,502.05	194.99	29.218		
12,900.00	7,056.82	7,004.05	7,067.72	171.33	29.98	-90.08	-4,347.02	-5,011.31	5,714.91	5,517.75	197.17	28.985		
13,000.00	7,056.53	7,008.70	7,072.36	174.13	30.00	-90.13	-4,347.06	-5,011.61	5,734.47	5,535.18	199.29	28.775		
13,100.00	7,056.25	7,013.35	7,077.00	176.94	30.02	-90.17	-4,347.12	-5,011.90	5,755.70	5,554.35	201.35	28.585		
13,200.00	7,055.96	7,018.01	7,081.65	179.74	30.04	-90.22	-4,347.17	-5,012.20	5,778.57	5,575.22	203.35	28.416		
13,300.00	7,055.68	7,022.67	7,086.30	182.55	30.06	-90.27	-4,347.22	-5,012.49	5,803.07	5,597.78	205.29	28.267		
13,400.00	7,055.39	7,027.33	7,090.95	185.36	30.08	-90.32	-4,347.28	-5,012.79	5,829.18	5,622.01	207.17	28.137		
13,500.00	7,055.11	7,032.00	7,095.61	188.17	30.10	-90.36	-4,347.33	-5,013.08	5,856.88	5,647.89	208.99	28.025		
13,600.00	7,054.82	7,036.67	7,100.27	190.98	30.12	-90.41	-4,347.39	-5,013.38	5,886.14	5,675.40	210.74	27.931		
13,700.00	7,054.54	7,041.34	7,104.93	193.80	30.14	-90.46	-4,347.45	-5,013.67	5,916.94	5,704.51	212.43	27.853		
13,800.00	7,054.25	7,046.02	7,109.60	196.61	30.16	-90.51	-4,347.51	-5,013.97	5,949.26	5,735.20	214.06	27.792		
13,900.00	7,053.97	7,050.71	7,114.27	199.43	30.18	-90.56	-4,347.57	-5,014.26	5,983.07	5,767.44	215.63	27.747		
14,000.00	7,053.68	7,055.39	7,118.95	202.25	30.20	-90.60	-4,347.63	-5,014.56	6,018.35	5,801.21	217.14	27.716		
14,100.00	7,053.40	7,060.08	7,123.63	205.06	30.22	-90.65	-4,347.69	-5,014.86	6,055.07	5,836.48	218.59	27.700		
14,200.00	7,053.11	7,064.77	7,128.31	207.88	30.24	-90.70	-4,347.76	-5,015.16	6,093.20	5,873.22	219.98	27.699 SF		
14,300.00	7,052.83	7,069.47	7,133.00	210.70	30.26	-90.75	-4,347.82	-5,015.45	6,132.73	5,911.41	221.31	27.711		
14,400.00	7,052.54	7,074.17	7,137.69	213.53	30.28	-90.79	-4,347.89	-5,015.75	6,173.61	5,951.03	222.59	27.736		
14,500.00	7,052.26	7,078.88	7,142.39	216.35	30.30	-90.84	-4,347.96	-5,016.05	6,215.83	5,992.03	223.81	27.773		
14,600.00	7,051.98	7,083.58	7,147.08	219.17	30.32	-90.89	-4,348.03	-5,016.35	6,259.36	6,034.39	224.97	27.823		
14,700.00	7,051.69	7,088.29	7,151.78	222.00	30.34	-90.94	-4,348.10	-5,016.65	6,304.17	6,078.09	226.08	27.885		
14,800.00	7,051.41	7,093.01	7,156.49	224.82	30.36	-90.99	-4,348.17	-5,016.95	6,350.24	6,123.10	227.14	27.957		
14,900.00	7,051.12	7,100.01	7,163.48	227.65	30.39	-91.06	-4,348.28	-5,017.39	6,397.53	6,169.37	228.16	28.040		
14,942.37	7,051.00	7,100.01	7,163.48	228.85	30.39	-91.06	-4,348.28	-5,017.39	6,417.93	6,189.37	228.56	28.080		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LEFFLER 26C-23-L(SRC PLAN_75CC) - OH - BAKER PLAN													Offset Site Error:	0.00 ft
Survey Program: 25-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	25.00	74.00	3.28	3.28	-148.95	-5,473.41	-3,294.98	6,389.10					
100.00	100.00	89.30	138.30	3.28	3.28	-148.95	-5,473.26	-3,294.85	6,388.59	6,382.02	6.57	972.697		
200.00	200.00	193.23	242.22	3.34	3.33	-148.95	-5,472.49	-3,294.66	6,387.86	6,381.19	6.67	958.200		
300.00	300.00	262.78	311.77	3.44	3.39	-148.95	-5,471.99	-3,294.87	6,387.41	6,380.58	6.84	934.170		
400.00	399.98	1,489.48	1,524.93	3.60	7.59	-140.95	-5,329.69	-3,326.13	6,383.67	6,372.58	11.09	575.519		
500.00	499.84	1,552.00	1,585.82	3.81	7.93	-141.05	-5,315.65	-3,328.44	6,370.38	6,358.82	11.56	551.078		
600.00	599.45	1,636.35	1,667.97	4.06	8.39	-141.11	-5,296.86	-3,331.96	6,360.21	6,348.02	12.19	521.935		
700.00	698.70	1,700.00	1,729.95	4.34	8.74	-141.15	-5,282.71	-3,334.96	6,353.10	6,340.34	12.76	498.045		
800.00	797.47	1,830.07	1,856.65	4.64	9.47	-141.13	-5,253.94	-3,341.29	6,348.90	6,335.20	13.70	463.405		
900.00	895.65	1,929.97	1,953.85	4.98	10.05	-141.12	-5,231.43	-3,346.17	6,346.94	6,332.41	14.53	436.726		
1,000.00	993.66	2,029.89	2,051.08	5.32	10.63	-141.08	-5,208.91	-3,351.06	6,345.70	6,330.30	15.40	412.148		
1,100.00	1,091.67	2,129.82	2,148.32	5.69	11.22	-141.05	-5,186.39	-3,355.94	6,344.46	6,328.17	16.28	389.606		
1,200.00	1,189.68	2,229.75	2,245.56	6.09	11.82	-141.02	-5,163.88	-3,360.82	6,343.22	6,326.03	17.19	368.969		
1,300.00	1,287.69	2,329.68	2,342.79	6.49	12.41	-140.99	-5,141.36	-3,365.70	6,341.98	6,323.87	18.12	350.081		
1,400.00	1,385.69	2,429.61	2,440.03	6.90	13.02	-140.96	-5,118.84	-3,370.59	6,340.75	6,321.70	19.05	332.783		
1,500.00	1,483.70	2,529.54	2,537.27	7.33	13.62	-140.92	-5,096.32	-3,375.47	6,339.52	6,319.52	20.00	316.922		
1,600.00	1,581.71	2,629.47	2,634.50	7.76	14.23	-140.89	-5,073.80	-3,380.35	6,338.29	6,317.33	20.96	302.354		
1,700.00	1,679.72	2,729.40	2,731.74	8.19	14.84	-140.86	-5,051.29	-3,385.24	6,337.06	6,315.13	21.93	288.948		
1,800.00	1,777.73	2,829.33	2,828.98	8.63	15.46	-140.83	-5,028.77	-3,390.12	6,335.84	6,312.93	22.91	276.587		
1,900.00	1,875.74	2,929.26	2,926.21	9.08	16.07	-140.80	-5,006.25	-3,395.00	6,334.61	6,310.72	23.89	265.164		
2,000.00	1,973.75	3,029.19	3,023.45	9.53	16.69	-140.76	-4,983.73	-3,399.89	6,333.39	6,308.52	24.88	254.585		
2,100.00	2,071.76	3,129.12	3,120.69	9.98	17.31	-140.73	-4,961.21	-3,404.77	6,332.17	6,306.30	25.87	244.768		
2,200.00	2,169.77	3,229.05	3,217.92	10.44	17.93	-140.70	-4,938.70	-3,409.65	6,330.96	6,304.09	26.87	235.637		
2,300.00	2,267.77	3,328.98	3,315.16	10.90	18.55	-140.67	-4,916.18	-3,414.54	6,329.74	6,301.87	27.87	227.129		
2,400.00	2,365.78	3,428.91	3,412.40	11.36	19.17	-140.63	-4,893.66	-3,419.42	6,328.53	6,299.65	28.87	219.184		
2,500.00	2,463.79	3,528.83	3,509.63	11.82	19.80	-140.60	-4,871.14	-3,424.30	6,327.32	6,297.43	29.88	211.751		
2,600.00	2,561.80	3,628.76	3,606.87	12.28	20.42	-140.57	-4,848.62	-3,429.19	6,326.11	6,295.21	30.89	204.784		
2,700.00	2,659.81	3,728.69	3,704.11	12.75	21.05	-140.54	-4,826.11	-3,434.07	6,324.90	6,292.99	31.90	198.244		
2,800.00	2,757.82	10,720.29	7,246.27	13.21	120.84	-174.84	-3,992.15	37.87	6,305.95	6,202.69	103.26	61.069		
2,900.00	2,855.83	10,716.10	7,246.34	13.68	120.71	-174.80	-3,992.17	33.69	6,250.61	6,146.08	104.53	59.798		
3,000.00	2,953.84	10,711.92	7,246.41	14.15	120.58	-174.75	-3,992.18	29.51	6,196.38	6,090.57	105.81	58.561		
3,100.00	3,051.85	10,707.74	7,246.49	14.62	120.44	-174.71	-3,992.20	25.33	6,143.30	6,036.19	107.11	57.357		
3,200.00	3,149.85	10,703.56	7,246.56	15.09	120.31	-174.66	-3,992.21	21.15	6,091.39	5,982.98	108.41	56.188		
3,300.00	3,247.86	10,700.62	7,246.64	15.56	120.22	-174.62	-3,992.22	16.96	6,040.70	5,930.94	109.76	55.038		
3,400.00	3,345.87	10,704.81	7,246.71	16.04	120.35	-174.57	-3,992.24	12.78	5,991.24	5,879.95	111.28	53.838		
3,500.00	3,443.88	10,691.01	7,246.78	16.51	119.91	-174.52	-3,992.25	8.60	5,943.04	5,830.67	112.37	52.888		
3,600.00	3,541.89	10,686.83	7,246.86	16.98	119.78	-174.48	-3,992.27	4.42	5,896.15	5,782.45	113.70	51.857		
3,700.00	3,639.90	10,682.65	7,246.93	17.46	119.65	-174.43	-3,992.28	0.24	5,850.59	5,735.56	115.03	50.861		
3,800.00	3,737.91	10,678.47	7,247.00	17.93	119.52	-174.39	-3,992.29	-3.94	5,806.39	5,690.03	116.36	49.899		
3,900.00	3,835.92	10,674.29	7,247.08	18.41	119.38	-174.34	-3,992.31	-8.12	5,763.58	5,645.89	117.69	48.972		
4,000.00	3,933.93	10,670.10	7,247.15	18.88	119.25	-174.30	-3,992.32	-12.30	5,722.20	5,603.18	119.02	48.079		
4,100.00	4,031.93	10,665.92	7,247.22	19.36	119.12	-174.25	-3,992.34	-16.48	5,682.27	5,561.93	120.34	47.220		
4,200.00	4,129.94	10,661.74	7,247.30	19.84	118.99	-174.20	-3,992.35	-20.67	5,643.83	5,522.18	121.65	46.395		
4,300.00	4,227.95	10,657.56	7,247.37	20.31	118.86	-174.16	-3,992.36	-24.85	5,606.91	5,483.96	122.95	45.603		
4,400.00	4,325.96	10,653.38	7,247.44	20.79	118.72	-174.11	-3,992.38	-29.03	5,571.53	5,447.29	124.24	44.845		
4,500.00	4,423.97	10,649.19	7,247.52	21.27	118.59	-174.07	-3,992.39	-33.21	5,537.73	5,412.06	125.67	44.065		
4,600.00	4,521.98	10,645.01	7,247.59	21.75	118.46	-174.02	-3,992.40	-37.39	5,505.54	5,378.76	126.77	43.428		
4,700.00	4,619.99	10,640.83	7,247.67	22.23	118.33	-173.97	-3,992.42	-41.57	5,474.98	5,346.96	128.01	42.768		
4,800.00	4,718.00	10,636.65	7,247.74	22.70	118.19	-173.93	-3,992.43	-45.75	5,446.08	5,316.84	129.23	42.141		
4,900.00	4,816.01	10,632.47	7,247.81	23.18	118.06	-173.88	-3,992.45	-49.93	5,418.87	5,288.44	130.43	41.546		
5,000.00	4,914.01	10,628.29	7,247.89	23.66	117.93	-173.84	-3,992.46	-54.11	5,393.37	5,261.77	131.60	40.983		
5,100.00	5,012.02	10,624.10	7,247.96	24.14	117.80	-173.79	-3,992.47	-58.30	5,369.62	5,236.87	132.74	40.451		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	10,619.92	7,248.03	24.62	117.66	-173.75	-3,992.49	-62.48	5,347.62	5,213.76	133.86	39.950	
5,300.00	5,208.04	10,615.74	7,248.11	25.10	117.53	-173.70	-3,992.50	-66.66	5,327.41	5,192.47	134.94	39.480	
5,400.00	5,306.05	10,611.56	7,248.18	25.58	117.40	-173.65	-3,992.52	-70.84	5,309.00	5,173.01	135.99	39.040	
5,500.00	5,404.06	10,607.38	7,248.25	26.06	117.27	-173.61	-3,992.53	-75.02	5,292.41	5,155.41	137.00	38.631	
5,600.00	5,502.07	10,603.20	7,248.33	26.54	117.14	-173.56	-3,992.54	-79.20	5,277.67	5,139.69	137.97	38.251	
5,700.00	5,600.08	10,600.99	7,248.40	27.02	117.07	-173.52	-3,992.56	-83.38	5,264.77	5,125.81	138.97	37.885	
5,800.00	5,698.09	10,605.17	7,248.47	27.50	117.20	-173.47	-3,992.57	-87.56	5,253.75	5,113.63	140.12	37.495	
5,900.00	5,796.09	10,599.65	7,248.55	27.98	116.74	-173.43	-3,992.59	-91.74	5,244.61	5,103.96	140.65	37.288	
6,000.00	5,894.10	10,586.47	7,248.62	28.46	116.61	-173.38	-3,992.60	-95.93	5,237.36	5,095.90	141.46	37.024	
6,100.00	5,992.11	10,582.29	7,248.70	28.94	116.48	-173.33	-3,992.61	-100.11	5,232.00	5,089.78	142.22	36.788	
6,200.00	6,090.12	10,578.10	7,248.77	29.42	116.34	-173.29	-3,992.63	-104.29	5,228.55	5,085.62	142.93	36.580	
6,300.00	6,188.13	10,573.92	7,248.84	29.90	116.21	-173.24	-3,992.64	-108.47	5,227.01	5,083.41	143.60	36.400	
6,330.74	6,218.25	10,572.64	7,248.86	30.05	116.17	-173.23	-3,992.65	-109.75	5,226.92	5,083.13	143.79	36.350 CC, ES	
6,400.00	6,286.14	10,569.74	7,248.92	30.38	116.08	-173.20	-3,992.66	-112.65	5,227.38	5,083.16	144.22	36.247	
6,500.00	6,384.15	10,565.56	7,248.99	30.87	115.95	-173.15	-3,992.67	-116.83	5,229.66	5,084.87	144.78	36.121	
6,600.00	6,482.15	10,561.07	7,249.07	31.35	115.81	-164.51	-3,992.69	-121.32	5,233.84	5,088.55	145.29	36.023	
6,700.00	6,579.21	10,546.00	7,249.33	31.83	115.33	-132.78	-3,992.74	-136.39	5,239.84	5,094.42	145.42	36.033	
6,800.00	6,673.04	10,515.67	7,249.87	32.30	114.37	-117.22	-3,992.84	-166.71	5,247.38	5,102.37	145.02	36.185	
6,900.00	6,761.33	10,470.82	7,250.66	32.74	112.96	-108.69	-3,992.99	-211.55	5,256.01	5,111.90	144.11	36.473	
7,000.00	6,841.90	10,412.56	7,251.68	33.17	111.13	-103.20	-3,993.18	-269.80	5,265.15	5,122.39	142.76	36.882	
7,100.00	6,912.77	10,336.68	7,252.62	33.60	108.75	-99.24	-3,993.43	-345.68	5,274.14	5,133.27	140.86	37.442	
7,200.00	6,972.19	10,256.89	7,252.62	34.09	106.26	-96.34	-3,993.70	-425.47	5,282.29	5,143.36	138.93	38.020	
7,300.00	7,018.70	10,168.94	7,252.62	34.73	103.52	-94.23	-3,993.99	-513.41	5,289.05	5,152.17	136.88	38.640	
7,400.00	7,051.15	10,074.67	7,252.62	35.55	100.59	-92.81	-3,994.31	-607.69	5,293.90	5,159.10	134.80	39.273	
7,500.00	7,068.75	9,976.39	7,252.62	36.56	97.56	-92.07	-3,994.64	-705.97	5,296.44	5,163.67	132.77	39.892	
7,600.00	7,071.91	9,876.50	7,252.62	37.71	94.49	-91.96	-3,994.97	-805.86	5,296.61	5,165.75	130.85	40.477	
7,700.00	7,071.62	9,776.50	7,252.62	39.03	91.44	-91.96	-3,995.31	-905.86	5,296.20	5,167.08	129.12	41.017	
7,800.00	7,071.34	9,676.50	7,252.62	40.51	88.40	-91.96	-3,995.64	-1,005.85	5,295.79	5,168.22	127.56	41.515	
7,900.00	7,071.05	9,576.50	7,252.62	42.14	85.39	-91.97	-3,995.97	-1,105.85	5,295.38	5,169.21	126.17	41.971	
8,000.00	7,070.77	9,476.50	7,252.62	43.89	82.41	-91.97	-3,996.31	-1,205.85	5,294.97	5,170.06	124.92	42.388	
8,100.00	7,070.48	9,376.50	7,252.62	45.76	79.45	-91.97	-3,996.64	-1,305.85	5,294.56	5,170.76	123.80	42.767	
8,200.00	7,070.20	9,276.50	7,252.62	47.72	76.53	-91.98	-3,996.98	-1,405.85	5,294.16	5,171.35	122.81	43.109	
8,300.00	7,069.92	9,176.51	7,252.62	49.78	73.64	-91.98	-3,997.31	-1,505.85	5,293.75	5,171.81	121.93	43.415	
8,400.00	7,069.63	9,076.51	7,252.62	51.90	70.79	-91.98	-3,997.64	-1,605.84	5,293.34	5,172.17	121.17	43.686	
8,500.00	7,069.35	8,976.51	7,252.62	54.10	67.99	-91.99	-3,997.98	-1,705.84	5,292.93	5,172.42	120.51	43.922	
8,600.00	7,069.06	8,876.51	7,252.62	56.36	65.24	-91.99	-3,998.31	-1,805.84	5,292.52	5,172.57	119.95	44.122	
8,700.00	7,068.78	8,776.51	7,252.62	58.66	62.55	-91.99	-3,998.64	-1,905.84	5,292.11	5,172.62	119.50	44.286	
8,800.00	7,068.49	8,676.51	7,252.62	61.02	59.94	-91.99	-3,998.98	-2,005.84	5,291.71	5,172.56	119.15	44.413	
8,900.00	7,068.21	8,576.51	7,252.62	63.42	57.41	-92.00	-3,999.31	-2,105.83	5,291.30	5,172.39	118.91	44.500	
9,000.00	7,067.92	8,476.51	7,252.62	65.85	54.98	-92.00	-3,999.65	-2,205.83	5,290.89	5,172.11	118.78	44.545	
9,100.00	7,067.64	8,376.52	7,252.62	68.32	52.67	-92.00	-3,999.98	-2,305.83	5,290.48	5,171.71	118.77	44.545	
9,200.00	7,067.35	8,276.52	7,252.62	70.81	50.51	-92.01	-4,000.31	-2,405.83	5,290.07	5,171.18	118.89	44.495	
9,300.00	7,067.07	8,176.52	7,252.62	73.34	48.55	-92.01	-4,000.65	-2,505.83	5,289.66	5,170.51	119.16	44.392	
9,400.00	7,066.78	8,076.52	7,252.62	75.88	46.83	-92.01	-4,000.98	-2,605.83	5,289.26	5,169.67	119.58	44.230	
9,500.00	7,066.50	7,976.52	7,252.62	78.45	45.43	-92.02	-4,001.32	-2,705.82	5,288.85	5,168.66	120.19	44.004	
9,600.00	7,066.21	7,876.52	7,252.62	81.04	44.39	-92.02	-4,001.65	-2,805.82	5,288.44	5,167.44	121.00	43.707	
9,700.00	7,065.93	7,776.52	7,252.62	83.64	43.69	-92.02	-4,001.98	-2,905.82	5,288.03	5,166.00	122.03	43.335	
9,773.59	7,065.72	7,724.51	7,252.48	85.57	43.44	-92.02	-4,002.19	-2,957.83	5,287.80	5,164.59	123.22	42.914	
9,800.00	7,065.64	7,714.31	7,252.19	86.26	43.40	-92.02	-4,002.29	-2,968.03	5,287.84	5,164.08	123.77	42.724	
9,900.00	7,065.36	7,675.84	7,249.66	88.90	43.25	-91.99	-4,003.01	-3,006.40	5,288.73	5,162.87	125.87	42.018	
10,000.00	7,065.07	7,637.81	7,244.94	91.55	43.13	-91.94	-4,004.23	-3,044.12	5,290.79	5,162.80	127.99	41.339	
10,100.00	7,064.79	7,600.00	7,238.09	94.21	43.03	-91.87	-4,005.94	-3,081.25	5,294.03	5,163.91	130.12	40.686	

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,200.00	7,064.50	7,564.04	7,229.59	96.88	42.94	-91.78	-4,008.03	-3,116.13	5,298.48	5,166.19	132.29	40.051		
10,300.00	7,064.22	7,528.74	7,219.39	99.57	42.87	-91.67	-4,010.50	-3,149.83	5,304.16	5,169.67	134.49	39.440		
10,400.00	7,063.94	7,500.00	7,209.75	102.26	42.81	-91.57	-4,012.82	-3,176.80	5,311.10	5,174.37	136.74	38.842		
10,500.00	7,063.65	7,452.02	7,191.05	104.96	42.71	-91.36	-4,017.31	-3,220.75	5,319.35	5,180.51	138.84	38.314		
10,600.00	7,063.37	7,430.87	7,181.79	107.67	42.67	-91.26	-4,019.51	-3,239.63	5,328.86	5,187.71	141.15	37.752		
10,700.00	7,063.08	7,400.00	7,167.20	110.39	42.61	-91.11	-4,022.99	-3,266.61	5,339.76	5,196.39	143.37	37.244		
10,800.00	7,062.80	7,373.04	7,153.42	113.11	42.55	-90.96	-4,026.26	-3,289.55	5,352.03	5,206.41	145.62	36.753		
10,900.00	7,062.51	7,352.01	7,142.03	115.84	42.51	-90.83	-4,028.95	-3,307.01	5,365.72	5,217.85	147.87	36.288		
11,000.00	7,062.23	7,317.32	7,122.02	118.58	42.43	-90.62	-4,033.68	-3,334.94	5,380.82	5,230.80	150.03	35.866		
11,100.00	7,061.94	7,300.00	7,111.48	121.32	42.39	-90.51	-4,036.17	-3,348.46	5,397.38	5,245.13	152.25	35.451		
11,200.00	7,061.66	7,275.12	7,095.72	124.07	42.33	-90.34	-4,039.89	-3,367.36	5,415.40	5,260.99	154.41	35.071		
11,300.00	7,061.37	7,252.01	7,080.46	126.82	42.27	-90.17	-4,043.48	-3,384.32	5,434.91	5,278.37	156.54	34.719		
11,400.00	7,061.09	7,234.23	7,068.31	129.58	42.23	-90.04	-4,046.34	-3,396.98	5,455.91	5,297.24	158.66	34.387		
11,500.00	7,060.80	7,208.36	7,050.03	132.34	42.16	-89.85	-4,050.64	-3,414.77	5,478.42	5,317.71	160.71	34.089		
11,600.00	7,060.52	7,200.00	7,043.96	135.10	42.13	-89.78	-4,052.06	-3,420.36	5,502.40	5,339.61	162.79	33.801		
11,700.00	7,060.23	7,181.48	7,030.30	137.87	42.08	-89.63	-4,055.27	-3,432.43	5,527.89	5,363.11	164.79	33.546		
11,800.00	7,059.95	7,152.01	7,007.86	140.64	41.99	-89.39	-4,060.53	-3,450.79	5,554.96	5,388.25	166.70	33.322		
11,900.00	7,059.66	7,152.01	7,007.86	143.42	41.99	-89.39	-4,060.53	-3,450.79	5,583.37	5,414.70	168.67	33.102		
12,000.00	7,059.38	7,152.01	7,007.86	146.20	41.99	-89.39	-4,060.53	-3,450.79	5,613.42	5,442.83	170.59	32.907		
12,100.00	7,059.09	7,124.32	6,986.04	148.98	41.90	-89.16	-4,065.64	-3,467.05	5,644.78	5,472.39	172.38	32.746		
12,200.00	7,058.81	7,100.00	6,966.32	151.77	41.82	-88.95	-4,070.25	-3,480.52	5,677.73	5,503.60	174.14	32.605		
12,300.00	7,058.52	7,100.00	6,966.32	154.55	41.82	-88.95	-4,070.25	-3,480.52	5,712.02	5,536.11	175.91	32.471		
12,400.00	7,058.24	7,100.00	6,966.32	157.34	41.82	-88.95	-4,070.25	-3,480.52	5,747.83	5,570.20	177.63	32.358		
12,500.00	7,057.96	7,078.82	6,948.75	160.14	41.74	-88.76	-4,074.36	-3,491.61	5,784.97	5,605.71	179.26	32.272		
12,600.00	7,057.67	7,052.01	6,926.01	162.93	41.65	-88.52	-4,079.68	-3,504.77	5,823.66	5,642.85	180.81	32.208		
12,700.00	7,057.39	7,052.01	6,926.01	165.73	41.65	-88.52	-4,079.68	-3,504.77	5,863.50	5,681.11	182.39	32.148		
12,800.00	7,057.10	7,049.69	6,924.02	168.53	41.64	-88.50	-4,080.14	-3,505.87	5,904.76	5,720.85	183.91	32.106		
12,900.00	7,056.82	7,049.69	6,924.02	171.33	41.64	-88.50	-4,080.14	-3,505.87	5,947.40	5,762.01	185.39	32.080		
13,000.00	7,056.53	7,034.01	6,910.45	174.13	41.57	-88.36	-4,083.31	-3,513.06	5,991.29	5,804.50	186.79	32.075 SF		
13,100.00	7,056.25	7,026.32	6,903.73	176.94	41.54	-88.29	-4,084.88	-3,516.46	6,036.48	5,848.33	188.16	32.082		
13,200.00	7,055.96	7,010.76	6,890.02	179.74	41.48	-88.14	-4,088.08	-3,523.08	6,082.97	5,893.51	189.46	32.107		
13,300.00	7,055.68	7,010.76	6,890.02	182.55	41.48	-88.14	-4,088.08	-3,523.08	6,130.61	5,939.86	190.75	32.140		
13,400.00	7,055.39	7,005.32	6,885.19	185.36	41.46	-88.09	-4,089.20	-3,525.32	6,179.49	5,987.51	191.98	32.188		
13,500.00	7,055.11	7,000.00	6,880.45	188.17	41.44	-88.04	-4,090.31	-3,527.46	6,229.55	6,036.38	193.17	32.249		
13,600.00	7,054.82	7,000.00	6,880.45	190.98	41.44	-88.04	-4,090.31	-3,527.46	6,280.79	6,086.46	194.33	32.321		
13,700.00	7,054.54	7,000.00	6,880.45	193.80	41.44	-88.04	-4,090.31	-3,527.46	6,333.19	6,137.75	195.44	32.405		
13,800.00	7,054.25	7,000.00	6,880.45	196.61	41.44	-88.04	-4,090.31	-3,527.46	6,386.73	6,190.23	196.50	32.502		
13,900.00	7,053.97	6,976.05	6,858.89	199.43	41.33	-87.81	-4,095.34	-3,536.61	6,441.06	6,243.57	197.50	32.613		
14,000.00	7,053.68	6,952.01	6,836.94	202.25	41.23	-87.58	-4,100.45	-3,544.94	6,496.83	6,298.39	198.44	32.739		
14,100.00	7,053.40	6,952.01	6,836.94	205.06	41.23	-87.58	-4,100.45	-3,544.94	6,553.34	6,353.95	199.40	32.866		
14,200.00	7,053.11	6,952.01	6,836.94	207.88	41.23	-87.58	-4,100.45	-3,544.94	6,610.89	6,410.57	200.31	33.003		
14,300.00	7,052.83	6,952.01	6,836.94	210.70	41.23	-87.58	-4,100.45	-3,544.94	6,669.43	6,468.24	201.19	33.150		
14,400.00	7,052.54	6,952.01	6,836.94	213.53	41.23	-87.58	-4,100.45	-3,544.94	6,728.95	6,526.92	202.03	33.307		
14,500.00	7,052.26	6,952.01	6,836.94	216.35	41.23	-87.58	-4,100.45	-3,544.94	6,789.42	6,586.59	202.83	33.473		
14,600.00	7,051.98	6,952.01	6,836.94	219.17	41.23	-87.58	-4,100.45	-3,544.94	6,850.82	6,647.22	203.60	33.648		
14,700.00	7,051.69	6,952.01	6,836.94	222.00	41.23	-87.58	-4,100.45	-3,544.94	6,913.12	6,708.78	204.34	33.831		
14,800.00	7,051.41	6,952.01	6,836.94	224.82	41.23	-87.58	-4,100.45	-3,544.94	6,976.29	6,771.25	205.05	34.023		
14,900.00	7,051.12	6,952.01	6,836.94	227.65	41.23	-87.58	-4,100.45	-3,544.94	7,040.32	6,834.60	205.72	34.223		
14,942.37	7,051.00	6,952.01	6,836.94	228.85	41.23	-87.58	-4,100.45	-3,544.94	7,067.71	6,861.71	206.00	34.310		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	74.00	3.28	3.28	-148.86	-5,453.37	-3,294.98	6,371.94					
100.00	100.00	1,280.85	1,310.83	3.28	7.21	-147.74	-5,276.57	-3,330.58	6,356.18	6,345.83	10.35	614.218		
200.00	200.00	1,410.93	1,436.22	3.34	8.00	-147.52	-5,242.67	-3,337.59	6,336.67	6,325.61	11.06	572.924		
300.00	300.00	1,505.90	1,527.95	3.44	8.58	-147.36	-5,218.48	-3,341.87	6,317.32	6,305.68	11.64	542.759		
400.00	399.98	1,591.06	1,610.27	3.60	9.10	-140.17	-5,196.89	-3,345.19	6,299.15	6,286.94	12.21	515.789		
500.00	499.84	1,654.53	1,671.75	3.81	9.49	-140.29	-5,181.32	-3,347.57	6,284.23	6,271.51	12.71	494.317		
600.00	599.45	1,825.68	1,837.23	4.06	10.56	-140.27	-5,138.24	-3,354.68	6,271.71	6,257.85	13.86	452.611		
700.00	698.70	1,924.59	1,932.59	4.34	11.20	-140.31	-5,112.36	-3,359.27	6,261.24	6,246.58	14.66	427.144		
800.00	797.47	2,023.96	2,028.37	4.64	11.85	-140.34	-5,086.35	-3,363.89	6,253.45	6,237.95	15.50	403.405		
900.00	895.65	2,123.64	2,124.47	4.98	12.51	-140.33	-5,060.26	-3,368.52	6,248.25	6,231.87	16.38	381.436		
1,000.00	993.66	2,223.39	2,220.64	5.32	13.17	-140.28	-5,034.15	-3,373.15	6,243.77	6,226.48	17.29	361.095		
1,100.00	1,091.67	2,323.15	2,316.80	5.69	13.83	-140.23	-5,008.04	-3,377.78	6,239.29	6,221.06	18.22	342.369		
1,200.00	1,189.68	2,422.90	2,412.97	6.09	14.50	-140.19	-4,981.93	-3,382.42	6,234.81	6,215.64	19.17	325.153		
1,300.00	1,287.69	2,522.66	2,509.13	6.49	15.17	-140.14	-4,955.82	-3,387.05	6,230.34	6,210.20	20.14	309.328		
1,400.00	1,385.69	2,622.41	2,605.30	6.90	15.84	-140.09	-4,929.71	-3,391.68	6,225.88	6,204.76	21.12	294.770		
1,500.00	1,483.70	2,722.17	2,701.47	7.33	16.51	-140.04	-4,903.60	-3,396.31	6,221.42	6,199.30	22.11	281.363		
1,600.00	1,581.71	2,821.92	2,797.63	7.76	17.19	-139.99	-4,877.49	-3,400.95	6,216.96	6,193.85	23.11	268.996		
1,700.00	1,679.72	2,921.68	2,893.80	8.19	17.86	-139.94	-4,851.38	-3,405.58	6,212.51	6,188.39	24.12	257.570		
1,800.00	1,777.73	3,021.43	2,989.96	8.63	18.54	-139.89	-4,825.27	-3,410.21	6,208.06	6,182.92	25.13	246.991		
1,900.00	1,875.74	3,121.19	3,086.13	9.08	19.22	-139.84	-4,799.16	-3,414.84	6,203.62	6,177.46	26.16	237.179		
2,000.00	1,973.75	3,220.94	3,182.29	9.53	19.90	-139.79	-4,773.05	-3,419.48	6,199.18	6,172.00	27.18	228.059		
2,100.00	2,071.76	3,320.70	3,278.46	9.98	20.58	-139.74	-4,746.94	-3,424.11	6,194.75	6,166.53	28.21	219.567		
2,200.00	2,169.77	3,420.45	3,374.63	10.44	21.26	-139.69	-4,720.83	-3,428.74	6,190.32	6,161.07	29.25	211.643		
2,300.00	2,267.77	3,520.21	3,470.79	10.90	21.94	-139.64	-4,694.72	-3,433.37	6,185.89	6,155.61	30.29	204.236		
2,400.00	2,365.78	3,619.96	3,566.96	11.36	22.62	-139.59	-4,668.61	-3,438.01	6,181.47	6,150.14	31.33	197.299		
2,500.00	2,463.79	3,719.72	3,663.12	11.82	23.30	-139.54	-4,642.50	-3,442.64	6,177.06	6,144.68	32.38	190.791		
2,600.00	2,561.80	10,483.83	7,078.96	12.28	117.85	-173.73	-3,729.30	-65.54	6,117.96	6,019.94	98.02	62.413		
2,700.00	2,659.81	10,481.35	7,078.95	12.75	117.78	-173.70	-3,729.29	-68.01	6,059.41	5,960.10	99.31	61.018		
2,800.00	2,757.82	10,478.88	7,078.95	13.21	117.70	-173.67	-3,729.29	-70.49	6,001.95	5,901.34	100.61	59.658		
2,900.00	2,855.83	10,476.41	7,078.95	13.68	117.62	-173.64	-3,729.28	-72.96	5,945.62	5,843.70	101.92	58.334		
3,000.00	2,953.84	10,473.93	7,078.95	14.15	117.54	-173.62	-3,729.27	-75.44	5,890.45	5,787.19	103.26	57.046		
3,100.00	3,051.85	10,471.46	7,078.94	14.62	117.46	-173.59	-3,729.27	-77.91	5,836.46	5,731.86	104.60	55.795		
3,200.00	3,149.85	10,468.98	7,078.94	15.09	117.39	-173.56	-3,729.26	-80.39	5,783.71	5,677.74	105.96	54.582		
3,300.00	3,247.86	10,466.51	7,078.94	15.56	117.31	-173.53	-3,729.25	-82.86	5,732.21	5,624.87	107.33	53.405		
3,400.00	3,345.87	10,464.03	7,078.94	16.04	117.23	-173.50	-3,729.25	-85.34	5,682.00	5,573.28	108.71	52.266		
3,500.00	3,443.88	10,461.56	7,078.93	16.51	117.15	-173.47	-3,729.24	-87.81	5,633.12	5,523.02	110.10	51.164		
3,600.00	3,541.89	10,459.08	7,078.93	16.98	117.07	-173.44	-3,729.24	-90.29	5,585.60	5,474.11	111.49	50.100		
3,700.00	3,639.90	10,456.61	7,078.93	17.46	117.00	-173.41	-3,729.23	-92.76	5,539.47	5,426.59	112.88	49.073		
3,800.00	3,737.91	10,454.13	7,078.93	17.93	116.92	-173.39	-3,729.22	-95.24	5,494.78	5,380.50	114.28	48.083		
3,900.00	3,835.92	10,451.66	7,078.92	18.41	116.84	-173.36	-3,729.22	-97.71	5,451.56	5,335.89	115.67	47.130		
4,000.00	3,933.93	10,449.18	7,078.92	18.88	116.76	-173.33	-3,729.21	-100.19	5,409.84	5,292.78	117.06	46.214		
4,100.00	4,031.93	10,446.71	7,078.92	19.36	116.68	-173.30	-3,729.21	-102.66	5,369.65	5,251.21	118.45	45.334		
4,200.00	4,129.94	10,444.23	7,078.92	19.84	116.61	-173.27	-3,729.20	-105.14	5,331.04	5,211.22	119.82	44.491		
4,300.00	4,227.95	10,441.76	7,078.91	20.31	116.53	-173.24	-3,729.19	-107.61	5,294.03	5,172.85	121.19	43.685		
4,400.00	4,325.96	10,439.28	7,078.91	20.79	116.45	-173.21	-3,729.19	-110.09	5,258.67	5,136.13	122.54	42.914		
4,500.00	4,423.97	10,436.81	7,078.91	21.27	116.37	-173.18	-3,729.18	-112.56	5,224.97	5,101.10	123.88	42.178		
4,600.00	4,521.98	10,435.71	7,078.91	21.75	116.34	-173.16	-3,729.18	-115.04	5,192.99	5,067.75	125.24	41.466		
4,700.00	4,619.99	10,438.19	7,078.90	22.23	116.42	-173.13	-3,729.17	-117.51	5,162.74	5,036.07	126.67	40.756		
4,800.00	4,718.00	10,440.66	7,078.90	22.70	116.49	-173.10	-3,729.16	-119.99	5,134.26	5,006.17	128.09	40.082		
4,900.00	4,816.01	10,426.91	7,078.90	23.18	116.06	-173.07	-3,729.16	-122.46	5,107.58	4,978.56	129.02	39.587		
5,000.00	4,914.01	10,424.43	7,078.90	23.66	115.98	-173.04	-3,729.15	-124.94	5,082.72	4,952.48	130.24	39.025		
5,100.00	5,012.02	10,421.96	7,078.89	24.14	115.91	-173.01	-3,729.14	-127.41	5,059.72	4,928.29	131.44	38.496		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	10,419.48	7,078.89	24.62	115.83	-172.98	-3,729.14	-129.89	5,038.60	4,906.01	132.59	38.000		
5,300.00	5,208.04	10,417.01	7,078.89	25.10	115.75	-172.95	-3,729.13	-132.36	5,019.38	4,885.66	133.71	37.538		
5,400.00	5,306.05	10,414.53	7,078.89	25.58	115.67	-172.93	-3,729.13	-134.84	5,002.08	4,867.29	134.80	37.108		
5,500.00	5,404.06	10,412.06	7,078.88	26.06	115.59	-172.90	-3,729.12	-137.31	4,986.73	4,850.89	135.84	36.710		
5,600.00	5,502.07	10,409.58	7,078.88	26.54	115.52	-172.87	-3,729.11	-139.79	4,973.34	4,836.50	136.84	36.344		
5,700.00	5,600.08	10,407.11	7,078.88	27.02	115.44	-172.84	-3,729.11	-142.26	4,961.93	4,824.14	137.80	36.009		
5,800.00	5,698.09	10,404.63	7,078.88	27.50	115.36	-172.81	-3,729.10	-144.74	4,952.52	4,813.81	138.71	35.705		
5,900.00	5,796.09	10,402.16	7,078.87	27.98	115.28	-172.78	-3,729.10	-147.21	4,945.10	4,805.53	139.57	35.431		
6,000.00	5,894.10	10,400.32	7,078.87	28.46	115.23	-172.75	-3,729.09	-149.69	4,939.70	4,799.30	140.40	35.183		
6,100.00	5,992.11	10,402.79	7,078.87	28.94	115.30	-172.73	-3,729.08	-152.16	4,936.31	4,795.00	141.31	34.932		
6,200.00	6,090.12	10,394.73	7,078.87	29.42	115.05	-172.70	-3,729.08	-154.64	4,934.95	4,793.11	141.85	34.791		
6,217.18	6,106.95	10,394.31	7,078.87	29.50	115.04	-172.69	-3,729.08	-155.06	4,934.92	4,792.96	141.96	34.762 CC, ES		
6,300.00	6,188.13	10,392.26	7,078.86	29.90	114.97	-172.67	-3,729.07	-157.11	4,935.62	4,793.12	142.50	34.636		
6,400.00	6,286.14	10,389.78	7,078.86	30.38	114.89	-172.64	-3,729.07	-159.59	4,938.31	4,795.21	143.10	34.509		
6,500.00	6,384.15	10,387.31	7,078.86	30.87	114.82	-172.61	-3,729.06	-162.06	4,943.02	4,799.37	143.65	34.411		
6,600.00	6,482.15	10,384.53	7,078.86	31.35	114.73	-163.94	-3,729.05	-164.84	4,949.74	4,805.61	144.13	34.343		
6,700.00	6,579.21	10,371.15	7,078.84	31.83	114.31	-131.99	-3,729.02	-178.22	4,958.27	4,814.05	144.22	34.380		
6,800.00	6,673.04	10,342.44	7,078.81	32.30	113.41	-116.21	-3,728.95	-206.93	4,968.23	4,824.45	143.78	34.555		
6,900.00	6,761.33	10,299.13	7,078.77	32.74	112.05	-107.46	-3,728.84	-250.24	4,979.11	4,836.28	142.83	34.860		
7,000.00	6,841.90	10,242.26	7,078.72	33.17	110.27	-101.76	-3,728.70	-307.10	4,990.27	4,848.83	141.44	35.282		
7,100.00	6,912.77	10,173.25	7,078.65	33.60	108.12	-97.67	-3,728.53	-376.11	5,001.01	4,861.31	139.70	35.799		
7,200.00	6,972.19	10,093.79	7,078.57	34.09	105.65	-94.62	-3,728.33	-455.57	5,010.59	4,872.88	137.71	36.386		
7,300.00	7,018.70	10,005.84	7,078.48	34.73	102.93	-92.39	-3,728.12	-543.52	5,018.34	4,882.74	135.60	37.009		
7,400.00	7,051.15	9,911.57	7,078.39	35.55	100.02	-90.92	-3,727.88	-637.80	5,023.70	4,890.22	133.48	37.637		
7,500.00	7,068.75	9,813.28	7,078.29	36.56	97.01	-90.17	-3,727.64	-736.08	5,026.24	4,894.81	131.43	38.242		
7,600.00	7,071.91	9,713.40	7,078.19	37.71	93.96	-90.07	-3,727.39	-835.97	5,025.93	4,896.42	129.52	38.806		
7,700.00	7,071.62	9,613.40	7,078.09	39.03	90.94	-90.08	-3,727.15	-935.96	5,024.93	4,897.15	127.79	39.323		
7,800.00	7,071.34	9,513.41	7,077.99	40.51	87.93	-90.08	-3,726.90	-1,035.96	5,023.93	4,897.70	126.23	39.799		
7,900.00	7,071.05	9,413.41	7,077.89	42.14	84.96	-90.08	-3,726.65	-1,135.95	5,022.94	4,898.09	124.84	40.234		
8,000.00	7,070.77	9,313.42	7,077.79	43.89	82.01	-90.08	-3,726.40	-1,235.95	5,021.94	4,898.34	123.60	40.630		
8,100.00	7,070.48	9,213.39	7,077.65	45.76	79.09	-90.08	-3,726.16	-1,335.98	5,020.94	4,898.44	122.49	40.990		
8,200.00	7,070.20	9,113.38	7,076.83	47.72	76.21	-90.08	-3,725.91	-1,435.98	5,019.94	4,898.43	121.51	41.314		
8,300.00	7,069.92	9,013.38	7,076.00	49.78	73.38	-90.07	-3,725.66	-1,535.97	5,018.94	4,898.30	120.64	41.603		
8,400.00	7,069.63	8,913.39	7,075.17	51.90	70.59	-90.06	-3,725.42	-1,635.96	5,017.94	4,898.05	119.88	41.856		
8,500.00	7,069.35	8,813.40	7,074.35	54.10	67.86	-90.06	-3,725.17	-1,735.95	5,016.94	4,897.70	119.24	42.076		
8,600.00	7,069.06	8,713.40	7,073.52	56.36	65.19	-90.05	-3,724.92	-1,835.94	5,015.94	4,897.24	118.69	42.260		
8,700.00	7,068.78	8,613.41	7,072.69	58.66	62.60	-90.05	-3,724.67	-1,935.93	5,014.94	4,896.68	118.26	42.408		
8,800.00	7,068.49	8,513.42	7,071.86	61.02	60.11	-90.04	-3,724.43	-2,035.92	5,013.94	4,896.01	117.92	42.518		
8,900.00	7,068.21	8,413.42	7,071.04	63.42	57.73	-90.03	-3,724.18	-2,135.91	5,012.94	4,895.23	117.70	42.589		
9,000.00	7,067.92	8,313.43	7,070.21	65.85	55.50	-90.03	-3,723.93	-2,235.90	5,011.94	4,894.34	117.60	42.618		
9,100.00	7,067.64	8,213.44	7,069.38	68.32	53.44	-90.02	-3,723.68	-2,335.89	5,010.94	4,893.31	117.62	42.602		
9,200.00	7,067.35	8,113.44	7,068.56	70.81	51.61	-90.02	-3,723.44	-2,435.88	5,009.94	4,892.15	117.78	42.536		
9,300.00	7,067.07	8,013.45	7,067.73	73.34	50.06	-90.01	-3,723.19	-2,535.87	5,008.94	4,890.84	118.09	42.415		
9,400.00	7,066.78	7,913.46	7,066.90	75.88	48.81	-90.00	-3,722.94	-2,635.86	5,007.94	4,889.37	118.57	42.236		
9,500.00	7,066.50	7,813.46	7,066.07	78.45	47.89	-90.00	-3,722.70	-2,735.85	5,006.94	4,887.70	119.24	41.992		
9,600.00	7,066.21	7,713.47	7,065.25	81.04	47.25	-89.99	-3,722.45	-2,835.84	5,005.94	4,885.83	120.11	41.678		
9,700.00	7,065.93	7,613.48	7,064.42	83.64	46.83	-89.98	-3,722.20	-2,935.83	5,004.94	4,883.72	121.22	41.289		
9,782.66	7,065.69	7,580.83	7,063.70	85.81	46.73	-89.98	-3,722.24	-2,968.47	5,004.48	4,881.54	122.94	40.706		
9,800.00	7,065.64	7,575.17	7,063.42	86.26	46.71	-89.97	-3,722.29	-2,974.12	5,004.50	4,881.19	123.32	40.582		
9,900.00	7,065.36	7,542.68	7,060.89	88.90	46.62	-89.95	-3,722.83	-3,006.50	5,005.41	4,879.92	125.50	39.885		
10,000.00	7,065.07	7,500.00	7,055.13	91.55	46.52	-89.88	-3,724.19	-3,048.76	5,007.71	4,880.15	127.56	39.257		
10,100.00	7,064.79	7,472.62	7,050.01	94.21	46.45	-89.82	-3,725.45	-3,075.63	5,011.32	4,881.50	129.82	38.603		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,200.00	7,064.50	7,450.00	7,044.94	96.88	46.40	-89.77	-3,726.72	-3,097.63	5,016.31	4,884.19	132.12	37.968		
10,300.00	7,064.22	7,417.56	7,036.36	99.57	46.33	-89.67	-3,728.90	-3,128.84	5,022.71	4,888.40	134.32	37.395		
10,400.00	7,063.94	7,400.00	7,031.08	102.26	46.29	-89.61	-3,730.26	-3,145.53	5,030.57	4,893.92	136.65	36.814		
10,500.00	7,063.65	7,350.00	7,013.63	104.96	46.19	-89.41	-3,734.77	-3,192.16	5,039.80	4,901.13	138.67	36.344		
10,600.00	7,063.37	7,335.01	7,007.72	107.67	46.16	-89.35	-3,736.31	-3,205.84	5,050.47	4,909.47	141.00	35.819		
10,700.00	7,063.08	7,300.00	6,992.71	110.39	46.08	-89.18	-3,740.23	-3,237.22	5,062.64	4,919.50	143.14	35.367		
10,800.00	7,062.80	7,280.39	6,983.59	113.11	46.04	-89.07	-3,742.62	-3,254.42	5,076.28	4,930.87	145.41	34.909		
10,900.00	7,062.51	7,250.00	6,968.45	115.84	45.97	-88.90	-3,746.61	-3,280.46	5,091.45	4,943.91	147.54	34.509		
11,000.00	7,062.23	7,235.01	6,960.54	118.58	45.94	-88.81	-3,748.69	-3,293.02	5,108.11	4,958.35	149.76	34.108		
11,100.00	7,061.94	7,210.82	6,947.19	121.32	45.88	-88.66	-3,752.22	-3,312.88	5,126.31	4,974.41	151.90	33.748		
11,200.00	7,061.66	7,189.76	6,934.98	124.07	45.83	-88.52	-3,755.45	-3,329.73	5,146.05	4,992.03	154.02	33.412		
11,300.00	7,061.37	7,169.72	6,922.87	126.82	45.77	-88.39	-3,758.67	-3,345.37	5,167.33	5,011.22	156.12	33.100		
11,400.00	7,061.09	7,150.00	6,910.49	129.58	45.72	-88.25	-3,761.95	-3,360.37	5,190.17	5,032.00	158.17	32.814		
11,500.00	7,060.80	7,135.01	6,900.79	132.34	45.68	-88.14	-3,764.53	-3,371.49	5,214.55	5,054.34	160.21	32.548		
11,600.00	7,060.52	7,121.76	6,892.01	135.10	45.64	-88.04	-3,766.87	-3,381.13	5,240.49	5,078.28	162.21	32.306		
11,700.00	7,060.23	7,100.00	6,877.16	137.87	45.57	-87.88	-3,770.82	-3,396.55	5,267.95	5,103.81	164.14	32.095		
11,800.00	7,059.95	7,100.00	6,877.16	140.64	45.57	-87.88	-3,770.82	-3,396.55	5,297.07	5,130.96	166.11	31.889		
11,900.00	7,059.66	7,068.69	6,854.94	143.42	45.47	-87.63	-3,776.75	-3,417.79	5,327.48	5,159.58	167.91	31.728		
12,000.00	7,059.38	7,050.00	6,841.20	146.20	45.42	-87.47	-3,780.42	-3,429.91	5,359.54	5,189.84	169.70	31.582		
12,100.00	7,059.09	7,041.33	6,834.71	148.98	45.39	-87.40	-3,782.16	-3,435.40	5,393.08	5,221.58	171.50	31.447		
12,200.00	7,058.81	7,035.01	6,829.94	151.77	45.36	-87.35	-3,783.43	-3,439.33	5,428.13	5,254.88	173.25	31.331		
12,300.00	7,058.52	7,016.58	6,815.80	154.55	45.30	-87.19	-3,787.21	-3,450.54	5,464.60	5,289.69	174.91	31.243		
12,400.00	7,058.24	7,000.00	6,802.83	157.34	45.24	-87.05	-3,790.69	-3,460.26	5,502.56	5,326.04	176.52	31.172		
12,500.00	7,057.96	7,000.00	6,802.83	160.14	45.24	-87.05	-3,790.69	-3,460.26	5,541.93	5,363.79	178.14	31.109		
12,600.00	7,057.67	7,000.00	6,802.83	162.93	45.24	-87.05	-3,790.69	-3,460.26	5,582.82	5,403.11	179.71	31.065		
12,700.00	7,057.39	6,973.79	6,781.82	165.73	45.14	-86.81	-3,796.32	-3,474.89	5,624.84	5,443.69	181.15	31.050 SF		
12,800.00	7,057.10	6,950.00	6,762.27	168.53	45.05	-86.60	-3,801.56	-3,487.39	5,668.46	5,485.91	182.55	31.052		
12,900.00	7,056.82	6,950.00	6,762.27	171.33	45.05	-86.60	-3,801.56	-3,487.39	5,713.22	5,529.24	183.97	31.055		
13,000.00	7,056.53	6,950.00	6,762.27	174.13	45.05	-86.60	-3,801.56	-3,487.39	5,759.36	5,574.02	185.34	31.074		
13,100.00	7,056.25	6,935.01	6,749.73	176.94	44.98	-86.46	-3,804.93	-3,494.87	5,806.79	5,620.17	186.63	31.115		
13,200.00	7,055.96	6,935.01	6,749.73	179.74	44.98	-86.46	-3,804.93	-3,494.87	5,855.49	5,667.59	187.90	31.163		
13,300.00	7,055.68	6,935.01	6,749.73	182.55	44.98	-86.46	-3,804.93	-3,494.87	5,905.48	5,716.35	189.13	31.225		
13,400.00	7,055.39	6,915.57	6,733.22	185.36	44.90	-86.28	-3,809.36	-3,504.12	5,956.51	5,766.25	190.26	31.307		
13,500.00	7,055.11	6,900.00	6,719.80	188.17	44.83	-86.13	-3,812.97	-3,511.14	6,008.85	5,817.49	191.36	31.401		
13,600.00	7,054.82	6,900.00	6,719.80	190.98	44.83	-86.13	-3,812.97	-3,511.14	6,062.25	5,869.79	192.46	31.500		
13,700.00	7,054.54	6,900.00	6,719.80	193.80	44.83	-86.13	-3,812.97	-3,511.14	6,116.82	5,923.31	193.50	31.611		
13,800.00	7,054.25	6,900.00	6,719.80	196.61	44.83	-86.13	-3,812.97	-3,511.14	6,172.52	5,978.01	194.51	31.734		
13,900.00	7,053.97	6,900.00	6,719.80	199.43	44.83	-86.13	-3,812.97	-3,511.14	6,229.34	6,033.86	195.47	31.868		
14,000.00	7,053.68	6,877.80	6,700.39	202.25	44.73	-85.92	-3,818.19	-3,520.57	6,286.94	6,090.58	196.36	32.017		
14,100.00	7,053.40	6,872.33	6,695.56	205.06	44.71	-85.86	-3,819.49	-3,522.78	6,345.71	6,148.48	197.24	32.173		
14,200.00	7,053.11	6,850.00	6,675.66	207.88	44.60	-85.65	-3,824.85	-3,531.37	6,405.65	6,207.61	198.04	32.345		
14,300.00	7,052.83	6,850.00	6,675.66	210.70	44.60	-85.65	-3,824.85	-3,531.37	6,466.29	6,267.43	198.86	32.517		
14,400.00	7,052.54	6,850.00	6,675.66	213.53	44.60	-85.65	-3,824.85	-3,531.37	6,527.89	6,328.26	199.64	32.699		
14,500.00	7,052.26	6,850.00	6,675.66	216.35	44.60	-85.65	-3,824.85	-3,531.37	6,590.44	6,390.06	200.38	32.889		
14,600.00	7,051.98	6,850.00	6,675.66	219.17	44.60	-85.65	-3,824.85	-3,531.37	6,653.90	6,452.81	201.09	33.089		
14,700.00	7,051.69	6,843.46	6,669.78	222.00	44.57	-85.58	-3,826.43	-3,533.75	6,718.23	6,516.47	201.76	33.298		
14,800.00	7,051.41	6,835.01	6,662.14	224.82	44.53	-85.50	-3,828.49	-3,536.73	6,783.41	6,581.01	202.40	33.515		
14,900.00	7,051.12	6,835.01	6,662.14	227.65	44.53	-85.50	-3,828.49	-3,536.73	6,849.38	6,646.37	203.02	33.738		
14,942.37	7,051.00	6,835.01	6,662.14	228.85	44.53	-85.50	-3,828.49	-3,536.73	6,877.59	6,674.32	203.27	33.835		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	67.00	3.28	3.28	-125.76	-4,570.84	-6,346.30	7,821.29					
100.00	100.00	33.00	100.00	3.28	3.33	-125.76	-4,570.84	-6,346.30	7,821.00	7,814.39	6.61	1,182.329		
200.00	200.00	133.00	200.00	3.34	4.38	-125.76	-4,570.84	-6,346.30	7,821.00	7,813.29	7.71	1,013.928		
300.00	300.00	233.00	300.00	3.44	7.18	-125.76	-4,570.84	-6,346.30	7,821.00	7,810.38	10.63	736.008		
400.00	399.98	332.98	399.98	3.60	10.41	-118.46	-4,570.84	-6,346.30	7,821.84	7,807.82	14.01	558.210		
500.00	499.84	432.84	499.84	3.81	13.76	-118.45	-4,570.84	-6,346.30	7,824.33	7,806.76	17.57	445.378		
600.00	599.45	532.45	599.45	4.06	17.16	-118.43	-4,570.84	-6,346.30	7,828.50	7,807.29	21.21	369.142		
700.00	698.70	631.70	698.70	4.34	20.57	-118.40	-4,570.84	-6,346.30	7,834.33	7,809.43	24.90	314.693		
800.00	797.47	730.47	797.47	4.64	23.98	-118.37	-4,570.84	-6,346.30	7,841.84	7,813.23	28.61	274.075		
900.00	895.65	828.65	895.65	4.98	27.38	-118.38	-4,570.84	-6,346.30	7,850.97	7,818.62	32.35	242.719		
1,000.00	993.66	926.66	993.66	5.32	30.78	-118.50	-4,570.84	-6,346.30	7,860.57	7,824.47	36.10	217.740		
1,100.00	1,091.67	1,024.67	1,091.67	5.69	34.18	-118.63	-4,570.84	-6,346.30	7,870.21	7,830.34	39.88	197.356		
1,200.00	1,189.68	1,122.68	1,189.68	6.09	37.59	-118.75	-4,570.84	-6,346.30	7,879.89	7,836.22	43.67	180.426		
1,300.00	1,287.69	1,220.69	1,287.69	6.49	41.00	-118.88	-4,570.84	-6,346.30	7,889.61	7,842.13	47.48	166.153		
1,400.00	1,385.69	1,318.69	1,385.69	6.90	44.41	-119.00	-4,570.84	-6,346.30	7,899.37	7,848.06	51.31	153.965		
1,500.00	1,483.70	1,416.70	1,483.70	7.33	47.82	-119.12	-4,570.84	-6,346.30	7,909.16	7,854.02	55.14	143.442		
1,600.00	1,581.71	1,514.71	1,581.71	7.76	51.24	-119.25	-4,570.84	-6,346.30	7,918.99	7,860.02	58.98	134.269		
1,700.00	1,679.72	1,612.72	1,679.72	8.19	54.65	-119.37	-4,570.84	-6,346.30	7,928.86	7,866.04	62.83	126.204		
1,800.00	1,777.73	1,710.73	1,777.73	8.63	58.07	-119.49	-4,570.84	-6,346.30	7,938.77	7,872.09	66.68	119.060		
1,900.00	1,875.74	1,808.74	1,875.74	9.08	61.49	-119.62	-4,570.84	-6,346.30	7,948.71	7,878.18	70.54	112.690		
2,000.00	1,973.75	1,906.75	1,973.75	9.53	64.90	-119.74	-4,570.84	-6,346.30	7,958.70	7,884.30	74.40	106.974		
2,100.00	2,071.76	2,004.76	2,071.76	9.98	68.32	-119.86	-4,570.84	-6,346.30	7,968.71	7,890.45	78.26	101.819		
2,200.00	2,169.77	2,102.77	2,169.77	10.44	71.74	-119.98	-4,570.84	-6,346.30	7,978.77	7,896.64	82.13	97.145		
2,300.00	2,267.77	2,200.77	2,267.77	10.90	75.16	-120.11	-4,570.84	-6,346.30	7,988.86	7,902.86	86.00	92.889		
2,400.00	2,365.78	2,301.22	2,365.78	11.36	78.66	-120.23	-4,570.84	-6,346.30	7,998.99	7,909.02	89.96	88.915		
2,500.00	2,463.79	2,403.21	2,463.79	11.82	82.22	-120.35	-4,570.84	-6,346.30	8,009.15	7,915.17	93.98	85.224		
2,600.00	2,561.80	2,505.20	2,561.80	12.28	85.77	-120.47	-4,570.84	-6,346.30	8,019.35	7,921.36	97.99	81.835		
2,700.00	2,659.81	2,607.19	2,659.81	12.75	89.33	-120.59	-4,570.84	-6,346.30	8,029.59	7,927.58	102.01	78.712		
2,800.00	2,757.82	2,709.18	2,757.82	13.21	92.89	-120.71	-4,570.84	-6,346.30	8,039.86	7,933.83	106.03	75.825		
2,900.00	2,855.83	2,788.83	2,855.83	13.68	95.67	-120.83	-4,570.84	-6,346.30	8,050.17	7,940.90	109.27	73.670		
3,000.00	2,953.84	2,886.84	2,953.84	14.15	99.09	-120.95	-4,570.84	-6,346.30	8,060.52	7,947.36	113.16	71.233		
3,100.00	3,051.85	2,984.85	3,051.85	14.62	102.51	-121.07	-4,570.84	-6,346.30	8,070.90	7,953.85	117.04	68.958		
3,200.00	3,149.85	3,082.85	3,149.85	15.09	105.93	-121.19	-4,570.84	-6,346.30	8,081.31	7,960.38	120.93	66.828		
3,300.00	3,247.86	3,180.86	3,247.86	15.56	109.35	-121.30	-4,570.84	-6,346.30	8,091.76	7,966.95	124.81	64.831		
3,400.00	3,345.87	3,278.87	3,345.87	16.04	112.77	-121.42	-4,570.84	-6,346.30	8,102.25	7,973.55	128.70	62.955		
3,500.00	3,443.88	3,376.88	3,443.88	16.51	116.19	-121.54	-4,570.84	-6,346.30	8,112.77	7,980.18	132.59	61.188		
3,600.00	3,541.89	3,474.89	3,541.89	16.98	119.61	-121.66	-4,570.84	-6,346.30	8,123.32	7,986.85	136.48	59.522		
3,700.00	3,639.90	3,572.90	3,639.90	17.46	123.03	-121.78	-4,570.84	-6,346.30	8,133.92	7,993.55	140.36	57.948		
3,800.00	3,737.91	3,670.91	3,737.91	17.93	126.45	-121.89	-4,570.84	-6,346.30	8,144.54	8,000.29	144.25	56.460		
3,900.00	3,835.92	3,768.92	3,835.92	18.41	129.87	-122.01	-4,570.84	-6,346.30	8,155.20	8,007.06	148.14	55.049		
4,000.00	3,933.93	3,866.93	3,933.93	18.88	133.29	-122.13	-4,570.84	-6,346.30	8,165.89	8,013.86	152.03	53.711		
4,100.00	4,031.93	3,964.93	4,031.93	19.36	136.71	-122.24	-4,570.84	-6,346.30	8,176.62	8,020.70	155.92	52.440		
4,200.00	4,129.94	4,062.94	4,129.94	19.84	140.13	-122.36	-4,570.84	-6,346.30	8,187.39	8,027.57	159.82	51.230		
4,300.00	4,227.95	4,160.95	4,227.95	20.31	143.55	-122.47	-4,570.84	-6,346.30	8,198.18	8,034.48	163.71	50.078		
4,400.00	4,325.96	4,258.96	4,325.96	20.79	146.97	-122.59	-4,570.84	-6,346.30	8,209.01	8,041.41	167.60	48.980		
4,500.00	4,423.97	4,356.97	4,423.97	21.27	150.39	-122.70	-4,570.84	-6,346.30	8,219.88	8,048.39	171.49	47.932		
4,600.00	4,521.98	4,454.98	4,521.98	21.75	153.81	-122.82	-4,570.84	-6,346.30	8,230.77	8,055.39	175.38	46.930		
4,700.00	4,619.99	4,552.99	4,619.99	22.23	157.23	-122.93	-4,570.84	-6,346.30	8,241.71	8,062.43	179.28	45.972		
4,800.00	4,718.00	4,651.00	4,718.00	22.70	160.65	-123.05	-4,570.84	-6,346.30	8,252.67	8,069.50	183.17	45.055		
4,900.00	4,816.01	4,749.01	4,816.01	23.18	164.08	-123.16	-4,570.84	-6,346.30	8,263.67	8,076.61	187.06	44.176		
5,000.00	4,914.01	4,847.01	4,914.01	23.66	167.50	-123.27	-4,570.84	-6,346.30	8,274.70	8,083.74	190.95	43.333		
5,100.00	5,012.02	4,945.02	5,012.02	24.14	170.92	-123.39	-4,570.84	-6,346.30	8,285.76	8,090.91	194.85	42.524		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,043.03	5,110.03	24.62	174.34	-123.50	-4,570.84	-6,346.30	8,296.86	8,098.12	198.74	41.747		
5,300.00	5,208.04	5,141.04	5,208.04	25.10	177.76	-123.61	-4,570.84	-6,346.30	8,307.99	8,105.35	202.63	41.000		
5,400.00	5,306.05	5,239.05	5,306.05	25.58	181.18	-123.72	-4,570.84	-6,346.30	8,319.15	8,112.62	206.53	40.281		
5,500.00	5,404.06	5,337.06	5,404.06	26.06	184.60	-123.84	-4,570.84	-6,346.30	8,330.34	8,119.92	210.42	39.589		
5,600.00	5,502.07	5,435.07	5,502.07	26.54	188.02	-123.95	-4,570.84	-6,346.30	8,341.57	8,127.25	214.32	38.922		
5,700.00	5,600.08	5,533.08	5,600.08	27.02	191.44	-124.06	-4,570.84	-6,346.30	8,352.83	8,134.62	218.21	38.279		
5,800.00	5,698.09	5,631.09	5,698.09	27.50	194.86	-124.17	-4,570.84	-6,346.30	8,364.12	8,142.01	222.10	37.659		
5,900.00	5,796.09	5,729.09	5,796.09	27.98	198.28	-124.28	-4,570.84	-6,346.30	8,375.44	8,149.44	226.00	37.060		
6,000.00	5,894.10	5,827.10	5,894.10	28.46	201.71	-124.39	-4,570.84	-6,346.30	8,386.79	8,156.90	229.89	36.481		
6,100.00	5,992.11	5,925.11	5,992.11	28.94	205.13	-124.50	-4,570.84	-6,346.30	8,398.18	8,164.39	233.79	35.922		
6,200.00	6,090.12	6,023.12	6,090.12	29.42	208.55	-124.61	-4,570.84	-6,346.30	8,409.59	8,171.91	237.68	35.382		
6,300.00	6,188.13	6,121.13	6,188.13	29.90	211.97	-124.72	-4,570.84	-6,346.30	8,421.04	8,179.46	241.58	34.859		
6,400.00	6,286.14	6,219.14	6,286.14	30.38	215.39	-124.83	-4,570.84	-6,346.30	8,432.52	8,187.05	245.47	34.353		
6,500.00	6,384.15	6,317.15	6,384.15	30.87	218.81	-124.94	-4,570.84	-6,346.30	8,444.03	8,194.67	249.36	33.862		
6,600.00	6,482.15	6,415.15	6,482.15	31.35	222.23	-116.43	-4,570.84	-6,346.30	8,455.34	8,202.08	253.26	33.386		
6,700.00	6,579.21	6,512.21	6,579.21	31.83	225.62	-85.35	-4,570.84	-6,346.30	8,458.76	8,201.63	257.13	32.897		
6,800.00	6,673.04	6,606.04	6,673.04	32.30	228.90	-71.49	-4,570.84	-6,346.30	8,450.57	8,189.68	260.89	32.392		
6,900.00	6,761.33	6,705.67	6,761.33	32.74	232.37	-65.67	-4,570.84	-6,346.30	8,431.08	8,166.23	264.85	31.834		
7,000.00	6,841.90	6,774.90	6,841.90	33.17	234.79	-63.84	-4,570.84	-6,346.30	8,400.90	8,133.14	267.76	31.375		
7,100.00	6,912.77	6,845.77	6,912.77	33.60	237.26	-64.52	-4,570.84	-6,346.30	8,360.91	8,090.15	270.76	30.880		
7,200.00	6,972.19	6,905.19	6,972.19	34.09	239.34	-67.15	-4,570.84	-6,346.30	8,312.24	8,038.83	273.41	30.402		
7,300.00	7,018.70	6,951.70	7,018.70	34.73	240.96	-71.48	-4,570.84	-6,346.30	8,256.19	7,980.51	275.68	29.948		
7,400.00	7,051.15	6,984.15	7,051.15	35.55	242.09	-77.39	-4,570.84	-6,346.30	8,194.25	7,916.71	277.55	29.524		
7,500.00	7,068.75	7,001.75	7,068.75	36.56	242.71	-84.67	-4,570.84	-6,346.30	8,128.00	7,849.02	278.97	29.135		
7,600.00	7,071.91	7,004.91	7,071.91	37.71	242.82	-90.16	-4,570.84	-6,346.30	8,059.18	7,779.22	279.96	28.787		
7,700.00	7,071.62	7,004.62	7,071.62	39.03	242.81	-90.15	-4,570.84	-6,346.30	7,990.43	7,709.50	280.93	28.443		
7,800.00	7,071.34	7,004.34	7,071.34	40.51	242.80	-90.15	-4,570.84	-6,346.30	7,922.35	7,640.34	282.01	28.093		
7,900.00	7,071.05	7,004.05	7,071.05	42.14	242.79	-90.15	-4,570.84	-6,346.30	7,854.95	7,571.76	283.20	27.737		
8,000.00	7,070.77	7,003.77	7,070.77	43.89	242.78	-90.14	-4,570.84	-6,346.30	7,788.26	7,503.77	284.49	27.376		
8,100.00	7,070.48	7,003.48	7,070.48	45.76	242.77	-90.14	-4,570.84	-6,346.30	7,722.28	7,436.39	285.89	27.012		
8,200.00	7,070.20	7,003.20	7,070.20	47.72	242.76	-90.14	-4,570.84	-6,346.30	7,657.04	7,369.66	287.38	26.644		
8,300.00	7,069.92	7,002.92	7,069.92	49.78	242.75	-90.14	-4,570.84	-6,346.30	7,592.55	7,303.59	288.97	26.275		
8,400.00	7,069.63	7,002.63	7,069.63	51.90	242.74	-90.13	-4,570.84	-6,346.30	7,528.85	7,238.20	290.64	25.904		
8,500.00	7,069.35	7,002.35	7,069.35	54.10	242.73	-90.13	-4,570.84	-6,346.30	7,465.93	7,173.53	292.41	25.533		
8,600.00	7,069.06	7,002.06	7,069.06	56.36	242.72	-90.13	-4,570.84	-6,346.30	7,403.84	7,109.58	294.25	25.161		
8,700.00	7,068.78	7,001.78	7,068.78	58.66	242.71	-90.13	-4,570.84	-6,346.30	7,342.58	7,046.40	296.18	24.791		
8,800.00	7,068.49	7,001.49	7,068.49	61.02	242.70	-90.12	-4,570.84	-6,346.30	7,282.18	6,984.00	298.18	24.422		
8,900.00	7,068.21	7,001.21	7,068.21	63.42	242.69	-90.12	-4,570.84	-6,346.30	7,222.66	6,922.40	300.26	24.055		
9,000.00	7,067.92	7,000.92	7,067.92	65.85	242.68	-90.12	-4,570.84	-6,346.30	7,164.04	6,861.64	302.40	23.691		
9,100.00	7,067.64	7,000.64	7,067.64	68.32	242.67	-90.11	-4,570.84	-6,346.30	7,106.34	6,801.73	304.61	23.329		
9,200.00	7,067.35	7,000.35	7,067.35	70.81	242.66	-90.11	-4,570.84	-6,346.30	7,049.59	6,742.70	306.89	22.971		
9,300.00	7,067.07	7,000.07	7,067.07	73.34	242.65	-90.11	-4,570.84	-6,346.30	6,993.81	6,684.59	309.22	22.617		
9,400.00	7,066.78	7,000.22	7,066.78	75.88	242.65	-90.11	-4,570.84	-6,346.30	6,939.02	6,627.39	311.63	22.267		
9,500.00	7,066.50	7,000.50	7,066.50	78.45	242.66	-90.10	-4,570.84	-6,346.30	6,885.25	6,571.14	314.11	21.920		
9,600.00	7,066.21	7,000.79	7,066.21	81.04	242.67	-90.10	-4,570.84	-6,346.30	6,832.52	6,515.88	316.63	21.579		
9,700.00	7,065.93	7,001.07	7,065.93	83.64	242.68	-90.10	-4,570.84	-6,346.30	6,780.85	6,461.64	319.21	21.242		
9,800.00	7,065.64	7,001.36	7,065.64	86.26	242.69	-90.09	-4,570.84	-6,346.30	6,730.28	6,408.43	321.84	20.912		
9,900.00	7,065.36	7,001.64	7,065.36	88.90	242.70	-90.09	-4,570.84	-6,346.30	6,680.81	6,356.29	324.52	20.587		
10,000.00	7,065.07	7,001.93	7,065.07	91.55	242.71	-90.09	-4,570.84	-6,346.30	6,632.49	6,305.25	327.24	20.268		
10,100.00	7,064.79	7,002.21	7,064.79	94.21	242.72	-90.09	-4,570.84	-6,346.30	6,585.33	6,255.32	330.01	19.955		
10,200.00	7,064.50	7,002.50	7,064.50	96.88	242.73	-90.08	-4,570.84	-6,346.30	6,539.36	6,206.54	332.82	19.649		
10,300.00	7,064.22	7,002.78	7,064.22	99.57	242.74	-90.08	-4,570.84	-6,346.30	6,494.60	6,158.94	335.66	19.349		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	7,003.07	7,063.94	102.26	242.75	-90.08	-4,570.84	-6,346.30	6,451.09	6,112.54	338.54	19.055		
10,500.00	7,063.65	7,003.35	7,063.65	104.96	242.76	-90.07	-4,570.84	-6,346.30	6,408.83	6,067.37	341.46	18.769		
10,600.00	7,063.37	7,003.63	7,063.37	107.67	242.77	-90.07	-4,570.84	-6,346.30	6,367.87	6,023.47	344.41	18.489		
10,700.00	7,063.08	7,003.92	7,063.08	110.39	242.78	-90.07	-4,570.84	-6,346.30	6,328.23	5,980.84	347.38	18.217		
10,800.00	7,062.80	7,004.20	7,062.80	113.11	242.79	-90.07	-4,570.84	-6,346.30	6,289.92	5,939.53	350.39	17.951		
10,900.00	7,062.51	7,004.49	7,062.51	115.84	242.80	-90.06	-4,570.84	-6,346.30	6,252.98	5,899.57	353.41	17.693		
11,000.00	7,062.23	7,004.77	7,062.23	118.58	242.81	-90.06	-4,570.84	-6,346.30	6,217.43	5,860.96	356.46	17.442		
11,100.00	7,061.94	7,005.06	7,061.94	121.32	242.82	-90.06	-4,570.84	-6,346.30	6,183.29	5,823.76	359.53	17.198		
11,200.00	7,061.66	7,005.34	7,061.66	124.07	242.83	-90.06	-4,570.84	-6,346.30	6,150.58	5,787.97	362.61	16.962		
11,300.00	7,061.37	7,005.63	7,061.37	126.82	242.84	-90.05	-4,570.84	-6,346.30	6,119.34	5,753.64	365.70	16.733		
11,400.00	7,061.09	7,005.91	7,061.09	129.58	242.85	-90.05	-4,570.84	-6,346.30	6,089.58	5,720.77	368.81	16.512		
11,500.00	7,060.80	7,006.20	7,060.80	132.34	242.86	-90.05	-4,570.84	-6,346.30	6,061.32	5,689.40	371.92	16.297		
11,600.00	7,060.52	7,006.48	7,060.52	135.10	242.87	-90.04	-4,570.84	-6,346.30	6,034.59	5,659.56	375.03	16.091		
11,700.00	7,060.23	7,006.77	7,060.23	137.87	242.88	-90.04	-4,570.84	-6,346.30	6,009.40	5,631.25	378.15	15.892		
11,800.00	7,059.95	7,007.05	7,059.95	140.64	242.89	-90.04	-4,570.84	-6,346.30	5,985.78	5,604.52	381.26	15.700		
11,900.00	7,059.66	7,007.34	7,059.66	143.42	242.90	-90.04	-4,570.84	-6,346.30	5,963.74	5,579.38	384.36	15.516		
12,000.00	7,059.38	7,007.62	7,059.38	146.20	242.91	-90.03	-4,570.84	-6,346.30	5,943.30	5,555.85	387.46	15.339		
12,100.00	7,059.09	7,007.91	7,059.09	148.98	242.92	-90.03	-4,570.84	-6,346.30	5,924.48	5,533.94	390.54	15.170		
12,200.00	7,058.81	7,008.19	7,058.81	151.77	242.93	-90.03	-4,570.84	-6,346.30	5,907.29	5,513.69	393.60	15.008		
12,300.00	7,058.52	7,008.48	7,058.52	154.55	242.94	-90.02	-4,570.84	-6,346.30	5,891.75	5,495.11	396.65	14.854		
12,400.00	7,058.24	7,008.76	7,058.24	157.34	242.95	-90.02	-4,570.84	-6,346.30	5,877.87	5,478.20	399.67	14.707		
12,500.00	7,057.96	7,009.05	7,057.96	160.14	242.96	-90.02	-4,570.84	-6,346.30	5,865.67	5,463.00	402.67	14.567		
12,600.00	7,057.67	7,009.33	7,057.67	162.93	242.97	-90.02	-4,570.84	-6,346.30	5,855.14	5,449.51	405.63	14.435		
12,700.00	7,057.39	7,009.61	7,057.39	165.73	242.98	-90.01	-4,570.84	-6,346.30	5,846.31	5,437.74	408.57	14.309		
12,800.00	7,057.10	7,009.90	7,057.10	168.53	242.99	-90.01	-4,570.84	-6,346.30	5,839.18	5,427.71	411.46	14.191		
12,900.00	7,056.82	6,989.82	7,056.82	171.33	242.99	-90.01	-4,570.84	-6,346.30	5,833.75	5,420.14	413.61	14.104		
13,000.00	7,056.53	6,989.53	7,056.53	174.13	242.28	-90.00	-4,570.84	-6,346.30	5,830.03	5,413.62	416.41	14.001		
13,100.00	7,056.25	6,989.25	7,056.25	176.94	242.27	-90.00	-4,570.84	-6,346.30	5,828.03	5,408.87	419.16	13.904		
13,166.79	7,056.06	6,989.06	7,056.06	178.81	242.27	-90.00	-4,570.84	-6,346.30	5,827.65	5,406.67	420.97	13.843 CC		
13,200.00	7,055.96	6,988.96	7,055.96	179.74	242.26	-90.00	-4,570.84	-6,346.30	5,827.74	5,405.87	421.87	13.814		
13,300.00	7,055.68	6,988.68	7,055.68	182.55	242.25	-90.00	-4,570.84	-6,346.30	5,829.17	5,404.65	424.52	13.731 ES		
13,400.00	7,055.39	6,988.39	7,055.39	185.36	242.24	-89.99	-4,570.84	-6,346.30	5,832.31	5,405.18	427.13	13.655		
13,500.00	7,055.11	6,988.11	7,055.11	188.17	242.23	-89.99	-4,570.84	-6,346.30	5,837.16	5,407.49	429.67	13.585		
13,600.00	7,054.82	6,987.82	7,054.82	190.98	242.22	-89.99	-4,570.84	-6,346.30	5,843.72	5,411.56	432.17	13.522		
13,700.00	7,054.54	6,987.54	7,054.54	193.80	242.21	-89.99	-4,570.84	-6,346.30	5,851.99	5,417.39	434.60	13.465		
13,800.00	7,054.25	6,987.25	7,054.25	196.61	242.20	-89.98	-4,570.84	-6,346.30	5,861.95	5,424.97	436.97	13.415		
13,900.00	7,053.97	6,986.97	7,053.97	199.43	242.19	-89.98	-4,570.84	-6,346.30	5,873.59	5,434.30	439.28	13.371		
14,000.00	7,053.68	6,986.68	7,053.68	202.25	242.18	-89.98	-4,570.84	-6,346.30	5,886.91	5,445.38	441.53	13.333		
14,100.00	7,053.40	6,986.40	7,053.40	205.06	242.17	-89.97	-4,570.84	-6,346.30	5,901.89	5,458.18	443.72	13.301		
14,200.00	7,053.11	6,986.11	7,053.11	207.88	242.16	-89.97	-4,570.84	-6,346.30	5,918.53	5,472.69	445.83	13.275		
14,300.00	7,052.83	6,985.83	7,052.83	210.70	242.15	-89.97	-4,570.84	-6,346.30	5,936.80	5,488.91	447.89	13.255		
14,400.00	7,052.54	6,985.54	7,052.54	213.53	242.14	-89.97	-4,570.84	-6,346.30	5,956.70	5,506.83	449.87	13.241		
14,500.00	7,052.26	6,985.26	7,052.26	216.35	242.13	-89.96	-4,570.84	-6,346.30	5,978.20	5,526.41	451.79	13.232		
14,600.00	7,051.98	6,984.98	7,051.98	219.17	242.12	-89.96	-4,570.84	-6,346.30	6,001.29	5,547.65	453.64	13.229 SF		
14,700.00	7,051.69	6,984.69	7,051.69	222.00	242.11	-89.96	-4,570.84	-6,346.30	6,025.96	5,570.54	455.42	13.232		
14,800.00	7,051.41	6,984.41	7,051.41	224.82	242.10	-89.95	-4,570.84	-6,346.30	6,052.17	5,595.04	457.14	13.239		
14,900.00	7,051.12	6,984.12	7,051.12	227.65	242.09	-89.95	-4,570.84	-6,346.30	6,079.92	5,621.14	458.79	13.252		
14,942.37	7,051.00	6,984.00	7,051.00	228.85	242.09	-89.95	-4,570.84	-6,346.30	6,092.14	5,632.67	459.46	13.259		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	20.00	3.28	3.28	-70.69	2,228.19	-6,358.73	6,737.86				
100.00	100.00	80.00	100.00	3.28	3.56	-70.69	2,228.19	-6,358.73	6,737.83	6,730.98	6.85	983.684	
200.00	200.00	180.00	200.00	3.34	5.60	-70.69	2,228.19	-6,358.73	6,737.83	6,728.89	8.94	753.963	
300.00	300.00	280.00	300.00	3.44	8.67	-70.69	2,228.19	-6,358.73	6,737.83	6,725.71	12.12	556.003	
400.00	399.98	379.98	399.98	3.60	11.98	-63.41	2,228.19	-6,358.73	6,737.05	6,721.47	15.58	432.401	
500.00	499.84	479.84	499.84	3.81	15.36	-63.50	2,228.19	-6,358.73	6,734.71	6,715.54	19.17	351.395	
600.00	599.45	579.45	599.45	4.06	18.77	-63.63	2,228.19	-6,358.73	6,730.81	6,707.99	22.82	294.968	
700.00	698.70	678.70	698.70	4.34	22.19	-63.82	2,228.19	-6,358.73	6,725.39	6,698.87	26.51	253.660	
800.00	797.47	777.47	797.47	4.64	25.61	-64.06	2,228.19	-6,358.73	6,718.44	6,688.21	30.23	222.219	
900.00	895.65	875.65	895.65	4.98	29.01	-64.32	2,228.19	-6,358.73	6,710.07	6,676.11	33.97	197.538	
1,000.00	993.66	973.66	993.66	5.32	32.41	-64.47	2,228.19	-6,358.73	6,701.35	6,663.63	37.72	177.643	
1,100.00	1,091.67	1,071.67	1,091.67	5.69	35.82	-64.62	2,228.19	-6,358.73	6,692.68	6,651.17	41.50	161.264	
1,200.00	1,189.68	1,169.68	1,189.68	6.09	39.23	-64.77	2,228.19	-6,358.73	6,684.05	6,638.75	45.30	147.561	
1,300.00	1,287.69	1,267.69	1,287.69	6.49	42.64	-64.92	2,228.19	-6,358.73	6,675.47	6,626.36	49.11	135.938	
1,400.00	1,385.69	1,365.69	1,385.69	6.90	46.05	-65.07	2,228.19	-6,358.73	6,666.94	6,614.01	52.93	125.961	
1,500.00	1,483.70	1,463.70	1,483.70	7.33	49.46	-65.23	2,228.19	-6,358.73	6,658.45	6,601.69	56.76	117.308	
1,600.00	1,581.71	1,561.71	1,581.71	7.76	52.88	-65.38	2,228.19	-6,358.73	6,650.02	6,589.42	60.60	109.735	
1,700.00	1,679.72	1,659.72	1,679.72	8.19	56.29	-65.53	2,228.19	-6,358.73	6,641.63	6,577.18	64.45	103.055	
1,800.00	1,777.73	1,757.73	1,777.73	8.63	59.71	-65.68	2,228.19	-6,358.73	6,633.29	6,564.99	68.30	97.119	
1,900.00	1,875.74	1,855.74	1,875.74	9.08	63.12	-65.84	2,228.19	-6,358.73	6,625.01	6,552.85	72.16	91.812	
2,000.00	1,973.75	1,953.75	1,973.75	9.53	66.54	-65.99	2,228.19	-6,358.73	6,616.77	6,540.75	76.02	87.039	
2,100.00	2,071.76	2,051.76	2,071.76	9.98	69.96	-66.15	2,228.19	-6,358.73	6,608.58	6,528.69	79.89	82.725	
2,200.00	2,169.77	2,149.77	2,169.77	10.44	73.38	-66.30	2,228.19	-6,358.73	6,600.44	6,516.68	83.76	78.806	
2,300.00	2,267.77	2,247.77	2,267.77	10.90	76.79	-66.46	2,228.19	-6,358.73	6,592.35	6,504.72	87.63	75.231	
2,400.00	2,365.78	2,345.78	2,365.78	11.36	80.21	-66.61	2,228.19	-6,358.73	6,584.30	6,492.80	91.50	71.957	
2,500.00	2,463.79	2,443.79	2,463.79	11.82	83.63	-66.77	2,228.19	-6,358.73	6,576.31	6,480.93	95.38	68.949	
2,600.00	2,561.80	2,541.80	2,561.80	12.28	87.05	-66.93	2,228.19	-6,358.73	6,568.37	6,469.11	99.26	66.174	
2,700.00	2,659.81	2,639.81	2,659.81	12.75	90.47	-67.08	2,228.19	-6,358.73	6,560.48	6,457.34	103.14	63.608	
2,800.00	2,757.82	2,737.82	2,757.82	13.21	93.89	-67.24	2,228.19	-6,358.73	6,552.64	6,445.62	107.02	61.227	
2,900.00	2,855.83	2,835.83	2,855.83	13.68	97.31	-67.40	2,228.19	-6,358.73	6,544.86	6,433.95	110.91	59.013	
3,000.00	2,953.84	2,933.84	2,953.84	14.15	100.73	-67.56	2,228.19	-6,358.73	6,537.12	6,422.33	114.79	56.948	
3,100.00	3,051.85	3,031.85	3,051.85	14.62	104.15	-67.71	2,228.19	-6,358.73	6,529.43	6,410.76	118.68	55.018	
3,200.00	3,149.85	3,129.85	3,149.85	15.09	107.57	-67.87	2,228.19	-6,358.73	6,521.80	6,399.23	122.57	53.211	
3,300.00	3,247.86	3,227.86	3,247.86	15.56	110.99	-68.03	2,228.19	-6,358.73	6,514.22	6,387.76	126.45	51.515	
3,400.00	3,345.87	3,325.87	3,345.87	16.04	114.41	-68.19	2,228.19	-6,358.73	6,506.68	6,376.34	130.34	49.920	
3,500.00	3,443.88	3,423.88	3,443.88	16.51	117.83	-68.35	2,228.19	-6,358.73	6,499.21	6,364.97	134.23	48.417	
3,600.00	3,541.89	3,521.89	3,541.89	16.98	121.25	-68.51	2,228.19	-6,358.73	6,491.78	6,353.65	138.12	46.999	
3,700.00	3,639.90	3,619.90	3,639.90	17.46	124.67	-68.67	2,228.19	-6,358.73	6,484.40	6,342.39	142.02	45.659	
3,800.00	3,737.91	3,717.91	3,737.91	17.93	128.09	-68.83	2,228.19	-6,358.73	6,477.08	6,331.17	145.91	44.391	
3,900.00	3,835.92	3,815.92	3,835.92	18.41	131.51	-68.99	2,228.19	-6,358.73	6,469.81	6,320.01	149.80	43.189	
4,000.00	3,933.93	3,913.93	3,933.93	18.88	134.93	-69.15	2,228.19	-6,358.73	6,462.59	6,308.90	153.70	42.048	
4,100.00	4,031.93	4,011.93	4,031.93	19.36	138.35	-69.32	2,228.19	-6,358.73	6,455.43	6,297.84	157.59	40.963	
4,200.00	4,129.94	4,109.94	4,129.94	19.84	141.77	-69.48	2,228.19	-6,358.73	6,448.32	6,286.83	161.49	39.931	
4,300.00	4,227.95	4,207.95	4,227.95	20.31	145.19	-69.64	2,228.19	-6,358.73	6,441.26	6,275.88	165.38	38.948	
4,400.00	4,325.96	4,305.96	4,325.96	20.79	148.61	-69.80	2,228.19	-6,358.73	6,434.26	6,264.98	169.28	38.010	
4,500.00	4,423.97	4,403.97	4,423.97	21.27	152.03	-69.97	2,228.19	-6,358.73	6,427.31	6,254.13	173.17	37.115	
4,600.00	4,521.98	4,501.98	4,521.98	21.75	155.45	-70.13	2,228.19	-6,358.73	6,420.41	6,243.34	177.07	36.259	
4,700.00	4,619.99	4,600.01	4,619.99	22.23	158.88	-70.29	2,228.19	-6,358.73	6,413.57	6,232.60	180.97	35.440	
4,800.00	4,718.00	4,702.00	4,718.00	22.70	162.43	-70.46	2,228.19	-6,358.73	6,406.78	6,221.78	185.00	34.630	
4,900.00	4,816.01	4,803.99	4,816.01	23.18	165.99	-70.62	2,228.19	-6,358.73	6,400.05	6,211.01	189.04	33.855	
5,000.00	4,914.01	4,905.99	4,914.01	23.66	169.55	-70.79	2,228.19	-6,358.73	6,393.37	6,200.29	193.08	33.113	
5,100.00	5,012.02	5,007.98	5,012.02	24.14	173.11	-70.95	2,228.19	-6,358.73	6,386.74	6,189.63	197.12	32.401	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,109.97	5,110.03	24.62	176.67	-71.12	2,228.19	-6,358.73	6,380.17	6,179.02	201.15	31.718		
5,300.00	5,208.04	5,188.04	5,208.04	25.10	179.40	-71.29	2,228.19	-6,358.73	6,373.66	6,169.30	204.36	31.189		
5,400.00	5,306.05	5,286.05	5,306.05	25.58	182.82	-71.45	2,228.19	-6,358.73	6,367.20	6,158.94	208.26	30.574		
5,500.00	5,404.06	5,384.06	5,404.06	26.06	186.24	-71.62	2,228.19	-6,358.73	6,360.80	6,148.64	212.16	29.982		
5,600.00	5,502.07	5,482.07	5,502.07	26.54	189.66	-71.78	2,228.19	-6,358.73	6,354.45	6,138.39	216.06	29.411		
5,700.00	5,600.08	5,580.08	5,600.08	27.02	193.08	-71.95	2,228.19	-6,358.73	6,348.16	6,128.20	219.96	28.861		
5,800.00	5,698.09	5,678.09	5,698.09	27.50	196.50	-72.12	2,228.19	-6,358.73	6,341.92	6,118.06	223.86	28.330		
5,900.00	5,796.09	5,776.09	5,796.09	27.98	199.93	-72.29	2,228.19	-6,358.73	6,335.74	6,107.98	227.76	27.818		
6,000.00	5,894.10	5,874.10	5,894.10	28.46	203.35	-72.46	2,228.19	-6,358.73	6,329.62	6,097.96	231.66	27.323		
6,100.00	5,992.11	5,972.11	5,992.11	28.94	206.77	-72.62	2,228.19	-6,358.73	6,323.55	6,087.99	235.56	26.845		
6,200.00	6,090.12	6,070.12	6,090.12	29.42	210.19	-72.79	2,228.19	-6,358.73	6,317.54	6,078.08	239.46	26.382		
6,300.00	6,188.13	6,168.13	6,188.13	29.90	213.61	-72.96	2,228.19	-6,358.73	6,311.58	6,068.22	243.36	25.935		
6,400.00	6,286.14	6,266.14	6,286.14	30.38	217.03	-73.13	2,228.19	-6,358.73	6,305.69	6,058.42	247.26	25.502		
6,500.00	6,384.15	6,364.15	6,384.15	30.87	220.45	-73.30	2,228.19	-6,358.73	6,299.85	6,048.68	251.17	25.082		
6,600.00	6,482.15	6,462.15	6,482.15	31.35	223.87	-64.95	2,228.19	-6,358.73	6,293.76	6,038.69	255.07	24.675		
6,700.00	6,579.21	6,559.21	6,579.21	31.83	227.26	-33.82	2,228.19	-6,358.73	6,277.32	6,018.39	258.93	24.243		
6,800.00	6,673.04	6,653.04	6,673.04	32.30	230.54	-18.86	2,228.19	-6,358.73	6,245.92	5,983.27	262.65	23.780		
6,900.00	6,761.33	6,741.33	6,761.33	32.74	233.62	-10.80	2,228.19	-6,358.73	6,200.33	5,934.18	266.14	23.297		
7,000.00	6,841.90	6,821.90	6,841.90	33.17	236.43	-5.40	2,228.19	-6,358.73	6,141.63	5,872.32	269.31	22.805		
7,100.00	6,912.77	6,907.23	6,912.77	33.60	239.41	-0.82	2,228.19	-6,358.73	6,071.28	5,798.69	272.59	22.273		
7,200.00	6,972.19	6,952.19	6,972.19	34.09	240.98	4.20	2,228.19	-6,358.73	5,990.98	5,716.61	274.38	21.835		
7,300.00	7,018.70	7,001.30	7,018.70	34.73	242.69	11.38	2,228.19	-6,358.73	5,902.73	5,626.50	276.24	21.368		
7,400.00	7,051.15	7,031.15	7,051.15	35.55	243.73	24.86	2,228.19	-6,358.73	5,808.71	5,531.36	277.35	20.943		
7,500.00	7,068.75	7,048.75	7,068.75	36.56	244.35	56.56	2,228.19	-6,358.73	5,711.25	5,433.27	277.98	20.546		
7,600.00	7,071.91	7,051.91	7,071.91	37.71	244.46	90.93	2,228.19	-6,358.73	5,612.73	5,334.67	278.05	20.186		
7,700.00	7,071.62	7,051.62	7,071.62	39.03	244.45	90.91	2,228.19	-6,358.73	5,514.26	5,236.26	278.00	19.835		
7,800.00	7,071.34	7,051.34	7,071.34	40.51	244.44	90.89	2,228.19	-6,358.73	5,415.86	5,137.89	277.97	19.484		
7,900.00	7,071.05	7,051.05	7,071.05	42.14	244.43	90.88	2,228.19	-6,358.73	5,317.51	5,039.57	277.94	19.132		
8,000.00	7,070.77	7,050.77	7,070.77	43.89	244.42	90.86	2,228.19	-6,358.73	5,219.22	4,941.30	277.92	18.780		
8,100.00	7,070.48	7,050.48	7,070.48	45.76	244.41	90.84	2,228.19	-6,358.73	5,121.00	4,843.09	277.92	18.426		
8,200.00	7,070.20	7,050.20	7,070.20	47.72	244.40	90.83	2,228.19	-6,358.73	5,022.85	4,744.93	277.93	18.073		
8,300.00	7,069.92	7,049.92	7,069.92	49.78	244.39	90.81	2,228.19	-6,358.73	4,924.78	4,646.83	277.95	17.718		
8,400.00	7,069.63	7,049.63	7,069.63	51.90	244.38	90.79	2,228.19	-6,358.73	4,826.79	4,548.79	277.99	17.363		
8,500.00	7,069.35	7,049.35	7,069.35	54.10	244.37	90.78	2,228.19	-6,358.73	4,728.87	4,450.82	278.05	17.007		
8,600.00	7,069.06	7,049.06	7,069.06	56.36	244.36	90.76	2,228.19	-6,358.73	4,631.05	4,352.92	278.13	16.650		
8,700.00	7,068.78	7,048.78	7,068.78	58.66	244.35	90.74	2,228.19	-6,358.73	4,533.32	4,255.09	278.24	16.293		
8,800.00	7,068.49	7,048.49	7,068.49	61.02	244.34	90.73	2,228.19	-6,358.73	4,435.70	4,157.33	278.37	15.935		
8,900.00	7,068.21	7,048.21	7,068.21	63.42	244.33	90.71	2,228.19	-6,358.73	4,338.18	4,059.65	278.53	15.575		
9,000.00	7,067.92	7,047.92	7,067.92	65.85	244.32	90.69	2,228.19	-6,358.73	4,240.78	3,962.06	278.72	15.215		
9,100.00	7,067.64	7,047.64	7,067.64	68.32	244.31	90.68	2,228.19	-6,358.73	4,143.50	3,864.55	278.95	14.854		
9,200.00	7,067.35	7,047.35	7,067.35	70.81	244.30	90.66	2,228.19	-6,358.73	4,046.36	3,767.14	279.21	14.492		
9,300.00	7,067.07	7,047.07	7,067.07	73.34	244.29	90.64	2,228.19	-6,358.73	3,949.35	3,669.83	279.52	14.129		
9,400.00	7,066.78	7,046.78	7,066.78	75.88	244.28	90.63	2,228.19	-6,358.73	3,852.50	3,572.62	279.88	13.765		
9,500.00	7,066.50	7,046.50	7,066.50	78.45	244.27	90.61	2,228.19	-6,358.73	3,755.82	3,475.53	280.29	13.400		
9,600.00	7,066.21	7,046.21	7,066.21	81.04	244.26	90.59	2,228.19	-6,358.73	3,659.31	3,378.56	280.76	13.034		
9,700.00	7,065.93	7,045.93	7,065.93	83.64	244.25	90.58	2,228.19	-6,358.73	3,563.00	3,281.71	281.29	12.667		
9,800.00	7,065.64	7,045.64	7,065.64	86.26	244.24	90.56	2,228.19	-6,358.73	3,466.89	3,185.00	281.89	12.299		
9,900.00	7,065.36	7,045.36	7,065.36	88.90	244.23	90.54	2,228.19	-6,358.73	3,371.01	3,088.44	282.57	11.930		
10,000.00	7,065.07	7,045.07	7,065.07	91.55	244.22	90.53	2,228.19	-6,358.73	3,275.38	2,992.05	283.34	11.560		
10,100.00	7,064.79	7,044.79	7,064.79	94.21	244.21	90.51	2,228.19	-6,358.73	3,180.02	2,895.82	284.20	11.190		
10,200.00	7,064.50	7,044.50	7,064.50	96.88	244.20	90.49	2,228.19	-6,358.73	3,084.95	2,799.79	285.16	10.818		
10,300.00	7,064.22	7,044.22	7,064.22	99.57	244.19	90.48	2,228.19	-6,358.73	2,990.20	2,703.97	286.24	10.447		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LOVELY 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	7,043.94	7,063.94	102.26	244.18	90.46	2,228.19	-6,358.73	2,895.81	2,608.37	287.44	10.075		
10,500.00	7,063.65	7,043.65	7,063.65	104.96	244.17	90.44	2,228.19	-6,358.73	2,801.80	2,513.02	288.78	9.702		
10,600.00	7,063.37	7,043.37	7,063.37	107.67	244.16	90.42	2,228.19	-6,358.73	2,708.22	2,417.96	290.27	9.330		
10,700.00	7,063.08	7,043.08	7,063.08	110.39	244.15	90.41	2,228.19	-6,358.73	2,615.12	2,323.20	291.92	8.958		
10,800.00	7,062.80	7,042.80	7,062.80	113.11	244.14	90.39	2,228.19	-6,358.73	2,522.55	2,228.79	293.76	8.587		
10,900.00	7,062.51	7,042.51	7,062.51	115.84	244.13	90.37	2,228.19	-6,358.73	2,430.57	2,134.76	295.80	8.217		
11,000.00	7,062.23	7,042.23	7,062.23	118.58	244.12	90.36	2,228.19	-6,358.73	2,339.24	2,041.18	298.06	7.848		
11,100.00	7,061.94	7,041.94	7,061.94	121.32	244.11	90.34	2,228.19	-6,358.73	2,248.65	1,948.09	300.56	7.481		
11,200.00	7,061.66	7,041.66	7,061.66	124.07	244.10	90.32	2,228.19	-6,358.73	2,158.89	1,855.56	303.33	7.117		
11,300.00	7,061.37	7,041.37	7,061.37	126.82	244.09	90.31	2,228.19	-6,358.73	2,070.07	1,763.68	306.39	6.756		
11,400.00	7,061.09	7,041.09	7,061.09	129.58	244.08	90.29	2,228.19	-6,358.73	1,982.32	1,672.55	309.77	6.399		
11,500.00	7,060.80	7,040.80	7,060.80	132.34	244.07	90.27	2,228.19	-6,358.73	1,895.78	1,582.27	313.51	6.047		
11,600.00	7,060.52	7,040.52	7,060.52	135.10	244.06	90.26	2,228.19	-6,358.73	1,810.63	1,493.00	317.63	5.700		
11,700.00	7,060.23	7,040.23	7,060.23	137.87	244.05	90.24	2,228.19	-6,358.73	1,727.07	1,404.90	322.17	5.361		
11,800.00	7,059.95	7,039.95	7,059.95	140.64	244.04	90.22	2,228.19	-6,358.73	1,645.34	1,318.17	327.17	5.029		
11,900.00	7,059.66	7,039.66	7,059.66	143.42	244.03	90.21	2,228.19	-6,358.73	1,565.74	1,233.08	332.66	4.707		
12,000.00	7,059.38	7,039.38	7,059.38	146.20	244.02	90.19	2,228.19	-6,358.73	1,488.60	1,149.93	338.67	4.395		
12,100.00	7,059.09	7,039.09	7,059.09	148.98	244.01	90.17	2,228.19	-6,358.73	1,414.32	1,069.10	345.23	4.097		
12,200.00	7,058.81	7,038.81	7,058.81	151.77	244.00	90.16	2,228.19	-6,358.73	1,343.39	991.06	352.33	3.813		
12,300.00	7,058.52	7,038.52	7,058.52	154.55	243.99	90.14	2,228.19	-6,358.73	1,276.36	916.39	359.97	3.546		
12,400.00	7,058.24	7,038.24	7,058.24	157.34	243.98	90.12	2,228.19	-6,358.73	1,213.87	845.80	368.07	3.298		
12,500.00	7,057.96	7,037.96	7,057.96	160.14	243.97	90.11	2,228.19	-6,358.73	1,156.66	780.11	376.54	3.072		
12,600.00	7,057.67	7,037.67	7,057.67	162.93	243.96	90.09	2,228.19	-6,358.73	1,105.55	720.35	385.21	2.870		
12,700.00	7,057.39	7,037.39	7,057.39	165.73	243.95	90.07	2,228.19	-6,358.73	1,061.43	667.62	393.81	2.695		
12,800.00	7,057.10	7,037.10	7,057.10	168.53	243.94	90.06	2,228.19	-6,358.73	1,025.19	623.16	402.03	2.550		
12,900.00	7,056.82	7,036.82	7,056.82	171.33	243.93	90.04	2,228.19	-6,358.73	997.70	588.23	409.47	2.437		
13,000.00	7,056.53	7,036.53	7,056.53	174.13	243.92	90.02	2,228.19	-6,358.73	979.69	563.94	415.75	2.356		
13,100.00	7,056.25	7,036.25	7,056.25	176.94	243.91	90.00	2,228.19	-6,358.73	971.69	551.19	420.50	2.311		
13,128.07	7,056.17	7,036.17	7,056.17	177.72	243.91	90.00	2,228.19	-6,358.73	971.28	549.75	421.53	2.304 CC, ES		
13,200.00	7,055.96	7,035.96	7,055.96	179.74	243.90	89.99	2,228.19	-6,358.73	973.94	550.44	423.51	2.300 SF		
13,300.00	7,055.68	7,035.68	7,055.68	182.55	243.89	89.97	2,228.19	-6,358.73	986.38	561.70	424.68	2.323		
13,400.00	7,055.39	7,035.39	7,055.39	185.36	243.88	89.95	2,228.19	-6,358.73	1,008.63	584.50	424.13	2.378		
13,500.00	7,055.11	7,035.11	7,055.11	188.17	243.87	89.94	2,228.19	-6,358.73	1,040.06	617.98	422.08	2.464		
13,600.00	7,054.82	7,034.82	7,054.82	190.98	243.86	89.92	2,228.19	-6,358.73	1,079.87	661.03	418.84	2.578		
13,700.00	7,054.54	7,034.54	7,054.54	193.80	243.85	89.90	2,228.19	-6,358.73	1,127.16	712.42	414.74	2.718		
13,800.00	7,054.25	7,034.25	7,054.25	196.61	243.84	89.89	2,228.19	-6,358.73	1,181.05	770.97	410.08	2.880		
13,900.00	7,053.97	7,033.97	7,053.97	199.43	243.83	89.87	2,228.19	-6,358.73	1,240.67	835.54	405.13	3.062		
14,000.00	7,053.68	7,033.68	7,053.68	202.25	243.82	89.85	2,228.19	-6,358.73	1,305.24	905.16	400.08	3.262		
14,100.00	7,053.40	7,033.40	7,053.40	205.06	243.81	89.84	2,228.19	-6,358.73	1,374.06	978.99	395.07	3.478		
14,200.00	7,053.11	7,033.11	7,053.11	207.88	243.80	89.82	2,228.19	-6,358.73	1,446.52	1,056.32	390.20	3.707		
14,300.00	7,052.83	7,032.83	7,052.83	210.70	243.79	89.80	2,228.19	-6,358.73	1,522.11	1,136.57	385.54	3.948		
14,400.00	7,052.54	7,032.54	7,052.54	213.53	243.78	89.79	2,228.19	-6,358.73	1,600.37	1,219.26	381.11	4.199		
14,500.00	7,052.26	7,032.26	7,052.26	216.35	243.77	89.77	2,228.19	-6,358.73	1,680.94	1,304.00	376.94	4.459		
14,600.00	7,051.98	7,031.98	7,051.98	219.17	243.76	89.75	2,228.19	-6,358.73	1,763.51	1,390.48	373.03	4.728		
14,700.00	7,051.69	7,031.69	7,051.69	222.00	243.75	89.74	2,228.19	-6,358.73	1,847.79	1,478.42	369.37	5.003		
14,800.00	7,051.41	7,031.41	7,051.41	224.82	243.74	89.72	2,228.19	-6,358.73	1,933.58	1,567.62	365.96	5.284		
14,900.00	7,051.12	7,031.12	7,051.12	227.65	243.73	89.70	2,228.19	-6,358.73	2,020.67	1,657.90	362.77	5.570		
14,942.37	7,051.00	7,031.00	7,051.00	228.85	243.73	89.70	2,228.19	-6,358.73	2,057.93	1,696.44	361.49	5.693		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	17.00	3.28	3.28	-74.60	2,163.04	-7,854.99	8,147.39					
100.00	100.00	83.00	100.00	3.28	3.59	-74.60	2,163.04	-7,854.99	8,147.37	8,140.50	6.87	1,185.862		
200.00	200.00	183.00	200.00	3.34	5.68	-74.60	2,163.04	-7,854.99	8,147.37	8,138.35	9.02	903.080		
300.00	300.00	283.00	300.00	3.44	8.77	-74.60	2,163.04	-7,854.99	8,147.37	8,135.16	12.22	666.978		
400.00	399.98	382.98	399.98	3.60	12.08	-67.33	2,163.04	-7,854.99	8,146.70	8,131.02	15.68	519.517		
500.00	499.84	482.84	499.84	3.81	15.46	-67.40	2,163.04	-7,854.99	8,144.68	8,125.42	19.27	422.711		
600.00	599.45	582.45	599.45	4.06	18.88	-67.51	2,163.04	-7,854.99	8,141.33	8,118.41	22.92	355.185		
700.00	698.70	681.70	698.70	4.34	22.30	-67.68	2,163.04	-7,854.99	8,136.66	8,110.04	26.62	305.702		
800.00	797.47	780.47	797.47	4.64	25.71	-67.89	2,163.04	-7,854.99	8,130.68	8,100.34	30.34	268.015		
900.00	895.65	878.65	895.65	4.98	29.11	-68.11	2,163.04	-7,854.99	8,123.47	8,089.40	34.07	238.422		
1,000.00	993.66	976.66	993.66	5.32	32.52	-68.24	2,163.04	-7,854.99	8,115.96	8,078.13	37.83	214.548		
1,100.00	1,091.67	1,074.67	1,091.67	5.69	35.92	-68.37	2,163.04	-7,854.99	8,108.49	8,066.88	41.61	194.884		
1,200.00	1,189.68	1,172.68	1,189.68	6.09	39.33	-68.49	2,163.04	-7,854.99	8,101.06	8,055.66	45.40	178.424		
1,300.00	1,287.69	1,270.69	1,287.69	6.49	42.74	-68.62	2,163.04	-7,854.99	8,093.68	8,044.46	49.21	164.457		
1,400.00	1,385.69	1,368.69	1,385.69	6.90	46.15	-68.75	2,163.04	-7,854.99	8,086.33	8,033.30	53.04	152.465		
1,500.00	1,483.70	1,466.70	1,483.70	7.33	49.57	-68.88	2,163.04	-7,854.99	8,079.03	8,022.16	56.87	142.061		
1,600.00	1,581.71	1,564.71	1,581.71	7.76	52.98	-69.01	2,163.04	-7,854.99	8,071.77	8,011.06	60.71	132.953		
1,700.00	1,679.72	1,662.72	1,679.72	8.19	56.40	-69.14	2,163.04	-7,854.99	8,064.56	8,000.00	64.56	124.917		
1,800.00	1,777.73	1,760.73	1,777.73	8.63	59.81	-69.27	2,163.04	-7,854.99	8,057.38	7,988.97	68.41	117.775		
1,900.00	1,875.74	1,858.74	1,875.74	9.08	63.23	-69.40	2,163.04	-7,854.99	8,050.25	7,977.98	72.27	111.388		
2,000.00	1,973.75	1,956.75	1,973.75	9.53	66.65	-69.53	2,163.04	-7,854.99	8,043.16	7,967.02	76.14	105.643		
2,100.00	2,071.76	2,054.76	2,071.76	9.98	70.06	-69.66	2,163.04	-7,854.99	8,036.11	7,956.11	80.00	100.448		
2,200.00	2,169.77	2,152.77	2,169.77	10.44	73.48	-69.79	2,163.04	-7,854.99	8,029.11	7,945.24	83.87	95.730		
2,300.00	2,267.77	2,250.77	2,267.77	10.90	76.90	-69.92	2,163.04	-7,854.99	8,022.15	7,934.40	87.75	91.425		
2,400.00	2,365.78	2,348.78	2,365.78	11.36	80.32	-70.05	2,163.04	-7,854.99	8,015.23	7,923.61	91.62	87.482		
2,500.00	2,463.79	2,446.79	2,463.79	11.82	83.74	-70.18	2,163.04	-7,854.99	8,008.36	7,912.86	95.50	83.858		
2,600.00	2,561.80	2,544.80	2,561.80	12.28	87.16	-70.31	2,163.04	-7,854.99	8,001.53	7,902.15	99.38	80.515		
2,700.00	2,659.81	2,642.81	2,659.81	12.75	90.57	-70.45	2,163.04	-7,854.99	7,994.74	7,891.48	103.26	77.423		
2,800.00	2,757.82	2,740.82	2,757.82	13.21	93.99	-70.58	2,163.04	-7,854.99	7,988.00	7,880.85	107.14	74.554		
2,900.00	2,855.83	2,838.83	2,855.83	13.68	97.41	-70.71	2,163.04	-7,854.99	7,981.30	7,870.27	111.03	71.885		
3,000.00	2,953.84	2,936.84	2,953.84	14.15	100.83	-70.84	2,163.04	-7,854.99	7,974.64	7,859.73	114.91	69.396		
3,100.00	3,051.85	3,034.85	3,051.85	14.62	104.25	-70.97	2,163.04	-7,854.99	7,968.03	7,849.23	118.80	67.070		
3,200.00	3,149.85	3,132.85	3,149.85	15.09	107.67	-71.11	2,163.04	-7,854.99	7,961.46	7,838.77	122.69	64.891		
3,300.00	3,247.86	3,230.86	3,247.86	15.56	111.09	-71.24	2,163.04	-7,854.99	7,954.94	7,828.36	126.58	62.845		
3,400.00	3,345.87	3,328.87	3,345.87	16.04	114.51	-71.37	2,163.04	-7,854.99	7,948.46	7,817.99	130.47	60.922		
3,500.00	3,443.88	3,426.88	3,443.88	16.51	117.93	-71.51	2,163.04	-7,854.99	7,942.02	7,807.66	134.36	59.110		
3,600.00	3,541.89	3,524.89	3,541.89	16.98	121.35	-71.64	2,163.04	-7,854.99	7,935.63	7,797.38	138.25	57.400		
3,700.00	3,639.90	3,622.90	3,639.90	17.46	124.77	-71.77	2,163.04	-7,854.99	7,929.28	7,787.14	142.14	55.783		
3,800.00	3,737.91	3,720.91	3,737.91	17.93	128.19	-71.91	2,163.04	-7,854.99	7,922.98	7,776.94	146.04	54.253		
3,900.00	3,835.92	3,818.92	3,835.92	18.41	131.61	-72.04	2,163.04	-7,854.99	7,916.72	7,766.79	149.93	52.802		
4,000.00	3,933.93	3,916.93	3,933.93	18.88	135.03	-72.18	2,163.04	-7,854.99	7,910.51	7,756.69	153.83	51.425		
4,100.00	4,031.93	4,014.93	4,031.93	19.36	138.45	-72.31	2,163.04	-7,854.99	7,904.35	7,746.62	157.72	50.116		
4,200.00	4,129.94	4,112.94	4,129.94	19.84	141.88	-72.44	2,163.04	-7,854.99	7,898.22	7,736.61	161.62	48.870		
4,300.00	4,227.95	4,210.95	4,227.95	20.31	145.30	-72.58	2,163.04	-7,854.99	7,892.15	7,726.63	165.51	47.683		
4,400.00	4,325.96	4,308.96	4,325.96	20.79	148.72	-72.71	2,163.04	-7,854.99	7,886.12	7,716.71	169.41	46.551		
4,500.00	4,423.97	4,406.97	4,423.97	21.27	152.14	-72.85	2,163.04	-7,854.99	7,880.13	7,706.82	173.31	45.470		
4,600.00	4,521.98	4,504.98	4,521.98	21.75	155.56	-72.99	2,163.04	-7,854.99	7,874.19	7,696.99	177.20	44.436		
4,700.00	4,619.99	4,602.99	4,619.99	22.23	158.98	-73.12	2,163.04	-7,854.99	7,868.29	7,687.19	181.10	43.447		
4,800.00	4,718.00	4,701.00	4,718.00	22.70	162.40	-73.26	2,163.04	-7,854.99	7,862.44	7,677.45	185.00	42.500		
4,900.00	4,816.01	4,800.00	4,816.01	23.18	165.89	-73.39	2,163.04	-7,854.99	7,856.64	7,667.68	188.97	41.577		
5,000.00	4,914.01	4,902.99	4,914.01	23.66	169.45	-73.53	2,163.04	-7,854.99	7,850.88	7,657.88	193.00	40.678		
5,100.00	5,012.02	5,004.98	5,012.02	24.14	173.01	-73.67	2,163.04	-7,854.99	7,845.17	7,648.13	197.04	39.815		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	5,110.03	5,106.97	5,110.03	24.62	176.57	-73.80	2,163.04	-7,854.99	7,839.51	7,638.43	201.08	38.987		
5,300.00	5,208.04	5,208.96	5,208.04	25.10	180.13	-73.94	2,163.04	-7,854.99	7,833.89	7,628.77	205.12	38.192		
5,400.00	5,306.05	5,289.05	5,306.05	25.58	182.93	-74.08	2,163.04	-7,854.99	7,828.32	7,619.92	208.39	37.565		
5,500.00	5,404.06	5,387.06	5,404.06	26.06	186.35	-74.21	2,163.04	-7,854.99	7,822.79	7,610.50	212.29	36.849		
5,600.00	5,502.07	5,485.07	5,502.07	26.54	189.77	-74.35	2,163.04	-7,854.99	7,817.31	7,601.12	216.19	36.159		
5,700.00	5,600.08	5,583.08	5,600.08	27.02	193.19	-74.49	2,163.04	-7,854.99	7,811.88	7,591.79	220.09	35.494		
5,800.00	5,698.09	5,681.09	5,698.09	27.50	196.61	-74.63	2,163.04	-7,854.99	7,806.49	7,582.50	223.99	34.852		
5,900.00	5,796.09	5,779.09	5,796.09	27.98	200.03	-74.77	2,163.04	-7,854.99	7,801.15	7,573.26	227.89	34.232		
6,000.00	5,894.10	5,877.10	5,894.10	28.46	203.45	-74.90	2,163.04	-7,854.99	7,795.86	7,564.06	231.79	33.633		
6,100.00	5,992.11	5,975.11	5,992.11	28.94	206.87	-75.04	2,163.04	-7,854.99	7,790.61	7,554.92	235.69	33.054		
6,200.00	6,090.12	6,073.12	6,090.12	29.42	210.29	-75.18	2,163.04	-7,854.99	7,785.41	7,545.82	239.60	32.494		
6,300.00	6,188.13	6,171.13	6,188.13	29.90	213.71	-75.32	2,163.04	-7,854.99	7,780.26	7,536.77	243.50	31.952		
6,400.00	6,286.14	6,269.14	6,286.14	30.38	217.14	-75.46	2,163.04	-7,854.99	7,775.16	7,527.76	247.40	31.428		
6,500.00	6,384.15	6,367.15	6,384.15	30.87	220.56	-75.60	2,163.04	-7,854.99	7,770.10	7,518.80	251.30	30.919		
6,600.00	6,482.15	6,465.15	6,482.15	31.35	223.98	-67.22	2,163.04	-7,854.99	7,764.79	7,509.59	255.20	30.426		
6,700.00	6,579.21	6,562.21	6,579.21	31.83	227.37	-36.14	2,163.04	-7,854.99	7,749.04	7,489.97	259.07	29.911		
6,800.00	6,673.04	6,656.04	6,673.04	32.30	230.64	-21.29	2,163.04	-7,854.99	7,718.22	7,455.42	262.79	29.370		
6,900.00	6,761.33	6,744.33	6,761.33	32.74	233.72	-13.43	2,163.04	-7,854.99	7,673.06	7,406.78	266.28	28.815		
7,000.00	6,841.90	6,824.90	6,841.90	33.17	236.53	-8.36	2,163.04	-7,854.99	7,614.67	7,345.21	269.46	28.259		
7,100.00	6,912.77	6,904.23	6,912.77	33.60	239.30	-4.30	2,163.04	-7,854.99	7,544.48	7,271.95	272.53	27.683		
7,200.00	6,972.19	6,955.19	6,972.19	34.09	241.08	-0.14	2,163.04	-7,854.99	7,464.20	7,189.66	274.54	27.188		
7,300.00	7,018.70	7,001.70	7,018.70	34.73	242.71	5.57	2,163.04	-7,854.99	7,375.80	7,099.49	276.31	26.693		
7,400.00	7,051.15	7,034.15	7,051.15	35.55	243.84	16.46	2,163.04	-7,854.99	7,281.48	7,003.95	277.53	26.237		
7,500.00	7,068.75	7,051.75	7,068.75	36.56	244.45	47.15	2,163.04	-7,854.99	7,183.55	6,905.39	278.16	25.825		
7,600.00	7,071.91	7,054.91	7,071.91	37.71	244.56	91.25	2,163.04	-7,854.99	7,084.40	6,806.16	278.25	25.461		
7,700.00	7,071.62	7,054.62	7,071.62	39.03	244.55	91.23	2,163.04	-7,854.99	6,985.26	6,707.06	278.20	25.109		
7,800.00	7,071.34	7,054.34	7,071.34	40.51	244.54	91.21	2,163.04	-7,854.99	6,886.14	6,607.98	278.16	24.756		
7,900.00	7,071.05	7,054.05	7,071.05	42.14	244.53	91.20	2,163.04	-7,854.99	6,787.04	6,508.92	278.13	24.403		
8,000.00	7,070.77	7,053.77	7,070.77	43.89	244.52	91.18	2,163.04	-7,854.99	6,687.98	6,409.88	278.10	24.049		
8,100.00	7,070.48	7,053.48	7,070.48	45.76	244.51	91.16	2,163.04	-7,854.99	6,588.93	6,310.86	278.07	23.695		
8,200.00	7,070.20	7,053.20	7,070.20	47.72	244.50	91.14	2,163.04	-7,854.99	6,489.92	6,211.87	278.06	23.340		
8,300.00	7,069.92	7,052.92	7,069.92	49.78	244.49	91.12	2,163.04	-7,854.99	6,390.94	6,112.89	278.05	22.985		
8,400.00	7,069.63	7,052.63	7,069.63	51.90	244.48	91.11	2,163.04	-7,854.99	6,292.00	6,013.95	278.05	22.629		
8,500.00	7,069.35	7,052.35	7,069.35	54.10	244.47	91.09	2,163.04	-7,854.99	6,193.08	5,915.03	278.06	22.273		
8,600.00	7,069.06	7,052.06	7,069.06	56.36	244.46	91.07	2,163.04	-7,854.99	6,094.20	5,816.13	278.07	21.916		
8,700.00	7,068.78	7,051.78	7,068.78	58.66	244.45	91.05	2,163.04	-7,854.99	5,995.36	5,717.26	278.10	21.558		
8,800.00	7,068.49	7,051.49	7,068.49	61.02	244.44	91.04	2,163.04	-7,854.99	5,896.56	5,618.42	278.14	21.200		
8,900.00	7,068.21	7,051.21	7,068.21	63.42	244.43	91.02	2,163.04	-7,854.99	5,797.80	5,519.61	278.19	20.841		
9,000.00	7,067.92	7,050.92	7,067.92	65.85	244.42	91.00	2,163.04	-7,854.99	5,699.08	5,420.83	278.26	20.481		
9,100.00	7,067.64	7,050.64	7,067.64	68.32	244.41	90.98	2,163.04	-7,854.99	5,600.41	5,322.08	278.33	20.121		
9,200.00	7,067.35	7,050.35	7,067.35	70.81	244.40	90.96	2,163.04	-7,854.99	5,501.79	5,223.36	278.43	19.760		
9,300.00	7,067.07	7,050.07	7,067.07	73.34	244.39	90.95	2,163.04	-7,854.99	5,403.21	5,124.67	278.54	19.399		
9,400.00	7,066.78	7,049.78	7,066.78	75.88	244.38	90.93	2,163.04	-7,854.99	5,304.69	5,026.03	278.67	19.036		
9,500.00	7,066.50	7,049.50	7,066.50	78.45	244.37	90.91	2,163.04	-7,854.99	5,206.23	4,927.41	278.81	18.673		
9,600.00	7,066.21	7,049.21	7,066.21	81.04	244.37	90.89	2,163.04	-7,854.99	5,107.82	4,828.84	278.98	18.309		
9,700.00	7,065.93	7,048.93	7,065.93	83.64	244.36	90.88	2,163.04	-7,854.99	5,009.48	4,730.31	279.18	17.944		
9,800.00	7,065.64	7,048.64	7,065.64	86.26	244.35	90.86	2,163.04	-7,854.99	4,911.21	4,631.81	279.39	17.578		
9,900.00	7,065.36	7,048.36	7,065.36	88.90	244.34	90.84	2,163.04	-7,854.99	4,813.00	4,533.36	279.64	17.211		
10,000.00	7,065.07	7,048.07	7,065.07	91.55	244.33	90.82	2,163.04	-7,854.99	4,714.88	4,434.96	279.92	16.844		
10,100.00	7,064.79	7,047.79	7,064.79	94.21	244.32	90.80	2,163.04	-7,854.99	4,616.83	4,336.60	280.22	16.475		
10,200.00	7,064.50	7,047.50	7,064.50	96.88	244.31	90.79	2,163.04	-7,854.99	4,518.87	4,238.30	280.57	16.106		
10,300.00	7,064.22	7,047.22	7,064.22	99.57	244.30	90.77	2,163.04	-7,854.99	4,421.00	4,140.05	280.95	15.736		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	7,063.94	7,046.94	7,063.94	102.26	244.29	90.75	2,163.04	-7,854.99	4,323.22	4,041.85	281.37	15.365		
10,500.00	7,063.65	7,046.65	7,063.65	104.96	244.28	90.73	2,163.04	-7,854.99	4,225.55	3,943.71	281.84	14.993		
10,600.00	7,063.37	7,046.37	7,063.37	107.67	244.27	90.72	2,163.04	-7,854.99	4,128.00	3,845.64	282.36	14.620		
10,700.00	7,063.08	7,046.08	7,063.08	110.39	244.26	90.70	2,163.04	-7,854.99	4,030.56	3,747.63	282.93	14.246		
10,800.00	7,062.80	7,045.80	7,062.80	113.11	244.25	90.68	2,163.04	-7,854.99	3,933.25	3,649.69	283.56	13.871		
10,900.00	7,062.51	7,045.51	7,062.51	115.84	244.24	90.66	2,163.04	-7,854.99	3,836.08	3,551.82	284.26	13.495		
11,000.00	7,062.23	7,045.23	7,062.23	118.58	244.23	90.64	2,163.04	-7,854.99	3,739.06	3,454.04	285.02	13.119		
11,100.00	7,061.94	7,044.94	7,061.94	121.32	244.22	90.63	2,163.04	-7,854.99	3,642.20	3,356.34	285.86	12.741		
11,200.00	7,061.66	7,044.66	7,061.66	124.07	244.21	90.61	2,163.04	-7,854.99	3,545.51	3,258.74	286.77	12.363		
11,300.00	7,061.37	7,044.37	7,061.37	126.82	244.20	90.59	2,163.04	-7,854.99	3,449.02	3,161.24	287.78	11.985		
11,400.00	7,061.09	7,044.09	7,061.09	129.58	244.19	90.57	2,163.04	-7,854.99	3,352.72	3,063.84	288.88	11.606		
11,500.00	7,060.80	7,043.80	7,060.80	132.34	244.18	90.56	2,163.04	-7,854.99	3,256.66	2,966.57	290.09	11.227		
11,600.00	7,060.52	7,043.52	7,060.52	135.10	244.17	90.54	2,163.04	-7,854.99	3,160.83	2,869.43	291.40	10.847		
11,700.00	7,060.23	7,043.23	7,060.23	137.87	244.16	90.52	2,163.04	-7,854.99	3,065.27	2,772.43	292.85	10.467		
11,800.00	7,059.95	7,042.95	7,059.95	140.64	244.15	90.50	2,163.04	-7,854.99	2,970.01	2,675.58	294.43	10.087		
11,900.00	7,059.66	7,042.66	7,059.66	143.42	244.14	90.48	2,163.04	-7,854.99	2,875.07	2,578.91	296.15	9.708		
12,000.00	7,059.38	7,042.38	7,059.38	146.20	244.13	90.47	2,163.04	-7,854.99	2,780.48	2,482.44	298.04	9.329		
12,100.00	7,059.09	7,042.09	7,059.09	148.98	244.12	90.45	2,163.04	-7,854.99	2,686.28	2,386.17	300.11	8.951		
12,200.00	7,058.81	7,041.81	7,058.81	151.77	244.11	90.43	2,163.04	-7,854.99	2,592.52	2,290.15	302.36	8.574		
12,300.00	7,058.52	7,041.52	7,058.52	154.55	244.10	90.41	2,163.04	-7,854.99	2,499.24	2,194.40	304.83	8.199		
12,400.00	7,058.24	7,041.24	7,058.24	157.34	244.09	90.40	2,163.04	-7,854.99	2,406.50	2,098.96	307.54	7.825		
12,500.00	7,057.96	7,040.96	7,057.96	160.14	244.08	90.38	2,163.04	-7,854.99	2,314.37	2,003.87	310.50	7.454		
12,600.00	7,057.67	7,040.67	7,057.67	162.93	244.07	90.36	2,163.04	-7,854.99	2,222.91	1,909.17	313.74	7.085		
12,700.00	7,057.39	7,040.39	7,057.39	165.73	244.06	90.34	2,163.04	-7,854.99	2,132.22	1,814.92	317.30	6.720		
12,800.00	7,057.10	7,040.10	7,057.10	168.53	244.05	90.32	2,163.04	-7,854.99	2,042.41	1,721.20	321.21	6.359		
12,900.00	7,056.82	7,039.82	7,056.82	171.33	244.04	90.31	2,163.04	-7,854.99	1,953.58	1,628.09	325.49	6.002		
13,000.00	7,056.53	7,039.53	7,056.53	174.13	244.03	90.29	2,163.04	-7,854.99	1,865.88	1,535.69	330.19	5.651		
13,100.00	7,056.25	7,039.25	7,056.25	176.94	244.02	90.27	2,163.04	-7,854.99	1,779.48	1,444.12	335.36	5.306		
13,200.00	7,055.96	7,038.96	7,055.96	179.74	244.01	90.25	2,163.04	-7,854.99	1,694.58	1,353.54	341.04	4.969		
13,300.00	7,055.68	7,038.68	7,055.68	182.55	244.00	90.24	2,163.04	-7,854.99	1,611.41	1,264.14	347.27	4.640		
13,400.00	7,055.39	7,038.39	7,055.39	185.36	243.99	90.22	2,163.04	-7,854.99	1,530.26	1,176.15	354.11	4.321		
13,500.00	7,055.11	7,038.11	7,055.11	188.17	243.98	90.20	2,163.04	-7,854.99	1,451.46	1,089.87	361.60	4.014		
13,600.00	7,054.82	7,037.82	7,054.82	190.98	243.97	90.18	2,163.04	-7,854.99	1,375.42	1,005.66	369.76	3.720		
13,700.00	7,054.54	7,037.54	7,054.54	193.80	243.96	90.16	2,163.04	-7,854.99	1,302.63	924.00	378.62	3.440		
13,800.00	7,054.25	7,037.25	7,054.25	196.61	243.95	90.15	2,163.04	-7,854.99	1,233.65	845.48	388.16	3.178		
13,900.00	7,053.97	7,036.97	7,053.97	199.43	243.94	90.13	2,163.04	-7,854.99	1,169.16	770.84	398.32	2.935		
14,000.00	7,053.68	7,036.68	7,053.68	202.25	243.93	90.11	2,163.04	-7,854.99	1,109.94	700.99	408.95	2.714		
14,100.00	7,053.40	7,036.40	7,053.40	205.06	243.92	90.09	2,163.04	-7,854.99	1,056.89	637.06	419.83	2.517		
14,200.00	7,053.11	7,036.11	7,053.11	207.88	243.91	90.08	2,163.04	-7,854.99	1,010.97	580.36	430.61	2.348		
14,300.00	7,052.83	7,035.83	7,052.83	210.70	243.90	90.06	2,163.04	-7,854.99	973.19	532.35	440.84	2.208		
14,400.00	7,052.54	7,035.54	7,052.54	213.53	243.89	90.04	2,163.04	-7,854.99	944.54	494.56	449.97	2.099		
14,500.00	7,052.26	7,035.26	7,052.26	216.35	243.88	90.02	2,163.04	-7,854.99	925.85	468.42	457.43	2.024		
14,600.00	7,051.98	7,034.98	7,051.98	219.17	243.87	90.00	2,163.04	-7,854.99	917.73	455.01	462.72	1.983		
14,624.78	7,051.90	7,034.90	7,051.90	219.87	243.87	90.00	2,163.04	-7,854.99	917.40	453.74	463.66	1.979 CC, ES		
14,700.00	7,051.69	7,034.69	7,051.69	222.00	243.86	89.99	2,163.04	-7,854.99	920.48	454.94	465.54	1.977 SF		
14,800.00	7,051.41	7,034.41	7,051.41	224.82	243.85	89.97	2,163.04	-7,854.99	933.98	468.17	465.82	2.005		
14,900.00	7,051.12	7,034.12	7,051.12	227.65	243.84	89.95	2,163.04	-7,854.99	957.79	494.03	463.77	2.065		
14,942.37	7,051.00	7,034.00	7,051.00	228.85	243.83	89.94	2,163.04	-7,854.99	970.82	508.53	462.28	2.100		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	0.00	0.00	3.28	3.28	-57.89	2,278.64	-3,630.46	4,286.30				
100.00	100.00	100.00	100.00	3.28	3.72	-57.89	2,278.64	-3,630.46	4,286.30	4,279.30	7.00	612.310	
200.00	200.00	200.00	200.00	3.34	6.18	-57.89	2,278.64	-3,630.46	4,286.30	4,276.79	9.52	450.432	
300.00	300.00	300.00	300.00	3.44	9.32	-57.89	2,278.64	-3,630.46	4,286.30	4,273.54	12.77	335.696	
400.00	399.98	400.02	399.98	3.60	12.65	-50.62	2,278.64	-3,630.46	4,285.20	4,268.94	16.26	263.622	
500.00	499.84	500.16	499.84	3.81	16.05	-50.72	2,278.64	-3,630.46	4,281.88	4,262.02	19.86	215.597	
600.00	599.45	600.55	599.45	4.06	19.50	-50.90	2,278.64	-3,630.46	4,276.36	4,252.81	23.55	181.614	
700.00	698.70	701.30	698.70	4.34	22.97	-51.15	2,278.64	-3,630.46	4,268.66	4,241.36	27.30	156.379	
800.00	797.47	802.53	797.47	4.64	26.48	-51.46	2,278.64	-3,630.46	4,258.80	4,227.70	31.11	136.917	
900.00	895.65	904.35	895.65	4.98	30.01	-51.80	2,278.64	-3,630.46	4,246.91	4,211.94	34.97	121.453	
1,000.00	993.66	1,006.34	993.66	5.32	33.55	-52.00	2,278.64	-3,630.46	4,234.51	4,195.65	38.86	108.971	
1,100.00	1,091.67	1,108.33	1,091.67	5.69	37.09	-52.21	2,278.64	-3,630.46	4,222.16	4,179.39	42.77	98.712	
1,200.00	1,189.68	1,189.68	1,189.68	6.09	39.92	-52.43	2,278.64	-3,630.46	4,209.87	4,163.88	45.99	91.548	
1,300.00	1,287.69	1,287.69	1,287.69	6.49	43.33	-52.64	2,278.64	-3,630.46	4,197.64	4,147.85	49.79	84.304	
1,400.00	1,385.69	1,385.69	1,385.69	6.90	46.74	-52.85	2,278.64	-3,630.46	4,185.46	4,131.85	53.61	78.073	
1,500.00	1,483.70	1,483.70	1,483.70	7.33	50.16	-53.07	2,278.64	-3,630.46	4,173.35	4,115.91	57.44	72.659	
1,600.00	1,581.71	1,581.71	1,581.71	7.76	53.57	-53.28	2,278.64	-3,630.46	4,161.30	4,100.02	61.27	67.913	
1,700.00	1,679.72	1,679.72	1,679.72	8.19	56.99	-53.50	2,278.64	-3,630.46	4,149.30	4,084.18	65.12	63.721	
1,800.00	1,777.73	1,777.73	1,777.73	8.63	60.40	-53.72	2,278.64	-3,630.46	4,137.37	4,068.40	68.97	59.991	
1,900.00	1,875.74	1,875.74	1,875.74	9.08	63.82	-53.94	2,278.64	-3,630.46	4,125.49	4,052.67	72.82	56.653	
2,000.00	1,973.75	1,973.75	1,973.75	9.53	67.24	-54.16	2,278.64	-3,630.46	4,113.68	4,037.00	76.68	53.648	
2,100.00	2,071.76	2,071.76	2,071.76	9.98	70.66	-54.38	2,278.64	-3,630.46	4,101.93	4,021.39	80.54	50.930	
2,200.00	2,169.77	2,169.77	2,169.77	10.44	74.07	-54.60	2,278.64	-3,630.46	4,090.24	4,005.84	84.41	48.459	
2,300.00	2,267.77	2,267.77	2,267.77	10.90	77.49	-54.83	2,278.64	-3,630.46	4,078.62	3,990.34	88.28	46.204	
2,400.00	2,365.78	2,365.78	2,365.78	11.36	80.91	-55.05	2,278.64	-3,630.46	4,067.06	3,974.91	92.15	44.137	
2,500.00	2,463.79	2,463.79	2,463.79	11.82	84.33	-55.28	2,278.64	-3,630.46	4,055.56	3,959.54	96.02	42.237	
2,600.00	2,561.80	2,561.80	2,561.80	12.28	87.75	-55.51	2,278.64	-3,630.46	4,044.13	3,944.24	99.90	40.484	
2,700.00	2,659.81	2,659.81	2,659.81	12.75	91.17	-55.74	2,278.64	-3,630.46	4,032.77	3,928.99	103.77	38.861	
2,800.00	2,757.82	2,757.82	2,757.82	13.21	94.59	-55.97	2,278.64	-3,630.46	4,021.47	3,913.82	107.65	37.356	
2,900.00	2,855.83	2,855.83	2,855.83	13.68	98.01	-56.20	2,278.64	-3,630.46	4,010.23	3,898.70	111.53	35.956	
3,000.00	2,953.84	2,953.84	2,953.84	14.15	101.43	-56.43	2,278.64	-3,630.46	3,999.07	3,883.65	115.41	34.649	
3,100.00	3,051.85	3,051.85	3,051.85	14.62	104.85	-56.67	2,278.64	-3,630.46	3,987.97	3,868.67	119.30	33.429	
3,200.00	3,149.85	3,149.85	3,149.85	15.09	108.27	-56.90	2,278.64	-3,630.46	3,976.94	3,853.76	123.18	32.285	
3,300.00	3,247.86	3,247.86	3,247.86	15.56	111.69	-57.14	2,278.64	-3,630.46	3,965.98	3,838.91	127.07	31.211	
3,400.00	3,345.87	3,345.87	3,345.87	16.04	115.11	-57.38	2,278.64	-3,630.46	3,955.08	3,824.13	130.96	30.202	
3,500.00	3,443.88	3,443.88	3,443.88	16.51	118.53	-57.62	2,278.64	-3,630.46	3,944.26	3,809.42	134.84	29.251	
3,600.00	3,541.89	3,541.89	3,541.89	16.98	121.95	-57.86	2,278.64	-3,630.46	3,933.51	3,794.78	138.73	28.353	
3,700.00	3,639.90	3,639.90	3,639.90	17.46	125.37	-58.10	2,278.64	-3,630.46	3,922.83	3,780.21	142.62	27.505	
3,800.00	3,737.91	3,737.91	3,737.91	17.93	128.79	-58.34	2,278.64	-3,630.46	3,912.22	3,765.71	146.51	26.703	
3,900.00	3,835.92	3,835.92	3,835.92	18.41	132.21	-58.59	2,278.64	-3,630.46	3,901.68	3,751.28	150.40	25.942	
4,000.00	3,933.93	3,933.93	3,933.93	18.88	135.63	-58.83	2,278.64	-3,630.46	3,891.22	3,736.92	154.29	25.220	
4,100.00	4,031.93	4,031.93	4,031.93	19.36	139.05	-59.08	2,278.64	-3,630.46	3,880.83	3,722.64	158.19	24.533	
4,200.00	4,129.94	4,129.94	4,129.94	19.84	142.47	-59.33	2,278.64	-3,630.46	3,870.51	3,708.43	162.08	23.880	
4,300.00	4,227.95	4,227.95	4,227.95	20.31	145.89	-59.58	2,278.64	-3,630.46	3,860.27	3,694.29	165.97	23.258	
4,400.00	4,325.96	4,325.96	4,325.96	20.79	149.31	-59.83	2,278.64	-3,630.46	3,850.10	3,680.23	169.87	22.665	
4,500.00	4,423.97	4,423.97	4,423.97	21.27	152.73	-60.08	2,278.64	-3,630.46	3,840.01	3,666.25	173.76	22.099	
4,600.00	4,521.98	4,521.98	4,521.98	21.75	156.15	-60.33	2,278.64	-3,630.46	3,829.99	3,652.33	177.66	21.558	
4,700.00	4,619.99	4,619.99	4,619.99	22.23	159.57	-60.59	2,278.64	-3,630.46	3,820.05	3,638.50	181.55	21.041	
4,800.00	4,718.00	4,718.00	4,718.00	22.70	162.99	-60.85	2,278.64	-3,630.46	3,810.19	3,624.74	185.45	20.546	
4,900.00	4,816.01	4,816.01	4,816.01	23.18	166.41	-61.10	2,278.64	-3,630.46	3,800.41	3,611.06	189.34	20.071	
5,000.00	4,914.01	4,914.01	4,914.01	23.66	169.83	-61.36	2,278.64	-3,630.46	3,790.70	3,597.46	193.24	19.616	
5,100.00	5,012.02	5,012.02	5,012.02	24.14	173.26	-61.62	2,278.64	-3,630.46	3,781.08	3,583.94	197.14	19.180	

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 1(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,110.03	5,110.03	24.62	176.68	-61.88	2,278.64	-3,630.46	3,771.54	3,570.50	201.04	18.760		
5,300.00	5,208.04	5,208.04	5,208.04	25.10	180.10	-62.15	2,278.64	-3,630.46	3,762.07	3,557.14	204.93	18.357		
5,400.00	5,306.05	5,306.05	5,306.05	25.58	183.52	-62.41	2,278.64	-3,630.46	3,752.69	3,543.86	208.83	17.970		
5,500.00	5,404.06	5,404.06	5,404.06	26.06	186.94	-62.67	2,278.64	-3,630.46	3,743.39	3,530.66	212.73	17.597		
5,600.00	5,502.07	5,502.07	5,502.07	26.54	190.36	-62.94	2,278.64	-3,630.46	3,734.17	3,517.54	216.63	17.237		
5,700.00	5,600.08	5,600.08	5,600.08	27.02	193.78	-63.21	2,278.64	-3,630.46	3,725.03	3,504.50	220.53	16.891		
5,800.00	5,698.09	5,701.91	5,698.09	27.50	197.34	-63.48	2,278.64	-3,630.46	3,715.98	3,491.42	224.56	16.547		
5,900.00	5,796.09	5,803.91	5,796.09	27.98	200.90	-63.75	2,278.64	-3,630.46	3,707.01	3,478.41	228.60	16.216		
6,000.00	5,894.10	5,905.90	5,894.10	28.46	204.46	-64.02	2,278.64	-3,630.46	3,698.13	3,465.49	232.64	15.896		
6,100.00	5,992.11	6,007.89	5,992.11	28.94	208.02	-64.29	2,278.64	-3,630.46	3,689.33	3,452.65	236.68	15.588		
6,200.00	6,090.12	6,109.88	6,090.12	29.42	211.58	-64.57	2,278.64	-3,630.46	3,680.62	3,439.90	240.72	15.290		
6,300.00	6,188.13	6,188.13	6,188.13	29.90	214.31	-64.84	2,278.64	-3,630.46	3,672.00	3,428.06	243.94	15.053		
6,400.00	6,286.14	6,286.14	6,286.14	30.38	217.73	-65.12	2,278.64	-3,630.46	3,663.46	3,415.62	247.84	14.782		
6,500.00	6,384.15	6,384.15	6,384.15	30.87	221.15	-65.40	2,278.64	-3,630.46	3,655.01	3,403.27	251.74	14.519		
6,600.00	6,482.15	6,482.15	6,482.15	31.35	224.57	-65.72	2,278.64	-3,630.46	3,646.36	3,390.72	255.64	14.264		
6,700.00	6,579.21	6,579.21	6,579.21	31.83	227.96	-65.80	2,278.64	-3,630.46	3,627.75	3,368.24	259.50	13.980		
6,800.00	6,673.04	6,673.04	6,673.04	32.30	231.23	-10.40	2,278.64	-3,630.46	3,594.77	3,331.55	263.22	13.657		
6,900.00	6,761.33	6,761.33	6,761.33	32.74	234.32	-1.58	2,278.64	-3,630.46	3,548.20	3,281.50	266.70	13.304		
7,000.00	6,841.90	6,841.90	6,841.90	33.17	237.13	5.03	2,278.64	-3,630.46	3,489.16	3,219.30	269.86	12.930		
7,100.00	6,912.77	6,912.77	6,912.77	33.60	239.60	11.45	2,278.64	-3,630.46	3,419.11	3,146.51	272.61	12.542		
7,200.00	6,972.19	6,972.19	6,972.19	34.09	241.68	19.25	2,278.64	-3,630.46	3,339.82	3,064.94	274.88	12.150		
7,300.00	7,018.70	7,018.70	7,018.70	34.73	243.30	30.43	2,278.64	-3,630.46	3,253.30	2,976.66	276.64	11.760		
7,400.00	7,051.15	7,051.15	7,051.15	35.55	244.43	47.85	2,278.64	-3,630.46	3,161.76	2,883.93	277.83	11.380		
7,500.00	7,068.75	7,068.75	7,068.75	36.56	245.05	72.77	2,278.64	-3,630.46	3,067.58	2,789.12	278.46	11.016		
7,600.00	7,071.91	7,071.91	7,071.91	37.71	245.16	90.46	2,278.64	-3,630.46	2,973.12	2,694.55	278.57	10.673		
7,700.00	7,071.62	7,071.62	7,071.62	39.03	245.15	90.44	2,278.64	-3,630.46	2,879.16	2,600.58	278.58	10.335		
7,800.00	7,071.34	7,071.34	7,071.34	40.51	245.14	90.42	2,278.64	-3,630.46	2,785.61	2,506.97	278.64	9.997		
7,900.00	7,071.05	7,071.05	7,071.05	42.14	245.13	90.41	2,278.64	-3,630.46	2,692.54	2,413.77	278.76	9.659		
8,000.00	7,070.77	7,070.77	7,070.77	43.89	245.12	90.39	2,278.64	-3,630.46	2,599.97	2,321.02	278.96	9.320		
8,100.00	7,070.48	7,070.48	7,070.48	45.76	245.11	90.37	2,278.64	-3,630.46	2,507.98	2,228.75	279.23	8.982		
8,200.00	7,070.20	7,070.20	7,070.20	47.72	245.10	90.36	2,278.64	-3,630.46	2,416.63	2,137.02	279.60	8.643		
8,300.00	7,069.92	7,069.92	7,069.92	49.78	245.09	90.34	2,278.64	-3,630.46	2,325.98	2,045.89	280.09	8.304		
8,400.00	7,069.63	7,069.63	7,069.63	51.90	245.08	90.33	2,278.64	-3,630.46	2,236.13	1,955.42	280.72	7.966		
8,500.00	7,069.35	7,069.35	7,069.35	54.10	245.07	90.31	2,278.64	-3,630.46	2,147.18	1,865.69	281.50	7.628		
8,600.00	7,069.06	7,069.06	7,069.06	56.36	245.06	90.29	2,278.64	-3,630.46	2,059.25	1,776.79	282.46	7.290		
8,700.00	7,068.78	7,068.78	7,068.78	58.66	245.05	90.28	2,278.64	-3,630.46	1,972.46	1,688.84	283.63	6.954		
8,800.00	7,068.49	7,068.49	7,068.49	61.02	245.04	90.26	2,278.64	-3,630.46	1,886.99	1,601.96	285.03	6.620		
8,900.00	7,068.21	7,068.21	7,068.21	63.42	245.03	90.24	2,278.64	-3,630.46	1,803.01	1,516.30	286.70	6.289		
9,000.00	7,067.92	7,067.92	7,067.92	65.85	245.02	90.23	2,278.64	-3,630.46	1,720.74	1,432.06	288.67	5.961		
9,100.00	7,067.64	7,067.64	7,067.64	68.32	245.01	90.21	2,278.64	-3,630.46	1,640.44	1,349.47	290.97	5.638		
9,200.00	7,067.35	7,067.35	7,067.35	70.81	245.00	90.20	2,278.64	-3,630.46	1,562.42	1,268.79	293.63	5.321		
9,300.00	7,067.07	7,067.07	7,067.07	73.34	244.99	90.18	2,278.64	-3,630.46	1,487.03	1,190.35	296.68	5.012		
9,400.00	7,066.78	7,066.78	7,066.78	75.88	244.98	90.16	2,278.64	-3,630.46	1,414.70	1,114.56	300.14	4.713		
9,500.00	7,066.50	7,066.50	7,066.50	78.45	244.97	90.15	2,278.64	-3,630.46	1,345.91	1,041.89	304.02	4.427		
9,600.00	7,066.21	7,066.21	7,066.21	81.04	244.96	90.13	2,278.64	-3,630.46	1,281.24	972.93	308.31	4.156		
9,700.00	7,065.93	7,065.93	7,065.93	83.64	244.95	90.11	2,278.64	-3,630.46	1,221.34	908.34	313.00	3.902		
9,800.00	7,065.64	7,065.64	7,065.64	86.26	244.94	90.10	2,278.64	-3,630.46	1,166.96	848.94	318.02	3.669		
9,900.00	7,065.36	7,065.36	7,065.36	88.90	244.93	90.08	2,278.64	-3,630.46	1,118.88	795.60	323.28	3.461		
10,000.00	7,065.07	7,065.07	7,065.07	91.55	244.92	90.07	2,278.64	-3,630.46	1,077.96	749.32	328.64	3.280		
10,100.00	7,064.79	7,064.79	7,064.79	94.21	244.91	90.05	2,278.64	-3,630.46	1,045.04	711.14	333.90	3.130		
10,200.00	7,064.50	7,064.50	7,064.50	96.88	244.90	90.03	2,278.64	-3,630.46	1,020.89	682.03	338.86	3.013		
10,300.00	7,064.22	7,064.22	7,064.22	99.57	244.89	90.02	2,278.64	-3,630.46	1,006.14	662.86	343.28	2.931		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,399.48	7,063.94	7,063.94	7,063.94	102.24	244.88	90.00	2,278.64	-3,630.46	1,001.21	654.26	346.94	2.886 CC		
10,400.00	7,063.94	7,063.94	7,063.94	102.26	244.88	90.00	2,278.64	-3,630.46	1,001.21	654.25	346.96	2.886 ES		
10,500.00	7,063.65	7,063.65	7,063.65	104.96	244.87	89.98	2,278.64	-3,630.46	1,006.24	656.48	349.76	2.877 SF		
10,600.00	7,063.37	7,063.37	7,063.37	107.67	244.86	89.97	2,278.64	-3,630.46	1,021.09	669.49	351.60	2.904		
10,700.00	7,063.08	7,063.08	7,063.08	110.39	244.85	89.95	2,278.64	-3,630.46	1,045.34	692.82	352.52	2.965		
10,800.00	7,062.80	7,062.80	7,062.80	113.11	244.84	89.93	2,278.64	-3,630.46	1,078.35	725.74	352.60	3.058		
10,900.00	7,062.51	7,062.51	7,062.51	115.84	244.83	89.92	2,278.64	-3,630.46	1,119.35	767.36	351.99	3.180		
11,000.00	7,062.23	7,062.23	7,062.23	118.58	244.82	89.90	2,278.64	-3,630.46	1,167.49	816.66	350.84	3.328		
11,100.00	7,061.94	7,061.94	7,061.94	121.32	244.81	89.89	2,278.64	-3,630.46	1,221.94	872.65	349.29	3.498		
11,200.00	7,061.66	7,061.66	7,061.66	124.07	244.80	89.87	2,278.64	-3,630.46	1,281.89	934.40	347.49	3.689		
11,300.00	7,061.37	7,061.37	7,061.37	126.82	244.79	89.85	2,278.64	-3,630.46	1,346.61	1,001.07	345.54	3.897		
11,400.00	7,061.09	7,061.09	7,061.09	129.58	244.78	89.84	2,278.64	-3,630.46	1,415.43	1,071.91	343.52	4.120		
11,500.00	7,060.80	7,060.80	7,060.80	132.34	244.77	89.82	2,278.64	-3,630.46	1,487.80	1,146.31	341.49	4.357		
11,600.00	7,060.52	7,060.52	7,060.52	135.10	244.76	89.80	2,278.64	-3,630.46	1,563.22	1,223.72	339.50	4.604		
11,700.00	7,060.23	7,060.23	7,060.23	137.87	244.75	89.79	2,278.64	-3,630.46	1,641.27	1,303.70	337.57	4.862		
11,800.00	7,059.95	7,059.95	7,059.95	140.64	244.74	89.77	2,278.64	-3,630.46	1,721.59	1,385.87	335.72	5.128		
11,900.00	7,059.66	7,059.66	7,059.66	143.42	244.73	89.76	2,278.64	-3,630.46	1,803.88	1,469.92	333.96	5.401		
12,000.00	7,059.38	7,059.38	7,059.38	146.20	244.72	89.74	2,278.64	-3,630.46	1,887.87	1,555.58	332.29	5.681		
12,100.00	7,059.09	7,059.09	7,059.09	148.98	244.71	89.72	2,278.64	-3,630.46	1,973.37	1,642.64	330.72	5.967		
12,200.00	7,058.81	7,058.81	7,058.81	151.77	244.70	89.71	2,278.64	-3,630.46	2,060.16	1,730.92	329.25	6.257		
12,300.00	7,058.52	7,058.52	7,058.52	154.55	244.69	89.69	2,278.64	-3,630.46	2,148.11	1,820.25	327.86	6.552		
12,400.00	7,058.24	7,058.24	7,058.24	157.34	244.68	89.67	2,278.64	-3,630.46	2,237.07	1,910.51	326.55	6.851		
12,500.00	7,057.96	7,057.96	7,057.96	160.14	244.67	89.66	2,278.64	-3,630.46	2,326.92	2,001.59	325.33	7.152		
12,600.00	7,057.67	7,057.67	7,057.67	162.93	244.66	89.64	2,278.64	-3,630.46	2,417.58	2,093.39	324.19	7.457		
12,700.00	7,057.39	7,057.39	7,057.39	165.73	244.65	89.63	2,278.64	-3,630.46	2,508.94	2,185.83	323.11	7.765		
12,800.00	7,057.10	7,057.10	7,057.10	168.53	244.64	89.61	2,278.64	-3,630.46	2,600.94	2,278.83	322.10	8.075		
12,900.00	7,056.82	7,056.82	7,056.82	171.33	244.63	89.59	2,278.64	-3,630.46	2,693.51	2,372.35	321.16	8.387		
13,000.00	7,056.53	7,056.53	7,056.53	174.13	244.62	89.58	2,278.64	-3,630.46	2,786.59	2,466.32	320.27	8.701		
13,100.00	7,056.25	7,056.25	7,056.25	176.94	244.61	89.56	2,278.64	-3,630.46	2,880.14	2,560.70	319.43	9.016		
13,200.00	7,055.96	7,055.96	7,055.96	179.74	244.60	89.54	2,278.64	-3,630.46	2,974.10	2,655.46	318.64	9.334		
13,300.00	7,055.68	7,055.68	7,055.68	182.55	244.59	89.53	2,278.64	-3,630.46	3,068.45	2,750.55	317.90	9.652		
13,400.00	7,055.39	7,055.39	7,055.39	185.36	244.58	89.51	2,278.64	-3,630.46	3,163.14	2,845.94	317.21	9.972		
13,500.00	7,055.11	7,055.11	7,055.11	188.17	244.57	89.49	2,278.64	-3,630.46	3,258.16	2,941.61	316.55	10.293		
13,600.00	7,054.82	7,054.82	7,054.82	190.98	244.56	89.48	2,278.64	-3,630.46	3,353.46	3,037.53	315.93	10.615		
13,700.00	7,054.54	7,054.54	7,054.54	193.80	244.55	89.46	2,278.64	-3,630.46	3,449.03	3,133.69	315.34	10.937		
13,800.00	7,054.25	7,054.25	7,054.25	196.61	244.54	89.45	2,278.64	-3,630.46	3,544.84	3,230.05	314.78	11.261		
13,900.00	7,053.97	7,053.97	7,053.97	199.43	244.53	89.43	2,278.64	-3,630.46	3,640.88	3,326.62	314.26	11.586		
14,000.00	7,053.68	7,053.68	7,053.68	202.25	244.52	89.41	2,278.64	-3,630.46	3,737.12	3,423.36	313.76	11.911		
14,100.00	7,053.40	7,053.40	7,053.40	205.06	244.51	89.40	2,278.64	-3,630.46	3,833.56	3,520.27	313.29	12.236		
14,200.00	7,053.11	7,053.11	7,053.11	207.88	244.50	89.38	2,278.64	-3,630.46	3,930.17	3,617.33	312.85	12.563		
14,300.00	7,052.83	7,052.83	7,052.83	210.70	244.49	89.36	2,278.64	-3,630.46	4,026.96	3,714.53	312.42	12.889		
14,400.00	7,052.54	7,052.54	7,052.54	213.53	244.48	89.35	2,278.64	-3,630.46	4,123.89	3,811.87	312.02	13.217		
14,500.00	7,052.26	7,052.26	7,052.26	216.35	244.47	89.33	2,278.64	-3,630.46	4,220.97	3,909.33	311.64	13.544		
14,600.00	7,051.98	7,051.98	7,051.98	219.17	244.46	89.32	2,278.64	-3,630.46	4,318.18	4,006.90	311.28	13.872		
14,700.00	7,051.69	7,051.69	7,051.69	222.00	244.45	89.30	2,278.64	-3,630.46	4,415.51	4,104.58	310.93	14.201		
14,800.00	7,051.41	7,051.41	7,051.41	224.82	244.44	89.28	2,278.64	-3,630.46	4,512.97	4,202.36	310.61	14.529		
14,900.00	7,051.12	7,051.12	7,051.12	227.65	244.43	89.27	2,278.64	-3,630.46	4,610.53	4,300.23	310.30	14.858		
14,942.37	7,051.00	7,051.00	7,051.00	228.85	244.43	89.26	2,278.64	-3,630.46	4,651.90	4,341.73	310.17	14.998		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	40.00	3.28	3.28	-65.10	2,249.70	-4,845.81	5,342.71					
100.00	100.00	60.00	100.00	3.28	3.44	-65.10	2,249.70	-4,845.81	5,342.56	5,335.84	6.73	794.095		
200.00	200.00	160.00	200.00	3.34	5.05	-65.10	2,249.70	-4,845.81	5,342.56	5,334.18	8.39	636.986		
300.00	300.00	260.00	300.00	3.44	8.03	-65.10	2,249.70	-4,845.81	5,342.56	5,331.09	11.48	465.530		
400.00	399.98	359.98	399.98	3.60	11.31	-57.83	2,249.70	-4,845.81	5,341.63	5,326.72	14.91	358.241		
500.00	499.84	459.84	499.84	3.81	14.68	-57.92	2,249.70	-4,845.81	5,338.85	5,320.36	18.48	288.825		
600.00	599.45	559.45	599.45	4.06	18.08	-58.08	2,249.70	-4,845.81	5,334.22	5,312.08	22.13	241.012		
700.00	698.70	658.70	698.70	4.34	21.50	-58.30	2,249.70	-4,845.81	5,327.76	5,301.93	25.82	206.308		
800.00	797.47	757.47	797.47	4.64	24.91	-58.58	2,249.70	-4,845.81	5,319.50	5,289.95	29.54	180.063		
900.00	895.65	855.65	895.65	4.98	28.32	-58.88	2,249.70	-4,845.81	5,309.53	5,276.26	33.28	159.560		
1,000.00	993.66	953.66	993.66	5.32	31.72	-59.06	2,249.70	-4,845.81	5,299.14	5,262.11	37.03	143.107		
1,100.00	1,091.67	1,051.67	1,091.67	5.69	35.12	-59.24	2,249.70	-4,845.81	5,288.81	5,248.01	40.80	129.613		
1,200.00	1,189.68	1,149.68	1,189.68	6.09	38.53	-59.42	2,249.70	-4,845.81	5,278.53	5,233.93	44.60	118.358		
1,300.00	1,287.69	1,247.69	1,287.69	6.49	41.94	-59.61	2,249.70	-4,845.81	5,268.31	5,219.90	48.41	108.836		
1,400.00	1,385.69	1,345.69	1,385.69	6.90	45.35	-59.79	2,249.70	-4,845.81	5,258.14	5,205.91	52.23	100.681		
1,500.00	1,483.70	1,443.70	1,483.70	7.33	48.76	-59.97	2,249.70	-4,845.81	5,248.02	5,191.97	56.06	93.622		
1,600.00	1,581.71	1,541.71	1,581.71	7.76	52.18	-60.16	2,249.70	-4,845.81	5,237.97	5,178.07	59.89	87.454		
1,700.00	1,679.72	1,639.72	1,679.72	8.19	55.59	-60.35	2,249.70	-4,845.81	5,227.96	5,164.22	63.74	82.021		
1,800.00	1,777.73	1,737.73	1,777.73	8.63	59.01	-60.53	2,249.70	-4,845.81	5,218.02	5,150.43	67.59	77.201		
1,900.00	1,875.74	1,835.74	1,875.74	9.08	62.43	-60.72	2,249.70	-4,845.81	5,208.13	5,136.68	71.45	72.896		
2,000.00	1,973.75	1,933.75	1,973.75	9.53	65.84	-60.91	2,249.70	-4,845.81	5,198.30	5,122.99	75.31	69.028		
2,100.00	2,071.76	2,031.76	2,071.76	9.98	69.26	-61.10	2,249.70	-4,845.81	5,188.52	5,109.35	79.17	65.535		
2,200.00	2,169.77	2,129.77	2,169.77	10.44	72.68	-61.29	2,249.70	-4,845.81	5,178.81	5,095.77	83.04	62.366		
2,300.00	2,267.77	2,227.77	2,267.77	10.90	76.10	-61.48	2,249.70	-4,845.81	5,169.15	5,082.24	86.91	59.477		
2,400.00	2,365.78	2,325.78	2,365.78	11.36	79.52	-61.67	2,249.70	-4,845.81	5,159.55	5,068.76	90.78	56.834		
2,500.00	2,463.79	2,423.79	2,463.79	11.82	82.93	-61.86	2,249.70	-4,845.81	5,150.01	5,055.35	94.66	54.406		
2,600.00	2,561.80	2,521.80	2,561.80	12.28	86.35	-62.05	2,249.70	-4,845.81	5,140.52	5,041.99	98.54	52.169		
2,700.00	2,659.81	2,619.81	2,659.81	12.75	89.77	-62.24	2,249.70	-4,845.81	5,131.10	5,028.68	102.42	50.101		
2,800.00	2,757.82	2,717.82	2,757.82	13.21	93.19	-62.44	2,249.70	-4,845.81	5,121.74	5,015.44	106.30	48.183		
2,900.00	2,855.83	2,815.83	2,855.83	13.68	96.61	-62.63	2,249.70	-4,845.81	5,112.43	5,002.25	110.18	46.401		
3,000.00	2,953.84	2,913.84	2,953.84	14.15	100.03	-62.82	2,249.70	-4,845.81	5,103.19	4,989.12	114.06	44.740		
3,100.00	3,051.85	3,011.85	3,051.85	14.62	103.45	-63.02	2,249.70	-4,845.81	5,094.00	4,976.06	117.95	43.188		
3,200.00	3,149.85	3,109.85	3,149.85	15.09	106.87	-63.22	2,249.70	-4,845.81	5,084.88	4,963.05	121.84	41.736		
3,300.00	3,247.86	3,207.86	3,247.86	15.56	110.29	-63.41	2,249.70	-4,845.81	5,075.82	4,950.10	125.72	40.373		
3,400.00	3,345.87	3,305.87	3,345.87	16.04	113.71	-63.61	2,249.70	-4,845.81	5,066.82	4,937.21	129.61	39.093		
3,500.00	3,443.88	3,403.88	3,443.88	16.51	117.13	-63.81	2,249.70	-4,845.81	5,057.89	4,924.39	133.50	37.887		
3,600.00	3,541.89	3,501.89	3,541.89	16.98	120.55	-64.01	2,249.70	-4,845.81	5,049.01	4,911.62	137.39	36.749		
3,700.00	3,639.90	3,600.10	3,639.90	17.46	123.98	-64.21	2,249.70	-4,845.81	5,040.20	4,898.91	141.29	35.673		
3,800.00	3,737.91	3,702.09	3,737.91	17.93	127.54	-64.41	2,249.70	-4,845.81	5,031.45	4,886.13	145.32	34.623		
3,900.00	3,835.92	3,804.08	3,835.92	18.41	131.10	-64.61	2,249.70	-4,845.81	5,022.76	4,873.41	149.35	33.631		
4,000.00	3,933.93	3,906.07	3,933.93	18.88	134.66	-64.81	2,249.70	-4,845.81	5,014.14	4,860.76	153.38	32.690		
4,100.00	4,031.93	4,008.07	4,031.93	19.36	138.22	-65.01	2,249.70	-4,845.81	5,005.58	4,848.17	157.42	31.799		
4,200.00	4,129.94	4,089.94	4,129.94	19.84	141.07	-65.22	2,249.70	-4,845.81	4,997.09	4,836.34	160.75	31.087		
4,300.00	4,227.95	4,187.95	4,227.95	20.31	144.49	-65.42	2,249.70	-4,845.81	4,988.66	4,824.02	164.64	30.300		
4,400.00	4,325.96	4,285.96	4,325.96	20.79	147.91	-65.62	2,249.70	-4,845.81	4,980.29	4,811.76	168.54	29.550		
4,500.00	4,423.97	4,383.97	4,423.97	21.27	151.33	-65.83	2,249.70	-4,845.81	4,971.99	4,799.56	172.43	28.835		
4,600.00	4,521.98	4,481.98	4,521.98	21.75	154.76	-66.03	2,249.70	-4,845.81	4,963.76	4,787.43	176.33	28.151		
4,700.00	4,619.99	4,579.99	4,619.99	22.23	158.18	-66.24	2,249.70	-4,845.81	4,955.59	4,775.37	180.22	27.497		
4,800.00	4,718.00	4,678.00	4,718.00	22.70	161.60	-66.45	2,249.70	-4,845.81	4,947.49	4,763.37	184.12	26.871		
4,900.00	4,816.01	4,776.01	4,816.01	23.18	165.02	-66.66	2,249.70	-4,845.81	4,939.45	4,751.43	188.02	26.271		
5,000.00	4,914.01	4,874.01	4,914.01	23.66	168.44	-66.86	2,249.70	-4,845.81	4,931.48	4,739.57	191.92	25.696		
5,100.00	5,012.02	4,972.02	5,012.02	24.14	171.86	-67.07	2,249.70	-4,845.81	4,923.58	4,727.77	195.82	25.144		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,070.03	5,110.03	24.62	175.28	-67.28	2,249.70	-4,845.81	4,915.75	4,716.03	199.71	24.614		
5,300.00	5,208.04	5,168.04	5,208.04	25.10	178.70	-67.49	2,249.70	-4,845.81	4,907.98	4,704.37	203.61	24.105		
5,400.00	5,306.05	5,266.05	5,306.05	25.58	182.12	-67.70	2,249.70	-4,845.81	4,900.28	4,692.77	207.51	23.615		
5,500.00	5,404.06	5,364.06	5,404.06	26.06	185.54	-67.91	2,249.70	-4,845.81	4,892.65	4,681.24	211.41	23.143		
5,600.00	5,502.07	5,462.07	5,502.07	26.54	188.96	-68.13	2,249.70	-4,845.81	4,885.09	4,669.78	215.31	22.689		
5,700.00	5,600.08	5,560.08	5,600.08	27.02	192.39	-68.34	2,249.70	-4,845.81	4,877.60	4,658.39	219.21	22.251		
5,800.00	5,698.09	5,658.09	5,698.09	27.50	195.81	-68.55	2,249.70	-4,845.81	4,870.18	4,647.07	223.11	21.828		
5,900.00	5,796.09	5,756.09	5,796.09	27.98	199.23	-68.77	2,249.70	-4,845.81	4,862.83	4,635.81	227.01	21.421		
6,000.00	5,894.10	5,854.10	5,894.10	28.46	202.65	-68.98	2,249.70	-4,845.81	4,855.54	4,624.63	230.91	21.028		
6,100.00	5,992.11	5,952.11	5,992.11	28.94	206.07	-69.20	2,249.70	-4,845.81	4,848.33	4,613.52	234.81	20.648		
6,200.00	6,090.12	6,050.12	6,090.12	29.42	209.49	-69.41	2,249.70	-4,845.81	4,841.19	4,602.48	238.72	20.280		
6,300.00	6,188.13	6,148.13	6,188.13	29.90	212.91	-69.63	2,249.70	-4,845.81	4,834.12	4,591.50	242.62	19.925		
6,400.00	6,286.14	6,246.14	6,286.14	30.38	216.33	-69.85	2,249.70	-4,845.81	4,827.12	4,580.60	246.52	19.581		
6,500.00	6,384.15	6,344.15	6,384.15	30.87	219.75	-70.06	2,249.70	-4,845.81	4,820.19	4,569.77	250.42	19.248		
6,600.00	6,482.15	6,442.15	6,482.15	31.35	223.17	-61.75	2,249.70	-4,845.81	4,813.04	4,558.72	254.32	18.925		
6,700.00	6,579.21	6,539.21	6,579.21	31.83	226.56	-30.55	2,249.70	-4,845.81	4,795.67	4,537.49	258.19	18.575		
6,800.00	6,673.04	6,633.04	6,673.04	32.30	229.84	-15.43	2,249.70	-4,845.81	4,763.56	4,501.65	261.91	18.188		
6,900.00	6,761.33	6,721.33	6,761.33	32.74	232.92	-7.06	2,249.70	-4,845.81	4,717.46	4,452.07	265.39	17.775		
7,000.00	6,841.90	6,801.90	6,841.90	33.17	235.73	-1.18	2,249.70	-4,845.81	4,658.49	4,389.94	268.56	17.346		
7,100.00	6,912.77	6,872.77	6,912.77	33.60	238.21	4.15	2,249.70	-4,845.81	4,588.10	4,316.78	271.32	16.911		
7,200.00	6,972.19	6,932.19	6,972.19	34.09	240.28	10.35	2,249.70	-4,845.81	4,508.01	4,234.41	273.60	16.477		
7,300.00	7,018.70	6,978.70	7,018.70	34.73	241.90	19.42	2,249.70	-4,845.81	4,420.22	4,144.86	275.36	16.052		
7,400.00	7,051.15	7,011.15	7,051.15	35.55	243.04	35.44	2,249.70	-4,845.81	4,326.92	4,050.37	276.56	15.646		
7,500.00	7,068.75	7,028.75	7,068.75	36.56	243.65	65.24	2,249.70	-4,845.81	4,230.46	3,953.29	277.18	15.263		
7,600.00	7,071.91	7,031.91	7,071.91	37.71	243.76	90.67	2,249.70	-4,845.81	4,133.21	3,855.95	277.25	14.908		
7,700.00	7,071.62	7,031.62	7,071.62	39.03	243.75	90.65	2,249.70	-4,845.81	4,036.14	3,758.92	277.21	14.560		
7,800.00	7,071.34	7,031.34	7,071.34	40.51	243.74	90.63	2,249.70	-4,845.81	3,939.21	3,662.02	277.20	14.211		
7,900.00	7,071.05	7,031.05	7,071.05	42.14	243.73	90.62	2,249.70	-4,845.81	3,842.45	3,565.25	277.20	13.862		
8,000.00	7,070.77	7,030.77	7,070.77	43.89	243.72	90.60	2,249.70	-4,845.81	3,745.85	3,468.62	277.23	13.512		
8,100.00	7,070.48	7,030.48	7,070.48	45.76	243.71	90.58	2,249.70	-4,845.81	3,649.44	3,372.15	277.29	13.161		
8,200.00	7,070.20	7,030.20	7,070.20	47.72	243.70	90.57	2,249.70	-4,845.81	3,553.23	3,275.84	277.38	12.810		
8,300.00	7,069.92	7,029.92	7,069.92	49.78	243.69	90.55	2,249.70	-4,845.81	3,457.23	3,179.71	277.51	12.458		
8,400.00	7,069.63	7,029.63	7,069.63	51.90	243.68	90.53	2,249.70	-4,845.81	3,361.46	3,083.77	277.69	12.105		
8,500.00	7,069.35	7,029.35	7,069.35	54.10	243.67	90.52	2,249.70	-4,845.81	3,265.95	2,988.03	277.92	11.751		
8,600.00	7,069.06	7,029.06	7,069.06	56.36	243.66	90.50	2,249.70	-4,845.81	3,170.71	2,892.50	278.21	11.397		
8,700.00	7,068.78	7,028.78	7,068.78	58.66	243.65	90.48	2,249.70	-4,845.81	3,075.78	2,797.21	278.57	11.042		
8,800.00	7,068.49	7,028.49	7,068.49	61.02	243.64	90.47	2,249.70	-4,845.81	2,981.18	2,702.18	279.00	10.685		
8,900.00	7,068.21	7,028.21	7,068.21	63.42	243.63	90.45	2,249.70	-4,845.81	2,886.94	2,607.43	279.51	10.328		
9,000.00	7,067.92	7,027.92	7,067.92	65.85	243.62	90.43	2,249.70	-4,845.81	2,793.10	2,512.98	280.13	9.971		
9,100.00	7,067.64	7,027.64	7,067.64	68.32	243.61	90.42	2,249.70	-4,845.81	2,699.71	2,418.86	280.85	9.613		
9,200.00	7,067.35	7,027.35	7,067.35	70.81	243.60	90.40	2,249.70	-4,845.81	2,606.80	2,325.11	281.70	9.254		
9,300.00	7,067.07	7,027.07	7,067.07	73.34	243.59	90.38	2,249.70	-4,845.81	2,514.44	2,231.76	282.69	8.895		
9,400.00	7,066.78	7,026.78	7,066.78	75.88	243.58	90.37	2,249.70	-4,845.81	2,422.69	2,138.86	283.83	8.536		
9,500.00	7,066.50	7,026.50	7,066.50	78.45	243.57	90.35	2,249.70	-4,845.81	2,331.62	2,046.47	285.15	8.177		
9,600.00	7,066.21	7,026.21	7,066.21	81.04	243.56	90.33	2,249.70	-4,845.81	2,241.30	1,954.64	286.66	7.819		
9,700.00	7,065.93	7,025.93	7,065.93	83.64	243.55	90.32	2,249.70	-4,845.81	2,151.84	1,863.45	288.39	7.461		
9,800.00	7,065.64	7,025.64	7,065.64	86.26	243.54	90.30	2,249.70	-4,845.81	2,063.35	1,772.99	290.37	7.106		
9,900.00	7,065.36	7,025.36	7,065.36	88.90	243.53	90.29	2,249.70	-4,845.81	1,975.96	1,683.35	292.61	6.753		
10,000.00	7,065.07	7,025.07	7,065.07	91.55	243.52	90.27	2,249.70	-4,845.81	1,889.82	1,594.68	295.15	6.403		
10,100.00	7,064.79	7,024.79	7,064.79	94.21	243.51	90.25	2,249.70	-4,845.81	1,805.11	1,507.11	298.01	6.057		
10,200.00	7,064.50	7,024.50	7,064.50	96.88	243.50	90.24	2,249.70	-4,845.81	1,722.04	1,420.82	301.22	5.717		
10,300.00	7,064.22	7,024.22	7,064.22	99.57	243.49	90.22	2,249.70	-4,845.81	1,640.86	1,336.03	304.83	5.383		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - LUCAS SCHOOL 34-9(TA_150CC) - OH - OH												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
10,400.00	7,063.94	7,023.94	7,063.94	102.26	243.48	90.20	2,249.70	-4,845.81	1,561.87	1,253.02	308.85	5.057	
10,500.00	7,063.65	7,023.65	7,063.65	104.96	243.47	90.19	2,249.70	-4,845.81	1,485.40	1,172.09	313.31	4.741	
10,600.00	7,063.37	7,023.37	7,063.37	107.67	243.46	90.17	2,249.70	-4,845.81	1,411.89	1,093.64	318.24	4.437	
10,700.00	7,063.08	7,023.08	7,063.08	110.39	243.45	90.15	2,249.70	-4,845.81	1,341.80	1,018.16	323.64	4.146	
10,800.00	7,062.80	7,022.80	7,062.80	113.11	243.44	90.14	2,249.70	-4,845.81	1,275.70	946.20	329.50	3.872	
10,900.00	7,062.51	7,022.51	7,062.51	115.84	243.43	90.12	2,249.70	-4,845.81	1,214.26	878.47	335.79	3.616	
11,000.00	7,062.23	7,022.23	7,062.23	118.58	243.42	90.10	2,249.70	-4,845.81	1,158.20	815.79	342.41	3.383	
11,100.00	7,061.94	7,021.94	7,061.94	121.32	243.41	90.09	2,249.70	-4,845.81	1,108.34	759.10	349.24	3.174	
11,200.00	7,061.66	7,021.66	7,061.66	124.07	243.40	90.07	2,249.70	-4,845.81	1,065.56	709.47	356.09	2.992	
11,300.00	7,061.37	7,021.37	7,061.37	126.82	243.39	90.05	2,249.70	-4,845.81	1,030.73	668.03	362.70	2.842	
11,400.00	7,061.09	7,021.09	7,061.09	129.58	243.38	90.04	2,249.70	-4,845.81	1,004.69	635.90	368.80	2.724	
11,500.00	7,060.80	7,020.80	7,060.80	132.34	243.37	90.02	2,249.70	-4,845.81	988.13	614.07	374.06	2.642	
11,600.00	7,060.52	7,020.52	7,060.52	135.10	243.36	90.00	2,249.70	-4,845.81	981.53	603.30	378.23	2.595	
11,615.02	7,060.48	7,020.48	7,060.48	135.52	243.36	90.00	2,249.70	-4,845.81	981.42	602.67	378.75	2.591 CC, ES	
11,700.00	7,060.23	7,020.23	7,060.23	137.87	243.35	89.99	2,249.70	-4,845.81	985.09	603.97	381.11	2.585 SF	
11,800.00	7,059.95	7,019.95	7,059.95	140.64	243.34	89.97	2,249.70	-4,845.81	998.70	616.04	382.66	2.610	
11,900.00	7,059.66	7,019.66	7,059.66	143.42	243.33	89.95	2,249.70	-4,845.81	1,021.96	639.05	382.91	2.669	
12,000.00	7,059.38	7,019.38	7,059.38	146.20	243.32	89.94	2,249.70	-4,845.81	1,054.23	672.19	382.03	2.760	
12,100.00	7,059.09	7,019.09	7,059.09	148.98	243.31	89.92	2,249.70	-4,845.81	1,094.71	714.47	380.24	2.879	
12,200.00	7,058.81	7,018.81	7,058.81	151.77	243.30	89.90	2,249.70	-4,845.81	1,142.53	764.77	377.76	3.024	
12,300.00	7,058.52	7,018.52	7,058.52	154.55	243.29	89.89	2,249.70	-4,845.81	1,196.82	821.99	374.83	3.193	
12,400.00	7,058.24	7,018.24	7,058.24	157.34	243.28	89.87	2,249.70	-4,845.81	1,256.73	885.11	371.62	3.382	
12,500.00	7,057.96	7,017.96	7,057.96	160.14	243.27	89.85	2,249.70	-4,845.81	1,321.50	953.22	368.28	3.588	
12,600.00	7,057.67	7,017.67	7,057.67	162.93	243.26	89.84	2,249.70	-4,845.81	1,390.46	1,025.52	364.93	3.810	
12,700.00	7,057.39	7,017.39	7,057.39	165.73	243.25	89.82	2,249.70	-4,845.81	1,463.00	1,101.36	361.64	4.045	
12,800.00	7,057.10	7,017.10	7,057.10	168.53	243.24	89.80	2,249.70	-4,845.81	1,538.62	1,180.16	358.46	4.292	
12,900.00	7,056.82	7,016.82	7,056.82	171.33	243.23	89.79	2,249.70	-4,845.81	1,616.90	1,261.47	355.42	4.549	
13,000.00	7,056.53	7,016.53	7,056.53	174.13	243.22	89.77	2,249.70	-4,845.81	1,697.45	1,344.91	352.54	4.815	
13,100.00	7,056.25	7,016.25	7,056.25	176.94	243.21	89.75	2,249.70	-4,845.81	1,779.98	1,430.15	349.83	5.088	
13,200.00	7,055.96	7,015.96	7,055.96	179.74	243.20	89.74	2,249.70	-4,845.81	1,864.23	1,516.94	347.28	5.368	
13,300.00	7,055.68	7,015.68	7,055.68	182.55	243.19	89.72	2,249.70	-4,845.81	1,949.96	1,605.06	344.90	5.654	
13,400.00	7,055.39	7,015.39	7,055.39	185.36	243.18	89.70	2,249.70	-4,845.81	2,036.99	1,694.32	342.66	5.945	
13,500.00	7,055.11	7,015.11	7,055.11	188.17	243.17	89.69	2,249.70	-4,845.81	2,125.16	1,784.58	340.58	6.240	
13,600.00	7,054.82	7,014.82	7,054.82	190.98	243.16	89.67	2,249.70	-4,845.81	2,214.34	1,875.71	338.63	6.539	
13,700.00	7,054.54	7,014.54	7,054.54	193.80	243.15	89.65	2,249.70	-4,845.81	2,304.41	1,967.60	336.81	6.842	
13,800.00	7,054.25	7,014.25	7,054.25	196.61	243.14	89.64	2,249.70	-4,845.81	2,395.27	2,060.15	335.11	7.148	
13,900.00	7,053.97	7,013.97	7,053.97	199.43	243.13	89.62	2,249.70	-4,845.81	2,486.82	2,153.30	333.52	7.456	
14,000.00	7,053.68	7,013.68	7,053.68	202.25	243.12	89.60	2,249.70	-4,845.81	2,579.01	2,246.97	332.04	7.767	
14,100.00	7,053.40	7,013.40	7,053.40	205.06	243.11	89.59	2,249.70	-4,845.81	2,671.76	2,341.11	330.64	8.080	
14,200.00	7,053.11	7,013.11	7,053.11	207.88	243.10	89.57	2,249.70	-4,845.81	2,765.01	2,435.67	329.34	8.396	
14,300.00	7,052.83	7,012.83	7,052.83	210.70	243.09	89.55	2,249.70	-4,845.81	2,858.72	2,530.60	328.11	8.713	
14,400.00	7,052.54	7,012.54	7,052.54	213.53	243.09	89.54	2,249.70	-4,845.81	2,952.84	2,625.88	326.96	9.031	
14,500.00	7,052.26	7,012.26	7,052.26	216.35	243.08	89.52	2,249.70	-4,845.81	3,047.33	2,721.45	325.88	9.351	
14,600.00	7,051.98	7,011.98	7,051.98	219.17	243.07	89.50	2,249.70	-4,845.81	3,142.17	2,817.31	324.87	9.672	
14,700.00	7,051.69	7,011.69	7,051.69	222.00	243.06	89.49	2,249.70	-4,845.81	3,237.32	2,913.41	323.91	9.995	
14,800.00	7,051.41	7,011.41	7,051.41	224.82	243.05	89.47	2,249.70	-4,845.81	3,332.75	3,009.75	323.00	10.318	
14,900.00	7,051.12	7,011.12	7,051.12	227.65	243.04	89.45	2,249.70	-4,845.81	3,428.44	3,106.29	322.15	10.642	
14,942.37	7,051.00	7,011.00	7,051.00	228.85	243.03	89.45	2,249.70	-4,845.81	3,469.06	3,147.26	321.80	10.780	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	67.00	3.28	3.28	-124.53	-4,371.93	-6,352.93	7,712.19				
100.00	100.00	33.00	100.00	3.28	3.33	-124.53	-4,371.93	-6,352.93	7,711.90	7,705.29	6.61	1,165.835	
200.00	200.00	133.00	200.00	3.34	4.38	-124.53	-4,371.93	-6,352.93	7,711.90	7,704.19	7.71	999.784	
300.00	300.00	233.00	300.00	3.44	7.18	-124.53	-4,371.93	-6,352.93	7,711.90	7,701.28	10.63	725.740	
400.00	399.98	332.98	399.98	3.60	10.41	-117.23	-4,371.93	-6,352.93	7,712.70	7,698.69	14.01	550.422	
500.00	499.84	432.84	499.84	3.81	13.76	-117.22	-4,371.93	-6,352.93	7,715.10	7,697.53	17.57	439.162	
600.00	599.45	532.45	599.45	4.06	17.16	-117.21	-4,371.93	-6,352.93	7,719.10	7,697.89	21.21	363.987	
700.00	698.70	631.70	698.70	4.34	20.57	-117.19	-4,371.93	-6,352.93	7,724.70	7,699.80	24.89	310.293	
800.00	797.47	730.47	797.47	4.64	23.98	-117.16	-4,371.93	-6,352.93	7,731.91	7,703.30	28.61	270.237	
900.00	895.65	828.65	895.65	4.98	27.38	-117.17	-4,371.93	-6,352.93	7,740.69	7,708.34	32.35	239.313	
1,000.00	993.66	926.66	993.66	5.32	30.78	-117.30	-4,371.93	-6,352.93	7,749.92	7,713.82	36.10	214.676	
1,100.00	1,091.67	1,024.67	1,091.67	5.69	34.18	-117.43	-4,371.93	-6,352.93	7,759.19	7,719.32	39.88	194.572	
1,200.00	1,189.68	1,122.68	1,189.68	6.09	37.59	-117.56	-4,371.93	-6,352.93	7,768.51	7,724.83	43.67	177.874	
1,300.00	1,287.69	1,220.69	1,287.69	6.49	41.00	-117.69	-4,371.93	-6,352.93	7,777.86	7,730.37	47.48	163.797	
1,400.00	1,385.69	1,318.69	1,385.69	6.90	44.41	-117.81	-4,371.93	-6,352.93	7,787.25	7,735.94	51.31	151.777	
1,500.00	1,483.70	1,416.70	1,483.70	7.33	47.82	-117.94	-4,371.93	-6,352.93	7,796.68	7,741.54	55.14	141.399	
1,600.00	1,581.71	1,514.71	1,581.71	7.76	51.24	-118.07	-4,371.93	-6,352.93	7,806.15	7,747.17	58.98	132.352	
1,700.00	1,679.72	1,612.72	1,679.72	8.19	54.65	-118.19	-4,371.93	-6,352.93	7,815.66	7,752.83	62.83	124.398	
1,800.00	1,777.73	1,710.73	1,777.73	8.63	58.07	-118.32	-4,371.93	-6,352.93	7,825.20	7,758.52	66.68	117.353	
1,900.00	1,875.74	1,808.74	1,875.74	9.08	61.49	-118.44	-4,371.93	-6,352.93	7,834.79	7,764.25	70.54	111.070	
2,000.00	1,973.75	1,906.75	1,973.75	9.53	64.90	-118.57	-4,371.93	-6,352.93	7,844.41	7,770.01	74.40	105.434	
2,100.00	2,071.76	2,004.76	2,071.76	9.98	68.32	-118.70	-4,371.93	-6,352.93	7,854.08	7,775.81	78.27	100.350	
2,200.00	2,169.77	2,102.77	2,169.77	10.44	71.74	-118.82	-4,371.93	-6,352.93	7,863.78	7,781.64	82.14	95.741	
2,300.00	2,267.77	2,200.77	2,267.77	10.90	75.16	-118.95	-4,371.93	-6,352.93	7,873.52	7,787.51	86.01	91.544	
2,400.00	2,365.78	2,301.22	2,365.78	11.36	78.66	-119.07	-4,371.93	-6,352.93	7,883.29	7,793.33	89.97	87.624	
2,500.00	2,463.79	2,403.21	2,463.79	11.82	82.22	-119.19	-4,371.93	-6,352.93	7,893.11	7,799.13	93.98	83.985	
2,600.00	2,561.80	2,505.20	2,561.80	12.28	85.77	-119.32	-4,371.93	-6,352.93	7,902.96	7,804.96	98.00	80.643	
2,700.00	2,659.81	2,607.19	2,659.81	12.75	89.33	-119.44	-4,371.93	-6,352.93	7,912.85	7,810.83	102.02	77.563	
2,800.00	2,757.82	2,709.18	2,757.82	13.21	92.89	-119.56	-4,371.93	-6,352.93	7,922.78	7,816.74	106.04	74.716	
2,900.00	2,855.83	2,788.83	2,855.83	13.68	95.67	-119.69	-4,371.93	-6,352.93	7,932.74	7,823.46	109.28	72.591	
3,000.00	2,953.84	2,886.84	2,953.84	14.15	99.09	-119.81	-4,371.93	-6,352.93	7,942.75	7,829.58	113.16	70.188	
3,100.00	3,051.85	2,984.85	3,051.85	14.62	102.51	-119.93	-4,371.93	-6,352.93	7,952.79	7,835.74	117.05	67.944	
3,200.00	3,149.85	3,082.85	3,149.85	15.09	105.93	-120.05	-4,371.93	-6,352.93	7,962.86	7,841.93	120.93	65.845	
3,300.00	3,247.86	3,180.86	3,247.86	15.56	109.35	-120.18	-4,371.93	-6,352.93	7,972.97	7,848.15	124.82	63.875	
3,400.00	3,345.87	3,278.87	3,345.87	16.04	112.77	-120.30	-4,371.93	-6,352.93	7,983.12	7,854.42	128.71	62.025	
3,500.00	3,443.88	3,376.88	3,443.88	16.51	116.19	-120.42	-4,371.93	-6,352.93	7,993.31	7,860.71	132.60	60.283	
3,600.00	3,541.89	3,474.89	3,541.89	16.98	119.61	-120.54	-4,371.93	-6,352.93	8,003.53	7,867.05	136.48	58.641	
3,700.00	3,639.90	3,572.90	3,639.90	17.46	123.03	-120.66	-4,371.93	-6,352.93	8,013.79	7,873.42	140.37	57.089	
3,800.00	3,737.91	3,670.91	3,737.91	17.93	126.45	-120.78	-4,371.93	-6,352.93	8,024.08	7,879.82	144.26	55.621	
3,900.00	3,835.92	3,768.92	3,835.92	18.41	129.87	-120.90	-4,371.93	-6,352.93	8,034.41	7,886.26	148.15	54.230	
4,000.00	3,933.93	3,866.93	3,933.93	18.88	133.29	-121.02	-4,371.93	-6,352.93	8,044.78	7,892.73	152.04	52.911	
4,100.00	4,031.93	3,964.93	4,031.93	19.36	136.71	-121.14	-4,371.93	-6,352.93	8,055.18	7,899.25	155.94	51.657	
4,200.00	4,129.94	4,062.94	4,129.94	19.84	140.13	-121.26	-4,371.93	-6,352.93	8,065.62	7,905.79	159.83	50.465	
4,300.00	4,227.95	4,160.95	4,227.95	20.31	143.55	-121.38	-4,371.93	-6,352.93	8,076.09	7,912.37	163.72	49.329	
4,400.00	4,325.96	4,258.96	4,325.96	20.79	146.97	-121.49	-4,371.93	-6,352.93	8,086.60	7,918.99	167.61	48.246	
4,500.00	4,423.97	4,356.97	4,423.97	21.27	150.39	-121.61	-4,371.93	-6,352.93	8,097.14	7,925.64	171.50	47.213	
4,600.00	4,521.98	4,454.98	4,521.98	21.75	153.81	-121.73	-4,371.93	-6,352.93	8,107.72	7,932.32	175.40	46.225	
4,700.00	4,619.99	4,452.00	4,619.99	22.23	157.21	-121.73	-4,371.93	-6,352.93	8,118.96	7,943.23	179.33	45.203	
4,800.00	4,718.00	4,452.00	4,718.00	22.70	160.61	-121.73	-4,371.93	-6,352.93	8,131.41	7,955.28	183.26	44.166	
4,900.00	4,816.01	4,452.00	4,816.01	23.18	164.01	-121.73	-4,371.93	-6,352.93	8,145.07	7,968.56	187.19	43.144	
5,000.00	4,914.01	4,452.00	4,914.01	23.66	167.41	-121.73	-4,371.93	-6,352.93	8,159.94	7,983.07	191.12	42.135	
5,100.00	5,012.02	4,452.00	5,012.02	24.14	170.81	-121.73	-4,371.93	-6,352.93	8,176.00	7,998.80	195.05	41.140	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MAURICE LEFFLER 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	4,452.00	4,519.00	24.62	153.71	-121.73	-4,371.93	-6,352.93	8,193.25	8,015.75	177.50	46.158		
5,300.00	5,208.04	4,452.00	4,519.00	25.10	153.71	-121.73	-4,371.93	-6,352.93	8,211.68	8,033.90	177.78	46.190		
5,400.00	5,306.05	4,452.00	4,519.00	25.58	153.71	-121.73	-4,371.93	-6,352.93	8,231.29	8,053.26	178.03	46.235		
5,500.00	5,404.06	4,452.00	4,519.00	26.06	153.71	-121.73	-4,371.93	-6,352.93	8,252.06	8,073.80	178.26	46.292		
5,600.00	5,502.07	4,452.00	4,519.00	26.54	153.71	-121.73	-4,371.93	-6,352.93	8,273.99	8,095.53	178.46	46.363		
5,700.00	5,600.08	4,452.00	4,519.00	27.02	153.71	-121.73	-4,371.93	-6,352.93	8,297.06	8,118.43	178.64	46.446		
5,800.00	5,698.09	4,452.00	4,519.00	27.50	153.71	-121.73	-4,371.93	-6,352.93	8,321.28	8,142.49	178.79	46.542		
5,900.00	5,796.09	4,452.00	4,519.00	27.98	153.71	-121.73	-4,371.93	-6,352.93	8,346.62	8,167.70	178.92	46.651		
6,000.00	5,894.10	4,452.00	4,519.00	28.46	153.71	-121.73	-4,371.93	-6,352.93	8,373.08	8,194.06	179.02	46.771		
6,100.00	5,992.11	4,452.00	4,519.00	28.94	153.71	-121.73	-4,371.93	-6,352.93	8,400.64	8,221.54	179.10	46.904		
6,200.00	6,090.12	4,452.00	4,519.00	29.42	153.71	-121.73	-4,371.93	-6,352.93	8,429.31	8,250.14	179.16	47.049		
6,300.00	6,188.13	4,452.00	4,519.00	29.90	153.71	-121.73	-4,371.93	-6,352.93	8,459.05	8,279.86	179.20	47.205		
6,400.00	6,286.14	4,452.00	4,519.00	30.38	153.71	-121.73	-4,371.93	-6,352.93	8,489.87	8,310.66	179.21	47.373		
6,500.00	6,384.15	4,452.00	4,519.00	30.87	153.71	-121.73	-4,371.93	-6,352.93	8,521.76	8,342.55	179.20	47.553		
6,600.00	6,482.15	4,452.00	4,519.00	31.35	153.71	-112.85	-4,371.93	-6,352.93	8,554.46	8,375.29	179.18	47.743		
6,700.00	6,579.21	4,452.00	4,519.00	31.83	153.71	-80.37	-4,371.93	-6,352.93	8,580.17	8,401.04	179.13	47.899		
6,800.00	6,673.04	4,452.00	4,519.00	32.30	153.71	-65.02	-4,371.93	-6,352.93	8,594.67	8,415.60	179.07	47.996		
6,900.00	6,761.33	4,452.00	4,519.00	32.74	153.71	-57.55	-4,371.93	-6,352.93	8,597.67	8,418.66	179.01	48.028		
7,000.00	6,841.90	4,452.00	4,519.00	33.17	153.71	-53.85	-4,371.93	-6,352.93	8,589.10	8,410.13	178.97	47.992		
7,100.00	6,912.77	4,452.00	4,519.00	33.60	153.71	-52.39	-4,371.93	-6,352.93	8,569.15	8,390.17	178.98	47.878		
7,200.00	6,972.19	4,452.00	4,519.00	34.09	153.71	-52.55	-4,371.93	-6,352.93	8,538.22	8,359.15	179.07	47.681		
7,300.00	7,018.70	4,452.00	4,519.00	34.73	153.71	-54.14	-4,371.93	-6,352.93	8,496.96	8,317.69	179.27	47.397		
7,400.00	7,051.15	4,452.00	4,519.00	35.55	153.71	-57.14	-4,371.93	-6,352.93	8,446.25	8,266.63	179.62	47.024		
7,500.00	7,068.75	4,452.00	4,519.00	36.56	153.71	-61.71	-4,371.93	-6,352.93	8,387.17	8,207.07	180.10	46.569		
7,600.00	7,071.91	4,452.00	4,519.00	37.71	153.71	-65.74	-4,371.93	-6,352.93	8,321.39	8,140.66	180.72	46.045		
7,700.00	7,071.62	4,452.00	4,519.00	39.03	153.71	-65.74	-4,371.93	-6,352.93	8,254.67	8,073.23	181.45	45.493		
7,800.00	7,071.34	4,452.00	4,519.00	40.51	153.71	-65.74	-4,371.93	-6,352.93	8,188.64	8,006.36	182.28	44.923		
7,900.00	7,071.05	4,452.00	4,519.00	42.14	153.71	-65.74	-4,371.93	-6,352.93	8,123.30	7,940.08	183.21	44.338		
8,000.00	7,070.77	4,452.00	4,519.00	43.89	153.71	-65.74	-4,371.93	-6,352.93	8,058.67	7,874.42	184.25	43.738		
8,100.00	7,070.48	4,452.00	4,519.00	45.76	153.71	-65.74	-4,371.93	-6,352.93	7,994.77	7,809.39	185.38	43.128		
8,200.00	7,070.20	4,452.00	4,519.00	47.72	153.71	-65.74	-4,371.93	-6,352.93	7,931.61	7,745.02	186.59	42.507		
8,300.00	7,069.92	4,452.00	4,519.00	49.78	153.71	-65.74	-4,371.93	-6,352.93	7,869.22	7,681.32	187.90	41.880		
8,400.00	7,069.63	4,452.00	4,519.00	51.90	153.71	-65.74	-4,371.93	-6,352.93	7,807.61	7,618.32	189.29	41.247		
8,500.00	7,069.35	4,452.00	4,519.00	54.10	153.71	-65.74	-4,371.93	-6,352.93	7,746.81	7,556.05	190.76	40.610		
8,600.00	7,069.06	4,452.00	4,519.00	56.36	153.71	-65.74	-4,371.93	-6,352.93	7,686.82	7,494.51	192.31	39.972		
8,700.00	7,068.78	4,452.00	4,519.00	58.66	153.71	-65.74	-4,371.93	-6,352.93	7,627.67	7,433.75	193.92	39.333		
8,800.00	7,068.49	4,452.00	4,519.00	61.02	153.71	-65.74	-4,371.93	-6,352.93	7,569.38	7,373.77	195.61	38.696		
8,900.00	7,068.21	4,452.00	4,519.00	63.42	153.71	-65.74	-4,371.93	-6,352.93	7,511.97	7,314.61	197.36	38.061		
9,000.00	7,067.92	4,452.00	4,519.00	65.85	153.71	-65.74	-4,371.93	-6,352.93	7,455.46	7,256.28	199.18	37.431		
9,100.00	7,067.64	4,452.00	4,519.00	68.32	153.71	-65.74	-4,371.93	-6,352.93	7,399.87	7,198.81	201.06	36.805		
9,200.00	7,067.35	4,452.00	4,519.00	70.81	153.71	-65.74	-4,371.93	-6,352.93	7,345.22	7,142.23	202.99	36.185		
9,300.00	7,067.07	4,452.00	4,519.00	73.34	153.71	-65.74	-4,371.93	-6,352.93	7,291.53	7,086.55	204.98	35.571		
9,400.00	7,066.78	4,452.00	4,519.00	75.88	153.71	-65.74	-4,371.93	-6,352.93	7,238.82	7,031.80	207.03	34.966		
9,500.00	7,066.50	4,452.00	4,519.00	78.45	153.71	-65.74	-4,371.93	-6,352.93	7,187.12	6,978.00	209.12	34.369		
9,600.00	7,066.21	4,452.00	4,519.00	81.04	153.71	-65.74	-4,371.93	-6,352.93	7,136.45	6,925.19	211.26	33.780		
9,700.00	7,065.93	4,452.00	4,519.00	83.64	153.71	-65.74	-4,371.93	-6,352.93	7,086.82	6,873.38	213.45	33.201		
9,800.00	7,065.64	4,452.00	4,519.00	86.26	153.71	-65.74	-4,371.93	-6,352.93	7,038.27	6,822.59	215.68	32.633		
9,900.00	7,065.36	4,452.00	4,519.00	88.90	153.71	-65.74	-4,371.93	-6,352.93	6,990.81	6,772.85	217.96	32.074		
10,000.00	7,065.07	4,452.00	4,519.00	91.55	153.71	-65.74	-4,371.93	-6,352.93	6,944.47	6,724.19	220.27	31.527		
10,100.00	7,064.79	4,452.00	4,519.00	94.21	153.71	-65.74	-4,371.93	-6,352.93	6,899.26	6,676.63	222.63	30.990		
10,200.00	7,064.50	4,452.00	4,519.00	96.88	153.71	-65.74	-4,371.93	-6,352.93	6,855.21	6,630.19	225.02	30.465		
10,300.00	7,064.22	4,452.00	4,519.00	99.57	153.71	-65.74	-4,371.93	-6,352.93	6,812.35	6,584.91	227.45	29.952		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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	7,063.94	4,452.00	4,519.00	102.26	153.71	-65.74	-4,371.93	-6,352.93	6,770.69	6,540.79	229.90	29.450		
10,500.00	7,063.65	4,452.00	4,519.00	104.96	153.71	-65.74	-4,371.93	-6,352.93	6,730.26	6,497.87	232.39	28.960		
10,600.00	7,063.37	4,452.00	4,519.00	107.67	153.71	-65.74	-4,371.93	-6,352.93	6,691.09	6,456.17	234.91	28.483		
10,700.00	7,063.08	4,452.00	4,519.00	110.39	153.71	-65.74	-4,371.93	-6,352.93	6,653.18	6,415.72	237.46	28.018		
10,800.00	7,062.80	4,452.00	4,519.00	113.11	153.71	-65.74	-4,371.93	-6,352.93	6,616.57	6,376.53	240.03	27.565		
10,900.00	7,062.51	4,452.00	4,519.00	115.84	153.71	-65.74	-4,371.93	-6,352.93	6,581.27	6,338.64	242.63	27.125		
11,000.00	7,062.23	4,452.00	4,519.00	118.58	153.71	-65.74	-4,371.93	-6,352.93	6,547.31	6,302.07	245.25	26.697		
11,100.00	7,061.94	4,452.00	4,519.00	121.32	153.71	-65.74	-4,371.93	-6,352.93	6,514.71	6,266.83	247.88	26.282		
11,200.00	7,061.66	4,452.00	4,519.00	124.07	153.71	-65.74	-4,371.93	-6,352.93	6,483.49	6,232.96	250.54	25.879		
11,300.00	7,061.37	4,452.00	4,519.00	126.82	153.71	-65.74	-4,371.93	-6,352.93	6,453.67	6,200.47	253.20	25.488		
11,400.00	7,061.09	4,452.00	4,519.00	129.58	153.71	-65.74	-4,371.93	-6,352.93	6,425.26	6,169.38	255.88	25.110		
11,500.00	7,060.80	4,452.00	4,519.00	132.34	153.71	-65.74	-4,371.93	-6,352.93	6,398.30	6,139.72	258.57	24.744		
11,600.00	7,060.52	4,452.00	4,519.00	135.10	153.71	-65.74	-4,371.93	-6,352.93	6,372.78	6,111.51	261.27	24.391		
11,700.00	7,060.23	4,452.00	4,519.00	137.87	153.71	-65.74	-4,371.93	-6,352.93	6,348.74	6,084.76	263.98	24.050		
11,800.00	7,059.95	4,452.00	4,519.00	140.64	153.71	-65.74	-4,371.93	-6,352.93	6,326.19	6,059.51	266.69	23.721		
11,900.00	7,059.66	4,452.00	4,519.00	143.42	153.71	-65.74	-4,371.93	-6,352.93	6,305.15	6,035.75	269.40	23.405		
12,000.00	7,059.38	4,452.00	4,519.00	146.20	153.71	-65.74	-4,371.93	-6,352.93	6,285.62	6,013.52	272.10	23.100		
12,100.00	7,059.09	4,452.00	4,519.00	148.98	153.71	-65.74	-4,371.93	-6,352.93	6,267.63	5,992.83	274.81	22.807		
12,200.00	7,058.81	4,452.00	4,519.00	151.77	153.71	-65.74	-4,371.93	-6,352.93	6,251.19	5,973.69	277.50	22.527		
12,300.00	7,058.52	4,452.00	4,519.00	154.55	153.71	-65.74	-4,371.93	-6,352.93	6,236.31	5,956.12	280.19	22.257		
12,400.00	7,058.24	4,452.00	4,519.00	157.34	153.71	-65.74	-4,371.93	-6,352.93	6,223.00	5,940.13	282.87	22.000		
12,500.00	7,057.96	4,452.00	4,519.00	160.14	153.71	-65.74	-4,371.93	-6,352.93	6,211.27	5,925.74	285.53	21.753		
12,600.00	7,057.67	4,452.00	4,519.00	162.93	153.71	-65.74	-4,371.93	-6,352.93	6,201.13	5,912.96	288.18	21.518		
12,700.00	7,057.39	4,452.00	4,519.00	165.73	153.71	-65.74	-4,371.93	-6,352.93	6,192.60	5,901.79	290.81	21.295		
12,800.00	7,057.10	4,452.00	4,519.00	168.53	153.71	-65.74	-4,371.93	-6,352.93	6,185.66	5,892.25	293.41	21.082		
12,900.00	7,056.82	4,452.00	4,519.00	171.33	153.71	-65.74	-4,371.93	-6,352.93	6,180.34	5,884.34	295.99	20.880		
13,000.00	7,056.53	4,452.00	4,519.00	174.13	153.71	-65.74	-4,371.93	-6,352.93	6,176.63	5,878.08	298.55	20.689		
13,100.00	7,056.25	4,452.00	4,519.00	176.94	153.71	-65.74	-4,371.93	-6,352.93	6,174.54	5,873.46	301.08	20.508		
13,179.14	7,056.02	4,452.00	4,519.00	179.16	153.71	-65.74	-4,371.93	-6,352.93	6,174.03	5,870.97	303.06	20.372	CC	
13,200.00	7,055.96	4,452.00	4,519.00	179.74	153.71	-65.74	-4,371.93	-6,352.93	6,174.07	5,870.49	303.58	20.337		
13,300.00	7,055.68	4,452.00	4,519.00	182.55	153.71	-65.74	-4,371.93	-6,352.93	6,175.21	5,869.17	306.05	20.177	ES	
13,400.00	7,055.39	4,452.00	4,519.00	185.36	153.71	-65.74	-4,371.93	-6,352.93	6,177.98	5,869.50	308.48	20.027		
13,500.00	7,055.11	4,452.00	4,519.00	188.17	153.71	-65.74	-4,371.93	-6,352.93	6,182.36	5,871.49	310.87	19.887		
13,600.00	7,054.82	4,452.00	4,519.00	190.98	153.71	-65.74	-4,371.93	-6,352.93	6,188.36	5,875.13	313.23	19.756		
13,700.00	7,054.54	4,452.00	4,519.00	193.80	153.71	-65.74	-4,371.93	-6,352.93	6,195.96	5,880.41	315.55	19.635		
13,800.00	7,054.25	4,452.00	4,519.00	196.61	153.71	-65.74	-4,371.93	-6,352.93	6,205.17	5,887.34	317.83	19.524		
13,900.00	7,053.97	4,452.00	4,519.00	199.43	153.71	-65.74	-4,371.93	-6,352.93	6,215.97	5,895.91	320.06	19.421		
14,000.00	7,053.68	4,452.00	4,519.00	202.25	153.71	-65.74	-4,371.93	-6,352.93	6,228.36	5,906.11	322.25	19.328		
14,100.00	7,053.40	4,452.00	4,519.00	205.06	153.71	-65.74	-4,371.93	-6,352.93	6,242.33	5,917.94	324.39	19.243		
14,200.00	7,053.11	4,452.00	4,519.00	207.88	153.71	-65.74	-4,371.93	-6,352.93	6,257.86	5,931.38	326.49	19.167		
14,300.00	7,052.83	4,452.00	4,519.00	210.70	153.71	-65.74	-4,371.93	-6,352.93	6,274.95	5,946.42	328.53	19.100		
14,400.00	7,052.54	4,452.00	4,519.00	213.53	153.71	-65.74	-4,371.93	-6,352.93	6,293.58	5,963.05	330.53	19.041		
14,500.00	7,052.26	4,452.00	4,519.00	216.35	153.71	-65.74	-4,371.93	-6,352.93	6,313.74	5,981.26	332.48	18.990		
14,600.00	7,051.98	4,452.00	4,519.00	219.17	153.71	-65.74	-4,371.93	-6,352.93	6,335.42	6,001.04	334.38	18.947		
14,700.00	7,051.69	4,452.00	4,519.00	222.00	153.71	-65.74	-4,371.93	-6,352.93	6,358.59	6,022.37	336.22	18.912		
14,800.00	7,051.41	4,452.00	4,519.00	224.82	153.71	-65.74	-4,371.93	-6,352.93	6,383.25	6,045.23	338.02	18.884		
14,900.00	7,051.12	4,452.00	4,519.00	227.65	153.71	-65.74	-4,371.93	-6,352.93	6,409.37	6,069.61	339.76	18.864		
14,942.37	7,051.00	4,452.00	4,519.00	228.85	153.71	-65.74	-4,371.93	-6,352.93	6,420.88	6,080.39	340.49	18.858	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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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
0.00	0.00	1,377.00	1,308.28	3.28	7.39	-108.50	-2,949.28	-8,816.56	9,388.37				
100.00	100.00	1,415.87	1,346.68	3.28	7.58	-108.48	-2,944.78	-8,812.50	9,374.76	9,364.47	10.28	911.528	
200.00	200.00	1,471.00	1,401.14	3.34	7.85	-108.45	-2,938.01	-8,807.32	9,361.81	9,351.25	10.56	886.864	
300.00	300.00	1,552.96	1,482.91	3.44	8.39	-108.37	-2,919.53	-8,792.85	9,349.21	9,342.25	6.96	1,342.404	
400.00	399.98	1,660.00	1,587.91	3.60	8.77	-101.30	-2,915.46	-8,789.22	9,336.36	9,324.75	11.62	803.700	
500.00	499.84	1,708.54	1,635.90	3.81	9.01	-101.52	-2,910.24	-8,784.16	9,324.50	9,312.49	12.01	776.430	
600.00	599.45	1,755.00	1,681.96	4.06	9.23	-101.73	-2,905.54	-8,780.30	9,314.68	9,302.25	12.43	749.096	
700.00	698.70	1,946.97	1,871.86	4.34	10.18	-101.97	-2,883.19	-8,763.40	9,305.07	9,291.52	13.56	686.351	
800.00	797.47	2,282.51	2,202.64	4.64	11.94	-102.30	-2,838.28	-8,729.73	9,294.56	9,279.15	15.42	602.933	
900.00	895.65	900.00	2,389.14	4.98	4.85	-102.58	-2,812.00	-8,707.87	9,283.27	9,273.50	9.77	950.411	
1,000.00	993.66	2,543.61	2,459.42	5.32	13.37	-102.62	-2,802.32	-8,698.94	9,271.21	9,253.90	17.31	535.584	
1,100.00	1,091.67	2,570.38	2,485.78	5.69	13.52	-102.64	-2,798.93	-8,695.73	9,259.87	9,242.07	17.80	520.201	
1,200.00	1,189.68	2,761.10	2,673.55	6.09	14.57	-102.78	-2,774.80	-8,672.67	9,248.47	9,229.40	19.07	484.911	
1,300.00	1,287.69	2,792.00	2,703.94	6.49	14.74	-102.80	-2,770.76	-8,668.86	9,236.85	9,217.23	19.61	470.920	
1,400.00	1,385.69	2,792.00	2,703.94	6.90	14.74	-102.80	-2,770.76	-8,668.86	9,226.20	9,206.17	20.02	460.773	
1,500.00	1,483.70	2,833.49	2,744.85	7.33	14.95	-102.83	-2,765.65	-8,664.14	9,216.08	9,195.44	20.63	446.700	
1,600.00	1,581.71	2,887.00	2,797.81	7.76	15.23	-102.87	-2,759.94	-8,659.16	9,207.47	9,186.16	21.30	432.224	
1,700.00	1,679.72	1,700.00	2,798.44	8.19	9.28	-102.87	-2,759.87	-8,659.11	9,199.02	9,182.62	16.41	560.710	
1,800.00	1,777.73	3,055.91	2,964.84	8.63	16.11	-103.00	-2,740.35	-8,643.47	9,190.63	9,167.68	22.95	400.449	
1,900.00	1,875.74	3,202.50	3,109.56	9.08	16.88	-103.10	-2,721.75	-8,629.40	9,181.59	9,157.51	24.08	381.318	
2,000.00	1,973.75	3,262.00	3,168.33	9.53	17.20	-103.14	-2,714.52	-8,623.62	9,172.68	9,147.88	24.80	369.801	
2,100.00	2,071.76	3,395.15	3,299.85	9.98	17.90	-103.23	-2,698.45	-8,610.37	9,163.54	9,137.66	25.87	354.175	
2,200.00	2,169.77	3,460.36	3,364.27	10.44	18.25	-103.28	-2,690.57	-8,604.07	9,154.71	9,128.08	26.63	343.755	
2,300.00	2,267.77	4,109.00	4,001.00	10.90	21.92	-103.67	-2,595.82	-8,530.04	9,145.21	9,115.05	30.16	303.253	
2,400.00	2,365.78	4,488.00	4,369.51	11.36	24.30	-103.89	-2,532.14	-8,469.51	9,128.16	9,095.72	32.43	281.444	
2,500.00	2,463.79	4,545.11	4,424.92	11.82	24.66	-103.93	-2,522.83	-8,459.28	9,110.42	9,077.24	33.18	274.557	
2,600.00	2,561.80	4,583.00	4,461.81	12.28	24.90	-103.96	-2,516.92	-8,452.95	9,093.68	9,059.83	33.84	268.694	
2,700.00	2,659.81	4,583.00	4,461.81	12.75	24.90	-103.96	-2,516.92	-8,452.95	9,077.71	9,043.38	34.33	264.421	
2,800.00	2,757.82	4,583.00	4,461.81	13.21	24.90	-103.96	-2,516.92	-8,452.95	9,062.83	9,028.01	34.82	260.300	
2,900.00	2,855.83	4,624.57	4,502.44	13.68	25.15	-103.99	-2,510.85	-8,446.59	9,048.44	9,012.95	35.49	254.942	
3,000.00	2,953.84	4,678.00	4,554.95	14.15	25.46	-104.03	-2,503.97	-8,439.58	9,035.64	8,999.42	36.22	249.449	
3,100.00	3,051.85	4,678.00	4,554.95	14.62	25.46	-104.03	-2,503.97	-8,439.58	9,022.97	8,986.26	36.71	245.800	
3,200.00	3,149.85	4,678.00	4,554.95	15.09	25.46	-104.03	-2,503.97	-8,439.58	9,011.40	8,974.20	37.19	242.287	
3,300.00	3,247.86	4,704.16	4,580.75	15.56	25.60	-104.05	-2,500.91	-8,436.51	9,000.81	8,963.02	37.79	238.162	
3,400.00	3,345.87	4,741.00	4,617.13	16.04	25.80	-104.08	-2,496.81	-8,432.34	8,990.94	8,952.50	38.44	233.897	
3,500.00	3,443.88	4,772.00	4,647.77	16.51	25.96	-104.10	-2,493.56	-8,428.97	8,981.78	8,942.72	39.06	229.949	
3,600.00	3,541.89	4,829.42	4,704.59	16.98	26.26	-104.15	-2,487.87	-8,422.96	8,973.21	8,933.41	39.79	225.493	
3,700.00	3,639.90	4,867.00	4,741.81	17.46	26.45	-104.19	-2,484.33	-8,419.16	8,965.22	8,924.78	40.44	221.696	
3,800.00	3,737.91	4,909.92	4,784.35	17.93	26.67	-104.23	-2,480.46	-8,415.06	8,957.89	8,916.79	41.10	217.928	
3,900.00	3,835.92	4,961.00	4,835.06	18.41	26.92	-104.28	-2,476.11	-8,410.61	8,951.35	8,909.54	41.81	214.116	
4,000.00	3,933.93	4,991.28	4,865.14	18.88	27.06	-104.30	-2,473.64	-8,408.14	8,945.42	8,903.00	42.41	210.915	
4,100.00	4,031.93	5,056.00	4,929.46	19.36	27.37	-104.37	-2,468.60	-8,403.02	8,940.03	8,896.86	43.17	207.090	
4,200.00	4,129.94	5,056.00	4,929.46	19.84	27.37	-104.37	-2,468.60	-8,403.02	8,935.37	8,891.73	43.64	204.759	
4,300.00	4,227.95	5,104.50	4,977.70	20.31	27.59	-104.41	-2,465.11	-8,399.62	8,931.32	8,887.00	44.32	201.526	
4,400.00	4,325.96	5,150.00	5,023.04	20.79	27.80	-104.46	-2,462.12	-8,397.02	8,928.29	8,883.31	44.98	198.477	
4,500.00	4,423.97	5,164.51	5,037.50	21.27	27.86	-104.47	-2,461.23	-8,396.29	8,925.92	8,880.41	45.51	196.141	
4,600.00	4,521.98	5,225.89	5,098.70	21.75	28.13	-104.54	-2,457.77	-8,393.25	8,924.19	8,877.95	46.24	193.011	
4,700.00	4,619.99	5,243.00	5,115.77	22.23	28.20	-104.55	-2,456.89	-8,392.42	8,923.08	8,876.31	46.77	190.798	
4,800.00	4,718.00	5,295.04	5,167.71	22.70	28.42	-104.61	-2,454.46	-8,390.20	8,922.57	8,875.12	47.45	188.051	
4,804.19	4,722.10	5,296.30	5,168.97	22.72	28.42	-104.61	-2,454.41	-8,390.15	8,922.57	8,875.09	47.47	187.954	
4,900.00	4,816.01	5,336.00	5,208.61	23.18	28.59	-104.65	-2,452.80	-8,388.86	8,922.95	8,874.87	48.08	185.595	
5,000.00	4,914.01	5,365.87	5,238.46	23.66	28.70	-104.69	-2,451.76	-8,388.05	8,924.04	8,875.38	48.65	183.423	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,012.02	5,430.00	5,302.54	24.14	28.95	-104.76	-2,450.13	-8,386.47	8,925.81	8,876.43	49.38	180.769		
5,200.00	5,110.03	5,472.44	5,344.96	24.62	29.11	-104.81	-2,449.28	-8,385.57	8,928.06	8,878.06	50.00	178.549		
5,300.00	5,208.04	5,541.87	5,414.37	25.10	29.37	-104.89	-2,447.66	-8,384.37	8,930.73	8,879.98	50.75	175.979		
5,400.00	5,306.05	5,611.43	5,483.90	25.58	29.64	-104.96	-2,445.77	-8,383.53	8,933.75	8,882.26	51.49	173.490		
5,500.00	5,404.06	5,681.11	5,553.54	26.06	29.90	-105.04	-2,443.60	-8,383.05	8,937.12	8,884.88	52.24	171.078		
5,600.00	5,502.07	5,749.96	5,622.35	26.54	30.16	-105.11	-2,441.24	-8,382.90	8,940.85	8,887.87	52.98	168.753		
5,700.00	5,600.08	5,818.10	5,690.45	27.02	30.41	-105.18	-2,438.96	-8,382.98	8,944.93	8,891.21	53.72	166.510		
5,800.00	5,698.09	5,886.22	5,758.53	27.50	30.66	-105.25	-2,436.77	-8,383.27	8,949.38	8,894.93	54.46	164.336		
5,900.00	5,796.09	5,954.32	5,826.60	27.98	30.92	-105.32	-2,434.67	-8,383.78	8,954.20	8,899.01	55.19	162.230		
6,000.00	5,894.10	6,037.93	5,910.17	28.46	31.23	-105.41	-2,432.21	-8,384.64	8,959.35	8,903.35	56.00	159.984		
6,100.00	5,992.11	6,144.55	6,016.74	28.94	31.62	-105.52	-2,429.22	-8,385.65	8,964.51	8,907.60	56.91	157.511		
6,200.00	6,090.12	6,251.11	6,123.26	29.42	32.01	-105.63	-2,426.39	-8,386.49	8,969.61	8,911.79	57.83	155.116		
6,300.00	6,188.13	6,361.35	6,233.46	29.90	32.43	-105.74	-2,423.31	-8,387.29	8,974.64	8,915.88	58.76	152.729		
6,400.00	6,286.14	6,473.16	6,345.18	30.38	32.85	-105.85	-2,419.18	-8,388.37	8,979.56	8,919.85	59.71	150.389		
6,500.00	6,384.15	6,609.42	6,481.28	30.87	33.38	-105.98	-2,412.74	-8,389.98	8,984.33	8,923.55	60.78	147.821		
6,600.00	6,482.15	6,844.01	6,715.37	31.35	34.33	-97.66	-2,397.51	-8,391.91	8,987.78	8,925.44	62.33	144.187		
6,700.00	6,579.21	6,919.39	6,790.51	31.83	34.64	-66.96	-2,391.66	-8,392.43	8,980.82	8,917.68	63.14	142.237		
6,800.00	6,673.04	6,991.19	6,862.08	32.30	34.95	-53.27	-2,385.93	-8,393.19	8,959.91	8,895.99	63.92	140.178		
6,900.00	6,761.33	7,059.12	6,929.78	32.74	35.23	-47.47	-2,380.37	-8,394.17	8,925.55	8,860.88	64.66	138.034		
7,000.00	6,841.90	7,129.00	6,999.40	33.17	35.52	-45.67	-2,374.51	-8,395.43	8,878.59	8,813.19	65.40	135.754		
7,100.00	6,912.77	7,173.13	7,043.37	33.60	35.70	-46.48	-2,370.89	-8,396.30	8,820.18	8,754.17	66.01	133.628		
7,200.00	6,972.19	7,216.08	7,086.19	34.09	35.88	-49.74	-2,367.61	-8,397.15	8,751.76	8,685.15	66.60	131.403		
7,300.00	7,018.70	7,249.98	7,120.00	34.73	36.02	-55.83	-2,365.18	-8,397.81	8,674.98	8,607.82	67.16	129.166		
7,400.00	7,051.15	7,274.05	7,144.00	35.55	36.11	-65.58	-2,363.55	-8,398.27	8,591.69	8,524.01	67.68	126.939		
7,500.00	7,068.75	7,287.70	7,157.62	36.56	36.17	-79.85	-2,362.65	-8,398.54	8,503.91	8,435.74	68.17	124.754		
7,600.00	7,071.91	7,291.22	7,161.14	37.71	36.18	-91.76	-2,362.43	-8,398.60	8,413.81	8,345.20	68.61	122.637		
7,700.00	7,071.62	7,292.33	7,162.24	39.03	36.19	-91.78	-2,362.36	-8,398.62	8,323.56	8,254.49	69.08	120.498		
7,800.00	7,071.34	7,293.43	7,163.34	40.51	36.19	-91.80	-2,362.29	-8,398.65	8,233.55	8,163.95	69.60	118.302		
7,900.00	7,071.05	7,294.54	7,164.44	42.14	36.20	-91.81	-2,362.22	-8,398.67	8,143.76	8,073.59	70.17	116.055		
8,000.00	7,070.77	7,295.64	7,165.55	43.89	36.20	-91.83	-2,362.15	-8,398.69	8,054.22	7,983.42	70.80	113.761		
8,100.00	7,070.48	7,296.75	7,166.65	45.76	36.21	-91.85	-2,362.08	-8,398.71	7,964.92	7,893.44	71.48	111.425		
8,200.00	7,070.20	7,297.85	7,167.75	47.72	36.21	-91.87	-2,362.01	-8,398.73	7,875.88	7,803.66	72.22	109.053		
8,300.00	7,069.92	7,298.95	7,168.85	49.78	36.21	-91.88	-2,361.94	-8,398.75	7,787.11	7,714.09	73.02	106.650		
8,400.00	7,069.63	7,300.06	7,169.95	51.90	36.22	-91.90	-2,361.87	-8,398.77	7,698.61	7,624.75	73.87	104.221		
8,500.00	7,069.35	7,301.16	7,171.05	54.10	36.22	-91.92	-2,361.80	-8,398.79	7,610.40	7,535.62	74.78	101.773		
8,600.00	7,069.06	7,302.26	7,172.15	56.36	36.23	-91.94	-2,361.73	-8,398.82	7,522.48	7,446.74	75.75	99.312		
8,700.00	7,068.78	7,303.36	7,173.25	58.66	36.23	-91.95	-2,361.66	-8,398.84	7,434.87	7,358.10	76.77	96.841		
8,800.00	7,068.49	7,304.46	7,174.35	61.02	36.24	-91.97	-2,361.59	-8,398.86	7,347.57	7,269.71	77.86	94.368		
8,900.00	7,068.21	7,305.56	7,175.44	63.42	36.24	-91.99	-2,361.52	-8,398.88	7,260.60	7,181.60	79.01	91.898		
9,000.00	7,067.92	7,306.66	7,176.54	65.85	36.25	-92.01	-2,361.45	-8,398.90	7,173.97	7,093.76	80.21	89.435		
9,100.00	7,067.64	7,307.76	7,177.64	68.32	36.25	-92.02	-2,361.38	-8,398.92	7,087.69	7,006.21	81.48	86.984		
9,200.00	7,067.35	7,308.86	7,178.74	70.81	36.25	-92.04	-2,361.32	-8,398.94	7,001.78	6,918.97	82.81	84.550		
9,300.00	7,067.07	7,309.96	7,179.83	73.34	36.26	-92.06	-2,361.25	-8,398.96	6,916.25	6,832.04	84.20	82.137		
9,400.00	7,066.78	7,311.06	7,180.93	75.88	36.26	-92.08	-2,361.18	-8,398.98	6,831.10	6,745.44	85.66	79.749		
9,500.00	7,066.50	7,312.16	7,182.02	78.45	36.27	-92.09	-2,361.11	-8,399.01	6,746.37	6,659.19	87.18	77.389		
9,600.00	7,066.21	7,313.25	7,183.12	81.04	36.27	-92.11	-2,361.05	-8,399.03	6,662.06	6,573.30	88.76	75.060		
9,700.00	7,065.93	7,314.35	7,184.21	83.64	36.28	-92.13	-2,360.98	-8,399.05	6,578.18	6,487.78	90.40	72.767		
9,800.00	7,065.64	7,315.45	7,185.31	86.26	36.28	-92.15	-2,360.91	-8,399.07	6,494.77	6,402.66	92.11	70.510		
9,900.00	7,065.36	7,316.54	7,186.40	88.90	36.29	-92.16	-2,360.84	-8,399.09	6,411.82	6,317.94	93.89	68.293		
10,000.00	7,065.07	7,317.64	7,187.50	91.55	36.29	-92.18	-2,360.78	-8,399.11	6,329.38	6,233.65	95.73	66.118		
10,100.00	7,064.79	7,318.73	7,188.59	94.21	36.29	-92.20	-2,360.71	-8,399.13	6,247.44	6,149.80	97.64	63.986		
10,200.00	7,064.50	7,319.83	7,189.68	96.88	36.30	-92.22	-2,360.64	-8,399.15	6,166.03	6,066.42	99.62	61.898		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,300.00	7,064.22	7,320.92	7,190.77	99.57	36.30	-92.23	-2,360.58	-8,399.17	6,085.18	5,983.52	101.66	59.857		
10,400.00	7,063.94	7,322.02	7,191.86	102.26	36.31	-92.25	-2,360.51	-8,399.19	6,004.91	5,901.13	103.78	57.863		
10,500.00	7,063.65	7,323.11	7,192.95	104.96	36.31	-92.27	-2,360.45	-8,399.21	5,925.24	5,819.27	105.96	55.917		
10,600.00	7,063.37	7,324.20	7,194.05	107.67	36.32	-92.29	-2,360.38	-8,399.24	5,846.19	5,737.96	108.22	54.020		
10,700.00	7,063.08	7,325.29	7,195.14	110.39	36.32	-92.30	-2,360.32	-8,399.26	5,767.79	5,657.23	110.55	52.172		
10,800.00	7,062.80	7,326.39	7,196.23	113.11	36.33	-92.32	-2,360.25	-8,399.28	5,690.06	5,577.11	112.96	50.374		
10,900.00	7,062.51	7,327.48	7,197.31	115.84	36.33	-92.34	-2,360.19	-8,399.30	5,613.05	5,497.61	115.44	48.625		
11,000.00	7,062.23	7,328.57	7,198.40	118.58	36.33	-92.36	-2,360.12	-8,399.32	5,536.76	5,418.78	117.99	46.926		
11,100.00	7,061.94	7,329.66	7,199.49	121.32	36.34	-92.37	-2,360.06	-8,399.34	5,461.25	5,340.63	120.62	45.277		
11,200.00	7,061.66	7,330.75	7,200.58	124.07	36.34	-92.39	-2,359.99	-8,399.36	5,386.53	5,263.20	123.32	43.678		
11,300.00	7,061.37	7,331.84	7,201.67	126.82	36.35	-92.41	-2,359.93	-8,399.38	5,312.64	5,186.53	126.11	42.128		
11,400.00	7,061.09	7,332.93	7,202.76	129.58	36.35	-92.42	-2,359.86	-8,399.40	5,239.62	5,110.65	128.97	40.627		
11,500.00	7,060.80	7,334.02	7,203.84	132.34	36.36	-92.44	-2,359.80	-8,399.42	5,167.50	5,035.59	131.91	39.174		
11,600.00	7,060.52	7,335.11	7,204.93	135.10	36.36	-92.46	-2,359.74	-8,399.44	5,096.32	4,961.39	134.93	37.770		
11,700.00	7,060.23	7,336.19	7,206.01	137.87	36.37	-92.48	-2,359.67	-8,399.46	5,026.12	4,888.09	138.03	36.413		
11,800.00	7,059.95	7,337.28	7,207.10	140.64	36.37	-92.49	-2,359.61	-8,399.49	4,956.95	4,815.74	141.21	35.104		
11,900.00	7,059.66	7,338.37	7,208.18	143.42	36.37	-92.51	-2,359.55	-8,399.51	4,888.84	4,744.37	144.47	33.840		
12,000.00	7,059.38	7,339.45	7,209.27	146.20	36.38	-92.53	-2,359.48	-8,399.53	4,821.84	4,674.04	147.80	32.623		
12,100.00	7,059.09	7,340.54	7,210.35	148.98	36.38	-92.55	-2,359.42	-8,399.55	4,756.01	4,604.79	151.22	31.451		
12,200.00	7,058.81	7,341.63	7,211.44	151.77	36.39	-92.56	-2,359.36	-8,399.57	4,691.38	4,536.66	154.71	30.323		
12,300.00	7,058.52	7,342.71	7,212.52	154.55	36.39	-92.58	-2,359.29	-8,399.59	4,628.01	4,469.72	158.28	29.239		
12,400.00	7,058.24	7,343.80	7,213.60	157.34	36.40	-92.60	-2,359.23	-8,399.61	4,565.95	4,404.02	161.93	28.197		
12,500.00	7,057.96	7,344.88	7,214.69	160.14	36.40	-92.61	-2,359.17	-8,399.63	4,505.25	4,339.60	165.64	27.198		
12,600.00	7,057.67	7,345.96	7,215.77	162.93	36.41	-92.63	-2,359.11	-8,399.65	4,445.97	4,276.54	169.43	26.241		
12,700.00	7,057.39	7,347.05	7,216.85	165.73	36.41	-92.65	-2,359.05	-8,399.67	4,388.17	4,214.89	173.29	25.323		
12,800.00	7,057.10	7,348.13	7,217.93	168.53	36.41	-92.67	-2,358.98	-8,399.69	4,331.91	4,154.71	177.20	24.446		
12,900.00	7,056.82	7,349.21	7,219.01	171.33	36.42	-92.68	-2,358.92	-8,399.71	4,277.25	4,096.07	181.18	23.608		
13,000.00	7,056.53	7,350.30	7,220.09	174.13	36.42	-92.70	-2,358.86	-8,399.73	4,224.25	4,039.04	185.21	22.808		
13,100.00	7,056.25	7,351.38	7,221.17	176.94	36.43	-92.72	-2,358.80	-8,399.75	4,172.97	3,983.67	189.29	22.045		
13,200.00	7,055.96	7,352.46	7,222.25	179.74	36.43	-92.74	-2,358.74	-8,399.77	4,123.47	3,930.06	193.42	21.319		
13,300.00	7,055.68	7,353.54	7,223.33	182.55	36.44	-92.75	-2,358.68	-8,399.79	4,075.83	3,878.26	197.58	20.629		
13,400.00	7,055.39	7,354.62	7,224.41	185.36	36.44	-92.77	-2,358.62	-8,399.82	4,030.11	3,828.34	201.77	19.974		
13,500.00	7,055.11	7,355.70	7,225.49	188.17	36.45	-92.79	-2,358.56	-8,399.84	3,986.37	3,780.39	205.98	19.353		
13,600.00	7,054.82	7,356.78	7,226.56	190.98	36.45	-92.80	-2,358.50	-8,399.86	3,944.69	3,734.48	210.21	18.766		
13,700.00	7,054.54	7,357.86	7,227.64	193.80	36.45	-92.82	-2,358.44	-8,399.88	3,905.11	3,690.68	214.43	18.211		
13,800.00	7,054.25	7,358.94	7,228.72	196.61	36.46	-92.84	-2,358.38	-8,399.90	3,867.72	3,649.07	218.65	17.689		
13,900.00	7,053.97	7,382.00	7,251.74	199.43	36.55	-93.20	-2,357.13	-8,400.33	3,832.67	3,609.75	222.92	17.193		
14,000.00	7,053.68	7,382.00	7,251.74	202.25	36.55	-93.20	-2,357.13	-8,400.33	3,799.82	3,572.73	227.09	16.733		
14,100.00	7,053.40	7,382.00	7,251.74	205.06	36.55	-93.20	-2,357.13	-8,400.33	3,769.34	3,538.13	231.22	16.302		
14,200.00	7,053.11	7,382.00	7,251.74	207.88	36.55	-93.20	-2,357.13	-8,400.33	3,741.29	3,506.00	235.29	15.901		
14,300.00	7,052.83	7,382.00	7,251.74	210.70	36.55	-93.20	-2,357.13	-8,400.33	3,715.71	3,476.42	239.29	15.528		
14,400.00	7,052.54	7,382.00	7,251.74	213.53	36.55	-93.20	-2,357.13	-8,400.33	3,692.67	3,449.45	243.22	15.183		
14,500.00	7,052.26	7,382.00	7,251.74	216.35	36.55	-93.20	-2,357.13	-8,400.33	3,672.21	3,425.15	247.05	14.864		
14,600.00	7,051.98	7,382.00	7,251.74	219.17	36.55	-93.20	-2,357.13	-8,400.33	3,654.37	3,403.58	250.78	14.572		
14,700.00	7,051.69	7,382.00	7,251.74	222.00	36.55	-93.20	-2,357.13	-8,400.33	3,639.19	3,384.79	254.40	14.305		
14,800.00	7,051.41	7,382.00	7,251.74	224.82	36.55	-93.20	-2,357.13	-8,400.33	3,626.70	3,368.82	257.88	14.063		
14,900.00	7,051.12	7,382.00	7,251.74	227.65	36.55	-93.20	-2,357.13	-8,400.33	3,616.94	3,355.72	261.23	13.846		
14,942.37	7,051.00	7,382.00	7,251.74	228.85	36.55	-93.20	-2,357.13	-8,400.33	3,613.63	3,351.03	262.60	13.761	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - MCGLOTHLIN 17-11(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	31.00	3.28	3.28	-83.53	1,037.78	-9,145.85	9,204.59					
100.00	100.00	69.00	100.00	3.28	3.49	-83.53	1,037.78	-9,145.85	9,204.54	9,197.76	6.78	1,357.832		
200.00	200.00	169.00	200.00	3.34	5.29	-83.53	1,037.78	-9,145.85	9,204.54	9,195.91	8.63	1,066.563		
300.00	300.00	269.00	300.00	3.44	8.32	-83.53	1,037.78	-9,145.85	9,204.54	9,192.78	11.76	782.427		
400.00	399.98	368.98	399.98	3.60	11.61	-76.24	1,037.78	-9,145.85	9,204.13	9,188.91	15.21	605.073		
500.00	499.84	468.84	499.84	3.81	14.99	-76.30	1,037.78	-9,145.85	9,202.88	9,184.09	18.79	489.774		
600.00	599.45	568.45	599.45	4.06	18.39	-76.39	1,037.78	-9,145.85	9,200.82	9,178.38	22.44	410.028		
700.00	698.70	667.70	698.70	4.34	21.81	-76.52	1,037.78	-9,145.85	9,197.94	9,171.81	26.13	351.981		
800.00	797.47	766.47	797.47	4.64	25.23	-76.69	1,037.78	-9,145.85	9,194.28	9,164.42	29.85	308.007		
900.00	895.65	864.65	895.65	4.98	28.63	-76.86	1,037.78	-9,145.85	9,189.87	9,156.28	33.59	273.627		
1,000.00	993.66	962.66	993.66	5.32	32.03	-76.98	1,037.78	-9,145.85	9,185.28	9,147.94	37.34	245.972		
1,100.00	1,091.67	1,060.67	1,091.67	5.69	35.43	-77.10	1,037.78	-9,145.85	9,180.74	9,139.62	41.12	223.251		
1,200.00	1,189.68	1,158.68	1,189.68	6.09	38.84	-77.22	1,037.78	-9,145.85	9,176.25	9,131.32	44.92	204.275		
1,300.00	1,287.69	1,256.69	1,287.69	6.49	42.25	-77.33	1,037.78	-9,145.85	9,171.79	9,123.05	48.73	188.201		
1,400.00	1,385.69	1,354.69	1,385.69	6.90	45.66	-77.45	1,037.78	-9,145.85	9,167.37	9,114.81	52.56	174.421		
1,500.00	1,483.70	1,452.70	1,483.70	7.33	49.08	-77.57	1,037.78	-9,145.85	9,162.99	9,106.60	56.39	162.483		
1,600.00	1,581.71	1,550.71	1,581.71	7.76	52.49	-77.69	1,037.78	-9,145.85	9,158.66	9,098.42	60.24	152.045		
1,700.00	1,679.72	1,648.72	1,679.72	8.19	55.91	-77.81	1,037.78	-9,145.85	9,154.36	9,090.28	64.09	142.844		
1,800.00	1,777.73	1,746.73	1,777.73	8.63	59.32	-77.93	1,037.78	-9,145.85	9,150.11	9,082.17	67.94	134.674		
1,900.00	1,875.74	1,844.74	1,875.74	9.08	62.74	-78.05	1,037.78	-9,145.85	9,145.90	9,074.09	71.80	127.374		
2,000.00	1,973.75	1,942.75	1,973.75	9.53	66.16	-78.17	1,037.78	-9,145.85	9,141.73	9,066.06	75.67	120.813		
2,100.00	2,071.76	2,040.76	2,071.76	9.98	69.57	-78.29	1,037.78	-9,145.85	9,137.60	9,058.06	79.54	114.884		
2,200.00	2,169.77	2,138.77	2,169.77	10.44	72.99	-78.41	1,037.78	-9,145.85	9,133.51	9,050.10	83.41	109.502		
2,300.00	2,267.77	2,236.77	2,267.77	10.90	76.41	-78.53	1,037.78	-9,145.85	9,129.46	9,042.18	87.28	104.594		
2,400.00	2,365.78	2,334.78	2,365.78	11.36	79.83	-78.65	1,037.78	-9,145.85	9,125.45	9,034.29	91.16	100.101		
2,500.00	2,463.79	2,432.79	2,463.79	11.82	83.25	-78.77	1,037.78	-9,145.85	9,121.49	9,026.45	95.04	95.973		
2,600.00	2,561.80	2,530.80	2,561.80	12.28	86.67	-78.89	1,037.78	-9,145.85	9,117.57	9,018.64	98.92	92.168		
2,700.00	2,659.81	2,628.81	2,659.81	12.75	90.09	-79.01	1,037.78	-9,145.85	9,113.69	9,010.88	102.81	88.649		
2,800.00	2,757.82	2,726.82	2,757.82	13.21	93.51	-79.13	1,037.78	-9,145.85	9,109.85	9,003.15	106.69	85.385		
2,900.00	2,855.83	2,824.83	2,855.83	13.68	96.92	-79.25	1,037.78	-9,145.85	9,106.05	8,995.47	110.58	82.349		
3,000.00	2,953.84	2,922.84	2,953.84	14.15	100.34	-79.37	1,037.78	-9,145.85	9,102.29	8,987.83	114.47	79.520		
3,100.00	3,051.85	3,020.85	3,051.85	14.62	103.76	-79.49	1,037.78	-9,145.85	9,098.58	8,980.22	118.35	76.875		
3,200.00	3,149.85	3,118.85	3,149.85	15.09	107.18	-79.61	1,037.78	-9,145.85	9,094.90	8,972.66	122.24	74.399		
3,300.00	3,247.86	3,216.86	3,247.86	15.56	110.60	-79.73	1,037.78	-9,145.85	9,091.27	8,965.14	126.14	72.075		
3,400.00	3,345.87	3,314.87	3,345.87	16.04	114.02	-79.85	1,037.78	-9,145.85	9,087.68	8,957.66	130.03	69.890		
3,500.00	3,443.88	3,412.88	3,443.88	16.51	117.44	-79.97	1,037.78	-9,145.85	9,084.14	8,950.22	133.92	67.832		
3,600.00	3,541.89	3,510.89	3,541.89	16.98	120.86	-80.09	1,037.78	-9,145.85	9,080.63	8,942.82	137.81	65.891		
3,700.00	3,639.90	3,608.90	3,639.90	17.46	124.28	-80.21	1,037.78	-9,145.85	9,077.17	8,935.46	141.71	64.056		
3,800.00	3,737.91	3,706.91	3,737.91	17.93	127.71	-80.33	1,037.78	-9,145.85	9,073.75	8,928.15	145.60	62.319		
3,900.00	3,835.92	3,804.92	3,835.92	18.41	131.13	-80.46	1,037.78	-9,145.85	9,070.37	8,920.87	149.50	60.672		
4,000.00	3,933.93	3,902.93	3,933.93	18.88	134.55	-80.58	1,037.78	-9,145.85	9,067.03	8,913.64	153.39	59.110		
4,100.00	4,031.93	4,000.93	4,031.93	19.36	137.97	-80.70	1,037.78	-9,145.85	9,063.74	8,906.45	157.29	57.625		
4,200.00	4,129.94	4,101.06	4,129.94	19.84	141.46	-80.82	1,037.78	-9,145.85	9,060.49	8,899.23	161.26	56.186		
4,300.00	4,227.95	4,203.05	4,227.95	20.31	145.02	-80.94	1,037.78	-9,145.85	9,057.28	8,891.98	165.30	54.794		
4,400.00	4,325.96	4,305.04	4,325.96	20.79	148.58	-81.06	1,037.78	-9,145.85	9,054.11	8,884.78	169.33	53.469		
4,500.00	4,423.97	4,407.03	4,423.97	21.27	152.14	-81.18	1,037.78	-9,145.85	9,050.99	8,877.62	173.37	52.206		
4,600.00	4,521.98	4,509.02	4,521.98	21.75	155.70	-81.31	1,037.78	-9,145.85	9,047.91	8,870.50	177.41	51.001		
4,700.00	4,619.99	4,588.99	4,619.99	22.23	158.49	-81.43	1,037.78	-9,145.85	9,044.87	8,864.19	180.68	50.061		
4,800.00	4,718.00	4,687.00	4,718.00	22.70	161.91	-81.55	1,037.78	-9,145.85	9,041.87	8,857.29	184.57	48.988		
4,900.00	4,816.01	4,785.01	4,816.01	23.18	165.33	-81.67	1,037.78	-9,145.85	9,038.92	8,850.44	188.47	47.958		
5,000.00	4,914.01	4,883.01	4,914.01	23.66	168.75	-81.79	1,037.78	-9,145.85	9,036.00	8,843.63	192.37	46.971		
5,100.00	5,012.02	4,981.02	5,012.02	24.14	172.17	-81.92	1,037.78	-9,145.85	9,033.13	8,836.86	196.27	46.023		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,110.03	5,079.03	5,110.03	24.62	175.59	-82.04	1,037.78	-9,145.85	9,030.31	8,830.13	200.17	45.112		
5,300.00	5,208.04	5,177.04	5,208.04	25.10	179.02	-82.16	1,037.78	-9,145.85	9,027.53	8,823.45	204.07	44.236		
5,400.00	5,306.05	5,275.05	5,306.05	25.58	182.44	-82.28	1,037.78	-9,145.85	9,024.78	8,816.81	207.97	43.394		
5,500.00	5,404.06	5,373.06	5,404.06	26.06	185.86	-82.41	1,037.78	-9,145.85	9,022.09	8,810.21	211.88	42.582		
5,600.00	5,502.07	5,471.07	5,502.07	26.54	189.28	-82.53	1,037.78	-9,145.85	9,019.43	8,803.66	215.78	41.800		
5,700.00	5,600.08	5,569.08	5,600.08	27.02	192.70	-82.65	1,037.78	-9,145.85	9,016.82	8,797.14	219.68	41.046		
5,800.00	5,698.09	5,667.09	5,698.09	27.50	196.12	-82.77	1,037.78	-9,145.85	9,014.25	8,790.67	223.58	40.318		
5,900.00	5,796.09	5,765.09	5,796.09	27.98	199.54	-82.90	1,037.78	-9,145.85	9,011.73	8,784.25	227.48	39.615		
6,000.00	5,894.10	5,863.10	5,894.10	28.46	202.96	-83.02	1,037.78	-9,145.85	9,009.24	8,777.86	231.38	38.937		
6,100.00	5,992.11	5,961.11	5,992.11	28.94	206.38	-83.14	1,037.78	-9,145.85	9,006.80	8,771.52	235.28	38.280		
6,200.00	6,090.12	6,059.12	6,090.12	29.42	209.80	-83.27	1,037.78	-9,145.85	9,004.41	8,765.22	239.19	37.646		
6,300.00	6,188.13	6,157.13	6,188.13	29.90	213.23	-83.39	1,037.78	-9,145.85	9,002.05	8,758.97	243.09	37.032		
6,400.00	6,286.14	6,255.14	6,286.14	30.38	216.65	-83.51	1,037.78	-9,145.85	8,999.74	8,752.75	246.99	36.438		
6,500.00	6,384.15	6,353.15	6,384.15	30.87	220.07	-83.64	1,037.78	-9,145.85	8,997.48	8,746.58	250.89	35.862		
6,600.00	6,482.15	6,451.15	6,482.15	31.35	223.49	-75.26	1,037.78	-9,145.85	8,994.95	8,740.15	254.80	35.303		
6,700.00	6,579.21	6,548.21	6,579.21	31.83	226.88	-44.37	1,037.78	-9,145.85	8,981.86	8,723.20	258.66	34.724		
6,800.00	6,673.04	6,642.04	6,673.04	32.30	230.15	-29.96	1,037.78	-9,145.85	8,953.48	8,691.09	262.39	34.122		
6,900.00	6,761.33	6,730.33	6,761.33	32.74	233.23	-22.85	1,037.78	-9,145.85	8,910.51	8,644.61	265.90	33.511		
7,000.00	6,841.90	6,810.90	6,841.90	33.17	236.05	-18.95	1,037.78	-9,145.85	8,853.99	8,584.90	269.09	32.903		
7,100.00	6,912.77	6,881.77	6,912.77	33.60	238.52	-16.74	1,037.78	-9,145.85	8,785.32	8,513.43	271.89	32.311		
7,200.00	6,972.19	6,941.19	6,972.19	34.09	240.59	-15.62	1,037.78	-9,145.85	8,706.17	8,431.93	274.24	31.747		
7,300.00	7,018.70	6,987.70	7,018.70	34.73	242.22	-15.47	1,037.78	-9,145.85	8,618.48	8,342.41	276.07	31.219		
7,400.00	7,051.15	7,020.15	7,051.15	35.55	243.35	-16.76	1,037.78	-9,145.85	8,524.40	8,247.06	277.34	30.736		
7,500.00	7,068.75	7,037.75	7,068.75	36.56	243.96	-23.87	1,037.78	-9,145.85	8,426.24	8,148.20	278.04	30.306		
7,600.00	7,071.91	7,040.91	7,071.91	37.71	244.08	-96.82	1,037.78	-9,145.85	8,326.40	8,048.22	278.18	29.932		
7,700.00	7,071.62	7,040.62	7,071.62	39.03	244.07	-96.74	1,037.78	-9,145.85	8,226.43	7,948.24	278.19	29.571		
7,800.00	7,071.34	7,040.34	7,071.34	40.51	244.06	-96.66	1,037.78	-9,145.85	8,126.46	7,848.25	278.20	29.210		
7,900.00	7,071.05	7,040.05	7,071.05	42.14	244.05	-96.58	1,037.78	-9,145.85	8,026.49	7,748.27	278.22	28.849		
8,000.00	7,070.77	7,039.77	7,070.77	43.89	244.04	-96.50	1,037.78	-9,145.85	7,926.52	7,648.28	278.24	28.488		
8,100.00	7,070.48	7,039.48	7,070.48	45.76	244.03	-96.42	1,037.78	-9,145.85	7,826.55	7,548.29	278.26	28.127		
8,200.00	7,070.20	7,039.20	7,070.20	47.72	244.02	-96.34	1,037.78	-9,145.85	7,726.58	7,448.31	278.28	27.766		
8,300.00	7,069.92	7,038.92	7,069.92	49.78	244.01	-96.25	1,037.78	-9,145.85	7,626.62	7,348.32	278.30	27.404		
8,400.00	7,069.63	7,038.63	7,069.63	51.90	244.00	-96.17	1,037.78	-9,145.85	7,526.65	7,248.33	278.32	27.043		
8,500.00	7,069.35	7,038.35	7,069.35	54.10	243.99	-96.09	1,037.78	-9,145.85	7,426.69	7,148.34	278.35	26.681		
8,600.00	7,069.06	7,038.06	7,069.06	56.36	243.98	-96.01	1,037.78	-9,145.85	7,326.72	7,048.35	278.38	26.319		
8,700.00	7,068.78	7,037.78	7,068.78	58.66	243.97	-95.93	1,037.78	-9,145.85	7,226.76	6,948.36	278.41	25.958		
8,800.00	7,068.49	7,037.49	7,068.49	61.02	243.96	-95.85	1,037.78	-9,145.85	7,126.80	6,848.36	278.44	25.596		
8,900.00	7,068.21	7,037.21	7,068.21	63.42	243.95	-95.77	1,037.78	-9,145.85	7,026.84	6,748.37	278.47	25.234		
9,000.00	7,067.92	7,036.92	7,067.92	65.85	243.94	-95.68	1,037.78	-9,145.85	6,926.88	6,648.38	278.50	24.872		
9,100.00	7,067.64	7,036.64	7,067.64	68.32	243.93	-95.60	1,037.78	-9,145.85	6,826.92	6,548.38	278.54	24.510		
9,200.00	7,067.35	7,036.35	7,067.35	70.81	243.92	-95.52	1,037.78	-9,145.85	6,726.96	6,448.38	278.58	24.147		
9,300.00	7,067.07	7,036.07	7,067.07	73.34	243.91	-95.44	1,037.78	-9,145.85	6,627.01	6,348.39	278.62	23.785		
9,400.00	7,066.78	7,035.78	7,066.78	75.88	243.90	-95.36	1,037.78	-9,145.85	6,527.05	6,248.39	278.66	23.423		
9,500.00	7,066.50	7,035.50	7,066.50	78.45	243.89	-95.28	1,037.78	-9,145.85	6,427.10	6,148.39	278.71	23.060		
9,600.00	7,066.21	7,035.21	7,066.21	81.04	243.88	-95.19	1,037.78	-9,145.85	6,327.15	6,048.39	278.76	22.698		
9,700.00	7,065.93	7,034.93	7,065.93	83.64	243.87	-95.11	1,037.78	-9,145.85	6,227.20	5,948.40	278.81	22.335		
9,800.00	7,065.64	7,034.64	7,065.64	86.26	243.86	-95.03	1,037.78	-9,145.85	6,127.25	5,848.39	278.86	21.973		
9,900.00	7,065.36	7,034.36	7,065.36	88.90	243.85	-94.95	1,037.78	-9,145.85	6,027.31	5,748.39	278.91	21.610		
10,000.00	7,065.07	7,034.07	7,065.07	91.55	243.84	-94.87	1,037.78	-9,145.85	5,927.36	5,648.39	278.97	21.247		
10,100.00	7,064.79	7,033.79	7,064.79	94.21	243.83	-94.79	1,037.78	-9,145.85	5,827.42	5,548.39	279.03	20.885		
10,200.00	7,064.50	7,033.50	7,064.50	96.88	243.82	-94.70	1,037.78	-9,145.85	5,727.48	5,448.39	279.09	20.522		
10,300.00	7,064.22	7,033.22	7,064.22	99.57	243.81	-94.62	1,037.78	-9,145.85	5,627.54	5,348.38	279.16	20.159		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	7,032.94	7,063.94	102.26	243.80	-94.54	1,037.78	-9,145.85	5,527.60	5,248.38	279.23	19.796		
10,500.00	7,063.65	7,032.65	7,063.65	104.96	243.79	-94.46	1,037.78	-9,145.85	5,427.67	5,148.37	279.30	19.433		
10,600.00	7,063.37	7,032.37	7,063.37	107.67	243.78	-94.38	1,037.78	-9,145.85	5,327.74	5,048.36	279.37	19.070		
10,700.00	7,063.08	7,032.08	7,063.08	110.39	243.77	-94.29	1,037.78	-9,145.85	5,227.81	4,948.36	279.45	18.707		
10,800.00	7,062.80	7,031.80	7,062.80	113.11	243.76	-94.21	1,037.78	-9,145.85	5,127.88	4,848.35	279.53	18.344		
10,900.00	7,062.51	7,031.51	7,062.51	115.84	243.75	-94.13	1,037.78	-9,145.85	5,027.96	4,748.34	279.62	17.981		
11,000.00	7,062.23	7,031.23	7,062.23	118.58	243.74	-94.05	1,037.78	-9,145.85	4,928.04	4,648.33	279.71	17.618		
11,100.00	7,061.94	7,030.94	7,061.94	121.32	243.73	-93.97	1,037.78	-9,145.85	4,828.12	4,548.31	279.81	17.255		
11,200.00	7,061.66	7,030.66	7,061.66	124.07	243.72	-93.88	1,037.78	-9,145.85	4,728.21	4,448.30	279.91	16.892		
11,300.00	7,061.37	7,030.37	7,061.37	126.82	243.71	-93.80	1,037.78	-9,145.85	4,628.30	4,348.29	280.01	16.529		
11,400.00	7,061.09	7,030.09	7,061.09	129.58	243.70	-93.72	1,037.78	-9,145.85	4,528.39	4,248.27	280.12	16.166		
11,500.00	7,060.80	7,029.80	7,060.80	132.34	243.69	-93.64	1,037.78	-9,145.85	4,428.49	4,148.26	280.23	15.803		
11,600.00	7,060.52	7,029.52	7,060.52	135.10	243.68	-93.56	1,037.78	-9,145.85	4,328.59	4,048.24	280.36	15.440		
11,700.00	7,060.23	7,029.23	7,060.23	137.87	243.67	-93.47	1,037.78	-9,145.85	4,228.70	3,948.22	280.48	15.076		
11,800.00	7,059.95	7,028.95	7,059.95	140.64	243.66	-93.39	1,037.78	-9,145.85	4,128.81	3,848.20	280.62	14.713		
11,900.00	7,059.66	7,028.66	7,059.66	143.42	243.65	-93.31	1,037.78	-9,145.85	4,028.93	3,748.17	280.76	14.350		
12,000.00	7,059.38	7,028.38	7,059.38	146.20	243.64	-93.23	1,037.78	-9,145.85	3,929.06	3,648.15	280.91	13.987		
12,100.00	7,059.09	7,028.09	7,059.09	148.98	243.63	-93.15	1,037.78	-9,145.85	3,829.19	3,548.12	281.07	13.624		
12,200.00	7,058.81	7,027.81	7,058.81	151.77	243.62	-93.06	1,037.78	-9,145.85	3,729.32	3,448.09	281.24	13.260		
12,300.00	7,058.52	7,027.52	7,058.52	154.55	243.61	-92.98	1,037.78	-9,145.85	3,629.47	3,348.05	281.42	12.897		
12,400.00	7,058.24	7,027.24	7,058.24	157.34	243.60	-92.90	1,037.78	-9,145.85	3,529.62	3,248.01	281.61	12.534		
12,500.00	7,057.96	7,026.96	7,057.96	160.14	243.59	-92.82	1,037.78	-9,145.85	3,429.79	3,147.97	281.81	12.170		
12,600.00	7,057.67	7,026.67	7,057.67	162.93	243.58	-92.74	1,037.78	-9,145.85	3,329.96	3,047.93	282.03	11.807		
12,700.00	7,057.39	7,026.39	7,057.39	165.73	243.57	-92.65	1,037.78	-9,145.85	3,230.14	2,947.88	282.27	11.444		
12,800.00	7,057.10	7,026.10	7,057.10	168.53	243.56	-92.57	1,037.78	-9,145.85	3,130.34	2,847.82	282.52	11.080		
12,900.00	7,056.82	7,025.82	7,056.82	171.33	243.55	-92.49	1,037.78	-9,145.85	3,030.54	2,747.76	282.79	10.717		
13,000.00	7,056.53	7,025.53	7,056.53	174.13	243.54	-92.41	1,037.78	-9,145.85	2,930.77	2,647.68	283.08	10.353		
13,100.00	7,056.25	7,025.25	7,056.25	176.94	243.53	-92.32	1,037.78	-9,145.85	2,831.00	2,547.60	283.40	9.989		
13,200.00	7,055.96	7,024.96	7,055.96	179.74	243.52	-92.24	1,037.78	-9,145.85	2,731.26	2,447.51	283.74	9.626		
13,300.00	7,055.68	7,024.68	7,055.68	182.55	243.51	-92.16	1,037.78	-9,145.85	2,631.53	2,347.41	284.12	9.262		
13,400.00	7,055.39	7,024.39	7,055.39	185.36	243.50	-92.08	1,037.78	-9,145.85	2,531.83	2,247.29	284.53	8.898		
13,500.00	7,055.11	7,024.11	7,055.11	188.17	243.49	-92.00	1,037.78	-9,145.85	2,432.15	2,147.16	284.99	8.534		
13,600.00	7,054.82	7,023.82	7,054.82	190.98	243.48	-91.91	1,037.78	-9,145.85	2,332.49	2,047.00	285.49	8.170		
13,700.00	7,054.54	7,023.54	7,054.54	193.80	243.47	-91.83	1,037.78	-9,145.85	2,232.87	1,946.82	286.05	7.806		
13,800.00	7,054.25	7,023.25	7,054.25	196.61	243.46	-91.75	1,037.78	-9,145.85	2,133.28	1,846.62	286.67	7.442		
13,900.00	7,053.97	7,022.97	7,053.97	199.43	243.45	-91.67	1,037.78	-9,145.85	2,033.74	1,746.37	287.36	7.077		
14,000.00	7,053.68	7,022.68	7,053.68	202.25	243.44	-91.58	1,037.78	-9,145.85	1,934.24	1,646.09	288.15	6.713		
14,100.00	7,053.40	7,022.40	7,053.40	205.06	243.43	-91.50	1,037.78	-9,145.85	1,834.79	1,545.75	289.04	6.348		
14,200.00	7,053.11	7,022.11	7,053.11	207.88	243.42	-91.42	1,037.78	-9,145.85	1,735.41	1,445.35	290.06	5.983		
14,300.00	7,052.83	7,021.83	7,052.83	210.70	243.41	-91.34	1,037.78	-9,145.85	1,636.11	1,344.88	291.23	5.618		
14,400.00	7,052.54	7,021.54	7,052.54	213.53	243.40	-91.25	1,037.78	-9,145.85	1,536.89	1,244.30	292.59	5.253		
14,500.00	7,052.26	7,021.26	7,052.26	216.35	243.39	-91.17	1,037.78	-9,145.85	1,437.78	1,143.61	294.17	4.888		
14,600.00	7,051.98	7,020.98	7,051.98	219.17	243.38	-91.09	1,037.78	-9,145.85	1,338.81	1,042.76	296.05	4.522		
14,700.00	7,051.69	7,020.69	7,051.69	222.00	243.37	-91.01	1,037.78	-9,145.85	1,240.00	941.72	298.28	4.157		
14,800.00	7,051.41	7,020.41	7,051.41	224.82	243.36	-90.93	1,037.78	-9,145.85	1,141.39	840.42	300.97	3.792		
14,900.00	7,051.12	7,020.12	7,051.12	227.65	243.35	-90.84	1,037.78	-9,145.85	1,043.06	738.79	304.27	3.428		
14,942.37	7,051.00	7,020.00	7,051.00	228.85	243.35	-90.81	1,037.78	-9,145.85	1,001.49	695.60	305.89	3.274 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	13.03	1.03	3.28	3.28	3.19	2,084.19	116.25	2,087.43					
100.00	100.00	122.18	110.17	3.28	3.29	3.18	2,083.92	115.88	2,087.17	2,080.59	6.58	317.223		
200.00	200.00	230.42	218.42	3.34	3.37	3.18	2,083.13	115.73	2,086.43	2,079.72	6.71	311.051		
300.00	300.00	328.30	316.29	3.44	3.49	3.18	2,082.28	115.71	2,085.55	2,078.62	6.94	300.698		
400.00	399.98	419.83	407.81	3.60	3.64	10.49	2,081.77	115.18	2,083.25	2,076.00	7.25	287.454		
500.00	499.84	510.24	498.22	3.81	3.83	10.51	2,081.68	114.39	2,077.96	2,070.32	7.64	272.070		
600.00	599.45	602.59	590.57	4.06	4.05	10.55	2,081.97	113.51	2,069.64	2,061.54	8.10	255.483		
700.00	698.70	693.17	681.15	4.34	4.28	10.64	2,082.57	113.07	2,058.30	2,049.68	8.62	238.848		
800.00	797.47	809.79	797.77	4.64	4.62	10.79	2,083.11	113.11	2,043.39	2,034.12	9.26	220.636		
900.00	895.65	893.37	881.34	4.98	4.88	10.93	2,083.46	113.27	2,025.17	2,015.32	9.85	205.514		
1,000.00	993.66	1,008.11	996.09	5.32	5.25	11.07	2,083.83	113.60	2,006.01	1,995.44	10.57	189.787		
1,100.00	1,091.67	1,103.86	1,091.83	5.69	5.57	11.19	2,083.77	114.03	1,986.48	1,975.23	11.26	176.493		
1,200.00	1,189.68	1,196.52	1,184.49	6.09	5.90	11.31	2,083.85	114.75	1,967.12	1,955.17	11.96	164.535		
1,300.00	1,287.69	1,306.43	1,294.39	6.49	6.29	11.46	2,083.77	115.46	1,947.62	1,934.88	12.74	152.932		
1,400.00	1,385.69	1,397.16	1,385.13	6.90	6.63	11.58	2,083.65	115.59	1,928.02	1,914.56	13.47	143.170		
1,500.00	1,483.70	1,505.04	1,493.01	7.33	7.03	11.71	2,083.40	115.76	1,908.35	1,894.08	14.27	133.718		
1,600.00	1,581.71	1,609.26	1,597.23	7.76	7.43	11.85	2,082.71	115.97	1,888.26	1,873.18	15.08	125.248		
1,700.00	1,679.72	1,706.50	1,694.46	8.19	7.80	11.97	2,081.97	115.69	1,868.05	1,852.18	15.87	117.728		
1,800.00	1,777.73	1,809.09	1,797.04	8.63	8.20	12.08	2,081.09	114.92	1,847.71	1,831.02	16.69	110.734		
1,900.00	1,875.74	1,895.75	1,883.69	9.08	8.54	12.17	2,080.54	114.17	1,827.59	1,810.13	17.46	104.677		
2,000.00	1,973.75	2,004.12	1,992.06	9.53	8.97	12.29	2,079.85	113.35	1,807.48	1,789.17	18.31	98.709		
2,100.00	2,071.76	2,092.72	2,080.66	9.98	9.33	12.39	2,079.27	112.43	1,787.35	1,768.25	19.10	93.557		
2,200.00	2,169.77	2,185.17	2,173.10	10.44	9.70	12.48	2,079.06	111.27	1,767.61	1,747.70	19.92	88.756		
2,300.00	2,267.77	2,270.56	2,258.48	10.90	10.04	12.58	2,079.24	110.50	1,748.35	1,727.64	20.71	84.429		
2,400.00	2,365.78	2,359.13	2,347.05	11.36	10.40	12.68	2,080.07	109.74	1,729.79	1,708.27	21.51	80.400		
2,500.00	2,463.79	2,448.22	2,436.12	11.82	10.77	12.76	2,081.37	108.46	1,711.70	1,689.38	22.33	76.663		
2,600.00	2,561.80	2,536.84	2,524.71	12.28	11.13	12.85	2,083.20	107.15	1,694.21	1,671.07	23.14	73.208		
2,700.00	2,659.81	2,634.45	2,622.28	12.75	11.53	12.93	2,085.67	105.60	1,677.17	1,653.18	23.99	69.910		
2,800.00	2,757.82	2,739.89	2,727.68	13.21	11.96	13.04	2,087.81	103.99	1,659.64	1,634.77	24.87	66.743		
2,900.00	2,855.83	2,838.43	2,826.18	13.68	12.37	13.12	2,089.89	102.17	1,642.16	1,616.44	25.72	63.842		
3,000.00	2,953.84	2,943.39	2,931.09	14.15	12.81	13.20	2,091.76	99.76	1,624.33	1,597.73	26.60	61.064		
3,100.00	3,051.85	3,038.98	3,026.65	14.62	13.20	13.28	2,093.30	97.77	1,606.35	1,578.90	27.45	58.515		
3,200.00	3,149.85	3,133.40	3,121.03	15.09	13.60	13.36	2,095.20	95.95	1,588.79	1,560.49	28.30	56.138		
3,300.00	3,247.86	3,231.28	3,218.89	15.56	14.00	13.46	2,097.01	94.33	1,571.10	1,541.94	29.16	53.873		
3,400.00	3,345.87	3,316.33	3,303.91	16.04	14.36	13.55	2,099.10	92.99	1,554.01	1,524.03	29.99	51.822		
3,500.00	3,443.88	3,403.72	3,391.23	16.51	14.72	13.65	2,101.95	91.87	1,537.74	1,506.92	30.82	49.893		
3,600.00	3,541.89	3,517.87	3,505.34	16.98	15.20	13.82	2,105.21	91.31	1,521.16	1,489.42	31.74	47.932		
3,700.00	3,639.90	3,613.59	3,601.02	17.46	15.60	13.97	2,107.78	90.92	1,504.44	1,471.85	32.60	46.153		
3,800.00	3,737.91	3,732.61	3,720.02	17.93	16.10	14.15	2,109.87	89.89	1,486.73	1,453.21	33.52	44.352		
3,900.00	3,835.92	3,830.20	3,817.59	18.41	16.51	14.29	2,111.28	88.94	1,468.76	1,434.37	34.39	42.711		
4,000.00	3,933.93	3,939.65	3,927.02	18.88	16.97	14.41	2,112.53	86.76	1,450.39	1,415.10	35.28	41.106		
4,100.00	4,031.93	4,046.09	4,033.42	19.36	17.42	14.52	2,112.95	84.05	1,431.22	1,395.04	36.17	39.567		
4,200.00	4,129.94	4,141.17	4,128.46	19.84	17.81	14.60	2,113.19	81.40	1,411.89	1,374.85	37.04	38.122		
4,300.00	4,227.95	4,233.18	4,220.45	20.31	18.20	14.71	2,113.79	79.44	1,393.02	1,355.12	37.90	36.759		
4,400.00	4,325.96	4,327.14	4,314.39	20.79	18.60	14.84	2,114.58	77.80	1,374.41	1,335.65	38.76	35.459		
4,500.00	4,423.97	4,416.89	4,404.13	21.27	18.98	14.99	2,115.79	76.87	1,356.37	1,316.76	39.62	34.236		
4,600.00	4,521.98	4,512.27	4,499.48	21.75	19.38	15.15	2,117.40	75.87	1,338.69	1,298.20	40.49	33.064		
4,700.00	4,619.99	4,601.85	4,589.04	22.23	19.76	15.28	2,119.41	74.52	1,321.50	1,280.15	41.35	31.962		
4,800.00	4,718.00	4,712.90	4,700.04	22.70	20.23	15.44	2,121.76	72.57	1,304.16	1,261.91	42.25	30.869		
4,900.00	4,816.01	4,817.49	4,804.59	23.18	20.67	15.58	2,123.33	70.36	1,286.17	1,243.03	43.14	29.817		
5,000.00	4,914.01	4,922.47	4,909.54	23.66	21.11	15.72	2,124.22	67.74	1,267.50	1,223.48	44.02	28.793		
5,100.00	5,012.02	5,015.41	5,002.44	24.14	21.51	15.82	2,125.20	65.07	1,248.98	1,204.09	44.89	27.822		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,110.03	5,117.18	5,104.17	24.62	21.94	15.95	2,126.13	62.54	1,230.39	1,184.61	45.77	26.880		
5,300.00	5,208.04	5,209.23	5,196.20	25.10	22.33	16.12	2,127.03	61.14	1,212.00	1,165.36	46.65	25.983		
5,400.00	5,306.05	5,305.14	5,292.10	25.58	22.73	16.31	2,128.26	59.91	1,193.97	1,146.44	47.52	25.124		
5,500.00	5,404.06	5,402.52	5,389.47	26.06	23.15	16.53	2,129.57	59.09	1,176.08	1,127.67	48.40	24.298		
5,600.00	5,502.07	5,499.59	5,486.53	26.54	23.56	16.78	2,130.89	58.78	1,158.29	1,109.01	49.28	23.504		
5,700.00	5,600.08	5,590.13	5,577.05	27.02	23.94	17.04	2,132.43	58.80	1,140.92	1,090.76	50.16	22.748		
5,800.00	5,698.09	5,692.77	5,679.68	27.50	24.37	17.36	2,134.27	59.49	1,123.77	1,072.73	51.04	22.016		
5,900.00	5,796.09	5,801.73	5,788.63	27.98	24.83	17.74	2,135.42	60.30	1,105.96	1,054.03	51.93	21.296		
6,000.00	5,894.10	5,905.38	5,892.27	28.46	25.27	18.07	2,135.87	60.39	1,087.47	1,034.65	52.82	20.590		
6,100.00	5,992.11	6,014.37	6,001.26	28.94	25.74	18.43	2,135.54	60.08	1,068.23	1,014.54	53.69	19.896		
6,200.00	6,090.12	6,114.39	6,101.28	29.42	26.16	18.76	2,134.70	59.58	1,048.47	993.90	54.57	19.214		
6,300.00	6,188.13	6,212.77	6,199.65	29.90	26.58	19.10	2,133.69	59.08	1,028.56	973.11	55.45	18.550		
6,400.00	6,286.14	6,308.90	6,295.78	30.38	26.98	19.43	2,132.81	58.39	1,008.75	952.42	56.33	17.908		
6,500.00	6,384.15	6,404.72	6,391.58	30.87	27.39	19.75	2,132.21	57.28	989.17	931.95	57.22	17.289		
6,600.00	6,482.15	6,494.06	6,480.91	31.35	27.77	20.07	2,132.22	56.01	970.23	912.12	58.11	16.697		
6,700.00	6,579.21	6,595.82	6,582.66	31.83	28.20	20.39	2,132.43	54.72	954.21	895.21	59.00	16.173		
6,800.00	6,673.04	6,693.07	6,679.91	32.30	28.62	20.71	2,132.22	53.40	942.70	882.79	59.90	15.737		
6,900.00	6,761.33	6,783.32	6,770.15	32.74	29.00	21.03	2,131.88	51.90	937.62	876.80	60.82	15.417		
6,913.00	6,772.28	6,794.51	6,781.34	32.80	29.05	21.10	2,131.82	51.72	937.54	876.60	60.94	15.385 CC, ES		
7,000.00	6,841.90	6,864.85	6,851.66	33.17	29.35	21.42	2,131.47	50.61	941.17	879.41	61.75	15.241		
7,100.00	6,912.77	6,935.31	6,922.11	33.60	29.65	21.74	2,131.14	49.54	955.42	892.69	62.72	15.232 SF		
7,200.00	6,972.19	6,993.00	6,979.80	34.09	29.89	22.06	2,130.88	48.94	981.96	918.24	63.73	15.409		
7,300.00	7,018.70	7,039.51	7,026.31	34.73	30.09	22.38	2,130.65	48.65	1,021.30	956.57	64.73	15.777		
7,400.00	7,051.15	7,071.97	7,058.77	35.55	30.23	22.70	2,130.44	48.52	1,072.81	1,007.12	65.70	16.330		
7,500.00	7,068.75	7,089.49	7,076.29	36.56	30.30	23.02	2,130.32	48.48	1,134.91	1,068.36	66.55	17.054		
7,600.00	7,071.91	7,092.74	7,079.54	37.71	30.32	23.34	2,130.29	48.48	1,205.12	1,137.86	67.25	17.919		
7,700.00	7,071.62	7,092.62	7,079.42	39.03	30.32	23.66	2,130.30	48.48	1,279.83	1,211.95	67.88	18.854		
7,800.00	7,071.34	7,092.50	7,079.30	40.51	30.32	23.98	2,130.30	48.48	1,357.80	1,289.35	68.45	19.835		
7,900.00	7,071.05	7,092.38	7,079.18	42.14	30.32	24.30	2,130.30	48.48	1,438.50	1,369.53	68.97	20.857		
8,000.00	7,070.77	7,092.27	7,079.06	43.89	30.32	24.62	2,130.30	48.48	1,521.49	1,452.05	69.44	21.912		
8,100.00	7,070.48	7,092.15	7,078.95	45.76	30.31	24.94	2,130.30	48.48	1,606.42	1,536.56	69.85	22.997		
8,200.00	7,070.20	7,092.04	7,078.83	47.72	30.31	25.26	2,130.30	48.48	1,692.99	1,622.77	70.23	24.107		
8,300.00	7,069.92	7,091.92	7,078.72	49.78	30.31	25.58	2,130.30	48.48	1,780.98	1,710.41	70.56	25.239		
8,400.00	7,069.63	7,091.81	7,078.61	51.90	30.31	25.90	2,130.30	48.48	1,870.17	1,799.30	70.87	26.389		
8,500.00	7,069.35	7,091.70	7,078.50	54.10	30.31	26.22	2,130.30	48.48	1,960.40	1,889.26	71.14	27.556		
8,600.00	7,069.06	7,091.59	7,078.39	56.36	30.31	26.54	2,130.30	48.48	2,051.55	1,980.15	71.39	28.736		
8,700.00	7,068.78	7,091.48	7,078.28	58.66	30.31	26.86	2,130.30	48.48	2,143.48	2,071.86	71.62	29.928		
8,800.00	7,068.49	7,091.38	7,078.17	61.02	30.31	27.18	2,130.30	48.48	2,236.10	2,164.27	71.83	31.131		
8,900.00	7,068.21	7,091.27	7,078.07	63.42	30.31	27.50	2,130.31	48.48	2,329.33	2,257.31	72.02	32.343		
9,000.00	7,067.92	7,091.17	7,077.96	65.85	30.31	27.82	2,130.31	48.48	2,423.11	2,350.91	72.20	33.563		
9,100.00	7,067.64	7,091.06	7,077.86	68.32	30.31	28.14	2,130.31	48.48	2,517.36	2,445.00	72.36	34.790		
9,200.00	7,067.35	7,090.96	7,077.76	70.81	30.31	28.46	2,130.31	48.48	2,612.04	2,539.53	72.51	36.022		
9,300.00	7,067.07	7,090.86	7,077.66	73.34	30.31	28.78	2,130.31	48.48	2,707.10	2,634.45	72.65	37.260		
9,400.00	7,066.78	7,090.76	7,077.56	75.88	30.31	29.10	2,130.31	48.48	2,802.51	2,729.72	72.79	38.503		
9,500.00	7,066.50	7,090.66	7,077.46	78.45	30.31	29.42	2,130.31	48.48	2,898.23	2,825.31	72.91	39.750		
9,600.00	7,066.21	7,090.56	7,077.36	81.04	30.31	29.74	2,130.31	48.48	2,994.22	2,921.19	73.03	41.000		
9,700.00	7,065.93	7,090.47	7,077.26	83.64	30.31	30.06	2,130.31	48.48	3,090.47	3,017.33	73.14	42.253		
9,800.00	7,065.64	7,090.37	7,077.17	86.26	30.31	30.38	2,130.31	48.48	3,186.95	3,113.71	73.25	43.509		
9,900.00	7,065.36	7,090.28	7,077.07	88.90	30.31	30.70	2,130.31	48.48	3,283.64	3,210.30	73.35	44.767		
10,000.00	7,065.07	7,090.18	7,076.98	91.55	30.31	31.02	2,130.31	48.48	3,380.53	3,307.08	73.45	46.027		
10,100.00	7,064.79	7,090.09	7,076.89	94.21	30.31	31.34	2,130.31	48.48	3,477.59	3,404.05	73.54	47.289		
10,200.00	7,064.50	7,090.00	7,076.80	96.88	30.31	31.66	2,130.31	48.48	3,574.81	3,501.18	73.63	48.552		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	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	7,064.22	7,089.91	7,076.71	99.57	30.31	90.16	2,130.32	48.48	3,672.18	3,598.47	73.72	49.815	
10,400.00	7,063.94	7,089.82	7,076.62	102.26	30.30	90.15	2,130.32	48.48	3,769.69	3,695.89	73.80	51.080	
10,500.00	7,063.65	7,089.73	7,076.53	104.96	30.30	90.15	2,130.32	48.48	3,867.33	3,793.45	73.88	52.345	
10,600.00	7,063.37	7,089.64	7,076.44	107.67	30.30	90.14	2,130.32	48.48	3,965.08	3,891.12	73.96	53.611	
10,700.00	7,063.08	7,089.55	7,076.35	110.39	30.30	90.13	2,130.32	48.48	4,062.95	3,988.91	74.04	54.877	
10,800.00	7,062.80	7,089.47	7,076.26	113.11	30.30	90.13	2,130.32	48.48	4,160.91	4,086.80	74.11	56.143	
10,900.00	7,062.51	7,089.38	7,076.18	115.84	30.30	90.12	2,130.32	48.48	4,258.97	4,184.79	74.19	57.409	
11,000.00	7,062.23	7,089.30	7,076.09	118.58	30.30	90.12	2,130.32	48.48	4,357.12	4,282.86	74.26	58.675	
11,100.00	7,061.94	7,089.21	7,076.01	121.32	30.30	90.11	2,130.32	48.48	4,455.35	4,381.02	74.33	59.940	
11,200.00	7,061.66	7,089.13	7,075.93	124.07	30.30	90.11	2,130.32	48.48	4,553.66	4,479.26	74.40	61.205	
11,300.00	7,061.37	7,089.05	7,075.85	126.82	30.30	90.10	2,130.32	48.48	4,652.04	4,577.57	74.47	62.470	
11,400.00	7,061.09	7,088.97	7,075.76	129.58	30.30	90.09	2,130.32	48.48	4,750.48	4,675.95	74.54	63.733	
11,500.00	7,060.80	7,088.89	7,075.68	132.34	30.30	90.09	2,130.32	48.48	4,849.00	4,774.39	74.60	64.996	
11,600.00	7,060.52	7,088.81	7,075.60	135.10	30.30	90.08	2,130.32	48.48	4,947.57	4,872.89	74.67	66.258	
11,700.00	7,060.23	7,088.73	7,075.53	137.87	30.30	90.08	2,130.32	48.48	5,046.19	4,971.45	74.74	67.519	
11,800.00	7,059.95	7,088.65	7,075.45	140.64	30.30	90.07	2,130.32	48.48	5,144.87	5,070.07	74.80	68.779	
11,900.00	7,059.66	7,088.57	7,075.37	143.42	30.30	90.07	2,130.33	48.48	5,243.60	5,168.73	74.87	70.037	
12,000.00	7,059.38	7,088.50	7,075.29	146.20	30.30	90.06	2,130.33	48.48	5,342.38	5,267.45	74.93	71.295	
12,100.00	7,059.09	7,088.42	7,075.22	148.98	30.30	90.06	2,130.33	48.48	5,441.20	5,366.20	75.00	72.551	
12,200.00	7,058.81	7,088.34	7,075.14	151.77	30.30	90.05	2,130.33	48.48	5,540.06	5,465.00	75.06	73.805	
12,300.00	7,058.52	7,088.27	7,075.07	154.55	30.30	90.05	2,130.33	48.48	5,638.97	5,563.84	75.13	75.058	
12,400.00	7,058.24	7,088.20	7,074.99	157.34	30.30	90.04	2,130.33	48.48	5,737.91	5,662.72	75.19	76.310	
12,500.00	7,057.96	7,088.12	7,074.92	160.14	30.30	90.04	2,130.33	48.48	5,836.89	5,761.63	75.26	77.560	
12,600.00	7,057.67	7,088.05	7,074.85	162.93	30.30	90.03	2,130.33	48.48	5,935.90	5,860.58	75.32	78.809	
12,700.00	7,057.39	7,087.98	7,074.78	165.73	30.30	90.03	2,130.33	48.48	6,034.95	5,959.56	75.38	80.055	
12,800.00	7,057.10	7,087.91	7,074.70	168.53	30.30	90.02	2,130.33	48.48	6,134.02	6,058.57	75.45	81.300	
12,900.00	7,056.82	7,087.84	7,074.63	171.33	30.30	90.02	2,130.33	48.48	6,233.13	6,157.61	75.51	82.543	
13,000.00	7,056.53	7,087.77	7,074.56	174.13	30.30	90.01	2,130.33	48.48	6,332.26	6,256.68	75.58	83.785	
13,100.00	7,056.25	7,087.70	7,074.50	176.94	30.30	90.01	2,130.33	48.48	6,431.42	6,355.78	75.64	85.024	
13,200.00	7,055.96	7,087.63	7,074.43	179.74	30.30	90.00	2,130.33	48.48	6,530.61	6,454.90	75.71	86.261	
13,300.00	7,055.68	7,087.56	7,074.36	182.55	30.30	90.00	2,130.33	48.48	6,629.82	6,554.05	75.77	87.496	
13,400.00	7,055.39	7,087.49	7,074.29	185.36	30.30	89.99	2,130.33	48.49	6,729.05	6,653.21	75.84	88.730	
13,500.00	7,055.11	7,087.43	7,074.22	188.17	30.29	89.99	2,130.33	48.49	6,828.31	6,752.41	75.90	89.961	
13,600.00	7,054.82	7,087.36	7,074.16	190.98	30.29	89.98	2,130.33	48.49	6,927.59	6,851.62	75.97	91.190	
13,700.00	7,054.54	7,087.29	7,074.09	193.80	30.29	89.98	2,130.33	48.49	7,026.88	6,950.85	76.04	92.416	
13,800.00	7,054.25	7,087.23	7,074.03	196.61	30.29	89.97	2,130.34	48.49	7,126.20	7,050.10	76.10	93.641	
13,900.00	7,053.97	7,087.16	7,073.96	199.43	30.29	89.97	2,130.34	48.49	7,225.54	7,149.37	76.17	94.863	
14,000.00	7,053.68	7,087.10	7,073.90	202.25	30.29	89.96	2,130.34	48.49	7,324.89	7,248.66	76.24	96.083	
14,100.00	7,053.40	7,087.04	7,073.84	205.06	30.29	89.96	2,130.34	48.49	7,424.26	7,347.96	76.30	97.301	
14,200.00	7,053.11	7,086.97	7,073.77	207.88	30.29	89.96	2,130.34	48.49	7,523.65	7,447.28	76.37	98.516	
14,300.00	7,052.83	7,086.91	7,073.71	210.70	30.29	89.95	2,130.34	48.49	7,623.06	7,546.62	76.44	99.728	
14,400.00	7,052.54	7,086.85	7,073.65	213.53	30.29	89.95	2,130.34	48.49	7,722.48	7,645.97	76.51	100.939	
14,500.00	7,052.26	7,086.79	7,073.59	216.35	30.29	89.94	2,130.34	48.49	7,821.91	7,745.34	76.58	102.146	
14,600.00	7,051.98	7,086.73	7,073.53	219.17	30.29	89.94	2,130.34	48.49	7,921.36	7,844.72	76.64	103.352	
14,700.00	7,051.69	7,086.67	7,073.47	222.00	30.29	89.93	2,130.34	48.49	8,020.82	7,944.11	76.71	104.554	
14,800.00	7,051.41	7,086.61	7,073.41	224.82	30.29	89.93	2,130.34	48.49	8,120.30	8,043.52	76.78	105.754	
14,900.00	7,051.12	7,086.55	7,073.35	227.65	30.29	89.93	2,130.34	48.49	8,219.79	8,142.93	76.85	106.952	
14,942.37	7,051.00	7,086.52	7,073.32	228.85	30.29	89.92	2,130.34	48.49	8,261.95	8,185.06	76.88	107.459	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	61.00	3.28	3.28	-166.43	-4,339.94	-1,047.65	4,465.01					
100.00	100.00	39.00	100.00	3.28	3.35	-166.43	-4,339.94	-1,047.65	4,464.60	4,457.96	6.63	672.924		
200.00	200.00	139.00	200.00	3.34	4.52	-166.43	-4,339.94	-1,047.65	4,464.60	4,456.74	7.85	568.378		
300.00	300.00	239.00	300.00	3.44	7.37	-166.43	-4,339.94	-1,047.65	4,464.60	4,453.78	10.81	412.883 CC		
400.00	399.98	338.98	399.98	3.60	10.61	-159.12	-4,339.94	-1,047.65	4,466.23	4,452.01	14.21	314.259 ES		
500.00	499.84	438.84	499.84	3.81	13.97	-159.11	-4,339.94	-1,047.65	4,471.12	4,453.34	17.77	251.544		
600.00	599.45	538.45	599.45	4.06	17.36	-159.09	-4,339.94	-1,047.65	4,479.26	4,457.84	21.42	209.118		
700.00	698.70	637.70	698.70	4.34	20.78	-159.07	-4,339.94	-1,047.65	4,490.66	4,465.54	25.11	178.824		
800.00	797.47	736.47	797.47	4.64	24.19	-159.03	-4,339.94	-1,047.65	4,505.29	4,476.46	28.83	156.263		
900.00	895.65	834.65	895.65	4.98	27.59	-159.03	-4,339.94	-1,047.65	4,523.02	4,490.46	32.57	138.885		
1,000.00	993.66	932.66	993.66	5.32	30.99	-159.12	-4,339.94	-1,047.65	4,541.62	4,505.31	36.31	125.074		
1,100.00	1,091.67	1,030.67	1,091.67	5.69	34.39	-159.20	-4,339.94	-1,047.65	4,560.22	4,520.14	40.08	113.784		
1,200.00	1,189.68	1,128.68	1,189.68	6.09	37.80	-159.29	-4,339.94	-1,047.65	4,578.83	4,534.97	43.86	104.393		
1,300.00	1,287.69	1,226.69	1,287.69	6.49	41.21	-159.38	-4,339.94	-1,047.65	4,597.46	4,549.80	47.66	96.465		
1,400.00	1,385.69	1,324.69	1,385.69	6.90	44.62	-159.47	-4,339.94	-1,047.65	4,616.09	4,564.62	51.47	89.688		
1,500.00	1,483.70	1,422.70	1,483.70	7.33	48.03	-159.55	-4,339.94	-1,047.65	4,634.74	4,579.45	55.29	83.830		
1,600.00	1,581.71	1,520.71	1,581.71	7.76	51.45	-159.64	-4,339.94	-1,047.65	4,653.39	4,594.28	59.11	78.719		
1,700.00	1,679.72	1,618.72	1,679.72	8.19	54.86	-159.72	-4,339.94	-1,047.65	4,672.06	4,609.11	62.95	74.221		
1,800.00	1,777.73	1,716.73	1,777.73	8.63	58.28	-159.81	-4,339.94	-1,047.65	4,690.73	4,623.94	66.79	70.234		
1,900.00	1,875.74	1,814.74	1,875.74	9.08	61.69	-159.89	-4,339.94	-1,047.65	4,709.42	4,638.78	70.63	66.676		
2,000.00	1,973.75	1,912.75	1,973.75	9.53	65.11	-159.97	-4,339.94	-1,047.65	4,728.11	4,653.63	74.48	63.482		
2,100.00	2,071.76	2,010.76	2,071.76	9.98	68.53	-160.05	-4,339.94	-1,047.65	4,746.81	4,668.48	78.33	60.599		
2,200.00	2,169.77	2,108.77	2,169.77	10.44	71.95	-160.13	-4,339.94	-1,047.65	4,765.52	4,683.34	82.19	57.985		
2,300.00	2,267.77	2,206.77	2,267.77	10.90	75.36	-160.22	-4,339.94	-1,047.65	4,784.25	4,698.20	86.04	55.603		
2,400.00	2,365.78	2,304.78	2,365.78	11.36	78.78	-160.30	-4,339.94	-1,047.65	4,802.98	4,713.07	89.90	53.424		
2,500.00	2,463.79	2,402.79	2,463.79	11.82	82.20	-160.37	-4,339.94	-1,047.65	4,821.72	4,727.95	93.77	51.423		
2,600.00	2,561.80	2,500.80	2,561.80	12.28	85.62	-160.45	-4,339.94	-1,047.65	4,840.47	4,742.84	97.63	49.580		
2,700.00	2,659.81	2,601.19	2,659.81	12.75	89.12	-160.53	-4,339.94	-1,047.65	4,859.22	4,757.64	101.58	47.837		
2,800.00	2,757.82	2,703.18	2,757.82	13.21	92.68	-160.61	-4,339.94	-1,047.65	4,877.99	4,772.40	105.58	46.200		
2,900.00	2,855.83	2,805.17	2,855.83	13.68	96.24	-160.69	-4,339.94	-1,047.65	4,896.76	4,787.17	109.59	44.682		
3,000.00	2,953.84	2,907.16	2,953.84	14.15	99.80	-160.76	-4,339.94	-1,047.65	4,915.55	4,801.95	113.60	43.270		
3,100.00	3,051.85	3,009.15	3,051.85	14.62	103.36	-160.84	-4,339.94	-1,047.65	4,934.34	4,816.73	117.61	41.955		
3,200.00	3,149.85	3,088.85	3,149.85	15.09	106.14	-160.91	-4,339.94	-1,047.65	4,953.14	4,832.29	120.84	40.988		
3,300.00	3,247.86	3,186.86	3,247.86	15.56	109.56	-160.99	-4,339.94	-1,047.65	4,971.95	4,847.23	124.72	39.866		
3,400.00	3,345.87	3,284.87	3,345.87	16.04	112.98	-161.06	-4,339.94	-1,047.65	4,990.76	4,862.17	128.59	38.812		
3,500.00	3,443.88	3,382.88	3,443.88	16.51	116.40	-161.14	-4,339.94	-1,047.65	5,009.59	4,877.12	132.46	37.818		
3,600.00	3,541.89	3,480.89	3,541.89	16.98	119.82	-161.21	-4,339.94	-1,047.65	5,028.42	4,892.08	136.34	36.882		
3,700.00	3,639.90	3,578.90	3,639.90	17.46	123.24	-161.28	-4,339.94	-1,047.65	5,047.26	4,907.04	140.21	35.997		
3,800.00	3,737.91	3,676.91	3,737.91	17.93	126.66	-161.35	-4,339.94	-1,047.65	5,066.11	4,922.02	144.09	35.159		
3,900.00	3,835.92	3,774.92	3,835.92	18.41	130.08	-161.42	-4,339.94	-1,047.65	5,084.96	4,936.99	147.97	34.365		
4,000.00	3,933.93	3,872.93	3,933.93	18.88	133.50	-161.50	-4,339.94	-1,047.65	5,103.82	4,951.98	151.84	33.612		
4,100.00	4,031.93	3,970.93	4,031.93	19.36	136.92	-161.57	-4,339.94	-1,047.65	5,122.70	4,966.97	155.72	32.896		
4,200.00	4,129.94	4,068.94	4,129.94	19.84	140.34	-161.64	-4,339.94	-1,047.65	5,141.57	4,981.97	159.60	32.215		
4,300.00	4,227.95	4,166.95	4,227.95	20.31	143.76	-161.70	-4,339.94	-1,047.65	5,160.46	4,996.98	163.48	31.567		
4,400.00	4,325.96	4,264.96	4,325.96	20.79	147.18	-161.77	-4,339.94	-1,047.65	5,179.35	5,011.99	167.36	30.948		
4,500.00	4,423.97	4,362.97	4,423.97	21.27	150.60	-161.84	-4,339.94	-1,047.65	5,198.25	5,027.01	171.24	30.357		
4,600.00	4,521.98	4,460.98	4,521.98	21.75	154.02	-161.91	-4,339.94	-1,047.65	5,217.16	5,042.04	175.12	29.793		
4,700.00	4,619.99	4,558.99	4,619.99	22.23	157.44	-161.98	-4,339.94	-1,047.65	5,236.07	5,057.08	179.00	29.253		
4,800.00	4,718.00	4,657.00	4,718.00	22.70	160.86	-162.04	-4,339.94	-1,047.65	5,254.99	5,072.12	182.88	28.735		
4,900.00	4,816.01	4,755.01	4,816.01	23.18	164.28	-162.11	-4,339.94	-1,047.65	5,273.92	5,087.16	186.76	28.240		
5,000.00	4,914.01	4,853.01	4,914.01	23.66	167.71	-162.18	-4,339.94	-1,047.65	5,292.85	5,102.22	190.64	27.764		
5,100.00	5,012.02	4,951.02	5,012.02	24.14	171.13	-162.24	-4,339.94	-1,047.65	5,311.80	5,117.28	194.52	27.308		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,049.03	5,110.03	24.62	174.55	-162.31	-4,339.94	-1,047.65	5,330.74	5,132.35	198.40	26.869		
5,300.00	5,208.04	5,147.04	5,208.04	25.10	177.97	-162.37	-4,339.94	-1,047.65	5,349.70	5,147.42	202.28	26.447		
5,400.00	5,306.05	5,245.05	5,306.05	25.58	181.39	-162.44	-4,339.94	-1,047.65	5,368.66	5,162.50	206.16	26.041		
5,500.00	5,404.06	5,343.06	5,404.06	26.06	184.81	-162.50	-4,339.94	-1,047.65	5,387.63	5,177.59	210.04	25.650		
5,600.00	5,502.07	5,441.07	5,502.07	26.54	188.23	-162.56	-4,339.94	-1,047.65	5,406.60	5,192.68	213.92	25.274		
5,700.00	5,600.08	5,539.08	5,600.08	27.02	191.65	-162.62	-4,339.94	-1,047.65	5,425.58	5,207.78	217.80	24.910		
5,800.00	5,698.09	5,637.09	5,698.09	27.50	195.07	-162.69	-4,339.94	-1,047.65	5,444.57	5,222.88	221.69	24.560		
5,900.00	5,796.09	5,735.09	5,796.09	27.98	198.49	-162.75	-4,339.94	-1,047.65	5,463.56	5,237.99	225.57	24.221		
6,000.00	5,894.10	5,833.10	5,894.10	28.46	201.92	-162.81	-4,339.94	-1,047.65	5,482.56	5,253.11	229.45	23.894		
6,100.00	5,992.11	5,931.11	5,992.11	28.94	205.34	-162.87	-4,339.94	-1,047.65	5,501.56	5,268.23	233.33	23.578		
6,200.00	6,090.12	6,029.12	6,090.12	29.42	208.76	-162.93	-4,339.94	-1,047.65	5,520.57	5,283.36	237.22	23.272		
6,300.00	6,188.13	6,127.13	6,188.13	29.90	212.18	-162.99	-4,339.94	-1,047.65	5,539.59	5,298.49	241.10	22.976		
6,400.00	6,286.14	6,225.14	6,286.14	30.38	215.60	-163.05	-4,339.94	-1,047.65	5,558.61	5,313.63	244.98	22.690		
6,500.00	6,384.15	6,323.15	6,384.15	30.87	219.02	-163.11	-4,339.94	-1,047.65	5,577.64	5,328.78	248.86	22.412		
6,600.00	6,482.15	6,421.15	6,482.15	31.35	222.44	-163.17	-4,339.94	-1,047.65	5,596.62	5,343.87	252.75	22.143		
6,700.00	6,579.21	6,518.21	6,579.21	31.83	225.83	-163.23	-4,339.94	-1,047.65	5,613.68	5,357.07	256.60	21.877		
6,800.00	6,673.04	6,612.04	6,673.04	32.30	229.10	-163.29	-4,339.94	-1,047.65	5,627.69	5,367.34	260.35	21.616		
6,900.00	6,761.33	6,700.33	6,761.33	32.74	232.19	-163.35	-4,339.94	-1,047.65	5,638.55	5,374.64	263.90	21.366		
7,000.00	6,841.90	6,780.90	6,841.90	33.17	235.00	-163.41	-4,339.94	-1,047.65	5,646.32	5,379.11	267.21	21.131		
7,100.00	6,912.77	6,851.77	6,912.77	33.60	237.47	-163.47	-4,339.94	-1,047.65	5,651.20	5,380.97	270.23	20.913		
7,200.00	6,972.19	6,911.19	6,972.19	34.09	239.55	-163.53	-4,339.94	-1,047.65	5,653.46	5,380.52	272.94	20.713		
7,300.00	7,018.70	6,957.70	7,018.70	34.73	241.17	-163.59	-4,339.94	-1,047.65	5,653.44	5,378.11	275.33	20.534		
7,400.00	7,051.15	7,009.85	7,051.15	35.55	242.99	-163.65	-4,339.94	-1,047.65	5,651.46	5,373.41	278.05	20.325		
7,500.00	7,068.75	7,007.75	7,068.75	36.56	242.92	-163.71	-4,339.94	-1,047.65	5,647.82	5,368.79	279.03	20.241		
7,600.00	7,071.91	7,010.91	7,071.91	37.71	243.03	-163.77	-4,339.94	-1,047.65	5,642.91	5,362.60	280.31	20.131		
7,700.00	7,071.62	7,010.62	7,071.62	39.03	243.02	-163.83	-4,339.94	-1,047.65	5,639.07	5,357.46	281.61	20.024		
7,800.00	7,071.34	7,010.34	7,071.34	40.51	243.01	-163.89	-4,339.94	-1,047.65	5,637.00	5,353.94	283.06	19.914		
7,866.52	7,071.15	7,010.15	7,071.15	41.59	243.00	-163.95	-4,339.94	-1,047.65	5,636.61	5,352.50	284.11	19.839		
7,900.00	7,071.05	7,010.05	7,071.05	42.14	243.00	-164.01	-4,339.94	-1,047.65	5,636.71	5,352.07	284.64	19.803		
8,000.00	7,070.77	7,009.77	7,070.77	43.89	242.99	-164.07	-4,339.94	-1,047.65	5,638.19	5,351.86	286.33	19.691		
8,100.00	7,070.48	7,009.48	7,070.48	45.76	242.98	-164.13	-4,339.94	-1,047.65	5,641.45	5,353.33	288.12	19.580		
8,200.00	7,070.20	7,009.20	7,070.20	47.72	242.97	-164.19	-4,339.94	-1,047.65	5,646.47	5,356.48	289.99	19.472		
8,300.00	7,069.92	7,008.92	7,069.92	49.78	242.96	-164.25	-4,339.94	-1,047.65	5,653.26	5,361.33	291.92	19.366		
8,400.00	7,069.63	7,008.63	7,069.63	51.90	242.95	-164.31	-4,339.94	-1,047.65	5,661.80	5,367.89	293.91	19.264		
8,500.00	7,069.35	7,008.35	7,069.35	54.10	242.94	-164.37	-4,339.94	-1,047.65	5,672.10	5,376.15	295.95	19.166		
8,600.00	7,069.06	7,008.06	7,069.06	56.36	242.93	-164.43	-4,339.94	-1,047.65	5,684.13	5,386.12	298.02	19.073		
8,700.00	7,068.78	7,007.78	7,068.78	58.66	242.92	-164.49	-4,339.94	-1,047.65	5,697.90	5,397.79	300.11	18.986		
8,800.00	7,068.49	7,007.49	7,068.49	61.02	242.91	-164.55	-4,339.94	-1,047.65	5,713.38	5,411.16	302.23	18.904		
8,900.00	7,068.21	7,007.21	7,068.21	63.42	242.90	-164.61	-4,339.94	-1,047.65	5,730.57	5,426.22	304.35	18.829		
9,000.00	7,067.92	7,006.92	7,067.92	65.85	242.89	-164.67	-4,339.94	-1,047.65	5,749.45	5,442.96	306.49	18.759		
9,100.00	7,067.64	7,006.64	7,067.64	68.32	242.88	-164.73	-4,339.94	-1,047.65	5,770.00	5,461.38	308.62	18.696		
9,200.00	7,067.35	7,006.35	7,067.35	70.81	242.87	-164.79	-4,339.94	-1,047.65	5,792.20	5,481.46	310.74	18.640		
9,300.00	7,067.07	7,006.07	7,067.07	73.34	242.86	-164.85	-4,339.94	-1,047.65	5,816.03	5,503.18	312.86	18.590		
9,400.00	7,066.78	7,005.78	7,066.78	75.88	242.85	-164.91	-4,339.94	-1,047.65	5,841.48	5,526.53	314.96	18.547		
9,500.00	7,066.50	7,005.50	7,066.50	78.45	242.84	-164.97	-4,339.94	-1,047.65	5,868.53	5,551.49	317.04	18.510		
9,600.00	7,066.21	7,005.21	7,066.21	81.04	242.83	-165.03	-4,339.94	-1,047.65	5,897.14	5,578.04	319.10	18.480		
9,700.00	7,065.93	7,004.93	7,065.93	83.64	242.82	-165.09	-4,339.94	-1,047.65	5,927.31	5,606.17	321.14	18.457		
9,800.00	7,065.64	7,004.64	7,065.64	86.26	242.81	-165.15	-4,339.94	-1,047.65	5,959.00	5,635.84	323.16	18.440		
9,900.00	7,065.36	7,004.36	7,065.36	88.90	242.80	-165.21	-4,339.94	-1,047.65	5,992.19	5,667.05	325.14	18.429		
10,000.00	7,065.07	7,004.07	7,065.07	91.55	242.79	-165.27	-4,339.94	-1,047.65	6,026.86	5,699.76	327.10	18.425 SF		
10,100.00	7,064.79	7,003.79	7,064.79	94.21	242.78	-165.33	-4,339.94	-1,047.65	6,062.98	5,733.96	329.02	18.427		
10,200.00	7,064.50	7,003.50	7,064.50	96.88	242.77	-165.39	-4,339.94	-1,047.65	6,100.53	5,769.61	330.92	18.435		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,064.22	7,003.22	7,064.22	99.57	242.76	-89.93	-4,339.94	-1,047.65	6,139.48	5,806.70	332.77	18.449		
10,400.00	7,063.94	7,002.94	7,063.94	102.26	242.75	-89.93	-4,339.94	-1,047.65	6,179.79	5,845.20	334.60	18.469		
10,500.00	7,063.65	7,002.65	7,063.65	104.96	242.74	-89.92	-4,339.94	-1,047.65	6,221.46	5,885.07	336.38	18.495		
10,600.00	7,063.37	7,002.37	7,063.37	107.67	242.73	-89.92	-4,339.94	-1,047.65	6,264.44	5,926.31	338.13	18.526		
10,700.00	7,063.08	7,002.08	7,063.08	110.39	242.72	-89.92	-4,339.94	-1,047.65	6,308.72	5,968.87	339.85	18.563		
10,800.00	7,062.80	7,001.80	7,062.80	113.11	242.71	-89.92	-4,339.94	-1,047.65	6,354.26	6,012.73	341.53	18.605		
10,900.00	7,062.51	7,001.51	7,062.51	115.84	242.70	-89.91	-4,339.94	-1,047.65	6,401.04	6,057.87	343.17	18.653		
11,000.00	7,062.23	7,001.23	7,062.23	118.58	242.69	-89.91	-4,339.94	-1,047.65	6,449.03	6,104.26	344.77	18.705		
11,100.00	7,061.94	7,000.94	7,061.94	121.32	242.68	-89.91	-4,339.94	-1,047.65	6,498.21	6,151.87	346.33	18.763		
11,200.00	7,061.66	7,000.66	7,061.66	124.07	242.67	-89.90	-4,339.94	-1,047.65	6,548.54	6,200.68	347.86	18.825		
11,300.00	7,061.37	7,000.37	7,061.37	126.82	242.66	-89.90	-4,339.94	-1,047.65	6,600.00	6,250.65	349.35	18.892		
11,400.00	7,061.09	7,000.09	7,061.09	129.58	242.65	-89.90	-4,339.94	-1,047.65	6,652.57	6,301.77	350.81	18.964		
11,500.00	7,060.80	7,000.20	7,060.80	132.34	242.65	-89.89	-4,339.94	-1,047.65	6,706.22	6,353.99	352.24	19.039		
11,600.00	7,060.52	7,000.48	7,060.52	135.10	242.66	-89.89	-4,339.94	-1,047.65	6,760.93	6,407.29	353.64	19.118		
11,700.00	7,060.23	7,000.77	7,060.23	137.87	242.67	-89.89	-4,339.94	-1,047.65	6,816.66	6,461.65	355.00	19.202		
11,800.00	7,059.95	7,001.05	7,059.95	140.64	242.68	-89.89	-4,339.94	-1,047.65	6,873.39	6,517.06	356.33	19.289		
11,900.00	7,059.66	7,001.34	7,059.66	143.42	242.69	-89.88	-4,339.94	-1,047.65	6,931.10	6,573.47	357.63	19.381		
12,000.00	7,059.38	7,001.62	7,059.38	146.20	242.70	-89.88	-4,339.94	-1,047.65	6,989.77	6,630.88	358.89	19.476		
12,100.00	7,059.09	7,001.91	7,059.09	148.98	242.71	-89.88	-4,339.94	-1,047.65	7,049.37	6,689.25	360.12	19.575		
12,200.00	7,058.81	7,002.19	7,058.81	151.77	242.72	-89.87	-4,339.94	-1,047.65	7,109.87	6,748.56	361.31	19.678		
12,300.00	7,058.52	7,002.48	7,058.52	154.55	242.73	-89.87	-4,339.94	-1,047.65	7,171.26	6,808.78	362.48	19.784		
12,400.00	7,058.24	7,002.76	7,058.24	157.34	242.74	-89.87	-4,339.94	-1,047.65	7,233.51	6,869.90	363.61	19.894		
12,500.00	7,057.96	7,003.05	7,057.96	160.14	242.75	-89.87	-4,339.94	-1,047.65	7,296.60	6,931.89	364.71	20.007		
12,600.00	7,057.67	7,003.33	7,057.67	162.93	242.76	-89.86	-4,339.94	-1,047.65	7,360.50	6,994.73	365.78	20.123		
12,700.00	7,057.39	7,003.61	7,057.39	165.73	242.77	-89.86	-4,339.94	-1,047.65	7,425.21	7,058.39	366.82	20.242		
12,800.00	7,057.10	7,003.90	7,057.10	168.53	242.78	-89.86	-4,339.94	-1,047.65	7,490.69	7,122.86	367.83	20.364		
12,900.00	7,056.82	7,004.18	7,056.82	171.33	242.79	-89.85	-4,339.94	-1,047.65	7,556.92	7,188.11	368.81	20.490		
13,000.00	7,056.53	7,004.47	7,056.53	174.13	242.80	-89.85	-4,339.94	-1,047.65	7,623.89	7,254.12	369.77	20.618		
13,100.00	7,056.25	7,004.75	7,056.25	176.94	242.81	-89.85	-4,339.94	-1,047.65	7,691.58	7,320.88	370.70	20.749		
13,200.00	7,055.96	7,005.04	7,055.96	179.74	242.82	-89.85	-4,339.94	-1,047.65	7,759.97	7,388.36	371.61	20.882		
13,300.00	7,055.68	7,005.32	7,055.68	182.55	242.83	-89.84	-4,339.94	-1,047.65	7,829.04	7,456.55	372.49	21.018		
13,400.00	7,055.39	7,005.61	7,055.39	185.36	242.84	-89.84	-4,339.94	-1,047.65	7,898.77	7,525.43	373.34	21.157		
13,500.00	7,055.11	7,005.89	7,055.11	188.17	242.85	-89.84	-4,339.94	-1,047.65	7,969.14	7,594.97	374.17	21.298		
13,600.00	7,054.82	7,006.18	7,054.82	190.98	242.86	-89.83	-4,339.94	-1,047.65	8,040.14	7,665.16	374.98	21.442		
13,700.00	7,054.54	7,006.46	7,054.54	193.80	242.87	-89.83	-4,339.94	-1,047.65	8,111.75	7,735.99	375.76	21.587		
13,800.00	7,054.25	7,006.75	7,054.25	196.61	242.88	-89.83	-4,339.94	-1,047.65	8,183.96	7,807.44	376.53	21.735		
13,900.00	7,053.97	7,007.03	7,053.97	199.43	242.89	-89.83	-4,339.94	-1,047.65	8,256.75	7,879.48	377.27	21.886		
14,000.00	7,053.68	7,007.32	7,053.68	202.25	242.90	-89.82	-4,339.94	-1,047.65	8,330.10	7,952.11	377.99	22.038		
14,100.00	7,053.40	7,007.60	7,053.40	205.06	242.91	-89.82	-4,339.94	-1,047.65	8,404.01	8,025.31	378.69	22.192		
14,200.00	7,053.11	7,007.89	7,053.11	207.88	242.92	-89.82	-4,339.94	-1,047.65	8,478.44	8,099.07	379.37	22.349		
14,300.00	7,052.83	7,008.17	7,052.83	210.70	242.93	-89.81	-4,339.94	-1,047.65	8,553.40	8,173.37	380.04	22.507		
14,400.00	7,052.54	7,008.46	7,052.54	213.53	242.94	-89.81	-4,339.94	-1,047.65	8,628.87	8,248.19	380.68	22.667		
14,500.00	7,052.26	7,008.74	7,052.26	216.35	242.95	-89.81	-4,339.94	-1,047.65	8,704.83	8,323.52	381.31	22.829		
14,600.00	7,051.98	7,009.03	7,051.98	219.17	242.96	-89.81	-4,339.94	-1,047.65	8,781.27	8,399.35	381.92	22.993		
14,700.00	7,051.69	7,009.31	7,051.69	222.00	242.97	-89.80	-4,339.94	-1,047.65	8,858.18	8,475.67	382.51	23.158		
14,800.00	7,051.41	7,009.59	7,051.41	224.82	242.98	-89.80	-4,339.94	-1,047.65	8,935.55	8,552.46	383.09	23.325		
14,900.00	7,051.12	7,009.88	7,051.12	227.65	242.99	-89.80	-4,339.94	-1,047.65	9,013.37	8,629.72	383.65	23.494		
14,942.37	7,051.00	7,010.00	7,051.00	228.85	243.00	-89.80	-4,339.94	-1,047.65	9,046.47	8,662.59	383.88	23.566		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	6.00	0.00	3.28	3.28	-47.92	1,050.69	-1,163.67	1,567.83					
100.00	100.00	106.00	100.00	3.28	3.82	-47.92	1,050.69	-1,163.67	1,567.83	1,560.72	7.10	220.724		
200.00	200.00	206.00	200.00	3.34	6.36	-47.92	1,050.69	-1,163.67	1,567.83	1,558.13	9.69	161.724		
300.00	300.00	306.00	300.00	3.44	9.52	-47.92	1,050.69	-1,163.67	1,567.83	1,554.86	12.96	120.930		
400.00	399.98	406.02	399.98	3.60	12.85	-40.68	1,050.69	-1,163.67	1,566.50	1,550.04	16.46	95.184		
500.00	499.84	506.16	499.84	3.81	16.26	-40.85	1,050.69	-1,163.67	1,562.54	1,542.47	20.07	77.868		
600.00	599.45	606.55	599.45	4.06	19.70	-41.15	1,050.69	-1,163.67	1,555.95	1,532.19	23.75	65.501		
700.00	698.70	707.30	698.70	4.34	23.18	-41.57	1,050.69	-1,163.67	1,546.77	1,519.26	27.51	56.232		
800.00	797.47	808.53	797.47	4.64	26.68	-42.11	1,050.69	-1,163.67	1,535.05	1,503.74	31.32	49.018		
900.00	895.65	889.65	895.65	4.98	29.50	-42.72	1,050.69	-1,163.67	1,520.95	1,486.49	34.46	44.136		
1,000.00	993.66	987.66	993.66	5.32	32.90	-43.23	1,050.69	-1,163.67	1,506.29	1,468.08	38.21	39.420		
1,100.00	1,091.67	1,085.67	1,091.67	5.69	36.30	-43.75	1,050.69	-1,163.67	1,491.75	1,449.76	41.98	35.533		
1,200.00	1,189.68	1,183.68	1,189.68	6.09	39.71	-44.28	1,050.69	-1,163.67	1,477.33	1,431.56	45.77	32.276		
1,300.00	1,287.69	1,281.69	1,287.69	6.49	43.12	-44.81	1,050.69	-1,163.67	1,463.04	1,413.46	49.58	29.511		
1,400.00	1,385.69	1,379.69	1,385.69	6.90	46.54	-45.36	1,050.69	-1,163.67	1,448.88	1,395.49	53.39	27.137		
1,500.00	1,483.70	1,477.70	1,483.70	7.33	49.95	-45.92	1,050.69	-1,163.67	1,434.85	1,377.64	57.22	25.077		
1,600.00	1,581.71	1,575.71	1,581.71	7.76	53.36	-46.49	1,050.69	-1,163.67	1,420.97	1,359.92	61.05	23.275		
1,700.00	1,679.72	1,673.72	1,679.72	8.19	56.78	-47.07	1,050.69	-1,163.67	1,407.23	1,342.33	64.89	21.685		
1,800.00	1,777.73	1,771.73	1,777.73	8.63	60.20	-47.66	1,050.69	-1,163.67	1,393.63	1,324.89	68.74	20.274		
1,900.00	1,875.74	1,869.74	1,875.74	9.08	63.61	-48.26	1,050.69	-1,163.67	1,380.19	1,307.60	72.59	19.013		
2,000.00	1,973.75	1,967.75	1,973.75	9.53	67.03	-48.88	1,050.69	-1,163.67	1,366.90	1,290.45	76.45	17.879		
2,100.00	2,071.76	2,065.76	2,071.76	9.98	70.45	-49.50	1,050.69	-1,163.67	1,353.78	1,273.46	80.31	16.856		
2,200.00	2,169.77	2,163.77	2,169.77	10.44	73.86	-50.14	1,050.69	-1,163.67	1,340.82	1,256.64	84.18	15.928		
2,300.00	2,267.77	2,261.77	2,267.77	10.90	77.28	-50.79	1,050.69	-1,163.67	1,328.03	1,239.98	88.05	15.083		
2,400.00	2,365.78	2,359.78	2,365.78	11.36	80.70	-51.45	1,050.69	-1,163.67	1,315.41	1,223.49	91.92	14.311		
2,500.00	2,463.79	2,457.79	2,463.79	11.82	84.12	-52.13	1,050.69	-1,163.67	1,302.98	1,207.18	95.79	13.602		
2,600.00	2,561.80	2,555.80	2,561.80	12.28	87.54	-52.82	1,050.69	-1,163.67	1,290.73	1,191.06	99.67	12.950		
2,700.00	2,659.81	2,653.81	2,659.81	12.75	90.96	-53.51	1,050.69	-1,163.67	1,278.67	1,175.12	103.55	12.348		
2,800.00	2,757.82	2,751.82	2,757.82	13.21	94.38	-54.23	1,050.69	-1,163.67	1,266.81	1,159.38	107.43	11.792		
2,900.00	2,855.83	2,849.83	2,855.83	13.68	97.80	-54.95	1,050.69	-1,163.67	1,255.15	1,143.84	111.31	11.276		
3,000.00	2,953.84	2,947.84	2,953.84	14.15	101.22	-55.69	1,050.69	-1,163.67	1,243.70	1,128.50	115.20	10.796		
3,100.00	3,051.85	3,045.85	3,051.85	14.62	104.64	-56.44	1,050.69	-1,163.67	1,232.46	1,113.38	119.09	10.349		
3,200.00	3,149.85	3,143.85	3,149.85	15.09	108.06	-57.21	1,050.69	-1,163.67	1,221.45	1,098.47	122.98	9.932		
3,300.00	3,247.86	3,241.86	3,247.86	15.56	111.48	-57.99	1,050.69	-1,163.67	1,210.65	1,083.79	126.87	9.543		
3,400.00	3,345.87	3,339.87	3,345.87	16.04	114.90	-58.78	1,050.69	-1,163.67	1,200.09	1,069.33	130.76	9.178		
3,500.00	3,443.88	3,437.88	3,443.88	16.51	118.32	-59.59	1,050.69	-1,163.67	1,189.77	1,055.12	134.65	8.836		
3,600.00	3,541.89	3,535.89	3,541.89	16.98	121.74	-60.40	1,050.69	-1,163.67	1,179.69	1,041.14	138.55	8.515		
3,700.00	3,639.90	3,633.90	3,639.90	17.46	125.16	-61.24	1,050.69	-1,163.67	1,169.86	1,027.42	142.44	8.213		
3,800.00	3,737.91	3,731.91	3,737.91	17.93	128.58	-62.08	1,050.69	-1,163.67	1,160.29	1,013.95	146.34	7.929		
3,900.00	3,835.92	3,829.92	3,835.92	18.41	132.00	-62.94	1,050.69	-1,163.67	1,150.98	1,000.74	150.24	7.661		
4,000.00	3,933.93	3,927.93	3,933.93	18.88	135.42	-63.82	1,050.69	-1,163.67	1,141.94	987.80	154.14	7.409		
4,100.00	4,031.93	4,025.93	4,031.93	19.36	138.84	-64.70	1,050.69	-1,163.67	1,133.17	975.13	158.04	7.170		
4,200.00	4,129.94	4,123.94	4,129.94	19.84	142.26	-65.60	1,050.69	-1,163.67	1,124.69	962.75	161.94	6.945		
4,300.00	4,227.95	4,221.95	4,227.95	20.31	145.68	-66.51	1,050.69	-1,163.67	1,116.49	950.66	165.84	6.732		
4,400.00	4,325.96	4,319.96	4,325.96	20.79	149.10	-67.44	1,050.69	-1,163.67	1,108.60	938.85	169.74	6.531		
4,500.00	4,423.97	4,417.97	4,423.97	21.27	152.52	-68.38	1,050.69	-1,163.67	1,101.00	927.35	173.65	6.340		
4,600.00	4,521.98	4,515.98	4,521.98	21.75	155.94	-69.33	1,050.69	-1,163.67	1,093.71	916.16	177.55	6.160		
4,700.00	4,619.99	4,613.99	4,619.99	22.23	159.36	-70.29	1,050.69	-1,163.67	1,086.73	905.28	181.46	5.989		
4,800.00	4,718.00	4,712.00	4,718.00	22.70	162.78	-71.26	1,050.69	-1,163.67	1,080.08	894.72	185.36	5.827		
4,900.00	4,816.01	4,810.01	4,816.01	23.18	166.20	-72.25	1,050.69	-1,163.67	1,073.75	884.48	189.27	5.673		
5,000.00	4,914.01	4,908.01	4,914.01	23.66	169.63	-73.25	1,050.69	-1,163.67	1,067.75	874.57	193.18	5.527		
5,100.00	5,012.02	5,006.02	5,012.02	24.14	173.05	-74.25	1,050.69	-1,163.67	1,062.09	865.01	197.08	5.389		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,104.03	5,110.03	24.62	176.47	-75.27	1,050.69	-1,163.67	1,056.77	855.78	200.99	5.258		
5,300.00	5,208.04	5,202.04	5,208.04	25.10	179.89	-76.30	1,050.69	-1,163.67	1,051.80	846.90	204.90	5.133		
5,400.00	5,306.05	5,300.05	5,306.05	25.58	183.31	-77.33	1,050.69	-1,163.67	1,047.19	838.38	208.81	5.015		
5,500.00	5,404.06	5,401.94	5,404.06	26.06	186.87	-78.38	1,050.69	-1,163.67	1,042.93	830.08	212.85	4.900		
5,600.00	5,502.07	5,503.93	5,502.07	26.54	190.43	-79.43	1,050.69	-1,163.67	1,039.03	822.13	216.90	4.790		
5,700.00	5,600.08	5,605.92	5,600.08	27.02	193.99	-80.49	1,050.69	-1,163.67	1,035.50	814.55	220.95	4.687		
5,800.00	5,698.09	5,707.91	5,698.09	27.50	197.55	-81.55	1,050.69	-1,163.67	1,032.34	807.34	225.00	4.588		
5,900.00	5,796.09	5,809.91	5,796.09	27.98	201.11	-82.62	1,050.69	-1,163.67	1,029.55	800.51	229.04	4.495		
6,000.00	5,894.10	5,888.10	5,894.10	28.46	203.83	-83.70	1,050.69	-1,163.67	1,027.14	794.88	232.26	4.422		
6,100.00	5,992.11	5,986.11	5,992.11	28.94	207.26	-84.78	1,050.69	-1,163.67	1,025.11	788.94	236.17	4.341		
6,200.00	6,090.12	6,084.12	6,090.12	29.42	210.68	-85.87	1,050.69	-1,163.67	1,023.46	783.38	240.08	4.263		
6,300.00	6,188.13	6,182.13	6,188.13	29.90	214.10	-86.96	1,050.69	-1,163.67	1,022.19	778.21	243.98	4.190		
6,400.00	6,286.14	6,280.14	6,286.14	30.38	217.52	-88.05	1,050.69	-1,163.67	1,021.31	773.42	247.89	4.120		
6,500.00	6,384.15	6,378.15	6,384.15	30.87	220.94	-89.14	1,050.69	-1,163.67	1,020.81	769.01	251.80	4.054		
6,600.00	6,482.15	6,476.15	6,482.15	31.35	224.36	-91.74	1,050.69	-1,163.67	1,020.39	764.69	255.70	3.991		
6,700.00	6,579.21	6,573.21	6,579.21	31.83	227.75	-92.01	1,050.69	-1,163.67	1,009.85	750.27	259.57	3.890		
6,800.00	6,673.04	6,667.04	6,673.04	32.30	231.02	-93.16	1,050.69	-1,163.67	984.53	721.21	263.32	3.739		
6,900.00	6,761.33	6,755.33	6,761.33	32.74	234.11	-94.17	1,050.69	-1,163.67	945.21	678.37	266.84	3.542		
7,000.00	6,841.90	6,835.90	6,841.90	33.17	236.92	-95.26	1,050.69	-1,163.67	893.03	622.96	270.07	3.307		
7,100.00	6,912.77	6,906.77	6,912.77	33.60	239.39	-96.39	1,050.69	-1,163.67	829.52	556.57	272.94	3.039		
7,200.00	6,972.19	6,966.19	6,972.19	34.09	241.47	-97.51	1,050.69	-1,163.67	756.53	481.12	275.41	2.747		
7,300.00	7,018.70	7,012.70	7,018.70	34.73	243.09	-98.01	1,050.69	-1,163.67	676.31	398.85	277.46	2.438		
7,400.00	7,051.15	7,045.15	7,051.15	35.55	244.22	-98.81	1,050.69	-1,163.67	591.46	312.37	279.10	2.119		
7,500.00	7,068.75	7,062.75	7,068.75	36.56	244.84	-99.24	1,050.69	-1,163.67	505.05	224.66	280.38	1.801		
7,600.00	7,071.91	7,065.91	7,071.91	37.71	244.95	-99.23	1,050.69	-1,163.67	420.85	139.39	281.46	1.495 Level 3		
7,700.00	7,071.62	7,065.62	7,071.62	39.03	244.94	-99.16	1,050.69	-1,163.67	344.55	61.60	282.95	1.218 Level 2		
7,800.00	7,071.34	7,065.34	7,071.34	40.51	244.93	-99.09	1,050.69	-1,163.67	283.40	-1.66	285.07	0.994 Level 1		
7,900.00	7,071.05	7,065.05	7,071.05	42.14	244.92	-99.03	1,050.69	-1,163.67	248.84	-38.17	287.01	0.867 Level 1		
7,941.99	7,070.93	7,064.93	7,070.93	42.87	244.91	-99.00	1,050.69	-1,163.67	245.27	-42.06	287.32	0.854 Level 1, CC, ES, SF		
8,000.00	7,070.77	7,064.77	7,070.77	43.89	244.91	-98.96	1,050.69	-1,163.67	252.03	-34.96	286.99	0.878 Level 1		
8,100.00	7,070.48	7,064.48	7,070.48	45.76	244.90	-98.89	1,050.69	-1,163.67	291.76	6.62	285.14	1.023 Level 2		
8,200.00	7,070.20	7,064.20	7,070.20	47.72	244.89	-98.83	1,050.69	-1,163.67	355.98	72.80	283.18	1.257 Level 3		
8,300.00	7,069.92	7,063.92	7,069.92	49.78	244.88	-98.76	1,050.69	-1,163.67	433.96	152.19	281.78	1.540		
8,400.00	7,069.63	7,063.63	7,069.63	51.90	244.87	-98.70	1,050.69	-1,163.67	519.54	238.68	280.87	1.850		
8,500.00	7,069.35	7,063.35	7,069.35	54.10	244.86	-98.63	1,050.69	-1,163.67	609.53	329.26	280.27	2.175		
8,600.00	7,069.06	7,063.06	7,069.06	56.36	244.85	-98.56	1,050.69	-1,163.67	702.23	422.35	279.88	2.509		
8,700.00	7,068.78	7,062.78	7,068.78	58.66	244.84	-98.50	1,050.69	-1,163.67	796.70	517.09	279.61	2.849		
8,800.00	7,068.49	7,062.49	7,068.49	61.02	244.83	-98.43	1,050.69	-1,163.67	892.37	612.96	279.41	3.194		
8,900.00	7,068.21	7,062.21	7,068.21	63.42	244.82	-98.36	1,050.69	-1,163.67	988.90	709.63	279.28	3.541		
9,000.00	7,067.92	7,061.92	7,067.92	65.85	244.81	-98.30	1,050.69	-1,163.67	1,086.06	806.89	279.17	3.890		
9,100.00	7,067.64	7,061.64	7,067.64	68.32	244.80	-98.23	1,050.69	-1,163.67	1,183.69	904.59	279.10	4.241		
9,200.00	7,067.35	7,061.35	7,067.35	70.81	244.79	-98.16	1,050.69	-1,163.67	1,281.69	1,002.65	279.04	4.593		
9,300.00	7,067.07	7,061.07	7,067.07	73.34	244.78	-98.10	1,050.69	-1,163.67	1,379.97	1,100.97	279.00	4.946		
9,400.00	7,066.78	7,060.78	7,066.78	75.88	244.77	-98.03	1,050.69	-1,163.67	1,478.49	1,199.52	278.97	5.300		
9,500.00	7,066.50	7,060.50	7,066.50	78.45	244.76	-98.96	1,050.69	-1,163.67	1,577.19	1,298.24	278.95	5.654		
9,600.00	7,066.21	7,060.21	7,066.21	81.04	244.75	-98.90	1,050.69	-1,163.67	1,676.04	1,397.11	278.94	6.009		
9,700.00	7,065.93	7,059.93	7,065.93	83.64	244.74	-98.83	1,050.69	-1,163.67	1,775.03	1,496.10	278.93	6.364		
9,800.00	7,065.64	7,059.64	7,065.64	86.26	244.73	-98.76	1,050.69	-1,163.67	1,874.12	1,595.19	278.93	6.719		
9,900.00	7,065.36	7,059.36	7,065.36	88.90	244.72	-98.70	1,050.69	-1,163.67	1,973.30	1,694.37	278.93	7.075		
10,000.00	7,065.07	7,059.07	7,065.07	91.55	244.71	-98.63	1,050.69	-1,163.67	2,072.56	1,793.63	278.94	7.430		
10,100.00	7,064.79	7,058.79	7,064.79	94.21	244.70	-98.56	1,050.69	-1,163.67	2,171.89	1,892.95	278.94	7.786		
10,200.00	7,064.50	7,058.50	7,064.50	96.88	244.69	-98.50	1,050.69	-1,163.67	2,271.28	1,992.32	278.96	8.142		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-21(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,064.22	7,058.22	7,064.22	99.57	244.68	-88.43	1,050.69	-1,163.67	2,370.72	2,091.75	278.97	8.498		
10,400.00	7,063.94	7,057.94	7,063.94	102.26	244.67	-88.37	1,050.69	-1,163.67	2,470.20	2,191.22	278.99	8.854		
10,500.00	7,063.65	7,057.65	7,063.65	104.96	244.66	-88.30	1,050.69	-1,163.67	2,569.73	2,290.72	279.01	9.210		
10,600.00	7,063.37	7,057.37	7,063.37	107.67	244.65	-88.23	1,050.69	-1,163.67	2,669.29	2,390.26	279.03	9.566		
10,700.00	7,063.08	7,057.08	7,063.08	110.39	244.64	-88.17	1,050.69	-1,163.67	2,768.88	2,489.83	279.05	9.923		
10,800.00	7,062.80	7,056.80	7,062.80	113.11	244.63	-88.10	1,050.69	-1,163.67	2,868.50	2,589.43	279.07	10.279		
10,900.00	7,062.51	7,056.51	7,062.51	115.84	244.62	-88.03	1,050.69	-1,163.67	2,968.15	2,689.05	279.10	10.635		
11,000.00	7,062.23	7,056.23	7,062.23	118.58	244.61	-87.97	1,050.69	-1,163.67	3,067.82	2,788.69	279.13	10.991		
11,100.00	7,061.94	7,055.94	7,061.94	121.32	244.60	-87.90	1,050.69	-1,163.67	3,167.51	2,888.35	279.15	11.347		
11,200.00	7,061.66	7,055.66	7,061.66	124.07	244.59	-87.83	1,050.69	-1,163.67	3,267.21	2,988.03	279.19	11.703		
11,300.00	7,061.37	7,055.37	7,061.37	126.82	244.58	-87.77	1,050.69	-1,163.67	3,366.94	3,087.72	279.22	12.059		
11,400.00	7,061.09	7,055.09	7,061.09	129.58	244.57	-87.70	1,050.69	-1,163.67	3,466.68	3,187.43	279.25	12.414		
11,500.00	7,060.80	7,054.80	7,060.80	132.34	244.56	-87.63	1,050.69	-1,163.67	3,566.44	3,287.15	279.28	12.770		
11,600.00	7,060.52	7,054.52	7,060.52	135.10	244.55	-87.57	1,050.69	-1,163.67	3,666.21	3,386.89	279.32	13.125		
11,700.00	7,060.23	7,054.23	7,060.23	137.87	244.54	-87.50	1,050.69	-1,163.67	3,765.99	3,486.63	279.36	13.481		
11,800.00	7,059.95	7,053.95	7,059.95	140.64	244.53	-87.44	1,050.69	-1,163.67	3,865.78	3,586.39	279.39	13.836		
11,900.00	7,059.66	7,053.66	7,059.66	143.42	244.52	-87.37	1,050.69	-1,163.67	3,965.58	3,686.15	279.43	14.192		
12,000.00	7,059.38	7,053.38	7,059.38	146.20	244.51	-87.30	1,050.69	-1,163.67	4,065.40	3,785.92	279.47	14.547		
12,100.00	7,059.09	7,053.09	7,059.09	148.98	244.50	-87.24	1,050.69	-1,163.67	4,165.22	3,885.70	279.51	14.902		
12,200.00	7,058.81	7,052.81	7,058.81	151.77	244.49	-87.17	1,050.69	-1,163.67	4,265.05	3,985.49	279.56	15.256		
12,300.00	7,058.52	7,052.52	7,058.52	154.55	244.48	-87.10	1,050.69	-1,163.67	4,364.89	4,085.29	279.60	15.611		
12,400.00	7,058.24	7,052.24	7,058.24	157.34	244.47	-87.04	1,050.69	-1,163.67	4,464.73	4,185.09	279.65	15.966		
12,500.00	7,057.96	7,051.96	7,057.96	160.14	244.46	-86.97	1,050.69	-1,163.67	4,564.58	4,284.89	279.69	16.320		
12,600.00	7,057.67	7,051.67	7,057.67	162.93	244.45	-86.90	1,050.69	-1,163.67	4,664.44	4,384.70	279.74	16.674		
12,700.00	7,057.39	7,051.39	7,057.39	165.73	244.44	-86.84	1,050.69	-1,163.67	4,764.31	4,484.52	279.79	17.028		
12,800.00	7,057.10	7,051.10	7,057.10	168.53	244.43	-86.77	1,050.69	-1,163.67	4,864.18	4,584.34	279.83	17.382		
12,900.00	7,056.82	7,050.82	7,056.82	171.33	244.42	-86.71	1,050.69	-1,163.67	4,964.05	4,684.17	279.88	17.736		
13,000.00	7,056.53	7,050.53	7,056.53	174.13	244.41	-86.64	1,050.69	-1,163.67	5,063.93	4,784.00	279.93	18.090		
13,100.00	7,056.25	7,050.25	7,056.25	176.94	244.40	-86.57	1,050.69	-1,163.67	5,163.82	4,883.83	279.99	18.443		
13,200.00	7,055.96	7,049.96	7,055.96	179.74	244.39	-86.51	1,050.69	-1,163.67	5,263.70	4,983.66	280.04	18.796		
13,300.00	7,055.68	7,049.68	7,055.68	182.55	244.38	-86.44	1,050.69	-1,163.67	5,363.60	5,083.50	280.09	19.149		
13,400.00	7,055.39	7,049.39	7,055.39	185.36	244.37	-86.37	1,050.69	-1,163.67	5,463.49	5,183.35	280.15	19.502		
13,500.00	7,055.11	7,049.11	7,055.11	188.17	244.36	-86.31	1,050.69	-1,163.67	5,563.39	5,283.19	280.20	19.855		
13,600.00	7,054.82	7,048.82	7,054.82	190.98	244.35	-86.24	1,050.69	-1,163.67	5,663.30	5,383.04	280.26	20.207		
13,700.00	7,054.54	7,048.54	7,054.54	193.80	244.34	-86.18	1,050.69	-1,163.67	5,763.21	5,482.89	280.32	20.560		
13,800.00	7,054.25	7,048.25	7,054.25	196.61	244.33	-86.11	1,050.69	-1,163.67	5,863.12	5,582.74	280.37	20.912		
13,900.00	7,053.97	7,047.97	7,053.97	199.43	244.32	-86.04	1,050.69	-1,163.67	5,963.03	5,682.60	280.43	21.264		
14,000.00	7,053.68	7,047.68	7,053.68	202.25	244.31	-85.98	1,050.69	-1,163.67	6,062.95	5,782.45	280.49	21.615		
14,100.00	7,053.40	7,047.40	7,053.40	205.06	244.30	-85.91	1,050.69	-1,163.67	6,162.87	5,882.31	280.55	21.967		
14,200.00	7,053.11	7,047.11	7,053.11	207.88	244.29	-85.84	1,050.69	-1,163.67	6,262.79	5,982.17	280.62	22.318		
14,300.00	7,052.83	7,046.83	7,052.83	210.70	244.28	-85.78	1,050.69	-1,163.67	6,362.71	6,082.03	280.68	22.669		
14,400.00	7,052.54	7,046.54	7,052.54	213.53	244.27	-85.71	1,050.69	-1,163.67	6,462.64	6,181.89	280.74	23.020		
14,500.00	7,052.26	7,046.26	7,052.26	216.35	244.26	-85.65	1,050.69	-1,163.67	6,562.57	6,281.76	280.81	23.370		
14,600.00	7,051.98	7,045.98	7,051.98	219.17	244.25	-85.58	1,050.69	-1,163.67	6,662.50	6,381.62	280.87	23.721		
14,700.00	7,051.69	7,045.69	7,051.69	222.00	244.24	-85.51	1,050.69	-1,163.67	6,762.43	6,481.49	280.94	24.071		
14,800.00	7,051.41	7,045.41	7,051.41	224.82	244.23	-85.45	1,050.69	-1,163.67	6,862.36	6,581.36	281.01	24.421		
14,900.00	7,051.12	7,045.12	7,051.12	227.65	244.22	-85.38	1,050.69	-1,163.67	6,962.30	6,681.23	281.07	24.770		
14,942.37	7,051.00	7,045.00	7,051.00	228.85	244.22	-85.35	1,050.69	-1,163.67	7,004.65	6,723.54	281.10	24.919		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	20.00	3.28	3.28	-102.92	-253.53	-1,105.33	1,134.20					
100.00	100.00	80.00	100.00	3.28	3.56	-102.92	-253.53	-1,105.33	1,134.03	1,127.18	6.85	165.562		
200.00	200.00	180.00	200.00	3.34	5.60	-102.92	-253.53	-1,105.33	1,134.03	1,125.09	8.94	126.898		
300.00	300.00	280.00	300.00	3.44	8.67	-102.92	-253.53	-1,105.33	1,134.03	1,121.91	12.12	93.580 CC		
400.00	399.98	379.98	399.98	3.60	11.98	-95.70	-253.53	-1,105.33	1,134.20	1,118.62	15.58	72.796		
500.00	499.84	479.84	499.84	3.81	15.36	-95.95	-253.53	-1,105.33	1,134.73	1,115.57	19.16	59.209		
600.00	599.45	579.45	599.45	4.06	18.77	-96.37	-253.53	-1,105.33	1,135.67	1,112.85	22.82	49.772		
700.00	698.70	678.70	698.70	4.34	22.19	-96.95	-253.53	-1,105.33	1,137.10	1,110.58	26.51	42.890		
800.00	797.47	777.47	797.47	4.64	25.61	-97.68	-253.53	-1,105.33	1,139.11	1,108.88	30.23	37.678		
900.00	895.65	875.65	895.65	4.98	29.01	-98.57	-253.53	-1,105.33	1,141.84	1,107.87	33.97	33.614		
1,000.00	993.66	973.66	993.66	5.32	32.41	-99.53	-253.53	-1,105.33	1,145.02	1,107.29	37.73	30.349		
1,100.00	1,091.67	1,071.67	1,091.67	5.69	35.82	-100.49	-253.53	-1,105.33	1,148.54	1,107.03	41.51	27.668 ES		
1,200.00	1,189.68	1,169.68	1,189.68	6.09	39.23	-101.44	-253.53	-1,105.33	1,152.39	1,107.08	45.31	25.433		
1,300.00	1,287.69	1,267.69	1,287.69	6.49	42.64	-102.39	-253.53	-1,105.33	1,156.57	1,107.44	49.13	23.543		
1,400.00	1,385.69	1,365.69	1,385.69	6.90	46.05	-103.32	-253.53	-1,105.33	1,161.07	1,108.12	52.95	21.927		
1,500.00	1,483.70	1,463.70	1,483.70	7.33	49.46	-104.26	-253.53	-1,105.33	1,165.90	1,109.11	56.79	20.531		
1,600.00	1,581.71	1,561.71	1,581.71	7.76	52.88	-105.18	-253.53	-1,105.33	1,171.04	1,110.41	60.63	19.314		
1,700.00	1,679.72	1,659.72	1,679.72	8.19	56.29	-106.10	-253.53	-1,105.33	1,176.49	1,112.01	64.48	18.246		
1,800.00	1,777.73	1,757.73	1,777.73	8.63	59.71	-107.00	-253.53	-1,105.33	1,182.25	1,113.92	68.34	17.301		
1,900.00	1,875.74	1,855.74	1,875.74	9.08	63.12	-107.90	-253.53	-1,105.33	1,188.32	1,116.12	72.20	16.460		
2,000.00	1,973.75	1,953.75	1,973.75	9.53	66.54	-108.79	-253.53	-1,105.33	1,194.68	1,118.62	76.06	15.707		
2,100.00	2,071.76	2,051.76	2,071.76	9.98	69.96	-109.67	-253.53	-1,105.33	1,201.34	1,121.41	79.93	15.030		
2,200.00	2,169.77	2,149.77	2,169.77	10.44	73.38	-110.55	-253.53	-1,105.33	1,208.29	1,124.49	83.80	14.419		
2,300.00	2,267.77	2,247.77	2,267.77	10.90	76.79	-111.41	-253.53	-1,105.33	1,215.52	1,127.85	87.67	13.865		
2,400.00	2,365.78	2,345.78	2,365.78	11.36	80.21	-112.26	-253.53	-1,105.33	1,223.04	1,131.49	91.54	13.360		
2,500.00	2,463.79	2,443.79	2,463.79	11.82	83.63	-113.10	-253.53	-1,105.33	1,230.83	1,135.40	95.42	12.899		
2,600.00	2,561.80	2,541.80	2,561.80	12.28	87.05	-113.93	-253.53	-1,105.33	1,238.88	1,139.58	99.30	12.476		
2,700.00	2,659.81	2,639.81	2,659.81	12.75	90.47	-114.75	-253.53	-1,105.33	1,247.20	1,144.03	103.18	12.088		
2,800.00	2,757.82	2,737.82	2,757.82	13.21	93.89	-115.56	-253.53	-1,105.33	1,255.78	1,148.73	107.06	11.730		
2,900.00	2,855.83	2,835.83	2,855.83	13.68	97.31	-116.36	-253.53	-1,105.33	1,264.62	1,153.68	110.94	11.399		
3,000.00	2,953.84	2,933.84	2,953.84	14.15	100.73	-117.15	-253.53	-1,105.33	1,273.70	1,158.88	114.82	11.093		
3,100.00	3,051.85	3,031.85	3,051.85	14.62	104.15	-117.92	-253.53	-1,105.33	1,283.02	1,164.32	118.70	10.809		
3,200.00	3,149.85	3,129.85	3,149.85	15.09	107.57	-118.69	-253.53	-1,105.33	1,292.59	1,170.00	122.58	10.545		
3,300.00	3,247.86	3,227.86	3,247.86	15.56	110.99	-119.44	-253.53	-1,105.33	1,302.38	1,175.92	126.47	10.298		
3,400.00	3,345.87	3,325.87	3,345.87	16.04	114.41	-120.19	-253.53	-1,105.33	1,312.40	1,182.06	130.35	10.068		
3,500.00	3,443.88	3,423.88	3,443.88	16.51	117.83	-120.92	-253.53	-1,105.33	1,322.65	1,188.42	134.23	9.853		
3,600.00	3,541.89	3,521.89	3,541.89	16.98	121.25	-121.64	-253.53	-1,105.33	1,333.11	1,194.99	138.12	9.652		
3,700.00	3,639.90	3,619.90	3,639.90	17.46	124.67	-122.35	-253.53	-1,105.33	1,343.78	1,201.78	142.00	9.463		
3,800.00	3,737.91	3,717.91	3,737.91	17.93	128.09	-123.05	-253.53	-1,105.33	1,354.66	1,208.78	145.88	9.286		
3,900.00	3,835.92	3,815.92	3,835.92	18.41	131.51	-123.74	-253.53	-1,105.33	1,365.75	1,215.98	149.77	9.119		
4,000.00	3,933.93	3,913.93	3,933.93	18.88	134.93	-124.42	-253.53	-1,105.33	1,377.03	1,223.37	153.65	8.962		
4,100.00	4,031.93	4,011.93	4,031.93	19.36	138.35	-125.08	-253.53	-1,105.33	1,388.50	1,230.96	157.54	8.814		
4,200.00	4,129.94	4,109.94	4,129.94	19.84	141.77	-125.74	-253.53	-1,105.33	1,400.16	1,238.74	161.42	8.674		
4,300.00	4,227.95	4,207.95	4,227.95	20.31	145.19	-126.39	-253.53	-1,105.33	1,412.00	1,246.70	165.31	8.542		
4,400.00	4,325.96	4,305.96	4,325.96	20.79	148.61	-127.02	-253.53	-1,105.33	1,424.02	1,254.83	169.19	8.417		
4,500.00	4,423.97	4,403.97	4,423.97	21.27	152.03	-127.65	-253.53	-1,105.33	1,436.22	1,263.14	173.07	8.298		
4,600.00	4,521.98	4,501.98	4,521.98	21.75	155.45	-128.26	-253.53	-1,105.33	1,448.58	1,271.62	176.96	8.186		
4,700.00	4,619.99	4,600.00	4,619.99	22.23	158.88	-128.86	-253.53	-1,105.33	1,461.11	1,280.27	180.84	8.079		
4,800.00	4,718.00	4,702.00	4,718.00	22.70	162.43	-129.46	-253.53	-1,105.33	1,473.80	1,288.94	184.87	7.972		
4,900.00	4,816.01	4,803.99	4,816.01	23.18	165.99	-130.04	-253.53	-1,105.33	1,486.65	1,297.76	188.89	7.870		
5,000.00	4,914.01	4,905.99	4,914.01	23.66	169.55	-130.62	-253.53	-1,105.33	1,499.65	1,306.74	192.91	7.774		
5,100.00	5,012.02	5,007.98	5,012.02	24.14	173.11	-131.18	-253.53	-1,105.33	1,512.80	1,315.86	196.94	7.682		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,200.00	5,110.03	5,109.97	5,110.03	24.62	176.67	-131.74	-253.53	-1,105.33	1,526.09	1,325.13	200.96	7.594		
5,300.00	5,208.04	5,188.04	5,208.04	25.10	179.40	-132.28	-253.53	-1,105.33	1,539.53	1,335.38	204.15	7.541		
5,400.00	5,306.05	5,286.05	5,306.05	25.58	182.82	-132.82	-253.53	-1,105.33	1,553.10	1,345.07	208.03	7.466		
5,500.00	5,404.06	5,384.06	5,404.06	26.06	186.24	-133.34	-253.53	-1,105.33	1,566.81	1,354.90	211.91	7.394		
5,600.00	5,502.07	5,482.07	5,502.07	26.54	189.66	-133.86	-253.53	-1,105.33	1,580.65	1,364.85	215.80	7.325		
5,700.00	5,600.08	5,580.08	5,600.08	27.02	193.08	-134.37	-253.53	-1,105.33	1,594.61	1,374.93	219.68	7.259		
5,800.00	5,698.09	5,678.09	5,698.09	27.50	196.50	-134.87	-253.53	-1,105.33	1,608.70	1,385.14	223.56	7.196		
5,900.00	5,796.09	5,776.09	5,796.09	27.98	199.93	-135.36	-253.53	-1,105.33	1,622.91	1,395.46	227.45	7.135		
6,000.00	5,894.10	5,874.10	5,894.10	28.46	203.35	-135.85	-253.53	-1,105.33	1,637.24	1,405.91	231.33	7.077		
6,100.00	5,992.11	5,972.11	5,992.11	28.94	206.77	-136.32	-253.53	-1,105.33	1,651.68	1,416.46	235.21	7.022		
6,200.00	6,090.12	6,070.12	6,090.12	29.42	210.19	-136.79	-253.53	-1,105.33	1,666.23	1,427.13	239.10	6.969		
6,300.00	6,188.13	6,168.13	6,188.13	29.90	213.61	-137.25	-253.53	-1,105.33	1,680.89	1,437.91	242.98	6.918		
6,400.00	6,286.14	6,266.14	6,286.14	30.38	217.03	-137.70	-253.53	-1,105.33	1,695.66	1,448.80	246.86	6.869		
6,500.00	6,384.15	6,364.15	6,384.15	30.87	220.45	-138.14	-253.53	-1,105.33	1,710.53	1,459.78	250.75	6.822		
6,600.00	6,482.15	6,462.15	6,482.15	31.35	223.87	-129.88	-253.53	-1,105.33	1,725.33	1,470.70	254.63	6.776		
6,700.00	6,579.21	6,559.21	6,579.21	31.83	227.26	-98.90	-253.53	-1,105.33	1,734.24	1,475.76	258.48	6.709		
6,800.00	6,673.04	6,653.04	6,673.04	32.30	230.54	-85.36	-253.53	-1,105.33	1,734.70	1,472.47	262.22	6.615		
6,900.00	6,761.33	6,741.33	6,761.33	32.74	233.62	-79.96	-253.53	-1,105.33	1,727.39	1,461.62	265.77	6.500		
7,000.00	6,841.90	6,821.90	6,841.90	33.17	236.43	-78.47	-253.53	-1,105.33	1,713.43	1,444.37	269.06	6.368		
7,100.00	6,912.77	6,907.23	6,912.77	33.60	239.41	-79.14	-253.53	-1,105.33	1,694.23	1,421.66	272.57	6.216		
7,200.00	6,972.19	6,952.19	6,972.19	34.09	240.98	-81.06	-253.53	-1,105.33	1,671.43	1,396.67	274.75	6.083		
7,300.00	7,018.70	7,001.30	7,018.70	34.73	242.69	-83.59	-253.53	-1,105.33	1,646.75	1,369.55	277.21	5.940		
7,400.00	7,051.15	7,031.15	7,051.15	35.55	243.73	-86.25	-253.53	-1,105.33	1,621.90	1,342.76	279.14	5.810		
7,500.00	7,068.75	7,048.75	7,068.75	36.56	244.35	-88.67	-253.53	-1,105.33	1,598.35	1,317.57	280.78	5.693		
7,600.00	7,071.91	7,051.91	7,071.91	37.71	244.46	-90.03	-253.53	-1,105.33	1,577.42	1,295.40	282.02	5.593		
7,700.00	7,071.62	7,051.62	7,071.62	39.03	244.45	-90.02	-253.53	-1,105.33	1,561.91	1,278.64	283.28	5.514		
7,800.00	7,071.34	7,051.34	7,071.34	40.51	244.44	-90.01	-253.53	-1,105.33	1,552.70	1,268.06	284.64	5.455		
7,893.46	7,071.07	7,051.07	7,071.07	42.03	244.43	-90.00	-253.53	-1,105.33	1,549.88	1,263.90	285.99	5.419		
7,900.00	7,071.05	7,051.05	7,071.05	42.14	244.43	-90.00	-253.53	-1,105.33	1,549.90	1,263.82	286.08	5.418		
8,000.00	7,070.77	7,050.77	7,070.77	43.89	244.42	-89.99	-253.53	-1,105.33	1,553.54	1,265.99	287.55	5.403 SF		
8,100.00	7,070.48	7,050.48	7,070.48	45.76	244.41	-89.98	-253.53	-1,105.33	1,563.59	1,274.57	289.01	5.410		
8,200.00	7,070.20	7,050.20	7,070.20	47.72	244.40	-89.97	-253.53	-1,105.33	1,579.91	1,289.47	290.44	5.440		
8,300.00	7,069.92	7,049.92	7,069.92	49.78	244.39	-89.96	-253.53	-1,105.33	1,602.32	1,310.53	291.79	5.491		
8,400.00	7,069.63	7,049.63	7,069.63	51.90	244.38	-89.95	-253.53	-1,105.33	1,630.56	1,337.51	293.05	5.564		
8,500.00	7,069.35	7,049.35	7,069.35	54.10	244.37	-89.94	-253.53	-1,105.33	1,664.34	1,370.13	294.21	5.657		
8,600.00	7,069.06	7,049.06	7,069.06	56.36	244.36	-89.93	-253.53	-1,105.33	1,703.33	1,408.07	295.26	5.769		
8,700.00	7,068.78	7,048.78	7,068.78	58.66	244.35	-89.92	-253.53	-1,105.33	1,747.18	1,450.99	296.19	5.899		
8,800.00	7,068.49	7,048.49	7,068.49	61.02	244.34	-89.90	-253.53	-1,105.33	1,795.54	1,498.52	297.01	6.045		
8,900.00	7,068.21	7,048.21	7,068.21	63.42	244.33	-89.89	-253.53	-1,105.33	1,848.04	1,550.32	297.73	6.207		
9,000.00	7,067.92	7,047.92	7,067.92	65.85	244.32	-89.88	-253.53	-1,105.33	1,904.35	1,606.01	298.34	6.383		
9,100.00	7,067.64	7,047.64	7,067.64	68.32	244.31	-89.87	-253.53	-1,105.33	1,964.15	1,665.28	298.87	6.572		
9,200.00	7,067.35	7,047.35	7,067.35	70.81	244.30	-89.86	-253.53	-1,105.33	2,027.11	1,727.80	299.31	6.773		
9,300.00	7,067.07	7,047.07	7,067.07	73.34	244.29	-89.85	-253.53	-1,105.33	2,092.96	1,793.28	299.68	6.984		
9,400.00	7,066.78	7,046.78	7,066.78	75.88	244.28	-89.84	-253.53	-1,105.33	2,161.43	1,861.45	299.99	7.205		
9,500.00	7,066.50	7,046.50	7,066.50	78.45	244.27	-89.83	-253.53	-1,105.33	2,232.29	1,932.05	300.24	7.435		
9,600.00	7,066.21	7,046.21	7,066.21	81.04	244.26	-89.82	-253.53	-1,105.33	2,305.30	2,004.86	300.44	7.673		
9,700.00	7,065.93	7,045.93	7,065.93	83.64	244.25	-89.81	-253.53	-1,105.33	2,380.28	2,079.67	300.61	7.918		
9,800.00	7,065.64	7,045.64	7,065.64	86.26	244.24	-89.80	-253.53	-1,105.33	2,457.03	2,156.30	300.74	8.170		
9,900.00	7,065.36	7,045.36	7,065.36	88.90	244.23	-89.79	-253.53	-1,105.33	2,535.41	2,234.58	300.83	8.428		
10,000.00	7,065.07	7,045.07	7,065.07	91.55	244.22	-89.78	-253.53	-1,105.33	2,615.27	2,314.36	300.91	8.691		
10,100.00	7,064.79	7,044.79	7,064.79	94.21	244.21	-89.77	-253.53	-1,105.33	2,696.47	2,395.51	300.96	8.960		
10,200.00	7,064.50	7,044.50	7,064.50	96.88	244.20	-89.76	-253.53	-1,105.33	2,778.89	2,477.90	301.00	9.232		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - SENA 15-24(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,300.00	7,064.22	7,044.22	7,064.22	99.57	244.19	-89.75	-253.53	-1,105.33	2,862.44	2,561.42	301.02	9.509		
10,400.00	7,063.94	7,043.94	7,063.94	102.26	244.18	-89.74	-253.53	-1,105.33	2,947.01	2,645.98	301.02	9.790		
10,500.00	7,063.65	7,043.65	7,063.65	104.96	244.17	-89.73	-253.53	-1,105.33	3,032.52	2,731.50	301.02	10.074		
10,600.00	7,063.37	7,043.37	7,063.37	107.67	244.16	-89.72	-253.53	-1,105.33	3,118.89	2,817.88	301.01	10.361		
10,700.00	7,063.08	7,043.08	7,063.08	110.39	244.15	-89.70	-253.53	-1,105.33	3,206.05	2,905.06	300.99	10.652		
10,800.00	7,062.80	7,042.80	7,062.80	113.11	244.14	-89.69	-253.53	-1,105.33	3,293.94	2,992.98	300.97	10.945		
10,900.00	7,062.51	7,042.51	7,062.51	115.84	244.13	-89.68	-253.53	-1,105.33	3,382.51	3,081.57	300.94	11.240		
11,000.00	7,062.23	7,042.23	7,062.23	118.58	244.12	-89.67	-253.53	-1,105.33	3,471.70	3,170.79	300.90	11.538		
11,100.00	7,061.94	7,041.94	7,061.94	121.32	244.11	-89.66	-253.53	-1,105.33	3,561.46	3,260.59	300.87	11.837		
11,200.00	7,061.66	7,041.66	7,061.66	124.07	244.10	-89.65	-253.53	-1,105.33	3,651.75	3,350.92	300.83	12.139		
11,300.00	7,061.37	7,041.37	7,061.37	126.82	244.09	-89.64	-253.53	-1,105.33	3,742.54	3,441.74	300.79	12.442		
11,400.00	7,061.09	7,041.09	7,061.09	129.58	244.08	-89.63	-253.53	-1,105.33	3,833.78	3,533.03	300.76	12.747		
11,500.00	7,060.80	7,040.80	7,060.80	132.34	244.07	-89.62	-253.53	-1,105.33	3,925.45	3,624.74	300.72	13.054		
11,600.00	7,060.52	7,040.52	7,060.52	135.10	244.06	-89.61	-253.53	-1,105.33	4,017.52	3,716.85	300.68	13.362		
11,700.00	7,060.23	7,040.23	7,060.23	137.87	244.05	-89.60	-253.53	-1,105.33	4,109.96	3,809.33	300.64	13.671		
11,800.00	7,059.95	7,039.95	7,059.95	140.64	244.04	-89.59	-253.53	-1,105.33	4,202.75	3,902.15	300.60	13.981		
11,900.00	7,059.66	7,039.66	7,059.66	143.42	244.03	-89.58	-253.53	-1,105.33	4,295.86	3,995.30	300.56	14.293		
12,000.00	7,059.38	7,039.38	7,059.38	146.20	244.02	-89.57	-253.53	-1,105.33	4,389.27	4,088.75	300.52	14.605		
12,100.00	7,059.09	7,039.09	7,059.09	148.98	244.01	-89.56	-253.53	-1,105.33	4,482.97	4,182.48	300.49	14.919		
12,200.00	7,058.81	7,038.81	7,058.81	151.77	244.00	-89.55	-253.53	-1,105.33	4,576.93	4,276.48	300.45	15.234		
12,300.00	7,058.52	7,038.52	7,058.52	154.55	243.99	-89.54	-253.53	-1,105.33	4,671.15	4,370.73	300.42	15.549		
12,400.00	7,058.24	7,038.24	7,058.24	157.34	243.98	-89.53	-253.53	-1,105.33	4,765.60	4,465.21	300.38	15.865		
12,500.00	7,057.96	7,037.96	7,057.96	160.14	243.97	-89.52	-253.53	-1,105.33	4,860.27	4,559.92	300.35	16.182		
12,600.00	7,057.67	7,037.67	7,057.67	162.93	243.96	-89.50	-253.53	-1,105.33	4,955.15	4,654.83	300.32	16.499		
12,700.00	7,057.39	7,037.39	7,057.39	165.73	243.95	-89.49	-253.53	-1,105.33	5,050.23	4,749.93	300.29	16.818		
12,800.00	7,057.10	7,037.10	7,057.10	168.53	243.94	-89.48	-253.53	-1,105.33	5,145.49	4,845.23	300.27	17.136		
12,900.00	7,056.82	7,036.82	7,056.82	171.33	243.93	-89.47	-253.53	-1,105.33	5,240.94	4,940.69	300.24	17.456		
13,000.00	7,056.53	7,036.53	7,056.53	174.13	243.92	-89.46	-253.53	-1,105.33	5,336.54	5,036.33	300.22	17.776		
13,100.00	7,056.25	7,036.25	7,056.25	176.94	243.91	-89.45	-253.53	-1,105.33	5,432.31	5,132.11	300.20	18.096		
13,200.00	7,055.96	7,035.96	7,055.96	179.74	243.90	-89.44	-253.53	-1,105.33	5,528.23	5,228.05	300.18	18.417		
13,300.00	7,055.68	7,035.68	7,055.68	182.55	243.89	-89.43	-253.53	-1,105.33	5,624.29	5,324.13	300.16	18.738		
13,400.00	7,055.39	7,035.39	7,055.39	185.36	243.88	-89.42	-253.53	-1,105.33	5,720.48	5,420.34	300.14	19.059		
13,500.00	7,055.11	7,035.11	7,055.11	188.17	243.87	-89.41	-253.53	-1,105.33	5,816.80	5,516.68	300.12	19.381		
13,600.00	7,054.82	7,034.82	7,054.82	190.98	243.86	-89.40	-253.53	-1,105.33	5,913.25	5,613.14	300.11	19.704		
13,700.00	7,054.54	7,034.54	7,054.54	193.80	243.85	-89.39	-253.53	-1,105.33	6,009.81	5,709.71	300.10	20.026		
13,800.00	7,054.25	7,034.25	7,054.25	196.61	243.84	-89.38	-253.53	-1,105.33	6,106.48	5,806.39	300.09	20.349		
13,900.00	7,053.97	7,033.97	7,053.97	199.43	243.83	-89.37	-253.53	-1,105.33	6,203.26	5,903.18	300.08	20.672		
14,000.00	7,053.68	7,033.68	7,053.68	202.25	243.82	-89.36	-253.53	-1,105.33	6,300.13	6,000.07	300.07	20.996		
14,100.00	7,053.40	7,033.40	7,053.40	205.06	243.81	-89.35	-253.53	-1,105.33	6,397.11	6,097.05	300.06	21.319		
14,200.00	7,053.11	7,033.11	7,053.11	207.88	243.80	-89.34	-253.53	-1,105.33	6,494.17	6,194.12	300.06	21.643		
14,300.00	7,052.83	7,032.83	7,052.83	210.70	243.79	-89.33	-253.53	-1,105.33	6,591.33	6,291.27	300.05	21.967		
14,400.00	7,052.54	7,032.54	7,052.54	213.53	243.78	-89.32	-253.53	-1,105.33	6,688.56	6,388.51	300.05	22.291		
14,500.00	7,052.26	7,032.26	7,052.26	216.35	243.77	-89.30	-253.53	-1,105.33	6,785.88	6,485.83	300.05	22.616		
14,600.00	7,051.98	7,031.98	7,051.98	219.17	243.76	-89.29	-253.53	-1,105.33	6,883.28	6,583.22	300.05	22.940		
14,700.00	7,051.69	7,031.69	7,051.69	222.00	243.75	-89.28	-253.53	-1,105.33	6,980.74	6,680.69	300.05	23.265		
14,800.00	7,051.41	7,031.41	7,051.41	224.82	243.74	-89.27	-253.53	-1,105.33	7,078.28	6,778.22	300.06	23.590		
14,900.00	7,051.12	7,031.12	7,051.12	227.65	243.73	-89.26	-253.53	-1,105.33	7,175.89	6,875.83	300.06	23.915		
14,942.37	7,051.00	7,031.00	7,051.00	228.85	243.73	-89.26	-253.53	-1,105.33	7,217.27	6,917.20	300.07	24.052		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	13.00	3.28	3.28	-73.92	427.74	-1,483.55	1,544.04					
100.00	100.00	87.00	100.00	3.28	3.61	-73.92	427.74	-1,483.55	1,543.99	1,537.09	6.90	223.792		
200.00	200.00	187.00	200.00	3.34	5.80	-73.92	427.74	-1,483.55	1,543.99	1,534.85	9.14	168.993		
300.00	300.00	287.00	300.00	3.44	8.90	-73.92	427.74	-1,483.55	1,543.99	1,531.64	12.35	125.070		
400.00	399.98	386.98	399.98	3.60	12.21	-66.69	427.74	-1,483.55	1,543.29	1,527.48	15.82	97.580		
500.00	499.84	486.84	499.84	3.81	15.60	-66.90	427.74	-1,483.55	1,541.23	1,521.83	19.40	79.427		
600.00	599.45	586.45	599.45	4.06	19.01	-67.26	427.74	-1,483.55	1,537.83	1,514.77	23.06	66.691		
700.00	698.70	685.70	698.70	4.34	22.43	-67.77	427.74	-1,483.55	1,533.13	1,506.38	26.75	57.304		
800.00	797.47	784.47	797.47	4.64	25.85	-68.41	427.74	-1,483.55	1,527.23	1,496.76	30.48	50.114		
900.00	895.65	882.65	895.65	4.98	29.25	-69.16	427.74	-1,483.55	1,520.27	1,486.06	34.21	44.439		
1,000.00	993.66	980.66	993.66	5.32	32.65	-69.85	427.74	-1,483.55	1,513.20	1,475.23	37.97	39.855		
1,100.00	1,091.67	1,078.67	1,091.67	5.69	36.06	-70.55	427.74	-1,483.55	1,506.35	1,464.60	41.75	36.083		
1,200.00	1,189.68	1,176.68	1,189.68	6.09	39.47	-71.25	427.74	-1,483.55	1,499.73	1,454.19	45.54	32.929		
1,300.00	1,287.69	1,274.69	1,287.69	6.49	42.88	-71.96	427.74	-1,483.55	1,493.35	1,444.00	49.36	30.257		
1,400.00	1,385.69	1,372.69	1,385.69	6.90	46.29	-72.67	427.74	-1,483.55	1,487.21	1,434.03	53.18	27.965		
1,500.00	1,483.70	1,470.70	1,483.70	7.33	49.71	-73.39	427.74	-1,483.55	1,481.31	1,424.30	57.02	25.981		
1,600.00	1,581.71	1,568.71	1,581.71	7.76	53.12	-74.12	427.74	-1,483.55	1,475.65	1,414.79	60.86	24.247		
1,700.00	1,679.72	1,666.72	1,679.72	8.19	56.54	-74.85	427.74	-1,483.55	1,470.24	1,405.53	64.71	22.721		
1,800.00	1,777.73	1,764.73	1,777.73	8.63	59.95	-75.58	427.74	-1,483.55	1,465.08	1,396.51	68.57	21.367		
1,900.00	1,875.74	1,862.74	1,875.74	9.08	63.37	-76.33	427.74	-1,483.55	1,460.17	1,387.74	72.43	20.160		
2,000.00	1,973.75	1,960.75	1,973.75	9.53	66.78	-77.07	427.74	-1,483.55	1,455.51	1,379.22	76.29	19.078		
2,100.00	2,071.76	2,058.76	2,071.76	9.98	70.20	-77.82	427.74	-1,483.55	1,451.11	1,370.95	80.16	18.102		
2,200.00	2,169.77	2,156.77	2,169.77	10.44	73.62	-78.57	427.74	-1,483.55	1,446.97	1,362.93	84.04	17.218		
2,300.00	2,267.77	2,254.77	2,267.77	10.90	77.04	-79.33	427.74	-1,483.55	1,443.09	1,355.18	87.91	16.415		
2,400.00	2,365.78	2,352.78	2,365.78	11.36	80.46	-80.09	427.74	-1,483.55	1,439.48	1,347.68	91.79	15.682		
2,500.00	2,463.79	2,450.79	2,463.79	11.82	83.88	-80.86	427.74	-1,483.55	1,436.13	1,340.45	95.68	15.010		
2,600.00	2,561.80	2,548.80	2,561.80	12.28	87.29	-81.63	427.74	-1,483.55	1,433.04	1,333.48	99.56	14.394		
2,700.00	2,659.81	2,646.81	2,659.81	12.75	90.71	-82.40	427.74	-1,483.55	1,430.23	1,326.78	103.45	13.826		
2,800.00	2,757.82	2,744.82	2,757.82	13.21	94.13	-83.17	427.74	-1,483.55	1,427.69	1,320.35	107.33	13.302		
2,900.00	2,855.83	2,842.83	2,855.83	13.68	97.55	-83.95	427.74	-1,483.55	1,425.41	1,314.19	111.22	12.816		
3,000.00	2,953.84	2,940.84	2,953.84	14.15	100.97	-84.73	427.74	-1,483.55	1,423.42	1,308.31	115.11	12.366		
3,100.00	3,051.85	3,038.85	3,051.85	14.62	104.39	-85.51	427.74	-1,483.55	1,421.69	1,302.69	119.00	11.947		
3,200.00	3,149.85	3,136.85	3,149.85	15.09	107.81	-86.29	427.74	-1,483.55	1,420.25	1,297.35	122.89	11.557		
3,300.00	3,247.86	3,234.86	3,247.86	15.56	111.23	-87.08	427.74	-1,483.55	1,419.07	1,292.29	126.79	11.193		
3,400.00	3,345.87	3,332.87	3,345.87	16.04	114.65	-87.86	427.74	-1,483.55	1,418.18	1,287.50	130.68	10.852		
3,500.00	3,443.88	3,430.88	3,443.88	16.51	118.07	-88.65	427.74	-1,483.55	1,417.56	1,282.99	134.58	10.534		
3,600.00	3,541.89	3,528.89	3,541.89	16.98	121.49	-89.44	427.74	-1,483.55	1,417.22	1,278.75	138.47	10.235		
3,671.80	3,612.26	3,600.74	3,612.26	17.32	124.00	-90.00	427.74	-1,483.55	1,417.15	1,275.83	141.32	10.028		
3,700.00	3,639.90	3,626.90	3,639.90	17.46	124.91	-90.22	427.74	-1,483.55	1,417.16	1,274.80	142.37	9.954		
3,800.00	3,737.91	3,724.91	3,737.91	17.93	128.33	-91.01	427.74	-1,483.55	1,417.38	1,271.12	146.26	9.691		
3,900.00	3,835.92	3,822.92	3,835.92	18.41	131.75	-91.79	427.74	-1,483.55	1,417.88	1,267.72	150.16	9.442		
4,000.00	3,933.93	3,920.93	3,933.93	18.88	135.17	-92.58	427.74	-1,483.55	1,418.65	1,264.59	154.06	9.209		
4,100.00	4,031.93	4,018.93	4,031.93	19.36	138.59	-93.37	427.74	-1,483.55	1,419.70	1,261.75	157.95	8.988		
4,200.00	4,129.94	4,116.94	4,129.94	19.84	142.02	-94.15	427.74	-1,483.55	1,421.03	1,259.18	161.85	8.780		
4,300.00	4,227.95	4,214.95	4,227.95	20.31	145.44	-94.93	427.74	-1,483.55	1,422.63	1,256.88	165.75	8.583		
4,400.00	4,325.96	4,312.96	4,325.96	20.79	148.86	-95.71	427.74	-1,483.55	1,424.51	1,254.86	169.65	8.397		
4,500.00	4,423.97	4,410.97	4,423.97	21.27	152.28	-96.49	427.74	-1,483.55	1,426.66	1,253.12	173.54	8.221		
4,600.00	4,521.98	4,508.98	4,521.98	21.75	155.70	-97.26	427.74	-1,483.55	1,429.09	1,251.64	177.44	8.054		
4,700.00	4,619.99	4,606.99	4,619.99	22.23	159.12	-98.04	427.74	-1,483.55	1,431.78	1,250.44	181.34	7.896		
4,800.00	4,718.00	4,705.00	4,718.00	22.70	162.54	-98.81	427.74	-1,483.55	1,434.75	1,249.51	185.24	7.745		
4,900.00	4,816.01	4,803.01	4,816.01	23.18	165.96	-99.57	427.74	-1,483.55	1,437.98	1,248.85	189.14	7.603		
5,000.00	4,914.01	4,901.01	4,914.01	23.66	169.38	-100.34	427.74	-1,483.55	1,441.48	1,248.45	193.03	7.468		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,012.02	5,000.98	5,012.02	24.14	172.87	-101.10	427.74	-1,483.55	1,445.25	1,248.25	197.00	7.336		
5,200.00	5,110.03	5,102.97	5,110.03	24.62	176.43	-101.85	427.74	-1,483.55	1,449.27	1,248.24	201.03	7.209		
5,300.00	5,208.04	5,204.96	5,208.04	25.10	179.99	-102.60	427.74	-1,483.55	1,453.56	1,248.49	205.07	7.088		
5,400.00	5,306.05	5,306.95	5,306.05	25.58	183.55	-103.35	427.74	-1,483.55	1,458.11	1,249.00	209.10	6.973		
5,500.00	5,404.06	5,408.94	5,404.06	26.06	187.11	-104.09	427.74	-1,483.55	1,462.91	1,249.77	213.14	6.864		
5,600.00	5,502.07	5,489.07	5,502.07	26.54	189.91	-104.83	427.74	-1,483.55	1,467.96	1,251.55	216.41	6.783		
5,700.00	5,600.08	5,587.08	5,600.08	27.02	193.33	-105.56	427.74	-1,483.55	1,473.26	1,252.96	220.31	6.687		
5,800.00	5,698.09	5,685.09	5,698.09	27.50	196.75	-106.29	427.74	-1,483.55	1,478.81	1,254.61	224.20	6.596		
5,900.00	5,796.09	5,783.09	5,796.09	27.98	200.17	-107.01	427.74	-1,483.55	1,484.61	1,256.51	228.10	6.509		
6,000.00	5,894.10	5,881.10	5,894.10	28.46	203.59	-107.73	427.74	-1,483.55	1,490.65	1,258.66	231.99	6.425		
6,100.00	5,992.11	5,979.11	5,992.11	28.94	207.01	-108.44	427.74	-1,483.55	1,496.92	1,261.04	235.89	6.346		
6,200.00	6,090.12	6,077.12	6,090.12	29.42	210.43	-109.15	427.74	-1,483.55	1,503.44	1,263.66	239.78	6.270		
6,300.00	6,188.13	6,175.13	6,188.13	29.90	213.85	-109.84	427.74	-1,483.55	1,510.18	1,266.51	243.67	6.198		
6,400.00	6,286.14	6,273.14	6,286.14	30.38	217.27	-110.54	427.74	-1,483.55	1,517.16	1,269.59	247.57	6.128		
6,500.00	6,384.15	6,371.15	6,384.15	30.87	220.70	-111.22	427.74	-1,483.55	1,524.36	1,272.90	251.46	6.062		
6,600.00	6,482.15	6,469.15	6,482.15	31.35	224.12	-103.36	427.74	-1,483.55	1,531.52	1,276.17	255.35	5.998		
6,700.00	6,579.21	6,566.21	6,579.21	31.83	227.51	-73.27	427.74	-1,483.55	1,529.63	1,270.41	259.21	5.901		
6,800.00	6,673.04	6,660.04	6,673.04	32.30	230.78	-60.52	427.74	-1,483.55	1,514.64	1,251.69	262.95	5.760		
6,900.00	6,761.33	6,748.33	6,761.33	32.74	233.86	-55.97	427.74	-1,483.55	1,487.37	1,220.88	266.49	5.581		
7,000.00	6,841.90	6,828.90	6,841.90	33.17	236.67	-55.68	427.74	-1,483.55	1,449.02	1,179.25	269.76	5.371		
7,100.00	6,912.77	6,900.23	6,912.77	33.60	239.16	-58.22	427.74	-1,483.55	1,401.15	1,128.42	272.73	5.138		
7,200.00	6,972.19	6,959.19	6,972.19	34.09	241.22	-62.99	427.74	-1,483.55	1,345.66	1,070.35	275.31	4.888		
7,300.00	7,018.70	7,005.70	7,018.70	34.73	242.85	-69.54	427.74	-1,483.55	1,284.71	1,007.16	277.55	4.629		
7,400.00	7,051.15	7,038.15	7,051.15	35.55	243.98	-77.22	427.74	-1,483.55	1,220.61	941.19	279.42	4.368		
7,500.00	7,068.75	7,055.75	7,068.75	36.56	244.59	-85.15	427.74	-1,483.55	1,155.77	874.84	280.94	4.114		
7,600.00	7,071.91	7,058.91	7,071.91	37.71	244.70	-90.13	427.74	-1,483.55	1,092.65	810.53	282.11	3.873		
7,700.00	7,071.62	7,058.62	7,071.62	39.03	244.69	-90.11	427.74	-1,483.55	1,034.68	751.29	283.39	3.651		
7,800.00	7,071.34	7,058.34	7,071.34	40.51	244.68	-90.09	427.74	-1,483.55	983.49	698.58	284.91	3.452		
7,900.00	7,071.05	7,058.05	7,071.05	42.14	244.67	-90.07	427.74	-1,483.55	940.18	653.55	286.64	3.280		
8,000.00	7,070.77	7,057.77	7,070.77	43.89	244.66	-90.05	427.74	-1,483.55	905.89	617.39	288.50	3.140		
8,100.00	7,070.48	7,057.48	7,070.48	45.76	244.65	-90.03	427.74	-1,483.55	881.66	591.25	290.41	3.036		
8,200.00	7,070.20	7,057.20	7,070.20	47.72	244.64	-90.01	427.74	-1,483.55	868.34	576.11	292.23	2.971		
8,266.55	7,070.01	7,057.01	7,070.01	49.09	244.64	-90.00	427.74	-1,483.55	865.79	572.46	293.33	2.952 CC, ES		
8,300.00	7,069.92	7,056.92	7,069.92	49.78	244.63	-89.99	427.74	-1,483.55	866.43	572.61	293.83	2.949 SF		
8,400.00	7,069.63	7,056.63	7,069.63	51.90	244.62	-89.97	427.74	-1,483.55	876.01	580.91	295.11	2.968		
8,500.00	7,069.35	7,056.35	7,069.35	54.10	244.61	-89.96	427.74	-1,483.55	896.71	600.69	296.01	3.029		
8,600.00	7,069.06	7,056.06	7,069.06	56.36	244.60	-89.94	427.74	-1,483.55	927.78	631.23	296.55	3.129		
8,700.00	7,068.78	7,055.78	7,068.78	58.66	244.59	-89.92	427.74	-1,483.55	968.23	671.47	296.76	3.263		
8,800.00	7,068.49	7,055.49	7,068.49	61.02	244.58	-89.90	427.74	-1,483.55	1,016.93	720.23	296.71	3.427		
8,900.00	7,068.21	7,055.21	7,068.21	63.42	244.57	-89.88	427.74	-1,483.55	1,072.77	776.31	296.46	3.619		
9,000.00	7,067.92	7,054.92	7,067.92	65.85	244.56	-89.86	427.74	-1,483.55	1,134.69	838.62	296.08	3.832		
9,100.00	7,067.64	7,054.64	7,067.64	68.32	244.55	-89.84	427.74	-1,483.55	1,201.76	906.14	295.62	4.065		
9,200.00	7,067.35	7,054.35	7,067.35	70.81	244.54	-89.82	427.74	-1,483.55	1,273.15	978.03	295.11	4.314		
9,300.00	7,067.07	7,054.07	7,067.07	73.34	244.53	-89.81	427.74	-1,483.55	1,348.18	1,053.59	294.60	4.576		
9,400.00	7,066.78	7,053.78	7,066.78	75.88	244.52	-89.79	427.74	-1,483.55	1,426.28	1,132.20	294.08	4.850		
9,500.00	7,066.50	7,053.50	7,066.50	78.45	244.51	-89.77	427.74	-1,483.55	1,506.97	1,213.39	293.58	5.133		
9,600.00	7,066.21	7,053.21	7,066.21	81.04	244.50	-89.75	427.74	-1,483.55	1,589.86	1,296.76	293.10	5.424		
9,700.00	7,065.93	7,052.93	7,065.93	83.64	244.49	-89.73	427.74	-1,483.55	1,674.62	1,381.97	292.65	5.722		
9,800.00	7,065.64	7,052.64	7,065.64	86.26	244.48	-89.71	427.74	-1,483.55	1,760.97	1,468.74	292.23	6.026		
9,900.00	7,065.36	7,052.36	7,065.36	88.90	244.47	-89.69	427.74	-1,483.55	1,848.71	1,556.87	291.84	6.335		
10,000.00	7,065.07	7,052.07	7,065.07	91.55	244.46	-89.67	427.74	-1,483.55	1,937.63	1,646.16	291.47	6.648		
10,100.00	7,064.79	7,051.79	7,064.79	94.21	244.45	-89.65	427.74	-1,483.55	2,027.58	1,736.46	291.13	6.965		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,064.50	7,051.50	7,064.50	96.88	244.45	-89.64	427.74	-1,483.55	2,118.44	1,827.63	290.81	7.285		
10,300.00	7,064.22	7,051.22	7,064.22	99.57	244.44	-89.62	427.74	-1,483.55	2,210.08	1,919.56	290.52	7.607		
10,400.00	7,063.94	7,050.94	7,063.94	102.26	244.43	-89.60	427.74	-1,483.55	2,302.42	2,012.17	290.25	7.933		
10,500.00	7,063.65	7,050.65	7,063.65	104.96	244.42	-89.58	427.74	-1,483.55	2,395.38	2,105.38	290.00	8.260		
10,600.00	7,063.37	7,050.37	7,063.37	107.67	244.41	-89.56	427.74	-1,483.55	2,488.88	2,199.11	289.77	8.589		
10,700.00	7,063.08	7,050.08	7,063.08	110.39	244.40	-89.54	427.74	-1,483.55	2,582.87	2,293.32	289.55	8.920		
10,800.00	7,062.80	7,049.80	7,062.80	113.11	244.39	-89.52	427.74	-1,483.55	2,677.29	2,387.94	289.35	9.253		
10,900.00	7,062.51	7,049.51	7,062.51	115.84	244.38	-89.50	427.74	-1,483.55	2,772.11	2,482.94	289.17	9.586		
11,000.00	7,062.23	7,049.23	7,062.23	118.58	244.37	-89.48	427.74	-1,483.55	2,867.28	2,578.27	289.00	9.921		
11,100.00	7,061.94	7,048.94	7,061.94	121.32	244.36	-89.47	427.74	-1,483.55	2,962.76	2,673.92	288.84	10.257		
11,200.00	7,061.66	7,048.66	7,061.66	124.07	244.35	-89.45	427.74	-1,483.55	3,058.54	2,769.84	288.70	10.594		
11,300.00	7,061.37	7,048.37	7,061.37	126.82	244.34	-89.43	427.74	-1,483.55	3,154.57	2,866.01	288.56	10.932		
11,400.00	7,061.09	7,048.09	7,061.09	129.58	244.33	-89.41	427.74	-1,483.55	3,250.85	2,962.41	288.44	11.270		
11,500.00	7,060.80	7,047.80	7,060.80	132.34	244.32	-89.39	427.74	-1,483.55	3,347.34	3,059.02	288.32	11.610		
11,600.00	7,060.52	7,047.52	7,060.52	135.10	244.31	-89.37	427.74	-1,483.55	3,444.03	3,155.82	288.22	11.949		
11,700.00	7,060.23	7,047.23	7,060.23	137.87	244.30	-89.35	427.74	-1,483.55	3,540.91	3,252.79	288.12	12.290		
11,800.00	7,059.95	7,046.95	7,059.95	140.64	244.29	-89.33	427.74	-1,483.55	3,637.96	3,349.93	288.03	12.630		
11,900.00	7,059.66	7,046.66	7,059.66	143.42	244.28	-89.32	427.74	-1,483.55	3,735.16	3,447.21	287.95	12.972		
12,000.00	7,059.38	7,046.38	7,059.38	146.20	244.27	-89.30	427.74	-1,483.55	3,832.51	3,544.64	287.87	13.313		
12,100.00	7,059.09	7,046.09	7,059.09	148.98	244.26	-89.28	427.74	-1,483.55	3,929.99	3,642.19	287.80	13.655		
12,200.00	7,058.81	7,045.81	7,058.81	151.77	244.25	-89.26	427.74	-1,483.55	4,027.59	3,739.85	287.74	13.998		
12,300.00	7,058.52	7,045.52	7,058.52	154.55	244.24	-89.24	427.74	-1,483.55	4,125.31	3,837.63	287.68	14.340		
12,400.00	7,058.24	7,045.24	7,058.24	157.34	244.23	-89.22	427.74	-1,483.55	4,223.13	3,935.51	287.62	14.683		
12,500.00	7,057.96	7,044.96	7,057.96	160.14	244.22	-89.20	427.74	-1,483.55	4,321.06	4,033.48	287.58	15.026		
12,600.00	7,057.67	7,044.67	7,057.67	162.93	244.21	-89.18	427.74	-1,483.55	4,419.07	4,131.54	287.53	15.369		
12,700.00	7,057.39	7,044.39	7,057.39	165.73	244.20	-89.16	427.74	-1,483.55	4,517.18	4,229.69	287.49	15.712		
12,800.00	7,057.10	7,044.10	7,057.10	168.53	244.19	-89.15	427.74	-1,483.55	4,615.36	4,327.91	287.46	16.056		
12,900.00	7,056.82	7,043.82	7,056.82	171.33	244.18	-89.13	427.74	-1,483.55	4,713.62	4,426.20	287.43	16.399		
13,000.00	7,056.53	7,043.53	7,056.53	174.13	244.17	-89.11	427.74	-1,483.55	4,811.96	4,524.56	287.40	16.743		
13,100.00	7,056.25	7,043.25	7,056.25	176.94	244.16	-89.09	427.74	-1,483.55	4,910.36	4,622.98	287.38	17.087		
13,200.00	7,055.96	7,042.96	7,055.96	179.74	244.15	-89.07	427.74	-1,483.55	5,008.82	4,721.47	287.36	17.431		
13,300.00	7,055.68	7,042.68	7,055.68	182.55	244.14	-89.05	427.74	-1,483.55	5,107.35	4,820.01	287.34	17.775		
13,400.00	7,055.39	7,042.39	7,055.39	185.36	244.13	-89.03	427.74	-1,483.55	5,205.93	4,918.60	287.33	18.119		
13,500.00	7,055.11	7,042.11	7,055.11	188.17	244.12	-89.01	427.74	-1,483.55	5,304.56	5,017.24	287.32	18.462		
13,600.00	7,054.82	7,041.82	7,054.82	190.98	244.11	-89.00	427.74	-1,483.55	5,403.24	5,115.93	287.31	18.806		
13,700.00	7,054.54	7,041.54	7,054.54	193.80	244.10	-88.98	427.74	-1,483.55	5,501.97	5,214.67	287.30	19.150		
13,800.00	7,054.25	7,041.25	7,054.25	196.61	244.09	-88.96	427.74	-1,483.55	5,600.75	5,313.45	287.30	19.494		
13,900.00	7,053.97	7,040.97	7,053.97	199.43	244.08	-88.94	427.74	-1,483.55	5,699.57	5,412.27	287.30	19.838		
14,000.00	7,053.68	7,040.68	7,053.68	202.25	244.07	-88.92	427.74	-1,483.55	5,798.43	5,511.12	287.31	20.182		
14,100.00	7,053.40	7,040.40	7,053.40	205.06	244.06	-88.90	427.74	-1,483.55	5,897.32	5,610.01	287.31	20.526		
14,200.00	7,053.11	7,040.11	7,053.11	207.88	244.05	-88.88	427.74	-1,483.55	5,996.26	5,708.94	287.32	20.870		
14,300.00	7,052.83	7,039.83	7,052.83	210.70	244.04	-88.86	427.74	-1,483.55	6,095.23	5,807.90	287.33	21.213		
14,400.00	7,052.54	7,039.54	7,052.54	213.53	244.03	-88.84	427.74	-1,483.55	6,194.23	5,906.89	287.34	21.557		
14,500.00	7,052.26	7,039.26	7,052.26	216.35	244.02	-88.83	427.74	-1,483.55	6,293.26	6,005.91	287.36	21.900		
14,600.00	7,051.98	7,038.98	7,051.98	219.17	244.01	-88.81	427.74	-1,483.55	6,392.33	6,104.95	287.37	22.244		
14,700.00	7,051.69	7,038.69	7,051.69	222.00	244.00	-88.79	427.74	-1,483.55	6,491.42	6,204.03	287.39	22.587		
14,800.00	7,051.41	7,038.41	7,051.41	224.82	243.99	-88.77	427.74	-1,483.55	6,590.54	6,303.12	287.41	22.931		
14,900.00	7,051.12	7,038.12	7,051.12	227.65	243.98	-88.75	427.74	-1,483.55	6,689.68	6,402.25	287.44	23.274		
14,942.37	7,051.00	7,038.00	7,051.00	228.85	243.97	-88.74	427.74	-1,483.55	6,731.70	6,444.26	287.45	23.419		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	50.00	3.28	3.28	-79.38	935.68	-4,991.52	5,078.71					
100.00	100.00	50.00	100.00	3.28	3.39	-79.38	935.68	-4,991.52	5,078.47	5,071.79	6.68	760.380		
200.00	200.00	150.00	200.00	3.34	4.79	-79.38	935.68	-4,991.52	5,078.47	5,070.34	8.13	624.875		
300.00	300.00	250.00	300.00	3.44	7.71	-79.38	935.68	-4,991.52	5,078.47	5,067.31	11.16	455.102		
400.00	399.98	349.98	399.98	3.60	10.97	-72.11	935.68	-4,991.52	5,077.93	5,063.35	14.58	348.353		
500.00	499.84	449.84	499.84	3.81	14.34	-72.20	935.68	-4,991.52	5,076.32	5,058.18	18.14	279.783		
600.00	599.45	549.45	599.45	4.06	17.74	-72.34	935.68	-4,991.52	5,073.66	5,051.87	21.79	232.870		
700.00	698.70	648.70	698.70	4.34	21.16	-72.54	935.68	-4,991.52	5,069.96	5,044.48	25.48	199.003		
800.00	797.47	747.47	797.47	4.64	24.57	-72.80	935.68	-4,991.52	5,065.24	5,036.05	29.19	173.505		
900.00	895.65	845.65	895.65	4.98	27.97	-73.08	935.68	-4,991.52	5,059.59	5,026.67	32.93	153.662		
1,000.00	993.66	943.66	993.66	5.32	31.37	-73.29	935.68	-4,991.52	5,053.74	5,017.06	36.68	137.769		
1,100.00	1,091.67	1,041.67	1,091.67	5.69	34.77	-73.50	935.68	-4,991.52	5,047.96	5,007.50	40.46	124.760		
1,200.00	1,189.68	1,139.68	1,189.68	6.09	38.18	-73.71	935.68	-4,991.52	5,042.25	4,997.99	44.26	113.928		
1,300.00	1,287.69	1,237.69	1,287.69	6.49	41.59	-73.93	935.68	-4,991.52	5,036.62	4,988.55	48.07	104.776		
1,400.00	1,385.69	1,335.69	1,385.69	6.90	45.00	-74.14	935.68	-4,991.52	5,031.05	4,979.16	51.89	96.948		
1,500.00	1,483.70	1,433.70	1,483.70	7.33	48.42	-74.35	935.68	-4,991.52	5,025.56	4,969.83	55.73	90.180		
1,600.00	1,581.71	1,531.71	1,581.71	7.76	51.83	-74.57	935.68	-4,991.52	5,020.14	4,960.57	59.57	84.272		
1,700.00	1,679.72	1,629.72	1,679.72	8.19	55.25	-74.78	935.68	-4,991.52	5,014.79	4,951.37	63.42	79.073		
1,800.00	1,777.73	1,727.73	1,777.73	8.63	58.66	-75.00	935.68	-4,991.52	5,009.52	4,942.24	67.27	74.463		
1,900.00	1,875.74	1,825.74	1,875.74	9.08	62.08	-75.21	935.68	-4,991.52	5,004.32	4,933.18	71.14	70.349		
2,000.00	1,973.75	1,923.75	1,973.75	9.53	65.49	-75.43	935.68	-4,991.52	4,999.19	4,924.19	75.00	66.656		
2,100.00	2,071.76	2,021.76	2,071.76	9.98	68.91	-75.64	935.68	-4,991.52	4,994.14	4,915.27	78.87	63.322		
2,200.00	2,169.77	2,119.77	2,169.77	10.44	72.33	-75.86	935.68	-4,991.52	4,989.16	4,906.42	82.74	60.299		
2,300.00	2,267.77	2,217.77	2,267.77	10.90	75.75	-76.08	935.68	-4,991.52	4,984.25	4,897.64	86.62	57.545		
2,400.00	2,365.78	2,315.78	2,365.78	11.36	79.17	-76.30	935.68	-4,991.52	4,979.42	4,888.93	90.49	55.026		
2,500.00	2,463.79	2,413.79	2,463.79	11.82	82.59	-76.51	935.68	-4,991.52	4,974.66	4,880.29	94.37	52.713		
2,600.00	2,561.80	2,511.80	2,561.80	12.28	86.00	-76.73	935.68	-4,991.52	4,969.98	4,871.73	98.25	50.583		
2,700.00	2,659.81	2,609.81	2,659.81	12.75	89.42	-76.95	935.68	-4,991.52	4,965.38	4,863.24	102.14	48.615		
2,800.00	2,757.82	2,707.82	2,757.82	13.21	92.84	-77.17	935.68	-4,991.52	4,960.84	4,854.82	106.02	46.791		
2,900.00	2,855.83	2,805.83	2,855.83	13.68	96.26	-77.39	935.68	-4,991.52	4,956.39	4,846.48	109.91	45.096		
3,000.00	2,953.84	2,903.84	2,953.84	14.15	99.68	-77.61	935.68	-4,991.52	4,952.01	4,838.21	113.80	43.516		
3,100.00	3,051.85	3,001.85	3,051.85	14.62	103.10	-77.83	935.68	-4,991.52	4,947.70	4,830.02	117.69	42.042		
3,200.00	3,149.85	3,100.15	3,149.85	15.09	106.53	-78.05	935.68	-4,991.52	4,943.47	4,821.89	121.59	40.658		
3,300.00	3,247.86	3,202.14	3,247.86	15.56	110.09	-78.27	935.68	-4,991.52	4,939.32	4,813.70	125.62	39.321		
3,400.00	3,345.87	3,304.13	3,345.87	16.04	113.65	-78.49	935.68	-4,991.52	4,935.24	4,805.60	129.65	38.067		
3,500.00	3,443.88	3,406.12	3,443.88	16.51	117.21	-78.72	935.68	-4,991.52	4,931.24	4,797.57	133.68	36.889		
3,600.00	3,541.89	3,508.11	3,541.89	16.98	120.77	-78.94	935.68	-4,991.52	4,927.32	4,789.61	137.71	35.780		
3,700.00	3,639.90	3,589.90	3,639.90	17.46	123.62	-79.16	935.68	-4,991.52	4,923.47	4,782.44	141.04	34.909		
3,800.00	3,737.91	3,687.91	3,737.91	17.93	127.04	-79.38	935.68	-4,991.52	4,919.71	4,774.77	144.93	33.944		
3,900.00	3,835.92	3,785.92	3,835.92	18.41	130.46	-79.61	935.68	-4,991.52	4,916.01	4,767.18	148.83	33.031		
4,000.00	3,933.93	3,883.93	3,933.93	18.88	133.88	-79.83	935.68	-4,991.52	4,912.40	4,759.67	152.73	32.165		
4,100.00	4,031.93	3,981.93	4,031.93	19.36	137.30	-80.05	935.68	-4,991.52	4,908.86	4,752.24	156.62	31.342		
4,200.00	4,129.94	4,079.94	4,129.94	19.84	140.72	-80.28	935.68	-4,991.52	4,905.41	4,744.89	160.52	30.559		
4,300.00	4,227.95	4,177.95	4,227.95	20.31	144.14	-80.50	935.68	-4,991.52	4,902.02	4,737.61	164.42	29.814		
4,400.00	4,325.96	4,275.96	4,325.96	20.79	147.57	-80.73	935.68	-4,991.52	4,898.72	4,730.41	168.32	29.104		
4,500.00	4,423.97	4,373.97	4,423.97	21.27	150.99	-80.95	935.68	-4,991.52	4,895.50	4,723.28	172.21	28.427		
4,600.00	4,521.98	4,471.98	4,521.98	21.75	154.41	-81.18	935.68	-4,991.52	4,892.35	4,716.24	176.11	27.780		
4,700.00	4,619.99	4,569.99	4,619.99	22.23	157.83	-81.40	935.68	-4,991.52	4,889.29	4,709.27	180.01	27.161		
4,800.00	4,718.00	4,668.00	4,718.00	22.70	161.25	-81.63	935.68	-4,991.52	4,886.30	4,702.39	183.91	26.569		
4,900.00	4,816.01	4,766.01	4,816.01	23.18	164.67	-81.85	935.68	-4,991.52	4,883.39	4,695.58	187.81	26.001		
5,000.00	4,914.01	4,864.01	4,914.01	23.66	168.09	-82.08	935.68	-4,991.52	4,880.56	4,688.85	191.71	25.458		
5,100.00	5,012.02	4,962.02	5,012.02	24.14	171.51	-82.31	935.68	-4,991.52	4,877.81	4,682.19	195.61	24.936		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH													Offset Site Error: 0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error: 3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
5,200.00	5,110.03	5,060.03	5,110.03	24.62	174.93	-82.53	935.68	-4,991.52	4,875.13	4,675.62	199.51	24.435	
5,300.00	5,208.04	5,158.04	5,208.04	25.10	178.35	-82.76	935.68	-4,991.52	4,872.54	4,669.13	203.41	23.954	
5,400.00	5,306.05	5,256.05	5,306.05	25.58	181.77	-82.99	935.68	-4,991.52	4,870.03	4,662.71	207.32	23.491	
5,500.00	5,404.06	5,354.06	5,404.06	26.06	185.19	-83.21	935.68	-4,991.52	4,867.60	4,656.38	211.22	23.045	
5,600.00	5,502.07	5,452.07	5,502.07	26.54	188.62	-83.44	935.68	-4,991.52	4,865.24	4,650.12	215.12	22.616	
5,700.00	5,600.08	5,550.08	5,600.08	27.02	192.04	-83.67	935.68	-4,991.52	4,862.97	4,643.95	219.02	22.203	
5,800.00	5,698.09	5,648.09	5,698.09	27.50	195.46	-83.90	935.68	-4,991.52	4,860.78	4,637.85	222.92	21.805	
5,900.00	5,796.09	5,746.09	5,796.09	27.98	198.88	-84.13	935.68	-4,991.52	4,858.66	4,631.84	226.83	21.420	
6,000.00	5,894.10	5,844.10	5,894.10	28.46	202.30	-84.35	935.68	-4,991.52	4,856.63	4,625.90	230.73	21.049	
6,100.00	5,992.11	5,942.11	5,992.11	28.94	205.72	-84.58	935.68	-4,991.52	4,854.68	4,620.05	234.63	20.691	
6,200.00	6,090.12	6,040.12	6,090.12	29.42	209.14	-84.81	935.68	-4,991.52	4,852.81	4,614.27	238.53	20.344	
6,300.00	6,188.13	6,138.13	6,188.13	29.90	212.56	-85.04	935.68	-4,991.52	4,851.01	4,608.58	242.44	20.009	
6,400.00	6,286.14	6,236.14	6,286.14	30.38	215.98	-85.27	935.68	-4,991.52	4,849.30	4,602.96	246.34	19.685	
6,500.00	6,384.15	6,334.15	6,384.15	30.87	219.40	-85.50	935.68	-4,991.52	4,847.67	4,597.43	250.24	19.372	
6,600.00	6,482.15	6,432.15	6,482.15	31.35	222.83	-77.23	935.68	-4,991.52	4,845.82	4,591.67	254.15	19.067	
6,700.00	6,579.21	6,529.21	6,579.21	31.83	226.21	-46.49	935.68	-4,991.52	4,833.45	4,575.43	258.01	18.733	
6,800.00	6,673.04	6,623.04	6,673.04	32.30	229.49	-32.31	935.68	-4,991.52	4,805.82	4,544.07	261.75	18.360	
6,900.00	6,761.33	6,711.33	6,761.33	32.74	232.57	-25.50	935.68	-4,991.52	4,763.62	4,498.36	265.26	17.958	
7,000.00	6,841.90	6,808.10	6,841.90	33.17	235.95	-22.05	935.68	-4,991.52	4,707.88	4,438.86	269.02	17.500	
7,100.00	6,912.77	6,862.77	6,912.77	33.60	237.86	-20.51	935.68	-4,991.52	4,639.97	4,368.70	271.27	17.104	
7,200.00	6,972.19	6,922.19	6,972.19	34.09	239.93	-20.42	935.68	-4,991.52	4,561.54	4,287.90	273.63	16.670	
7,300.00	7,018.70	6,968.70	7,018.70	34.73	241.55	-22.05	935.68	-4,991.52	4,474.50	4,199.02	275.49	16.242	
7,400.00	7,051.15	7,001.15	7,051.15	35.55	242.69	-27.04	935.68	-4,991.52	4,380.99	4,104.20	276.79	15.828	
7,500.00	7,068.75	7,018.75	7,068.75	36.56	243.30	-44.55	935.68	-4,991.52	4,283.28	4,005.76	277.52	15.434	
7,600.00	7,071.91	7,021.91	7,071.91	37.71	243.41	-92.05	935.68	-4,991.52	4,183.75	3,906.05	277.70	15.066	
7,700.00	7,071.62	7,021.62	7,071.62	39.03	243.40	-92.00	935.68	-4,991.52	4,084.07	3,806.31	277.76	14.704	
7,800.00	7,071.34	7,021.34	7,071.34	40.51	243.39	-91.95	935.68	-4,991.52	3,984.41	3,706.59	277.82	14.342	
7,900.00	7,071.05	7,021.05	7,071.05	42.14	243.38	-91.90	935.68	-4,991.52	3,884.77	3,606.88	277.89	13.980	
8,000.00	7,070.77	7,020.77	7,070.77	43.89	243.37	-91.86	935.68	-4,991.52	3,785.14	3,507.18	277.96	13.617	
8,100.00	7,070.48	7,020.48	7,070.48	45.76	243.36	-91.81	935.68	-4,991.52	3,685.54	3,407.49	278.05	13.255	
8,200.00	7,070.20	7,020.20	7,070.20	47.72	243.35	-91.76	935.68	-4,991.52	3,585.95	3,307.82	278.14	12.893	
8,300.00	7,069.92	7,019.92	7,069.92	49.78	243.34	-91.71	935.68	-4,991.52	3,486.39	3,208.16	278.24	12.530	
8,400.00	7,069.63	7,019.63	7,069.63	51.90	243.33	-91.66	935.68	-4,991.52	3,386.86	3,108.51	278.35	12.168	
8,500.00	7,069.35	7,019.35	7,069.35	54.10	243.32	-91.61	935.68	-4,991.52	3,287.36	3,008.89	278.47	11.805	
8,600.00	7,069.06	7,019.06	7,069.06	56.36	243.31	-91.56	935.68	-4,991.52	3,187.88	2,909.28	278.60	11.442	
8,700.00	7,068.78	7,018.78	7,068.78	58.66	243.30	-91.51	935.68	-4,991.52	3,088.44	2,809.69	278.75	11.080	
8,800.00	7,068.49	7,018.49	7,068.49	61.02	243.29	-91.46	935.68	-4,991.52	2,989.04	2,710.12	278.92	10.717	
8,900.00	7,068.21	7,018.21	7,068.21	63.42	243.28	-91.41	935.68	-4,991.52	2,889.68	2,610.58	279.10	10.354	
9,000.00	7,067.92	7,017.92	7,067.92	65.85	243.27	-91.36	935.68	-4,991.52	2,790.36	2,511.06	279.30	9.991	
9,100.00	7,067.64	7,017.64	7,067.64	68.32	243.26	-91.31	935.68	-4,991.52	2,691.10	2,411.57	279.53	9.627	
9,200.00	7,067.35	7,017.35	7,067.35	70.81	243.25	-91.27	935.68	-4,991.52	2,591.89	2,312.11	279.78	9.264	
9,300.00	7,067.07	7,017.07	7,067.07	73.34	243.24	-91.22	935.68	-4,991.52	2,492.74	2,212.68	280.06	8.901	
9,400.00	7,066.78	7,016.78	7,066.78	75.88	243.23	-91.17	935.68	-4,991.52	2,393.67	2,113.29	280.38	8.537	
9,500.00	7,066.50	7,016.50	7,066.50	78.45	243.22	-91.12	935.68	-4,991.52	2,294.67	2,013.94	280.73	8.174	
9,600.00	7,066.21	7,016.21	7,066.21	81.04	243.21	-91.07	935.68	-4,991.52	2,195.77	1,914.63	281.14	7.810	
9,700.00	7,065.93	7,015.93	7,065.93	83.64	243.20	-91.02	935.68	-4,991.52	2,096.97	1,815.37	281.60	7.447	
9,800.00	7,065.64	7,015.64	7,065.64	86.26	243.19	-90.97	935.68	-4,991.52	1,998.29	1,716.17	282.12	7.083	
9,900.00	7,065.36	7,015.36	7,065.36	88.90	243.18	-90.92	935.68	-4,991.52	1,899.75	1,617.02	282.73	6.719	
10,000.00	7,065.07	7,015.07	7,065.07	91.55	243.17	-90.87	935.68	-4,991.52	1,801.37	1,517.94	283.42	6.356	
10,100.00	7,064.79	7,014.79	7,064.79	94.21	243.16	-90.82	935.68	-4,991.52	1,703.18	1,418.94	284.23	5.992	
10,200.00	7,064.50	7,014.50	7,064.50	96.88	243.15	-90.77	935.68	-4,991.52	1,605.21	1,320.03	285.17	5.629	
10,300.00	7,064.22	7,014.22	7,064.22	99.57	243.14	-90.72	935.68	-4,991.52	1,507.50	1,221.22	286.28	5.266	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE 1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
10,400.00	7,063.94	7,013.94	7,063.94	102.26	243.13	-90.67	935.68	-4,991.52	1,410.12	1,122.53	287.60	4.903		
10,500.00	7,063.65	7,013.65	7,063.65	104.96	243.12	-90.63	935.68	-4,991.52	1,313.14	1,023.97	289.17	4.541		
10,600.00	7,063.37	7,013.37	7,063.37	107.67	243.11	-90.58	935.68	-4,991.52	1,216.64	925.58	291.05	4.180		
10,700.00	7,063.08	7,013.08	7,063.08	110.39	243.10	-90.53	935.68	-4,991.52	1,120.75	827.40	293.35	3.821		
10,800.00	7,062.80	7,012.80	7,062.80	113.11	243.09	-90.48	935.68	-4,991.52	1,025.65	729.49	296.16	3.463		
10,900.00	7,062.51	7,012.51	7,062.51	115.84	243.08	-90.43	935.68	-4,991.52	931.58	631.93	299.65	3.109		
11,000.00	7,062.23	7,012.23	7,062.23	118.58	243.07	-90.38	935.68	-4,991.52	838.88	534.86	304.02	2.759		
11,100.00	7,061.94	7,011.94	7,061.94	121.32	243.06	-90.33	935.68	-4,991.52	748.06	438.50	309.56	2.417		
11,200.00	7,061.66	7,011.66	7,061.66	124.07	243.05	-90.28	935.68	-4,991.52	659.90	343.27	316.63	2.084		
11,300.00	7,061.37	7,011.37	7,061.37	126.82	243.04	-90.23	935.68	-4,991.52	575.63	249.92	325.71	1.767		
11,400.00	7,061.09	7,011.09	7,061.09	129.58	243.03	-90.18	935.68	-4,991.52	497.22	159.97	337.25	1.474	Level 3	
11,500.00	7,060.80	7,010.80	7,060.80	132.34	243.02	-90.13	935.68	-4,991.52	427.91	76.56	351.35	1.218	Level 2	
11,600.00	7,060.52	7,010.52	7,060.52	135.10	243.01	-90.08	935.68	-4,991.52	372.80	6.10	366.71	1.017	Level 2	
11,700.00	7,060.23	7,010.23	7,060.23	137.87	243.00	-90.03	935.68	-4,991.52	338.91	-40.22	379.13	0.894	Level 1	
11,770.62	7,060.03	7,010.03	7,060.03	139.83	243.00	-90.00	935.68	-4,991.52	331.47	-51.22	382.70	0.866	Level 1, CC, ES, SF	
11,800.00	7,059.95	7,009.95	7,059.95	140.64	242.99	-89.99	935.68	-4,991.52	332.77	-49.71	382.48	0.870	Level 1	
11,900.00	7,059.66	7,009.66	7,059.66	143.42	242.98	-89.94	935.68	-4,991.52	355.83	-19.13	374.95	0.949	Level 1	
12,000.00	7,059.38	7,009.38	7,059.38	146.20	242.97	-89.89	935.68	-4,991.52	403.10	41.66	361.44	1.115	Level 2	
12,100.00	7,059.09	7,009.09	7,059.09	148.98	242.96	-89.84	935.68	-4,991.52	467.30	119.92	347.38	1.345	Level 3	
12,200.00	7,058.81	7,008.81	7,058.81	151.77	242.95	-89.79	935.68	-4,991.52	542.44	207.20	335.24	1.618		
12,300.00	7,058.52	7,008.52	7,058.52	154.55	242.94	-89.74	935.68	-4,991.52	624.60	299.12	325.47	1.919		
12,400.00	7,058.24	7,008.24	7,058.24	157.34	242.93	-89.69	935.68	-4,991.52	711.33	393.57	317.77	2.239		
12,500.00	7,057.96	7,007.96	7,057.96	160.14	242.92	-89.64	935.68	-4,991.52	801.17	489.47	311.70	2.570		
12,600.00	7,057.67	7,007.67	7,057.67	162.93	242.91	-89.59	935.68	-4,991.52	893.17	586.28	306.89	2.910		
12,700.00	7,057.39	7,007.39	7,057.39	165.73	242.90	-89.54	935.68	-4,991.52	986.72	683.69	303.03	3.256		
12,800.00	7,057.10	7,007.10	7,057.10	168.53	242.90	-89.49	935.68	-4,991.52	1,081.43	781.52	299.91	3.606		
12,900.00	7,056.82	7,006.82	7,056.82	171.33	242.89	-89.44	935.68	-4,991.52	1,177.02	879.66	297.36	3.958		
13,000.00	7,056.53	7,006.53	7,056.53	174.13	242.88	-89.39	935.68	-4,991.52	1,273.28	978.03	295.25	4.313		
13,100.00	7,056.25	7,006.25	7,056.25	176.94	242.87	-89.35	935.68	-4,991.52	1,370.08	1,076.59	293.49	4.668		
13,200.00	7,055.96	7,005.96	7,055.96	179.74	242.86	-89.30	935.68	-4,991.52	1,467.31	1,175.29	292.02	5.025		
13,300.00	7,055.68	7,005.68	7,055.68	182.55	242.85	-89.25	935.68	-4,991.52	1,564.89	1,274.12	290.77	5.382		
13,400.00	7,055.39	7,005.39	7,055.39	185.36	242.84	-89.20	935.68	-4,991.52	1,662.75	1,373.05	289.70	5.740		
13,500.00	7,055.11	7,005.11	7,055.11	188.17	242.83	-89.15	935.68	-4,991.52	1,760.86	1,472.07	288.79	6.097		
13,600.00	7,054.82	7,004.82	7,054.82	190.98	242.82	-89.10	935.68	-4,991.52	1,859.17	1,571.16	288.00	6.455		
13,700.00	7,054.54	7,004.54	7,054.54	193.80	242.81	-89.05	935.68	-4,991.52	1,957.64	1,670.32	287.33	6.813		
13,800.00	7,054.25	7,004.25	7,054.25	196.61	242.80	-89.00	935.68	-4,991.52	2,056.27	1,769.53	286.73	7.171		
13,900.00	7,053.97	7,003.97	7,053.97	199.43	242.79	-88.95	935.68	-4,991.52	2,155.02	1,868.80	286.22	7.529		
14,000.00	7,053.68	7,003.68	7,053.68	202.25	242.78	-88.90	935.68	-4,991.52	2,253.88	1,968.11	285.77	7.887		
14,100.00	7,053.40	7,003.40	7,053.40	205.06	242.77	-88.85	935.68	-4,991.52	2,352.84	2,067.47	285.37	8.245		
14,200.00	7,053.11	7,003.11	7,053.11	207.88	242.76	-88.80	935.68	-4,991.52	2,451.88	2,166.86	285.03	8.602		
14,300.00	7,052.83	7,002.83	7,052.83	210.70	242.75	-88.76	935.68	-4,991.52	2,551.00	2,266.28	284.72	8.960		
14,400.00	7,052.54	7,002.54	7,052.54	213.53	242.74	-88.71	935.68	-4,991.52	2,650.19	2,365.73	284.45	9.317		
14,500.00	7,052.26	7,002.26	7,052.26	216.35	242.73	-88.66	935.68	-4,991.52	2,749.43	2,465.21	284.22	9.674		
14,600.00	7,051.98	7,001.98	7,051.98	219.17	242.72	-88.61	935.68	-4,991.52	2,848.72	2,564.72	284.01	10.030		
14,700.00	7,051.69	7,001.69	7,051.69	222.00	242.71	-88.56	935.68	-4,991.52	2,948.07	2,664.24	283.82	10.387		
14,800.00	7,051.41	7,001.41	7,051.41	224.82	242.70	-88.51	935.68	-4,991.52	3,047.45	2,763.79	283.66	10.743		
14,900.00	7,051.12	7,001.12	7,051.12	227.65	242.69	-88.46	935.68	-4,991.52	3,146.88	2,863.36	283.52	11.099		
14,942.37	7,051.00	7,001.00	7,051.00	228.85	242.68	-88.44	935.68	-4,991.52	3,189.02	2,905.55	283.46	11.250		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma												Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
0.00	0.00	0.00	48.00	3.28	3.28	-79.42	956.47	-5,121.40	5,210.17				
100.00	100.00	52.00	100.00	3.28	3.40	-79.42	956.47	-5,121.40	5,209.95	5,203.27	6.69	779.001	
200.00	200.00	152.00	200.00	3.34	4.84	-79.42	956.47	-5,121.40	5,209.95	5,201.77	8.18	637.046	
300.00	300.00	252.00	300.00	3.44	7.78	-79.42	956.47	-5,121.40	5,209.95	5,198.73	11.22	464.253	
400.00	399.98	351.98	399.98	3.60	11.04	-72.15	956.47	-5,121.40	5,209.42	5,194.77	14.64	355.747	
500.00	499.84	451.84	499.84	3.81	14.41	-72.23	956.47	-5,121.40	5,207.81	5,189.60	18.21	285.959	
600.00	599.45	551.45	599.45	4.06	17.81	-72.37	956.47	-5,121.40	5,205.16	5,183.30	21.86	238.155	
700.00	698.70	650.70	698.70	4.34	21.23	-72.57	956.47	-5,121.40	5,201.46	5,175.91	25.55	203.613	
800.00	797.47	749.47	797.47	4.64	24.64	-72.82	956.47	-5,121.40	5,196.76	5,167.49	29.26	177.589	
900.00	895.65	847.65	895.65	4.98	28.04	-73.10	956.47	-5,121.40	5,191.11	5,158.12	33.00	157.325	
1,000.00	993.66	945.66	993.66	5.32	31.44	-73.30	956.47	-5,121.40	5,185.27	5,148.51	36.75	141.088	
1,100.00	1,091.67	1,043.67	1,091.67	5.69	34.84	-73.51	956.47	-5,121.40	5,179.49	5,138.96	40.53	127.791	
1,200.00	1,189.68	1,141.68	1,189.68	6.09	38.25	-73.72	956.47	-5,121.40	5,173.79	5,129.46	44.33	116.716	
1,300.00	1,287.69	1,239.69	1,287.69	6.49	41.66	-73.93	956.47	-5,121.40	5,168.15	5,120.01	48.14	107.357	
1,400.00	1,385.69	1,337.69	1,385.69	6.90	45.07	-74.13	956.47	-5,121.40	5,162.58	5,110.62	51.96	99.350	
1,500.00	1,483.70	1,435.70	1,483.70	7.33	48.49	-74.34	956.47	-5,121.40	5,157.09	5,101.29	55.80	92.425	
1,600.00	1,581.71	1,533.71	1,581.71	7.76	51.90	-74.55	956.47	-5,121.40	5,151.66	5,092.02	59.64	86.379	
1,700.00	1,679.72	1,631.72	1,679.72	8.19	55.32	-74.76	956.47	-5,121.40	5,146.31	5,082.82	63.49	81.058	
1,800.00	1,777.73	1,729.73	1,777.73	8.63	58.73	-74.97	956.47	-5,121.40	5,141.03	5,073.68	67.34	76.339	
1,900.00	1,875.74	1,827.74	1,875.74	9.08	62.15	-75.18	956.47	-5,121.40	5,135.82	5,064.61	71.20	72.127	
2,000.00	1,973.75	1,925.75	1,973.75	9.53	65.56	-75.39	956.47	-5,121.40	5,130.68	5,055.61	75.07	68.346	
2,100.00	2,071.76	2,023.76	2,071.76	9.98	68.98	-75.60	956.47	-5,121.40	5,125.61	5,046.67	78.94	64.932	
2,200.00	2,169.77	2,121.77	2,169.77	10.44	72.40	-75.81	956.47	-5,121.40	5,120.61	5,037.80	82.81	61.836	
2,300.00	2,267.77	2,219.77	2,267.77	10.90	75.82	-76.02	956.47	-5,121.40	5,115.69	5,029.01	86.68	59.015	
2,400.00	2,365.78	2,317.78	2,365.78	11.36	79.24	-76.23	956.47	-5,121.40	5,110.84	5,020.28	90.56	56.435	
2,500.00	2,463.79	2,415.79	2,463.79	11.82	82.66	-76.45	956.47	-5,121.40	5,106.06	5,011.62	94.44	54.066	
2,600.00	2,561.80	2,513.80	2,561.80	12.28	86.07	-76.66	956.47	-5,121.40	5,101.35	5,003.03	98.32	51.884	
2,700.00	2,659.81	2,611.81	2,659.81	12.75	89.49	-76.87	956.47	-5,121.40	5,096.72	4,994.52	102.21	49.867	
2,800.00	2,757.82	2,709.82	2,757.82	13.21	92.91	-77.09	956.47	-5,121.40	5,092.16	4,986.07	106.09	47.998	
2,900.00	2,855.83	2,807.83	2,855.83	13.68	96.33	-77.30	956.47	-5,121.40	5,087.68	4,977.70	109.98	46.261	
3,000.00	2,953.84	2,905.84	2,953.84	14.15	99.75	-77.51	956.47	-5,121.40	5,083.26	4,969.40	113.87	44.643	
3,100.00	3,051.85	3,003.85	3,051.85	14.62	103.17	-77.73	956.47	-5,121.40	5,078.93	4,961.17	117.75	43.131	
3,200.00	3,149.85	3,101.85	3,149.85	15.09	106.59	-77.94	956.47	-5,121.40	5,074.66	4,953.02	121.64	41.717	
3,300.00	3,247.86	3,200.14	3,247.86	15.56	110.02	-78.16	956.47	-5,121.40	5,070.47	4,944.92	125.55	40.388	
3,400.00	3,345.87	3,302.13	3,345.87	16.04	113.58	-78.37	956.47	-5,121.40	5,066.35	4,936.78	129.58	39.099	
3,500.00	3,443.88	3,404.12	3,443.88	16.51	117.14	-78.59	956.47	-5,121.40	5,062.31	4,928.70	133.61	37.889	
3,600.00	3,541.89	3,506.11	3,541.89	16.98	120.70	-78.81	956.47	-5,121.40	5,058.34	4,920.70	137.64	36.750	
3,700.00	3,639.90	3,608.10	3,639.90	17.46	124.26	-79.02	956.47	-5,121.40	5,054.45	4,912.78	141.67	35.677	
3,800.00	3,737.91	3,689.91	3,737.91	17.93	127.11	-79.24	956.47	-5,121.40	5,050.64	4,905.63	145.00	34.831	
3,900.00	3,835.92	3,787.92	3,835.92	18.41	130.53	-79.46	956.47	-5,121.40	5,046.89	4,897.99	148.90	33.895	
4,000.00	3,933.93	3,885.93	3,933.93	18.88	133.95	-79.68	956.47	-5,121.40	5,043.23	4,890.43	152.79	33.007	
4,100.00	4,031.93	3,983.93	4,031.93	19.36	137.37	-79.89	956.47	-5,121.40	5,039.64	4,882.94	156.69	32.163	
4,200.00	4,129.94	4,081.94	4,129.94	19.84	140.79	-80.11	956.47	-5,121.40	5,036.12	4,875.53	160.59	31.360	
4,300.00	4,227.95	4,179.95	4,227.95	20.31	144.21	-80.33	956.47	-5,121.40	5,032.68	4,868.20	164.49	30.596	
4,400.00	4,325.96	4,277.96	4,325.96	20.79	147.63	-80.55	956.47	-5,121.40	5,029.32	4,860.93	168.38	29.868	
4,500.00	4,423.97	4,375.97	4,423.97	21.27	151.06	-80.77	956.47	-5,121.40	5,026.03	4,853.75	172.28	29.173	
4,600.00	4,521.98	4,473.98	4,521.98	21.75	154.48	-80.99	956.47	-5,121.40	5,022.82	4,846.64	176.18	28.509	
4,700.00	4,619.99	4,571.99	4,619.99	22.23	157.90	-81.21	956.47	-5,121.40	5,019.69	4,839.61	180.08	27.875	
4,800.00	4,718.00	4,670.00	4,718.00	22.70	161.32	-81.43	956.47	-5,121.40	5,016.63	4,832.65	183.98	27.267	
4,900.00	4,816.01	4,768.01	4,816.01	23.18	164.74	-81.65	956.47	-5,121.40	5,013.65	4,825.77	187.88	26.685	
5,000.00	4,914.01	4,866.01	4,914.01	23.66	168.16	-81.87	956.47	-5,121.40	5,010.74	4,818.96	191.78	26.127	
5,100.00	5,012.02	4,964.02	5,012.02	24.14	171.58	-82.09	956.47	-5,121.40	5,007.92	4,812.24	195.68	25.592	

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 16-1(AB_150CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,200.00	5,110.03	5,062.03	5,110.03	24.62	175.00	-82.31	956.47	-5,121.40	5,005.17	4,805.59	199.58	25.078		
5,300.00	5,208.04	5,160.04	5,208.04	25.10	178.42	-82.53	956.47	-5,121.40	5,002.50	4,799.01	203.48	24.584		
5,400.00	5,306.05	5,258.05	5,306.05	25.58	181.84	-82.75	956.47	-5,121.40	4,999.90	4,792.52	207.38	24.109		
5,500.00	5,404.06	5,356.06	5,404.06	26.06	185.26	-82.97	956.47	-5,121.40	4,997.38	4,786.10	211.29	23.652		
5,600.00	5,502.07	5,454.07	5,502.07	26.54	188.68	-83.19	956.47	-5,121.40	4,994.94	4,779.76	215.19	23.212		
5,700.00	5,600.08	5,552.08	5,600.08	27.02	192.11	-83.41	956.47	-5,121.40	4,992.58	4,773.49	219.09	22.788		
5,800.00	5,698.09	5,650.09	5,698.09	27.50	195.53	-83.64	956.47	-5,121.40	4,990.30	4,767.31	222.99	22.379		
5,900.00	5,796.09	5,748.09	5,796.09	27.98	198.95	-83.86	956.47	-5,121.40	4,988.09	4,761.20	226.89	21.984		
6,000.00	5,894.10	5,846.10	5,894.10	28.46	202.37	-84.08	956.47	-5,121.40	4,985.96	4,755.17	230.80	21.603		
6,100.00	5,992.11	5,944.11	5,992.11	28.94	205.79	-84.30	956.47	-5,121.40	4,983.91	4,749.21	234.70	21.235		
6,200.00	6,090.12	6,042.12	6,090.12	29.42	209.21	-84.53	956.47	-5,121.40	4,981.94	4,743.34	238.60	20.880		
6,300.00	6,188.13	6,140.13	6,188.13	29.90	212.63	-84.75	956.47	-5,121.40	4,980.05	4,737.54	242.50	20.536		
6,400.00	6,286.14	6,238.14	6,286.14	30.38	216.05	-84.97	956.47	-5,121.40	4,978.23	4,731.83	246.41	20.203		
6,500.00	6,384.15	6,336.15	6,384.15	30.87	219.47	-85.20	956.47	-5,121.40	4,976.50	4,726.19	250.31	19.881		
6,600.00	6,482.15	6,434.15	6,482.15	31.35	222.90	-76.92	956.47	-5,121.40	4,974.53	4,720.32	254.21	19.568		
6,700.00	6,579.21	6,531.21	6,579.21	31.83	226.28	-46.17	956.47	-5,121.40	4,962.05	4,703.97	258.08	19.227		
6,800.00	6,673.04	6,625.04	6,673.04	32.30	229.56	-31.96	956.47	-5,121.40	4,934.31	4,672.49	261.82	18.846		
6,900.00	6,761.33	6,713.33	6,761.33	32.74	232.64	-25.12	956.47	-5,121.40	4,891.99	4,626.67	265.33	18.438		
7,000.00	6,841.90	6,806.10	6,841.90	33.17	235.88	-21.62	956.47	-5,121.40	4,836.14	4,567.19	268.95	17.981		
7,100.00	6,912.77	6,864.77	6,912.77	33.60	237.93	-19.99	956.47	-5,121.40	4,768.11	4,496.77	271.34	17.573		
7,200.00	6,972.19	6,924.19	6,972.19	34.09	240.00	-19.78	956.47	-5,121.40	4,689.57	4,415.88	273.70	17.134		
7,300.00	7,018.70	6,970.70	7,018.70	34.73	241.62	-21.19	956.47	-5,121.40	4,602.43	4,326.89	275.54	16.703		
7,400.00	7,051.15	7,003.15	7,051.15	35.55	242.76	-25.75	956.47	-5,121.40	4,508.83	4,231.99	276.84	16.286		
7,500.00	7,068.75	7,020.75	7,068.75	36.56	243.37	-42.36	956.47	-5,121.40	4,411.04	4,133.47	277.57	15.892		
7,600.00	7,071.91	7,023.91	7,071.91	37.71	243.48	-92.26	956.47	-5,121.40	4,311.46	4,033.71	277.75	15.523		
7,700.00	7,071.62	7,023.62	7,071.62	39.03	243.47	-92.21	956.47	-5,121.40	4,211.72	3,933.93	277.80	15.161		
7,800.00	7,071.34	7,023.34	7,071.34	40.51	243.46	-92.16	956.47	-5,121.40	4,112.00	3,834.15	277.85	14.799		
7,900.00	7,071.05	7,023.05	7,071.05	42.14	243.45	-92.11	956.47	-5,121.40	4,012.29	3,734.38	277.91	14.437		
8,000.00	7,070.77	7,022.77	7,070.77	43.89	243.44	-92.05	956.47	-5,121.40	3,912.60	3,634.62	277.98	14.075		
8,100.00	7,070.48	7,022.48	7,070.48	45.76	243.43	-92.00	956.47	-5,121.40	3,812.92	3,534.87	278.05	13.713		
8,200.00	7,070.20	7,022.20	7,070.20	47.72	243.42	-91.95	956.47	-5,121.40	3,713.26	3,435.13	278.13	13.351		
8,300.00	7,069.92	7,021.92	7,069.92	49.78	243.41	-91.90	956.47	-5,121.40	3,613.62	3,335.40	278.22	12.989		
8,400.00	7,069.63	7,021.63	7,069.63	51.90	243.40	-91.84	956.47	-5,121.40	3,514.00	3,235.69	278.31	12.626		
8,500.00	7,069.35	7,021.35	7,069.35	54.10	243.39	-91.79	956.47	-5,121.40	3,414.40	3,135.98	278.42	12.264		
8,600.00	7,069.06	7,021.06	7,069.06	56.36	243.38	-91.74	956.47	-5,121.40	3,314.82	3,036.29	278.53	11.901		
8,700.00	7,068.78	7,020.78	7,068.78	58.66	243.37	-91.69	956.47	-5,121.40	3,215.27	2,936.61	278.66	11.538		
8,800.00	7,068.49	7,020.49	7,068.49	61.02	243.36	-91.63	956.47	-5,121.40	3,115.75	2,836.95	278.80	11.176		
8,900.00	7,068.21	7,020.21	7,068.21	63.42	243.35	-91.58	956.47	-5,121.40	3,016.27	2,737.31	278.96	10.813		
9,000.00	7,067.92	7,019.92	7,067.92	65.85	243.34	-91.53	956.47	-5,121.40	2,916.81	2,637.69	279.13	10.450		
9,100.00	7,067.64	7,019.64	7,067.64	68.32	243.33	-91.47	956.47	-5,121.40	2,817.40	2,538.08	279.32	10.087		
9,200.00	7,067.35	7,019.35	7,067.35	70.81	243.32	-91.42	956.47	-5,121.40	2,718.03	2,438.50	279.53	9.724		
9,300.00	7,067.07	7,019.07	7,067.07	73.34	243.31	-91.37	956.47	-5,121.40	2,618.70	2,338.94	279.76	9.360		
9,400.00	7,066.78	7,018.78	7,066.78	75.88	243.30	-91.32	956.47	-5,121.40	2,519.43	2,239.41	280.03	8.997		
9,500.00	7,066.50	7,018.50	7,066.50	78.45	243.29	-91.26	956.47	-5,121.40	2,420.22	2,139.90	280.32	8.634		
9,600.00	7,066.21	7,018.21	7,066.21	81.04	243.28	-91.21	956.47	-5,121.40	2,321.08	2,040.43	280.65	8.270		
9,700.00	7,065.93	7,017.93	7,065.93	83.64	243.27	-91.16	956.47	-5,121.40	2,222.02	1,940.99	281.03	7.907		
9,800.00	7,065.64	7,017.64	7,065.64	86.26	243.26	-91.11	956.47	-5,121.40	2,123.04	1,841.59	281.45	7.543		
9,900.00	7,065.36	7,017.36	7,065.36	88.90	243.25	-91.05	956.47	-5,121.40	2,024.16	1,742.23	281.94	7.180		
10,000.00	7,065.07	7,017.07	7,065.07	91.55	243.24	-91.00	956.47	-5,121.40	1,925.40	1,642.91	282.49	6.816		
10,100.00	7,064.79	7,016.79	7,064.79	94.21	243.23	-90.95	956.47	-5,121.40	1,826.77	1,543.65	283.13	6.452		
10,200.00	7,064.50	7,016.50	7,064.50	96.88	243.22	-90.90	956.47	-5,121.40	1,728.31	1,444.44	283.86	6.088		
10,300.00	7,064.22	7,016.22	7,064.22	99.57	243.21	-90.84	956.47	-5,121.40	1,630.02	1,345.30	284.72	5.725		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,400.00	7,063.94	7,015.94	7,063.94	102.26	243.20	-90.79	956.47	-5,121.40	1,531.96	1,246.23	285.73	5.361		
10,500.00	7,063.65	7,015.65	7,063.65	104.96	243.19	-90.74	956.47	-5,121.40	1,434.17	1,147.24	286.93	4.998		
10,600.00	7,063.37	7,015.37	7,063.37	107.67	243.18	-90.68	956.47	-5,121.40	1,336.70	1,048.35	288.35	4.636		
10,700.00	7,063.08	7,015.08	7,063.08	110.39	243.17	-90.63	956.47	-5,121.40	1,239.64	949.58	290.06	4.274		
10,800.00	7,062.80	7,014.80	7,062.80	113.11	243.16	-90.58	956.47	-5,121.40	1,143.09	850.94	292.14	3.913		
10,900.00	7,062.51	7,014.51	7,062.51	115.84	243.15	-90.53	956.47	-5,121.40	1,047.18	752.48	294.70	3.553		
11,000.00	7,062.23	7,014.23	7,062.23	118.58	243.14	-90.47	956.47	-5,121.40	952.11	654.25	297.86	3.196		
11,100.00	7,061.94	7,013.94	7,061.94	121.32	243.13	-90.42	956.47	-5,121.40	858.17	556.33	301.84	2.843		
11,200.00	7,061.66	7,013.66	7,061.66	124.07	243.12	-90.37	956.47	-5,121.40	765.76	458.86	306.90	2.495		
11,300.00	7,061.37	7,013.37	7,061.37	126.82	243.11	-90.32	956.47	-5,121.40	675.51	362.10	313.41	2.155		
11,400.00	7,061.09	7,013.09	7,061.09	129.58	243.10	-90.26	956.47	-5,121.40	588.43	266.56	321.87	1.828		
11,500.00	7,060.80	7,012.80	7,060.80	132.34	243.09	-90.21	956.47	-5,121.40	506.15	173.28	332.87	1.521		
11,600.00	7,060.52	7,012.52	7,060.52	135.10	243.08	-90.16	956.47	-5,121.40	431.42	84.54	346.88	1.244	Level 2	
11,700.00	7,060.23	7,012.23	7,060.23	137.87	243.07	-90.11	956.47	-5,121.40	368.85	5.47	363.38	1.015	Level 2	
11,800.00	7,059.95	7,011.95	7,059.95	140.64	243.06	-90.05	956.47	-5,121.40	325.55	-53.41	378.96	0.859	Level 1	
11,900.00	7,059.66	7,011.66	7,059.66	143.42	243.05	-90.00	956.47	-5,121.40	309.71	-76.65	386.35	0.802	Level 1	
11,900.34	7,059.66	7,011.66	7,059.66	143.43	243.05	-90.00	956.47	-5,121.40	309.71	-76.65	386.36	0.802	Level 1, CC, ES, SF	
12,000.00	7,059.38	7,011.38	7,059.38	146.20	243.04	-89.95	956.47	-5,121.40	325.35	-55.37	380.72	0.855	Level 1	
12,100.00	7,059.09	7,011.09	7,059.09	148.98	243.03	-89.89	956.47	-5,121.40	368.49	2.05	366.44	1.006	Level 2	
12,200.00	7,058.81	7,010.81	7,058.81	151.77	243.02	-89.84	956.47	-5,121.40	430.95	80.23	350.72	1.229	Level 2	
12,300.00	7,058.52	7,010.52	7,058.52	154.55	243.01	-89.79	956.47	-5,121.40	505.62	168.47	337.15	1.500	Level 3	
12,400.00	7,058.24	7,010.24	7,058.24	157.34	243.00	-89.74	956.47	-5,121.40	587.86	261.48	326.38	1.801		
12,500.00	7,057.96	7,009.96	7,057.96	160.14	242.99	-89.68	956.47	-5,121.40	674.92	356.89	318.03	2.122		
12,600.00	7,057.67	7,009.67	7,057.67	162.93	242.98	-89.63	956.47	-5,121.40	765.14	453.58	311.56	2.456		
12,700.00	7,057.39	7,009.39	7,057.39	165.73	242.97	-89.58	956.47	-5,121.40	857.54	551.04	306.50	2.798		
12,800.00	7,057.10	7,009.10	7,057.10	168.53	242.96	-89.53	956.47	-5,121.40	951.48	648.98	302.50	3.145		
12,900.00	7,056.82	7,008.82	7,056.82	171.33	242.95	-89.47	956.47	-5,121.40	1,046.54	747.24	299.29	3.497		
13,000.00	7,056.53	7,008.53	7,056.53	174.13	242.94	-89.42	956.47	-5,121.40	1,142.44	845.74	296.70	3.851		
13,100.00	7,056.25	7,008.25	7,056.25	176.94	242.94	-89.37	956.47	-5,121.40	1,238.99	944.42	294.57	4.206		
13,200.00	7,055.96	7,007.96	7,055.96	179.74	242.93	-89.32	956.47	-5,121.40	1,336.05	1,043.24	292.81	4.563		
13,300.00	7,055.68	7,007.68	7,055.68	182.55	242.92	-89.26	956.47	-5,121.40	1,433.51	1,142.16	291.35	4.920		
13,400.00	7,055.39	7,007.39	7,055.39	185.36	242.91	-89.21	956.47	-5,121.40	1,531.30	1,241.19	290.12	5.278		
13,500.00	7,055.11	7,007.11	7,055.11	188.17	242.90	-89.16	956.47	-5,121.40	1,629.36	1,340.29	289.07	5.636		
13,600.00	7,054.82	7,006.82	7,054.82	190.98	242.89	-89.10	956.47	-5,121.40	1,727.64	1,439.46	288.19	5.995		
13,700.00	7,054.54	7,006.54	7,054.54	193.80	242.88	-89.05	956.47	-5,121.40	1,826.11	1,538.68	287.43	6.353		
13,800.00	7,054.25	7,006.25	7,054.25	196.61	242.87	-89.00	956.47	-5,121.40	1,924.74	1,637.96	286.77	6.712		
13,900.00	7,053.97	7,005.97	7,053.97	199.43	242.86	-88.95	956.47	-5,121.40	2,023.50	1,737.29	286.21	7.070		
14,000.00	7,053.68	7,005.68	7,053.68	202.25	242.85	-88.89	956.47	-5,121.40	2,122.37	1,836.66	285.72	7.428		
14,100.00	7,053.40	7,005.40	7,053.40	205.06	242.84	-88.84	956.47	-5,121.40	2,221.35	1,936.06	285.29	7.786		
14,200.00	7,053.11	7,005.11	7,053.11	207.88	242.83	-88.79	956.47	-5,121.40	2,320.42	2,035.50	284.92	8.144		
14,300.00	7,052.83	7,004.83	7,052.83	210.70	242.82	-88.74	956.47	-5,121.40	2,419.56	2,134.97	284.59	8.502		
14,400.00	7,052.54	7,004.54	7,052.54	213.53	242.81	-88.68	956.47	-5,121.40	2,518.77	2,234.46	284.31	8.859		
14,500.00	7,052.26	7,004.26	7,052.26	216.35	242.80	-88.63	956.47	-5,121.40	2,618.04	2,333.98	284.06	9.217		
14,600.00	7,051.98	7,003.98	7,051.98	219.17	242.79	-88.58	956.47	-5,121.40	2,717.36	2,433.52	283.84	9.574		
14,700.00	7,051.69	7,003.69	7,051.69	222.00	242.78	-88.53	956.47	-5,121.40	2,816.73	2,533.08	283.65	9.930		
14,800.00	7,051.41	7,003.41	7,051.41	224.82	242.77	-88.47	956.47	-5,121.40	2,916.14	2,632.66	283.48	10.287		
14,900.00	7,051.12	7,003.12	7,051.12	227.65	242.76	-88.42	956.47	-5,121.40	3,015.60	2,732.26	283.33	10.643		
14,942.37	7,051.00	7,003.00	7,051.00	228.85	242.75	-88.40	956.47	-5,121.40	3,057.75	2,774.47	283.28	10.794		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	55.00	3.28	3.28	-95.98	-515.36	-4,918.67	4,945.90				
100.00	100.00	45.00	100.00	3.28	3.37	-95.98	-515.36	-4,918.67	4,945.59	4,938.93	6.66	742.864	
200.00	200.00	145.00	200.00	3.34	4.66	-95.98	-515.36	-4,918.67	4,945.59	4,937.59	8.00	618.083	
300.00	300.00	245.00	300.00	3.44	7.56	-95.98	-515.36	-4,918.67	4,945.59	4,934.59	11.00	449.544	
400.00	399.98	344.98	399.98	3.60	10.81	-88.70	-515.36	-4,918.67	4,945.55	4,931.14	14.41	343.192	
500.00	499.84	444.84	499.84	3.81	14.17	-88.76	-515.36	-4,918.67	4,945.44	4,927.46	17.97	275.150	
600.00	599.45	544.45	599.45	4.06	17.57	-88.87	-515.36	-4,918.67	4,945.25	4,923.64	21.62	228.783	
700.00	698.70	643.70	698.70	4.34	20.98	-89.01	-515.36	-4,918.67	4,945.03	4,919.72	25.30	195.427	
800.00	797.47	742.47	797.47	4.64	24.40	-89.20	-515.36	-4,918.67	4,944.78	4,915.76	29.02	170.390	
900.00	895.65	840.65	895.65	4.98	27.80	-89.41	-515.36	-4,918.67	4,944.55	4,911.79	32.75	150.961	
1,000.00	993.66	938.66	993.66	5.32	31.20	-89.64	-515.36	-4,918.67	4,944.38	4,907.87	36.51	135.420	
1,100.00	1,091.67	1,036.67	1,091.67	5.69	34.60	-89.87	-515.36	-4,918.67	4,944.29	4,904.00	40.29	122.711	
1,159.51	1,149.99	1,105.01	1,149.99	5.93	36.98	-90.00	-515.36	-4,918.67	4,944.28	4,901.38	42.90	115.252	
1,200.00	1,189.68	1,134.68	1,189.68	6.09	38.01	-90.09	-515.36	-4,918.67	4,944.28	4,900.19	44.09	112.137	
1,300.00	1,287.69	1,232.69	1,287.69	6.49	41.42	-90.32	-515.36	-4,918.67	4,944.36	4,896.45	47.91	103.211	
1,400.00	1,385.69	1,330.69	1,385.69	6.90	44.83	-90.54	-515.36	-4,918.67	4,944.51	4,892.78	51.73	95.580	
1,500.00	1,483.70	1,428.70	1,483.70	7.33	48.24	-90.77	-515.36	-4,918.67	4,944.74	4,889.17	55.57	88.986	
1,600.00	1,581.71	1,526.71	1,581.71	7.76	51.66	-90.99	-515.36	-4,918.67	4,945.05	4,885.64	59.41	83.233	
1,700.00	1,679.72	1,624.72	1,679.72	8.19	55.07	-91.22	-515.36	-4,918.67	4,945.44	4,882.18	63.26	78.172	
1,800.00	1,777.73	1,722.73	1,777.73	8.63	58.49	-91.44	-515.36	-4,918.67	4,945.91	4,878.79	67.12	73.687	
1,900.00	1,875.74	1,820.74	1,875.74	9.08	61.90	-91.67	-515.36	-4,918.67	4,946.46	4,875.48	70.98	69.685	
2,000.00	1,973.75	1,918.75	1,973.75	9.53	65.32	-91.89	-515.36	-4,918.67	4,947.09	4,872.24	74.85	66.094	
2,100.00	2,071.76	2,016.76	2,071.76	9.98	68.74	-92.12	-515.36	-4,918.67	4,947.80	4,869.08	78.72	62.853	
2,200.00	2,169.77	2,114.77	2,169.77	10.44	72.16	-92.35	-515.36	-4,918.67	4,948.59	4,866.00	82.59	59.915	
2,300.00	2,267.77	2,212.77	2,267.77	10.90	75.57	-92.57	-515.36	-4,918.67	4,949.46	4,862.99	86.47	57.239	
2,400.00	2,365.78	2,310.78	2,365.78	11.36	78.99	-92.80	-515.36	-4,918.67	4,950.41	4,860.06	90.35	54.793	
2,500.00	2,463.79	2,408.79	2,463.79	11.82	82.41	-93.02	-515.36	-4,918.67	4,951.44	4,857.21	94.23	52.547	
2,600.00	2,561.80	2,506.80	2,561.80	12.28	85.83	-93.25	-515.36	-4,918.67	4,952.54	4,854.43	98.11	50.479	
2,700.00	2,659.81	2,604.81	2,659.81	12.75	89.25	-93.47	-515.36	-4,918.67	4,953.73	4,851.73	102.00	48.568	
2,800.00	2,757.82	2,702.82	2,757.82	13.21	92.67	-93.69	-515.36	-4,918.67	4,955.00	4,849.11	105.88	46.797	
2,900.00	2,855.83	2,800.83	2,855.83	13.68	96.09	-93.92	-515.36	-4,918.67	4,956.34	4,846.57	109.77	45.152	
3,000.00	2,953.84	2,901.16	2,953.84	14.15	99.59	-94.14	-515.36	-4,918.67	4,957.76	4,844.02	113.74	43.589	
3,100.00	3,051.85	3,003.15	3,051.85	14.62	103.15	-94.37	-515.36	-4,918.67	4,959.27	4,841.50	117.77	42.110	
3,200.00	3,149.85	3,105.15	3,149.85	15.09	106.71	-94.59	-515.36	-4,918.67	4,960.85	4,839.05	121.80	40.730	
3,300.00	3,247.86	3,207.14	3,247.86	15.56	110.26	-94.82	-515.36	-4,918.67	4,962.51	4,836.68	125.83	39.439	
3,400.00	3,345.87	3,309.13	3,345.87	16.04	113.82	-95.04	-515.36	-4,918.67	4,964.25	4,834.39	129.86	38.228	
3,500.00	3,443.88	3,388.88	3,443.88	16.51	116.61	-95.26	-515.36	-4,918.67	4,966.07	4,832.95	133.12	37.306	
3,600.00	3,541.89	3,486.89	3,541.89	16.98	120.03	-95.49	-515.36	-4,918.67	4,967.97	4,830.96	137.01	36.260	
3,700.00	3,639.90	3,584.90	3,639.90	17.46	123.45	-95.71	-515.36	-4,918.67	4,969.94	4,829.04	140.90	35.272	
3,800.00	3,737.91	3,682.91	3,737.91	17.93	126.87	-95.93	-515.36	-4,918.67	4,972.00	4,827.20	144.80	34.337	
3,900.00	3,835.92	3,780.92	3,835.92	18.41	130.29	-96.16	-515.36	-4,918.67	4,974.13	4,825.43	148.70	33.452	
4,000.00	3,933.93	3,878.93	3,933.93	18.88	133.71	-96.38	-515.36	-4,918.67	4,976.34	4,823.75	152.59	32.612	
4,100.00	4,031.93	3,976.93	4,031.93	19.36	137.13	-96.60	-515.36	-4,918.67	4,978.63	4,822.14	156.49	31.815	
4,200.00	4,129.94	4,074.94	4,129.94	19.84	140.55	-96.82	-515.36	-4,918.67	4,981.00	4,820.61	160.39	31.057	
4,300.00	4,227.95	4,172.95	4,227.95	20.31	143.97	-97.05	-515.36	-4,918.67	4,983.44	4,819.16	164.28	30.335	
4,400.00	4,325.96	4,270.96	4,325.96	20.79	147.39	-97.27	-515.36	-4,918.67	4,985.97	4,817.79	168.18	29.647	
4,500.00	4,423.97	4,368.97	4,423.97	21.27	150.81	-97.49	-515.36	-4,918.67	4,988.57	4,816.49	172.08	28.990	
4,600.00	4,521.98	4,466.98	4,521.98	21.75	154.23	-97.71	-515.36	-4,918.67	4,991.25	4,815.27	175.98	28.363	
4,700.00	4,619.99	4,564.99	4,619.99	22.23	157.65	-97.93	-515.36	-4,918.67	4,994.00	4,814.13	179.87	27.764	
4,800.00	4,718.00	4,663.00	4,718.00	22.70	161.07	-98.15	-515.36	-4,918.67	4,996.84	4,813.06	183.77	27.190	
4,900.00	4,816.01	4,761.01	4,816.01	23.18	164.49	-98.38	-515.36	-4,918.67	4,999.75	4,812.08	187.67	26.641	
5,000.00	4,914.01	4,859.01	4,914.01	23.66	167.92	-98.60	-515.36	-4,918.67	5,002.74	4,811.17	191.57	26.114	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE BEATRICE 32-16(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
5,100.00	5,012.02	4,957.02	5,012.02	24.14	171.34	-98.82	-515.36	-4,918.67	5,005.80	4,810.33	195.47	25.609		
5,200.00	5,110.03	5,055.03	5,110.03	24.62	174.76	-99.04	-515.36	-4,918.67	5,008.94	4,809.57	199.37	25.124		
5,300.00	5,208.04	5,153.04	5,208.04	25.10	178.18	-99.26	-515.36	-4,918.67	5,012.16	4,808.89	203.27	24.658		
5,400.00	5,306.05	5,251.05	5,306.05	25.58	181.60	-99.48	-515.36	-4,918.67	5,015.46	4,808.29	207.17	24.209		
5,500.00	5,404.06	5,349.06	5,404.06	26.06	185.02	-99.69	-515.36	-4,918.67	5,018.83	4,807.76	211.07	23.778		
5,600.00	5,502.07	5,447.07	5,502.07	26.54	188.44	-99.91	-515.36	-4,918.67	5,022.28	4,807.31	214.97	23.363		
5,700.00	5,600.08	5,545.08	5,600.08	27.02	191.86	-100.13	-515.36	-4,918.67	5,025.80	4,806.93	218.87	22.963		
5,800.00	5,698.09	5,643.09	5,698.09	27.50	195.28	-100.35	-515.36	-4,918.67	5,029.40	4,806.63	222.77	22.577		
5,900.00	5,796.09	5,741.09	5,796.09	27.98	198.70	-100.57	-515.36	-4,918.67	5,033.08	4,806.41	226.67	22.204		
6,000.00	5,894.10	5,839.10	5,894.10	28.46	202.12	-100.79	-515.36	-4,918.67	5,036.83	4,806.26	230.57	21.845		
6,100.00	5,992.11	5,937.11	5,992.11	28.94	205.55	-101.00	-515.36	-4,918.67	5,040.65	4,806.18	234.47	21.498		
6,200.00	6,090.12	6,035.12	6,090.12	29.42	208.97	-101.22	-515.36	-4,918.67	5,044.56	4,806.18	238.37	21.163		
6,300.00	6,188.13	6,133.13	6,188.13	29.90	212.39	-101.44	-515.36	-4,918.67	5,048.53	4,806.26	242.27	20.838		
6,400.00	6,286.14	6,231.14	6,286.14	30.38	215.81	-101.65	-515.36	-4,918.67	5,052.58	4,806.41	246.17	20.525		
6,500.00	6,384.15	6,329.15	6,384.15	30.87	219.23	-101.87	-515.36	-4,918.67	5,056.71	4,806.64	250.07	20.221		
6,600.00	6,482.15	6,427.15	6,482.15	31.35	222.65	-93.57	-515.36	-4,918.67	5,060.62	4,806.65	253.97	19.926		
6,700.00	6,579.21	6,524.21	6,579.21	31.83	226.04	-62.98	-515.36	-4,918.67	5,054.55	4,796.71	257.84	19.603		
6,800.00	6,673.04	6,618.04	6,673.04	32.30	229.31	-49.36	-515.36	-4,918.67	5,033.94	4,772.35	261.59	19.244		
6,900.00	6,761.33	6,706.33	6,761.33	32.74	232.40	-43.60	-515.36	-4,918.67	4,999.37	4,734.25	265.13	18.856		
7,000.00	6,841.90	6,786.90	6,841.90	33.17	235.21	-41.77	-515.36	-4,918.67	4,951.77	4,683.39	268.38	18.451		
7,100.00	6,912.77	6,857.77	6,912.77	33.60	237.68	-42.59	-515.36	-4,918.67	4,892.36	4,621.09	271.27	18.035		
7,200.00	6,972.19	6,917.19	6,972.19	34.09	239.76	-45.86	-515.36	-4,918.67	4,822.67	4,548.91	273.76	17.617		
7,300.00	7,018.70	6,963.70	7,018.70	34.73	241.38	-52.05	-515.36	-4,918.67	4,744.46	4,468.67	275.79	17.203		
7,400.00	7,051.15	7,003.85	7,051.15	35.55	242.78	-62.18	-515.36	-4,918.67	4,659.67	4,382.08	277.60	16.786		
7,500.00	7,068.75	7,013.75	7,068.75	36.56	243.13	-77.43	-515.36	-4,918.67	4,570.40	4,292.05	278.35	16.420		
7,600.00	7,071.91	7,016.91	7,071.91	37.71	243.24	-90.38	-515.36	-4,918.67	4,478.87	4,199.99	278.88	16.060		
7,700.00	7,071.62	7,016.62	7,071.62	39.03	243.23	-90.37	-515.36	-4,918.67	4,387.31	4,107.99	279.32	15.707		
7,800.00	7,071.34	7,016.34	7,071.34	40.51	243.22	-90.36	-515.36	-4,918.67	4,296.14	4,016.30	279.83	15.353		
7,900.00	7,071.05	7,016.05	7,071.05	42.14	243.21	-90.35	-515.36	-4,918.67	4,205.36	3,924.96	280.41	14.997		
8,000.00	7,070.77	7,015.77	7,070.77	43.89	243.20	-90.34	-515.36	-4,918.67	4,115.01	3,833.97	281.05	14.642		
8,100.00	7,070.48	7,015.48	7,070.48	45.76	243.19	-90.33	-515.36	-4,918.67	4,025.12	3,743.36	281.77	14.285		
8,200.00	7,070.20	7,015.20	7,070.20	47.72	243.18	-90.32	-515.36	-4,918.67	3,935.72	3,653.16	282.56	13.929		
8,300.00	7,069.92	7,014.92	7,069.92	49.78	243.17	-90.31	-515.36	-4,918.67	3,846.84	3,563.39	283.44	13.572		
8,400.00	7,069.63	7,014.63	7,069.63	51.90	243.16	-90.30	-515.36	-4,918.67	3,758.51	3,474.10	284.41	13.215		
8,500.00	7,069.35	7,014.35	7,069.35	54.10	243.15	-90.29	-515.36	-4,918.67	3,670.79	3,385.31	285.48	12.858		
8,600.00	7,069.06	7,014.06	7,069.06	56.36	243.14	-90.28	-515.36	-4,918.67	3,583.71	3,297.06	286.65	12.502		
8,700.00	7,068.78	7,013.78	7,068.78	58.66	243.13	-90.28	-515.36	-4,918.67	3,497.32	3,209.40	287.92	12.147		
8,800.00	7,068.49	7,013.49	7,068.49	61.02	243.12	-90.27	-515.36	-4,918.67	3,411.67	3,122.37	289.30	11.793		
8,900.00	7,068.21	7,013.21	7,068.21	63.42	243.11	-90.26	-515.36	-4,918.67	3,326.83	3,036.02	290.80	11.440		
9,000.00	7,067.92	7,012.92	7,067.92	65.85	243.10	-90.25	-515.36	-4,918.67	3,242.84	2,950.41	292.43	11.089		
9,100.00	7,067.64	7,012.64	7,067.64	68.32	243.09	-90.24	-515.36	-4,918.67	3,159.79	2,865.61	294.18	10.741		
9,200.00	7,067.35	7,012.35	7,067.35	70.81	243.08	-90.23	-515.36	-4,918.67	3,077.75	2,781.68	296.07	10.395		
9,300.00	7,067.07	7,012.07	7,067.07	73.34	243.07	-90.22	-515.36	-4,918.67	2,996.81	2,698.70	298.11	10.053		
9,400.00	7,066.78	7,011.78	7,066.78	75.88	243.06	-90.21	-515.36	-4,918.67	2,917.04	2,616.75	300.28	9.714		
9,500.00	7,066.50	7,011.50	7,066.50	78.45	243.05	-90.20	-515.36	-4,918.67	2,838.55	2,535.94	302.61	9.380		
9,600.00	7,066.21	7,011.21	7,066.21	81.04	243.04	-90.19	-515.36	-4,918.67	2,761.46	2,456.35	305.10	9.051		
9,700.00	7,065.93	7,010.93	7,065.93	83.64	243.03	-90.18	-515.36	-4,918.67	2,685.87	2,378.12	307.75	8.727		
9,800.00	7,065.64	7,010.64	7,065.64	86.26	243.02	-90.17	-515.36	-4,918.67	2,611.93	2,301.36	310.57	8.410		
9,900.00	7,065.36	7,010.36	7,065.36	88.90	243.01	-90.17	-515.36	-4,918.67	2,539.77	2,226.22	313.56	8.100		
10,000.00	7,065.07	7,010.07	7,065.07	91.55	243.00	-90.16	-515.36	-4,918.67	2,469.56	2,152.84	316.71	7.797		
10,100.00	7,064.79	7,009.79	7,064.79	94.21	242.99	-90.15	-515.36	-4,918.67	2,401.45	2,081.42	320.04	7.504		
10,200.00	7,064.50	7,009.50	7,064.50	96.88	242.98	-90.14	-515.36	-4,918.67	2,335.65	2,012.12	323.53	7.219		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	
10,300.00	7,064.22	7,009.22	7,064.22	99.57	242.97	-90.13	-515.36	-4,918.67	2,272.34	1,945.16	327.18	6.945	
10,400.00	7,063.94	7,008.94	7,063.94	102.26	242.96	-90.12	-515.36	-4,918.67	2,211.74	1,880.76	330.98	6.682	
10,500.00	7,063.65	7,008.65	7,063.65	104.96	242.95	-90.11	-515.36	-4,918.67	2,154.08	1,819.16	334.92	6.432	
10,600.00	7,063.37	7,008.37	7,063.37	107.67	242.94	-90.10	-515.36	-4,918.67	2,099.60	1,760.62	338.98	6.194	
10,700.00	7,063.08	7,008.08	7,063.08	110.39	242.93	-90.09	-515.36	-4,918.67	2,048.56	1,705.43	343.12	5.970	
10,800.00	7,062.80	7,007.80	7,062.80	113.11	242.92	-90.08	-515.36	-4,918.67	2,001.21	1,653.88	347.34	5.762	
10,900.00	7,062.51	7,007.51	7,062.51	115.84	242.91	-90.07	-515.36	-4,918.67	1,957.84	1,606.26	351.58	5.569	
11,000.00	7,062.23	7,007.23	7,062.23	118.58	242.90	-90.06	-515.36	-4,918.67	1,918.69	1,562.89	355.80	5.393	
11,100.00	7,061.94	7,006.94	7,061.94	121.32	242.89	-90.06	-515.36	-4,918.67	1,884.05	1,524.09	359.96	5.234	
11,200.00	7,061.66	7,006.66	7,061.66	124.07	242.88	-90.05	-515.36	-4,918.67	1,854.16	1,490.16	364.00	5.094	
11,300.00	7,061.37	7,006.37	7,061.37	126.82	242.87	-90.04	-515.36	-4,918.67	1,829.26	1,461.38	367.88	4.972	
11,400.00	7,061.09	7,006.09	7,061.09	129.58	242.86	-90.03	-515.36	-4,918.67	1,809.54	1,438.02	371.52	4.871	
11,500.00	7,060.80	7,005.80	7,060.80	132.34	242.85	-90.02	-515.36	-4,918.67	1,795.19	1,420.30	374.89	4.789	
11,600.00	7,060.52	7,005.52	7,060.52	135.10	242.84	-90.01	-515.36	-4,918.67	1,786.33	1,408.40	377.93	4.727	
11,700.00	7,060.23	7,005.23	7,060.23	137.87	242.83	-90.00	-515.36	-4,918.67	1,783.04	1,402.45	380.60	4.685	
11,708.68	7,060.21	7,005.21	7,060.21	138.11	242.83	-90.00	-515.36	-4,918.67	1,783.02	1,402.21	380.81	4.682 CC, ES	
11,800.00	7,059.95	7,004.95	7,059.95	140.64	242.82	-89.99	-515.36	-4,918.67	1,785.36	1,402.50	382.86	4.663	
11,900.00	7,059.66	7,004.66	7,059.66	143.42	242.81	-89.98	-515.36	-4,918.67	1,793.26	1,408.55	384.71	4.661 SF	
12,000.00	7,059.38	7,004.38	7,059.38	146.20	242.80	-89.97	-515.36	-4,918.67	1,806.66	1,420.53	386.13	4.679	
12,100.00	7,059.09	7,004.09	7,059.09	148.98	242.79	-89.96	-515.36	-4,918.67	1,825.46	1,438.33	387.13	4.715	
12,200.00	7,058.81	7,003.81	7,058.81	151.77	242.78	-89.96	-515.36	-4,918.67	1,849.48	1,461.76	387.72	4.770	
12,300.00	7,058.52	7,003.52	7,058.52	154.55	242.77	-89.95	-515.36	-4,918.67	1,878.52	1,490.59	387.93	4.842	
12,400.00	7,058.24	7,003.24	7,058.24	157.34	242.76	-89.94	-515.36	-4,918.67	1,912.35	1,524.56	387.79	4.931	
12,500.00	7,057.96	7,002.96	7,057.96	160.14	242.75	-89.93	-515.36	-4,918.67	1,950.73	1,563.39	387.34	5.036	
12,600.00	7,057.67	7,002.67	7,057.67	162.93	242.74	-89.92	-515.36	-4,918.67	1,993.39	1,606.78	386.62	5.156	
12,700.00	7,057.39	7,002.39	7,057.39	165.73	242.73	-89.91	-515.36	-4,918.67	2,040.07	1,654.41	385.66	5.290	
12,800.00	7,057.10	7,002.10	7,057.10	168.53	242.72	-89.90	-515.36	-4,918.67	2,090.49	1,705.98	384.51	5.437	
12,900.00	7,056.82	7,001.82	7,056.82	171.33	242.71	-89.89	-515.36	-4,918.67	2,144.39	1,761.19	383.20	5.596	
13,000.00	7,056.53	7,001.53	7,056.53	174.13	242.70	-89.88	-515.36	-4,918.67	2,201.52	1,819.76	381.76	5.767	
13,100.00	7,056.25	7,001.25	7,056.25	176.94	242.69	-89.87	-515.36	-4,918.67	2,261.62	1,881.39	380.23	5.948	
13,200.00	7,055.96	7,000.96	7,055.96	179.74	242.68	-89.86	-515.36	-4,918.67	2,324.48	1,945.85	378.63	6.139	
13,300.00	7,055.68	7,000.68	7,055.68	182.55	242.67	-89.85	-515.36	-4,918.67	2,389.87	2,012.88	376.98	6.339	
13,400.00	7,055.39	7,000.39	7,055.39	185.36	242.66	-89.85	-515.36	-4,918.67	2,457.58	2,082.27	375.31	6.548	
13,500.00	7,055.11	7,000.11	7,055.11	188.17	242.65	-89.84	-515.36	-4,918.67	2,527.45	2,153.81	373.63	6.765	
13,600.00	7,054.82	7,000.18	7,054.82	190.98	242.65	-89.83	-515.36	-4,918.67	2,599.28	2,227.31	371.96	6.988	
13,700.00	7,054.54	7,000.46	7,054.54	193.80	242.66	-89.82	-515.36	-4,918.67	2,672.92	2,302.60	370.32	7.218	
13,800.00	7,054.25	7,000.75	7,054.25	196.61	242.67	-89.81	-515.36	-4,918.67	2,748.23	2,379.54	368.69	7.454	
13,900.00	7,053.97	7,001.03	7,053.97	199.43	242.68	-89.80	-515.36	-4,918.67	2,825.07	2,457.97	367.10	7.696	
14,000.00	7,053.68	7,001.32	7,053.68	202.25	242.69	-89.79	-515.36	-4,918.67	2,903.32	2,537.79	365.54	7.943	
14,100.00	7,053.40	7,001.60	7,053.40	205.06	242.70	-89.78	-515.36	-4,918.67	2,982.88	2,618.86	364.01	8.194	
14,200.00	7,053.11	7,001.89	7,053.11	207.88	242.71	-89.77	-515.36	-4,918.67	3,063.63	2,701.09	362.53	8.451	
14,300.00	7,052.83	7,002.17	7,052.83	210.70	242.72	-89.76	-515.36	-4,918.67	3,145.48	2,784.39	361.09	8.711	
14,400.00	7,052.54	7,002.46	7,052.54	213.53	242.73	-89.75	-515.36	-4,918.67	3,228.36	2,868.67	359.70	8.975	
14,500.00	7,052.26	7,002.74	7,052.26	216.35	242.74	-89.74	-515.36	-4,918.67	3,312.19	2,953.84	358.35	9.243	
14,600.00	7,051.98	7,003.03	7,051.98	219.17	242.75	-89.74	-515.36	-4,918.67	3,396.89	3,039.85	357.04	9.514	
14,700.00	7,051.69	7,003.31	7,051.69	222.00	242.76	-89.73	-515.36	-4,918.67	3,482.40	3,126.62	355.78	9.788	
14,800.00	7,051.41	7,003.59	7,051.41	224.82	242.77	-89.72	-515.36	-4,918.67	3,568.67	3,214.11	354.56	10.065	
14,900.00	7,051.12	7,003.88	7,051.12	227.65	242.78	-89.71	-515.36	-4,918.67	3,655.63	3,302.25	353.38	10.345	
14,942.37	7,051.00	7,004.00	7,051.00	228.85	242.79	-89.70	-515.36	-4,918.67	3,692.68	3,339.78	352.90	10.464	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	58.00	3.28	3.28	-112.83	-3,222.91	-7,656.43	8,307.31					
100.00	100.00	42.00	100.00	3.28	3.36	-112.83	-3,222.91	-7,656.43	8,307.10	8,300.46	6.65	1,250.005		
200.00	200.00	142.00	200.00	3.34	4.59	-112.83	-3,222.91	-7,656.43	8,307.10	8,299.18	7.93	1,047.868		
300.00	300.00	242.00	300.00	3.44	7.46	-112.83	-3,222.91	-7,656.43	8,307.10	8,296.20	10.91	761.621		
400.00	399.98	341.98	399.98	3.60	10.71	-105.53	-3,222.91	-7,656.43	8,307.57	8,293.26	14.31	580.509		
500.00	499.84	441.84	499.84	3.81	14.07	-105.54	-3,222.91	-7,656.43	8,308.97	8,291.10	17.87	464.909		
600.00	599.45	541.45	599.45	4.06	17.47	-105.55	-3,222.91	-7,656.43	8,311.32	8,289.80	21.51	386.325		
700.00	698.70	640.70	698.70	4.34	20.88	-105.57	-3,222.91	-7,656.43	8,314.61	8,289.41	25.20	329.914		
800.00	797.47	739.47	797.47	4.64	24.29	-105.59	-3,222.91	-7,656.43	8,318.86	8,289.94	28.92	287.656		
900.00	895.65	837.65	895.65	4.98	27.69	-105.64	-3,222.91	-7,656.43	8,324.04	8,291.39	32.65	254.921		
1,000.00	993.66	935.66	993.66	5.32	31.09	-105.77	-3,222.91	-7,656.43	8,329.52	8,293.11	36.41	228.766		
1,100.00	1,091.67	1,033.67	1,091.67	5.69	34.50	-105.90	-3,222.91	-7,656.43	8,335.04	8,294.85	40.19	207.387		
1,200.00	1,189.68	1,131.68	1,189.68	6.09	37.90	-106.03	-3,222.91	-7,656.43	8,340.60	8,296.61	43.99	189.606		
1,300.00	1,287.69	1,229.69	1,287.69	6.49	41.31	-106.15	-3,222.91	-7,656.43	8,346.21	8,298.40	47.80	174.599		
1,400.00	1,385.69	1,327.69	1,385.69	6.90	44.72	-106.28	-3,222.91	-7,656.43	8,351.86	8,300.23	51.63	161.772		
1,500.00	1,483.70	1,425.70	1,483.70	7.33	48.14	-106.41	-3,222.91	-7,656.43	8,357.55	8,302.09	55.46	150.689		
1,600.00	1,581.71	1,523.71	1,581.71	7.76	51.55	-106.54	-3,222.91	-7,656.43	8,363.28	8,303.98	59.31	141.020		
1,700.00	1,679.72	1,621.72	1,679.72	8.19	54.97	-106.67	-3,222.91	-7,656.43	8,369.06	8,305.91	63.16	132.515		
1,800.00	1,777.73	1,719.73	1,777.73	8.63	58.38	-106.79	-3,222.91	-7,656.43	8,374.89	8,307.87	67.01	124.976		
1,900.00	1,875.74	1,817.74	1,875.74	9.08	61.80	-106.92	-3,222.91	-7,656.43	8,380.75	8,309.88	70.87	118.251		
2,000.00	1,973.75	1,915.75	1,973.75	9.53	65.22	-107.05	-3,222.91	-7,656.43	8,386.66	8,311.92	74.74	112.214		
2,100.00	2,071.76	2,013.76	2,071.76	9.98	68.63	-107.18	-3,222.91	-7,656.43	8,392.61	8,314.00	78.61	106.767		
2,200.00	2,169.77	2,111.77	2,169.77	10.44	72.05	-107.30	-3,222.91	-7,656.43	8,398.60	8,316.12	82.48	101.828		
2,300.00	2,267.77	2,209.77	2,267.77	10.90	75.47	-107.43	-3,222.91	-7,656.43	8,404.64	8,318.29	86.35	97.328		
2,400.00	2,365.78	2,307.78	2,365.78	11.36	78.89	-107.56	-3,222.91	-7,656.43	8,410.72	8,320.49	90.23	93.214		
2,500.00	2,463.79	2,405.79	2,463.79	11.82	82.31	-107.68	-3,222.91	-7,656.43	8,416.84	8,322.73	94.11	89.436		
2,600.00	2,561.80	2,503.80	2,561.80	12.28	85.73	-107.81	-3,222.91	-7,656.43	8,423.00	8,325.01	97.99	85.957		
2,700.00	2,659.81	2,601.81	2,659.81	12.75	89.14	-107.94	-3,222.91	-7,656.43	8,429.21	8,327.34	101.87	82.742		
2,800.00	2,757.82	2,700.18	2,757.82	13.21	92.58	-108.06	-3,222.91	-7,656.43	8,435.46	8,329.69	105.77	79.752		
2,900.00	2,855.83	2,802.17	2,855.83	13.68	96.13	-108.19	-3,222.91	-7,656.43	8,441.75	8,331.95	109.80	76.886		
3,000.00	2,953.84	2,904.16	2,953.84	14.15	99.69	-108.31	-3,222.91	-7,656.43	8,448.08	8,334.26	113.82	74.223		
3,100.00	3,051.85	3,006.15	3,051.85	14.62	103.25	-108.44	-3,222.91	-7,656.43	8,454.45	8,336.61	117.85	71.740		
3,200.00	3,149.85	3,108.15	3,149.85	15.09	106.81	-108.56	-3,222.91	-7,656.43	8,460.87	8,338.99	121.88	69.422		
3,300.00	3,247.86	3,189.86	3,247.86	15.56	109.66	-108.69	-3,222.91	-7,656.43	8,467.33	8,342.13	125.20	67.632		
3,400.00	3,345.87	3,287.87	3,345.87	16.04	113.08	-108.81	-3,222.91	-7,656.43	8,473.83	8,344.74	129.09	65.644		
3,500.00	3,443.88	3,385.88	3,443.88	16.51	116.50	-108.94	-3,222.91	-7,656.43	8,480.37	8,347.39	132.98	63.772		
3,600.00	3,541.89	3,483.89	3,541.89	16.98	119.92	-109.06	-3,222.91	-7,656.43	8,486.95	8,350.08	136.87	62.007		
3,700.00	3,639.90	3,581.90	3,639.90	17.46	123.34	-109.19	-3,222.91	-7,656.43	8,493.57	8,352.81	140.76	60.340		
3,800.00	3,737.91	3,679.91	3,737.91	17.93	126.76	-109.31	-3,222.91	-7,656.43	8,500.24	8,355.58	144.66	58.762		
3,900.00	3,835.92	3,777.92	3,835.92	18.41	130.18	-109.44	-3,222.91	-7,656.43	8,506.94	8,358.39	148.55	57.267		
4,000.00	3,933.93	3,875.93	3,933.93	18.88	133.60	-109.56	-3,222.91	-7,656.43	8,513.69	8,361.25	152.44	55.848		
4,100.00	4,031.93	3,973.93	4,031.93	19.36	137.02	-109.68	-3,222.91	-7,656.43	8,520.48	8,364.14	156.34	54.500		
4,200.00	4,129.94	4,071.94	4,129.94	19.84	140.44	-109.81	-3,222.91	-7,656.43	8,527.31	8,367.07	160.23	53.218		
4,300.00	4,227.95	4,169.95	4,227.95	20.31	143.87	-109.93	-3,222.91	-7,656.43	8,534.17	8,370.05	164.13	51.997		
4,400.00	4,325.96	4,267.96	4,325.96	20.79	147.29	-110.05	-3,222.91	-7,656.43	8,541.08	8,373.06	168.02	50.833		
4,500.00	4,423.97	4,365.97	4,423.97	21.27	150.71	-110.18	-3,222.91	-7,656.43	8,548.03	8,376.12	171.92	49.721		
4,600.00	4,521.98	4,463.98	4,521.98	21.75	154.13	-110.30	-3,222.91	-7,656.43	8,555.03	8,379.21	175.81	48.659		
4,700.00	4,619.99	4,561.99	4,619.99	22.23	157.55	-110.42	-3,222.91	-7,656.43	8,562.06	8,382.35	179.71	47.643		
4,800.00	4,718.00	4,660.00	4,718.00	22.70	160.97	-110.54	-3,222.91	-7,656.43	8,569.13	8,385.52	183.61	46.671		
4,900.00	4,816.01	4,758.01	4,816.01	23.18	164.39	-110.67	-3,222.91	-7,656.43	8,576.24	8,388.74	187.50	45.739		
5,000.00	4,914.01	4,856.01	4,914.01	23.66	167.81	-110.79	-3,222.91	-7,656.43	8,583.39	8,391.99	191.40	44.845		
5,100.00	5,012.02	4,954.02	5,012.02	24.14	171.23	-110.91	-3,222.91	-7,656.43	8,590.58	8,395.28	195.30	43.987		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,052.03	5,110.03	24.62	174.65	-111.03	-3,222.91	-7,656.43	8,597.81	8,398.62	199.20	43.163		
5,300.00	5,208.04	5,150.04	5,208.04	25.10	178.07	-111.15	-3,222.91	-7,656.43	8,605.09	8,401.99	203.09	42.370		
5,400.00	5,306.05	5,248.05	5,306.05	25.58	181.49	-111.27	-3,222.91	-7,656.43	8,612.40	8,405.41	206.99	41.608		
5,500.00	5,404.06	5,346.06	5,404.06	26.06	184.91	-111.39	-3,222.91	-7,656.43	8,619.75	8,408.86	210.89	40.874		
5,600.00	5,502.07	5,444.07	5,502.07	26.54	188.34	-111.51	-3,222.91	-7,656.43	8,627.14	8,412.35	214.79	40.166		
5,700.00	5,600.08	5,542.08	5,600.08	27.02	191.76	-111.64	-3,222.91	-7,656.43	8,634.57	8,415.88	218.68	39.484		
5,800.00	5,698.09	5,640.09	5,698.09	27.50	195.18	-111.76	-3,222.91	-7,656.43	8,642.03	8,419.45	222.58	38.826		
5,900.00	5,796.09	5,738.09	5,796.09	27.98	198.60	-111.88	-3,222.91	-7,656.43	8,649.54	8,423.06	226.48	38.191		
6,000.00	5,894.10	5,836.10	5,894.10	28.46	202.02	-112.00	-3,222.91	-7,656.43	8,657.09	8,426.71	230.38	37.578		
6,100.00	5,992.11	5,934.11	5,992.11	28.94	205.44	-112.11	-3,222.91	-7,656.43	8,664.67	8,430.40	234.28	36.985		
6,200.00	6,090.12	6,032.12	6,090.12	29.42	208.86	-112.23	-3,222.91	-7,656.43	8,672.30	8,434.12	238.18	36.411		
6,300.00	6,188.13	6,130.13	6,188.13	29.90	212.28	-112.35	-3,222.91	-7,656.43	8,679.96	8,437.89	242.07	35.857		
6,400.00	6,286.14	6,228.14	6,286.14	30.38	215.70	-112.47	-3,222.91	-7,656.43	8,687.66	8,441.69	245.97	35.320		
6,500.00	6,384.15	6,326.15	6,384.15	30.87	219.13	-112.59	-3,222.91	-7,656.43	8,695.40	8,445.53	249.87	34.800		
6,600.00	6,482.15	6,424.15	6,482.15	31.35	222.55	-104.16	-3,222.91	-7,656.43	8,702.91	8,449.14	253.77	34.295		
6,700.00	6,579.21	6,521.21	6,579.21	31.83	225.93	-73.36	-3,222.91	-7,656.43	8,701.21	8,443.57	257.64	33.773		
6,800.00	6,673.04	6,615.04	6,673.04	32.30	229.21	-59.68	-3,222.91	-7,656.43	8,686.01	8,424.62	261.39	33.229		
6,900.00	6,761.33	6,703.33	6,761.33	32.74	232.29	-53.98	-3,222.91	-7,656.43	8,657.77	8,392.83	264.95	32.677		
7,000.00	6,841.90	6,783.90	6,841.90	33.17	235.10	-52.30	-3,222.91	-7,656.43	8,617.27	8,349.04	268.23	32.127		
7,100.00	6,912.77	6,854.77	6,912.77	33.60	237.58	-53.28	-3,222.91	-7,656.43	8,565.57	8,294.40	271.17	31.587		
7,200.00	6,972.19	6,914.19	6,972.19	34.09	239.65	-56.55	-3,222.91	-7,656.43	8,504.03	8,230.29	273.73	31.067		
7,300.00	7,018.70	6,960.70	7,018.70	34.73	241.28	-62.19	-3,222.91	-7,656.43	8,434.21	8,158.33	275.87	30.573		
7,400.00	7,051.15	7,006.85	7,051.15	35.55	242.89	-70.47	-3,222.91	-7,656.43	8,357.87	8,079.83	278.03	30.061		
7,500.00	7,068.75	7,010.75	7,068.75	36.56	243.02	-81.53	-3,222.91	-7,656.43	8,276.91	7,998.16	278.75	29.693		
7,600.00	7,071.91	7,013.91	7,071.91	37.71	243.13	-90.25	-3,222.91	-7,656.43	8,193.39	7,913.92	279.47	29.317		
7,700.00	7,071.62	7,013.62	7,071.62	39.03	243.12	-90.25	-3,222.91	-7,656.43	8,109.77	7,829.64	280.13	28.950		
7,800.00	7,071.34	7,013.34	7,071.34	40.51	243.11	-90.24	-3,222.91	-7,656.43	8,026.52	7,745.65	280.87	28.578		
7,900.00	7,071.05	7,013.05	7,071.05	42.14	243.10	-90.24	-3,222.91	-7,656.43	7,943.66	7,661.98	281.68	28.201		
8,000.00	7,070.77	7,012.77	7,070.77	43.89	243.09	-90.24	-3,222.91	-7,656.43	7,861.19	7,578.63	282.56	27.821		
8,100.00	7,070.48	7,012.48	7,070.48	45.76	243.08	-90.23	-3,222.91	-7,656.43	7,779.14	7,495.61	283.53	27.437		
8,200.00	7,070.20	7,012.20	7,070.20	47.72	243.07	-90.23	-3,222.91	-7,656.43	7,697.51	7,412.94	284.57	27.050		
8,300.00	7,069.92	7,011.92	7,069.92	49.78	243.06	-90.23	-3,222.91	-7,656.43	7,616.32	7,330.64	285.68	26.660		
8,400.00	7,069.63	7,011.63	7,069.63	51.90	243.05	-90.22	-3,222.91	-7,656.43	7,535.58	7,248.71	286.87	26.268		
8,500.00	7,069.35	7,011.35	7,069.35	54.10	243.04	-90.22	-3,222.91	-7,656.43	7,455.31	7,167.17	288.14	25.874		
8,600.00	7,069.06	7,011.06	7,069.06	56.36	243.03	-90.21	-3,222.91	-7,656.43	7,375.52	7,086.05	289.47	25.479		
8,700.00	7,068.78	7,010.78	7,068.78	58.66	243.02	-90.21	-3,222.91	-7,656.43	7,296.23	7,005.34	290.89	25.083		
8,800.00	7,068.49	7,010.49	7,068.49	61.02	243.01	-90.21	-3,222.91	-7,656.43	7,217.45	6,925.08	292.37	24.686		
8,900.00	7,068.21	7,010.21	7,068.21	63.42	243.00	-90.20	-3,222.91	-7,656.43	7,139.21	6,845.28	293.92	24.289		
9,000.00	7,067.92	7,009.92	7,067.92	65.85	242.99	-90.20	-3,222.91	-7,656.43	7,061.51	6,765.96	295.55	23.893		
9,100.00	7,067.64	7,009.64	7,067.64	68.32	242.98	-90.20	-3,222.91	-7,656.43	6,984.38	6,687.14	297.25	23.497		
9,200.00	7,067.35	7,009.35	7,067.35	70.81	242.97	-90.19	-3,222.91	-7,656.43	6,907.84	6,608.83	299.01	23.102		
9,300.00	7,067.07	7,009.07	7,067.07	73.34	242.96	-90.19	-3,222.91	-7,656.43	6,831.90	6,531.06	300.85	22.709		
9,400.00	7,066.78	7,008.78	7,066.78	75.88	242.95	-90.18	-3,222.91	-7,656.43	6,756.60	6,453.84	302.75	22.317		
9,500.00	7,066.50	7,008.50	7,066.50	78.45	242.94	-90.18	-3,222.91	-7,656.43	6,681.93	6,377.21	304.72	21.928		
9,600.00	7,066.21	7,008.21	7,066.21	81.04	242.93	-90.18	-3,222.91	-7,656.43	6,607.94	6,301.18	306.76	21.541		
9,700.00	7,065.93	7,007.93	7,065.93	83.64	242.92	-90.17	-3,222.91	-7,656.43	6,534.64	6,225.77	308.87	21.157		
9,800.00	7,065.64	7,007.64	7,065.64	86.26	242.91	-90.17	-3,222.91	-7,656.43	6,462.06	6,151.02	311.04	20.775		
9,900.00	7,065.36	7,007.36	7,065.36	88.90	242.90	-90.17	-3,222.91	-7,656.43	6,390.22	6,076.93	313.28	20.398		
10,000.00	7,065.07	7,007.07	7,065.07	91.55	242.89	-90.16	-3,222.91	-7,656.43	6,319.14	6,003.55	315.59	20.023		
10,100.00	7,064.79	7,006.79	7,064.79	94.21	242.88	-90.16	-3,222.91	-7,656.43	6,248.86	5,930.89	317.96	19.653		
10,200.00	7,064.50	7,006.50	7,064.50	96.88	242.87	-90.16	-3,222.91	-7,656.43	6,179.39	5,858.99	320.40	19.287		
10,300.00	7,064.22	7,006.22	7,064.22	99.57	242.86	-90.15	-3,222.91	-7,656.43	6,110.77	5,787.87	322.90	18.925		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	7,005.94	7,063.94	102.26	242.85	-90.15	-3,222.91	-7,656.43	6,043.03	5,717.56	325.47	18.567		
10,500.00	7,063.65	7,005.65	7,063.65	104.96	242.84	-90.14	-3,222.91	-7,656.43	5,976.19	5,648.09	328.10	18.215		
10,600.00	7,063.37	7,005.37	7,063.37	107.67	242.83	-90.14	-3,222.91	-7,656.43	5,910.29	5,579.50	330.79	17.867		
10,700.00	7,063.08	7,005.08	7,063.08	110.39	242.82	-90.14	-3,222.91	-7,656.43	5,845.35	5,511.81	333.54	17.525		
10,800.00	7,062.80	7,004.80	7,062.80	113.11	242.81	-90.13	-3,222.91	-7,656.43	5,781.42	5,445.06	336.36	17.188		
10,900.00	7,062.51	7,004.51	7,062.51	115.84	242.80	-90.13	-3,222.91	-7,656.43	5,718.52	5,379.28	339.24	16.857		
11,000.00	7,062.23	7,004.23	7,062.23	118.58	242.79	-90.13	-3,222.91	-7,656.43	5,656.69	5,314.51	342.18	16.531		
11,100.00	7,061.94	7,003.94	7,061.94	121.32	242.78	-90.12	-3,222.91	-7,656.43	5,595.96	5,250.79	345.17	16.212		
11,200.00	7,061.66	7,003.66	7,061.66	124.07	242.77	-90.12	-3,222.91	-7,656.43	5,536.37	5,188.15	348.23	15.899		
11,300.00	7,061.37	7,003.37	7,061.37	126.82	242.76	-90.12	-3,222.91	-7,656.43	5,477.96	5,126.63	351.34	15.592		
11,400.00	7,061.09	7,003.09	7,061.09	129.58	242.75	-90.11	-3,222.91	-7,656.43	5,420.77	5,066.27	354.50	15.291		
11,500.00	7,060.80	7,002.80	7,060.80	132.34	242.74	-90.11	-3,222.91	-7,656.43	5,364.83	5,007.12	357.72	14.997		
11,600.00	7,060.52	7,002.52	7,060.52	135.10	242.74	-90.10	-3,222.91	-7,656.43	5,310.19	4,949.20	360.98	14.710		
11,700.00	7,060.23	7,002.23	7,060.23	137.87	242.73	-90.10	-3,222.91	-7,656.43	5,256.87	4,892.58	364.30	14.430		
11,800.00	7,059.95	7,001.95	7,059.95	140.64	242.72	-90.10	-3,222.91	-7,656.43	5,204.94	4,837.28	367.65	14.157		
11,900.00	7,059.66	7,001.66	7,059.66	143.42	242.71	-90.09	-3,222.91	-7,656.43	5,154.42	4,783.36	371.06	13.891		
12,000.00	7,059.38	7,001.38	7,059.38	146.20	242.70	-90.09	-3,222.91	-7,656.43	5,105.36	4,730.86	374.50	13.633		
12,100.00	7,059.09	7,001.09	7,059.09	148.98	242.69	-90.09	-3,222.91	-7,656.43	5,057.80	4,679.83	377.97	13.381		
12,200.00	7,058.81	7,000.81	7,058.81	151.77	242.68	-90.08	-3,222.91	-7,656.43	5,011.79	4,630.31	381.48	13.138		
12,300.00	7,058.52	7,000.52	7,058.52	154.55	242.67	-90.08	-3,222.91	-7,656.43	4,967.36	4,582.34	385.02	12.902		
12,400.00	7,058.24	7,000.24	7,058.24	157.34	242.66	-90.08	-3,222.91	-7,656.43	4,924.56	4,535.99	388.57	12.673		
12,500.00	7,057.96	7,000.05	7,057.96	160.14	242.65	-90.07	-3,222.91	-7,656.43	4,883.44	4,491.28	392.16	12.453		
12,600.00	7,057.67	7,000.33	7,057.67	162.93	242.66	-90.07	-3,222.91	-7,656.43	4,844.03	4,448.26	395.77	12.240		
12,700.00	7,057.39	7,000.61	7,057.39	165.73	242.67	-90.06	-3,222.91	-7,656.43	4,806.38	4,406.99	399.39	12.034		
12,800.00	7,057.10	7,000.90	7,057.10	168.53	242.68	-90.06	-3,222.91	-7,656.43	4,770.53	4,367.51	403.01	11.837		
12,900.00	7,056.82	7,001.18	7,056.82	171.33	242.69	-90.06	-3,222.91	-7,656.43	4,736.52	4,329.88	406.64	11.648		
13,000.00	7,056.53	7,001.47	7,056.53	174.13	242.70	-90.05	-3,222.91	-7,656.43	4,704.39	4,294.14	410.25	11.467		
13,100.00	7,056.25	7,001.75	7,056.25	176.94	242.71	-90.05	-3,222.91	-7,656.43	4,674.17	4,260.32	413.85	11.294		
13,200.00	7,055.96	7,002.04	7,055.96	179.74	242.72	-90.05	-3,222.91	-7,656.43	4,645.92	4,228.49	417.43	11.130		
13,300.00	7,055.68	7,002.32	7,055.68	182.55	242.73	-90.04	-3,222.91	-7,656.43	4,619.65	4,198.67	420.98	10.974		
13,400.00	7,055.39	7,002.61	7,055.39	185.36	242.74	-90.04	-3,222.91	-7,656.43	4,595.42	4,170.92	424.50	10.826		
13,500.00	7,055.11	7,002.89	7,055.11	188.17	242.75	-90.04	-3,222.91	-7,656.43	4,573.24	4,145.27	427.97	10.686		
13,600.00	7,054.82	7,003.18	7,054.82	190.98	242.76	-90.03	-3,222.91	-7,656.43	4,553.15	4,121.75	431.40	10.554		
13,700.00	7,054.54	7,003.46	7,054.54	193.80	242.77	-90.03	-3,222.91	-7,656.43	4,535.18	4,100.40	434.78	10.431		
13,800.00	7,054.25	7,003.75	7,054.25	196.61	242.78	-90.02	-3,222.91	-7,656.43	4,519.35	4,081.25	438.09	10.316		
13,900.00	7,053.97	7,004.03	7,053.97	199.43	242.79	-90.02	-3,222.91	-7,656.43	4,505.68	4,064.34	441.34	10.209		
14,000.00	7,053.68	7,004.32	7,053.68	202.25	242.80	-90.02	-3,222.91	-7,656.43	4,494.19	4,049.69	444.51	10.110		
14,100.00	7,053.40	7,004.60	7,053.40	205.06	242.81	-90.01	-3,222.91	-7,656.43	4,484.91	4,037.31	447.60	10.020		
14,200.00	7,053.11	7,004.89	7,053.11	207.88	242.82	-90.01	-3,222.91	-7,656.43	4,477.84	4,027.24	450.61	9.937		
14,300.00	7,052.83	7,005.17	7,052.83	210.70	242.83	-90.01	-3,222.91	-7,656.43	4,473.00	4,019.48	453.52	9.863		
14,400.00	7,052.54	7,005.46	7,052.54	213.53	242.84	-90.00	-3,222.91	-7,656.43	4,470.39	4,014.05	456.34	9.796		
14,466.74	7,052.35	7,005.65	7,052.35	215.41	242.84	-90.00	-3,222.91	-7,656.43	4,469.89	4,011.72	458.17	9.756 CC		
14,500.00	7,052.26	7,005.74	7,052.26	216.35	242.85	-90.00	-3,222.91	-7,656.43	4,470.02	4,010.95	459.06	9.737		
14,600.00	7,051.98	7,006.03	7,051.98	219.17	242.86	-90.00	-3,222.91	-7,656.43	4,471.88	4,010.20	461.68	9.686 ES		
14,700.00	7,051.69	7,006.31	7,051.69	222.00	242.87	-89.99	-3,222.91	-7,656.43	4,475.98	4,011.79	464.18	9.643		
14,800.00	7,051.41	7,006.59	7,051.41	224.82	242.88	-89.99	-3,222.91	-7,656.43	4,482.30	4,015.73	466.57	9.607		
14,900.00	7,051.12	7,006.88	7,051.12	227.65	242.89	-89.98	-3,222.91	-7,656.43	4,490.84	4,021.99	468.85	9.578		
14,942.37	7,051.00	7,007.00	7,051.00	228.85	242.89	-89.98	-3,222.91	-7,656.43	4,495.13	4,025.35	469.78	9.569 SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	45.00	3.28	3.28	-104.87	-1,731.04	-6,520.81	6,746.81					
100.00	100.00	55.00	100.00	3.28	3.42	-104.87	-1,731.04	-6,520.81	6,746.66	6,739.96	6.70	1,006.614		
200.00	200.00	155.00	200.00	3.34	4.92	-104.87	-1,731.04	-6,520.81	6,746.66	6,738.41	8.26	817.199		
300.00	300.00	255.00	300.00	3.44	7.87	-104.87	-1,731.04	-6,520.81	6,746.66	6,735.34	11.32	596.137		
400.00	399.98	354.98	399.98	3.60	11.14	-97.57	-1,731.04	-6,520.81	6,746.89	6,732.15	14.74	457.613		
500.00	499.84	454.84	499.84	3.81	14.51	-97.61	-1,731.04	-6,520.81	6,747.58	6,729.27	18.31	368.446		
600.00	599.45	554.45	599.45	4.06	17.91	-97.66	-1,731.04	-6,520.81	6,748.75	6,726.79	21.96	307.334		
700.00	698.70	653.70	698.70	4.34	21.33	-97.72	-1,731.04	-6,520.81	6,750.39	6,724.74	25.65	263.179		
800.00	797.47	752.47	797.47	4.64	24.74	-97.81	-1,731.04	-6,520.81	6,752.53	6,723.16	29.37	229.932		
900.00	895.65	850.65	895.65	4.98	28.14	-97.93	-1,731.04	-6,520.81	6,755.17	6,722.07	33.10	204.072		
1,000.00	993.66	948.66	993.66	5.32	31.54	-98.09	-1,731.04	-6,520.81	6,757.99	6,721.13	36.86	183.340		
1,100.00	1,091.67	1,046.67	1,091.67	5.69	34.95	-98.26	-1,731.04	-6,520.81	6,760.87	6,720.23	40.64	166.354		
1,200.00	1,189.68	1,144.68	1,189.68	6.09	38.36	-98.42	-1,731.04	-6,520.81	6,763.81	6,719.37	44.44	152.198		
1,300.00	1,287.69	1,242.69	1,287.69	6.49	41.77	-98.58	-1,731.04	-6,520.81	6,766.80	6,718.55	48.26	140.230		
1,400.00	1,385.69	1,340.69	1,385.69	6.90	45.18	-98.75	-1,731.04	-6,520.81	6,769.85	6,717.77	52.08	129.986		
1,500.00	1,483.70	1,438.70	1,483.70	7.33	48.59	-98.91	-1,731.04	-6,520.81	6,772.96	6,717.05	55.92	121.125		
1,600.00	1,581.71	1,536.71	1,581.71	7.76	52.00	-99.07	-1,731.04	-6,520.81	6,776.13	6,716.37	59.76	113.386		
1,700.00	1,679.72	1,634.72	1,679.72	8.19	55.42	-99.24	-1,731.04	-6,520.81	6,779.35	6,715.74	63.61	106.572		
1,800.00	1,777.73	1,732.73	1,777.73	8.63	58.84	-99.40	-1,731.04	-6,520.81	6,782.63	6,715.16	67.47	100.528		
1,900.00	1,875.74	1,830.74	1,875.74	9.08	62.25	-99.56	-1,731.04	-6,520.81	6,785.96	6,714.63	71.33	95.132		
2,000.00	1,973.75	1,928.75	1,973.75	9.53	65.67	-99.72	-1,731.04	-6,520.81	6,789.35	6,714.15	75.20	90.286		
2,100.00	2,071.76	2,026.76	2,071.76	9.98	69.09	-99.88	-1,731.04	-6,520.81	6,792.80	6,713.73	79.07	85.911		
2,200.00	2,169.77	2,124.77	2,169.77	10.44	72.50	-100.05	-1,731.04	-6,520.81	6,796.30	6,713.36	82.94	81.941		
2,300.00	2,267.77	2,222.77	2,267.77	10.90	75.92	-100.21	-1,731.04	-6,520.81	6,799.86	6,713.05	86.82	78.324		
2,400.00	2,365.78	2,320.78	2,365.78	11.36	79.34	-100.37	-1,731.04	-6,520.81	6,803.48	6,712.78	90.70	75.015		
2,500.00	2,463.79	2,418.79	2,463.79	11.82	82.76	-100.53	-1,731.04	-6,520.81	6,807.15	6,712.57	94.58	71.976		
2,600.00	2,561.80	2,516.80	2,561.80	12.28	86.18	-100.69	-1,731.04	-6,520.81	6,810.88	6,712.42	98.46	69.176		
2,700.00	2,659.81	2,614.81	2,659.81	12.75	89.60	-100.85	-1,731.04	-6,520.81	6,814.66	6,712.32	102.34	66.587		
2,800.00	2,757.82	2,712.82	2,757.82	13.21	93.02	-101.01	-1,731.04	-6,520.81	6,818.50	6,712.27	106.23	64.188		
2,900.00	2,855.83	2,810.83	2,855.83	13.68	96.44	-101.17	-1,731.04	-6,520.81	6,822.39	6,712.28	110.11	61.958		
3,000.00	2,953.84	2,908.84	2,953.84	14.15	99.86	-101.33	-1,731.04	-6,520.81	6,826.34	6,712.34	114.00	59.879		
3,100.00	3,051.85	3,006.85	3,051.85	14.62	103.28	-101.49	-1,731.04	-6,520.81	6,830.35	6,712.46	117.89	57.938		
3,200.00	3,149.85	3,104.85	3,149.85	15.09	106.70	-101.65	-1,731.04	-6,520.81	6,834.41	6,712.63	121.78	56.121		
3,300.00	3,247.86	3,202.86	3,247.86	15.56	110.12	-101.81	-1,731.04	-6,520.81	6,838.53	6,712.86	125.67	54.416		
3,400.00	3,345.87	3,300.87	3,345.87	16.04	113.54	-101.97	-1,731.04	-6,520.81	6,842.70	6,713.14	129.56	52.813		
3,500.00	3,443.88	3,401.12	3,443.88	16.51	117.03	-102.13	-1,731.04	-6,520.81	6,846.93	6,713.39	133.53	51.275		
3,600.00	3,541.89	3,503.11	3,541.89	16.98	120.59	-102.29	-1,731.04	-6,520.81	6,851.21	6,713.64	137.57	49.803		
3,700.00	3,639.90	3,605.10	3,639.90	17.46	124.15	-102.45	-1,731.04	-6,520.81	6,855.54	6,713.94	141.60	48.415		
3,800.00	3,737.91	3,707.09	3,737.91	17.93	127.71	-102.61	-1,731.04	-6,520.81	6,859.93	6,714.30	145.63	47.105		
3,900.00	3,835.92	3,809.08	3,835.92	18.41	131.27	-102.77	-1,731.04	-6,520.81	6,864.38	6,714.71	149.67	45.865		
4,000.00	3,933.93	3,888.93	3,933.93	18.88	134.06	-102.93	-1,731.04	-6,520.81	6,868.88	6,715.95	152.93	44.916		
4,100.00	4,031.93	3,986.93	4,031.93	19.36	137.48	-103.08	-1,731.04	-6,520.81	6,873.43	6,716.61	156.82	43.829		
4,200.00	4,129.94	4,084.94	4,129.94	19.84	140.90	-103.24	-1,731.04	-6,520.81	6,878.04	6,717.32	160.72	42.796		
4,300.00	4,227.95	4,182.95	4,227.95	20.31	144.32	-103.40	-1,731.04	-6,520.81	6,882.71	6,718.09	164.62	41.811		
4,400.00	4,325.96	4,280.96	4,325.96	20.79	147.74	-103.56	-1,731.04	-6,520.81	6,887.42	6,718.91	168.51	40.872		
4,500.00	4,423.97	4,378.97	4,423.97	21.27	151.16	-103.72	-1,731.04	-6,520.81	6,892.19	6,719.79	172.41	39.976		
4,600.00	4,521.98	4,476.98	4,521.98	21.75	154.58	-103.87	-1,731.04	-6,520.81	6,897.02	6,720.71	176.31	39.120		
4,700.00	4,619.99	4,574.99	4,619.99	22.23	158.00	-104.03	-1,731.04	-6,520.81	6,901.90	6,721.69	180.20	38.301		
4,800.00	4,718.00	4,673.00	4,718.00	22.70	161.42	-104.19	-1,731.04	-6,520.81	6,906.83	6,722.73	184.10	37.516		
4,900.00	4,816.01	4,771.01	4,816.01	23.18	164.84	-104.34	-1,731.04	-6,520.81	6,911.82	6,723.82	188.00	36.765		
5,000.00	4,914.01	4,869.01	4,914.01	23.66	168.26	-104.50	-1,731.04	-6,520.81	6,916.86	6,724.96	191.90	36.044		
5,100.00	5,012.02	4,967.02	5,012.02	24.14	171.68	-104.66	-1,731.04	-6,520.81	6,921.95	6,726.15	195.80	35.353		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - STATE-HOPPE 16-2(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 100-2" Cone@2.448 Sigma													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,200.00	5,110.03	5,065.03	5,110.03	24.62	175.11	-104.81	-1,731.04	-6,520.81	6,927.09	6,727.40	199.69	34.688		
5,300.00	5,208.04	5,163.04	5,208.04	25.10	178.53	-104.97	-1,731.04	-6,520.81	6,932.29	6,728.70	203.59	34.050		
5,400.00	5,306.05	5,261.05	5,306.05	25.58	181.95	-105.12	-1,731.04	-6,520.81	6,937.55	6,730.05	207.49	33.435		
5,500.00	5,404.06	5,359.06	5,404.06	26.06	185.37	-105.28	-1,731.04	-6,520.81	6,942.85	6,731.46	211.39	32.844		
5,600.00	5,502.07	5,457.07	5,502.07	26.54	188.79	-105.43	-1,731.04	-6,520.81	6,948.21	6,732.92	215.29	32.274		
5,700.00	5,600.08	5,555.08	5,600.08	27.02	192.21	-105.59	-1,731.04	-6,520.81	6,953.62	6,734.43	219.19	31.724		
5,800.00	5,698.09	5,653.09	5,698.09	27.50	195.63	-105.74	-1,731.04	-6,520.81	6,959.08	6,735.99	223.09	31.194		
5,900.00	5,796.09	5,751.09	5,796.09	27.98	199.05	-105.90	-1,731.04	-6,520.81	6,964.59	6,737.61	226.99	30.683		
6,000.00	5,894.10	5,849.10	5,894.10	28.46	202.47	-106.05	-1,731.04	-6,520.81	6,970.16	6,739.27	230.89	30.189		
6,100.00	5,992.11	5,947.11	5,992.11	28.94	205.89	-106.21	-1,731.04	-6,520.81	6,975.78	6,740.99	234.79	29.711		
6,200.00	6,090.12	6,045.12	6,090.12	29.42	209.32	-106.36	-1,731.04	-6,520.81	6,981.45	6,742.76	238.69	29.249		
6,300.00	6,188.13	6,143.13	6,188.13	29.90	212.74	-106.51	-1,731.04	-6,520.81	6,987.17	6,744.59	242.59	28.803		
6,400.00	6,286.14	6,241.14	6,286.14	30.38	216.16	-106.67	-1,731.04	-6,520.81	6,992.95	6,746.46	246.49	28.371		
6,500.00	6,384.15	6,339.15	6,384.15	30.87	219.58	-106.82	-1,731.04	-6,520.81	6,998.77	6,748.39	250.39	27.952		
6,600.00	6,482.15	6,437.15	6,482.15	31.35	223.00	-98.44	-1,731.04	-6,520.81	7,004.37	6,750.08	254.29	27.545		
6,700.00	6,579.21	6,534.21	6,579.21	31.83	226.39	-67.75	-1,731.04	-6,520.81	7,000.29	6,742.13	258.16	27.116		
6,800.00	6,673.04	6,628.04	6,673.04	32.30	229.66	-54.11	-1,731.04	-6,520.81	6,982.08	6,720.17	261.91	26.658		
6,900.00	6,761.33	6,716.33	6,761.33	32.74	232.75	-48.39	-1,731.04	-6,520.81	6,950.25	6,684.80	265.45	26.183		
7,000.00	6,841.90	6,803.10	6,841.90	33.17	235.77	-46.65	-1,731.04	-6,520.81	6,905.68	6,636.75	268.93	25.678		
7,100.00	6,912.77	6,867.77	6,912.77	33.60	238.03	-47.58	-1,731.04	-6,520.81	6,849.51	6,577.88	271.63	25.216		
7,200.00	6,972.19	6,927.19	6,972.19	34.09	240.11	-50.92	-1,731.04	-6,520.81	6,783.20	6,509.05	274.15	24.743		
7,300.00	7,018.70	6,973.70	7,018.70	34.73	241.73	-56.94	-1,731.04	-6,520.81	6,708.42	6,432.19	276.23	24.286		
7,400.00	7,051.15	7,006.15	7,051.15	35.55	242.86	-66.28	-1,731.04	-6,520.81	6,627.04	6,349.21	277.83	23.853		
7,500.00	7,068.75	7,023.75	7,068.75	36.56	243.48	-79.50	-1,731.04	-6,520.81	6,541.08	6,262.15	278.93	23.451		
7,600.00	7,071.91	7,026.91	7,071.91	37.71	243.59	-90.31	-1,731.04	-6,520.81	6,452.68	6,173.15	279.53	23.084		
7,700.00	7,071.62	7,026.62	7,071.62	39.03	243.58	-90.31	-1,731.04	-6,520.81	6,364.21	6,084.14	280.06	22.724		
7,800.00	7,071.34	7,026.34	7,071.34	40.51	243.57	-90.30	-1,731.04	-6,520.81	6,276.08	5,995.42	280.66	22.362		
7,900.00	7,071.05	7,026.05	7,071.05	42.14	243.56	-90.30	-1,731.04	-6,520.81	6,188.31	5,906.99	281.32	21.997		
8,000.00	7,070.77	7,025.77	7,070.77	43.89	243.55	-90.29	-1,731.04	-6,520.81	6,100.92	5,818.86	282.06	21.630		
8,100.00	7,070.48	7,025.48	7,070.48	45.76	243.54	-90.29	-1,731.04	-6,520.81	6,013.92	5,731.06	282.86	21.261		
8,200.00	7,070.20	7,025.20	7,070.20	47.72	243.53	-90.28	-1,731.04	-6,520.81	5,927.33	5,643.60	283.73	20.891		
8,300.00	7,069.92	7,024.92	7,069.92	49.78	243.52	-90.27	-1,731.04	-6,520.81	5,841.17	5,556.49	284.68	20.518		
8,400.00	7,069.63	7,024.63	7,069.63	51.90	243.51	-90.27	-1,731.04	-6,520.81	5,755.46	5,469.76	285.70	20.145		
8,500.00	7,069.35	7,024.35	7,069.35	54.10	243.50	-90.26	-1,731.04	-6,520.81	5,670.22	5,383.41	286.80	19.770		
8,600.00	7,069.06	7,024.06	7,069.06	56.36	243.49	-90.26	-1,731.04	-6,520.81	5,585.46	5,297.48	287.98	19.395		
8,700.00	7,068.78	7,023.78	7,068.78	58.66	243.48	-90.25	-1,731.04	-6,520.81	5,501.22	5,211.98	289.24	19.020		
8,800.00	7,068.49	7,023.49	7,068.49	61.02	243.47	-90.25	-1,731.04	-6,520.81	5,417.51	5,126.93	290.58	18.644		
8,900.00	7,068.21	7,023.21	7,068.21	63.42	243.46	-90.24	-1,731.04	-6,520.81	5,334.36	5,042.37	292.00	18.269		
9,000.00	7,067.92	7,022.92	7,067.92	65.85	243.45	-90.24	-1,731.04	-6,520.81	5,251.81	4,958.31	293.50	17.894		
9,100.00	7,067.64	7,022.64	7,067.64	68.32	243.44	-90.23	-1,731.04	-6,520.81	5,169.86	4,874.78	295.09	17.520		
9,200.00	7,067.35	7,022.35	7,067.35	70.81	243.43	-90.23	-1,731.04	-6,520.81	5,088.57	4,791.81	296.76	17.147		
9,300.00	7,067.07	7,022.07	7,067.07	73.34	243.42	-90.22	-1,731.04	-6,520.81	5,007.95	4,709.43	298.52	16.776		
9,400.00	7,066.78	7,021.78	7,066.78	75.88	243.41	-90.21	-1,731.04	-6,520.81	4,928.04	4,627.67	300.37	16.407		
9,500.00	7,066.50	7,021.50	7,066.50	78.45	243.40	-90.21	-1,731.04	-6,520.81	4,848.87	4,546.57	302.31	16.040		
9,600.00	7,066.21	7,021.21	7,066.21	81.04	243.39	-90.20	-1,731.04	-6,520.81	4,770.49	4,466.16	304.33	15.675		
9,700.00	7,065.93	7,020.93	7,065.93	83.64	243.38	-90.20	-1,731.04	-6,520.81	4,692.93	4,386.48	306.45	15.314		
9,800.00	7,065.64	7,020.64	7,065.64	86.26	243.37	-90.19	-1,731.04	-6,520.81	4,616.24	4,307.57	308.66	14.956		
9,900.00	7,065.36	7,020.36	7,065.36	88.90	243.36	-90.19	-1,731.04	-6,520.81	4,540.45	4,229.48	310.97	14.601		
10,000.00	7,065.07	7,020.07	7,065.07	91.55	243.35	-90.18	-1,731.04	-6,520.81	4,465.61	4,152.25	313.36	14.251		
10,100.00	7,064.79	7,019.79	7,064.79	94.21	243.34	-90.18	-1,731.04	-6,520.81	4,391.78	4,075.92	315.86	13.904		
10,200.00	7,064.50	7,019.50	7,064.50	96.88	243.33	-90.17	-1,731.04	-6,520.81	4,318.99	4,000.55	318.45	13.563		
10,300.00	7,064.22	7,019.22	7,064.22	99.57	243.32	-90.16	-1,731.04	-6,520.81	4,247.32	3,926.19	321.13	13.226		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,063.94	7,018.94	7,063.94	102.26	243.31	-90.16	-1,731.04	-6,520.81	4,176.81	3,852.90	323.91	12.895		
10,500.00	7,063.65	7,018.65	7,063.65	104.96	243.30	-90.15	-1,731.04	-6,520.81	4,107.53	3,780.74	326.79	12.569		
10,600.00	7,063.37	7,018.37	7,063.37	107.67	243.29	-90.15	-1,731.04	-6,520.81	4,039.53	3,709.77	329.76	12.250		
10,700.00	7,063.08	7,018.08	7,063.08	110.39	243.28	-90.14	-1,731.04	-6,520.81	3,972.88	3,640.06	332.83	11.937		
10,800.00	7,062.80	7,017.80	7,062.80	113.11	243.27	-90.14	-1,731.04	-6,520.81	3,907.66	3,571.67	335.99	11.630		
10,900.00	7,062.51	7,017.51	7,062.51	115.84	243.26	-90.13	-1,731.04	-6,520.81	3,843.94	3,504.69	339.24	11.331		
11,000.00	7,062.23	7,017.23	7,062.23	118.58	243.25	-90.13	-1,731.04	-6,520.81	3,781.78	3,439.20	342.59	11.039		
11,100.00	7,061.94	7,016.94	7,061.94	121.32	243.24	-90.12	-1,731.04	-6,520.81	3,721.27	3,375.26	346.01	10.755		
11,200.00	7,061.66	7,016.66	7,061.66	124.07	243.23	-90.12	-1,731.04	-6,520.81	3,662.50	3,312.97	349.53	10.478		
11,300.00	7,061.37	7,016.37	7,061.37	126.82	243.22	-90.11	-1,731.04	-6,520.81	3,605.54	3,252.42	353.12	10.211		
11,400.00	7,061.09	7,016.09	7,061.09	129.58	243.21	-90.10	-1,731.04	-6,520.81	3,550.48	3,193.70	356.78	9.951		
11,500.00	7,060.80	7,015.80	7,060.80	132.34	243.20	-90.10	-1,731.04	-6,520.81	3,497.42	3,136.91	360.51	9.701		
11,600.00	7,060.52	7,015.52	7,060.52	135.10	243.19	-90.09	-1,731.04	-6,520.81	3,446.44	3,082.15	364.30	9.460		
11,700.00	7,060.23	7,015.23	7,060.23	137.87	243.18	-90.09	-1,731.04	-6,520.81	3,397.65	3,029.51	368.14	9.229		
11,800.00	7,059.95	7,014.95	7,059.95	140.64	243.17	-90.08	-1,731.04	-6,520.81	3,351.12	2,979.10	372.02	9.008		
11,900.00	7,059.66	7,014.66	7,059.66	143.42	243.16	-90.08	-1,731.04	-6,520.81	3,306.97	2,931.04	375.92	8.797		
12,000.00	7,059.38	7,014.38	7,059.38	146.20	243.15	-90.07	-1,731.04	-6,520.81	3,265.28	2,885.43	379.85	8.596		
12,100.00	7,059.09	7,014.09	7,059.09	148.98	243.14	-90.07	-1,731.04	-6,520.81	3,226.15	2,842.37	383.78	8.406		
12,200.00	7,058.81	7,013.81	7,058.81	151.77	243.13	-90.06	-1,731.04	-6,520.81	3,189.68	2,801.98	387.70	8.227		
12,300.00	7,058.52	7,013.52	7,058.52	154.55	243.12	-90.06	-1,731.04	-6,520.81	3,155.96	2,764.37	391.60	8.059		
12,400.00	7,058.24	7,013.24	7,058.24	157.34	243.11	-90.05	-1,731.04	-6,520.81	3,125.08	2,729.63	395.45	7.903		
12,500.00	7,057.96	7,012.96	7,057.96	160.14	243.10	-90.04	-1,731.04	-6,520.81	3,097.12	2,697.87	399.24	7.757		
12,600.00	7,057.67	7,012.67	7,057.67	162.93	243.09	-90.04	-1,731.04	-6,520.81	3,072.16	2,669.19	402.96	7.624		
12,700.00	7,057.39	7,012.39	7,057.39	165.73	243.08	-90.03	-1,731.04	-6,520.81	3,050.27	2,643.68	406.59	7.502		
12,800.00	7,057.10	7,012.10	7,057.10	168.53	243.07	-90.03	-1,731.04	-6,520.81	3,031.53	2,621.42	410.11	7.392		
12,900.00	7,056.82	7,011.82	7,056.82	171.33	243.06	-90.02	-1,731.04	-6,520.81	3,015.99	2,602.49	413.50	7.294		
13,000.00	7,056.53	7,011.53	7,056.53	174.13	243.05	-90.02	-1,731.04	-6,520.81	3,003.70	2,586.94	416.75	7.207		
13,100.00	7,056.25	7,011.25	7,056.25	176.94	243.04	-90.01	-1,731.04	-6,520.81	2,994.70	2,574.85	419.85	7.133		
13,200.00	7,055.96	7,010.96	7,055.96	179.74	243.03	-90.01	-1,731.04	-6,520.81	2,989.02	2,566.25	422.77	7.070		
13,300.00	7,055.68	7,010.68	7,055.68	182.55	243.02	-90.00	-1,731.04	-6,520.81	2,986.68	2,561.17	425.51	7.019		
13,319.93	7,055.62	7,010.62	7,055.62	183.11	243.02	-90.00	-1,731.04	-6,520.81	2,986.61	2,560.58	426.03	7.010 CC		
13,400.00	7,055.39	7,010.39	7,055.39	185.36	243.01	-90.00	-1,731.04	-6,520.81	2,987.69	2,559.64	428.05	6.980 ES		
13,500.00	7,055.11	7,010.11	7,055.11	188.17	243.00	-89.99	-1,731.04	-6,520.81	2,992.04	2,561.65	430.39	6.952		
13,600.00	7,054.82	7,009.82	7,054.82	190.98	242.99	-89.98	-1,731.04	-6,520.81	2,999.72	2,567.19	432.52	6.935		
13,700.00	7,054.54	7,009.54	7,054.54	193.80	242.98	-89.98	-1,731.04	-6,520.81	3,010.70	2,576.26	434.44	6.930 SF		
13,800.00	7,054.25	7,009.25	7,054.25	196.61	242.97	-89.97	-1,731.04	-6,520.81	3,024.95	2,588.80	436.15	6.936		
13,900.00	7,053.97	7,008.97	7,053.97	199.43	242.96	-89.97	-1,731.04	-6,520.81	3,042.42	2,604.79	437.64	6.952		
14,000.00	7,053.68	7,008.68	7,053.68	202.25	242.95	-89.96	-1,731.04	-6,520.81	3,063.06	2,624.15	438.91	6.979		
14,100.00	7,053.40	7,008.40	7,053.40	205.06	242.94	-89.96	-1,731.04	-6,520.81	3,086.81	2,646.82	439.98	7.016		
14,200.00	7,053.11	7,008.11	7,053.11	207.88	242.93	-89.95	-1,731.04	-6,520.81	3,113.58	2,672.73	440.85	7.063		
14,300.00	7,052.83	7,007.83	7,052.83	210.70	242.92	-89.95	-1,731.04	-6,520.81	3,143.31	2,701.79	441.52	7.119		
14,400.00	7,052.54	7,007.54	7,052.54	213.53	242.91	-89.94	-1,731.04	-6,520.81	3,175.91	2,733.91	442.00	7.185		
14,500.00	7,052.26	7,007.26	7,052.26	216.35	242.90	-89.94	-1,731.04	-6,520.81	3,211.30	2,768.98	442.31	7.260		
14,600.00	7,051.98	7,006.98	7,051.98	219.17	242.89	-89.93	-1,731.04	-6,520.81	3,249.37	2,806.92	442.45	7.344		
14,700.00	7,051.69	7,006.69	7,051.69	222.00	242.88	-89.92	-1,731.04	-6,520.81	3,290.05	2,847.61	442.44	7.436		
14,800.00	7,051.41	7,006.41	7,051.41	224.82	242.87	-89.92	-1,731.04	-6,520.81	3,333.24	2,890.95	442.28	7.536		
14,900.00	7,051.12	7,006.12	7,051.12	227.65	242.86	-89.91	-1,731.04	-6,520.81	3,378.83	2,936.84	441.99	7.645		
14,942.37	7,051.00	7,006.00	7,051.00	228.85	242.86	-89.91	-1,731.04	-6,520.81	3,398.85	2,957.02	441.83	7.693		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	40.00	3.28	3.28	-94.44	-594.45	-7,659.50	7,682.64					
100.00	100.00	100.00	126.91	3.28	3.29	-94.44	-594.16	-7,659.22	7,682.28	7,675.71	6.57	1,168.968		
200.00	200.00	181.83	221.82	3.34	3.33	-94.43	-593.56	-7,658.82	7,681.81	7,675.15	6.67	1,152.426		
280.40	280.40	240.41	280.40	3.42	3.38	-94.43	-593.18	-7,658.76	7,681.70	7,674.90	6.80	1,129.657		
300.00	300.00	254.77	294.77	3.44	3.40	-94.43	-593.11	-7,658.77	7,681.71	7,674.87	6.84	1,122.943		
400.00	399.98	329.46	369.46	3.60	3.49	-87.13	-592.91	-7,658.97	7,681.86	7,674.76	7.09	1,082.729		
500.00	499.84	409.33	449.33	3.81	3.62	-87.16	-592.97	-7,659.41	7,682.14	7,674.72	7.43	1,034.223		
600.00	599.45	517.93	557.92	4.06	3.84	-87.23	-593.24	-7,660.01	7,682.29	7,674.40	7.89	973.897		
700.00	698.70	606.35	646.34	4.34	4.05	-87.31	-593.86	-7,660.50	7,682.32	7,673.95	8.37	917.531		
800.00	797.47	693.65	733.63	4.64	4.28	-87.42	-594.73	-7,661.09	7,682.36	7,673.45	8.91	862.341		
900.00	895.65	792.86	832.83	4.98	4.57	-87.56	-595.74	-7,661.83	7,682.36	7,672.83	9.53	806.400		
1,000.00	993.66	895.53	935.49	5.32	4.89	-87.72	-596.76	-7,662.56	7,682.33	7,672.13	10.20	753.122		
1,100.00	1,091.67	998.99	1,038.95	5.69	5.22	-87.88	-597.65	-7,663.23	7,682.29	7,671.38	10.91	703.913		
1,200.00	1,189.68	1,099.85	1,139.80	6.09	5.56	-88.03	-598.23	-7,663.85	7,682.25	7,670.60	11.65	659.545		
1,235.64	1,224.61	1,133.70	1,173.65	6.23	5.68	-88.09	-598.36	-7,664.06	7,682.24	7,670.33	11.91	645.106		
1,300.00	1,287.69	1,194.82	1,234.77	6.49	5.90	-88.18	-598.58	-7,664.46	7,682.26	7,669.88	12.39	620.272		
1,400.00	1,385.69	1,307.15	1,347.10	6.90	6.30	-88.35	-598.87	-7,665.11	7,682.26	7,669.06	13.21	581.755		
1,431.42	1,416.49	1,333.54	1,373.49	7.04	6.40	-88.38	-598.93	-7,665.24	7,682.25	7,668.82	13.43	571.839		
1,500.00	1,483.70	1,394.49	1,434.44	7.33	6.63	-88.48	-599.12	-7,665.59	7,682.29	7,668.34	13.95	550.673		
1,600.00	1,581.71	1,492.59	1,532.54	7.76	6.99	-88.62	-599.50	-7,666.19	7,682.44	7,667.69	14.75	520.871		
1,700.00	1,679.72	1,584.30	1,624.25	8.19	7.34	-88.76	-599.84	-7,666.78	7,682.67	7,667.13	15.53	494.544		
1,800.00	1,777.73	1,689.08	1,729.02	8.63	7.75	-88.92	-600.06	-7,667.48	7,682.96	7,666.58	16.38	469.026		
1,900.00	1,875.74	1,785.24	1,825.18	9.08	8.12	-89.06	-600.16	-7,668.09	7,683.26	7,666.06	17.20	446.653		
2,000.00	1,973.75	1,885.68	1,925.62	9.53	8.52	-89.21	-600.35	-7,668.72	7,683.61	7,665.57	18.05	425.752		
2,100.00	2,071.76	1,976.63	2,016.56	9.98	8.88	-89.35	-600.56	-7,669.30	7,684.03	7,665.17	18.86	407.401		
2,200.00	2,169.77	2,112.36	2,152.29	10.44	9.43	-89.55	-600.66	-7,669.98	7,684.37	7,664.51	19.86	386.929		
2,300.00	2,267.77	2,211.85	2,251.78	10.90	9.83	-89.70	-600.95	-7,670.18	7,684.47	7,663.75	20.72	370.905		
2,400.00	2,365.78	2,324.66	2,364.59	11.36	10.28	-89.87	-601.64	-7,670.19	7,684.47	7,662.84	21.63	355.212		
2,426.97	2,392.22	2,349.79	2,389.72	11.48	10.38	-89.91	-601.79	-7,670.18	7,684.47	7,662.61	21.86	351.537		
2,500.00	2,463.79	2,419.34	2,459.27	11.82	10.67	-90.01	-602.14	-7,670.17	7,684.49	7,662.02	22.48	341.848		
2,600.00	2,561.80	2,527.91	2,567.84	12.28	11.11	-90.18	-602.59	-7,670.14	7,684.56	7,661.17	23.38	328.617		
2,700.00	2,659.81	2,658.94	2,698.86	12.75	11.64	-90.37	-602.87	-7,669.69	7,684.33	7,659.95	24.38	315.153		
2,800.00	2,757.82	2,763.21	2,803.13	13.21	12.07	-90.53	-602.75	-7,669.09	7,683.89	7,658.61	25.27	304.012		
2,900.00	2,855.83	2,833.50	2,873.42	13.68	12.35	-90.63	-602.45	-7,668.78	7,683.61	7,657.58	26.03	295.165		
2,901.90	2,857.68	2,834.54	2,874.46	13.69	12.36	-90.63	-602.44	-7,668.77	7,683.61	7,657.57	26.04	295.016		
3,000.00	2,953.84	2,900.01	2,939.93	14.15	12.63	-90.72	-601.91	-7,668.93	7,683.92	7,657.14	26.77	286.987		
3,100.00	3,051.85	2,946.87	2,986.78	14.62	12.82	-90.79	-601.41	-7,669.31	7,684.77	7,657.34	27.44	280.082		
3,200.00	3,149.85	3,009.93	3,049.84	15.09	13.08	-90.88	-600.68	-7,670.12	7,686.18	7,658.02	28.17	272.864		
3,300.00	3,247.86	3,100.14	3,140.03	15.56	13.46	-91.00	-599.45	-7,671.53	7,687.89	7,658.88	29.01	264.966		
3,400.00	3,345.87	3,156.01	3,195.88	16.04	13.69	-91.07	-598.59	-7,672.61	7,689.97	7,660.25	29.72	258.773		
3,500.00	3,443.88	3,215.92	3,255.76	16.51	13.94	-91.15	-597.58	-7,674.12	7,692.63	7,662.19	30.44	252.742		
3,600.00	3,541.89	3,290.46	3,330.26	16.98	14.25	-91.25	-596.19	-7,676.29	7,695.70	7,664.48	31.22	246.504		
3,700.00	3,639.90	3,393.75	3,433.47	17.46	14.68	-91.38	-593.91	-7,679.51	7,698.96	7,666.84	32.13	239.644		
3,800.00	3,737.91	3,526.17	3,565.79	17.93	15.24	-91.55	-590.32	-7,683.37	7,701.98	7,668.82	33.16	232.261		
3,900.00	3,835.92	3,637.22	3,676.76	18.41	15.71	-91.69	-587.44	-7,686.22	7,704.71	7,670.61	34.10	225.918		
4,000.00	3,933.93	3,734.62	3,774.11	18.88	16.12	-91.81	-585.28	-7,688.62	7,707.45	7,672.46	34.99	220.283		
4,100.00	4,031.93	3,834.63	3,874.08	19.36	16.54	-91.94	-583.30	-7,691.04	7,710.21	7,674.33	35.89	214.855		
4,200.00	4,129.94	3,933.02	3,972.42	19.84	16.95	-92.07	-581.57	-7,693.37	7,713.01	7,676.23	36.78	209.729		
4,300.00	4,227.95	4,041.18	4,080.54	20.31	17.41	-92.22	-580.08	-7,695.84	7,715.82	7,678.11	37.71	204.614		
4,400.00	4,325.96	4,147.35	4,186.68	20.79	17.85	-92.36	-578.48	-7,698.05	7,718.47	7,679.83	38.63	199.783		
4,500.00	4,423.97	4,241.79	4,281.08	21.27	18.25	-92.49	-577.31	-7,700.03	7,721.21	7,681.70	39.51	195.427		
4,600.00	4,521.98	4,343.52	4,382.79	21.75	18.68	-92.63	-576.30	-7,702.09	7,723.97	7,683.56	40.42	191.109		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
4,700.00	4,619.99	4,448.42	4,487.67	22.23	19.12	-92.78	-575.66	-7,704.11	7,726.74	7,685.41	41.34	186.917		
4,800.00	4,718.00	4,588.68	4,627.91	22.70	19.71	-92.98	-575.06	-7,706.35	7,729.31	7,686.89	42.41	182.243		
4,900.00	4,816.01	4,690.20	4,729.43	23.18	20.14	-93.12	-574.77	-7,707.55	7,731.52	7,688.20	43.32	178.475		
5,000.00	4,914.01	4,783.10	4,822.31	23.66	20.53	-93.26	-574.49	-7,708.69	7,733.82	7,689.63	44.19	175.008		
5,100.00	5,012.02	4,892.58	4,931.78	24.14	21.00	-93.41	-574.14	-7,710.02	7,736.16	7,691.02	45.13	171.404		
5,200.00	5,110.03	4,992.22	5,031.42	24.62	21.42	-93.55	-573.75	-7,711.13	7,738.43	7,692.39	46.04	168.098		
5,300.00	5,208.04	5,102.77	5,141.96	25.10	21.89	-93.71	-573.25	-7,712.29	7,740.67	7,693.69	46.98	164.753		
5,400.00	5,306.05	5,194.43	5,233.62	25.58	22.28	-93.84	-572.90	-7,713.20	7,742.92	7,695.07	47.85	161.814		
5,500.00	5,404.06	5,298.11	5,337.29	26.06	22.71	-93.99	-572.59	-7,714.21	7,745.22	7,696.45	48.77	158.810		
5,600.00	5,502.07	5,473.55	5,512.73	26.54	23.46	-94.24	-571.59	-7,714.85	7,746.83	7,696.84	49.99	154.953		
5,700.00	5,600.08	5,552.47	5,591.65	27.02	23.79	-94.35	-571.06	-7,714.89	7,748.28	7,697.47	50.81	152.502		
5,800.00	5,698.09	5,630.47	5,669.65	27.50	24.12	-94.46	-570.79	-7,715.18	7,750.12	7,698.51	51.62	150.145		
5,900.00	5,796.09	5,728.90	5,768.07	27.98	24.54	-94.60	-570.48	-7,715.59	7,752.08	7,699.56	52.52	147.616		
6,000.00	5,894.10	5,819.07	5,858.24	28.46	24.92	-94.73	-570.13	-7,716.06	7,754.15	7,700.78	53.38	145.270		
6,100.00	5,992.11	5,912.10	5,951.27	28.94	25.31	-94.87	-569.73	-7,716.59	7,756.33	7,702.08	54.25	142.968		
6,200.00	6,090.12	5,985.13	6,024.30	29.42	25.62	-94.97	-569.49	-7,717.16	7,758.77	7,703.73	55.04	140.963		
6,300.00	6,188.13	6,091.87	6,131.03	29.90	26.08	-95.12	-569.29	-7,718.11	7,761.40	7,705.43	55.98	138.656		
6,400.00	6,286.14	6,163.34	6,202.50	30.38	26.38	-95.23	-569.22	-7,718.78	7,764.13	7,707.38	56.76	136.794		
6,500.00	6,384.15	6,242.81	6,281.96	30.87	26.72	-95.34	-569.18	-7,719.80	7,767.26	7,709.68	57.57	134.908		
6,600.00	6,482.15	6,337.29	6,376.43	31.35	27.12	-86.97	-569.36	-7,721.06	7,770.24	7,711.78	58.46	132.923		
6,700.00	6,579.21	6,443.51	6,482.64	31.83	27.58	-56.26	-569.62	-7,722.46	7,762.88	7,703.48	59.39	130.706		
6,800.00	6,673.04	6,554.94	6,594.07	32.30	28.05	-42.38	-570.15	-7,723.61	7,740.24	7,679.90	60.34	128.285		
6,900.00	6,761.33	6,638.24	6,677.36	32.74	28.40	-36.12	-570.61	-7,724.36	7,703.04	7,641.91	61.13	126.001		
7,000.00	6,841.90	6,700.01	6,739.13	33.17	28.67	-33.53	-571.23	-7,724.97	7,652.47	7,590.66	61.81	123.801		
7,100.00	6,912.77	6,756.95	6,796.05	33.60	28.91	-33.31	-571.97	-7,725.62	7,589.78	7,527.34	62.44	121.553		
7,200.00	6,972.19	6,803.48	6,842.58	34.09	29.11	-35.23	-572.62	-7,726.24	7,516.48	7,453.49	62.99	119.324		
7,300.00	7,018.70	6,849.36	6,888.45	34.73	29.30	-39.95	-573.24	-7,726.90	7,434.26	7,370.75	63.51	117.056		
7,400.00	7,051.15	6,881.95	6,921.03	35.55	29.44	-49.23	-573.63	-7,727.39	7,345.09	7,281.15	63.94	114.875		
7,500.00	7,068.75	6,900.38	6,939.46	36.56	29.52	-67.19	-573.84	-7,727.68	7,251.14	7,186.87	64.28	112.811		
7,600.00	7,071.91	6,904.94	6,944.02	37.71	29.54	-86.60	-573.89	-7,727.75	7,154.75	7,090.22	64.53	110.879		
7,700.00	7,071.62	6,906.19	6,945.27	39.03	29.54	-86.64	-573.90	-7,727.77	7,058.10	6,993.32	64.77	108.966		
7,800.00	7,071.34	6,907.44	6,946.52	40.51	29.55	-86.68	-573.91	-7,727.79	6,961.54	6,896.50	65.04	107.031		
7,900.00	7,071.05	6,900.01	6,939.09	42.14	29.52	-86.44	-573.83	-7,727.67	6,865.09	6,799.79	65.30	105.133		
8,000.00	7,070.77	6,907.40	6,946.48	43.89	29.55	-86.68	-573.91	-7,727.79	6,768.73	6,703.08	65.65	103.109		
8,100.00	7,070.48	6,908.37	6,947.44	45.76	29.55	-86.71	-573.92	-7,727.80	6,672.48	6,606.48	65.99	101.108		
8,200.00	7,070.20	6,909.34	6,948.42	47.72	29.56	-86.74	-573.93	-7,727.82	6,576.34	6,509.97	66.37	99.086		
8,300.00	7,069.92	6,910.33	6,949.41	49.78	29.56	-86.77	-573.94	-7,727.84	6,480.32	6,413.54	66.78	97.044		
8,400.00	7,069.63	6,911.33	6,950.40	51.90	29.57	-86.80	-573.95	-7,727.85	6,384.42	6,317.21	67.22	94.983		
8,500.00	7,069.35	6,912.33	6,951.41	54.10	29.57	-86.83	-573.97	-7,727.87	6,288.65	6,220.96	67.69	92.905		
8,600.00	7,069.06	6,913.35	6,952.43	56.36	29.58	-86.86	-573.98	-7,727.89	6,193.02	6,124.82	68.20	90.811		
8,700.00	7,068.78	6,914.38	6,953.45	58.66	29.58	-86.89	-573.99	-7,727.90	6,097.52	6,028.78	68.74	88.702		
8,800.00	7,068.49	6,915.41	6,954.49	61.02	29.58	-86.93	-574.00	-7,727.92	6,002.17	5,932.84	69.33	86.580		
8,900.00	7,068.21	6,916.46	6,955.54	63.42	29.59	-86.96	-574.01	-7,727.94	5,906.97	5,837.02	69.95	84.447		
9,000.00	7,067.92	6,917.52	6,956.59	65.85	29.59	-86.99	-574.02	-7,727.95	5,811.93	5,741.32	70.62	82.304		
9,100.00	7,067.64	6,918.59	6,957.66	68.32	29.60	-87.03	-574.03	-7,727.97	5,717.07	5,645.74	71.33	80.154		
9,200.00	7,067.35	6,919.67	6,958.74	70.81	29.60	-87.06	-574.04	-7,727.99	5,622.38	5,550.29	72.08	77.999		
9,300.00	7,067.07	6,920.76	6,959.84	73.34	29.61	-87.10	-574.05	-7,728.01	5,527.87	5,454.99	72.89	75.841		
9,400.00	7,066.78	6,921.86	6,960.94	75.88	29.61	-87.13	-574.06	-7,728.03	5,433.57	5,359.82	73.74	73.682		
9,500.00	7,066.50	6,922.98	6,962.05	78.45	29.62	-87.17	-574.07	-7,728.05	5,339.47	5,264.82	74.65	71.525		
9,600.00	7,066.21	6,924.11	6,963.18	81.04	29.62	-87.20	-574.09	-7,728.07	5,245.59	5,169.97	75.62	69.372		
9,700.00	7,065.93	6,925.24	6,964.32	83.64	29.63	-87.24	-574.10	-7,728.09	5,151.94	5,075.30	76.64	67.225		
9,800.00	7,065.64	6,926.39	6,965.47	86.26	29.63	-87.27	-574.11	-7,728.11	5,058.53	4,980.81	77.72	65.087		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
9,900.00	7,065.36	6,927.56	6,966.63	88.90	29.64	-87.31	-574.12	-7,728.13	4,965.38	4,886.51	78.86	62.961		
10,000.00	7,065.07	6,928.73	6,967.81	91.55	29.64	-87.35	-574.13	-7,728.15	4,872.49	4,792.42	80.07	60.849		
10,100.00	7,064.79	6,929.92	6,969.00	94.21	29.65	-87.38	-574.14	-7,728.17	4,779.90	4,698.54	81.35	58.754		
10,200.00	7,064.50	6,931.12	6,970.20	96.88	29.65	-87.42	-574.15	-7,728.19	4,687.61	4,604.90	82.71	56.677		
10,300.00	7,064.22	6,932.34	6,971.41	99.57	29.66	-87.46	-574.17	-7,728.21	4,595.64	4,511.51	84.13	54.622		
10,400.00	7,063.94	6,933.57	6,972.64	102.26	29.66	-87.50	-574.18	-7,728.23	4,504.01	4,418.37	85.64	52.591		
10,500.00	7,063.65	6,934.81	6,973.88	104.96	29.67	-87.54	-574.19	-7,728.25	4,412.75	4,325.52	87.23	50.586		
10,600.00	7,063.37	6,936.07	6,975.14	107.67	29.67	-87.58	-574.20	-7,728.28	4,321.88	4,232.97	88.91	48.610		
10,700.00	7,063.08	6,937.34	6,976.41	110.39	29.68	-87.62	-574.22	-7,728.30	4,231.41	4,140.73	90.68	46.665		
10,800.00	7,062.80	6,938.62	6,977.69	113.11	29.68	-87.66	-574.23	-7,728.32	4,141.38	4,048.84	92.54	44.752		
10,900.00	7,062.51	6,939.92	6,978.99	115.84	29.69	-87.70	-574.24	-7,728.35	4,051.82	3,957.32	94.50	42.875		
11,000.00	7,062.23	6,941.24	6,980.31	118.58	29.69	-87.74	-574.25	-7,728.37	3,962.76	3,866.19	96.57	41.034		
11,100.00	7,061.94	6,942.56	6,981.63	121.32	29.70	-87.78	-574.26	-7,728.40	3,874.23	3,775.48	98.75	39.232		
11,200.00	7,061.66	6,943.91	6,982.98	124.07	29.71	-87.82	-574.28	-7,728.42	3,786.27	3,685.23	101.05	37.471		
11,300.00	7,061.37	6,945.27	6,984.34	126.82	29.71	-87.87	-574.29	-7,728.45	3,698.93	3,595.47	103.46	35.752		
11,400.00	7,061.09	6,946.65	6,985.72	129.58	29.72	-87.91	-574.30	-7,728.47	3,612.24	3,506.23	106.00	34.076		
11,500.00	7,060.80	6,948.04	6,987.11	132.34	29.72	-87.95	-574.32	-7,728.50	3,526.25	3,417.57	108.68	32.446		
11,600.00	7,060.52	6,949.45	6,988.52	135.10	29.73	-88.00	-574.33	-7,728.52	3,441.02	3,329.53	111.50	30.862		
11,700.00	7,060.23	6,950.87	6,989.94	137.87	29.73	-88.04	-574.34	-7,728.55	3,356.61	3,242.15	114.46	29.326		
11,800.00	7,059.95	6,952.32	6,991.39	140.64	29.74	-88.09	-574.36	-7,728.58	3,273.07	3,155.50	117.57	27.838		
11,900.00	7,059.66	6,953.78	6,992.85	143.42	29.75	-88.13	-574.37	-7,728.61	3,190.48	3,069.63	120.85	26.400		
12,000.00	7,059.38	6,955.26	6,994.32	146.20	29.75	-88.18	-574.38	-7,728.64	3,108.91	2,984.62	124.29	25.013		
12,100.00	7,059.09	6,956.75	6,995.82	148.98	29.76	-88.23	-574.40	-7,728.66	3,028.45	2,900.54	127.91	23.677		
12,200.00	7,058.81	6,958.27	6,997.33	151.77	29.77	-88.27	-574.41	-7,728.69	2,949.18	2,817.48	131.70	22.393		
12,300.00	7,058.52	6,959.80	6,998.87	154.55	29.77	-88.32	-574.42	-7,728.72	2,871.20	2,735.52	135.68	21.161		
12,400.00	7,058.24	6,961.35	7,000.42	157.34	29.78	-88.37	-574.44	-7,728.75	2,794.63	2,654.78	139.85	19.983		
12,500.00	7,057.96	6,962.93	7,001.99	160.14	29.79	-88.42	-574.45	-7,728.79	2,719.57	2,575.36	144.21	18.858		
12,600.00	7,057.67	6,964.52	7,003.58	162.93	29.79	-88.47	-574.46	-7,728.82	2,646.17	2,497.40	148.77	17.787		
12,700.00	7,057.39	6,966.13	7,005.19	165.73	29.80	-88.52	-574.48	-7,728.85	2,574.56	2,421.03	153.53	16.769		
12,800.00	7,057.10	6,967.76	7,006.83	168.53	29.81	-88.57	-574.49	-7,728.88	2,504.89	2,346.41	158.48	15.805		
12,900.00	7,056.82	6,969.42	7,008.48	171.33	29.81	-88.62	-574.51	-7,728.92	2,437.33	2,273.71	163.62	14.896		
13,000.00	7,056.53	6,971.09	7,010.16	174.13	29.82	-88.68	-574.52	-7,728.95	2,372.07	2,203.12	168.95	14.040		
13,100.00	7,056.25	6,972.79	7,011.85	176.94	29.83	-88.73	-574.54	-7,728.98	2,309.29	2,134.85	174.44	13.238		
13,200.00	7,055.96	6,974.51	7,013.57	179.74	29.84	-88.78	-574.55	-7,729.02	2,249.20	2,069.12	180.08	12.490		
13,300.00	7,055.68	6,976.25	7,015.31	182.55	29.84	-88.84	-574.56	-7,729.06	2,192.03	2,006.18	185.85	11.795		
13,400.00	7,055.39	6,978.02	7,017.08	185.36	29.85	-88.89	-574.58	-7,729.09	2,138.01	1,946.30	191.70	11.153		
13,500.00	7,055.11	6,979.80	7,018.87	188.17	29.86	-88.95	-574.59	-7,729.13	2,087.38	1,889.77	197.62	10.563		
13,600.00	7,054.82	6,981.62	7,020.68	190.98	29.87	-89.01	-574.61	-7,729.17	2,040.40	1,836.87	203.53	10.025		
13,700.00	7,054.54	6,983.45	7,022.51	193.80	29.87	-89.07	-574.62	-7,729.21	1,997.32	1,787.93	209.40	9.538		
13,800.00	7,054.25	6,985.32	7,024.38	196.61	29.88	-89.12	-574.64	-7,729.25	1,958.41	1,743.26	215.15	9.103		
13,900.00	7,053.97	6,987.20	7,026.26	199.43	29.89	-89.18	-574.65	-7,729.29	1,923.91	1,703.19	220.72	8.717		
14,000.00	7,053.68	6,989.12	7,028.18	202.25	29.90	-89.24	-574.67	-7,729.33	1,894.06	1,668.03	226.03	8.380		
14,100.00	7,053.40	6,991.06	7,030.12	205.06	29.91	-89.31	-574.69	-7,729.37	1,869.09	1,638.08	231.01	8.091		
14,200.00	7,053.11	6,993.03	7,032.09	207.88	29.91	-89.37	-574.70	-7,729.41	1,849.20	1,613.63	235.57	7.850		
14,300.00	7,052.83	6,995.02	7,034.08	210.70	29.92	-89.43	-574.72	-7,729.46	1,834.55	1,594.89	239.66	7.655		
14,400.00	7,052.54	6,997.05	7,036.11	213.53	29.93	-89.49	-574.73	-7,729.50	1,825.26	1,582.06	243.20	7.505		
14,500.00	7,052.26	6,999.10	7,038.16	216.35	29.94	-89.56	-574.75	-7,729.55	1,821.42	1,575.27	246.15	7.400		
14,519.99	7,052.20	6,999.52	7,038.57	216.91	29.94	-89.57	-574.75	-7,729.56	1,821.31	1,574.64	246.67	7.384 CC		
14,600.00	7,051.98	7,001.21	7,040.26	219.17	29.95	-89.62	-574.76	-7,729.60	1,823.07	1,574.59	248.48	7.337 ES		
14,700.00	7,051.69	7,003.34	7,042.39	222.00	29.96	-89.69	-574.78	-7,729.64	1,830.18	1,580.03	250.16	7.316 SF		
14,800.00	7,051.41	7,005.47	7,044.53	224.82	29.97	-89.76	-574.80	-7,729.69	1,842.70	1,591.51	251.19	7.336		
14,900.00	7,051.12	7,007.62	7,046.67	227.65	29.98	-89.83	-574.81	-7,729.74	1,860.52	1,608.92	251.60	7.395		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	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)		
14,942.37	7,051.00	7,008.55	7,047.60	228.85	29.98	-89.86	-574.82	-7,729.76	1,869.63	1,618.04	251.59	7.431	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	63.00	3.28	3.28	-115.28	-1,685.38	-3,569.29	3,947.69				
100.00	100.00	37.00	100.00	3.28	3.34	-115.28	-1,685.38	-3,569.29	3,947.19	3,940.56	6.63	595.560	
200.00	200.00	137.00	200.00	3.34	4.47	-115.28	-1,685.38	-3,569.29	3,947.19	3,939.38	7.81	505.581	
300.00	300.00	237.00	300.00	3.44	7.31	-115.28	-1,685.38	-3,569.29	3,947.19	3,936.44	10.75	367.155	
400.00	399.98	336.98	399.98	3.60	10.54	-107.99	-1,685.38	-3,569.29	3,947.73	3,933.59	14.14	279.093	
500.00	499.84	436.84	499.84	3.81	13.90	-108.03	-1,685.38	-3,569.29	3,949.35	3,931.65	17.70	223.093	
600.00	599.45	536.45	599.45	4.06	17.30	-108.10	-1,685.38	-3,569.29	3,952.06	3,930.72	21.34	185.171	
700.00	698.70	635.70	698.70	4.34	20.71	-108.19	-1,685.38	-3,569.29	3,955.88	3,930.85	25.03	158.042	
800.00	797.47	734.47	797.47	4.64	24.12	-108.31	-1,685.38	-3,569.29	3,960.84	3,932.09	28.75	137.781	
900.00	895.65	832.65	895.65	4.98	27.52	-108.48	-1,685.38	-3,569.29	3,966.92	3,934.43	32.48	122.130	
1,000.00	993.66	930.66	993.66	5.32	30.92	-108.75	-1,685.38	-3,569.29	3,973.37	3,937.13	36.24	109.647	
1,100.00	1,091.67	1,028.67	1,091.67	5.69	34.32	-109.02	-1,685.38	-3,569.29	3,979.91	3,939.89	40.02	99.455	
1,200.00	1,189.68	1,126.68	1,189.68	6.09	37.73	-109.28	-1,685.38	-3,569.29	3,986.54	3,942.73	43.81	90.986	
1,300.00	1,287.69	1,224.69	1,287.69	6.49	41.14	-109.54	-1,685.38	-3,569.29	3,993.26	3,945.63	47.63	83.844	
1,400.00	1,385.69	1,322.69	1,385.69	6.90	44.55	-109.81	-1,685.38	-3,569.29	4,000.07	3,948.61	51.45	77.744	
1,500.00	1,483.70	1,420.70	1,483.70	7.33	47.96	-110.07	-1,685.38	-3,569.29	4,006.96	3,951.67	55.29	72.477	
1,600.00	1,581.71	1,518.71	1,581.71	7.76	51.38	-110.33	-1,685.38	-3,569.29	4,013.94	3,954.81	59.13	67.885	
1,700.00	1,679.72	1,616.72	1,679.72	8.19	54.79	-110.59	-1,685.38	-3,569.29	4,021.00	3,958.03	62.98	63.848	
1,800.00	1,777.73	1,714.73	1,777.73	8.63	58.21	-110.85	-1,685.38	-3,569.29	4,028.15	3,961.32	66.83	60.272	
1,900.00	1,875.74	1,812.74	1,875.74	9.08	61.62	-111.11	-1,685.38	-3,569.29	4,035.39	3,964.70	70.69	57.084	
2,000.00	1,973.75	1,910.75	1,973.75	9.53	65.04	-111.37	-1,685.38	-3,569.29	4,042.71	3,968.15	74.56	54.223	
2,100.00	2,071.76	2,008.76	2,071.76	9.98	68.46	-111.63	-1,685.38	-3,569.29	4,050.11	3,971.69	78.42	51.644	
2,200.00	2,169.77	2,106.77	2,169.77	10.44	71.88	-111.88	-1,685.38	-3,569.29	4,057.60	3,975.31	82.29	49.306	
2,300.00	2,267.77	2,204.77	2,267.77	10.90	75.29	-112.14	-1,685.38	-3,569.29	4,065.17	3,979.00	86.17	47.177	
2,400.00	2,365.78	2,302.78	2,365.78	11.36	78.71	-112.39	-1,685.38	-3,569.29	4,072.82	3,982.78	90.04	45.232	
2,500.00	2,463.79	2,400.79	2,463.79	11.82	82.13	-112.65	-1,685.38	-3,569.29	4,080.56	3,986.64	93.92	43.446	
2,600.00	2,561.80	2,501.20	2,561.80	12.28	85.63	-112.90	-1,685.38	-3,569.29	4,088.38	3,990.49	97.88	41.767	
2,700.00	2,659.81	2,603.19	2,659.81	12.75	89.19	-113.15	-1,685.38	-3,569.29	4,096.28	3,994.37	101.90	40.197	
2,800.00	2,757.82	2,705.18	2,757.82	13.21	92.75	-113.40	-1,685.38	-3,569.29	4,104.26	3,998.33	105.93	38.746	
2,900.00	2,855.83	2,807.17	2,855.83	13.68	96.31	-113.65	-1,685.38	-3,569.29	4,112.32	4,002.37	109.95	37.402	
3,000.00	2,953.84	2,909.16	2,953.84	14.15	99.87	-113.90	-1,685.38	-3,569.29	4,120.46	4,006.48	113.97	36.153	
3,100.00	3,051.85	2,988.85	3,051.85	14.62	102.65	-114.15	-1,685.38	-3,569.29	4,128.68	4,011.46	117.22	35.222	
3,200.00	3,149.85	3,086.85	3,149.85	15.09	106.07	-114.39	-1,685.38	-3,569.29	4,136.98	4,015.87	121.11	34.160	
3,300.00	3,247.86	3,184.86	3,247.86	15.56	109.49	-114.64	-1,685.38	-3,569.29	4,145.35	4,020.36	124.99	33.164	
3,400.00	3,345.87	3,282.87	3,345.87	16.04	112.91	-114.88	-1,685.38	-3,569.29	4,153.81	4,024.93	128.88	32.230	
3,500.00	3,443.88	3,380.88	3,443.88	16.51	116.33	-115.13	-1,685.38	-3,569.29	4,162.34	4,029.57	132.77	31.350	
3,600.00	3,541.89	3,478.89	3,541.89	16.98	119.75	-115.37	-1,685.38	-3,569.29	4,170.95	4,034.29	136.66	30.521	
3,700.00	3,639.90	3,576.90	3,639.90	17.46	123.17	-115.61	-1,685.38	-3,569.29	4,179.64	4,039.09	140.55	29.738	
3,800.00	3,737.91	3,674.91	3,737.91	17.93	126.59	-115.85	-1,685.38	-3,569.29	4,188.40	4,043.96	144.44	28.997	
3,900.00	3,835.92	3,772.92	3,835.92	18.41	130.01	-116.09	-1,685.38	-3,569.29	4,197.24	4,048.90	148.33	28.296	
4,000.00	3,933.93	3,870.93	3,933.93	18.88	133.43	-116.33	-1,685.38	-3,569.29	4,206.15	4,053.93	152.22	27.631	
4,100.00	4,031.93	3,968.93	4,031.93	19.36	136.85	-116.57	-1,685.38	-3,569.29	4,215.14	4,059.02	156.11	27.000	
4,200.00	4,129.94	4,066.94	4,129.94	19.84	140.27	-116.81	-1,685.38	-3,569.29	4,224.20	4,064.19	160.01	26.400	
4,300.00	4,227.95	4,164.95	4,227.95	20.31	143.69	-117.04	-1,685.38	-3,569.29	4,233.34	4,069.44	163.90	25.829	
4,400.00	4,325.96	4,262.96	4,325.96	20.79	147.11	-117.28	-1,685.38	-3,569.29	4,242.54	4,074.75	167.79	25.285	
4,500.00	4,423.97	4,360.97	4,423.97	21.27	150.53	-117.51	-1,685.38	-3,569.29	4,251.83	4,080.14	171.68	24.765	
4,600.00	4,521.98	4,458.98	4,521.98	21.75	153.95	-117.75	-1,685.38	-3,569.29	4,261.18	4,085.60	175.58	24.270	
4,700.00	4,619.99	4,556.99	4,619.99	22.23	157.37	-117.98	-1,685.38	-3,569.29	4,270.61	4,091.14	179.47	23.796	
4,800.00	4,718.00	4,655.00	4,718.00	22.70	160.79	-118.21	-1,685.38	-3,569.29	4,280.10	4,096.74	183.36	23.342	
4,900.00	4,816.01	4,753.01	4,816.01	23.18	164.22	-118.44	-1,685.38	-3,569.29	4,289.67	4,102.42	187.26	22.908	
5,000.00	4,914.01	4,851.01	4,914.01	23.66	167.64	-118.67	-1,685.38	-3,569.29	4,299.31	4,108.16	191.15	22.492	
5,100.00	5,012.02	4,949.02	5,012.02	24.14	171.06	-118.90	-1,685.38	-3,569.29	4,309.02	4,113.98	195.04	22.093	

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	5,110.03	5,047.03	5,110.03	24.62	174.48	-119.12	-1,685.38	-3,569.29	4,318.80	4,119.86	198.94	21.709		
5,300.00	5,208.04	5,145.04	5,208.04	25.10	177.90	-119.35	-1,685.38	-3,569.29	4,328.64	4,125.81	202.83	21.341		
5,400.00	5,306.05	5,243.05	5,306.05	25.58	181.32	-119.58	-1,685.38	-3,569.29	4,338.56	4,131.84	206.72	20.987		
5,500.00	5,404.06	5,341.06	5,404.06	26.06	184.74	-119.80	-1,685.38	-3,569.29	4,348.54	4,137.93	210.62	20.647		
5,600.00	5,502.07	5,439.07	5,502.07	26.54	188.16	-120.02	-1,685.38	-3,569.29	4,358.59	4,144.08	214.51	20.319		
5,700.00	5,600.08	5,537.08	5,600.08	27.02	191.58	-120.24	-1,685.38	-3,569.29	4,368.71	4,150.31	218.40	20.003		
5,800.00	5,698.09	5,635.09	5,698.09	27.50	195.00	-120.47	-1,685.38	-3,569.29	4,378.90	4,156.60	222.30	19.698		
5,900.00	5,796.09	5,733.09	5,796.09	27.98	198.42	-120.69	-1,685.38	-3,569.29	4,389.15	4,162.96	226.19	19.404		
6,000.00	5,894.10	5,831.10	5,894.10	28.46	201.85	-120.90	-1,685.38	-3,569.29	4,399.47	4,169.38	230.09	19.121		
6,100.00	5,992.11	5,929.11	5,992.11	28.94	205.27	-121.12	-1,685.38	-3,569.29	4,409.85	4,175.87	233.98	18.847		
6,200.00	6,090.12	6,027.12	6,090.12	29.42	208.69	-121.34	-1,685.38	-3,569.29	4,420.29	4,182.42	237.87	18.582		
6,300.00	6,188.13	6,125.13	6,188.13	29.90	212.11	-121.56	-1,685.38	-3,569.29	4,430.81	4,189.04	241.77	18.327		
6,400.00	6,286.14	6,223.14	6,286.14	30.38	215.53	-121.77	-1,685.38	-3,569.29	4,441.38	4,195.72	245.66	18.079		
6,500.00	6,384.15	6,321.15	6,384.15	30.87	218.95	-121.99	-1,685.38	-3,569.29	4,452.02	4,202.46	249.56	17.840		
6,600.00	6,482.15	6,419.15	6,482.15	31.35	222.37	-113.59	-1,685.38	-3,569.29	4,462.48	4,209.03	253.45	17.607		
6,700.00	6,579.21	6,516.21	6,579.21	31.83	225.76	-82.73	-1,685.38	-3,569.29	4,464.76	4,207.44	257.32	17.351		
6,800.00	6,673.04	6,610.04	6,673.04	32.30	229.04	-69.13	-1,685.38	-3,569.29	4,455.05	4,193.97	261.07	17.064		
6,900.00	6,761.33	6,701.67	6,761.33	32.74	232.23	-63.59	-1,685.38	-3,569.29	4,433.79	4,169.04	264.75	16.747		
7,000.00	6,841.90	6,778.90	6,841.90	33.17	234.93	-62.10	-1,685.38	-3,569.29	4,401.74	4,133.81	267.93	16.429		
7,100.00	6,912.77	6,849.77	6,912.77	33.60	237.40	-63.17	-1,685.38	-3,569.29	4,359.94	4,089.02	270.92	16.093		
7,200.00	6,972.19	6,909.19	6,972.19	34.09	239.48	-66.22	-1,685.38	-3,569.29	4,309.66	4,036.11	273.55	15.754		
7,300.00	7,018.70	6,955.70	7,018.70	34.73	241.10	-70.97	-1,685.38	-3,569.29	4,252.39	3,976.57	275.82	15.417		
7,400.00	7,051.15	6,988.15	7,051.15	35.55	242.23	-77.23	-1,685.38	-3,569.29	4,189.72	3,912.04	277.68	15.088		
7,500.00	7,068.75	7,005.75	7,068.75	36.56	242.85	-84.70	-1,685.38	-3,569.29	4,123.31	3,844.19	279.12	14.773		
7,600.00	7,071.91	7,008.91	7,071.91	37.71	242.96	-90.15	-1,685.38	-3,569.29	4,054.97	3,774.84	280.13	14.475		
7,700.00	7,071.62	7,008.62	7,071.62	39.03	242.95	-90.15	-1,685.38	-3,569.29	3,987.38	3,706.23	281.15	14.182		
7,800.00	7,071.34	7,008.34	7,071.34	40.51	242.94	-90.14	-1,685.38	-3,569.29	3,921.17	3,638.86	282.30	13.890		
7,900.00	7,071.05	7,008.05	7,071.05	42.14	242.93	-90.14	-1,685.38	-3,569.29	3,856.42	3,572.82	283.60	13.598		
8,000.00	7,070.77	7,007.77	7,070.77	43.89	242.92	-90.13	-1,685.38	-3,569.29	3,793.19	3,508.16	285.03	13.308		
8,100.00	7,070.48	7,007.48	7,070.48	45.76	242.91	-90.12	-1,685.38	-3,569.29	3,731.58	3,444.98	286.60	13.020		
8,200.00	7,070.20	7,007.20	7,070.20	47.72	242.90	-90.12	-1,685.38	-3,569.29	3,671.66	3,383.36	288.30	12.735		
8,300.00	7,069.92	7,006.92	7,069.92	49.78	242.89	-90.11	-1,685.38	-3,569.29	3,613.51	3,323.37	290.13	12.455		
8,400.00	7,069.63	7,006.63	7,069.63	51.90	242.88	-90.11	-1,685.38	-3,569.29	3,557.22	3,265.13	292.09	12.178		
8,500.00	7,069.35	7,006.35	7,069.35	54.10	242.87	-90.10	-1,685.38	-3,569.29	3,502.88	3,208.71	294.17	11.908		
8,600.00	7,069.06	7,006.06	7,069.06	56.36	242.86	-90.10	-1,685.38	-3,569.29	3,450.59	3,154.22	296.37	11.643		
8,700.00	7,068.78	7,005.78	7,068.78	58.66	242.85	-90.09	-1,685.38	-3,569.29	3,400.43	3,101.76	298.67	11.385		
8,800.00	7,068.49	7,005.49	7,068.49	61.02	242.84	-90.09	-1,685.38	-3,569.29	3,352.51	3,051.44	301.07	11.135		
8,900.00	7,068.21	7,005.21	7,068.21	63.42	242.83	-90.08	-1,685.38	-3,569.29	3,306.92	3,003.35	303.57	10.893		
9,000.00	7,067.92	7,004.92	7,067.92	65.85	242.82	-90.08	-1,685.38	-3,569.29	3,263.75	2,957.60	306.15	10.661		
9,100.00	7,067.64	7,004.64	7,067.64	68.32	242.81	-90.07	-1,685.38	-3,569.29	3,223.11	2,914.30	308.81	10.437		
9,200.00	7,067.35	7,004.35	7,067.35	70.81	242.80	-90.06	-1,685.38	-3,569.29	3,185.09	2,873.57	311.53	10.224		
9,300.00	7,067.07	7,004.07	7,067.07	73.34	242.79	-90.06	-1,685.38	-3,569.29	3,149.79	2,835.49	314.30	10.022		
9,400.00	7,066.78	7,003.78	7,066.78	75.88	242.78	-90.05	-1,685.38	-3,569.29	3,117.30	2,800.19	317.12	9.830		
9,500.00	7,066.50	7,003.50	7,066.50	78.45	242.77	-90.05	-1,685.38	-3,569.29	3,087.71	2,767.75	319.96	9.650		
9,600.00	7,066.21	7,003.21	7,066.21	81.04	242.76	-90.04	-1,685.38	-3,569.29	3,061.10	2,738.28	322.82	9.482		
9,700.00	7,065.93	7,002.93	7,065.93	83.64	242.75	-90.04	-1,685.38	-3,569.29	3,037.55	2,711.86	325.69	9.327		
9,800.00	7,065.64	7,002.64	7,065.64	86.26	242.74	-90.03	-1,685.38	-3,569.29	3,017.13	2,688.59	328.54	9.183		
9,900.00	7,065.36	7,002.36	7,065.36	88.90	242.73	-90.03	-1,685.38	-3,569.29	2,999.91	2,668.54	331.37	9.053		
10,000.00	7,065.07	7,002.07	7,065.07	91.55	242.72	-90.02	-1,685.38	-3,569.29	2,985.94	2,651.78	334.16	8.936		
10,100.00	7,064.79	7,001.79	7,064.79	94.21	242.71	-90.01	-1,685.38	-3,569.29	2,975.26	2,638.36	336.90	8.831		
10,200.00	7,064.50	7,001.50	7,064.50	96.88	242.70	-90.01	-1,685.38	-3,569.29	2,967.92	2,628.34	339.58	8.740		
10,300.00	7,064.22	7,001.22	7,064.22	99.57	242.69	-90.00	-1,685.38	-3,569.29	2,963.94	2,621.76	342.18	8.662		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
10,368.14	7,064.03	7,001.03	7,064.03	101.40	242.68	-90.00	-1,685.38	-3,569.29	2,963.16	2,619.25	343.90	8.616 CC		
10,400.00	7,063.94	7,000.94	7,063.94	102.26	242.68	-90.00	-1,685.38	-3,569.29	2,963.33	2,618.63	344.69	8.597 ES		
10,500.00	7,063.65	7,000.65	7,063.65	104.96	242.67	-89.99	-1,685.38	-3,569.29	2,966.09	2,618.98	347.11	8.545		
10,600.00	7,063.37	7,000.37	7,063.37	107.67	242.66	-89.99	-1,685.38	-3,569.29	2,972.21	2,622.80	349.42	8.506		
10,700.00	7,063.08	7,000.08	7,063.08	110.39	242.65	-89.98	-1,685.38	-3,569.29	2,981.68	2,630.07	351.61	8.480		
10,800.00	7,062.80	7,000.20	7,062.80	113.11	242.65	-89.98	-1,685.38	-3,569.29	2,994.46	2,640.76	353.70	8.466		
10,900.00	7,062.51	7,000.49	7,062.51	115.84	242.66	-89.97	-1,685.38	-3,569.29	3,010.51	2,654.84	355.67	8.464 SF		
11,000.00	7,062.23	7,000.77	7,062.23	118.58	242.67	-89.97	-1,685.38	-3,569.29	3,029.78	2,672.26	357.51	8.475		
11,100.00	7,061.94	7,001.06	7,061.94	121.32	242.68	-89.96	-1,685.38	-3,569.29	3,052.20	2,692.97	359.22	8.497		
11,200.00	7,061.66	7,001.34	7,061.66	124.07	242.69	-89.95	-1,685.38	-3,569.29	3,077.71	2,716.90	360.80	8.530		
11,300.00	7,061.37	7,001.63	7,061.37	126.82	242.70	-89.95	-1,685.38	-3,569.29	3,106.23	2,743.98	362.25	8.575		
11,400.00	7,061.09	7,001.91	7,061.09	129.58	242.71	-89.94	-1,685.38	-3,569.29	3,137.68	2,774.10	363.58	8.630		
11,500.00	7,060.80	7,002.20	7,060.80	132.34	242.72	-89.94	-1,685.38	-3,569.29	3,171.97	2,807.20	364.77	8.696		
11,600.00	7,060.52	7,002.48	7,060.52	135.10	242.73	-89.93	-1,685.38	-3,569.29	3,209.01	2,843.17	365.85	8.771		
11,700.00	7,060.23	7,002.77	7,060.23	137.87	242.74	-89.93	-1,685.38	-3,569.29	3,248.71	2,881.91	366.81	8.857		
11,800.00	7,059.95	7,003.05	7,059.95	140.64	242.75	-89.92	-1,685.38	-3,569.29	3,290.98	2,923.32	367.65	8.951		
11,900.00	7,059.66	7,003.34	7,059.66	143.42	242.76	-89.92	-1,685.38	-3,569.29	3,335.70	2,967.31	368.39	9.055		
12,000.00	7,059.38	7,003.62	7,059.38	146.20	242.77	-89.91	-1,685.38	-3,569.29	3,382.79	3,013.75	369.03	9.167		
12,100.00	7,059.09	7,003.91	7,059.09	148.98	242.78	-89.90	-1,685.38	-3,569.29	3,432.15	3,062.56	369.58	9.287		
12,200.00	7,058.81	7,004.19	7,058.81	151.77	242.79	-89.90	-1,685.38	-3,569.29	3,483.68	3,113.64	370.04	9.414		
12,300.00	7,058.52	7,004.48	7,058.52	154.55	242.80	-89.89	-1,685.38	-3,569.29	3,537.28	3,166.87	370.42	9.549		
12,400.00	7,058.24	7,004.76	7,058.24	157.34	242.81	-89.89	-1,685.38	-3,569.29	3,592.87	3,222.15	370.72	9.692		
12,500.00	7,057.96	7,005.05	7,057.96	160.14	242.82	-89.88	-1,685.38	-3,569.29	3,650.36	3,279.41	370.95	9.841		
12,600.00	7,057.67	7,005.33	7,057.67	162.93	242.83	-89.88	-1,685.38	-3,569.29	3,709.65	3,338.53	371.12	9.996		
12,700.00	7,057.39	7,005.61	7,057.39	165.73	242.84	-89.87	-1,685.38	-3,569.29	3,770.66	3,399.43	371.23	10.157		
12,800.00	7,057.10	7,005.90	7,057.10	168.53	242.85	-89.87	-1,685.38	-3,569.29	3,833.30	3,462.02	371.29	10.324		
12,900.00	7,056.82	7,006.18	7,056.82	171.33	242.86	-89.86	-1,685.38	-3,569.29	3,897.51	3,526.22	371.29	10.497		
13,000.00	7,056.53	7,006.47	7,056.53	174.13	242.87	-89.86	-1,685.38	-3,569.29	3,963.20	3,591.94	371.26	10.675		
13,100.00	7,056.25	7,006.75	7,056.25	176.94	242.88	-89.85	-1,685.38	-3,569.29	4,030.30	3,659.12	371.18	10.858		
13,200.00	7,055.96	7,007.04	7,055.96	179.74	242.89	-89.84	-1,685.38	-3,569.29	4,098.74	3,727.67	371.08	11.046		
13,300.00	7,055.68	7,007.32	7,055.68	182.55	242.90	-89.84	-1,685.38	-3,569.29	4,168.46	3,797.53	370.93	11.238		
13,400.00	7,055.39	7,007.61	7,055.39	185.36	242.91	-89.83	-1,685.38	-3,569.29	4,239.39	3,868.62	370.77	11.434		
13,500.00	7,055.11	7,007.89	7,055.11	188.17	242.92	-89.83	-1,685.38	-3,569.29	4,311.47	3,940.90	370.57	11.635		
13,600.00	7,054.82	7,008.18	7,054.82	190.98	242.93	-89.82	-1,685.38	-3,569.29	4,384.65	4,014.29	370.36	11.839		
13,700.00	7,054.54	7,008.46	7,054.54	193.80	242.94	-89.82	-1,685.38	-3,569.29	4,458.87	4,088.75	370.12	12.047		
13,800.00	7,054.25	7,008.75	7,054.25	196.61	242.95	-89.81	-1,685.38	-3,569.29	4,534.08	4,164.21	369.87	12.258		
13,900.00	7,053.97	7,009.03	7,053.97	199.43	242.96	-89.81	-1,685.38	-3,569.29	4,610.24	4,240.62	369.61	12.473		
14,000.00	7,053.68	7,009.32	7,053.68	202.25	242.97	-89.80	-1,685.38	-3,569.29	4,687.28	4,317.95	369.33	12.691		
14,100.00	7,053.40	7,009.60	7,053.40	205.06	242.98	-89.79	-1,685.38	-3,569.29	4,765.19	4,396.14	369.05	12.912		
14,200.00	7,053.11	7,009.89	7,053.11	207.88	242.99	-89.79	-1,685.38	-3,569.29	4,843.90	4,475.15	368.75	13.136		
14,300.00	7,052.83	6,989.83	7,052.83	210.70	242.29	-89.78	-1,685.38	-3,569.29	4,923.39	4,555.65	367.74	13.388		
14,400.00	7,052.54	6,989.54	7,052.54	213.53	242.28	-89.78	-1,685.38	-3,569.29	5,003.61	4,636.20	367.41	13.619		
14,500.00	7,052.26	6,989.26	7,052.26	216.35	242.27	-89.77	-1,685.38	-3,569.29	5,084.53	4,717.46	367.08	13.851		
14,600.00	7,051.98	6,988.98	7,051.98	219.17	242.26	-89.77	-1,685.38	-3,569.29	5,166.12	4,799.38	366.74	14.087		
14,700.00	7,051.69	6,988.69	7,051.69	222.00	242.25	-89.76	-1,685.38	-3,569.29	5,248.35	4,881.95	366.40	14.324		
14,800.00	7,051.41	6,988.41	7,051.41	224.82	242.24	-89.76	-1,685.38	-3,569.29	5,331.19	4,965.13	366.06	14.564		
14,900.00	7,051.12	6,988.12	7,051.12	227.65	242.23	-89.75	-1,685.38	-3,569.29	5,414.60	5,048.88	365.72	14.805		
14,942.37	7,051.00	6,988.00	7,051.00	228.85	242.23	-89.75	-1,685.38	-3,569.29	5,450.12	5,084.54	365.58	14.908		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
0.00	0.00	0.00	60.95	3.28	3.28	-92.97	-473.84	-9,146.20	9,158.67					
100.00	100.00	185.51	212.49	3.28	3.34	-92.96	-472.39	-9,144.63	9,157.51	9,150.89	6.62	1,382.804		
200.00	200.00	288.85	315.82	3.34	3.45	-92.95	-471.89	-9,143.31	9,156.21	9,149.43	6.79	1,349.136		
300.00	300.00	368.38	395.34	3.44	3.57	-92.95	-471.71	-9,142.41	9,155.07	9,148.05	7.02	1,304.651		
400.00	399.98	464.51	491.47	3.60	3.76	-85.68	-471.48	-9,141.44	9,153.91	9,146.55	7.36	1,243.400		
500.00	499.84	546.89	573.84	3.81	3.95	-85.74	-471.26	-9,140.69	9,152.60	9,144.85	7.75	1,180.732		
600.00	599.45	622.81	649.77	4.06	4.14	-85.80	-471.37	-9,140.15	9,151.26	9,143.08	8.18	1,118.115		
700.00	698.70	700.00	744.02	4.34	4.35	-85.90	-471.52	-9,139.71	9,149.90	9,141.23	8.67	1,055.193		
800.00	797.47	846.48	873.43	4.64	4.80	-86.07	-471.38	-9,138.75	9,148.02	9,138.60	9.42	970.905		
900.00	895.65	926.91	953.85	4.98	5.06	-86.19	-471.25	-9,138.15	9,145.96	9,135.94	10.02	913.023		
1,000.00	993.66	984.00	1,010.95	5.32	5.26	-86.26	-471.31	-9,137.84	9,144.12	9,133.55	10.57	865.334		
1,100.00	1,091.67	984.00	1,010.95	5.69	5.26	-86.26	-471.31	-9,137.84	9,143.16	9,132.21	10.94	835.443		
1,200.00	1,189.68	1,047.09	1,074.04	6.09	5.46	-86.34	-471.32	-9,138.09	9,142.52	9,130.97	11.54	791.965		
1,200.32	1,189.99	1,047.18	1,074.13	6.09	5.46	-86.34	-471.32	-9,138.09	9,142.52	9,130.97	11.55	791.857		
1,300.00	1,287.69	1,112.00	1,138.93	6.49	5.68	-86.42	-471.08	-9,139.50	9,143.17	9,131.01	12.17	751.460		
1,400.00	1,385.69	1,112.00	1,138.93	6.90	5.68	-86.42	-471.08	-9,139.50	9,144.12	9,131.53	12.58	726.788		
1,500.00	1,483.70	1,112.00	1,138.93	7.33	5.68	-86.42	-471.08	-9,139.50	9,146.15	9,133.15	13.00	703.342		
1,600.00	1,581.71	1,112.00	1,138.93	7.76	5.68	-86.42	-471.08	-9,139.50	9,149.28	9,135.85	13.43	681.134		
1,700.00	1,679.72	1,177.48	1,204.35	8.19	5.90	-86.50	-470.77	-9,142.23	9,152.56	9,138.47	14.08	649.809		
1,800.00	1,777.73	1,241.00	1,267.74	8.63	6.12	-86.57	-470.56	-9,146.22	9,157.37	9,142.63	14.74	621.267		
1,900.00	1,875.74	1,241.00	1,267.74	9.08	6.12	-86.57	-470.56	-9,146.22	9,162.39	9,147.21	15.18	603.567		
2,000.00	1,973.75	1,241.00	1,267.74	9.53	6.12	-86.57	-470.56	-9,146.22	9,168.49	9,152.87	15.62	586.857		
2,100.00	2,071.76	1,241.00	1,267.74	9.98	6.12	-86.57	-470.56	-9,146.22	9,175.68	9,159.62	16.07	571.086		
2,200.00	2,169.77	1,296.38	1,322.93	10.44	6.32	-86.64	-470.42	-9,150.82	9,183.25	9,166.54	16.71	549.587		
2,300.00	2,267.77	1,319.43	1,345.87	10.90	6.40	-86.67	-470.37	-9,153.05	9,191.89	9,174.65	17.24	533.234		
2,400.00	2,365.78	1,369.00	1,395.14	11.36	6.58	-86.72	-470.24	-9,158.48	9,201.53	9,183.67	17.86	515.081		
2,500.00	2,463.79	1,369.00	1,395.14	11.82	6.58	-86.72	-470.24	-9,158.48	9,211.68	9,193.37	18.31	503.104		
2,600.00	2,561.80	1,369.00	1,395.14	12.28	6.58	-86.72	-470.24	-9,158.48	9,222.90	9,204.15	18.75	491.779		
2,700.00	2,659.81	1,414.86	1,440.64	12.75	6.75	-86.78	-470.24	-9,164.23	9,234.74	9,215.37	19.37	476.759		
2,800.00	2,757.82	1,439.63	1,465.18	13.21	6.84	-86.81	-470.33	-9,167.61	9,247.49	9,227.58	19.91	464.545		
2,900.00	2,855.83	1,498.00	1,522.90	13.68	7.07	-86.88	-470.80	-9,176.30	9,261.27	9,240.70	20.57	450.128		
3,000.00	2,953.84	1,498.00	1,522.90	14.15	7.07	-86.88	-470.80	-9,176.30	9,275.39	9,254.38	21.01	441.386		
3,100.00	3,051.85	1,498.00	1,522.90	14.62	7.07	-86.88	-470.80	-9,176.30	9,290.57	9,269.12	21.45	433.099		
3,200.00	3,149.85	1,498.00	1,522.90	15.09	7.07	-86.88	-470.80	-9,176.30	9,306.79	9,284.91	21.89	425.242		
3,300.00	3,247.86	1,559.07	1,583.10	15.56	7.32	-86.95	-471.55	-9,186.56	9,323.23	9,300.66	22.56	413.181		
3,400.00	3,345.87	1,626.00	1,648.80	16.04	7.60	-87.03	-472.49	-9,199.23	9,341.22	9,317.95	23.27	401.422		
3,500.00	3,443.88	1,626.00	1,648.80	16.51	7.60	-87.03	-472.49	-9,199.23	9,359.24	9,335.54	23.70	394.928		
3,600.00	3,541.89	1,626.00	1,648.80	16.98	7.60	-87.03	-472.49	-9,199.23	9,378.29	9,354.17	24.12	388.760		
3,700.00	3,639.90	1,626.00	1,648.80	17.46	7.60	-87.03	-472.49	-9,199.23	9,398.37	9,373.83	24.55	382.901		
3,800.00	3,737.91	1,626.00	1,648.80	17.93	7.60	-87.03	-472.49	-9,199.23	9,419.47	9,394.51	24.96	377.335		
3,900.00	3,835.92	1,692.40	1,713.68	18.41	7.91	-87.11	-473.61	-9,213.33	9,440.54	9,414.87	25.66	367.839		
4,000.00	3,933.93	1,754.00	1,773.54	18.88	8.19	-87.19	-474.90	-9,227.81	9,463.26	9,436.91	26.35	359.149		
4,100.00	4,031.93	1,754.00	1,773.54	19.36	8.19	-87.19	-474.90	-9,227.81	9,486.08	9,459.32	26.76	354.503		
4,200.00	4,129.94	1,754.00	1,773.54	19.84	8.19	-87.19	-474.90	-9,227.81	9,509.91	9,482.74	27.16	350.086		
4,300.00	4,227.95	1,754.00	1,773.54	20.31	8.19	-87.19	-474.90	-9,227.81	9,534.72	9,507.15	27.57	345.887		
4,400.00	4,325.96	1,812.59	1,830.20	20.79	8.49	-87.26	-476.12	-9,242.65	9,559.90	9,531.66	28.23	338.589		
4,500.00	4,423.97	1,840.40	1,857.02	21.27	8.64	-87.29	-476.63	-9,250.01	9,585.95	9,557.19	28.76	333.315		
4,600.00	4,521.98	1,883.00	1,897.99	21.75	8.86	-87.34	-477.30	-9,261.65	9,612.73	9,583.38	29.35	327.497		
4,700.00	4,619.99	1,883.00	1,897.99	22.23	8.86	-87.34	-477.30	-9,261.65	9,640.16	9,610.42	29.74	324.148		
4,800.00	4,718.00	1,927.49	1,940.65	22.70	9.11	-87.39	-477.97	-9,274.25	9,668.23	9,637.89	30.34	318.651		
4,900.00	4,816.01	1,957.76	1,969.61	23.18	9.29	-87.42	-478.44	-9,283.06	9,696.98	9,666.11	30.87	314.112		
5,000.00	4,914.01	2,011.00	2,020.39	23.66	9.60	-87.48	-479.31	-9,299.01	9,726.47	9,694.96	31.51	308.638		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	OH	Database:	EDM 5000.14 Single User Db
Reference Design:	PLAN #1	Offset TVD Reference:	Reference Datum

Offset Design HARVESTERS STATE 7-15 PAD - ULRICH PC I 17-07D(PR_75CC) - OH - OH													Offset Site Error:	0.00 ft
Survey Program: 78-MWD													Offset Well Error:	3.28 ft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
5,100.00	5,012.02	2,011.00	2,020.39	24.14	9.60	-87.48	-479.31	-9,299.01	9,756.44	9,724.55	31.89	305.960		
5,200.00	5,110.03	2,063.98	2,070.79	24.62	9.93	-87.54	-480.21	-9,315.35	9,787.03	9,754.50	32.53	300.859		
5,300.00	5,208.04	2,106.86	2,111.49	25.10	10.20	-87.59	-480.93	-9,328.81	9,818.15	9,785.03	33.12	296.439		
5,400.00	5,306.05	5,400.00	2,376.34	25.58	32.89	-87.89	-484.85	-9,414.30	9,848.50	9,799.30	49.20	200.190		
5,500.00	5,404.06	2,460.84	2,448.55	26.06	12.57	-87.97	-486.04	-9,436.78	9,878.07	9,842.32	35.75	276.287		
5,600.00	5,502.07	2,525.00	2,509.67	26.54	13.01	-88.04	-486.91	-9,456.27	9,908.19	9,871.72	36.47	271.657		
5,700.00	5,600.08	2,562.30	2,545.15	27.02	13.28	-88.08	-487.30	-9,467.77	9,938.69	9,901.64	37.05	268.273		
5,800.00	5,698.09	2,622.56	2,602.41	27.50	13.71	-88.14	-487.68	-9,486.55	9,969.58	9,931.83	37.75	264.105		
7,300.00	7,018.70	6,868.07	6,721.10	34.73	39.13	-32.27	-510.15	-10,302.55	9,940.35	9,875.68	64.68	153.695		
7,400.00	7,051.15	6,897.61	6,750.62	35.55	39.24	-39.72	-510.71	-10,303.35	9,849.73	9,784.69	65.04	151.434		
7,500.00	7,068.75	6,912.65	6,765.65	36.56	39.29	-57.01	-511.01	-10,303.77	9,754.24	9,688.93	65.31	149.362		
7,600.00	7,071.91	6,917.06	6,770.07	37.71	39.31	-81.02	-511.10	-10,303.89	9,656.24	9,590.75	65.49	147.457		
7,700.00	7,071.62	6,918.95	6,771.95	39.03	39.31	-81.08	-511.13	-10,303.95	9,557.93	9,492.28	65.65	145.588		
7,800.00	7,071.34	6,920.84	6,773.84	40.51	39.32	-81.14	-511.17	-10,304.00	9,459.66	9,393.83	65.83	143.701		
7,900.00	7,071.05	6,922.73	6,775.73	42.14	39.33	-81.20	-511.21	-10,304.05	9,361.42	9,295.40	66.02	141.798		
8,000.00	7,070.77	6,924.64	6,777.64	43.89	39.33	-81.26	-511.25	-10,304.11	9,263.22	9,197.00	66.22	139.878		
8,100.00	7,070.48	6,926.55	6,779.55	45.76	39.34	-81.32	-511.29	-10,304.16	9,165.06	9,098.62	66.44	137.942		
8,200.00	7,070.20	6,928.47	6,781.47	47.72	39.35	-81.38	-511.33	-10,304.21	9,066.94	9,000.26	66.67	135.990		
8,300.00	7,069.92	6,930.40	6,783.39	49.78	39.36	-81.45	-511.37	-10,304.27	8,968.86	8,901.94	66.92	134.022		
8,400.00	7,069.63	6,932.33	6,785.33	51.90	39.36	-81.51	-511.41	-10,304.32	8,870.82	8,803.64	67.18	132.039		
8,500.00	7,069.35	6,934.27	6,787.27	54.10	39.37	-81.57	-511.46	-10,304.38	8,772.82	8,705.36	67.46	130.042		
8,600.00	7,069.06	6,936.22	6,789.22	56.36	39.38	-81.63	-511.50	-10,304.43	8,674.87	8,607.12	67.76	128.029		
8,700.00	7,068.78	6,938.18	6,791.17	58.66	39.38	-81.70	-511.54	-10,304.49	8,576.97	8,508.90	68.07	126.004		
8,800.00	7,068.49	6,940.15	6,793.14	61.02	39.39	-81.76	-511.58	-10,304.54	8,479.12	8,410.72	68.40	123.964		
8,900.00	7,068.21	6,942.12	6,795.11	63.42	39.40	-81.83	-511.62	-10,304.60	8,381.31	8,312.56	68.75	121.913		
9,000.00	7,067.92	6,944.10	6,797.09	65.85	39.40	-81.89	-511.67	-10,304.66	8,283.56	8,214.44	69.12	119.849		
9,100.00	7,067.64	6,946.09	6,799.07	68.32	39.41	-81.95	-511.71	-10,304.71	8,185.86	8,116.35	69.50	117.774		
9,200.00	7,067.35	6,948.09	6,801.07	70.81	39.42	-82.02	-511.76	-10,304.77	8,088.22	8,018.30	69.91	115.689		
9,300.00	7,067.07	6,950.09	6,803.07	73.34	39.43	-82.08	-511.80	-10,304.83	7,990.63	7,920.29	70.34	113.594		
9,400.00	7,066.78	6,952.10	6,805.09	75.88	39.43	-82.15	-511.84	-10,304.89	7,893.10	7,822.31	70.80	111.490		
9,500.00	7,066.50	6,954.13	6,807.10	78.45	39.44	-82.21	-511.89	-10,304.95	7,795.64	7,724.37	71.27	109.378		
9,600.00	7,066.21	6,956.15	6,809.13	81.04	39.45	-82.28	-511.94	-10,305.00	7,698.24	7,626.47	71.77	107.260		
9,700.00	7,065.93	6,958.19	6,811.17	83.64	39.45	-82.35	-511.98	-10,305.06	7,600.91	7,528.61	72.30	105.135		
9,800.00	7,065.64	6,960.24	6,813.21	86.26	39.46	-82.41	-512.03	-10,305.12	7,503.64	7,430.80	72.85	103.006		
9,900.00	7,065.36	6,962.29	6,815.26	88.90	39.47	-82.48	-512.08	-10,305.18	7,406.45	7,333.03	73.42	100.873		
10,000.00	7,065.07	6,964.35	6,817.32	91.55	39.48	-82.55	-512.12	-10,305.24	7,309.34	7,235.31	74.03	98.737		
10,100.00	7,064.79	6,966.42	6,819.39	94.21	39.48	-82.61	-512.17	-10,305.30	7,212.30	7,137.64	74.66	96.600		
10,200.00	7,064.50	6,968.50	6,821.47	96.88	39.49	-82.68	-512.22	-10,305.36	7,115.34	7,040.02	75.32	94.462		
10,300.00	7,064.22	6,970.59	6,823.56	99.57	39.50	-82.75	-512.27	-10,305.42	7,018.47	6,942.45	76.02	92.325		
10,400.00	7,063.94	6,972.68	6,825.65	102.26	39.51	-82.82	-512.32	-10,305.49	6,921.68	6,844.94	76.75	90.190		
10,500.00	7,063.65	6,974.79	6,827.75	104.96	39.51	-82.89	-512.37	-10,305.55	6,824.99	6,747.49	77.50	88.059		
10,600.00	7,063.37	6,976.90	6,829.87	107.67	39.52	-82.95	-512.42	-10,305.61	6,728.40	6,650.10	78.30	85.932		
10,700.00	7,063.08	6,979.02	6,831.99	110.39	39.53	-83.02	-512.47	-10,305.67	6,631.90	6,552.77	79.13	83.811		
10,800.00	7,062.80	6,981.15	6,834.11	113.11	39.54	-83.09	-512.52	-10,305.73	6,535.51	6,455.51	80.00	81.698		
10,900.00	7,062.51	6,983.29	6,836.25	115.84	39.54	-83.16	-512.57	-10,305.80	6,439.22	6,358.32	80.90	79.593		
11,000.00	7,062.23	6,985.44	6,838.40	118.58	39.55	-83.23	-512.62	-10,305.86	6,343.05	6,261.21	81.85	77.497		
11,100.00	7,061.94	6,987.60	6,840.55	121.32	39.56	-83.30	-512.67	-10,305.93	6,247.01	6,164.17	82.84	75.413		
11,200.00	7,061.66	6,989.76	6,842.72	124.07	39.57	-83.37	-512.73	-10,305.99	6,151.08	6,067.21	83.87	73.341		
11,300.00	7,061.37	6,991.94	6,844.89	126.82	39.58	-83.44	-512.78	-10,306.06	6,055.29	5,970.34	84.95	71.283		
11,400.00	7,061.09	6,994.12	6,847.07	129.58	39.58	-83.51	-512.83	-10,306.12	5,959.63	5,873.56	86.07	69.240		
11,500.00	7,060.80	6,996.32	6,849.27	132.34	39.59	-83.59	-512.89	-10,306.19	5,864.12	5,776.87	87.25	67.213		
11,600.00	7,060.52	6,998.52	6,851.47	135.10	39.60	-83.66	-512.94	-10,306.25	5,768.76	5,680.28	88.47	65.204		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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-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		
11,700.00	7,060.23	7,000.73	6,853.68	137.87	39.61	-83.73	-513.00	-10,306.32	5,673.55	5,583.80	89.75	63.213		
11,800.00	7,059.95	7,002.95	6,855.90	140.64	39.61	-83.80	-513.05	-10,306.39	5,578.52	5,487.43	91.09	61.243		
11,900.00	7,059.66	7,005.18	6,858.12	143.42	39.62	-83.88	-513.11	-10,306.45	5,483.66	5,391.18	92.48	59.294		
12,000.00	7,059.38	7,007.42	6,860.36	146.20	39.63	-83.95	-513.17	-10,306.52	5,388.98	5,295.04	93.94	57.367		
12,100.00	7,059.09	7,009.67	6,862.61	148.98	39.64	-84.02	-513.22	-10,306.59	5,294.50	5,199.04	95.46	55.464		
12,200.00	7,058.81	7,011.93	6,864.87	151.77	39.65	-84.10	-513.28	-10,306.66	5,200.23	5,103.18	97.04	53.586		
12,300.00	7,058.52	7,014.20	6,867.13	154.55	39.65	-84.17	-513.34	-10,306.73	5,106.17	5,007.47	98.70	51.734		
12,400.00	7,058.24	7,016.47	6,869.41	157.34	39.66	-84.24	-513.40	-10,306.79	5,012.34	4,911.90	100.43	49.908		
12,500.00	7,057.96	7,019.00	6,871.93	160.14	39.67	-84.33	-513.46	-10,306.87	4,918.75	4,816.51	102.24	48.110		
12,600.00	7,057.67	7,022.33	6,875.26	162.93	39.68	-84.43	-513.55	-10,306.97	4,825.41	4,721.28	104.13	46.339		
12,700.00	7,057.39	7,026.03	6,878.95	165.73	39.70	-84.56	-513.64	-10,307.09	4,732.35	4,626.24	106.11	44.598		
12,800.00	7,057.10	7,029.71	6,882.63	168.53	39.71	-84.68	-513.74	-10,307.20	4,639.57	4,531.40	108.18	42.888		
12,900.00	7,056.82	7,033.38	6,886.30	171.33	39.72	-84.80	-513.83	-10,307.31	4,547.10	4,436.76	110.34	41.210		
13,000.00	7,056.53	7,037.03	6,889.94	174.13	39.74	-84.92	-513.92	-10,307.42	4,454.95	4,342.35	112.60	39.565		
13,100.00	7,056.25	7,040.66	6,893.58	176.94	39.75	-85.03	-514.00	-10,307.53	4,363.15	4,248.18	114.96	37.953		
13,200.00	7,055.96	7,044.28	6,897.19	179.74	39.76	-85.15	-514.09	-10,307.64	4,271.70	4,154.27	117.44	36.375		
13,300.00	7,055.68	7,047.88	6,900.79	182.55	39.78	-85.27	-514.17	-10,307.75	4,180.65	4,060.63	120.02	34.832		
13,400.00	7,055.39	7,051.47	6,904.38	185.36	39.79	-85.39	-514.26	-10,307.85	4,090.02	3,967.29	122.73	33.325		
13,500.00	7,055.11	7,055.04	6,907.95	188.17	39.80	-85.50	-514.34	-10,307.96	3,999.83	3,874.26	125.57	31.854		
13,600.00	7,054.82	7,058.60	6,911.50	190.98	39.81	-85.62	-514.42	-10,308.07	3,910.11	3,781.57	128.54	30.420		
13,700.00	7,054.54	7,062.14	6,915.04	193.80	39.83	-85.74	-514.49	-10,308.17	3,820.90	3,689.25	131.65	29.024		
13,800.00	7,054.25	7,065.67	6,918.57	196.61	39.84	-85.85	-514.57	-10,308.28	3,732.24	3,597.33	134.91	27.665		
13,900.00	7,053.97	7,069.18	6,922.08	199.43	39.85	-85.97	-514.64	-10,308.38	3,644.16	3,505.83	138.32	26.345		
14,000.00	7,053.68	7,072.68	6,925.57	202.25	39.87	-86.08	-514.72	-10,308.49	3,556.70	3,414.80	141.91	25.064		
14,100.00	7,053.40	7,076.16	6,929.05	205.06	39.88	-86.20	-514.79	-10,308.59	3,469.93	3,324.26	145.67	23.821		
14,200.00	7,053.11	7,079.63	6,932.52	207.88	39.89	-86.31	-514.86	-10,308.69	3,383.88	3,234.27	149.61	22.619		
14,300.00	7,052.83	7,083.08	6,935.97	210.70	39.90	-86.42	-514.93	-10,308.80	3,298.61	3,144.87	153.74	21.456		
14,400.00	7,052.54	7,086.52	6,939.40	213.53	39.92	-86.54	-514.99	-10,308.90	3,214.19	3,056.11	158.08	20.333		
14,500.00	7,052.26	7,089.94	6,942.82	216.35	39.93	-86.65	-515.06	-10,309.00	3,130.69	2,968.06	162.63	19.251		
14,600.00	7,051.98	7,093.35	6,946.23	219.17	39.94	-86.76	-515.12	-10,309.10	3,048.18	2,880.77	167.40	18.209		
14,700.00	7,051.69	7,096.75	6,949.62	222.00	39.95	-86.87	-515.18	-10,309.20	2,966.73	2,794.33	172.40	17.208		
14,800.00	7,051.41	7,100.13	6,953.00	224.82	39.97	-86.98	-515.25	-10,309.30	2,886.46	2,708.81	177.65	16.248		
14,900.00	7,051.12	7,103.49	6,956.37	227.65	39.98	-87.09	-515.31	-10,309.40	2,807.44	2,624.30	183.15	15.329		
14,942.37	7,051.00	7,104.92	6,957.79	228.85	39.98	-87.14	-515.33	-10,309.44	2,774.37	2,588.82	185.55	14.952 CC, ES, SF		



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	40.00	3.28	3.28	-92.62	-419.44	-9,149.17	9,158.87					
100.00	100.00	60.00	100.00	3.28	3.44	-92.62	-419.44	-9,149.17	9,158.78	9,152.05	6.73	1,361.320		
200.00	200.00	160.00	200.00	3.34	5.05	-92.62	-419.44	-9,149.17	9,158.78	9,150.39	8.39	1,091.988		
300.00	300.00	260.00	300.00	3.44	8.03	-92.62	-419.44	-9,149.17	9,158.78	9,147.31	11.48	798.060		
400.00	399.98	359.98	399.98	3.60	11.31	-85.34	-419.44	-9,149.17	9,158.64	9,143.73	14.91	614.239		
500.00	499.84	459.84	499.84	3.81	14.68	-85.38	-419.44	-9,149.17	9,158.22	9,139.73	18.48	495.481		
600.00	599.45	559.45	599.45	4.06	18.08	-85.45	-419.44	-9,149.17	9,157.52	9,135.39	22.13	413.803		
700.00	698.70	658.70	698.70	4.34	21.50	-85.54	-419.44	-9,149.17	9,156.55	9,130.73	25.82	354.616		
800.00	797.47	757.47	797.47	4.64	24.91	-85.66	-419.44	-9,149.17	9,155.34	9,125.80	29.54	309.939		
900.00	895.65	855.65	895.65	4.98	28.32	-85.80	-419.44	-9,149.17	9,153.90	9,120.63	33.27	275.112		
1,000.00	993.66	953.66	993.66	5.32	31.72	-85.92	-419.44	-9,149.17	9,152.44	9,115.40	37.03	247.152		
1,100.00	1,091.67	1,051.67	1,091.67	5.69	35.12	-86.04	-419.44	-9,149.17	9,151.02	9,110.20	40.81	224.220		
1,200.00	1,189.68	1,149.68	1,189.68	6.09	38.53	-86.16	-419.44	-9,149.17	9,149.64	9,105.03	44.61	205.094		
1,300.00	1,287.69	1,247.69	1,287.69	6.49	41.94	-86.28	-419.44	-9,149.17	9,148.30	9,099.88	48.43	188.913		
1,400.00	1,385.69	1,345.69	1,385.69	6.90	45.35	-86.41	-419.44	-9,149.17	9,147.01	9,094.76	52.25	175.056		
1,500.00	1,483.70	1,443.70	1,483.70	7.33	48.76	-86.53	-419.44	-9,149.17	9,145.76	9,089.68	56.09	163.061		
1,600.00	1,581.71	1,541.71	1,581.71	7.76	52.18	-86.65	-419.44	-9,149.17	9,144.56	9,084.63	59.93	152.582		
1,700.00	1,679.72	1,639.72	1,679.72	8.19	55.59	-86.77	-419.44	-9,149.17	9,143.40	9,079.61	63.78	143.351		
1,800.00	1,777.73	1,737.73	1,777.73	8.63	59.01	-86.89	-419.44	-9,149.17	9,142.28	9,074.64	67.64	135.160		
1,900.00	1,875.74	1,835.74	1,875.74	9.08	62.43	-87.01	-419.44	-9,149.17	9,141.20	9,069.70	71.50	127.845		
2,000.00	1,973.75	1,933.75	1,973.75	9.53	65.84	-87.14	-419.44	-9,149.17	9,140.16	9,064.80	75.37	121.273		
2,100.00	2,071.76	2,031.76	2,071.76	9.98	69.26	-87.26	-419.44	-9,149.17	9,139.17	9,059.94	79.24	115.337		
2,200.00	2,169.77	2,129.77	2,169.77	10.44	72.68	-87.38	-419.44	-9,149.17	9,138.23	9,055.11	83.11	109.951		
2,300.00	2,267.77	2,227.77	2,267.77	10.90	76.10	-87.50	-419.44	-9,149.17	9,137.32	9,050.33	86.99	105.041		
2,400.00	2,365.78	2,325.78	2,365.78	11.36	79.52	-87.62	-419.44	-9,149.17	9,136.46	9,045.59	90.87	100.548		
2,500.00	2,463.79	2,423.79	2,463.79	11.82	82.93	-87.75	-419.44	-9,149.17	9,135.64	9,040.89	94.75	96.421		
2,600.00	2,561.80	2,521.80	2,561.80	12.28	86.35	-87.87	-419.44	-9,149.17	9,134.87	9,036.24	98.63	92.617		
2,700.00	2,659.81	2,619.81	2,659.81	12.75	89.77	-87.99	-419.44	-9,149.17	9,134.13	9,031.62	102.51	89.101		
2,800.00	2,757.82	2,717.82	2,757.82	13.21	93.19	-88.11	-419.44	-9,149.17	9,133.44	9,027.04	106.40	85.840		
2,900.00	2,855.83	2,815.83	2,855.83	13.68	96.61	-88.23	-419.44	-9,149.17	9,132.80	9,022.51	110.29	82.809		
3,000.00	2,953.84	2,913.84	2,953.84	14.15	100.03	-88.36	-419.44	-9,149.17	9,132.20	9,018.02	114.18	79.983		
3,100.00	3,051.85	3,011.85	3,051.85	14.62	103.45	-88.48	-419.44	-9,149.17	9,131.64	9,013.57	118.07	77.343		
3,200.00	3,149.85	3,109.85	3,149.85	15.09	106.87	-88.60	-419.44	-9,149.17	9,131.12	9,009.16	121.96	74.871		
3,300.00	3,247.86	3,207.86	3,247.86	15.56	110.29	-88.72	-419.44	-9,149.17	9,130.65	9,004.80	125.85	72.552		
3,400.00	3,345.87	3,305.87	3,345.87	16.04	113.71	-88.84	-419.44	-9,149.17	9,130.21	9,000.47	129.74	70.372		
3,500.00	3,443.88	3,403.88	3,443.88	16.51	117.13	-88.97	-419.44	-9,149.17	9,129.83	8,996.19	133.63	68.319		
3,600.00	3,541.89	3,501.89	3,541.89	16.98	120.55	-89.09	-419.44	-9,149.17	9,129.48	8,991.95	137.53	66.382		
3,700.00	3,639.90	3,600.10	3,639.90	17.46	123.98	-89.21	-419.44	-9,149.17	9,129.18	8,987.75	141.43	64.549		
3,800.00	3,737.91	3,702.09	3,737.91	17.93	127.54	-89.33	-419.44	-9,149.17	9,128.92	8,983.46	145.47	62.757		
3,900.00	3,835.92	3,804.08	3,835.92	18.41	131.10	-89.45	-419.44	-9,149.17	9,128.71	8,979.21	149.50	61.062		
4,000.00	3,933.93	3,906.07	3,933.93	18.88	134.66	-89.58	-419.44	-9,149.17	9,128.54	8,975.00	153.54	59.456		
4,100.00	4,031.93	4,008.07	4,031.93	19.36	138.22	-89.70	-419.44	-9,149.17	9,128.41	8,970.84	157.57	57.932		
4,200.00	4,129.94	4,089.94	4,129.94	19.84	141.07	-89.82	-419.44	-9,149.17	9,128.33	8,967.42	160.91	56.731		
4,300.00	4,227.95	4,187.95	4,227.95	20.31	144.49	-89.94	-419.44	-9,149.17	9,128.28	8,963.48	164.80	55.389		
4,346.80	4,273.82	4,233.82	4,273.82	20.54	146.09	-90.00	-419.44	-9,149.17	9,128.28	8,961.65	166.63	54.783		
4,400.00	4,325.96	4,285.96	4,325.96	20.79	147.91	-90.06	-419.44	-9,149.17	9,128.29	8,959.58	168.70	54.109		
4,500.00	4,423.97	4,383.97	4,423.97	21.27	151.33	-90.19	-419.44	-9,149.17	9,128.33	8,955.73	172.60	52.887		
4,600.00	4,521.98	4,481.98	4,521.98	21.75	154.76	-90.31	-419.44	-9,149.17	9,128.42	8,951.92	176.50	51.719		
4,700.00	4,619.99	4,579.99	4,619.99	22.23	158.18	-90.43	-419.44	-9,149.17	9,128.55	8,948.15	180.40	50.602		
4,800.00	4,718.00	4,678.00	4,718.00	22.70	161.60	-90.55	-419.44	-9,149.17	9,128.72	8,944.43	184.30	49.533		
4,900.00	4,816.01	4,776.01	4,816.01	23.18	165.02	-90.68	-419.44	-9,149.17	9,128.94	8,940.74	188.20	48.507		
5,000.00	4,914.01	4,874.01	4,914.01	23.66	168.44	-90.80	-419.44	-9,149.17	9,129.20	8,937.10	192.10	47.524		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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		
5,100.00	5,012.02	4,972.02	5,012.02	24.14	171.86	-90.92	-419.44	-9,149.17	9,129.50	8,933.51	196.00	46.580		
5,200.00	5,110.03	5,070.03	5,110.03	24.62	175.28	-91.04	-419.44	-9,149.17	9,129.85	8,929.95	199.90	45.673		
5,300.00	5,208.04	5,168.04	5,208.04	25.10	178.70	-91.16	-419.44	-9,149.17	9,130.24	8,926.44	203.80	44.800		
5,400.00	5,306.05	5,266.05	5,306.05	25.58	182.12	-91.29	-419.44	-9,149.17	9,130.67	8,922.98	207.70	43.961		
5,500.00	5,404.06	5,364.06	5,404.06	26.06	185.54	-91.41	-419.44	-9,149.17	9,131.15	8,919.55	211.60	43.153		
5,600.00	5,502.07	5,462.07	5,502.07	26.54	188.96	-91.53	-419.44	-9,149.17	9,131.67	8,916.17	215.50	42.374		
5,700.00	5,600.08	5,560.08	5,600.08	27.02	192.39	-91.65	-419.44	-9,149.17	9,132.23	8,912.83	219.40	41.623		
5,800.00	5,698.09	5,658.09	5,698.09	27.50	195.81	-91.77	-419.44	-9,149.17	9,132.84	8,909.53	223.30	40.899		
5,900.00	5,796.09	5,756.09	5,796.09	27.98	199.23	-91.90	-419.44	-9,149.17	9,133.49	8,906.28	227.21	40.199		
6,000.00	5,894.10	5,854.10	5,894.10	28.46	202.65	-92.02	-419.44	-9,149.17	9,134.18	8,903.07	231.11	39.524		
6,100.00	5,992.11	5,952.11	5,992.11	28.94	206.07	-92.14	-419.44	-9,149.17	9,134.91	8,899.91	235.01	38.870		
6,200.00	6,090.12	6,050.12	6,090.12	29.42	209.49	-92.26	-419.44	-9,149.17	9,135.69	8,896.78	238.91	38.239		
6,300.00	6,188.13	6,148.13	6,188.13	29.90	212.91	-92.38	-419.44	-9,149.17	9,136.51	8,893.70	242.81	37.628		
6,400.00	6,286.14	6,246.14	6,286.14	30.38	216.33	-92.51	-419.44	-9,149.17	9,137.38	8,890.66	246.72	37.036		
6,500.00	6,384.15	6,344.15	6,384.15	30.87	219.75	-92.63	-419.44	-9,149.17	9,138.29	8,887.67	250.62	36.463		
6,600.00	6,482.15	6,442.15	6,482.15	31.35	223.17	-84.25	-419.44	-9,149.17	9,138.93	8,884.41	254.52	35.907		
6,700.00	6,579.21	6,539.21	6,579.21	31.83	226.56	-53.51	-419.44	-9,149.17	9,129.15	8,870.76	258.39	35.331		
6,800.00	6,673.04	6,633.04	6,673.04	32.30	229.84	-39.50	-419.44	-9,149.17	9,104.21	8,842.08	262.13	34.732		
6,900.00	6,761.33	6,721.33	6,761.33	32.74	232.92	-33.07	-419.44	-9,149.17	9,064.74	8,799.09	265.65	34.123		
7,000.00	6,841.90	6,801.90	6,841.90	33.17	235.73	-30.27	-419.44	-9,149.17	9,011.73	8,742.86	268.87	33.517		
7,100.00	6,912.77	6,872.77	6,912.77	33.60	238.21	-29.75	-419.44	-9,149.17	8,946.49	8,674.77	271.71	32.926		
7,200.00	6,972.19	6,932.19	6,972.19	34.09	240.28	-31.29	-419.44	-9,149.17	8,870.62	8,596.50	274.12	32.361		
7,300.00	7,018.70	6,978.70	7,018.70	34.73	241.90	-35.52	-419.44	-9,149.17	8,785.99	8,509.96	276.03	31.830		
7,400.00	7,051.15	7,011.15	7,051.15	35.55	243.04	-44.71	-419.44	-9,149.17	8,694.67	8,417.26	277.40	31.343		
7,500.00	7,068.75	7,028.75	7,068.75	36.56	243.65	-65.34	-419.44	-9,149.17	8,598.90	8,320.68	278.22	30.907		
7,600.00	7,071.91	7,031.91	7,071.91	37.71	243.76	-90.82	-419.44	-9,149.17	8,501.03	8,222.54	278.50	30.525		
7,700.00	7,071.62	7,031.62	7,071.62	39.03	243.75	-90.81	-419.44	-9,149.17	8,402.97	8,124.32	278.66	30.155		
7,800.00	7,071.34	7,031.34	7,071.34	40.51	243.74	-90.80	-419.44	-9,149.17	8,304.95	8,026.13	278.83	29.785		
7,900.00	7,071.05	7,031.05	7,071.05	42.14	243.73	-90.79	-419.44	-9,149.17	8,206.99	7,927.97	279.02	29.414		
8,000.00	7,070.77	7,030.77	7,070.77	43.89	243.72	-90.78	-419.44	-9,149.17	8,109.07	7,829.84	279.22	29.042		
8,100.00	7,070.48	7,030.48	7,070.48	45.76	243.71	-90.77	-419.44	-9,149.17	8,011.20	7,731.75	279.44	28.668		
8,200.00	7,070.20	7,030.20	7,070.20	47.72	243.70	-90.76	-419.44	-9,149.17	7,913.38	7,633.70	279.68	28.294		
8,300.00	7,069.92	7,029.92	7,069.92	49.78	243.69	-90.75	-419.44	-9,149.17	7,815.62	7,535.69	279.94	27.919		
8,400.00	7,069.63	7,029.63	7,069.63	51.90	243.68	-90.74	-419.44	-9,149.17	7,717.92	7,437.71	280.21	27.543		
8,500.00	7,069.35	7,029.35	7,069.35	54.10	243.67	-90.73	-419.44	-9,149.17	7,620.28	7,339.77	280.51	27.166		
8,600.00	7,069.06	7,029.06	7,069.06	56.36	243.66	-90.72	-419.44	-9,149.17	7,522.70	7,241.88	280.82	26.788		
8,700.00	7,068.78	7,028.78	7,068.78	58.66	243.65	-90.71	-419.44	-9,149.17	7,425.18	7,144.03	281.16	26.409		
8,800.00	7,068.49	7,028.49	7,068.49	61.02	243.64	-90.70	-419.44	-9,149.17	7,327.73	7,046.22	281.52	26.030		
8,900.00	7,068.21	7,028.21	7,068.21	63.42	243.63	-90.69	-419.44	-9,149.17	7,230.35	6,948.46	281.90	25.649		
9,000.00	7,067.92	7,027.92	7,067.92	65.85	243.62	-90.68	-419.44	-9,149.17	7,133.05	6,850.74	282.30	25.267		
9,100.00	7,067.64	7,027.64	7,067.64	68.32	243.61	-90.67	-419.44	-9,149.17	7,035.82	6,753.08	282.73	24.885		
9,200.00	7,067.35	7,027.35	7,067.35	70.81	243.60	-90.66	-419.44	-9,149.17	6,938.66	6,655.47	283.19	24.502		
9,300.00	7,067.07	7,027.07	7,067.07	73.34	243.59	-90.65	-419.44	-9,149.17	6,841.59	6,557.91	283.68	24.118		
9,400.00	7,066.78	7,026.78	7,066.78	75.88	243.58	-90.64	-419.44	-9,149.17	6,744.61	6,460.42	284.19	23.733		
9,500.00	7,066.50	7,026.50	7,066.50	78.45	243.57	-90.63	-419.44	-9,149.17	6,647.71	6,362.98	284.73	23.347		
9,600.00	7,066.21	7,026.21	7,066.21	81.04	243.56	-90.62	-419.44	-9,149.17	6,550.91	6,265.60	285.31	22.961		
9,700.00	7,065.93	7,025.93	7,065.93	83.64	243.55	-90.61	-419.44	-9,149.17	6,454.20	6,168.29	285.92	22.574		
9,800.00	7,065.64	7,025.64	7,065.64	86.26	243.54	-90.61	-419.44	-9,149.17	6,357.60	6,071.04	286.56	22.186		
9,900.00	7,065.36	7,025.36	7,065.36	88.90	243.53	-90.60	-419.44	-9,149.17	6,261.10	5,973.87	287.23	21.798		
10,000.00	7,065.07	7,025.07	7,065.07	91.55	243.52	-90.59	-419.44	-9,149.17	6,164.72	5,876.77	287.95	21.409		
10,100.00	7,064.79	7,024.79	7,064.79	94.21	243.51	-90.58	-419.44	-9,149.17	6,068.45	5,779.75	288.70	21.020		
10,200.00	7,064.50	7,024.50	7,064.50	96.88	243.50	-90.57	-419.44	-9,149.17	5,972.30	5,682.81	289.49	20.630		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)			
10,300.00	7,064.22	7,024.22	7,064.22	99.57	243.49	-90.56	-419.44	-9,149.17	5,876.29	5,585.96	290.32	20.241		
10,400.00	7,063.94	7,023.94	7,063.94	102.26	243.48	-90.55	-419.44	-9,149.17	5,780.41	5,489.21	291.20	19.850		
10,500.00	7,063.65	7,023.65	7,063.65	104.96	243.47	-90.54	-419.44	-9,149.17	5,684.67	5,392.54	292.12	19.460		
10,600.00	7,063.37	7,023.37	7,063.37	107.67	243.46	-90.53	-419.44	-9,149.17	5,589.08	5,295.98	293.09	19.069		
10,700.00	7,063.08	7,023.08	7,063.08	110.39	243.45	-90.52	-419.44	-9,149.17	5,493.64	5,199.53	294.11	18.679		
10,800.00	7,062.80	7,022.80	7,062.80	113.11	243.44	-90.51	-419.44	-9,149.17	5,398.37	5,103.19	295.19	18.288		
10,900.00	7,062.51	7,022.51	7,062.51	115.84	243.43	-90.50	-419.44	-9,149.17	5,303.28	5,006.97	296.31	17.898		
11,000.00	7,062.23	7,022.23	7,062.23	118.58	243.42	-90.49	-419.44	-9,149.17	5,208.37	4,910.87	297.50	17.507		
11,100.00	7,061.94	7,021.94	7,061.94	121.32	243.41	-90.48	-419.44	-9,149.17	5,113.65	4,814.91	298.74	17.117		
11,200.00	7,061.66	7,021.66	7,061.66	124.07	243.40	-90.47	-419.44	-9,149.17	5,019.14	4,719.09	300.05	16.728		
11,300.00	7,061.37	7,021.37	7,061.37	126.82	243.39	-90.46	-419.44	-9,149.17	4,924.85	4,623.43	301.42	16.339		
11,400.00	7,061.09	7,021.09	7,061.09	129.58	243.38	-90.45	-419.44	-9,149.17	4,830.78	4,527.92	302.86	15.950		
11,500.00	7,060.80	7,020.80	7,060.80	132.34	243.37	-90.44	-419.44	-9,149.17	4,736.96	4,432.58	304.38	15.563		
11,600.00	7,060.52	7,020.52	7,060.52	135.10	243.36	-90.43	-419.44	-9,149.17	4,643.40	4,337.43	305.96	15.176		
11,700.00	7,060.23	7,020.23	7,060.23	137.87	243.35	-90.42	-419.44	-9,149.17	4,550.11	4,242.47	307.63	14.791		
11,800.00	7,059.95	7,019.95	7,059.95	140.64	243.34	-90.41	-419.44	-9,149.17	4,457.11	4,147.72	309.39	14.406		
11,900.00	7,059.66	7,019.66	7,059.66	143.42	243.33	-90.40	-419.44	-9,149.17	4,364.42	4,053.19	311.23	14.023		
12,000.00	7,059.38	7,019.38	7,059.38	146.20	243.32	-90.39	-419.44	-9,149.17	4,272.06	3,958.89	313.16	13.642		
12,100.00	7,059.09	7,019.09	7,059.09	148.98	243.31	-90.38	-419.44	-9,149.17	4,180.05	3,864.85	315.20	13.262		
12,200.00	7,058.81	7,018.81	7,058.81	151.77	243.30	-90.37	-419.44	-9,149.17	4,088.41	3,771.08	317.33	12.884		
12,300.00	7,058.52	7,018.52	7,058.52	154.55	243.29	-90.36	-419.44	-9,149.17	3,997.18	3,677.60	319.58	12.508		
12,400.00	7,058.24	7,018.24	7,058.24	157.34	243.28	-90.35	-419.44	-9,149.17	3,906.38	3,584.44	321.94	12.134		
12,500.00	7,057.96	7,017.96	7,057.96	160.14	243.27	-90.34	-419.44	-9,149.17	3,816.04	3,491.62	324.42	11.763		
12,600.00	7,057.67	7,017.67	7,057.67	162.93	243.26	-90.33	-419.44	-9,149.17	3,726.19	3,399.16	327.03	11.394		
12,700.00	7,057.39	7,017.39	7,057.39	165.73	243.25	-90.32	-419.44	-9,149.17	3,636.87	3,307.09	329.77	11.028		
12,800.00	7,057.10	7,017.10	7,057.10	168.53	243.24	-90.31	-419.44	-9,149.17	3,548.12	3,215.46	332.66	10.666		
12,900.00	7,056.82	7,016.82	7,056.82	171.33	243.23	-90.30	-419.44	-9,149.17	3,459.98	3,124.28	335.70	10.307		
13,000.00	7,056.53	7,016.53	7,056.53	174.13	243.22	-90.29	-419.44	-9,149.17	3,372.51	3,033.61	338.90	9.951		
13,100.00	7,056.25	7,016.25	7,056.25	176.94	243.21	-90.28	-419.44	-9,149.17	3,285.75	2,943.49	342.26	9.600		
13,200.00	7,055.96	7,015.96	7,055.96	179.74	243.20	-90.27	-419.44	-9,149.17	3,199.76	2,853.96	345.80	9.253		
13,300.00	7,055.68	7,015.68	7,055.68	182.55	243.19	-90.26	-419.44	-9,149.17	3,114.61	2,765.08	349.53	8.911		
13,400.00	7,055.39	7,015.39	7,055.39	185.36	243.18	-90.25	-419.44	-9,149.17	3,030.37	2,676.91	353.46	8.574		
13,500.00	7,055.11	7,015.11	7,055.11	188.17	243.17	-90.24	-419.44	-9,149.17	2,947.11	2,589.52	357.59	8.242		
13,600.00	7,054.82	7,014.82	7,054.82	190.98	243.16	-90.23	-419.44	-9,149.17	2,864.93	2,502.99	361.93	7.916		
13,700.00	7,054.54	7,014.54	7,054.54	193.80	243.15	-90.22	-419.44	-9,149.17	2,783.91	2,417.40	366.50	7.596		
13,800.00	7,054.25	7,014.25	7,054.25	196.61	243.14	-90.21	-419.44	-9,149.17	2,704.16	2,332.85	371.31	7.283		
13,900.00	7,053.97	7,013.97	7,053.97	199.43	243.13	-90.20	-419.44	-9,149.17	2,625.79	2,249.44	376.36	6.977		
14,000.00	7,053.68	7,013.68	7,053.68	202.25	243.12	-90.19	-419.44	-9,149.17	2,548.95	2,167.30	381.65	6.679		
14,100.00	7,053.40	7,013.40	7,053.40	205.06	243.11	-90.18	-419.44	-9,149.17	2,473.75	2,086.56	387.20	6.389		
14,200.00	7,053.11	7,013.11	7,053.11	207.88	243.10	-90.17	-419.44	-9,149.17	2,400.37	2,007.37	393.00	6.108		
14,300.00	7,052.83	7,012.83	7,052.83	210.70	243.09	-90.16	-419.44	-9,149.17	2,328.97	1,929.92	399.06	5.836		
14,400.00	7,052.54	7,012.54	7,052.54	213.53	243.09	-90.15	-419.44	-9,149.17	2,259.75	1,854.38	405.36	5.575		
14,500.00	7,052.26	7,012.26	7,052.26	216.35	243.08	-90.14	-419.44	-9,149.17	2,192.89	1,780.99	411.91	5.324		
14,600.00	7,051.98	7,011.98	7,051.98	219.17	243.07	-90.13	-419.44	-9,149.17	2,128.64	1,709.97	418.67	5.084		
14,700.00	7,051.69	7,011.69	7,051.69	222.00	243.06	-90.12	-419.44	-9,149.17	2,067.23	1,641.61	425.62	4.857		
14,800.00	7,051.41	7,011.41	7,051.41	224.82	243.05	-90.11	-419.44	-9,149.17	2,008.92	1,576.20	432.72	4.643		
14,900.00	7,051.12	7,011.12	7,051.12	227.65	243.04	-90.10	-419.44	-9,149.17	1,954.00	1,514.06	439.93	4.442		
14,942.37	7,051.00	7,011.00	7,051.00	228.85	243.03	-90.10	-419.44	-9,149.17	1,931.81	1,488.81	443.01	4.361	CC, ES, SF	



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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-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	27.00	3.28	3.28	-92.81	-448.58	-9,146.40	9,157.44					
100.00	100.00	109.49	136.49	3.28	3.29	-92.81	-448.86	-9,146.05	9,157.13	9,150.55	6.58	1,392.369		
200.00	200.00	184.81	211.81	3.34	3.33	-92.81	-448.78	-9,145.85	9,156.86	9,150.19	6.67	1,372.480		
244.66	244.66	217.66	244.66	3.38	3.36	-92.81	-448.73	-9,145.83	9,156.83	9,150.09	6.74	1,358.339		
300.00	300.00	258.44	285.43	3.44	3.40	-92.81	-448.73	-9,145.86	9,156.88	9,150.03	6.85	1,336.834		
400.00	399.98	345.33	372.33	3.60	3.52	-85.51	-448.82	-9,146.06	9,156.97	9,149.85	7.13	1,285.176		
500.00	499.84	433.56	460.55	3.81	3.68	-85.54	-448.94	-9,146.38	9,156.93	9,149.45	7.48	1,223.744		
600.00	599.45	601.93	628.92	4.06	4.06	-85.65	-449.39	-9,146.72	9,156.58	9,148.48	8.10	1,130.144		
700.00	698.70	676.79	703.79	4.34	4.25	-85.73	-449.77	-9,146.50	9,155.41	9,146.84	8.57	1,067.788		
800.00	797.47	727.00	753.99	4.64	4.40	-85.80	-450.01	-9,146.54	9,154.40	9,145.38	9.02	1,014.840		
900.00	895.65	766.01	793.00	4.98	4.51	-85.86	-450.06	-9,146.80	9,153.77	9,144.30	9.47	966.857		
942.88	937.67	779.95	806.95	5.12	4.55	-85.88	-450.01	-9,146.98	9,153.70	9,144.04	9.66	947.551		
1,000.00	993.66	798.56	825.55	5.32	4.61	-85.90	-449.90	-9,147.29	9,153.82	9,143.90	9.92	922.483		
1,100.00	1,091.67	856.00	882.96	5.69	4.78	-85.96	-449.17	-9,148.76	9,154.72	9,144.24	10.48	873.846		
1,200.00	1,189.68	856.00	882.96	6.09	4.78	-85.96	-449.17	-9,148.76	9,156.17	9,145.30	10.87	842.427		
1,300.00	1,287.69	856.00	882.96	6.49	4.78	-85.96	-449.17	-9,148.76	9,158.70	9,147.43	11.27	812.410		
1,400.00	1,385.69	911.38	938.28	6.90	4.96	-86.02	-447.95	-9,151.05	9,161.67	9,149.80	11.86	772.330		
1,500.00	1,483.70	936.14	962.99	7.33	5.04	-86.05	-447.26	-9,152.41	9,165.66	9,153.29	12.36	741.298		
1,600.00	1,581.71	984.00	1,010.72	7.76	5.20	-86.10	-445.66	-9,155.61	9,170.59	9,157.64	12.95	708.147		
1,700.00	1,679.72	984.00	1,010.72	8.19	5.20	-86.10	-445.66	-9,155.61	9,176.11	9,162.72	13.38	685.649		
1,800.00	1,777.73	984.00	1,010.72	8.63	5.20	-86.10	-445.66	-9,155.61	9,182.71	9,168.89	13.82	664.458		
1,900.00	1,875.74	1,043.65	1,070.10	9.08	5.41	-86.15	-442.92	-9,160.59	9,189.74	9,175.27	14.46	635.330		
2,000.00	1,973.75	1,112.00	1,137.95	9.53	5.65	-86.21	-438.51	-9,167.54	9,198.00	9,182.86	15.15	607.225		
2,100.00	2,071.76	1,112.00	1,137.95	9.98	5.65	-86.21	-438.51	-9,167.54	9,206.48	9,190.89	15.59	590.500		
2,200.00	2,169.77	1,112.00	1,137.95	10.44	5.65	-86.21	-438.51	-9,167.54	9,216.03	9,200.00	16.04	574.740		
2,300.00	2,267.77	1,182.73	1,207.95	10.90	5.92	-86.26	-432.59	-9,175.81	9,226.04	9,209.29	16.74	551.018		
2,400.00	2,365.78	1,241.00	1,265.44	11.36	6.15	-86.29	-426.74	-9,183.21	9,236.77	9,219.36	17.41	530.454		
2,500.00	2,463.79	1,299.64	1,323.13	11.82	6.40	-86.31	-419.73	-9,191.00	9,247.95	9,229.86	18.10	511.035		
2,600.00	2,561.80	1,369.00	1,391.11	12.28	6.70	-86.33	-409.66	-9,200.39	9,259.32	9,240.49	18.83	491.724		
2,700.00	2,659.81	1,426.94	1,447.67	12.75	6.97	-86.34	-400.03	-9,208.53	9,271.08	9,251.55	19.53	474.592		
2,800.00	2,757.82	1,498.00	1,516.73	13.21	7.31	-86.34	-387.09	-9,219.14	9,283.48	9,263.18	20.30	457.229		
2,900.00	2,855.83	1,498.00	1,516.73	13.68	7.31	-86.34	-387.09	-9,219.14	9,296.37	9,275.62	20.75	448.074		
3,000.00	2,953.84	1,561.25	1,577.93	14.15	7.63	-86.34	-374.68	-9,229.18	9,309.81	9,288.31	21.50	432.966		
3,100.00	3,051.85	1,626.00	1,640.33	14.62	7.98	-86.33	-361.29	-9,240.09	9,323.98	9,301.71	22.27	418.698		
3,200.00	3,149.85	1,650.21	1,663.59	15.09	8.12	-86.33	-356.07	-9,244.32	9,338.60	9,315.76	22.84	408.868		
3,300.00	3,247.86	1,701.69	1,712.87	15.56	8.41	-86.31	-344.40	-9,253.54	9,353.81	9,330.25	23.56	397.014		
3,400.00	3,345.87	1,754.00	1,762.70	16.04	8.72	-86.29	-331.75	-9,263.22	9,369.52	9,345.23	24.29	385.785		
3,500.00	3,443.88	1,754.00	1,762.70	16.51	8.72	-86.29	-331.75	-9,263.22	9,385.98	9,361.26	24.72	379.685		
3,600.00	3,541.89	1,813.92	1,819.44	16.98	9.11	-86.27	-316.47	-9,274.92	9,402.86	9,377.35	25.52	368.515		
3,700.00	3,639.90	1,883.00	1,884.40	17.46	9.56	-86.23	-298.04	-9,289.49	9,420.87	9,394.50	26.37	357.263		
3,800.00	3,737.91	1,883.00	1,884.40	17.93	9.56	-86.23	-298.04	-9,289.49	9,439.09	9,412.29	26.80	352.255		
3,900.00	3,835.92	2,057.19	2,047.66	18.41	10.80	-86.12	-249.92	-9,326.52	9,457.44	9,429.07	28.38	333.249		
4,000.00	3,933.93	2,151.59	2,136.44	18.88	11.49	-86.07	-224.50	-9,346.17	9,475.39	9,445.94	29.45	321.744		
4,100.00	4,031.93	2,219.51	2,200.43	19.36	11.99	-86.04	-206.79	-9,360.42	9,493.54	9,463.20	30.34	312.879		
4,200.00	4,129.94	2,306.41	2,282.46	19.84	12.63	-86.00	-184.80	-9,378.88	9,511.98	9,480.61	31.37	303.246		
4,300.00	4,227.95	2,418.81	2,388.85	20.31	13.47	-85.96	-157.32	-9,402.53	9,530.26	9,497.68	32.57	292.579		
4,400.00	4,325.96	2,486.91	2,453.19	20.79	13.99	-85.93	-140.31	-9,416.97	9,548.70	9,515.22	33.48	285.222		
4,500.00	4,423.97	2,582.53	2,543.19	21.27	14.73	-85.88	-115.43	-9,437.53	9,567.39	9,532.80	34.59	276.588		
4,600.00	4,521.98	2,653.00	2,609.50	21.75	15.28	-85.85	-96.90	-9,452.58	9,586.00	9,550.47	35.53	269.819		
4,700.00	4,619.99	2,720.41	2,672.77	22.23	15.82	-85.81	-78.78	-9,467.18	9,604.91	9,568.46	36.46	263.469		
4,800.00	4,718.00	2,782.00	2,730.29	22.70	16.32	-85.77	-61.65	-9,481.00	9,624.44	9,587.10	37.34	257.759		
4,900.00	4,816.01	2,900.89	2,841.36	23.18	17.31	-85.70	-28.78	-9,507.75	9,644.15	9,605.48	38.67	249.378		

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



Anticollision Report



Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	4,914.01	3,072.99	3,003.17	23.66	18.71	-85.62	16.61	-9,544.86	9,662.74	9,622.33	40.40	239.156		
5,100.00	5,012.02	3,120.40	3,047.71	24.14	19.10	-85.59	29.19	-9,555.14	9,681.65	9,640.47	41.18	235.091		
5,200.00	5,110.03	3,169.39	3,093.60	24.62	19.50	-85.57	42.44	-9,566.03	9,701.08	9,659.11	41.97	231.131		
5,300.00	5,208.04	3,454.01	3,361.88	25.10	21.80	-85.44	115.06	-9,627.24	9,719.93	9,675.37	44.56	218.155		
5,400.00	5,306.05	3,522.14	3,426.38	25.58	22.34	-85.42	131.91	-9,641.32	9,737.88	9,692.39	45.48	214.100		
5,500.00	5,404.06	3,599.77	3,499.91	26.06	22.96	-85.39	150.78	-9,657.56	9,756.10	9,709.62	46.48	209.883		
5,600.00	5,502.07	5,591.43	5,438.53	26.54	33.86	-86.15	400.59	-9,879.16	9,770.47	9,713.08	57.39	170.262		
5,700.00	5,600.08	5,722.55	5,569.65	27.02	34.24	-86.30	399.96	-9,879.76	9,769.63	9,711.34	58.28	167.618		
5,800.00	5,698.09	5,830.64	5,677.73	27.50	34.54	-86.43	398.81	-9,879.96	9,768.60	9,709.48	59.11	165.254		
5,900.00	5,796.09	5,940.74	5,787.81	27.98	34.85	-86.57	396.79	-9,880.00	9,767.52	9,707.57	59.94	162.944		
6,000.00	5,894.10	6,081.33	5,928.38	28.46	35.24	-86.75	394.18	-9,879.70	9,766.27	9,705.41	60.86	160.472		
6,100.00	5,992.11	6,208.50	6,055.52	28.94	35.60	-86.91	391.59	-9,878.83	9,764.59	9,702.85	61.74	158.156		
6,200.00	6,090.12	6,307.64	6,154.64	29.42	35.89	-87.04	389.87	-9,878.03	9,762.83	9,700.28	62.55	156.088		
6,300.00	6,188.13	6,418.51	6,265.50	29.90	36.21	-87.18	388.11	-9,877.17	9,761.14	9,697.75	63.39	153.984		
6,400.00	6,286.14	6,550.40	6,397.36	30.38	36.60	-87.34	386.48	-9,875.65	9,759.08	9,694.78	64.30	151.777		
6,500.00	6,384.15	6,638.96	6,485.92	30.87	36.86	-87.45	385.83	-9,874.63	9,757.05	9,691.96	65.09	149.910		
6,600.00	6,482.15	6,712.34	6,559.29	31.35	37.09	-79.04	385.37	-9,873.93	9,754.92	9,689.09	65.83	148.175		
6,700.00	6,579.21	6,792.33	6,639.28	31.83	37.34	-48.21	384.78	-9,873.33	9,742.49	9,675.89	66.60	146.285		
6,800.00	6,673.04	6,882.96	6,729.91	32.30	37.62	-33.98	384.32	-9,872.75	9,714.88	9,647.50	67.38	144.183		
6,900.00	6,761.33	6,951.80	6,798.74	32.74	37.84	-27.14	384.14	-9,872.39	9,672.77	9,604.71	68.06	142.115		
7,000.00	6,841.90	7,000.00	6,931.67	33.17	37.99	-23.83	384.01	-9,871.57	9,617.06	9,548.45	68.61	140.167		
7,100.00	6,912.77	7,214.06	7,060.98	33.60	38.67	-22.58	383.52	-9,869.85	9,548.63	9,478.96	69.67	137.057		
7,200.00	6,972.19	7,262.43	7,109.34	34.09	38.82	-22.78	382.92	-9,869.07	9,469.67	9,399.53	70.14	135.014		
7,300.00	7,018.70	7,296.58	7,143.48	34.73	38.93	-24.96	382.37	-9,868.53	9,382.30	9,311.79	70.50	133.076		
7,400.00	7,051.15	7,318.83	7,165.73	35.55	39.00	-31.19	382.01	-9,868.21	9,288.62	9,217.85	70.77	131.252		
7,500.00	7,068.75	7,330.50	7,177.40	36.56	39.04	-52.21	381.82	-9,868.05	9,190.88	9,119.94	70.94	129.555		
7,600.00	7,071.91	7,331.81	7,178.71	37.71	39.04	-98.88	381.80	-9,868.03	9,091.46	9,020.43	71.03	127.990		
7,700.00	7,071.62	7,330.64	7,177.53	39.03	39.04	-98.80	381.82	-9,868.05	8,991.92	8,920.81	71.11	126.456		
7,800.00	7,071.34	7,329.45	7,176.35	40.51	39.03	-98.72	381.84	-9,868.07	8,892.38	8,821.19	71.19	124.917		
7,900.00	7,071.05	7,328.27	7,175.16	42.14	39.03	-98.65	381.86	-9,868.08	8,792.85	8,721.58	71.27	123.372		
8,000.00	7,070.77	7,327.07	7,173.97	43.89	39.03	-98.57	381.88	-9,868.10	8,693.33	8,621.97	71.36	121.823		
8,100.00	7,070.48	7,325.87	7,172.76	45.76	39.02	-98.49	381.90	-9,868.11	8,593.83	8,522.37	71.46	120.268		
8,200.00	7,070.20	7,324.66	7,171.55	47.72	39.02	-98.41	381.92	-9,868.13	8,494.33	8,422.78	71.56	118.708		
8,300.00	7,069.92	7,323.44	7,170.34	49.78	39.01	-98.33	381.94	-9,868.15	8,394.85	8,323.19	71.66	117.143		
8,400.00	7,069.63	7,322.21	7,169.11	51.90	39.01	-98.25	381.96	-9,868.17	8,295.38	8,223.60	71.78	115.573		
8,500.00	7,069.35	7,320.98	7,167.88	54.10	39.01	-98.17	381.98	-9,868.18	8,195.92	8,124.03	71.90	113.998		
8,600.00	7,069.06	7,319.74	7,166.64	56.36	39.00	-98.08	382.00	-9,868.20	8,096.48	8,024.45	72.02	112.417		
8,700.00	7,068.78	7,318.49	7,165.39	58.66	39.00	-98.00	382.02	-9,868.22	7,997.04	7,924.89	72.15	110.832		
8,800.00	7,068.49	7,317.23	7,164.13	61.02	38.99	-97.92	382.04	-9,868.23	7,897.63	7,825.33	72.30	109.241		
8,900.00	7,068.21	7,315.96	7,162.86	63.42	38.99	-97.83	382.06	-9,868.25	7,798.22	7,725.78	72.44	107.646		
9,000.00	7,067.92	7,314.69	7,161.59	65.85	38.99	-97.75	382.08	-9,868.27	7,698.84	7,626.24	72.60	106.046		
9,100.00	7,067.64	7,313.41	7,160.31	68.32	38.98	-97.67	382.10	-9,868.29	7,599.47	7,526.70	72.76	104.441		
9,200.00	7,067.35	7,312.12	7,159.02	70.81	38.98	-97.58	382.12	-9,868.31	7,500.11	7,427.17	72.94	102.831		
9,300.00	7,067.07	7,310.82	7,157.72	73.34	38.97	-97.49	382.14	-9,868.33	7,400.77	7,327.65	73.12	101.216		
9,400.00	7,066.78	7,309.51	7,156.42	75.88	38.97	-97.41	382.16	-9,868.34	7,301.45	7,228.14	73.31	99.597		
9,500.00	7,066.50	7,308.20	7,155.10	78.45	38.97	-97.32	382.19	-9,868.36	7,202.15	7,128.64	73.51	97.973		
9,600.00	7,066.21	7,306.88	7,153.78	81.04	38.96	-97.23	382.21	-9,868.38	7,102.87	7,029.14	73.72	96.344		
9,700.00	7,065.93	7,305.54	7,152.45	83.64	38.96	-97.14	382.23	-9,868.40	7,003.60	6,929.66	73.95	94.711		
9,800.00	7,065.64	7,304.20	7,151.11	86.26	38.95	-97.05	382.25	-9,868.42	6,904.36	6,830.18	74.18	93.074		
9,900.00	7,065.36	7,302.85	7,149.76	88.90	38.95	-96.97	382.27	-9,868.44	6,805.14	6,730.71	74.43	91.433		
10,000.00	7,065.07	7,301.49	7,148.40	91.55	38.95	-96.88	382.29	-9,868.46	6,705.95	6,631.26	74.69	89.787		
10,100.00	7,064.79	7,300.13	7,147.03	94.21	38.94	-96.78	382.32	-9,868.48	6,606.77	6,531.81	74.96	88.137		

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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors are at	2.45 sigma
Reference Wellbore	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	7,064.50	7,298.75	7,145.65	96.88	38.94	-96.69	382.34	-9,868.50	6,507.62	6,432.38	75.25	86.484		
10,300.00	7,064.22	7,297.36	7,144.27	99.57	38.93	-96.60	382.36	-9,868.52	6,408.50	6,332.95	75.55	84.827		
10,400.00	7,063.94	7,295.97	7,142.87	102.26	38.93	-96.51	382.38	-9,868.54	6,309.41	6,233.54	75.86	83.166		
10,500.00	7,063.65	7,294.56	7,141.47	104.96	38.92	-96.41	382.41	-9,868.56	6,210.34	6,134.14	76.20	81.502		
10,600.00	7,063.37	7,293.15	7,140.05	107.67	38.92	-96.32	382.43	-9,868.59	6,111.30	6,034.76	76.55	79.835		
10,700.00	7,063.08	7,291.72	7,138.63	110.39	38.92	-96.23	382.45	-9,868.61	6,012.30	5,935.38	76.92	78.165		
10,800.00	7,062.80	7,290.29	7,137.20	113.11	38.91	-96.13	382.48	-9,868.63	5,913.33	5,836.02	77.31	76.493		
10,900.00	7,062.51	7,288.85	7,135.75	115.84	38.91	-96.03	382.50	-9,868.65	5,814.39	5,736.68	77.71	74.818		
11,000.00	7,062.23	7,287.39	7,134.30	118.58	38.90	-95.94	382.52	-9,868.67	5,715.49	5,637.35	78.14	73.141		
11,100.00	7,061.94	7,285.93	7,132.84	121.32	38.90	-95.84	382.55	-9,868.70	5,616.63	5,538.03	78.60	71.462		
11,200.00	7,061.66	7,284.46	7,131.37	124.07	38.89	-95.74	382.57	-9,868.72	5,517.81	5,438.74	79.07	69.781		
11,300.00	7,061.37	7,282.97	7,129.88	126.82	38.89	-95.64	382.60	-9,868.74	5,419.03	5,339.45	79.57	68.100		
11,400.00	7,061.09	7,281.48	7,128.39	129.58	38.88	-95.54	382.62	-9,868.76	5,320.30	5,240.19	80.10	66.417		
11,500.00	7,060.80	7,279.98	7,126.89	132.34	38.88	-95.44	382.64	-9,868.79	5,221.61	5,140.95	80.66	64.735		
11,600.00	7,060.52	7,278.60	7,125.51	135.10	38.87	-95.35	382.67	-9,868.81	5,122.98	5,041.73	81.25	63.052		
11,700.00	7,060.23	7,276.99	7,123.90	137.87	38.87	-95.24	382.69	-9,868.84	5,024.39	4,942.52	81.87	61.370		
11,800.00	7,059.95	7,275.37	7,122.28	140.64	38.86	-95.13	382.72	-9,868.86	4,925.87	4,843.34	82.53	59.689		
11,900.00	7,059.66	7,273.75	7,120.66	143.42	38.86	-95.02	382.75	-9,868.89	4,827.40	4,744.19	83.22	58.010		
12,000.00	7,059.38	7,272.13	7,119.04	146.20	38.85	-94.92	382.77	-9,868.91	4,729.00	4,645.06	83.95	56.333		
12,100.00	7,059.09	7,270.50	7,117.42	148.98	38.85	-94.81	382.80	-9,868.94	4,630.67	4,545.95	84.72	54.660		
12,200.00	7,058.81	7,268.88	7,115.79	151.77	38.84	-94.70	382.82	-9,868.96	4,532.41	4,446.87	85.53	52.989		
12,300.00	7,058.52	7,267.24	7,114.16	154.55	38.84	-94.59	382.85	-9,868.99	4,434.22	4,347.82	86.40	51.323		
12,400.00	7,058.24	7,265.61	7,112.52	157.34	38.83	-94.48	382.87	-9,869.02	4,336.12	4,248.81	87.31	49.662		
12,500.00	7,057.96	7,263.97	7,110.88	160.14	38.83	-94.37	382.90	-9,869.04	4,238.11	4,149.82	88.28	48.007		
12,600.00	7,057.67	7,262.33	7,109.24	162.93	38.82	-94.26	382.92	-9,869.07	4,140.19	4,050.88	89.31	46.358		
12,700.00	7,057.39	7,260.68	7,107.59	165.73	38.82	-94.15	382.95	-9,869.09	4,042.37	3,951.97	90.40	44.717		
12,800.00	7,057.10	7,259.03	7,105.94	168.53	38.81	-94.04	382.97	-9,869.12	3,944.66	3,853.10	91.55	43.085		
12,900.00	7,056.82	7,257.38	7,104.29	171.33	38.81	-93.93	382.99	-9,869.15	3,847.06	3,754.28	92.78	41.463		
13,000.00	7,056.53	7,255.72	7,102.64	174.13	38.80	-93.81	383.02	-9,869.17	3,749.60	3,655.51	94.09	39.851		
13,100.00	7,056.25	7,254.06	7,100.98	176.94	38.80	-93.70	383.04	-9,869.20	3,652.27	3,556.78	95.48	38.251		
13,200.00	7,055.96	7,252.40	7,099.31	179.74	38.79	-93.59	383.06	-9,869.23	3,555.08	3,458.12	96.96	36.665		
13,300.00	7,055.68	7,250.73	7,097.65	182.55	38.79	-93.48	383.09	-9,869.25	3,458.06	3,359.52	98.54	35.093		
13,400.00	7,055.39	7,249.06	7,095.98	185.36	38.78	-93.37	383.11	-9,869.28	3,361.21	3,260.98	100.23	33.536		
13,500.00	7,055.11	7,247.39	7,094.30	188.17	38.78	-93.25	383.13	-9,869.31	3,264.54	3,162.52	102.03	31.997		
13,600.00	7,054.82	7,245.71	7,092.63	190.98	38.77	-93.14	383.15	-9,869.33	3,168.09	3,064.14	103.95	30.476		
13,700.00	7,054.54	7,244.03	7,090.95	193.80	38.77	-93.03	383.18	-9,869.36	3,071.86	2,965.85	106.01	28.976		
13,800.00	7,054.25	7,242.34	7,089.26	196.61	38.76	-92.91	383.20	-9,869.39	2,975.88	2,867.65	108.22	27.497		
13,900.00	7,053.97	7,240.66	7,087.57	199.43	38.76	-92.80	383.22	-9,869.42	2,880.17	2,769.57	110.60	26.042		
14,000.00	7,053.68	7,238.96	7,085.88	202.25	38.75	-92.69	383.24	-9,869.44	2,784.76	2,671.61	113.15	24.612		
14,100.00	7,053.40	7,237.27	7,084.19	205.06	38.74	-92.57	383.26	-9,869.47	2,689.68	2,573.79	115.89	23.208		
14,200.00	7,053.11	7,235.57	7,082.49	207.88	38.74	-92.46	383.28	-9,869.50	2,594.97	2,476.12	118.85	21.833		
14,300.00	7,052.83	7,233.87	7,080.79	210.70	38.73	-92.34	383.30	-9,869.53	2,500.67	2,378.63	122.05	20.489		
14,400.00	7,052.54	7,232.16	7,079.08	213.53	38.73	-92.23	383.32	-9,869.55	2,406.83	2,281.33	125.50	19.178		
14,500.00	7,052.26	7,230.45	7,077.37	216.35	38.72	-92.11	383.34	-9,869.58	2,313.51	2,184.27	129.24	17.900		
14,600.00	7,051.98	7,228.74	7,075.66	219.17	38.72	-92.00	383.36	-9,869.61	2,220.77	2,087.46	133.30	16.659		
14,700.00	7,051.69	7,227.02	7,073.94	222.00	38.71	-91.88	383.38	-9,869.64	2,128.68	1,990.96	137.71	15.457		
14,800.00	7,051.41	7,225.30	7,072.22	224.82	38.71	-91.76	383.40	-9,869.67	2,037.33	1,894.82	142.52	14.296		
14,900.00	7,051.12	7,223.58	7,070.50	227.65	38.70	-91.65	383.42	-9,869.69	1,946.84	1,799.09	147.75	13.177		
14,942.37	7,051.00	7,222.84	7,069.77	228.85	38.70	-91.60	383.43	-9,869.71	1,908.78	1,758.67	150.11	12.716 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 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 @ 4822.00ft

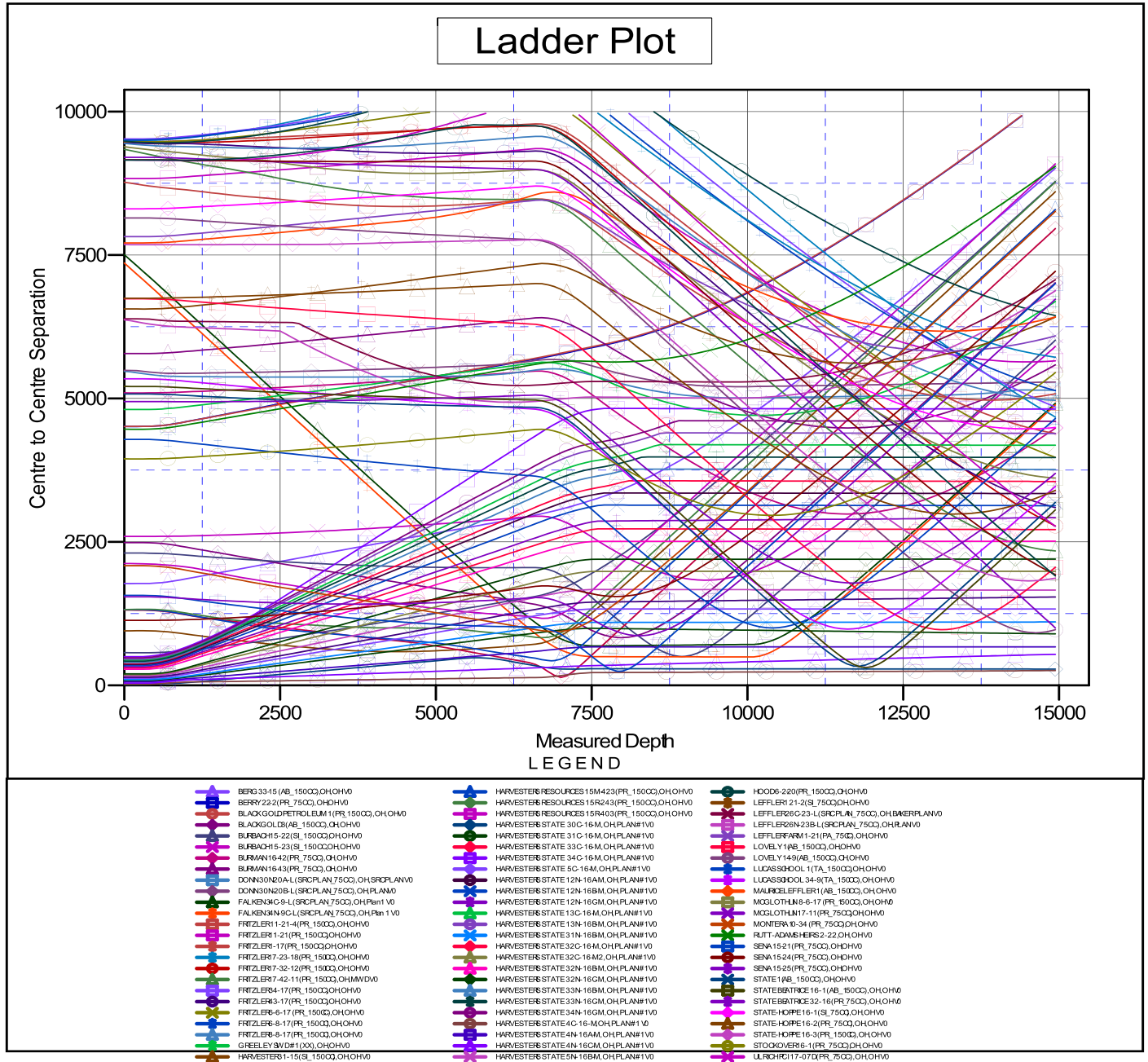
Offset Depths are relative to Offset Datum

Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 30N-16B-M

Coordinate System is US State Plane 1983, Colorado Northern Zone

Grid Convergence at Surface is: 0.48°



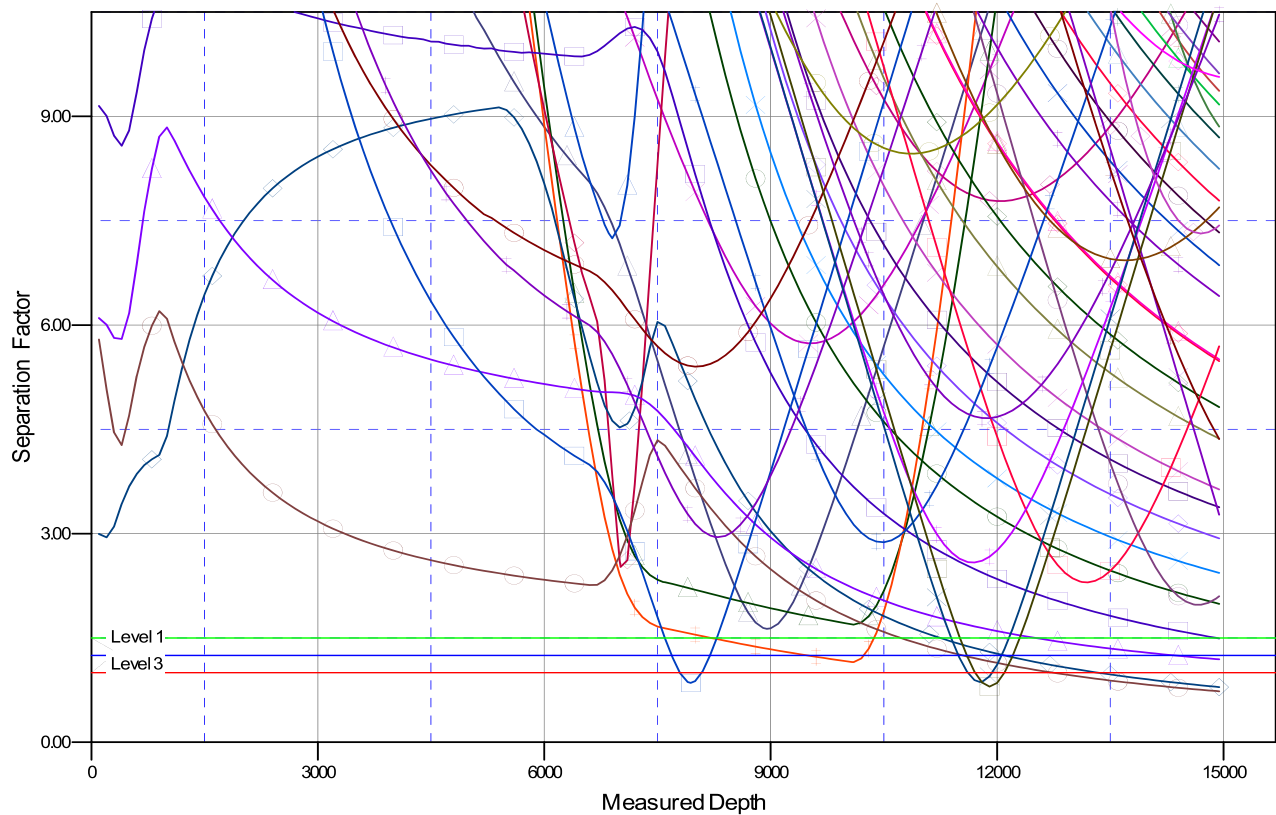
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Company:	SRC ENERGY	Local Co-ordinate Reference:	Well HARVESTERS STATE 30N-16B-M
Project:	SECTION 15, T6N, R66W	TVD Reference:	KB @ 4822.00ft
Reference Site:	HARVESTERS STATE 7-15 PAD	MD Reference:	KB @ 4822.00ft
Site Error:	3.28 ft	North Reference:	True
Reference Well:	HARVESTERS STATE 30N-16B-M	Survey Calculation Method:	Minimum Curvature
Well Error:	3.28 ft	Output errors 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 @ 4822.00ft
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.5000000

Coordinates are relative to: HARVESTERS STATE 30N-16B-M
 Coordinate System is US State Plane 1983, Colorado Northern Zone
 Grid Convergence at Surface is: 0.48°

Separation Factor Plot



LEGEND

BERG 33-45 (AB_1500Q) OH OHV0	HARVESTERS RESOURCES 15M423 (PR_1500Q) OH OHV0	HOD06-220 (PR_1500Q) OH OHV0
BERV 22-2 (PR_750Q) OH OHV0	HARVESTERS RESOURCES 15M43 (PR_1500Q) OH OHV0	LEFFLER 21-2 (SL_750Q) OH OHV0
BLACK GOLD PETROLEUM 1 (PR_1500Q) OH OHV0	HARVESTERS RESOURCES 15M403 (PR_1500Q) OH OHV0	LEFFLER 26-23-L (SRC PLAN_750Q) OH BAKER PLANV0
BURBACH 15-22 (SL_1500Q) OH OHV0	HARVESTERS STATE 30C-16M OH PLAN#1V0	LEFFLER 26N-23B-L (SRC PLAN_750Q) OH PLANV0
BURBACH 15-23 (SL_1500Q) OH OHV0	HARVESTERS STATE 31C-16M OH PLAN#1V0	LEFFLER FARM 1-21 (PA_750Q) OH OHV0
BURMAN 16-42 (PR_750Q) OH OHV0	HARVESTERS STATE 33C-16M OH PLAN#1V0	LOVELY 149 (AB_1500Q) OH OHV0
BURMAN 16-43 (PR_750Q) OH OHV0	HARVESTERS STATE 34C-16M OH PLAN#1V0	LOVELY 149 (AB_1500Q) OH OHV0
DOHN 01020-A-1 (SRC PLAN_750Q) OH SRC PLANV0	HARVESTERS STATE 5C-16M OH PLAN#1V0	LUCAS SCHOOL 1 (TA_1500Q) OH OHV0
DOHN 01020-B-1 (SRC PLAN_750Q) OH PLANV0	HARVESTERS STATE 12N-16M OH PLAN#1V0	LUCAS SCHOOL 34-9 (TA_1500Q) OH OHV0
FALKEN 31G-9-L (SRC PLAN_750Q) OH Plan1 V0	HARVESTERS STATE 12N-16BM OH PLAN#1V0	MAURICE LEFFLER 1 (AB_1500Q) OH OHV0
FALKEN 31N-9C-L (SRC PLAN_750Q) OH Plan1 V0	HARVESTERS STATE 12N-16GM OH PLAN#1V0	MOGLOTHUN 6-17 (PR_600Q) OH OHV0
FRTZLER 1-21 (PR_1500Q) OH OHV0	HARVESTERS STATE 13C-16M OH PLAN#1V0	MOGLOTHUN 17-11 (PR_750Q) OH OHV0
FRTZLER 1-21 (PR_1500Q) OH OHV0	HARVESTERS STATE 13N-16BM OH PLAN#1V0	MONTEWA 10-34 (PR_750Q) OH OHV0
FRTZLER 1-21 (PR_1500Q) OH OHV0	HARVESTERS STATE 31N-16BM OH PLAN#1V0	RUTT-ADAMS HERS 2-22 OH OHV0
FRTZLER 1-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 32C-16M OH PLAN#1V0	SENA 15-21 (PR_750Q) OH OHV0
FRTZLER 1-23-16 (PR_1500Q) OH OHV0	HARVESTERS STATE 32C-16M2 OH PLAN#1V0	SENA 15-24 (PR_750Q) OH OHV0
FRTZLER 7-32-12 (PR_1500Q) OH OHV0	HARVESTERS STATE 32N-16BM OH PLAN#1V0	SENA 15-25 (PR_750Q) OH OHV0
FRTZLER 7-42-11 (PR_1500Q) OH MW DV0	HARVESTERS STATE 32N-16GM OH PLAN#1V0	STATE 1 (AB_1500Q) OH OHV0
FRTZLER 6-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 33N-16BM OH PLAN#1V0	STATEBATRICE 16-1 (AB_1500Q) OH OHV0
FRTZLER 6-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 33N-16GM OH PLAN#1V0	STATEBATRICE 32-16 (PR_750Q) OH OHV0
FRTZLER 6-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 34N-16GM OH PLAN#1V0	STATE HOPE 16-1 (SL_750Q) OH OHV0
FRTZLER 6-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 4N-16GM OH PLAN#1V0	STATE HOPE 16-2 (PR_750Q) OH OHV0
FRTZLER 6-17 (PR_1500Q) OH OHV0	HARVESTERS STATE 4N-16GM OH PLAN#1V0	STATE HOPE 16-3 (PR_1500Q) OH OHV0
GRIFFIN 30V01 (XX) OH OHV0	HARVESTERS STATE 5N-16BM OH PLAN#1V0	STOCKOVER 6-11 (PR_750Q) OH OHV0
HARVESTERS 1-15 (SL_1500Q) OH OHV0		ULRICH 17-07 (PR_750Q) OH OHV0